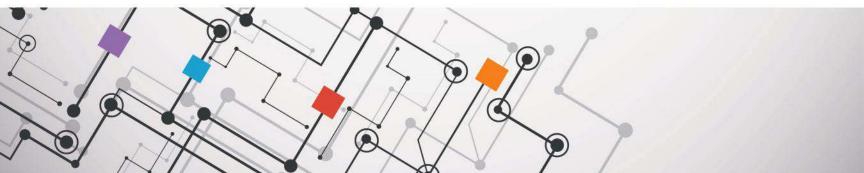


**INDIAN INSTITUTE OF TECHNOLOGY (BHU) VARANASI** 



# Annual Report 2018-19









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### 1. Director's Report

### Prof. Pramod Kumar Jain Director

### INDIAN INSTITUTE OF TECHNOLOGY (BHU), VARANASI

The Indian Institute of Technology (Banaras Hindu University) owes its existence to Mahamana Pandit Madan Mohan Malviya, Bharat Ratna -the founder of the first residential university of modern India, Banaras Hindu University, who could foresee the vital role of technical education in strengthening independent India. Engineering education in BHU started in 1919 with the establishment of Banaras Engineering College (BENCO). The next stage of development saw the establishment of College of Technology (TECHNO) and College of Mining & Metallurgy (MINMET). In 1968, the erstwhile engineering colleges of BHU, namely BENCO, MINMET, and TECHNO, were merged to form the Institute of Technology (IT-BHU). IT-BHU has been admitting students through the JEE conducted by the IITs since 1972. The erstwhile IT-BHU was ranked consistently amongst the top engineering institutions of the country. IT-BHUbecameIIT (BHU) on June 29, 2012, by an Act of Parliament. Following conversion to IIT, the Institute engaged itself in taking up the mammoth task of putting many of the procedures and practices similar to those of IITs.

### **Centenary Celebration and Global Alumni Meet:**

The centenary celebrations started from Basant Panchami day of 2018 (22 February 2018) to commemorate the glorious journey of 100 Golden years of our institution andwill continue up to the BasantPanchami day of 2020. In this period, the IIT(BHU) will take stock of its journey through the last 100 years and assess its current strengths *visà-vis* the national grand challenges and its future role as a premier institute of the country. Several events have been planned, and some of them already carried out as part of the Centenary Celebrations during the year(s) 2018-2020. A significant occasion was the exciting 4-day event on the Centenary theme of *Next 100 IIT(BHU)* that took place from 8th Feb to 12th Feb 2019 during the Institute Centenary & Basant Panchami Day (10th February 2019) and the Global Alumni Meet.

As a mark of recognition of Centenary Celebrations of the institute, Hon'ble Prime Minister Shri Narendra Modi inaugurated PARAMSHIVAYat IIT (BHU) Varanasi, the SuperComputer of 833 teraflop capacity under the National Supercomputing Mission. He also released a postage stamp and postal album, which bore a picture of the main building of IIT(BHU).

Notable among eminent guests from the Government were Hon'ble Chief Minister Of Uttar Pradesh Shri Yogi Adityanath as the chief guest, Hon'ble Minister Shri Manoj Sinha, to name a few. Several students, faculty, and around 500 alumni families from all across the world enjoyed attending the Institute's BasantPanchamiJhanki, Industry Knowledge Conclaves, Entrepreneurship Events, KaviSammelan, and other cultural events.

During these events the institute apprised various stakeholders about the centenary projects like Centenary Innovation and Research Park (CIRP), Centenary Defence and Precision Engineering Hub (CDPEH), Global Outreach and Engagement Centre (GOEC), Malviya Student Activity and Computing Centre (MSACC), and construction of New Hostels. Five Centenary Chairs were also instituted to create a state-of-the-art teaching and research environment in the institute. The establishment of seven centers on emerging thrust areas of research and education is another centenary initiative taken up by the institute.

### **Academic Activities:**

The Institute has maintained a high academic standard since its inception. It has turned out luminary engineers and administrators who served the nation with distinction. The current student strength is 6548 with 3341 B.Techs, 1325 IDD, 15 B. Arch., 756 M.Techs, 37 M.Sc., and 1074 Ph.D. students. The current strength of regular faculty members of the Institute is 288. In addition to this, 37 non-regular faculty members also contribute to the academic activities of the Institute. Furthermore, the number of technical/scientific staff is 257, and the non-technical staff is 162. At present, the Institute has 15 Departments and three interdisciplinary Schools that include the newly established



Department of Architecture, Planning, and Design. Central facilities in the Institute include the recently established Supercomputing Centre, Computing and Information Services (CCIS), Central Instrumentation Facility (CIF), Main Workshop, Institute Main Library, and Industrial Consultancy & Testing Services. Teaching and Learning Cell continues to cover all aspects of pedagogy, course delivery, laboratory projects, assessment, and facilitating online courses. Institute has also started two-year M.Sc. programs in Physics and Chemistry from this academic session.

### **Induction Programme:**

A notable achievement of the Institute pertains to a one-week Induction Program. About 1200 UG students admitted in the current sessiontook part in it. The Induction Program facilitates the acclimatization of the new entrants to their new institution as well as home. Along with getting to know about the institute, there are features of this program that makes them fitter for future challenges. The Induction Program intended the assimilation of the new students in the ethos and culture of the institution based on broader national and human good. It also encourages bonding within the first year batch, cutting across branches.

Two essential components were the pillars of the design of this program. The first pertains to physical education, human values, creative practice, and basic english along with project work. In the second initiative, the students were taken to various places to know the city and the people; they listened to inspiring lectures by eminent personalities, they were exposed to less supervised interactive learning on all aspects, and were encouraged to understand their social responsibilities while pursuing academics.

The Program witnessed interactive sessions with many eminent personalities including four Padma Shri Awardees and renowned Professor Prof. H. C. Verma, alumni from various IITs, famous author Mr. Shubha Vilas, social workers, environmentalists, historians, medical doctors, psychologists and also an Origami artist. The sessions sowed seeds of interest in young minds for various fields of academics, career, skill development, art, and wellness, for a holistic learning experience.

### Research & Development activities:

Our Institute has a mission to fulfill the needs of the nation through Research and Innovation. Faculty members and students are engaged in cutting edge research under various schemes. To inculcate research culture in the students, the institute has set up Tinkering Labs. Students are involved in research projects from almost the first stage of their education. The institute gives partial support to the research initiatives of faculty members through grants like Seed Money, Research Support Grant, and R&D Thrust Area Grants. The institute also provides Lab Grants for upgradation of teaching labs and supports Central Instrument Facility acquisitions.

#### (i) Sponsored Projects, International Visits, and MOU

Institute has proven expertise in the areas of the steels, advanced materials, microwave technology, electrical and electronic devices, artificial intelligence, composite materials, new drugs and sensors/biosensors apart from others. The Institute has identified thrust areas of Research in Green and Clean Energy, Environment and Water, Health and Devices and Artificial Intelligence.

Significant projects have been initiated to address the national needs and social issues like the development of functional materials for energy and biofuel cells to energy. Key issues taken up for studies include real-time simulation of smart grids with distributed energy resources and integration/control of renewable energy systems. There are faculty members extensively involved in the design and development of new drugs, biomimetic materials for organs, and biosensors. Institute is collaborating with various Institutions of high repute in India and abroad and also industries involved in high tech research like Tata Motors, Nissan Motors, Amazon AWS Educate, Power Grid Corporation of India Ltd., NCL, CISCO, UPEIDA etc.

Highly qualified faculty and talented research scholars are active in frontier areas of research, and Govt. research sponsoring agencies and many reputed industries such as TISCO, HINDALCO, ONGC, SAIL, BHEL, MECON, UPSEB, FCI, Coal India Ltd., etc. support their efforts. It is resulting in high-quality output in Science & Technology, as evident from filed patents (50) and publications (above 850 till September 2019) in journals of high repute. The total financial support received towards the 138 ongoing projects (Appendix-I lists the major sponsored research



projects) in the Departments and Schools, Consultancy, and 40 fellowships is nearly Rs. 28 Crore including FIST/UGC-SAP funding/ Steel Technology Centre/ Centre for Energy Resources & Development under FAST scheme of MHRD. Madan Mohan Malviya Railway Chair was established in 2015 to undertake work related to Metallurgy & Materials. Two projects are running in IMPRINT-2 with a total sanctioned cost of Rs.77.58 lakhs. Reputed faculty members from various Institutes / Universities abroad visited the Institute under GIAN program. In last one year Institute has signed 9 International MOU, 9 National MOU related to mostly R&D activities.

Institute has received projects under the Scheme for Promotion of Academic and Research Collaboration (SPARC), which aim to improve the research ecosystem of India's Higher Educational Institutions by facilitating academic and research collaborations between Indian Institutions and the best institutions in the world. Under this scheme total 03 Projects are running with a total sanctioned cost of Rs 1.20 Crore with duration of 02 years.

Two projects (of a total sanctioned cost of approximately Rs 30 Lakh) are running under the VAJRA (Visiting Advanced Joint Research) Faculty Scheme for overseas scientists and academicians of Indian origin.

IIT (BHU) Varanasi conducted MHRD's flagship Leadership for Academicians Program (LEAP), 2018-19 under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) Scheme. The first edition of LEAP was successfully held from February 25 – March 09, 2019 at IIT (BHU), Varanasi, and from March 10 - March 15, 2019 at Penn State University, Pennsylvania. This flagship programme of Government of India would provide senior faculty, with high academic credentials, the required leadership and managerial skills of problem solving, handling stress, team building work, conflict management, developing communication skills, understanding and coping with the complexity and challenges of governance in HEIs, financial and general administration. The total sanctioned cost of the programme is Rs 1.61 crore.

### (ii) Central Instrumentation Facility (CIF)

Central Instrument Facility (CIF) is one of the newly formed Specialized Core Facilities at IIT (BHU). Our mission is to provide futuristic research infrastructure and quality education services in support of advanced instrumentation. The CIF is offering facilities of sophisticated instruments and technical expertise to support faculty/student research and industrial R&D. The centre has with state of the art facilities like CNC Mill and CNC lathe, Prototyping Machine for electronic circuits, Magnetic Property Measurement System, Tribometer, NMR (500 MHz), thin-film & powder XRD, BET, XRF, ICP-MS, high-resolution SEM and TEM.

### (iii) Centre for Computing and Information Services (CCIS)

Centre for Computing and Information Services (CCIS) offers high-end computational servers, web servers, network services, and provides a robust platform for various academic and research activities of the Institute. The Centre also manages licensed software, email services, and in-house software development for the institute needs. CCIS is a growing unit and projects are in early-stage for developing it into a facility poised horizontally to meet the crescent demand of scientific and research infrastructure of the Institute.

### (iv) Design and Innovation Centre (DIC)

IIT-BHU and DIC BHU has been established to work on the possibilities of innovation in Technology and Humanities, Liberal Arts, Social Science, Art, Culture, Music, languages and other relevant areas. DIC-IIT (BHU) and DIC-BHUworks as HUB, and the center has three spokes - (i) Indian Institute of Information Technology, Allahabad, (ii) Motilal Nehru National Institute of Technology, Allahabad, (iii) University of Allahabad. This center has received 333 innovative ideas, and out of these, 144 plans have been funded.

Center has also established three labs – Graphic and Digital Media Lab, Digital Innovation Gallery & Design Cafe (Prototype lab and Workshop Place). Graphic and Digital Media Lab provides the facility of graphic design, web design, mobile app design, imaging, animation, documentaries, design counseling, etc. The Digital Innovation Gallery works as exhibition platform for IIT-BHU, BHU and other spokes of DIC-BHU. A modern prototype lab has also been established for students. At present, DIC is running "Understanding Design Course" with IIT Bombay under ODS Model, and the total intake of IIT (BHU) is 35.



### (v) Intellectual Property Rights, Testing, and Consultancy

Extension of our expertise and laboratory facilities to the industries of this region is a crucial service activity of the Institute. All the major departments of the Institute actively engage in providing industrial consultancy and testing services to a large number of industries and entrepreneurs of the region and also to large industrial houses. During this year, several consultancies and testing projects valued at over approximately Rs.11.68 crores were completed successfully. Also 50 patents have been filed, out of which 25 patents have been published during this year, and two technology transfers also took place.

### (vi) Centres for thrust area research objective:

### • Supercomputing Centre:

A Supercomputing Center has been set up in the Institute under the National Supercomputing Mission. The supercomputer **PARAM Shivay** has a peak processing speed of **833** Tera FLOPS. Sixty percent of the processing power is for local use by the IIT(BHU) and BHU research community, and the rest for other CFTIs and research labs across the nation. The system has been commissioned under the **Make in India** program, and the hardware has been manufactured at a plant in Chennai by the French company Atos. The system is a sophisticated mix of CPUs and GPUs with relevant systems and application software based on open source. Inaugurating the IIT (BHU) Supercomputing Centeron 19th February 2019, the Honorable Prime Minister Shri Narendra Modi,said "...the land of Lord Vishwanath will now contribute in accelerating research in key areas across the Nation by providing fast computation facility through the PARAM Shivay system..." The Institute is organizing a series of hands-on workshops to impart expertise to the user community for the utilization of the facility.

#### • Centre for excellence for Defence Corridor:

The Government of Uttar Pradesh has also made IIT (BHU) Varanasi a primary partner in its prestigious defence corridor, and Institute has thus inked an MOU with Uttar Pradesh Expressway Industrial Development Authority (UPEIDA). Uttar Pradesh Government has allocated Rs. 69 crore for the creation of R&D facilities: (i) Centre for Defence related Research & Development and (ii) Precision Engineering Hub. The proposal also envisages IIT (BHU) Varanasi as a hub for skill development of defence personals.

### • Sustainable Coal Mining in Northern Coalfields Limited:

IIT(BHU) and NCL joined hands to ensure a robust Industry-Institute partnership given mutual benefit and in the interest of mineral conservation, mine productivity and advancement in clean technologies in the energy sector. Through this collaboration NCL also ensures social upliftment of in the region surrounding Varanasi, Singraulli, and Sonbhadra by planning and execution dedicated CSR / welfare projects strictly in terms of the company's CSR policy. A NCL-IIT(BHU) Incubation Centre is also setup in IIT(BHU) campus to engage young and bright minds to solve many of the societal problems.

### • Collaborative research centre of the Indian Pharmacopoeia Commission:

IIT (BHU) is now recognized as a collaborative research centre of the Indian Pharmacopoeia Commission (IPC) of the Union Ministry of Health and Family Welfare, which will help promote quality research in the area of pharmaceutical and medical devices.

### • RKVY-RAFTAAR Agribusiness Incubator (R-ABI) under the RKVY-RAFTAAR Scheme:

Institute has started recently Agribusiness Incubator (R-ABI) under the support of Ministry of Agriculture and Farmer Welfare (Dept. of Agriculture Cooperation & Farmer Welfare, Rashtriya Krishi Vikas Yojna Division) with a total sanctioned cost of Rs 2.33 crore for an initial duration of 02 years to develop facilitation centre for citizens living in the rural area for skill development and training of Agro and Food preservation using Solar Technology. The National Specialized Programs will play a vital role in the development & growth of MSMEs through a range of services offered.



#### • Centre of Excellence in Refractories:

Recently IIT (BHU) and Indian Refractory Makers Association (IRMA) have joined hands to establish "IITBHU - IRMA Center of Excellence in Refractories" in the Department of Ceramic Engineering, IIT (BHU). This center dedicates its facilities to the Nation.

### (vii) Faculty Achievements / Recognitions:

- 1. Prof. N.K.Mukhopadhyay of Department of Metallurgical Engineering has been selected for 2019 'Distinguished Educator Award' of Indian Institute of Metals.
- 2. Dr. B. B. Karak of the Department of Physics received the prestigious INSA Medal for Young Scientists award for the year 2019.
- 3. Dr. Vishwanath Dhital received the Government of India's Maharishi Badrayan Vyas Samman from the Hon'ble Vice President of India on 4th April 2019 for his work in Sanskrit.
- 4. Prof. A. S. K. Sinha of Department of Chemical Engineering has been appointed as Director, Rajiv Gandhi Institute of Petroleum Technology (RGIPT), Rae Bareli. UP.
- 5. Prof. Pradyumna Ghosh of the Department of Mechanical Engineering has been selected by the United Nations Office for Outer Space Affairs (UNOOSA), to carry out experiments in Chinese Space Station.
- 6. Prof. Sanjay Singh of Department of Pharmaceutical Engineering and Technology has been appointed as Vice Chancellor of Babasaheb Bhimrao Ambedkar University, Lucknow.
- 7. Dr. N. S. Rajput of Department of Electronics Engineering was awarded the teaching innovator award of MHRD, Government of India.
- 8. Prof. PralayMaiti of School of Materials Science and Technology received the "NASI-Reliance Industries Platinum Jubilee Award" by The National Academy of Sciences, India.
- 9. Dr. K. K. Pandey of Department of Civil Engineering received the NRDC National Meritorious Invention Award-2018 by Department of Scientific and Industrial Research (DSIR), Ministry of Science and Technology, Government of India" for Design and Development of Self Adjusting Fixed Type Jetty (SAFTJ) in March 2019.

#### Main Library and E-resources:

The IIT(BHU), Varanasi library system consists of the Main Library and five departmental libraries, which collectively support teaching, research, and extension programs of the institute. The library system, besides having an excellent print collection of over 1,40,000 volumes of books, journals, theses, reports, pamphlets, it also provides access to over 8,000 electronic journals and more than 20,000 electronic books, e-standards, and databases in science, engineering, and technology. Library provides reading room facilities, access to Digital Library, web OPAC, remote access of e-resources, discussion room facility, and reference services related to research and teaching. The library has also created the Indian research Information Network System (IRINS) database of Institute researcher's profile, Institutional Repository. Library also supports research activities by providing the Research Support Tools (Anti-Plagiarism software, Grammarly, InSite, JCR, reference management tools, etc.). Recently the library organized author workshop by Wiley, Taylor & Francis, and Workshop cum User Awareness Program on InSite and Turnitin.

### **Unnat Bharat Abhiyan:**

Unnat Bharat Abhiyan (UBA) is an MHRD initiative with a total sanctioned cost of Rs 3.50crore and aimed at solving technological problems of common man. This project is a joint venture of all IIT and many other Institutes of National Importance. UBA is conceptualized as a movement to connect institute of higher education with local communities to address the development challenges of rural India through appropriate technological inventions.

IIT(BHU) has been working on a number of aspects and their related technology since inception of this programme. The problem of solid waste management, technical support for rural problems, portable water quality, hygiene and sanitation, energy, education, housing and health care, making the villagers aware of government schemes are the



main objectives of this programme. With these objectives several villages in and around Varanasi and Mirzapur were adopted and IIT(BHU) students are actively involved in counseling and providing the necessary technical inputs (such as, preservation and promotion of rural crafts, advice for sanitation and hygiene, rainwater harvesting, solar lights for community, forestation, drinking water quality, etc.) to the villagers.

### Malaviya Centre for Innovation, Incubation & Entrepreneurship (MCIIE):

The Malaviya Centre for Innovation and Incubation (MCIIE) at IIT (BHU) Varanasi is functional since 2011. The MCIIE (along with partners: NSTEDB, Department of Science & Technology, Govt. of India, New Delhi, DSIR, Govt. of India, New Delhi, TIFAC, New Delhi, Ministry of MSME, Govt. of India, EDII, Ahmadabad) aims to promote Techno-Entrepreneurship and enterprise creation. One of its critical interventions is to provide Business Incubation to technology start-ups. Recently MCIIE and CISCO, in collaboration with NASSCOM Foundation signed an MoU to set up a Cisco ThingQbator Makerspace at MCIIE to drive innovation in the areas of Internet of Things (IoT) and other emerging digital technologies.

#### **Institute Lecture Series:**

The prime objective of the Institute Lecture Series (ILS) is to motivate students through interactions with personalities who have done exceptionally well in their respective fields. Following are the details of the distinguished guests who delivered Institute Lectures:

- 1. Mr. Sanjay Sethi, CEOShopClues. Topic: Envisioning Entrepreneurial Ecosystem in Engineering Institutions for the next 100 years.
- 2. Prof. C. K. Raju a Renowned Mathematician and Theoretical physicist. Topic: Teaching Alternative Mathematics: Rajju Ganit and Calculus without Limits.
- 3. Prof. YoginderChugh, Emeritus Professor, Mining and Mineral Resource Engineering, Southern Illinois University, USA.Topic: Why Universities in 21st Century Must Engage in Research and Creative Activities.
- 4. Prof. H. C. Verma, Former Professor at IIT, Kanpur. Topic: My experience with online teaching.
- 5. Prof. Balram Singh, Former Professor at UMass Dartmouth and currently a Professor at the Institute of Advanced Sciences. Topic: Ways to tap into India's continuous traditions of Science and Technology.
- 6. Sri J. Sai Deepak, Advocate in Supreme Court. Topic: On the Right to Education Act.
- 7. Prof. K. Ramasubramanian, Professor IIT Bombay, Mumbai. Topic: Was Calculus discovered in India?

This year our Institute also hosted one of the Ministry of External Affairs' sponsored lectures by Ambassador (Retd.) Debnath Shaw. Topic: Changing Dynamics of India's Foreign Policy.

### Alumni connect, Endowment, and Scholarship:

The Institute aims at involving Alumni in the mentoring, evaluation, and guiding students in the Design, Innovation, and Entrepreneurship activities of the Institute, apart from encouraging them to participate in the organization of academic processes. Alumni have always come forward to support scholarships for needy students and supporting projects that have social relevance. Reunion of 1968 batch (Pharmacy), 1998 batch (Civil), 2002 batch (Mechanical), 1993 batch (Silver Jubilee), and 1969 Batch (Golden Jubilee) were held in the last one year. During the centenary celebrations, several alumni pledged support for scholarships and other centenary initiatives. Notable among them were:

- Donation of Rs. 20,00,00 for Tower Research Capital Scholarship by Deepali Sehrawat.
- Donation of Rs. 6,69,785 and Rs. 6,84,820 for Jag Mohan and Manju Bansal Scholarship by IIT(BHU) Global Alumni Association.
- Donation of Rs. 5,00,000 by Shri Ramesh P Singh and Alka Singh for Late Dr. R. N. Singh and Mrs. Uma Singh Medal.
- Donation of Rs. 3,50,000 by Shri Mumbai Patidar Samaj for KAF-1981 Scholarship.



- Donation of Rs. 30,00,000; Rs. 7,00,000 by Benares Alumni Association and Rs. 2,50,000 by Shri Nitin Malhotra for Research Activities in IIT(BHU).
- Donation of Rs. 2,20,000 for Best Masters (M Tech./ MS) Thesis Award in Power System by Prof. Suresh Chandra Srivastava.

### Institute Works Department (IWD) & Infrastructure Development:

Infrastructure development is the need of the hour for us. Apart from the several renovation and upgradation works (Ground floor of existing library building, Restoration of Chimni, HPC building, IRMA Laboratory, etc.) carried out by IWD, major works completed through CPWD (civil) in the last one year are: (i) Construction of Girls Hostel (G+6), (ii) Construction of Faculty Apartment (G+5) of 1<sup>st</sup> block and 2<sup>nd</sup> block, (iii) Extension of School of Materials Science and Technology building, (iv) Construction of HPC substation. Construction of Teaching & Learning centre (G+1) building is in progress. In addition to these, the following three projects, as per the details given hereunder, have been approved for funding through HEFA:

### 1. Construction of New Boys Hostel (G+7) (Phase-I, Tower-I) in place of existing Dhanrajgiri Hostel:

The building of the existing hostel has become quite old and its parts have started falling down. In view of this, the existing building requires to be demolished and a new hostel is to be constructed for providing hostel facilities to the male students of IIT (BHU). The total cost of this Project is **Rs. 49.66 Crore**.

### 2. Construction of Student Activity Centre with indoor sports facilities (G+1):

For hosting the extracurricular activities of the students, a dedicated student activity centre building is needed to cater to the genuine demand of various councils and clubs related to cultural and technical activities. Further, the Institute has inherited 3 playgrounds only with no infrastructure for indoor sports and various extracurricular student activities. The Institute is slated to host Inter IIT Sports meet in the year 2020. In order to meet the demand for various indoor activities, a common building for badminton, table tennis, squash, etc., is required. The total cost of this Project is **Rs. 27.80 Crore.** 

### 3. Construction of Apartment (G+8) for faculty & officers:

Presently, the Institute does not have sufficient number of residential quarters for providing accommodation to their Faculty and non Faculty members. Thus, for providing in-campus accommodation to them, the proposed construction is very much required. The total cost of this Project is **Rs. 40.01 Crore.** 

To execute these projects, MoUs have been signed with CPWD and further actions are being taken by them.

In addition to the above the following two projects are also under pipeline, for funding through HEFA:

### 1. Construction of Morvi Hostel-II (S+10) and Dining Block (3 floors):

Presently, the Institute is facing acute shortage of hostels and faculty residential quarters. Most of the hostels in the Institute are quite old and also rooms of the hostels are either double or triple seated. As such, to overcome the shortage of hostels this project is proposed. The total cost of this Project is **Rs. 97.00 Crore.** 

### 2. Construction of new Faculty Apartments (Two Units) near Vishwakarma Hostel:

Shortage of faculty residents in IIT (BHU) causes huge inconvenience to the existing faculty members, and prospective new faculty members also show reluctance in joining IIT (BHU) due to non-availability of campus accommodation. As such, to overcome the shortage of faculty residences, this project is proposed. The total cost of this Project is **Rs. 50.00 Crore.** 

Besides above, another project namely **Teaching Learning Centre Building (G+1)** in the Institute is under construction under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMNMTT) scheme and likely to be completed by the end of November this year. The total cost of this project is about Rs. 5.72 Crore.

This Teaching and Learning Centre is to be setup an independent unit within Institute with the following aims:

- (i) To organise training programs for faculty to improve their teaching.
- (ii) To make available and to develop e-learning content and other support services for students, and



(iii) To develop motivational and life centric though among all members of institutional community as well as external society.

The Centre is expected to develop effective and efficient teachers who are responsive to the needs of the learners in both local & global context, in world class educational system and the diversified knowledge requirement of the contemporary society. It reinforces the goals of the national mission "Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching" (PMMMNMTT).

### **Training and Placement:**

The Training and Placement cell of IIT (BHU) facilitates the process of placement of students passing out of the Institute. The office liaises with various industrial establishments, corporate houses, etc. to help them to select our graduate and post-graduate students from all disciplines and programmes. During 2018-19, 183 companies visited the campus for holding campus interviews and made a total of 999 offers. There is an increase of 26 % compared to 790 offers in the previous year. The average pay package has also increased by 19%. The industries visiting us were of varied nature: Core Engineering industries, IT & IT-enabled services, Manufacturing Industries, Consultancy Firms, Finance Companies, Management Organizations, R & D laboratories. Some of the best companies have hired our students. IIT (BHU) boasts of some of the best placement packages among the IIT's.

The Cell also collaborates with leading organizations and institutes in setting up of internship and training program for our students. The Cell has managed to arrange 437 paid internship through campus selection during 2018-19, and this saw an increase of 11% compared to 394 selections in 2017-18. The minimum, average and maximum internship amount has been 20 K, 23.80 K and 200 K per month respectively. The Cell also arranges internships for outside students. In 2018-19, 441 outside students took internships at this Institute.

#### Students' Activities and achievements:

The Institute nurtures technical, social, cultural, and sporting activities pursued by the Students' Gymkhana through different councils, Students' Parliament, and other student groups. Besides games and sports, the artistic and creative talents of students are encouraged through various activities like dramatics, debates, music, visual arts, etc. and clubs like Radio, Audio, Photography, Automobile, Aero-Modeling, Cine and Computer Club. Students Gymkhana successfully organized its annual techno-management festival Technex, cultural festival Kashiyatra & games event Spardha. Apart from these, students of IIT(BHU) participated in various IIT meet and brought laurels to the Institute.

#### (i) Cultural Activities:

IIT Roorkee hosted the third 'Inter IIT Cultural Meet' in December 2018, with many IITs participating in this cultural extravaganza. The IIT(BHU) Contingent bagged the fifth position in the overall championship and stood first in a stage play and English poetry competition along with being the overall dramatics winner among all IIT teams. The disciplines of music, literature, and arts came together in the three-day-long cultural festivals of IIT(BHU), Kashiyatra 2019. There was a multi-fold increase in participation this year. All seven clubs of the council organized and participated in a wide variety of events.

### (ii) Games and Sports Activities:

The Games and Sports Council of our institute participated in various tournaments in the past year and bagged a total of 37 medals in the external competitions comprising of Inter IIT Sports Meet 2018 held at IIT-Guwahati where we secured an overall 8th rank, Sportstech, IIT-Delhi 2019, SangramIIT-Roorkee 2019 and Spree BITS-Goa 2019. For the very first time, Para events were also organized in the Inter IIT Sports Meet and our contingent won 2 medals in the para powerlifting event. The 2019 edition of Spardha partnered with UNICEF to spread awareness for social causes, which was presided by guests like MandeepJangra.

### (iii) Activities by Science and Technology Council:

The Council initiated and undertook various projects to provide innovative solutions to real-world problems. These include TrashCash, Q-Lock, Tesla Coil, Asteroid Mining, which provides an innovative and economic



mechanism for the extraction of metals on asteroids in space and many others. IIT(BHU) bagged an overall 5th position among 23 participating IIT's the 7th Inter IIT Tech-Meet held in IIT-Bombay. The council also organized the 80th edition of Technex'19, the techno-management festival of IIT BHU. About 1000+ participants from 150 institutions from all over India took part in 40+ events. Events range from Startup Battle, Robonex, Supernova Riqueza, Pahal, Extreme Engineering, Byte the Bits, Ascension relating to various club activities of the council. This edition of Technex also organised Think Talks by different eminent personalities like R.S.Sodhi (Managing Director of Gujarat Cooperative Milk Marketing Federation Ltd.), AjitBalakrishnan (Founder of Rediff.com India Ltd.) and also video conference by John C. Mather (Nobel Laureate in Physics (2006) and Senior Astrophysicist in the Observational Cosmology Laboratory at NASA's Goddard Space Flight Center) and Garrett Brown (American inventor, best known as the Oscar-winning inventor of the Steadicam).

### (iv) Activities by the Film & Media Council:

Film and Media Council (FMC) has taken many initiatives for the upcoming sessions which include the development of Media Club's official website which is a work under progress, launch of a new podcast series (candid video interviews of college personalities), New article series which comprises of Distinguished Alumni, What's up this summer, Tastes of India, Placement Diaries to make students aware about the general difficulties faced in placement examinations and interviews and Video series of Centenary Celebrations for interaction between alumni and students. In 2018 Inter IIT Cultural Meet held at IIT-Kanpur the contingent won the 3rd, 4th, and 5th positions respectively in offline, online short film making competitions and screenwriting competitions respectively. Also, the Photography club performed well in Inter IIT and bagged 2nd prize for online photography competition, 3rd prize for an online photo story, and bagging 2nd position in overall photography.

### (v) Social Service:

The institute believes that an abiding social and human engagement is the hallmark of its student body. Students are involved in social service with underprivileged sections of society through KashiUtkarsh, where they conduct science experiments, art, and craft activities in the regular curriculum along with Navodaya classes. The educational awareness club Sahyog celebrated DaanUtsav on the campus as well as the children of construction workers, where they organized many sub-events such as rally in Tikri village on educational awareness, NukkadNatak in Tikri village, etc. also resulting in the establishment of a library. Social Projects Club participated in Social Innovation Challenge held at IIT-Delhi gave a technological solution for blind and came second in the event, and also worked on projects like Bio-Dry cell, which provides a technical solution for addressing waste management and power generation from the waste in a green and compatible manner. The Health and Hygiene Club conducted a medicine collection drive on the campus, and the volunteers visited Nasirpur, Patia, and Kakkarmatta and educated the women residing over there about health, hygiene, sanitation, and cleanliness.

#### (vi) E-cell:

E-Cell is a platform for the promotion of entrepreneurship among the students of IIT(BHU) with a vision of "Help will be given to those who seek it." It will help in creating a Startup Ecosystem, building relations for promotion of Startups and Entrepreneurship at IIT(BHU). E-Cell organized several business plan Competitions, workshops, hackathons and Interactive sessions from high-end speakers and entrepreneurs. It also ran a startup 101 course where curated online lectures on design thinking, compliance, etc needed for setting up a company were provided. This year Cell is hosting the E-Summit'20 the annual Entrepreneurial festival to celebrate entrepreneurship along with the aid of our Alumni fraternity.

### (vii) Student Alumni Interaction Cell (SAIC):

SAIC has grown multi-fold and remains dedicated to the goal of knitting together the fabric of the IIT(BHU) fraternity. SAIC has organized 1500+ Alumni visits, 800 mentorships, 15+ re-unions, and various off-campus student Alumni interactions. The Centenary Celebrations, Global Alumni Meet 2019 and Global Alumni Meet in the USA, was carried out by SAIC which cemented international connections and significantly improved the



worldwide image of IIT(BHU). These two historic meets became the biggest on-ground platforms for knitting together the fabric of IIT(BHU) fraternity. The Alumni Visiting Faculty Program has brought the Alumni community closer to the Institute. Apart from various services and initiatives for Alumni, SAIC successfully launched its website for convenience and easy accessibility.

### **Concluding Remarks:**

In conclusion, IIT (BHU) is continuously striving for a better future. The new IIT (BHU) emerges from the old, building on its earlier strengths, and transforming itself to meet the challenges of the future. The highlights of this year's achievements of IIT(BHU) were:

- Total publications were 1017 in 2018 in journals of high repute compared to 851 in the year 2017.
- The total finance received from different agencies under sponsored research projects, consultancy, etc. has significantly increased to 28 crore, which is almost 27 % more than that obtained in the previous financial year (22 crores).
- During 2018-19, the placement of B.Tech and IDD students increased from 85% in 2017-18 to above 98% in the current year.
- The institute is at 11th position among the top engineering Institutions in NIRF Ranking-2019, which is a significant improvement in comparison to the previous year ranking (19 in NIRF Ranking-2018). Now it is a challenge for us to improve it further.



## 2.1 Board of Governors – (apex committees) -

### List of Senate Members of IIT(BHU), Varanasi

- A. In terms of provision contained in Section 14(d) of the Institutes of Technology Act, 1961 (as amended from time to time), the Chairman, Board of Governors, IIT (BHU), vide his order dated 26.3.2019, has nominated the following members to the Senate of the Institute for a period of two years w.e.f. 01.04.2019:
- 1. Mr. T.S. Murali, General Manager, Bharat Heavy Electrical Ltd., Heavy Equipment Repair Plant, Tarna, Shivpur, Varanasi-221003 (included vide IIT(BHU)/Senate/3/2018-19/2707 dated 19.05.2018
- 2. Dr. N. Eswara Prasad, Director, Defence Materials and Stores Research and Development Establishment (DMSRDE), Kanpur
- 3. Prof. Sunil Khijwania, Dept. of Physics, IIT Guwahati, Guwahati-781039 (skhijwania@iitg.ernet.in)
- 4. Prof. Manoj Kumar Tiwari, Industrial & Systems Engineering, IIT Khargapur, West-721302 (deanpc@adm.iitkgp.ernet.in)
- 5. Prof. Nagendra Kumar, Dept. of Humanities & Social Sciences, IIT Roorkee, Roorkee-Haridwar-247667 (nagenfhs@iitr.ac.in)
- B. In terms of provision contained in Statute 5(1)(c), the Director and the Chairman, Senate has nominated the following faculty members to the Senate for a period of one year w.e.f. 01.04.2019:
- 6. Dr. Vikas Jindal, Dept. of Metallurgical Engineering
- 7. Dr. Rajesh Rai, Dept. of Mining Engineering
- 8. Dr. Manoj Kumar Meshram, Dept. of Electronics Engineering
- 9. Dr. N. Krishna Swami Naidu, Dept. of Electrical Engineering
- 10. Dr. Nikhil Saboo, Dept. of Civil Engineering
- 11. Dr. Ajinkya Nandkumar Tanksale, Dept. of Mechanical Engineering
- 12. Dr. Ruchir Gupta, Dept. of Computer Science & Engineering
- 13. Dr. Ashutosh Kumar Dubey, Dept. of Ceramic Engineering
- 14. Dr. Sunil Kumar Mishra, Dept. of Pharmaceutical Engineering & Tech.
- 15. Dr. Sweta, Dept. of Chemical Engineering & Tech.
- 16. Dr. Ashish Kumar Singh, School of Biochemcial Engineering
- 17. Dr. Sanjiv Kumar Mahto, School of Biomedical Engineering
- 18. Dr. Shrawan Kumar Mishra, School of Materials Science & Technology
- 19. Dr. Lavanya Selvaganesh, Dept. of Mathematical Sciences
- 20. Dr. Abhishek Kumar Srivastava, Dept. of Physics
- 21. Dr. V. Ramanathan, Dept. of Chemistry
- 22. Dr. Satish Kanaujia, Dept. of Humanistic Studies
- C. PROFESSOR AND HEADS/COORDINATORS

### DEPARTMENT OF CERAMIC ENGINEERING

- 23. Prof. Ram Pyare
- 24. Prof. Vinay Kumar Singh



### DEPARTMENT OF CHEMICAL ENGINEERING AND TECHNOLOGY

- 25. Prof. B.N. Rai
- 26. Prof. Pradeep Kumar Mishra
- 27. Prof. Pradeep Ahuja
- 28. Prof. Manoj Kumar Mondal
- 29. Prof. Ram Saran Singh
- 30. Prof. (Mrs.) Vijaya L. Yadava
- 31. Prof. Satya Vir Singh

### DEPARTMENT OF CIVIL ENGINEERING

- 32. Prof. Veerendra Kumar
- 33. Prof. Goutam Banerjee
- 34. Prof. Devendra Mohan
- 35. Prof. Prabhat Kumar Singh
- 36. Prof. Prabhat Kumar Singh Dixit
- 37. Prof. Sasankasekhar Mandal
- 38. Prof. Rajesh Kumar
- 39. Prof. Shyam Bihari Dwivedi
- 40. Prof. K.K. Pathak
- 41. Prof. Arun Prasad

### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

- 42. Prof. A.K. Tripathi
- 43. Prof. K.K. Shukla
- 44. Prof. Rajeev Srivastava
- 45. Prof. S.K. Singh

### DEPARTMENT OF ELECTRICAL ENGINEERING

- 46. Prof. Shiva Pujan Singh
- 47. Prof. S.K. Nagar
- 48. Prof. Rakesh Kumar Srivastava
- 49. Prof. Rakesh Kumar Mishra
- 50. Prof. Ranjeet Mahanty
- 51. Prof. Devender Singh
- 52. Prof. Mitresh Kumar Verma
- 53. Prof. Ram Khelawan Saket

### DEPARTMENT OF ELECTRONICS ENGINEERING

- 54. Prof. V.N. Mishra
- 55. Prof. Satyabrat Jit

### DEPARTMENT OF MECHANICAL ENGINEERING

56. Prof. Virendra Pratap Singh



- 57. Prof. A.K. Agrawal
- 58. Prof. V.K. Srivastava
- 59. Prof. Santosh Kumar
- 60. Prof. K.S. Tripathi
- 61. Prof. A.P. Harsha
- 62. Prof. Sanjay Kumar Sinha
- 63. Prof. Sandeep Kumar
- 64. Prof. Rajesh Kumar
- 65. Prof. Prashant Shukla
- 66. Prof. Pradumna Ghosh
- 67. Prof. Shailendra K. Shukla
- 68. Prof. Rajnesh Tyagi
- 69. Prof. Saroja Kanta Panda
- 70. Prof. Prabhash Bhardwaj

### DEPARTMENT OF METALLURGICAL ENGINEERING

- 71. Prof. R.K. Mandal
- 72. Prof. N.K. Mukhopadhyay
- 73. Prof. Sunil Mohan
- 74. Prof. (Mrs.) N.C. Shanti Srinivas
- 75. Prof. B. Nageshwar Sarma
- 76. Prof. Kamlesh Kumar Singh
- 77. Prof. Om Prakash Sinha
- 78. Prof. Indrajit Chakraborty

#### DEPARTMENT OF MINING ENGINEERING

- 79. Prof. B. K. Shrivastava
- 80. Prof. Netai Chandra Karmakar
- 81. Prof. Aarif Jamal
- 82. Prof. Piyush Rai
- 83. Prof. Sanjay Kumar Sharma
- 84. Prof. Suprakash Gupta

### DEPARTMENT OF PHARMACEUTICAL ENGG. & TECHNOLOGY

- 85. Prof. B. Mishra
- 86. Prof. S.K.Singh
- 87. Prof. S.K. Shrivastava
- 88. Prof. (Mrs.) S. Hemalatha
- 89. Prof. Sairam Krishnamurthy

### **DEPARTMENT OF CHEMISTRY**

90. Prof. (Mrs.) R. B. Rastogi



- 91. Prof. Prem Chandra Pandey
- 92. Prof. Syed Hadi Hasan
- 93. Prof. (Mrs.) Vandana Srivastava
- 94. Prof. Yogesh Chandra Sharma
- 95. Prof. D. Tiwary
- 96. Prof. K.D. Mandal

### **DEPARTMENT OF MATHEMATICAL SCIENCES**

- 97. Prof. Tanmoy Som
- 98. Prof. (Mrs.) Rekha Srivastava
- 99. Prof. Lal Pratap Singh
- 100. Prof. Sanjay Kr. Pandey
- 101. Prof. (Mrs.) S. Mukhopadhyay
- 102. Prof. S.K. Upadhyay
- 103. Prof. Subir Das
- 104. Prof. Murali Krishna Vemuri

#### DEPARTMENT OF HUMANISTIC STUDIES

105. Prof. Prasant Kumar Panda

#### DEPARTMENT OF PHYSICS

- 106. Prof. D. Giri
- 107. Prof. Prabhakar Singh
- 108. Prof. Sandeep Chatterjee
- 109. Prof. Rajendra Prasad

### SCHOOL OF BIO-CHEMICAL ENGINEERING

- 110. Prof. (Mrs.) Mira Debnath (Das)
- 111. Prof. R.M. Banik
- 112. Prof. Pradeep Srivastava
- 113. Prof. Vikash Kumar Dubey

### SCHOOL OF BIO-MEDICAL ENGINEERING

- 114. Prof. P.K. Roy
- 115. Prof. Neeraj Sharma

### SCHOOL OF MATERIALS SCIENCE & TECHNOLOGY

- 116. Prof. Rajiv Prakash
- 117. Prof. Pralay Maiti
- 118. Dr. Akhilesh Kumar Singh



### Members of Board of Governors (2018 - 2019)

1.	Chairman	Period
(a)	Prof. Girish Chandra Tripathi Vice-Chancellor (ex-officio) Banaras Hindu University Varanasi-221 005.	01.04.2018 – 26.07.2018
		27.07.2018 - 31.07.2018
(b)	Prof. Rajeev Sangal Director (ex-officio) IIT (BHU), Varanasi – 221 005	
(c)	Prof. Pramod Kumar Jain, Director ( <i>ex-officio</i> ) IIT (BHU), Varanasi – 221 005	01.08.2018 – continuing
2.	Director (ex-officio) Member	
(a)	Prof. Rajeev Sangal Director IIT (BHU), Varanasi – 221 005	01.04.2018 - 31.07.2018
(b)	Prof. Pramod Kumar Jain, IIT Director (ex-officio) IIT (BHU), Varanasi – 221 005	01.08.2018 – continuing
3.	Council Nominees (Members)	
(a)	Prof. Narendra Ahuja Room No.3299, Electronic Niketan (ITRA, Media Lab Asia), 6-CGO Complex New Delhi-110003	01.04.2018 – 12.07.2018
(b)	Shri Ganesh Bagaria Manviya Shiksha Sanskar Sansthan Opp. Vanakhandeshwar Mandi, Mandhana, Kanpur-209217	01.04.2018 - 12.07.2018
(c)	Prof. Praveen Kumar Transportation Engineering Group Department of Civil Engineering Indian Institute of Technology Roorkee Roorkee - 247667 (Uttarakhand)	13.07.2018 – continuing
(d)	Additional Secretary/Joint Secretary (TE), MHRD, ex-officio Shastri Bhawan New Delhi – 110 001.	13.07.2018 - continuing
4.	Executive Council, BHU Nominees from amongst its members	
(a)	Prof. Adya Prasad Pandey Vice-Chancellor Manipur Central University Indo-Myanmar Road Canchipur – 795 00 Imphal, Manipur.	06.08.2018 – continuing



(b)	Prof Ashim Kumar Mukherjee Director Moti Lal Nehru Institute of Research and Business Administration University of Allahabad Chatham Lines Campus Allahabad University Allahabad – 211 002, Uttar Pradesh	06.08.2018 - continuing
5.	State Government Nominee (Member) (Uttar Pradesh Government Nominee)	
(a)	Shri Nitin Malhotra Shree Ganga Keramos P. Ltd. Next to Hyundai Showroom, Shivdaspur, Manduadih Varanasi – 221 103	01.04.2018 – continuing
6.	Senate Nominees (Member)	
(a)	Prof. Nilay Krishna Mukhopadhyay, Dept. of Metallurgical Engg. IIT (BHU)	01.04.2018 – continuing
(b)	Prof. Prabhakar Singh Dept. of Physics, IIT (BHU)	01.04.2018 – continuing
7.	Registrar (ex-officio) Secretary	
	Dr. S.P. Mathur Registrar Indian Institute of Technology (BHU) Varanasi – 221 005	



### Members of Finance Committee (from 1.4.2018 to 31.3.2019)

Chairman	Period
(a) Prof. Girish Chandra Tripathi Vice-Chancellor (ex-officio) Banaras Hindu University Varanasi-221 005.	01.04.2018 – 26.07.2018
(b) Prof. Rajeev Sangal Director (ex-officio) IIT (BHU), Varanasi – 221 005	27.07.2018 - 31.07.2018
(c) Prof. Pramod Kumar Jain, Director (ex-officio) IIT (BHU), Varanasi – 221 005	01.08.2018 – continuing
Director (ex-officio) Member	
(a) Prof. Rajeev Sangal Director IIT (BHU), Varanasi – 221 005	01.04.2018 - 31.07.2018
(b) Prof. Pramod Kumar Jain, Director IIT (BHU), Varanasi – 221 005	01.08.2018 – continuing
Members nominated by the Central Government	
(a) Additional Secretary (TE) (ex-officio) Member, MHRD	
(b) Joint Secretary & Financial Advisor (ex-officio) to the Government of India Integrated Finance Division, MHRD, Department of Higher Education, New Delhi	

### **Board Nominees (members)**

(a) Prof. Rajiv Prakash	01.04.2018 – continuing
School of Materials Science & Technology,	-
IIT (BHU), Varanasi – 221 005	
(b) Prof. Prabhakar Singh	01.04.2018 - continuing
Dept. of Physics, IIT (BHU)	

### Registrar (ex-officio) Secretary

Dr. S.P.Mathur Registrar, IIT (BHU)



### **Building & Works Committee (2018-19)**

Prof. Rajeev Sangal	Chairman
Director (ex-officio)	
IIT (BHU), Varanasi – 221 005	
(01.04.2018 - 31.07.2018)	
Prof. Pramod Kumar Jain	Chairman
Director (ex-officio)	
IIT (BHU), Varanasi	
(from 1.8.2018 – continuing)	
Prof. A.K. Jain	Member
Head, Dept. of Civil Engg., IIT Delhi, New Delhi- 110 016.	
Prof. Pradeep Bhargawa	Member
Department of Civil Engg., IIT Roorkee, Roorkee-247667	
Prof. Manoj Mathur	Member
Head Industrial Design SPA and Architect	
(Nominee of Director, School of Planning & Architecture),	
4 – Block – B, Indraprastha Estate, New Delhi – 110002	
Sri N. Nanjappa	
(Ex-Senior Superintending Engineer, CCMB, Hyderabad) Flat No. 202	
"Grand Residency", No. 4-7-102/18	
Lane No. 2, Sai Enclave, Habsiguda, Hyderabad – 500007	
Prof. R Mahanty	Member
Dept. of Electrical Engg.,	
IIT (BHU), Varanasi	
Prof. Rajesh Kumar	Member
Chairman, IWC, IIT (BHU) (ex-officio)	
Dr. S.P. Mathur	Secretary
Registrar, IIT (BHU)	



### 3. Faculty Administration \_\_\_\_\_

### 2.1 Faculty Position as on 31.03.2019

Faculty Members	287
Visiting Faculty/Institute Professor/Emeritus Professor	14 + 17 + 7 = 38

### 2.2 Faculty Members appointed during 2018-19

Professors	01	
Associate Professors	06	
Assistant Professors	11	
Visiting Faculty/Institute Professor	03 + 04 = 07	
Contractual Faculty	01*	

### 2.3 List of Faculty Members appointed during 1st April 2018-31st March 2019

Sl.No.	ID No.	Name of Faculty/Staff	Designation	Department/Section	Date of Joining
1	50211	Dr.Vikash Kumar Dubey	Professor	Bio-Chemical Engg.	17.05.2018
2	50221	Dr.NirmalyaGuha	Associate Professor	Humanistic Studies	28.05.2018
3	19253	Dr. Vinita Chandra	Associate Professor	Humanistic Studies	16.07.2018 (AN)
4	50228	Dr. K. B. Cybil	Associate Professor	Humanistic Studies	15.11.2018
5	50224	Dr.SoumnyaRanjanMohanty	Associate Professor	Electrical Engg.	27.06.2018
6	50222	Dr.Rakesh Kumar Singh	Associate Professor	Physics	28.06.2018
7	50223	Dr.Laltu Chandra	Associate Professor	Mechanical Engg.	18.06.2018
8	50208	Dr.VenkatnarayanRamanathan	Assistant Professor	Chemistry	27.04.2018
9	50209	Dr. N. Krishna Swami Naidu	Assistant Professor	Electrical Engg.	07.05.2018
10	50225	Dr.AjinkyaNandkumarTanksale*	Assistant Professor	Mechanical Engg.	23.07.2018
11	50217	Dr.BidyaBinayKarak	Assistant Professor	Physics	16.05.2018 (AN)
12	50219	Dr.Pavan Kumar Aluri	Assistant Professor	Physics	21.06.2018
13	50213	Dr.Awaneesh Kumar Singh	Assistant Professor	Physics	10.05.2018
14	50214	Dr.Randhir Singh	Assistant Professor	Metallurgical Engg.	17.05.2018
15	50218	Dr. Ashok Kumar Mondal	Assistant Professor	Metallurgical Engg.	04.06.2018
17	50210	Dr.Amit Kumar Verma	Assistant Professor	Mining Engg.	01.05.2018
18	50207	Dr.VinodTiwari	Assistant Professor	Pharmaceutical Engg. & Tech.	02.04.2018
19	50212	Dr.Ashish Kumar Agrawal	Assistant Professor	Pharmaceutical Engg. & Tech.	21.05.2018

### 2.4 List of internal faculty/staff members who joined during the period from April 2018-March 2019

Sl.No.	ID No.	Name of Faculty/Staff	Designation	Department / Section	Date of Joining with (FN/AN)
			NIL		



### 2.5 Faculty/staff members who resigned/were relieved

S. No.	ID No.	Name of Faculty/Staff	Designation	Department/Section	Date of Relief (with FN/AN)
1	19857	Dr. K. V. Srinivas	Assistant Professor	Electronics Engg	01.01.2019

### 2.6 Faculty/staff members who retired between April 2018-March 2019

S. No.	ID No.	Name of Faculty/Staff/Officer	Designation	Department	Date of Birth	Date of Retirement (with FN/AN)
1	13829	Dr. A.K. Jha	Professor	Mechanical Engineering	30.06.1953	30.06.2018
2	13888	Dr.SubirKundu	Professor	Bio-Chemical Engineering	03.09.1953	30.09.2018
3	13886	Dr.Nira Mishra	Professor	Bio-Medical Engineering	14.09.1953	30.09.2018
4	13669	Dr. A.K. Mukherjee	Professor	Chemistry	30.10.1953	31.10.2018

### 2.7 Faculty/staff members who expired while in service

S. No.	ID No.	Name of Faculty/Staff/ Officer	Designation	Department	Date of Birth	Date of Expiry (with FN/AN)
			NII.			

### 2.8 Faculty members/officers/staff members on Deputation

S. No.	Name	Designation	Department	From	То	Details	Remarks
1	Dr. R K Pandey	Professor	Electrical Engineering	10.07.2016 (AN)	10.07.2021	On Deputation for 5 years	
2	Dr. P K Jain	Professor	Electronics Engineering	21.11.2017 (AN)	20.11.2022	On Deputation for 5 years	
3	Dr. P. Chakrabarti	Professor	Electronics Engineering	09.05.2018 (AN)	09.05.2023	On Deputation of 5 years	
4	Dr. Sanjay Singh	Professor	Pharmaceutical Engg. & Tech.	23.02.2019 (AN)	23.02.2024	On Deputation for 5 years	

### a. Faculty/staff members on extraordinary leave

S. No.	Name	Designation	Department	From	То	Details	Remarks
1	Dr.ManharCharan	Assistant Professor	Humanistic Studies	08.07.2018	20.07.2018		
2	Dr. M. K. Vemuri	Professor	Mathematical Sciences	25.06.2018	31.12.2018		
3	Dr.RajneshTyagi	Professor	Mechanical Engineering	01.02.2018	02.01.2019		
4	Dr. K. V. Srinivas	Assistant Professor	Electronics Engineering	23.07.2018	31.12.2018		Resigned on 01.01.2019

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S. No.	Name	Designation	Department	From	То	Details	Remarks
5	Ms SobhitaMeher	Assistant	Electrical Engineering	10.04.2018	13.04.2018		
		Professor		21.04.2018	27.04.2018		
				04.05.2018	10.05.2018		
				14.10.2018	14.10.2018		
				10.11.2018	13.11.2018		
				24.11.2018	11.12.2018		

### b. Faculty members on sabbatical leave

S. No.	Name	Designation	Department	From	То	Remarks
1	Dr.Goutam Banerjee	Professor	Civil Engineering	26.07.2017	25.07.2018	
2	Dr.ArnabSarkar	Associate Professor	Mechanical Engineering	01.05.2018	30.04.2019	



### 4. Non- Faculty Administration \_\_\_\_\_

1. Brief Introduction : Indian Institute of Technology (BHU)

2. Staff Position (as on 31st March 2019) : Non-faculty members

### 2.1 Staff members in Position

Group A Staff	26
Scientific Officers	07
Technical Staff	254
Administrative Staff	143

### 2.2 Staff Members appointed during 2017-18

Administrative Staff	04
Contractual Staff	00

### 2.3 List of Staff Members appointed during 1st April 2018-31st March 2019

S. No.	ID No.	Name of Staff	Designation	Department/Section	Date of Joining
1	50205	Shri Rajesh Kumar	Junior Engineer (Civil)	Institute Works Department	04.04.2018
2	50216	Ms. Prashasti Singh	Junior Assistant	R.O. (Finance)	05.06.2018
3	50215	Ms. Katyayani	Junior Assistant	Internal Audit Wing	05.06.2018
4	50227	Sri Pallav Singh	Assistant Security Officer	Proctor's Office	17.08.2018

### 2.4 List of internal staff members who joined during the period from 1st April 2018-31st March 2019

S. No.	ID No.	Name of Staff	Designation	Department/Section	Date of Joining (with FN/AN)
1					

### 2.5 Staff members who resigned/were relieved during 1st April 2018-31st March 2019

S. No.	ID No.	Name of Staff	Designation	Department/Section	Date of Relief (with FN/AN)
1	50116	Sri Deepak Kr. Sinha	Junior Assistant	Bio-Chemical Engg.	04.05.2018 (AN)
2	19521	Sri Abhishek Kumar Verma	Junior Superintendent	Establishment Section	30.06.2018 (AN)
3	50201	Sri Aman Kumar	Assistant Security Officer	Proctor's Office	03.08.2018 (AN)
4	50216	Ms. Prashasti Singh	Junior Assistant	R.O. (Finance)	03.10.2018 (AN)



### **Annual Report Data of Leave Section**

### 2.6 Staff member who retired between 1st April, 2018 -31st March, 2019

S.No.	ID No.	Name of the Staff	Designation	Department	Date of Birth	Date of Retirement (with F/N)
1	13936	Sri Mithai Lal Singh	Senior Technical Superintendent	Electrical Engg.	01.05.1958	30.04.2018
2	13642	Sri Ram Dular	Senior Technical Superintendent	Main Workshop	01.07.1958	30.06.2018
3	14045	Dr. Shankar Jha	Senior Technical Superintendent (Grade-II)	Metallurgical Engg.	06.07.1958	31.07.2018
4	13608	Sri Kishun Prasad	Senior Technician	Main Workshop	01.08.1958	31.07.2018
5	18986	Dr. Janardan Singh	Senior Scientific Officer	Civil Engg.	15.08.1956	31.08.2018
6	14098	Sri Janardan Dubey	Junior Technical Superintendent	Metallurgical Engg.	07.09.1958	30.09.2018
7	15206	Sri M.K. Saxena	Senior Technical Superintendent	Electronics Engg.	10.10.1958	31.10.2018
8	13637	Sri Haldhar Vishwakarma	Junior Technical Superintendent	Main Workshop Engg.	05.10.1958	31.10.2018
9	14113	Sri Chhangur	Senior Technical Superintendent	Metallurgical Engg.	14.11.1958	30.11.2018
10	14186	Sri Ram Hridaya Pathak	Technical Superintendent	Pharmaceutical Engg.	01.01.1959	31.12.2018
11	13716	Sri Jang Bahadur Ram	Junior Technical Superintendent	Ceramic Engg.	20.12.1958	31.12.2018
12	14096	Sri Bal Govind	Senior Technical Superintendent	Mining Engg.	02.01.1959	31.01.2019
13	11442	Sri Mahabir	Technical Superintendent	Physics	11.01.1959	31.01.2019
14	14169	Sri Arvind Kumar	Technical Superintendent	Electronics Engg.	03.03.1959	31.03.2019

### 2.7 Staff member who expired while in service during 1st April, 2018- 31st March, 2019

S.No.	ID No.	Name of the Staff	Designation	Department	Date of Birth	Date of Retirement (with F/N)
1		NIL	NIL	NIL	NIL	NIL

### 2.8 Staff member who on long leave during 1st April, 2018 - 31 March, 2019

S.No.	ID No.	Name of the Staff	Designation	Department	Date of Birth	Date of Retirement (with F/N)
1		NIL	NIL	NIL	NIL	NIL



### 2.9 Staff member who on extraordinary leave during 1st April, 2018 - 31 March, 2019

S.No.	ID No.	Name of the Staff	Designation	Designation Department Date of Bi		Date of Retirement (with F/N)
1		NIL	NIL	NIL	NIL	NIL

### **Annual Report Data Of General Administration Section For The Period 2018-19**

### 3. Staff Welfare

### 3.1. Human resource development

### a. External training

S.No.	No. of Persons who attended	Course Title	Duration	Section/ Department	Organization where attended
1	2	PFMS EAT Module	07.05.2018		INGAF, Delhi
2	3	Workshop on Public Procurement under- GFR 2017	16.05.2018 to 18.05.2018		ISTM, New Delhi
3	1	Conference of Central Autonomous Bodies (CABs) on NPS implementation	13.06.2018		PFRDA, New Delhi
4	1	Government e-Marketplace (GeM) and GFRs 2017	18.06.2018 to 19.06.2018		NIFM, Faridabad
5	1	Goods and Services Tax (GST)	20.06.2018 to 22.06.2018		NIFM, Faridabad
6	1	Public Procurement(Six day training Program)	18.06.2018 to 23.06.2018		NIFM, Faridabad
7	1	Record Management-Right to Information	06.08.2018 to 08.08.2018		ISTM, New Delhi
8	1	Goods and Services Tax (GST)	23.08.2018 to 24.08.2018		ISTM, New Delhi
9	1	Cyber Surakshit Bharat, Cisco's Deep Dive Training Programme	05.09.2018 to 08.09.2018		Kolkata
10	1	PFMS EAT Module	05.09.2018		Ministry of Social Justice
11	1	Workshop on Public Procurement under- GFR 2017	17.09.2018 to 19.09.2018		ISTM, New Delhi
12	1	Workshop on Noting & Drafting	03.10.2018 to 05.10.2018		ISTM, New Delhi
13	1	Organisation Specific Programme for MHRD (OSP-MHRD)	21.01.2019 to 23.01.2019		ISTM, New Delhi

### **b.** Internal training

S. no.	No. Of Persons who attended	Course Title	Duration	Section/ Department	Organization where attended
1	36	"हिंदी टंकण का 5पूर्ण कार्य	06.08.2018 से		प्रथम वर्ष संगणक प्रयोगशाला,
		दिवसीय अल्पावधि प्रशिक्षण	10.08.2018		मैकेनिकल इंजीनियरिंग विभाग,
		कार्यक्रम"			<u>भा.प्रौ.सं.(का.हि.वि.)</u>



#### 3.2 Hindi Promotion Activities:

### भारतीय प्रौद्योगिकी संस्थान (का.हि.वि.), वाराणसी। हिन्दी पखवाड़ा (सितंबर 1-15, 2018)

संस्थान में हिन्दी पखवाड़ा का आयोजन दिनांक 01.09.2018 से दिनांक 15.09.2018 तक किया गया। हिन्दी पखवाड़ा के दौरान निम्नलिखित आयोजन किये गए-

### 1. हिन्दी पखवाड़ा का उदघाटन:

संस्थान में हिन्दी पखवाड़ा (सितंबर 1-15, 2018) के अंतर्गत दिनांक 01.09.2018 को एनी बेसेंट व्याख्यान कक्ष संकुल में हिन्दी पखवाड़ा के उदघाटन समारोह का आयोजन किया गया। समारोह का उदघाटन संस्थान के निदेशक महोदय आचार्य प्रमोद कुमार जैन द्वारा किया गया। इस कार्यक्रम में संस्थान के संयुक्त कुलसचिव ने वर्ष 2017-18 के दौरान हिन्दी में किए गये कार्यों की आख्या प्रस्तुत की। इस अवसर पर निदेशक महोदय द्वारा संस्थान कर्मचारियों को कार्यालयी कार्य अधिकाधिक हिन्दी में करने हेतु अपील जारी की गई। साथ ही श्री जगदीश नारायण राय, संयोजक, केंद्रीय सचिवालय हिन्दी परिषद, वाराणसी द्वारा प्रतिभागियों को संघ की राजभाषा नीति एवं उसके कार्यान्वयन के बारे में बताया गया।

### 2. "तकनीकी शिक्षा में राजभाषा हिन्दी का योगदान एवं चुनौतियाँ" विषय पर निबंध प्रतियोगिता:

दिनांक 01.09.2018 से 08.09.2018 के मध्य "तकनीकी शिक्षा में राजभाषा हिन्दी का योगदान एवं चुनौतियाँ" विषय पर निबंध प्रतियोगिता का आयोजन निम्नलिखित चार वर्गों में किया गया :

- 1) पूर्व छात्र
- 2) शैक्षणिक
- 3) गैर-शैक्षणिक
- 4) विद्यार्थी

पूर्व छात्र के लिए निबंध प्रतियोगिता हेतु अधिष्ठाता (पूर्व छात्र), शैक्षणिक एवं गैर-शैक्षणिक कर्मचारियों के लिये प्रतियोगिता हेतु समस्त विभाग व अनुभाग तथा विद्यार्थियों के लिए अधिष्ठाता (छात्र कार्य) से अनुरोध किया गया। उक्त प्रतियोगिता में 1 शैक्षणिक एवं 11 गैर-शैक्षणिक कर्मचारियों के निबंध प्राप्त हुए।

### 3. हिन्दी पुस्तकों की प्रदर्शनी:

दिनांक 04.09.2018 को संस्थान के मुख्य पुस्तकालय में हिन्दी पुस्तकों की प्रदर्शनी का आयोजन किया गया। उक्त प्रदर्शनी संस्थान के छात्र-छात्राओं और कर्मचारियों के लिए बहुत उपयोगी साबित हुई।

### हिन्दी टिप्पण लेखन एवं पत्राचार प्रतियोगिता:

दिनांक 06.09.2018 को हिन्दी टिप्पण लेखन एवं पत्राचार प्रतियोगिता का आयोजन एनी बेसेंट व्याख्यान कक्ष संकुल में किया गया, जिसमें कुल 31 गैर-शैक्षणिक कर्मचारियों ने भाग लिया।

### 5. यूनिकोड के माध्यम से हिन्दी टंकण प्रतियोगिता:

दिनांक 10.09.2018 को संस्थान के प्रथम वर्ष संगणक प्रयोगशाला, यांत्रिक अभियांत्रिकी विभाग में यूनिकोड के माध्यम से हिन्दी टंकण प्रतियोगिता का आयोजन किया गया। इसमें कुल 20 गैर-शैक्षणिक कर्मचारियों ने भाग लिया।

### 6. हिन्दी दिवस समारोह:

दिनांक 14.09.2018 को संस्थान में हिन्दी दिवस समारोह का आयोजन एनी बेसेंट व्याख्यान कक्ष संकुल में किया गया। कार्यक्रम का



आयोजन पं0 मदन मोहन मालवीय जी की प्रतिमा पर माल्यार्पण एवं दीप प्रज्ज्वलन के साथ हुआ। आचार्य सुशांत कुमार श्रीवास्तव, भैषजकीय अभियांत्रिकी एवं प्रौद्योगिकी विभाग एवं अध्यक्ष, हिन्दी पखवाड़ा आयोजन समिति ने कार्यक्रम में आए सभी अतिथियों एवं सहभागियों का स्वागत किया।

कुलसचिव महोदय ने हिन्दी पखवाड़ा की अवधि में संस्थान में दिनांक 01.09.2018 से 14.09.2018 के मध्य आयोजित कार्यक्रम व प्रतियोगिताओं की आख्या प्रस्तुत की।

तत्पश्चात आचार्य सुशांत कुमार श्रीवास्तव ने माननीय गृह मंत्री जी का हिन्दी दिवस के अवसर पर जारी संदेश का पाठन किया। इसके बाद आचार्य अनिल कुमार त्रिपाठी, उपाध्यक्ष, राजभाषा कार्यान्वयन समिति ने विश्व स्तर पर हिन्दी के बढ़ते प्रयोग एवं प्रत्येक क्षेत्र में इसकी महत्ता पर प्रकाश डाला।

### पुरस्कार वितरण

कार्यवाहक निदेशक महोदय ने दिनांक 01.09.2018 से दिनांक 10.09.2018 के मध्य आयोजित सभी प्रतियोगिताओं के प्रथम, द्वितीय एवं तृतीय निम्नलिखित विजेता कर्मचारियों को पुरस्कृत किया :

- दिनांक 06.09.2018 को आयोजित हिन्दी टिप्पण लेखन एवं पत्राचार प्रतियोगिता में प्रथम स्थान प्राप्त श्री प्रदीप कुमार धनवडे, किनष्ठ सहायक, स्थापना अनुभाग, द्वितीय स्थान प्राप्त श्री आदर्श कुमार श्रीवास्तव, किनष्ठ सहायक, निदेशक के निजी सचिव अनुभाग एवं तृतीय स्थान प्राप्त श्री संदीप प्रजापित, किनष्ठ सहायक, निदेशक के निजी सचिव अनुभाग को पुरस्कृत किया गया।
- दिनांक 10.09.2018 को आयोजित यूनिकोड के माध्यम से हिन्दी टंकण प्रतियोगिता में प्रथम स्थान प्राप्त श्री अजीत कुमार यादव, किनष्ठ सहायक, सामान्य प्रशासन अनुभाग, द्वितीय स्थान प्राप्त श्री संदीप प्रजापित, किनष्ठ सहायक, निदेशक के निजी सिचव अनुभाग एवं तृतीय स्थान प्राप्त श्री अंकित जैन, किनष्ठ सहायक, संस्थान निर्माण विभाग को पुरस्कृत किया गया।
- दिनांक 01.09.2018 से दिनांक 08.09.2018 के मध्य आयोजित "तकनीकी शिक्षा में राजभाषा हिन्दी का योगदान एवं चुनौतियाँ" विषय
  पर निबंध प्रतियोगिता के गैर-शैक्षणिक
  - कर्मचारी वर्ग में प्रथम स्थान प्राप्त श्री सिद्धार्थ कुमार गुप्ता, किनष्ठ सहायक, छात्रवृत्ति अनुभाग, द्वितीय स्थान प्राप्त श्री राजेश प्रसाद, किनष्ठ सहायक, संस्थान निर्माण विभाग एवं तृतीय स्थान प्राप्त श्री अंकित कुमार जैन, किनष्ठ सहायक, संस्थान निर्माण विभाग व श्री गौरव कुमार, किनष्ठ सहायक, सामान्य प्रशासन अनुभाग को पुरस्कृत किया गया।
- संस्थान में वर्ष 2017 के दौरान हिन्दी में उल्लेखनीय एवं उत्कृष्ट कार्य करने वाले कर्मचारी को भी उक्त अवसर पर पुरस्कृत किया गया। हिन्दी
  में उत्कृष्ट कार्य करने हेतु श्री राजेश प्रसाद, किनष्ठ सहायक, संस्थान निर्माण विभाग एवं हिन्दी में उल्लेखनीय कार्य करने हेतु सुश्री आरती
  गुप्ता, किनष्ठ अधीक्षक, सामान्य प्रशासन अनुभाग व श्री शिशिर कुमार, किनष्ठ सहायक, अनुसंधान एवं विकास को पुरस्कृत किया गया।

इस अवसर पर संस्थान के कार्यवाहक निदेशक महोदय ने अपना संबोधन प्रस्तुत किया, जिसमें उन्होंने कर्मचारियों को अधिकाधिक हिन्दी में कार्य करने की अपील की।

हिन्दी दिवस समारोह के अवसर पर अतिथि वक्ता प्रो0 अवधेश प्रधान, हिन्दी विभाग, काशी हिन्दू विश्वविद्यालय द्वारा हिन्दी भाषा पर व्याख्यान प्रस्तुत किया गया। उन्होंने बताया कि भाषा केवल साहित्यकारों, किवयों एवं नाटककारों के हाथों में आकार नहीं लेता बिल्क भाषा का विकास आम जनता के कारण होता हैं जिनके द्वारा यह बोला जाता है। भाषा का निर्माता एवं उत्तराधिकारी आम जनता है। भारत में अभी भी 250 से अधिक भाषाएँ हैं। देश में लगभग आधी जनता द्वारा हिन्दी बोली एवं समझी जाती है। दयानन्द सरस्वती, सुभाष चन्द्र बोस आदि महापुरुष अंतर्राष्ट्रीय मंचों पर अपने विचार अधिक से अधिक हिन्दी में ही व्यक्त करते थे।

उन्होंने यह भी बताया कि हिन्दी में शोध कार्य एवं इंटरनेट पर हिन्दी में किसी विषय की उपलब्धता अभी भी कम है। तकनीकी संस्थानों द्वारा हिन्दी को आगे बढ़ाने का प्रयास किया जा रहा है। उनके द्वारा हिन्दी के क्षेत्र में कार्य करने से हिन्दी का और अधिक विकास होगा।

कार्यक्रम का समापन संस्थान के संयुक्त कुलसचिव (प्रशासन) श्री राजन श्रीवास्तव के धन्यवाद ज्ञापन से हुआ।



### **Academic Programmes and**

### **Award Of Degrees**

The Institute offered Ph.D. programmes in all 17 departments (Department of Humanistic Studies established in 2015-16), M.Tech. programme in 13 streams/specializations, M.Pharm. programme in one stream/specialization, B.Tech. programmes in 10 engineering departments, Dual Degree (B.Tech. and M.Tech.) programmes in 14 engineering departments/schools/science departments, besides a preparatory course for SC/ST students during the year under report.

### **Admissions 2018-2019**

Candidates for admission to the 4-Year B.Tech. and 5-Year Dual Degree programmes were selected through JEE(Advanced) and on the basis of the All India Rank. 2-Year M.Tech./M.Pharm. programmes, candidates get admitted on the basis of GATE/GPAT score. Quite a few candidates were also selected for the M.Tech. programme under the Sponsored and Q.I.P. programmes through interviews and/or written tests. Selection for the Ph.D. programmes was done through tests/interviews, they must qualify the GATE or GPAT or UGC/CSIR-NET.

The number of students and scholars admitted to the various programmes in July 2018 and in January 2019 are listed in Table as shown below.

#### **Table Fresh admissions**

Sl. No.	Department/School	B.Tech.	Dual Degree (B.Tech. & M.Tech.)	M.Tech.	M. Pharm.	Ph.D.	Total
	Biochemical Engineering		15	9		13	37
	Biomedical Engineering		15	8		3	26
	Ceramic Engineering	52	14	13		10	89
	Chemical Engineering	116		45		15	176
	Chemistry		14			21	35
	Civil Engineering	88	21	59		28	196
	Computer Science and Engineering	67	18			17	102
	Electrical Engineering	84	20	37		11	152
	Electronics Engineering	86		32		9	127
	Humanistic Studies					6	6
	Industrial Management			7		2	9
	Materials Science and Technology		18	17		20	55
	Mathematical Sciences		20			44	64
	Mechanical Engineering	109	21	31		13	174
	Metallurgical Engineering	68	18	35		14	135
	Mining Engineering	88	17	28		11	144
	Pharmaceutical Engineering and Technology	54	13		39	22	128
	Physics		20			23	43
	Systems Engineering			4		2	6
Total		812	244	325	39	284	1704

In addition, 33 students (SC – 4; ST – 26; OBCPD – 1; GEPD – 2) joined the preparatory course.



### Category/Gender-wise students among fresh admissions

Sl.	Programme	Ge	neral	OBC SC		SC	ST		1	PD	Total			
No.		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Total
1	B.Tech.	357	57	210	27	104	12	35	6	4		710	102	812
2	Dual Degree (B.Tech. & M.Tech.)	111	24	49	9	35	2	11	1	1	1	207	37	244
3	M.Tech.	131	27	93	10	37	8	16	1	1	1	278	47	325
4	M.Pharm.	7	7	13	3	4	2	3				27	12	39
5	Ph.D.	105	46	72	19	29	6	2	1	3	1	211	73	284
	Total	711	161	437	68	209	30	67	9	9	3	1433	271	1704

### The students admitted during the year included the following:

Foreign national	Nil.	Q.I.P.		Nil.
OBC	507	Chancarad	M.Tech.	08
Scheduled Castes	239	Sponsored	Ph.D.	03
Scheduled Tribes	76	Project		
Physically handicapped	12	External registration	Ph.D.	
Women Students	271			

### **Enrolment of Students/Scholars**

The total numbers of students on roll in various programmes of the Institute in the academic year 2018–2019 are provided in Table.

### **Table: Students on roll**

Sl. No.	Department/School	B.Tech.	Dual Degree (B.Tech. & M.Tech.)	M.Tech.	M. Pharm.	Ph.D.	Total
1	Biochemical Engineering		64	18		28	110
2	Biomedical Engineering		69	15		40	124
3	Ceramic Engineering	189	65	24		38	316
4	Chemical Engineering	430		92		68	590
5	Chemistry		73			65	138
6	Civil Engineering	311	105	116		78	610
7	Computer Science and Engineering	271	89			68	428
8	Electrical Engineering	360	111	77		44	592
9	Electronics Engineering	363		72		50	485
10	Humanistic Studies					15	15
11	Industrial Management			15		16	31
12	Materials Science and Technology		82	28		52	162
13	Mathematical Sciences		110			94	204
14	Mechanical Engineering	452	112	77		63	704
15	Metallurgical Engineering	235	93	57		51	436
16	Mining Engineering	335	78	51		49	513



Sl. No.	Department/School	B.Tech.	Dual Degree (B.Tech. & M.Tech.)	M.Tech.	M. Pharm.	Ph.D.	Total
17	Pharmaceutical Engineering and Technology	183	59		72	65	379
18	Physics		93			75	168
19	Systems Engineering			9		10	19
	Total	3129	1203	651	72	969	6024

### Category/Gender-wise students on roll

SI.	Pro-	Pro- General		0	OBC SC		С	ST		PD		Total		
No.	gramme	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Total
1	B.Tech.	1405	134	817	59	425	39	189	22	37	2	2873	256	3129
2	Dual Degree (B.Tech. & M.Tech.)	515	69	276	25	177	12	94	13	20	2	1082	121	1203
3	M.Tech.	262	48	188	14	78	18	32	6	4	1	564	87	651
4	M.Pharm.	17	9	25	5	9	3	4				55	17	72
5	Ph.D.	365	116	265	65	106	25	18	3	5	1	759	210	969
	Total	2564	376	1571	168	795	97	337	44	66	6	5333	691	6024

The students on roll including the following:

Foreign national		Q.I.P.		17
OBC	1739	Spangarad	M.Tech.	12
Scheduled Castes	892	Sponsored	Ph.D.	12
Scheduled Tribes	381	Project		3
Physically handicapped	72	External registration	Ph.D.	4
Women Students	691			

The branch-/discipline-wise and year-wise details of students enrolled in the 4-Year B.Tech., 5-Year Dual Degree B.Tech.-M.Tech. programmes are provided here:

### 4-Year B.Tech. students on roll

Sl. No.	Branch	2018	2017	2016	2015 and earlier batches	Total
1	Ceramic Engineering	47	49	49	44	189
2	Chemical Engineering	104	114	107	105	430
3	Civil Engineering	79	75	81	76	311
4	Computer Science and Engineering	76	65	65	65	271
5	Electrical Engineering	96	88	88	88	360
6	Electronics Engineering	99	88	88	88	363
7	Mechanical Engineering	122	110	110	110	452
8	Metallurgical Engineering	60	60	59	56	235
9	Mining Engineering	78	85	87	85	335
10	Pharmaceutical Engineering and Technology	48	52	44	39	183
	Total	809	786	778	756	3129



### 5-Year Dual Degree (B.Tech. and M.Tech.) students on roll

Sl. No.	Branch	2018	2017	2016	2015	2014 and earlier batches	Total
1	Biochemical Engineering	13	13	14	13	11	64
2	Biomedical Engineering	13	15	18	13	10	69
3	Ceramic Engineering	13	14	15	15	8	65
4	Chemistry	13	18	17	12	13	73
5	Civil Engineering	22	22	22	21	18	105
6	Computer Science and Engineering	21	17	17	17	17	89
7	Electrical Engineering	23	22	22	22	22	111
8	Materials Science and Technology	16	19	16	14	20	85
9	Mathematical Sciences	22	22	22	22	22	110
10	Mechanical Engineering	24	22	22	22	22	112
11	Metallurgical Engineering	16	22	18	16	21	93
12	Mining Engineering	13	20	18	19	8	78
13	Pharmaceutical Engineering and Technology	12	19	13	9	6	59
14	Physics	20	17	19	21	13	90
	Total	241	262	253	236	211	1203

### 2-Years M.Tech. students on roll

Sl. No.	Branch	2018	2017	Extended students	Total
1	Biochemical Engineering	9	9	0	18
2	Biomedical Engineering	8	7	0	15
3	Ceramic Engineering	14	10	1	25
4	Chemical Engineering	45	47	0	92
5	Civil Engineering	59	57	0	116
6	Electrical Engineering	37	40	0	77
7	Electronics Engineering	32	39	1	72
8	Industrial Management	7	8	0	15
9	Materials Science and Technology	18	10	0	28
10	Mechanical Engineering	31	39	7	77
11	Metallurgical Engineering	35	21	1	57
12	Mining Engineering	28	23	0	51
13	Systems Engineering	4	4	0	8
	Total	327	314	10	651

### 2-Years M.Pharm. students on roll

Sl. No.	Branch	2018	2017	Extended students	Total
1	Pharmaceutical Engineering and Technology	39	32	1	72
Total		39	32	1	72

### Ph.D. scholars on roll

Sl. No.	Branch	2018	2017	2016	2015	2014 and previous years	Total
1	Biochemical Engineering	10	7	3	2	5	27

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Sl. No.	Branch	2018	2017	2016	2015	2014 and previous years	Total
2	Biomedical Engineering	9	12	5	6	4	36
3	Ceramic Engineering	12	16	11	8	2	49
4	Chemical Engineering	14	13	10	11	16	64
5	Chemistry	19	20	8	11	3	61
6	Civil Engineering	27	14	17	10	3	71
7	Computer Science and Engineering	21	34	13	0	0	68
8	Electrical Engineering	8	8	6	7	13	42
9	Electronics Engineering	11	23	3	13	7	57
10	Humanistic Studies	8	2	2	4	0	16
11	Industrial Management	2	3	1	3	2	11
12	Materials Science and Technology	17	14	10	9	14	64
13	Mathematical Sciences	44	23	17	0	0	84
14	Mechanical Engineering	12	16	15	21	10	74
15	Metallurgical Engineering	15	15	7	8	6	51
16	Mining Engineering	11	7	8	13	11	50
17	Pharmaceutical Engineering and Technology	21	7	11	6	16	61
18	Physics	21	28	10	9	5	73
19	Systems Engineering	2	2	2	2	2	10
	Total	284	264	159	143	119	969

### **Students Intake in different programmes**

The Institute offered the following programmes in various departments/school. The Department/School-wise Intake is given below:

### Department/Programme-wise Intake capacity

COURSES		Students Intake							
COURSES		SC	ST	OBC	PC	Total			
Four-Years B.Tech. Programmes									
1. Ceramic Engineering	30	7	2	17	3	59			
2. Chemical Engineering	60	17	8	30	4	119			
3. Civil Engineering	42	14	7	24	3	90			
4. Computer Science & Engg.	34	10	2	20	3	69			
5. Electrical Engineering	41	13	6	24	3	87			
6. Electronics Engineering	43	14	7	23	3	90			
7. Mechanical Engineering	54	16	8	30	4	112			
8. Metallurgical Engineering	35	9	6	20	3	73			
9. Mining Engineering	55	16	8	29	0	108			
10. Pharmaceutical Engineering and Technology	34	9	5	19	2	69			
Total in 4 year B.Tech. / B.Pharm	428	125	59	236	28	876			



	GE		Students Intake					
		SC	ST	OBC	PC	Total		
44 p. 1 . 1p	Five-Years Integrated M.Tech. Dual Degree Programmes							
11. Biochemical Engineering with M.Tech. in Biochemical Engineering and Biotechnology	10	3	2	5	0	20		
12. Bioengineering with M.Tech. in Biomedical Technology	10	3	2	5	1	21		
13. Ceramic Engineering	11	3	2	5	1	22		
14. Civil Engineering with M.Tech. in Structural Engg.	11	3	2	5	1	22		
15. Computer Science & Engineering	9	3	1	5	1	19		
16. Electrical Engineering with M.Tech. in Power Electronics	10	3	2	5	1	21		
17. Engineering Physics	11	2	2	5	1	21		
18. Industrial Chemistry	10	3	1	5	1	20		
19. Materials Science & Technology	10	2	2	5	1	20		
20. Mathematics & Computing	10	3	2	5	0	20		
21. Mechanical Engineering	11	3	2	5	1	22		
22. Metallurgical Engineering	11	3	1	5	1	21		
23. Mining Engineering	12	3	2	5	0	22		
24. Pharmaceutical Engineering and Technology	9	3	2	5	1	20		
Total in 5 year Integrated M.Tech. / M. Pharm. Dual Degree	145	40	25	70	11	291		
Grand Total of UGD/IDD/IMD Courses	573	165	84	306	39	1167		
COLINGES		Students Intake						
COURSES	GE	SC	ST	OBC	PC#	Total		
Two-Years M.Tech. Programmes								
25. Ceramic Engineering	10	3	1	5	1	19		
26. Chemical Engineering	25	7	3	12	1	47		
27. Civil Engineering	33	10	5	17	2	65		
28. Electrical Engineering	25	7	3	12	1	47		
29. Electronics Engineering	25	7	3	12	2	47		
30. Mechanical Engineering	25	7	3	12	2	47		
31. Metallurgical Engineering	25	7	3	12	1	47		
32. Mining Engineering	15	4	2	8	1	29		
33. Biochemical Engineering	5	1	1	2	0	9		
34. Biomedical Engineering	5	1	1	2	0	9		
35. Materials Science & Technology	10	3	1	5	1	19		
36. Industrial Management	5	1	1	2	0	9		
37. Systems Engineering	5	1	1	2	0	9		
Two-Years M.Pharm. Programme								
38. Pharmaceutical Engineering and Technology	20	6	3	11	1	40		
Grand Total of 2-Years M.Tech. Courses	233	65	31	114	13	443		

<sup>#</sup> Student intake numbers for PC category has not been added in calculating total number of seats, as provision for the physically challenged candidate will be made from within the respective category.



#### Convocation

The 7<sup>th</sup> Convocation was held on December 29, 2018. Dr. G.Satheesh Reddy, Chairman, Defence Research and Development Organisation (DRDO), New Delhi was delivered the convocation address. A total of 1352 various degrees were awarded in 7<sup>th</sup> Convocation of the Institute. During Convocation, a total 782 candidates received degrees in person. The department-wise details of the degrees awarded are provided in Table.

# Degrees awarded

			'n.			Dual De	egree			n.	
Branch		M.Tech.	M.Pharm.	I.M.D.	B.Tech.	M.Tech.	B. Pharm.	M. Pharm.	B.Tech.	B.Pharm.	Total
Biochemical Engineering	6	8			10	10					34
Biomedical Engineering	2	5			10	10					27
Ceramic Engineering	4	10			10	10			30		64
Chemical Engineering	8	29							96		133
Chemistry	14			8							22
Civil Engineering	3	22			24	24			72		145
Computer Science & Engineering	11				15	15			60		101
Electrical Engineering	9	14			19	19			87		148
Electronics Engineering	10	26							80		116
Industrial Management	2	4									6
Materials Science & Tech.	4	8			16	16					44
Mathematical Sciences	14			20							34
Mechanical Engineering	8	24			18	18			107		175
Metallurgical Engineering	7	19			15	15			50		106
Mining Engineering		16			12	12			64		104
Pharmaceutics	10		29				13	13	8	1	74
Physics	7			11							18
Systems Engineering		1									1
TOTAL	119	186	29	39	149	149	13	13	654	1	1352

With this convocation, the total number of degrees awarded so far by the Institute is 39,347. Total 10,684 degrees awarded by IIT(BHU) and before conversion of IT-BHU into IIT(BHU), the IT-BHU was awarded total number of degrees is 28,663:

Cl No	Dura murana a	No. of degrees awarded					
Sl. No.	Programme	After conversion	Before conversion	Total			
1	Ph.D.	543	854	1,397			
2	M.Tech.	1,976	3,119	5,095			
3	M.Pharm.	344	653	997			
4	I.M.D.	264		264			
5	Dual Degree B.Tech.	1,017		1,017			
	M.Tech.	1,017		1,017			
6	Dual Degree B.Pharm.	76		76			
	M.Pharm.	76		76			



Sl. No.	Duo automono o	No.	of degrees awarded	
51. No.	Programme	After conversion	Before conversion	Total
7	B.Tech.	5,247	22,947	28,194
8	B.Pharm.	124	1,090	1,214
	Total	10,684	28,663	39,347

#### Award of Medals and Prizes to Students

# **Convocation prizes**

# Medals and Prizes awarded to students at the 7th Convocation:

1. Ms. Anubha Joshi

She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Biochemical Engineering Examination, 2018.

2. Ms. Bhawna Vermani

She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Biomedical Engineering Examination, 2018.

3. Shri Shailendra Kumar Singh

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Ceramic Engineering Examination, 2018.

4. Ms. Shubhi Gupta

She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Chemical Engineering Examination, 2018.

5. Shri Rahul Verma

He is awarded

- a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Civil Engineering Examination, 2018.
- b) R.P. Singh, IRSE (Retired) Gold Medal for securing highest marks at the M.Tech. in Civil Engineering Examination, 2018.
- 6. Ms. Aakriti Mishra

She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Electrical Engineering Examination, 2018.

7. Ms. Priya Kumari

She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Electronics Engineering Examination, 2018.

8. Shri Jaydeep Banik Mazumdar

He is awarded Sanjeev Memorial Gold Medal for securing First position at the M.Tech. in Electronics Engineering (Digital Technology and Instrumentation) Examination, 2018.

9. Shri Suchit Pandey

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Industrial Management Examination, 2018.

10. Shri Krishna Kant Dubey

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Materials Science and Technology Examination, 2018.



#### 11. Shri Arun Chand

He is awarded

- a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Mechanical Engineering Examination, 2018.
- b) Prof. (Dr.) Mahendra Kumar Jain Nyayacharya Gold Medal for securing highest CPI at the M.Tech. in Mechanical Engineering Examination, 2018.

# 12. Shri Sandeep

He is awarded S.K. Memorial Gold Medal for standing First position at the M.Tech. in Mechanical Engineering (Machine Design) Examination, 2018.

# 13. Shri Baljinder Kumar Badhan

He is awarded

- a) BENCO-64 Gold Medal for best thesis at the M.Tech. in Mechanical Engineering Examination, 2018
- b) BENCO-64 Cash Prize Rs. 25000/- for best thesis at the M.Tech. in Mechanical Engineering Examination, 2018

# 14. Shri Geetam Singh

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Metallurgical Engineering Examination, 2018.

# 15. Shri Jai Singh

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Mining Engineering Examination, 2018.

# 16. Shri Amitabh Kumar Singh

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Tech. in Systems Engineering Examination, 2018.

# 17. Ms. Smriti Gupta

She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the M.Pharm. Examination, 2018.

#### 18. Shri Naman Katyal

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year Integrated M.Tech. in Industrial Chemistry Examination, 2018.

#### 19. Shri Abhinav Gupta

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year Integrated M.Tech. in Mathematics and Computing Examination, 2018.

# 20. Shri Manuj Kumar Singh

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year Integrated M.Tech. in Engineering Physics Examination, 2018.

# 21. Shri Kartikeya Gupta

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Biochemical Engineering (Biochemical Engineering and Biotechnology) Examination, 2018.

# 22. Shri Abhinav D.R.P.

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Bioengineering (Biomedical Technology) Examination, 2018.

#### 23. Shri Lakshya Narula

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Ceramic Engineering Examination, 2018.



# 24. Shri Syed Kazim Abbas

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Civil Engineering (Structural Engineering) Examination, 2018.

### 25. Shri Kartik Manchanda

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Computer Science & Engineering Examination, 2018.

#### 26. Shri Aseem Gosain

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Electrical Engineering (Power Electronics) Examination, 2018.

# 27. Ms. Ishita Vyas

She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Materials Science & Technology Examination, 2018.

# 28. Ms. Kartika Ahuja

She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Mechanical Engineering Examination, 2018.

# 29. Ms. Varnita Bajpai

She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Metallurgical Engineering Examination, 2018.

# 30. Shri Abhash Shikhar

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Tech.-M.Tech.) in Mining Engineering Examination, 2018.

# 31. Ms. Juhi Singh

She is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the 5-Year I.D.D. (B.Pharm.-M.Pharm.) Examination, 2018.

### 32. Shri Veerendra Tyagi

He is awarded I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. in Ceramic Engineering Examination, 2018.

#### 33. Shri Manas Sinha

He is awarded:-

- a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. in Chemical Engineering Examination, 2018.
- b) The R.B.G. Modi Medal for standing First at the B.Tech. in Chemical Engineering Examination, 2018.
- c) Manishi Sharma Memorial Gold Medal for securing First position at B.Tech. Chemical Engineering Examination, 2018.
- d) Mrs. Gargi Devi Trivedi Memorial Gold Medal for securing highest marks in B.Tech. Chemical Engineering Examination, 2018.
- e) Prof. Y.D. Upadhya Memorial Gold Medal for securing highest CPI at B.Tech. Chemical Engineering Examination, 2018
- f) Dr. R.J. Rathi Financial Award Rs. 1000/= cash for standing First at the B.Tech. in Chemical Engineering Examination, 2018.
- g) Manishi Sharma Memorial Cash Prize Rs. 2000/= for securing First position at the B.Tech. in Chemical Engineering Examination, 2018.



#### 34. Shri Prakhar Doorwar

He is awarded Prof. B.B. Bansal Memorial Gold Medal for being involved in Social Services/Co-curricular activities and having highest CPI at the undergraduate engineering Examination, 2018 among such students.

#### 35. Ms. Tannya Maurya

She is awarded Smt. Indira Tripathi Gold Medal for securing highest CPI among the girl students at the B.Tech. in Chemical Engineering Examination, 2018.

# 36. Shri Aman Gupta

He is awarded:-

- a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. in Civil Engineering Examination, 2018.
- b) CRS Iyengar Memorial Gold Medal for securing highest marks in B.Tech. 4-Year Civil Engineering Examination, 2018.
- c) Rai Bahadur Taracharan Gue Memorial Award Rs. 500/= cash for standing First at the B.Tech. in Civil Engineering Examination, 2018.
- d) Late Prof. Manoranjan Sengupta Platinum Jubilee Merit Award Rs. 1000/= cash for securing highest marks in B.Tech. in Civil Engineering Examination, 2018.
- e) Meenakshamma Shankaranaramappa Prize Rs. 500/= cash for securing highest marks in Environmental Engineering (Theory) at the B.Tech. Civil Engineering Examination, 2018.

# 37. Ms. Shreya Pandey

She is awarded Smt. Indira Tripathi Gold Medal for securing highest CPI at the B.Tech. in Civil Engineering Examination, 2018.

# 38. Shri Shubham Chaudhary

He is awarded:-

- a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. in Computer Science & Engineering Examination, 2018.
- b) C. Raja Gopal Memorial Gold Medal for securing highest marks in B.Tech. 4-Year Computer Science & Engineering Examination, 2018.

#### 39. Ms. Isha Agarwal

She is awarded Smt. Indira Tripathi Gold Medal for securing highest CPI among the girl students at the B.Tech. in Computer Science & Engineering Examination, 2018.

### 40. Shri Ankush Bansal

He is awarded:-

- (a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. in Electrical Engineering Examination, 2018.
- (b) The R.B.G. Modi Medal for standing First at the B.Tech. in Electrical Engineering Examination, 2018.
- (c) Himmat Narayan Singh Memorial Gold Medal for securing the First position and First Division in B.Tech. Electrical Engineering Examination, 2018.
- (d) CRS Iyengar Memorial Gold Medal for securing highest marks in B.Tech. 4-Year Electrical Engineering Examination, 2018.
- (e) N.V.R. Nageshwar Iyer (Prize Rs. 100/= in the form of books) for standing First in B.Tech. in Electrical Engineering Examination, 2018.
- (f) Prof. V.V. Chalam Prize (The Prize shall be in the form of books by Mr. J. Krishnamurti) for standing Second position among all the branches of B.Tech. Examination, 2018.
- (g) Late Prof. Manoranjan Sengupta Platinum Jubilee Merit Award Rs. 1000/= cash for securing highest marks in the B.Tech. in Electrical Engg. Examination, 2018.



#### 41. Ms. Rashi Chandola

She is awarded Smt. Indira Tripathi Gold Medal for securing highest CPI among the girl students at the B.Tech. in Electrical Engineering Examination, 2018.

# 42. Shri Ram Pal Singh

He is awarded:-

- a) President's Gold Medal for outstanding performance in academics among all disciplines of B.Tech. Examination 2018.
- b) I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. in Electronics Engineering Examination, 2018.
- c) Lala Balak Ramji Kohinoor Memorial Gold Medal for securing highest marks at the B.Tech. Examination, 2018 among the branches of Civil, Mechanical, Electrical and Electronics Engineering.
- d) Late Shri Shyam Sunder Lal Razdan Memorial Gold Medal for securing highest percentage of marks in B.Tech. Examination, 2018.
- e) Late Prof. Nagesh Chandra Vaidya Gold Medal for standing First at the B.Tech. in Electronics Engineering Examination, 2018.
- f) Prof. Gopal Tripathi Memorial Gold Medal for securing highest marks at the B.Tech. Examination, 2018.
- g) Dr. (Late) Nandita Saha Roy Memorial Gold Medal for securing First position in B.Tech. Electronics Engineering Examination, 2018.
- h) Smt. Arati Paul and Prof. Binod Bihari Paul Gold Medal for securing highest marks in IV Year Examination among all the students of B.Tech. Exam., 2018.
- i) C. Raja Gopal Memorial Gold Medal for securing highest marks in B.Tech. 4-Year Electronics Engineering Examination, 2018.
- i) Umesh Pratap Singh Gold Medal for First Rank at the B.Tech. Examination, 2018 among all the branches.
- k) Shri Raj Kishore Kapoor Silver Medal for securing highest marks at the B.Tech. Examination, 2018.
- l) Dr. Annie Besant Prize (in the forms of books by Dr. Annie Besant including copy of the 'Bhagavadgita') for standing First position among all the branches of B.Tech. Examination, 2018.
- m) Dr. Ayyagari Sambasiva Rao Prize Rs. 1000/= cash for standing First at the B. Tech. in Electronics Engineering Examination, 2018.
- n) Late Prof. Manoranjan Sengupta Platinum Jubilee Merit Award Rs. 1000/= cash for securing highest marks in B.Tech. in Electronics Engg. Examination, 2018.

# 43. Ms. Meenal Baheti

She is awarded Prof. A.K. Ghosh Silver Medal for standing Second Position in B.Tech. in Electronics Engineering Examination, 2018.

### 44. Shri Thacker Parth Paresh

He is awarded:-

- (a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. in Mechanical Engineering Examination, 2018.
- (b) The Prince of Wales Medal for standing First at the B.Tech. in Mechanical Engineering Examination, 2018.
- (c) Sudhir Kumar Sharma Memorial Gold Medal for securing highest marks in B.Tech. Mechanical Engineering Examination, 2018.
- (d) CRS Iyengar Memorial Gold Medal for securing highest marks in B.Tech. 4-Year Mechanical Engineering Examination, 2018.
- (e) Late Prof. Manoranjan Sengupta Platinum Jubilee Merit Award Rs. 1000/= cash for securing highest marks in B.Tech. in Mechanical Engg. Examination, 2018.



#### 45. Ms. Srishti Shukla

She is awarded Smt. Indira Tripathi Gold Medal for securing highest CPI among the girl students at the B.Tech. in Mechanical Engineering Examination, 2018.

#### 46. Shri Anitya Gupta

He is awarded:-

- a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. in Metallurgical Engineering Examination, 2018.
- b) Swarnamma Memorial Gold Medal for securing highest marks in B.Tech. 4-Year Metallurgical Engineering Examination, 2018.

#### 47. Ms. Swati Rai

She is awarded Smt. Indira Tripathi Gold Medal for securing highest CPI among the girl students at the B.Tech. in Metallurgical Engineering Examination, 2018.

#### 48. Shri Dhiraj Kumar Mahato

He is awarded Ms. Indira Ananthachari Endowment Fund Prize Rs. 10,000/= cash for securing highest CPI more than 7.50 and family income is less than Rs. 5 lacs per annum at the B.Tech. Metallurgical Engineering Examination, 2018.

# 49. Shri Mohit Gupta

He is awarded Ms. Indira Ananthachari Endowment Fund Prize Rs. 10,000/= cash for securing highest CPI more than 7.50 and family income is less than Rs. 5 lacs per annum at the B.Tech. Metallurgical Engineering Examination, 2018.

# 50. Shri Rajnish Kumar

He is awarded Ms. Indira Ananthachari Endowment Fund Prize Rs. 10,000/= cash for securing highest CPI more than 7.50 and family income is less than Rs. 5 lacs per annum at the B.Tech. Metallurgical Engineering Examination, 2018.

# 51. Shri Akash Chaurasia

He is awarded:-

- a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. in Mining Engineering Examination, 2018.
- b) The Bishan Das Basil Medal for securing Fist position among B.Tech. in Mining and Metallurgical Engineering Examination 2018.
- c) Dr. B.S. Verma Memorial Gold Medal for securing highest marks in B. Tech. Mining Engineering Examination, 2018.

#### 52. Shri Zille Ali

He is awarded:-

- a) I.I.T.(B.H.U.) Varanasi Medal for standing First at the B.Tech. Pharmaceutical Engineering & Technology Examination, 2018.
- b) Aruna and Malviya Medal for standing First at the B.Tech. Pharmaceutical Engineering & Technology Examination, 2018.
- c) Late Prof. G.P. Srivastava (Prize Rs. 200/= in the form of books) for standing First at the B. Tech. Pharmaceutical Engg. & Technology Examination, 2018.

#### 53. Shri Amod Hegde

He is awarded Director's Gold Medal for outstanding all-round performance and excellent organizational abilities and leadership qualities among all B.Tech. graduates of 2018.



# 6. Department of Ceramic Engineering

Year of Establishment: 1924

Head of the Department: Prof. D. Kumar (w.e.f. 14.03.2016)

# 1. Brief Introduction of the Department:

The founder of Banaras Hindu University, Pandit Mandan Mohan Malviyaji instituted courses in Glass and Ceramic Technology as early as 1924 with the noble objective of advancing glass and ceramic technology in India. The Department offers B. Tech, B. Tech - M. Tech. (Dual Degree), M. Tech. and Ph. D. degrees in Ceramic Engineering. M. Tech. and Ph. D. programs are interdisciplinary and are also open to those students of allied branches of Engineering and Sciences, who qualify GATE or NET.—Sponsored candidates from industries and R&D organization are also admitted in the PG Programs. The Department is pursuing active research in the emerging areas of glass, glass ceramics, bio-glass and bio-glass ceramics, refractories, ceramic white-wares, pottery & porcelain, cement, electrical and electronic ceramics. Research papers are being published in reputed national and international Journals regularly.

The Department regularly works in collaboration with Academic and Research institutions, National Laboratories and various Ceramic industries through regular contacts, visits, seminars, symposia, workshops and conferences. The Department has also been rendering technical advice and consultancy to the industries under Industrial Consultancy and Testing Services of the Institute from time to time. The contribution of this very Department of Ceramic Engineering during past is unparallel to the entire industrial, research and development and educational areas in the country. The Department is having number of projects funded by different government and private organization. For enhancing collaboration with Academic and Research Institutions globally, the Department has MOU with University of Connecticut and Oklahoma USA, to create research and testing facilities for industrial development established IIT (BHU) – IRMA Centre of Excellence for Refractory with participation of Industrial Organizations and to work for technology up-gradation and support for Small and Medium sized ceramic and glass industries created Mahamana Glass and Ceramic Technology Skill Development Centre.

# 1. Teaching programs

- 4 Years B. Tech. Ceramic Engineering
- 5 Years B. Tech. M. Tech. Dual Degree (IDD), Ceramic Engineering
- 2 Years M. Tech. Ceramic Engineering
- Ph.D. Ceramic Engineering

# **2.** Workshops/ Symposia conducted If any:

• 3rd National Conference on Materials for energy conversion and storage, MECS-2018 dated 18-20.10.2018, Convener: Dr. Preetam Singh, Chairman: Prof. Rajiv Prakash

#### 3. Publications:

1

Rishikesh Yadav, Vijay Kumar & Vipul Saxena & Prabhakar Singh & Vinay Kumar Singh Two-step synthesis of reduced graphene oxide with columnar-shaped ZnO composites and their photocatalytic performance with natural dye

Received: 6 May 2018 / Revised: 2 November 2018 / Accepted: 13 December 2018

# Australian Ceramic Society 2019



2	Shukdev Pandey, Devendra Kumar, Om Parkash and Lakshman Pandey Impedance Spectroscopy: A Powerful Technique for Study of Electronic Ceramics DOI: http://dx.doi.org/10.5772/intechopen.81398 in Ceramic Materials; Synthesis, Characterization, Applications and Recycling. Ed. Dolores Eliche Quesada, Intech Open (2019). DOI: 10.5772/intechopen.75375, ISBN: 978-1-78985-774-0, Print ISBN: 978-1-78985-773-3
	Abhishek Dwivedi, Ekta Rai, Devendra Kumar, and Shyam B. Rai
3	Effect of Synthesis Techniques on the Optical Properties of Ho <sup>3+</sup> / Yb <sup>3+</sup> Co-doped YVO <sub>4</sub> Phosphor: A Comparative Study, ACS Omega 4 (2019) 6903-6913 DOI:10.1021/acsomega.8b03606
	P. Tripathi, P. Kumari, R. Singh, B. Sahu, S.P. Singh, and D. Kumar
4	Cylindrical Dielectric Resonator Antenna Excited by a Composite Feed to Generate Monopole Like Radiation Characteristics, J. of Electronic Materials, 48, No. 2, (2019)1184–1195 doi.org/10.1007/s11664-018-06852-6
	Anbesh Jamwal, Prem Prakash, Devendra Kumar, Neera Singh, Kishor K Sadasivuni, Kumar Harshit, Sumit Gupta and Pallav Gupta
5	Microstructure, wear and corrosion characteristics of Cu matrix reinforced SiC-graphite hybrid composites, Journal of Composite Materials, (2019) 1–9, DOI: 10.1177/0021998319832961
6	Nandini Jaiswal, Khagesh Tanwar, Rathod Suman, Devendra Kumar, Shail Upadhyay, and Om Parkash A brief review on ceria based solid electrolytes for solid oxide fuel cells J. Alloys and Compounds 781 (2019) 984-1005; doi. org/10.1016/j.jallcom.2018.12.015
	Alok Singh Verma, Devendra Kumar and Ashutosh Kumar Dubey
7	Dielectric and electrical response of Hydroxyapatite - Na <sub>0.5</sub> K <sub>0.5</sub> NbO <sub>3</sub> bioceramic composite, Ceramics International 45 (3) (2019), 3297-3305; DOI: 10.1016/j.ceramint.2018.10.240
	Pankaj Tripathi, Preeti Kumari, B. Sahu, S. P. Singh, D. Kumar
8	Effect of PbO-B <sub>2</sub> O <sub>3</sub> -BaO-SiO <sub>2</sub> glass additive on dielectric properties of Ba <sub>0.5</sub> Sr <sub>0.5</sub> TiO <sub>3</sub> ceramics for radio frequency applications J. Phys. and Chem. of Solids 127, (2019), 60-67; doi.org/10.1016/j.jpcs.2018.12.006
	Shukdev Pandey, Om Parkash and Devendra Kumar
9	"Structural, Delectric and Impedance Spectroscopic Studies on Fe Doped BaTiO3"
	Trans. Ind. Ceram. Soc., 77 (4), (2018), 209-218; doi.org/10.1080/0371750X.2018.1526653
	Abhishek Dwivedi, Devendra Kumar and S. B. Rai
10	Monochromatic NIR UC emission in Tm3+/Yb3+ co-doped GdVO4 phosphor: Effect of Bi3+ ion concentration and pump power of diode laserOpt. Lett. 43(23), (2018) 5785-5788; doi.org/10.1364/OL.43.005785
	Alok Singh Verma, Devendra Kumar, Ashutosh Kumar Dubey
11	A review of an innovative concept to increase the toughness of the ceramics by piezoelectric secondary phases, Ceramics International 44, Issue 14, (2018), 16119-16127; https://doi.org/10.1016/j.ceramint.2018.06.063
	N Singh, O Parkash, D Kumar
12	Wear Behavior of ZrO <sub>2</sub> Particle Reinforced (Fe,Ni) Matrix Composite
	Proc. of the 7th International Conference on Fracture Fatigue and Wear, FFW (2018), pp 682-690, 9-10 July 2018, Ghent University, Belgium Ed. Magd Abdel Wahab
	Pallav Gupta, Devendra Kumar, Om Parkash, A.K. Jha, Kishor Kumar Sadasivuni
13	Dependence of wear behavior on sintering mechanism for Iron-Alumina Metal Matrix Nanocomposite, Materials Chemistry and Physics 220 (2018) 441–448; doi.org/10.1016/j.matchemphys.2018.08.079 R
14	Khagesh Tanwar, Deepankar Sri Gyan, Prashant Gupta, Shukdev Pandey, Om Parkash and Devendra Kumar, Investigation of crystal structure, microstructure and low temperature magnetic behavior of Ce <sup>4+</sup> and Zn <sup>2+</sup> codoped barium hexaferrites (BaFe <sub>12</sub> O <sub>19</sub> ) RSC Advances 8, (2018), 19600; DOI: 10.1039/c8ra02455c
	Pankaj Tripathi, Preeti Kumari, B. Sahu, Rahul Singh, S. P. Singh, D. Kumar,
15	Filleted RDRA using novel ceramic dielectric (3G-BST) with stable gain and improved bandwidth for X-band application, Ceramics International 44 (2018) 5045–5054; doi.org/10.1016/j.ceramint.2017.12.103
16	Preeti Kumari, Pankaj Tripathi, Bhagirath Sahu, S P Singh, Devendra Kumar, Four element composite triangular dielectric resonator antenna using Li <sub>2</sub> O-1.94MgO-0.02Al <sub>2</sub> O <sub>3</sub> -P <sub>2</sub> O <sub>5</sub> ceramic for wideband applications, J. Electronic Materials 47 (9), (2018) 5218-5228· doi.org/10.1007/s11664-018-6384-5
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17	Khagesh Tanwar, Nandini Jaiswal, Pulkit Sharma, Devendra Kumar, Om ParkashStructural analysis of Ce0.83Dy0.14Ca0.03O1.90 (CDC) and enhanced electrical conductivity of its composites with alkali carbonates for LT-SOFCs
	J. Alloys and Compounds741 (2018) 532-541, doi.org/10.1016/j.jallcom.2018.01.128
18	Niraj Singh Mehta, JC Pandey, Neeraj Pandey, Ram Pyare, Manas Ranjan Majhi, Developing a high strength physico-mechanical and electrical properties of ceramic porcelain insulator using zirconia as an additive, Materials Research Express (2018), 5, 075202.
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20	A nano-wrinkled Zn0.92Fe0.08O Thin Film Developed using a high rpm electro-spin pattering technique via solgel route for methane sensing, Brij Bansh nath Anchal, Preetam Singh and Ram Payre, Chemistry Select (2018),3, 11881-11889.
21	Ali, Akher, et al. Studies on effect of CuO addition on mechanical properties and in vitro cytocompatibility in 1393 bioactive glass scaffold. Materials Science and Engineering: C 93 (2018): 341-355.
22	Anchal, Brij Bansh Nath, Preetam Singh, and Ram Pyare. "(UPCON) Fabrication of electro-spin coated Zn 0.97 Fe 0.03 O nano-rough thin film and application in LPG sensing* Spin coated thin film using in LPG detection." 2018 5th IEEE Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON). IEEE, 2018.
23	Ershad, M., Vyas, V. K., Prasad, S., Ali, A., & Pyare, R. (2018). Effect of Sm $_2$ O $_3$ substitution on mechanical and biological properties of 45S5 bioactive glass. Journal of the Australian Ceramic Society, 1-10.
24	Mehta, N. S., Sahu, P. K., Ershad, M., Saxena, V., Pyare, R., & Majhi, M. R. (2018). Effect of ZrO <sub>2</sub> on the sintering behavior, strength and high-frequency dielectric properties of electrical ceramic porcelain insulator. Materials Research Express,5(2018),015202.
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27	Niraj Singh Mehta , Praveen Kumar Sahu,MdErshad, VipulSaxena,RamPyare and Manas RanjanMajhi" Effect of ZrO2 on the sintering behaviour, strength and high-frequency, Dielectric properties of electrical ceramic porcelain insulator'Mater. Res. Express 5 (2018)15202-11
28	Niraj Singh Mehta , ,Ram Pyare andManas RanjanMajhi"Developing a high strength physico-mechanical and electrical properties of ceramic porcelain insulator using zirconia as an additive"(2018)Materials Research Express
29	Deepshikha Shekhawat, P. K. Roy, "Influence of cobalt substitution on physical & electro-magnetic properties of SrAl <sub>4</sub> Fe <sub>8</sub> O <sub>19</sub> hexa-ferrite", Materials Chemistry and Physics, 229 (2019) 183-189
30	SK S. Hossain, Lakshya Mathur, Aman Bhardwaj, P.K. Roy, "A facile route for the preparation of silica foams using rice husk ash" International Journal of Applied Ceramic Technology 16 (2019) 1069-1077.
31	SK S Hossain, P. K. Roy, "Fabrication of sustainable insulation refractory: Utilization of different wastes" Journal: Bulletin of the Spanish Society of Ceramics and Glass (Accepted).
32	Deepshikha Shekhawat, Akhilesh Kumar Singh, P. K. Roy, "Structural and electro-magnetic properties of high (BH)max La-Sm substituted Sr-hexaferrite for brushless DC electric motors application" Journal of Molecular Structure 1179 (2019) 787-794.
33	Deepshikha Shekhawat, P. K. Roy, "Impact of yttrium on the physical, electro-magnetic and dielectric properties of auto-combustion synthesized nanocrystalline strontium hexaferrite" Journal of Materials Science: Materials in Electronics, 30(2) (2019) 1187-1198.
34	SK S Hossain, P. K. Roy, "Manufacturing of green building bricks: Utilization of different wastes for construction purpose" Journal of Material Cycles and Waste Management 21(2) (2019) 281-292.
35	SK S Hossain, Lakshya Mathur, P. K. Roy, "Rice husk/rice husk ash as an alternative source of silica in ceramics: A review", Journal of Asian Ceramic Societies 6 (4) (2018) 299–313.



36	SK S Hossain, P. K. Roy, "Studies on physical and dielectric properties of bio-wastes derived synthetic wollastonite" Journal of Asian Ceramic Societies, 6(3) (2018) 289–298.
37	Lakshya Mathur, SK Saddam Hossain, Manas R Majhi, P. K. Roy, "Synthesis of nano-crystalline forsterite ( $Mg_2SiO_4$ ) from biomass rice husk powder silica by solid-state route", Journal: Bulletin of the Spanish Society of Ceramics and Glass, 57(3) (2018) 112-118.
38	Abhinav Saxena, Shivam Gupta, Bhupendra Singh and Ashutosh Kumar Dubey (2019) Improved functional response of spark plasma sintered hydroxyapatite based functionally graded materials: An Impedance Spectroscopy Perspective, Ceramic International, 45 (6), 6673-6683.
39	Abhinav Saxena and Ashutosh Kumar Dubey (2019) Coupling of living cells with external electrical stimulation: A computational study, Journal of Physics D: Applied Physics, 52, 015401.
40	A. S. Verma, D. Kumar and Ashutosh Kumar Dubey (2019) Dielectric and electrical response of Hydroxyapatite - Na <sub>0.5</sub> K <sub>0.5</sub> NbO <sub>3</sub> bioceramic composite, Ceramic International, 45,3297-3305.
41	Ravi Kumar K., B. Basu and Ashutosh Kumar Dubey (2019) Analysis of Electrical Analogue of a Biological Cell and Its Response to External Electric Field, Regenerative Engineering and Translational Medicine, 5 (1), 10-21.
42	Ashutosh Kumar Dubey, Yuto Oyama and Ken-ichi Kakimoto (2018) Surface charge-assisted synthesis of ZnO on polarized BaTiO <sub>3</sub> substrate, Ionics, 25(3), 1351-1358.
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44	A. S. Verma, D. Kumar and Ashutosh K. Dubey (2018) A review of an innovative concept to increase the toughness of the ceramics by piezoelectric secondary phases, Ceramic International, 44 (14), 16119-16127.
45	Angraj Singh and Ashutosh K. Dubey (2018) Various biomaterials and techniques for improving antibacterial response, ACS Applied Biomaterials, 1 (1), 3-20.
46	BrijBanshNathAnchal, Preetam Singh and Ram Pyare, A nano-wrinkled Zn0.92fe0.080 Thin Film Developed using a High-RPM Electro-spin patterning Technique via sol-gel route for Methane Sensing, ChemistrySelect, 2018(3)11881-11889
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48	BrijBanshNathAnchal, Preetam Singh and Ram Pyare, Fabrication of Electro-spin Coated Zn0.97Fe0.03O Nanorough thin film and application in LPG sensing, MateriasToday: Proceeding (2019) accepted.
49	P. Kameswara Rao, b, Premanshu Jana, Md. Imteyaz Ahmad , P. K. Roy, Synthesis and Characterization of Zirconia Toughened Alumina Ceramics Prepared by Co-precipitation Method, Ceram. Int. (Accepted) 2019.
50	Sanjay Kumar, M. S. Pradeepkumar, Akansha Dwivedi, Md. Imteyaz Ahmad, Ba <sub>1-x</sub> Sr <sub>x</sub> TiO <sub>3</sub> -Cu Composites for Electronic Packaging, J. of Mater. Sci. Mater. Electron. 2019. DOI: 10.1007/s10854-019-01231-1
51	Sunil Meti, M R Rahman, Md. Imteyaz Ahmad, Udaya Bhat K, Chemical free synthesis of graphene oxide in the preparation of reduced graphene oxide-zinc oxide nanocomposite with improved photocatalytic properties, Appl. Surf Sci., 45 (2018) 67-75.
52	Ghosh, S. K.; Yadav, V. S.; Das, S.; Bhattacharyya, S.; TunableGraphene Based Metasurface for Polarization-Independent Broadband Absorption in Lower Mid Infrared (MIR) Range IEEE Transactions on Electromagnetic Compatibility, (2019) DOI: 10.1109/TEMC.2019.2900757.
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54	Bhattacharyya, R.; Roy, S.; Prakash, O.; Singh, A. P.; Bhattacharyya, T. K.; Maiti, P.; Bhattacharyya, S.; Das, S.; Mg <sub>0.5</sub> Zn <sub>0.5</sub> Fe <sub>2</sub> O <sub>4</sub> -polyurethane thin nanocomposite coating as broadband microwave absorber, Springer Nature Applied Sciences, (2019) 1, 38. doi.org/10.1007/s42452-018-0041-8.
55	Kuila, B. K.; Zaeem, S. M.; Daripa, S.; Kaushik, K.; Gupta, S. K.; and Das, S.; Mesoporous $\mathrm{Mn_3O_4}$ coated reduced graphene oxide for high-performance supercapacitor applications. Materials Research Express (2019) 6 (1), 015037.
56	Bhattacharyya, S.; Yadav, V. S.; Ghosh, S. K.; and Das, S.; Wideband Tunable Mid-infrared Cross-polarization Converter Using Monolayered Graphene-Based Metasurface over A Wide Angle of Incidence, IET Microwaves, Antennas & Propagation, (2018) DOI: 10.1049/iet-map.2018.5373.



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# 3.1 Books & Books Chapters [Authors, Title, Publisher, Year, ISBN no].: Nil

# Major areas of Research:

- ➤ Glass and Glass Ceramics
- Refractories
- > Electrical and Electronic Ceramics
- > Cement and Advanced Building Materials
- ➢ Bio Ceramics
- > Ceramic Micronutrients



- Energy Materials; Fuel cell, Solar cell, and Batteries
- Ceramic Waste Management
- ➤ Ultra High Temperature & Light Weight Ceramics

# Area of the Department/School (in square meters): $\sim 5000 \text{ m}^2$ Infrastructure

S. No.	Particulars	Number
1	No. of Classrooms	2
2	No. of Lecture Halls	2
3	No. of Laboratory	8
4	No. of Computers available for students in the Department/School/ School	25

# **Unique Achievement / Preposition of the Department/School:**

# 3. Academic Programmes offered

New Courses Introduced (From 1st April 2018 to 31st March 2019)

S. No.	Course Code	Course name	Course credit
1	MCR 304	Ceramic Processing	9
2	MCR 305	Cement and Concrete	11

# **Students on Roll** (From 1st April 2018 to 31st March 2019)

(*Please give No. of students only in respective years*)

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1.	B. Tech	52	48	49	41	-
2.	Dual Degree	14	14	15	17	10
3.	M. Tech	14	11	-	-	-
4.	Ph. D (Under Institute Fellowship)	12	13	13	5	3
5.	Ph. D (Under Project Fellowship)	3	-	-	-	-
6.	Ph. D (Under Sponsored Category)	-	-	-	-	-

# Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/ Workshop	Date & Venue	Financial Assistance From		
ÌNDIA							
1	Sushma Yadav	16031011	ANA 2018- National Conference on Advanced Nanomaterials and their Applications	Date- 21-23 Dec 2018, MNNIT ALLAHABAD, Prayagraj	IIT (BHU) varanasi		
2	Sushma Yadav	16031011	ICRACM 2019- Sixth International conference on Recent Advances in Composite Materials	Date- 25-28February 2019. IIT BHU, Varanasi	IIT (BHU) varanasi		
ABRO	ABROAD						
	-	-	-	-	-		



Names of students/scholars who got prizes and awards outside the Institute (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of Prize	Date & Venue	Prize awarded by	
	-	-	-	-	-	

# Names of scholars/students who won Convocation/Institute Day prizes (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of Prize	Prize awarded by
1	Mr. Veerendra Tyagi		Medal	IIT(BHU)
2	Mr. Lakshya Narula		Medal	IIT(BHU)
3	Mr. Shailendra Kumar Singh		Medal	IIT(BHU)

# Names of Students/Scholars who went for foreign Internship (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
	-	-	-	-	-	-

# Faculty & their Activity

# Faculty and their areas of specialisation

S. No.	Name, Qualifications, Employee No.	Date of award of PhD Degree	Major Areas of Specialization (Max. 3 Areas)
PROFESSORS			
1	Prof. Devendra Kumar, 13690	1980	Materials Science: Glass, Ceramic & Glass Ceramic Technology
2	Prof. Ram Pyare, 13694	1981	Glass Science & Technology, Ceramic Technical Analysis,Bio-ceramic
3	Prof. Vinay Kumar Singh, 17365	1994	Bio-Ceramics, Cements, Dental Materials, Glass, Refractories
ASSOC	TATE PROFESSORS		
1	Dr. Anil Kumar, 16730	1991	Glass Technology & Furnaces
2	Dr. Kalyani Mohanta, 18361	2003	Powder Processing, Fabrication of Advanced Ceramics, Composite Materials and Cermet
3	Dr. M. R. Majhi, 18295	2012	Refractory Technology, Bio Ceramics, Composite Material
ASSIST	ANT PROFESSORS		
1	Dr. P. K. Roy, 19780	2009	Magnetic & Ferroelectric Ceramics, Varistors, Size dependent properties of Nano Materials
2	Dr. Ashutosh Kumar Dubey, 50037	2012	Piezoelectric Biomaterials, Functionally graded materials, Nanoporous bioceramics
3	Dr. Akansha Dwivedi, 50039	2010	Electronic Ceramics & composites for energy storage, multifunctional oxide electronics, multilayer Capacitors and Actuators
4	Dr. Mohammad Imteyaz Ahmad, 50043	2009	Inorganic photovoltaic materials, Composites, Material Processsing



S. No.	Name, Qualifications, Employee No.	Date of award of PhD Degree	Major Areas of Specialization (Max. 3 Areas)
5	Dr. Preetam Singh, 50042	2010	Energy Materials, Rechargeable Battery, Fuel Cells
6	Dr. Santanu Das, 50055	2012	Synthesis, Properties, and Applications of Functional Nanomaterials,
Senior S	Scientific Officer		
1.	Dr. Sudama Singh, 18991	1992	Pollution Control and Refractory
2.	Dr. R. K. Chaturvedi, 18989	1991	Corrosion and Glass Nutrients
Institut	e Professors		
1.	Dr. S. P. Singh	1979	Glass and Bio Ceramics
2.	Dr. Om Parkash	1977	Electroceramics
Disting	uished Professors		
1			
Emeritu	is Professors		
1			
Guest F	aculty		
1	Prof. V. K. Singh		Cement
2	Prof. R. K. Sinha		Refractory
3	Mr. Amar Nath		Fuel and Furnace, Cement
Visiting	Faculty		
1	Prof. R. N. Singh, University of Alabama, USA		
DST IN	SPIRE Faculty		
1			

# **Technical and Non-Teaching Staff**

Sl. No.	Name, Qualifications	Designation, Employee No.	Date of Appointment in the department
1	Shri R. K. Sharma Intermediate	Senior Technical Superintendent Gr II, 16662	22.12.1989
2	Shri I. A. Khan Intermediate	Senior Technical Superintendent Gr II, 16665	08.01.1990
3	Shri Bhagmal Singh Intermediate	Senior Technical Superintendent Gr II, 16655	12.01.1990
4	Shri Munna Lal High School	Senior Technical Superintendent 11551	08.09.1982
5	Shri Mansha Ram Intermediate	Senior Technical Superintendent 13712	28.05.1987
6	Shri Madan Kumar Intermediate	Senior Technical Superintendent 13710	22.02.1985
7	Shri Pankaj Kumar Singh Intermediate	Senior Technical Superintendent 18750	15.12.2008
8	Shri Ram Pyare Intermediate	Technical Superintendent 13715	28.08.1987
9	Shri Subash Singh Intermediate	Technical Superintendent 13723	15.10.1998
10	Shri Barun Kumar Singh Intermediate	Junior Technical Superintendent 13722	15.10.1998
11	Shri Kashi Nath Vishwakarma Intermediate	Junior Technical Superintendent 13721	08.01.1997
12	Shri Shiv Jatan Intermediate	Junior Technical Superintendent 14203	12.08.1991



Sl. No.	Name, Qualifications	Designation, Employee No.	Date of Appointment in the department
13	Shri P. K. Bhaduri Intermediate	Senior Technician 16739	21.08.1982
14	Shri Gopal Yadav Intermediate	Junior Technical Superintendent 16213	20.04.1995
15	Shri Raj Kumar Mishra Intermediate	Senior Technician 18656	05.08.2008
16	Shri Ashish Tripathi Intermediate	Senior Technician 19607	21.07.2012
17	Shri Raj Kumar Singh Intermediate	Senior Technician 13545	1.4.1981
18	Shir Vinod Kumar High School	Junior Technical Superintendent 13707	16.05.1997
19	Shri Pawan Kumar, Post Graduation	Junior Superintendent 50165	08.08.2017
20	Shri Shailendra Kumar, Post Graduation	Junior Assistant 50093	08.05.2017

# Short-term courses/workshops/seminars/symposia/conferences organised by faculty members (From 1st April 2018 to 31st March 2019)

S. No.	Cordinator	Title	Period
1	Dr. Preetam Singh	3 <sup>rd</sup> National Conference on Materilas for Energy Conversion and Storage MECS-2018	18-20 oct.2018 IIT (BHU) Varaansi

# Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Title	Period and Venue
Seminar	rs/Symposia/Conferences		
1	Prof. Vinay Kumar Singh	To develop biodegradable Mg based metal ceramic composites as bone implant material,International Conference on Recent Innovations in Engineering and Technology (ICRIET),	Pattaya, Thailan 22nd - 23rd October,2018
2	Dr. P. K. Roy	Mechanical Properties and Deformation Behaviour of Structural Materials	27 <sup>th</sup> August to 1 <sup>st</sup> September, 2018 at I.I.T. (BHU)
3	Dr. M. R. Majhi	To develop porcelain ceramic bodies doped with ZrO <sub>2</sub> and TiO <sub>2</sub> for improvement of its physical and mechanical strength	22-23 oct.2018Pattaya, Thailand
	Dr. Preetam Singh	3 <sup>rd</sup> National Conference on Materilas for Energy Conversion and Storage MECS- 2018	18-20 oct.2018 IIT (BHU) Varaansi
4		Indo-UK Newton-Bhabha Workshop on "Electrochemical Routes to Energy Storage, Energy Conversion and Fuel Production	9 <sup>th</sup> -13 <sup>th</sup> Dec 2018 JNCASR Bangalore
		Second International Meeting on the Clean Energy Materials Innovation Challenge	21st-22nd February, 2019, IIT- Delhi
5	Prof. Ram Pyare	3 <sup>rd</sup> National Conference on Materilas for Energy Conversion and Storage MECS- 2018	18-20 oct.2018 IIT (BHU) Varaansi
Meeting	gs		
1	-	-	-



# Special lectures delivered by faculty members in other institutions (From 1st April 2018 to 31st March 2019)

S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
1	Ashutosh Kumar Dubey	Ferroelectric Bio-implants as Next Generation Materials for Orthopedic Applications	Nagoya Institute of Technology, Nagoya, Japan	Nov. 7, 2018
2	Ashutosh Kumar Dubey	Piezoelectric Bioimplants for Polarized Bone Applications	Vellore Institute of Technology (VIT), Vellore	Jul. 25, 2018
3	Ashutosh Kumar Dubey	Piezoelectric Biomaterials for Health Care Applications	Tata Steel and IISc, Bangalore	May 06, 2018
4	Ashutosh Kumar Dubey	Ferroelectric Ceramics as Next Generation Implants for Orthopedic Applications	(ISEPD-2018) Marriot Jaipur	Feb. 23, 2018
5	Preetam Singh	Indo-UK Newton-Bhabha Workshop on "Electrochemical Routes to Energy Storage, Energy Conversion and Fuel Production	JNCASR Bangalore	9 <sup>th</sup> -13 <sup>th</sup> Dec 2018
		Second International Meeting on the Clean Energy Materials Innovation Challenge"	IIT-Delhi	on 21st-22nd February, 2019
6	Md. Imteyaz Ahmad	Rapid thermal processing of photovoltaic materials	Christ University (ACenD 2018)	19 September 2019

# Visits abroad by faculty members (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Country Visited	Date of Leaving india	Date of Returning India	Purpose of Visit	Funding from
1	Ashutosh Kumar Dubey	Japan	Nov. 4, 2018	Nov. 15, 2018	Invited Talk and joint Research	Japan

# **Honours and awards** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Details of Award
1	Ashutosh Kumar Dubey	MAHE Award for Young Scientist/Academic Faculty - 2018
	·	by Society for Biomaterials and Artificial Organs (India).

# Fellowships of academic and professional societies (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Details of Fellowship
1	-	-

# Books, monographs authored/co-authored (From 1st April 2018 to 31st March 2019)

S. No.	Name of Author/Co- Author	Title	Publisher
1	-	-	-

# Editorial boards of journals (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1	Prof. Devendra Kumar	Member	Transcation of Indian Ceramic Society



# 1. Design and Development Activities

New facilities added (From 1st April 2018 to 31st March 2019)

S. No.	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)
1	-	-

# Patents filed (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Title of Patent
1	Md. Imteyaz Ahmad	A method of preparing titanium dioxide based transparent and thin films and a product thereof
		Indian Patent Application: 201911008546, Date: 05-03-2019
		"Fabrication of ceramic board through solid-state sintering method by utilizing waste materials"
	Dr. P. K. Roy	(Indian Patent Application: TEMP/E-1/17353/2018-DEL [201811016451], Date: 01-05-2018)
		"Fabrication of ceramic board through room temperature curing process by utilizing waste materials"
2		(Indian Patent Application: TEMP/E-1/17369/2018-DEL [201811016452], Date: 01-05-2018)
2		"A strontium based rare earth free high energy permanent magnet for dc motor application and a method of synthesis thereof"
		(Indian Patent Application: TEMP/E-1/53220/2018-DEL [201811048780], Date: 22-12-2018)
		"A nano-lakargiite bonded high temperature castable refractory and a method of synthesis thereof."
		(Indian Patent Application: TEMP/E-1/53823/2018-DEL [201811049448], Date: 27-12-2018)

# **5. Research and Consultancy**

# **Sponsored research projects** (Ongoing only)

Note: Sponsored project name is to be given only in case a faculty member is Project Incharge

S. No.	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co-ordinator
1	Fundamental investigation on electrostatic/dynamic field assisted cellmaterial interaction	2015-20	SERB, DST	35.00	Ashutosh Kumar Dubey
2	Combined effect of dynamic electrical stimulation and surface charge on cellular functionality of electrovector and piezoelectrically toughened bioceramics	2017-20	SERB, DST	43.23 Lakh	Ashutosh Kumar Dubey
3	Novel Electrode Materials for Reversible Alkali-ion (Li+/Na+) capacitors and Pseudocapacitors	2018-2021	SERB	~46 lakh	Dr. Preetam Singh and Prof. Rajiv Prakash



S. No.	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co-ordinator
4	Development of low cost sodium-ion battery: Fabrication and application of NASICON based electrodes	2018-21	DST	~96 lakh	Prof. Rajiv Prakash and Dr.Preetam Singh
5	Development of Nanostructured Bi-functional oxide low cost electro- catalysts for Sustainable High Energy Density Metal-Air Battery for Electric vehicles	2019-20	SPARC	~40 lakh	Dr.Preetam Singh Dr. T. maiyalagan, ,Prof Jinwoo Lee
6	Seamless Synthesis of large-area 2D transition metal di-chalcogenide semiconductors and their applications in next-generation high-performance optoelectronic devices	2016-2019	SERB	49.8	Dr. S. Das
7	Development of a high throughput processing for CIGS PV absorber films by spray pyrolysis of pre-synthesised nanoparticle ink	September 2016- September 2019	DST-SERB	47 Lakh	Md. Imteyaz Ahmad
8	Development of rare earth free ceramic magnet with high energy and curie temperature for motor applications	July 2017 - July 2020	DST- Early Career Research Award Scheme	45.221	Dr. P. K. Roy
9	Development of Plant glasses as plant nutrients	October 2018- 2021	DST-SERB	42.05 Lakh	Prof. Ram Pyare Dr. Preetam Singh Dr. R. K. Chaturvedi
10	Development of high dielectric constnat and low loss tangent thin film CCTO capacitor by spin coating	2019-2020	AICTE (TEQIP)	10.30 LAKH	Dr. M. R. Majhi, Dr. Prakash Singh, Mr. Rajesh Suther

# **Industrial consultancy projects** (Ongoing only)

S. No.	Name of Faculty Member	Title	Industry	Amount (in lakhs of Rs.)
1	Dr.Preetam Singh	Synthesis of Glass Electrolyte (with 10-4 S/cm conductivity) for All Solid State Batteries (ASSB) 2018-19	Renault Nissan Technology and Business Centre India Private limited	15 lakh + GST
2	Dr.Preetam Singh	Consultancy on characterization of glass electrolyte for all solid state batery	Renault Nissan Technology and Business Centre India Private limited	5 lakh + GST

# $Faculty\ members'\ participation\ with\ other\ universities\ under\ MoUs\ (Ongoing\ only)$

**Research Publications** (From 1st April 2018 to 31st March 2019)

S. No.	Papers Published/ Presented	No.
1	Papers Published in Refereed National Journals	02
2	Papers Published in Refereed International Journals	69
3	Papers Presented in National Conferences	0
4	Papers Presented in International Conferences	05



# **Refereed International Journals** (From 1st April 2018 to 31st March 2019)

- 1. Deepshikha Shekhawat, **P. K. Roy**, "*Influence of cobalt substitution on physical & electro-magnetic properties of SrAl<sub>s</sub>Fe*<sub>s</sub>O<sub>10</sub> hexa-ferrite", Materials Chemistry and Physics, 229 (2019) 183-189.
- 2. SK S. Hossain, Lakshya Mathur, Aman Bhardwaj, **P.K. Roy**, "*A facile route for the preparation of silica foams using rice husk ash*" International Journal of Applied Ceramic Technology 16 (2019) 1069-1077.
- 3. SK S Hossain, **P. K. Roy**, "Fabrication of sustainable insulation refractory: Utilization of different wastes" Journal: Bulletin of the Spanish Society of Ceramics and Glass (Accepted).
- 4. Deepshikha Shekhawat, Akhilesh Kumar Singh, **P. K. Roy**, " Structural and electro-magnetic properties of high (BH)max La-Sm substituted Sr-hexaferrite for brushless DC electric motors application" Journal of Molecular Structure 1179 (2019) 787-794.
- 5. Deepshikha Shekhawat, **P. K. Roy**, "*Impact of yttrium on the physical, electro-magnetic and dielectric properties of auto-combustion synthesized nanocrystalline strontium hexaferrite*" Journal of Materials Science: Materials in Electronics, 30(2) (2019) 1187-1198.
- 6. SK S Hossain, **P. K. Roy,** "Manufacturing of green building bricks: Utilization of different wastes for construction purpose" Journal of Material Cycles and Waste Management 21(2) (2019) 281-292.
- 7. SK S Hossain, Lakshya Mathur, **P. K. Roy**, "*Rice husk/rice husk ash as an alternative source of silica in ceramics: A review*", Journal of Asian Ceramic Societies 6 (4) (2018) 299–313.
- 8. SK S Hossain, **P. K. Roy**, "Studies on physical and dielectric properties of bio-wastes derived synthetic wollastonite" Journal of Asian Ceramic Societies, 6(3) (2018) 289–298.
- Lakshya Mathur, SK Saddam Hossain, Manas R Majhi, P. K. Roy, "Synthesis of nano-crystalline forsterite (Mg<sub>2</sub>SiO<sub>4</sub>) from biomass rice husk powder silica by solid-state route", Journal: Bulletin of the Spanish Society of Ceramics and Glass, 57(3) (2018) 112-118.

# **Refereed National Journal** (From 1st April 2018 to 31st March 2019)

- Shukdev Pandey, Om Parkash and Devendra Kumar
   "Structural, Delectric and Impedance Spectroscopic Studies on Fe Doped BaTiO3"
   Trans. Ind. Ceram. Soc., 77 (4), (2018), 209-218; doi.org/10.1080/0371750X.2018.1526653
- 2. Ashutosh Kumar Dubey, R. Kumar and B. Basu, Piezobiomaterials as New Generation Materials for Orthopaedic Applications, Trans IIM, 2018, In Press (Invited).

# **Proceedings of International Conferences** (From 1st April 2018 to 31st March 2019)

- R.Bhattacharyyaa, Jyoti, A. Gupta, O. Prakash, S. Roy, T. K. Bhattacharyya, P. Maiti, S. Bhattacharyya, S. Das In-situ synthesis of (Mg<sub>0.5</sub>Zn<sub>0.5</sub>)Fe<sub>2</sub>O<sub>4</sub>-graphene oxide nanocomposite for broadband microwave absorption in GHz frequency range, 2019 URSI Asia Pacific Radio Science Conference (AP-RASC 2019), New Delhi, India, 9-15 March, 2019.
- S. K. Ghosh, S. Das, and S. Bhattacharyya, A Graphene Based Broadband Metasurface Absorber in the Terahertz Region, 2019 URSI Asia Pacific Radio Science Conference (AP-RASC 2019), New Delhi, India, 9-15 March, 2019.
- 3. S. K. Ghosh, V. S. Yadav, S. Bhattacharyya, and **S. Das**, "A Graphene Based Bandwidth Enhanced Metamaterial Absorber using Circular Ring," accepted for presentation in IEEE International Symposium on Antennas and Propagation and USNC/URSI National Radio Science Meeting, 8-13 July, 2018, Boston, USA.



- 4. Priyanka Verma, **P. K Roy**, "Structural and electro-magnetic properties of Gd-doped polycrystalline  $Bi_{0.9-}$   $xGd_xSm_{0.1}FeO_3$  ( $x \le 0.1$ ) ferrites" International Conference on Advanced Ceramics and Nanomaterials for Sustainable Development (ACeND 2018) 19-21<sup>st</sup> September 2018 at Christ University Kengeri Campus, Kengeri, Bengaluru, Karnataka, INDIA.
- 5. SK S. Hossain, **P. K. Roy**, "Fabrication of synthetic wollastonite from waste: characterization of physical and dielectric properties" International Conference on Advanced Ceramics and Nanomaterials for Sustainable Development (ACeND 2018) 19-21<sup>st</sup> September 2018 at Christ University Kengeri Campus, Kengeri, Bengaluru, Karnataka, INDIA.

# **Proceedings of National Conferences** (From 1st April 2018 to 31st March 2019)

- 1. A. Jana, D. Ray, **P. K. Roy,** "Synthesis and characterization of sol-gel derived monophasic mullite powder" 82<sup>nd</sup> Annual Session of Indian Ceramic Society on 9-10<sup>th</sup> January 2019 at Wave International, Jamshedpur, INDIA.
- 2. Anand S.Khatri, SK S. Hossain, **P. K. Roy,** "Synthesis and characterization of Ce-substituted nickel-zinc ferrite" 82<sup>nd</sup> Annual Session of Indian Ceramic Society on 9-10<sup>th</sup> January 2019 at Wave International, Jamshedpur, INDIA.
- 3. SK S. Hossain, R.Pyare, **P. K. Roy,** "Development of green ceramic board: Utilization of different wastes" 82<sup>nd</sup> Annual Session of Indian Ceramic Society on 9-10<sup>th</sup> January 2019 at Wave International, Jamshedpur, INDIA.

# Kindly Provide Brief Details of 5 Articles from the Department/School with maximum no. of Citations in last 5 years

1.	Sampath Kumar Arepalli,Himanshu Tripathi,Sumit Kumar Hira,Partha Pratim Manna, Ram	2016	Enhanced bioactivity, biocompatibility and mechanical behavior of strontium substituted bioactive glasses	Materials Science and Engineering C, http:// dx.doi.org/10.1016/j. msec.2016.06.070	4.959	25
2.	Sampath Kumar Arepalli , Himanshu Tripathi, Vikash Kumar Vyas, Shubham Jain, Shyam Kumar Suman, <b>Ram</b> <b>Pyare</b> , S.P. Singh	2015	Influence of barium substitution on bioactivity, thermal and physico-mechanical properties of bioactive glass	Materials Science and Engineering C 49 (2015) 549–559.	4.959	25
3.	Vikash Kumar Vyas, Arepalli Sampath Kumar, Sunil Prasad, S. P. Singh and Ram Pyare	2015	Bioactivity and mechanical behavior of cobalt oxide-doped bioactive glass	Indian Academy of Sciences. Bull. Mater. Sci., Vol. 38, No. 4, August 2015, pp. 957–964.	1.264	16
4.	Vikash Kumar Vyas, Arepalli Sampath Kumar, S. P. Singh and <b>Ram Pyare</b>	2016	Effect of nickel oxide substitution on bioactivity and mechanical properties of bioactive glass	Bull. Mater. Sci., Vol. 39, No. 5, September 2016, pp. 1355–1361. Indian Academy of Sciences. DOI 10.1007/s12034- 016-1242-7	1.264	10
5.	Vikash Kumar Vyas, Arepalli Sampath Kumar, S. P. Singh and <b>Ram Pyare</b>	2016	Effect of Cobalt Oxide Substitution on Mechanical Behaviour and Elastic Properties of Bioactive glass and glass ceramics	Transactions of the Indian Ceramic Society DOI: 10.1080/0371750X.2016. 1149098	1.014	10



# **Distinguished Visitors** (From 1st April 2018 to 31st March 2019)

S. No.	Name of the visitor & Designation	Date of Visit	Purpose of Visit
1	Prof. Raj Narayan Singh	Jan – April 2019	Visiting Faculty

# 6. Other activities

International collaboration/achievements by the Department/School (From 1st April 2018 to 31st March 2019)

1. NDA with Nagoya Institute of Technology, Nagoya Japan, 2018.

Indian Faculty visits in the Department/School/School (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
	-	-	-

# Foreign Faculty Visits in the Department/School/School (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Prof. Raj Narayan Singh	Visiting Faculty	Jan – April 2019

# Foreign Students Visits in the Department/School/School (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue	
	-	-	-	

# Any other Information

- 1. Prof. Ram Pyare, Chairman Examiantion Committee, Indian Institute of Ceramics, Kolkata.
- 2. Dr. Preetam Singh, Member Board of studies, Center of Advance Studies, AKTU, Lucknow.



# SOPHISTICATED INSTRUMENTS FOR RESEARCH AND DEVELOPMENT

# **IMAGES OF THE EQUIPMENTS OF TRADITIONAL CERAMIC IN THE DEPARTMENT**

DTA/TGA























# IMAGES OF THE EQUIPMENTS OF TRADITIONAL CERAMIC IN THE DEPARTMENT





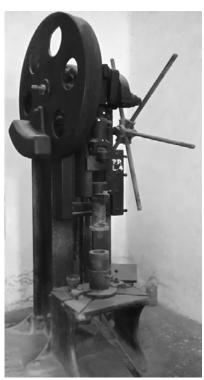


















# 7. Department of Chemical Engineering and Technology

Year of Establishment: 1921

**Head of the Department:** Prof. Pradeep Kumar Mishra (w.e.f. 14.03.2016)

# 1. Brief Introduction of the Department/School:

Department of Industrial Chemistry was established in 1921 at Banaras Hindu University. Subsequently, it was renamed as the Department of Chemical Engineering and Technology in 1956. The Department has established several benchmarks of achievements in teaching and research. It modernizes its programmes to impart education in upcoming areas of chemical engineering.

The Department presently offers courses leading to B.Tech., M.Tech. and Ph. D. degrees in Chemical Engineering. The Department also offers courses to IIT(BHU) and Banaras Hindu University. In the new undergraduate curriculum, the department has been entrusted to offer a number of institute level courses either independently or jointly with outer departments. The research facilities of the department are utilized not only by other departments of the institute and BHU but also by other teaching institutions and research laboratories.

The floor area of the department is 4,002 sq. meter. The department 18 laboratories, a workshop, 7 lecture theatres, a 250 seat auditorium, a library having over 11,000 volumes of text and reference books and a textbook bank and internet facility. The Department also has a seminar room and a few instruction rooms and rooms for its faculty.

The University Grants Commission, New Delhi has granted the Department the Status of Centre of Advanced Study in Chemical Engineering. The Department also enjoys the status of DST – FIST Sponsored Department.

The Department enjoys an excellent rapport and professional interaction with various industrial organisations. Faculty members are engaged in high level consultancy work in industry, where as some others have projects funded by the industry. Besides these, the Department also provides know-how for process improvement/development, raw materials and products analysis, pollution monitoring facilities, etc. to the industries in and around Varanasi.

# Major areas of Research

Currently major areas of research in the department are waste water treatment, separation processes, catalysis, biotechnology and fuel cell. The department has identified three major thrust areas for future research as energy, environment and nanotechnology with emphasis on developing affordable solutions for the problems in the country such as drinking water, energy (harvesting, production and storage) and healthcare.

### Area of the Department/School (in square meters):

The floor area of the department is 4,002 sq. meter.

#### Infrastructure

Sl. No.	Particulars	Number
1	No. of Classrooms	07
2	No. of Lecture Halls	03
3	No. of Laboratory	18
4	No. of Computers available for students in the Department	80

# Unique Achievement / Preposition of the Department

1921: Established as Department of Industrial Chemistry

1935: Two year M.Sc. (Tech.) Degree course started.

1949: Four year Bachelor Degree Course in Engineering started



1956: Renamed as the Department of Chemical Engineering and Technology

1963: Two year Master Degree in Chemical Engineering started

1993: Special Assistance under SAP/ COSIST Programmes of UGC

1997: IFFCO Chair was granted by IFFCO Ltd, New Delhi

1999: UGC - Centre of Advanced Study

2004: DST-FIST (Level I)

2005: UGC - Centre of Advanced Study Phase II

2010: UGC - Centre of Advanced Study Phase III

2013: DST - FIST (Level I further for next 5 years)

# 1. Academic Programmes offered

New Courses Introduced (From 1st April 2018 to 31st March 2019)

Sl. No.	Course Code	Course name	Course credit
1.	CHE 529	Nano Science & Technology	9

# **Students on Roll** (From 1st April 2018 to 31st March 2019)

Sl. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1.	B. Tech/B. Pharm	116	109	107	105	N.A.
2.	Dual Degree	N.A.	N.A.	N.A.	N.A.	N.A.
3.	M. Tech/ M. Pharm	45	37	N.A.	N.A.	N.A.
4.	Ph. D (Under Institute Fellowship)	20	13	10	11	16
5.	Ph. D (Under Project Fellowship)	N.A.	N.A.	N.A.	N.A.	N.A.
6.	Ph.D (Under Sponsored Category)	N.A.	N.A.	N.A.	N.A.	N.A.

# Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India (From 1st April 2018 to 31st March 2019)

Sl. No.	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
ÌNDIA					
1	Mr. Shobhit Dixit	15041011	International conference on Bio-Innovation for Environmental and Health Sustainable Developments (BEHSD-2018)	27 <sup>th</sup> to 28 <sup>th</sup> November 2018. CSIR-Indian Institute of Toxicology Research, Lucknow	personal
2	Mr. Devendra K Gond	17042046	Research conclave at IIT, Guwahati	IIT, Guwahati during 14/3/19-17/3/19	Institute
3	Ms. Binita Joshi	17042016	Research conclave at IIT, Guwahati	IIT, Guwahati during 14/3/19-17/3/19	Institute
4	Mr. Akash Gupta	15045010	2 <sup>nd</sup> INAE Youth Conclave	10-12 Aug,18	IIT KGP



Sl. No.	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
5	Mr. Ashutosh Yadav	17042032	TECHNOSCAPE an International conference at V.I.T VELLORE Tamil Nadu	6-8, Sept. 2018	Self
6	Mr. Ashutosh Yadav	17042032	BioSD-2018 an International conference at CSIR-IICT Hyderabad	22-25 Nov. 2018	From Institute
7	Mr. Ashutosh Yadav	17042032	Research Conclave IIT Guwahati	14-17 March 2019	Self
8	Mr. Ashutosh Yadav	17042032	SELECTBIO an International conference on Environmental Analysis India	24-26 April 2019	Self
9	Mr. Ganesh Swain	17041503	BioSD-2018	22-25 Nov. 2018	Institute
10	Mr. Ravi Kumar Sonwani	16041006	International conference on Bio-Innovation for environmental and health sustainable developments (BEHSD-2018),)	CSIR-IITR, Lucknow, India (27-28 Nov 2018	Dean R&D and Department
11	Mr. Ravi Kumar Sonwani	16041006	International conference on sustainable water resources, innovations and impacts (TECHNOSCAPE-18) (Oral presentation)	VIT Vellore, India (6-8 Sep 2018)	Dean R&D and Department
12	Mr. Ravi Kumar Sonwani	16041006	Indian association for science fiction studies, Bangalore, Karnataka	Dept. of Chem. Engg. IIT (BHU)	NO
13	Mr. Shubham Mishra	16041008	International workshop on nano/micro 2d/3d fabrication and manufacturing of electronic and biomedical devices and applications (IWNEBD)	31october 2018 to 2 November 2018	None
14	Ms. Binita Joshi	17042016	Conference	14/03/19- 17/03/19 IIT Guwahati	BINITA JOSHI
15	Mr. Devendra Kumar Gond	17042046	Conference	14/03/19- 17/03/19 IIT Guwahati	DEVENDRA KUMAR GOND
16	Diwakar Pandey	16041001	CHEMCON – 2018 (International Conference)	27 <sup>th</sup> -30 <sup>th</sup> December 2018, Dr. B.R.A.N.I.T. Jalandhar, Punjab	Institute
17	Diwakar Pandey	16041001	RTCEEP (National Conference)	30 <sup>th</sup> March	Self
30	Goutam Kishore Gupta	15041006	BEHSD-2018	27-28 Nov. 2018 Lucknow, Uttar Pradesh	Institute (IIT BHU)
31	Goutam Kishore Gupta	15041006	International conference of the OTAI-2018	22-23 Dec. 2018 IIT BHU, Varanasi,	NIL



Sl. No.	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
ABROA	D				
1	Vivek Kumar Pandey	15041012	2018 Global Food Science Student Competition	November 14-18, 2018 Jiangnan University, Wuxi China	Jiangnan University, Wuxi China
2.	Vivek Kumar Pandey	15041012	Newton Bhabha Ph.D. Placement Fellowship	01-07-2018 to 30-09-2018 University of Reading, United Kingdom	University of Reading, Cambridge United Kingdom

# Names of students/scholars who got prizes and awards outside the Institute (From 1st April 2018 to 31st March 2019)

Sl. No.	Name of Student	Roll No.	Name of Prize	Date & Venue	Prize awarded by
1	Ashutosh Yadav	17042032	Best Poster Award ( 1st position) in SELECTBIO Conference	26 April 2019	Dr. Sanjay Bajaj (Managing Director Selectbio)
2	Shubham Mishra	16041008	First position Super Startup INC award	Fortis Medical Research Institute Gurugram	Fortis Group times group, boston Scientific and allied industries
3	Vivek Kumar Pandey	15041012	Newton Bhabha Ph.D. Placement Fellowship	01-07-2018 to 30- 09-2018 University of Reading, United Kingdom	Department of Biotechnology, Ministry of Science & Technology, Government of India and British Council, UK

# Names of scholars/students who won Convocation/Institute Day prizes (From 1st April 2018 to 31st March 2019)

Sl. No.	Name of Student	Roll No.	Name of Prize	Prize awarded by
1	Ms. Shubhi Gupta	16042042	Awarded for Standing First at the M.Tech. in Chemical Engineering	I.I.T.(B.H.U.)
2	Shri Manas Sinha	14045049	Awarded for Standing First at the B.Tech. in Chemical Engineering Examination	I.I.T.(B.H.U.)
3	Shri Manas Sinha	14045049	The R.B.G. Modi Medal for standing First at the B.Tech. in Chemical Engineering Examination	I.I.T.(B.H.U.)
4	Shri Manas Sinha	14045049	Manishi Sharma Memorial Gold Medal for securing First position at B.Tech. Chemical Engineering Examination, 2018.	I.I.T.(B.H.U.)
5	Shri Manas Sinha	14045049	Mrs. Gargi Devi Trivedi Memorial Gold Medal for securing highest marks in B.Tech. Chemical Engineering Examination, 2018.	I.I.T.(B.H.U.)
6	Shri Manas Sinha	14045049	Prof. Y.D. Upadhya Memorial Gold Medal for securing highest CPI at B.Tech. Chemical Engineering Examination, 2018	I.I.T.(B.H.U.)



Sl. No.	Name of Student	Roll No.	Name of Prize	Prize awarded by
7	Shri Manas Sinha	14045049	Dr. R.J. Rathi Financial Award Rs. 1000/= cash for standing First at the B.Tech. in Chemical Engineering Examination, 2018.	I.I.T.(B.H.U.)
8	Shri Manas Sinha	14045049	Manishi Sharma Memorial Cash Prize Rs. 2000/= for securing First position at the B.Tech. in Chemical Engineering Examination, 2018.	I.I.T.(B.H.U.)
9	Ms. Tannya Maurya	14045105	Awarded Smt. Indira Tripathi Gold Medal for securing highest CPI among the girl students at the B.Tech. in Chemical Engineering	I.I.T.(B.H.U.)

# Names of Students/Scholars who went for foreign Internship

(From 1st April 2018 to 31st March 2019)

Sl. No.	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
1	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
2	Aashish Dewangan	15045001	National sun Yat-Sen University	Kaohsiung	Taiwan	2 months
3	Aayush Agarwal	15045002	National sun Yat-Sen University	Kaohsiung	Taiwan	2 Months
4	Abhay Joshi	15045003	National sun Yat-Sen University	Kaohsiung	Taiwan	2 Months
5	Abhishek Jaiswal	15045004	National chiao Tung University	Tainan	Taiwan	2 Months
6	Akshat Jain	15045011	National sun Yat-Sen University	Kaohsiung	Taiwan	1.5 Months
7	Amiratna bhoyar	15045014	St. John's University	New Taipei City	Taiwan	2.5 Months
8	Anubhav Chittarth	15045021	Tamkang University	Taipei	Taiwan	2 Months
9	Bhavesh Gupta	15045026	Centre of thermodynamics processes, Mines paris Tech	Fontainebleau	France	2 Months – 12 Days
10	Gaurav Tripathi	15045038	Chang Gung University	Taiyuan	Taiwan	2 months
11	Rushit Javia	15045045	CNRS- institute de chimie de la matiere condense de Bordeaux	Bordeaux	France	2 Months – 19 days
12	Kangkan Roy	15045047	Hanyang University	Seoul	South Korea	2 Months
13	Rahul yadav	15045076	The University Of Queensland	Brisbane	Australia	
14	Shivam Kumar	15045095	Tamkang University	Taipei	Taiwan	2 Months
15	Vishnu Yadav	15045115	Tamkang University	Taipei	Taiwan	2 Months
16	Utkarsh Srivastava	15045110	Nanyang Technological University	Nanyang Avenue	Singapore	2 Months – 6 days



Sl. No.	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
17	Vivek Kumar Pandey	15041012	University of Reading, United Kingdom	Department of Food and Nutritional Sciences University of Reading, United Kingdom	England	03 months (01-07-2018 to 30-09- 2018)

# 2. Faculty & their Activity

# Faculty and their areas of specialisation

Sl. No.	Name, Qualifications, Employee No.	Date of award of PhD Degree	Major Areas of Specialization (Max. 3 Areas)
PROFESS	ORS		
1	1 Dr. A.K. Verma 1985 13744		Modelling & Simulation, Multiphase Reactor Design & Artificial Intelligence
2	Dr. A.S.K. Sinha 13741	1990	Reaction Engg., Photocatalysis., Electrocatalysts, Process Development, Hydrogen Energy, Nanotechnology
3	Dr. B.N. Rai 13746	1991	Bio-remediation, Water Pollution control, Air Pollution control and Environmental Biotechnology
4	Dr. P.K. Mishra 13747	1995	Bio Energy, Bio remediation, Membrane separation and bio compatible polymers
5	Dr. Pradeep Ahuja 13748	1996	Modelling& Simulation Kinetics & Thermodynamics, Energy & Polymer Technology
6	Dr. M.K. Mondal 13749	2004	Industrial Pollution Control, Transfer Process, Chemical Reaction Engg., Modeling & Simulation Process Optimization
7	Dr. R.S. Singh 16729	2007	Environmental Biotechnology, Process Control, Bioremediation of Waste
8	Dr. V.L. Yadav 13745	2002	Polymer Technology, Transfer Processes, Chem. Reaction Engg, Chemical Technology
9	Dr. S.V. Singh 18210	2006	Fruit and vegetable storage and processing, Adsorption
ASSOCIA	TE PROFESSORS		
1	H. Pramanik 17500	2008	Fuel Cell Technology, Energy Engineering, Electrochemistry
2	Bhawana Verma 18152	2013	Heat Transfer, Liquid membrane separation, Biodiesel, Pyrolysis, Liquid- Liquid Extraction
3	Pradeep Kumar 18479	2007	Catalytic Thermal Treatment (Thermolysis), Coagulation- Flocculation, Adsorption, Fenton Oxidation
ASSISTAI	NT PROFESSORS	·	
1	A.C. Mohan 13742		Process Control, Polymer Technology
2	Durga Prasad A. 18151		Process modeling and simulation, Optimization techniques, Process dynamics and control, Process Equipment design.
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Sl. No.	Name, Qualifications, Employee No.	Date of award of PhD Degree	Major Areas of Specialization (Max. 3 Areas)	
3	Sweta 19770	2012	Environmental Catalysis, Reaction Kinetics, Polymer Blends, Diesel Exhaust Treatment	
4	Jyoti P. Chakraborty 19844	2011	Pyrolysis, Gasification, Kinetics of Complex Reactions	
5	Ravi P. Jaiswal 50025	2008	Interfacial Engineering, Particle Adhesion	
6	Ankur Verma 50026	2011	Interfacial Science, Microfluidics, Nanotechnology	
7	Manoj Kumar 50027	2009	Interfacial nanoscience and Technology, Optical nanomaterials, Thera Gnostics, Therapeutics, Thera agnostics, Bio sensing, Heavy metal and water pollution sensing	
8	Dr. Vijay Shinde 50171	2013	Solid state and material chemistry, Heterogeneous catalysis for energy application, sustainability and green chemistry	
Institute l	Professors			
1	Dr. Ram Prasad 13737	1984	Chemical reaction Engg. & Catalysis, Process Design & Development, renewable Energy	
Distingui	shed Professors			
Emeritus	Professors			
1	Prof. S.N. Upadhaya	1969	Bio Technology, Environmental Engineering, Fluidization, Transfer Operation	
Guest Fac	ulty			
1	Prof. P.N. Tiwari	1971	Chemical Technology, Energy, Petroleum	
2	Prof. G.C. Baral	1977	Chemical Engineering Science, Transfer operations	
Visiting F	aculty			
DST INSI	PIRE Faculty			
1	Dr. Shikha Singh	2018	Nanomaterials, Sensor, catalysis, energy	

# Technical and Non-Teaching Staff

Sl. No.	Name, Qualifications	Designation, Employee No.	Date of Appointment in the department
1	Sri Arvind Kumar M.Sc. (Information Technology)	Sr. Technical Superintendent 14069	22.03.1997
2	Sri Umesh Pratap Singh Intermediate	Technical Superintendent 17688	23.01.2006
3	Sri R.C. Sachiv Intermediate, I.T.I.	Technical Superintendent 14123	28.10.1985
4	Sri Meharman Thapa Intermediate	Technical Superintendent 14126	01.06.1982
5	Sri Birendra Yadav Intermediate	Technical Superintendent 14142	16.06.1988



Sl. No.	Name, Qualifications	Designation, Employee No.	Date of Appointment in the department
6	Sri Rakesh Chandra Singh B.Sc., Diploma	Technical Superintendent 18634	06.08.2008
7	Sri Arjun Prasad Gond M.A.	Technical Superintendent 14144	05.04.1990
8	Sri Sudhir Kumar Intermediate	Technical Superintendent 14145	21.12.1990
9	Sri Chand Lal Intermediate, I.T.I	Jr. Technical Superintendent 14140	25.06.1987
10	Sri O.P. Patel Intermediate	Jr. Technical Superintendent 14148	28.09.1993
11	Sri Surendra Kumar Verma Intermediate	Jr. Technical Superintendent 14147	02.06.1994
12	Sri Sudhir Kumar B.Sc	Jr. Technical Superintendent 18094	20.02.2007
13	Sri Arun Kumar Singh MCA	Jr. Superintendent 50155	26.07.2017
14	Sri Rajesh Kumar I.T.I., Diploma	Senior Technician 18622	07.08.2008
15	Sri Vinay Kumar I.Sc., Diploma in MLT	Senior Technician 18625	05.08.2008
16	Sri Ajay Kumar Pandey B.A., D.T.P.	Senior Technician 18623	05.08.2008
17	Sri Shailendra Kumar Upadhyay Intermediate	Senior Technician 18629	05.08.2008
18	Sri Raj Kumar B.Sc., P.G.D.C.A	Senior Technician 18626	05.08.2008
19	Sri Ankit Kumar M.Sc. (Information Technology), ACHNP	Senior Technician 18627	05.08.2008
20	Sri Dhirendra Kr. Pandey B.A., I.T.I., Diploma	Senior Technician 19272	10.02.2011
21	Sri Anand Prakash Upadhyay L.L.B	Jr. Technician 11579	25.01.1997
22	Sri Lal Bahadur Ram B.Sc.	Jr. Technician 19602	11.07.2012
23	Zishan Ahmed B.Sc.	Jr. Assistant 50104	09.05.2017

# Short-term courses/workshops/seminars/symposia/conferences organised by faculty members (From 1st April 2018 to 31st March 2019)

Sl. No.	Coordinator	Title	Period
1	Prof. P.K. Mishra	Launching of the Biogas App – an initiative towards "Circular Economy"	Feb.20 <sup>th</sup> , 2019
2	Prof. P.K. Mishra	Workshop on 'Social Entrepreneurship'	Jan.2 <sup>nd</sup> , 2018
3	Prof. P.K. Mishra	National Conference on "Technology & Science Fiction"	Dec.15 <sup>th</sup> -16 <sup>th</sup> , 2018
4	Prof. P.K. Mishra	Workshop on real problem solving through IOT devices at CISCO thingQbator	Oct.31st-Nov.1st, 2018
5	Prof. P.K. Mishra	A workshop at CISCO thingQbator, IIT (BHU) has been conducted using GitHub Learning Lab platform.	Oct.26 <sup>th</sup> , 2018
6	Prof. P.K. Mishra	Workshop on Air Pollution and it's health impacts in association with Centre for Environment and Energy Development.	July16 <sup>th</sup> , 2018
7	Prof. P.K. Mishra	Workshop-cum-Training program on 'Biogas Technology Development, Implementation and Substrate Analysis'	July2 <sup>nd</sup> -13 <sup>th</sup> , 2018



Sl. No.	Coordinator	Title	Period
8	Dr. Jyoti Prasad Chakraborty (Co-coordinator)	Efficient Energy Conversion in Harmony with Environment	October 29 - November 03, 2018

Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings (From 1st April 2018 to 31st March 2019)

Sl. No.	Name of Faculty Member	Title	Period and Venue			
Seminar	Seminars/Symposia/Conferences					
1	Prof. P.K. Mishra	Workshop on GOBARDHAN Scheme of Ministry Ground Water and sanitation	July 30 <sup>th</sup> , 2018 India Habitat Centre, New Delhi			
2	Prof. P.K. Mishra	Charter on Textile industries	August 6, 2018, AICMA, Bhadohi			
3	Prof. P.K. Mishra	Be the change	August 31, 2018			
4	Prof. P.K. Mishra	Institute-industry-society conclave	August 31 to September 03, 2018, IIT(BHU)			
5	Prof. P.K. Mishra	Workshop on Estimation on pollution CPCB, New Delhi profiling in rivers				
6	Prof. P.K. Mishra	The workshop on Biogas and launch of biogas App	Feb. 18, 2019, IIT(BHU)			
7	Dr. Ankur Verma	3rd International Conference on Soft Materials	MNIT Jaipur, INDIA 09 -14 Dec. 2018			
Meeting	S					
8	Prof. P.K. Mishra	Academic advisory committee meeting	January 19 <sup>th</sup> , 2019 Dept. of Chem. Eng., MMMUT, Gorakhpur			
9	Prof. P.K. Mishra	Selection committee meeting	October 10 <sup>th</sup> , 2018 NIT Hamirpur			
10	Prof. P.K. Mishra	Academic advisory committee meeting	June 19 <sup>th</sup> , 2018 Dept. of Chem. Eng., MMMUT, Gorakhpur			
11	Prof. P.K. Mishra	Selection Committee Meeting	April 25 <sup>th</sup> -27 <sup>th</sup> , 2018 NIT, Raipur			
12	Prof. P.K. Mishra	Selection Committee Meeting	NIT, Allahabad			
13	Prof. P.K. Mishra	Meeting of Academic Institution for inspection of GPIs	April 2018, CPCB, Parivesh Bhawan, New Delhi			

# Special lectures delivered by faculty members in other institutions (From 1st April 2018 to 31st March 2019)

Sl. No.	Name of faculty Member	Topic of Lecture	Institution	Date
1	Prof. P.K. Mishra	Entrepreneurial opportunities for chemical engineers	MJP Rohilkhand University, Bareilly	March 5-6 <sup>th</sup> , 2019
2	Prof. P.K. Mishra	Capitalizing biogas opportunity in India keeping waste to energy of centre	Renewable Energy-Expo, Greater Noida	Sept. 20, 2018



Sl. No.	Name of faculty Member	Topic of Lecture	Institution	Date
3	Prof. P.K. Mishra	Be the change	Krishna Engg. Collage, Ghaziabad	Sept. 21, 2018
4	Prof. P.K. Mishra	Inclusive Technical Education in National Context: Challenges and Solutions-2018	MNNIT Allahabad	Sep. 12 <sup>th</sup> , 2018
5	Prof. P.K. Mishra	Extraction process	Faculty of Ayurveda IMS, BHU	Sep. 29 <sup>th</sup> , 2018
6	Prof. P.K. Mishra	Sustainable living through Organic farming, renewable energy and efficient management of water resources	Sustainable living through Organic farming, renewable energy and efficient management BHU, Varanasi	
7	Prof. P.K. Mishra	Food Safety and Quality Management	Kamdhenu Hall, IAS, BHU	Sept. 10 <sup>th</sup> , 2018
8	Prof. P.K. Mishra	Be the change		
9	Prof. P.K. Mishra	Start-up Ecosystem in India	Deshpande Foundation	July 27, 2018
10	Prof. P.K. Mishra	Entrepreneurship opportunities in the region	Rajshree School of Management and Technology RSMT, Varanasi	Aug.27 <sup>th</sup> , 2018
11	Prof. P.K. Mishra	Beat Plastic Pollution Ganga Pollution Prevention Unit of U.P. Jal Nigam, Varanasi		June 5 <sup>th</sup> , 2018
12	Prof. P.K. Mishra	Innovation in Food and Agriculture	Inst. of Agri. Sci., BHU, Varanasi	June 1 <sup>st</sup> -7 <sup>th</sup> , 2018
13	Prof. P.K. Mishra	Identify yourself	Lakhy, Amar Ujala, Varanasi	June 23, 2018
14	Prof. P.K. Mishra	Sustainability and development	Bridgeford, Ranchi	June 27, 2018
15	Prof. P.K. Mishra	Value addition in oilseeds, oil and Derivatives through Innovative Technology	Food Science, Institute of Agricultural Sciences, BHU	22-23 December 2018
16	Prof. P.K. Mishra	Water-Food-Energy-Climate nexus: A perspective towards a sustainable future	Institute of Environment & Sustainable Development, B.H.U, Varanasi	November 16- 21 <sup>st</sup> , 2018
17	Prof. P.K. Mishra	Awareness and Use of Labels for Better Living	Faculty of Home Science, Shree Agrasen Kanya P.G. College, Varanasi	February 1 <sup>st</sup> , 2019
18	Prof. P.K. Mishra	A Discussion on Start-ups	Kashi Institute of Technology	Oct.26 <sup>th</sup> , 2018

# Visits abroad by faculty members (From 1st April 2018 to 31st March 2019)

Sl. No.	Name of Faculty Member	Country Visited	Date of Leaving India	Date of Returning India	Purpose of Visit	Funding from
1	Prof. P.K. Mishra	USA	09 March, 2019	17, March 2019	To attend LEAP	MHRD, Govt. of India
2	Dr. Pradeep Kumar	USA	8 June 2018	30 June 2018	International Conference	CPDA



Sl. No.	Name of Faculty Member	Country Visited	Date of Leaving India	Date of Returning India	Purpose of Visit	Funding from
3	Dr. A.K. Verma	Serbia	June 30, 2018	July 4, 2018	Oral Presentation	CPDA, IIT(BHU)
4	Prof. M.K. Mondal	Serbia	June 30, 2018	July 4, 2018	Oral Presentation	CPDA, IIT(BHU)
5	Dr. H. Pramanik	Serbia	June 30, 2018	July 4, 2018	Oral Presentation	CPDA, IIT(BHU)
6	Dr. Jyoti Prasad Chakraborty	USA	6 <sup>th</sup> OCT	10 <sup>th</sup> OCT	Presenting research paper in an international conference	CPDA, IIT (BHU)
7	Dr. Sweta	Italy	May 20th, 2018	May 23 <sup>rd</sup> , 2018	Presenting research paper in an international conference	CPDA, IIT (BHU)

# **Honours and awards** (From 1st April 2018 to 31st March 2019)

Sl. No.	Name of Faculty Member	Details of Award
1	Prof. P.K. Mishra	Editorial Board Member Journal of Bioprocess Engineering, 2. Journal of air, water and soil research, 3. Journal of Combinatorial Chemistry & High Throughput Screening, 4. Journal of Progress in Energy & Fuels, 5. Journal of Chemistry Domain.
2	Prof. P.K. Mishra	Member Advisory committee, Chemical Engineering, MMTU, Gorakhpur, U.P., India
3	Prof. P.K. Mishra	Member PPC DDU, Kaushal Kendra, South Campus, Barkchaa
4	Prof. P.K. Mishra	Member Advisory Committee for Incubation, MNIT, Allahabad
5	Prof. M.K. Mondal	Member Scientific Advisory Board, 14 <sup>th</sup> Conference on Sustainable Development of Energy, Water and Environment Systems (SDEWES), October 1-6, 2019, Dubrovnik, Croatia.  Member Advisory Board, TEQIP-III Sponsored Workshop on Role of Chemical Engineer in Environmental Protection (RCEEP-2018), October 5-6, 2018, BIT Sindri, Dhanbad,

# Fellowships of academic and professional societies (From 1st April 2018 to 31st March 2019)

Sl. No.	Name of Faculty Member	Details of Fellowship
1.	Prof. M.K. Mondal	Fellow, The Institution of Engineers (India), granted on 30.11.2018.
2.	Dr. Pradeep Kumar	Indian Institute of Chemical Engineers, Life Member, LM-64726 Indian Society for Heat and Mass Transfer, Life Member, 1314 The Institution of Engineers (India), Fellow, F-124561-5 The Indian Science Congress Association, Life Member, L 37133 Indian Society for Technical Education, Life Member, LM-125205
3.	Dr. Shikha Singh (DST Inspire Faculty)	DST Inspire Faculty Fellowship [DST/INSPIRE/04/2018/002018]



## Books, monographs authored/co-authored (From 1st April 2018 to 31st March 2019)

Sl. No.	Name of Author/Co- Author	Title	Publisher
1	Neha Srivastava, Manish Srivastava, Pramod W. Ramteke, P. K. Mishra	Approaches to Enhance Industrial Production of Fungal Cellulases.	Springer Nature (ISBN 978-3-030-14725-9)
2	Neha Srivastava, Manish Srivastava, P. K. Mishra, P. W. Ramteke and Ram Lakhan Singh	From Cellulose to Cellulase: Strategies to Improve Industrial Production	Elsevier (ISBN 978-0-444-64223-3)
3	Neha Srivastava, Manish Srivastava, P.K. Mishra, Himanshu Pandey and P.W. Ramteke	Green nanotechnology for biofuels production.	Springer (ISBN 978-3-319-75052-1)
4	Neha Srivastava, Manish Srivastava, P.K. Mishra and P.W. Ramteke	Sustainable Approaches for Biofuels Production Technologies: From Current Status to Practical Implementation, Biofuel and Bio refinery Technologies.	Springer (ISBN 978-3-319-94797-6)

# **Editorial boards of journals** (From 1st April 2018 to 31st March 2019)

Sl. No.	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1	Prof. P.K. Mishra	Member	Air, Soil & Water Research (ASW), open access, international journal (SAGE, Publisher) (IF: Pending)
2	Prof. P.K. Mishra	Member	Combinatorial Chemistry & High Throughput Screening, International journal (IF: 0.952)
3	Prof. P.K. Mishra	Member	International Journal of Bioprocessing and Biotechniques, Gavin publisher, USA (open access) (IF: Pending)
4	Prof. P.K. Mishra	Member	Progress in Energy & Fuels, PiscoMed Publishing Pte. Ltd. From Singapore (IF: Pending)
5	Prof. P.K. Mishra	Member	International journal of green chemistry, Publisher: Journals Pub (IF: Pending)
6	Prof. P.K. Mishra	Member	Indonesian Journal of Chemistry. Publisher: Gadjah Mada University (IF: Pending)

# 9. Design and Development Activities

New facilities added (From 1st April 2018 to 31st March 2019)

Sl. No.	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)
1	Julabo Recirculating bath	02.50
2	Fluidised Bed Reactor	04.00
3	Bomb Calorimeter	10.00
4	Heat Transfer Unit	04.03
5	Two state oil reciprocatory air compressor	01.01
6	Centrifuge	01.09
7	UV visual spectrophotometer	03.75



Sl. No.	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)
8	Vertical Autoclave	01.26
9	Portable UV based COD & BOD	08.05
10	Humidity chamber	02.05
11	2D electrophoresis	15.05
12	Ice maker	02.11
13	BOD orbital incubator	03.26
14	TGA DSC	26.20723
15	High pressure stirred reactor	22.28987

# Patents filed (From 1st April 2018 to 31st March 2019)

Sl. No.	Name of Faculty Member	Title of Patent
1.	Dr. Jyoti Prasad Chakraborty	A system for reducing heat loss in brick kilns

# 5. Research and Consultancy

# **Sponsored research projects** (Ongoing only)

Sl. No.	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co- coordinator
1	Rashtriya Krishi Vikas Yojana - Remunerative Approaches for Agriculture and Allied Sector Rejuvenation	2018-2020	DAC & FW, Ministry of Agriculture & Farmers Welfare, GOI	233.00	Prof. P.K. Mishra
2	Removal of Benzene, toluene, Ethylene and Xylene using adsorption and bioremediation	2018-20	SPARC Project, MHARD, GOI	72.00	Prof. R.S. Singh
3	Development and Evaluation of IR NP for cellular wide sensitive E field mapping	2016-2019	DST Nano Mission	51.00	Dr. Manoj Kumar
4	"A Stack Development of Unitized Regenerative Proton Exchange Membrane Fuel Cell for Large Scale Production of Ultra-Pure Hydrogen Fuel, Oxygen Using Solar Energy and Uninterrupted Power"	2019-2022	SERB, Govt. of India	37.61 Lakh	Dr. H. Pramanik
5	Pyrolysis of biomass for the production of bio-oil: experimental and computational study	Dec, 2012 – Mar, 2019	SERB, New Delhi	23.50	Dr. Jyoti Prasad Chakraborty
6	Fabrication of low cost high throughput flow cytometer using tunable nanolenses	2016-2019	SERB	52 lakhs	Dr. Ankur Verma



#### **Industrial consultancy projects** (Ongoing only)

Sl. No.	Name of Faculty Member	Title	Industry	Amount (in lakhs of Rs.)
1	Prof. P.K. Mishra	Inspection of GPI's at Ganga Basin	СРСВ	133.00
2	Prof. P.K. Mishra	ETP Adequacy Report	M/s Shobha woollens, Pvt. Ltd., Bhadohi	00.59
3	Prof. P.K. Mishra	ETP Adequacy Report	AKI India Ltd. Unnav	01.77
4	Prof. P.K. Mishra	Inspection of GPIs, STPs & CETPs	UPPCB	02.54
5	Prof. P.K. Mishra	ETP Adequacy Report	Lohiya Corporation Ltd. Kanpur	01.41
6	Prof. P.K. Mishra	ETP Adequacy Report	Lohiya Corporation Ltd. Kanpur	00.99
7	Prof. P.K. Mishra	Inspection of GPIs, STPs & CETPs	UPPCB	5.09

# Faculty members' participation with other universities under MoUs (Ongoing only) A: International

- 1. MEMORANDUM OF UNDERSTANDING between Tallinn University of Technology, Estonia and Indian Institute of Technology (BHU) Varanasi, India by P.K. Mishra (Status: Completed)
- 2. The MoU between Indian Institute of Technology (Banaras Hindu University) Varanasi and University of Louisville (UofL), USA by P.K. Mishra (Status: In process)
- 3. The MoU between Indian Institute of Technology (BHU) Varanasi, India and Sultan Qaboos University, Oman by P.K. Mishra (Status: In process)

#### B: National

1. The MoU between Indian Institute of Technology (BHU) and NCL, Singrauli, U.P. by P.K. Mishra (Status: Completed)

### C: MoU with International Publishers

1. The MoU between Indian Institute of Technology (BHU) and Springer Nature by P.K. Mishra (Status: In process)

#### **Research Publications** (From 1st April 2018 to 31st March 2019)

Sl. No.	Papers Published/ Presented	No.
1.	Papers Published in Refereed National Journals	01
2.	Papers Published in Refereed International Journals	73
3.	Papers Presented in National Conferences	05
4.	Papers Presented in International Conferences	10

## **Refereed International Journals** (From 1st April 2018 to 31st March 2019)

- 1. D. Kumar, T. Das, B. S. Giri and Bhawna Verma (2018) Characterization and compositional analysis of highly acidic karanja oil and its potential feedstock for enzymatic synthesis of biodiesel, New Journal of Chemistry, 42: 15593-15602.
- 2. Tapas Das & Bhawna Verma (2019) High performance ternary polyaniline-acetylene black-cobalt ferrite



- hybrid system for supercapacitor electrodes, Synthetic Metals, 251: 65-74.
- 3. Tapas Das & Bhawna Verma (2019) Synthesis of polymer composite based on polyaniline acetylene black copper ferrite for super capacitor electrodes, Polymer, 168:61-69.
- 4. Zeenat Arif, Naresh Kumar Sethy, Lata Kumar, Pradeep Kumar Mishra, Bhawna Verma (2019) Antifouling behaviour of PVDF/TiO2 composite membrane: a quantitative and qualitative assessment, Iranian Polymer Journal, 28(4): 301-312.
- 5. Gaurh, P., Pramanik, H.,"A novel approach of solid waste management via aromatization using multiphase catalytic pyrolysis of waste polyethylene" Waste Management, 71 (2018) 86–96.
- 6. Gupta, UK., Pramanik, H., "Electrooxidation study of pure ethanol/methanol and their mixture for the application in direct alcohol alkaline fuel cells(DAAFCs)" International Journal of Hydrogen Energy (2018). https://doi.org/10.1016/j.ijhydene.2018.03.008.
- 7. Gupta, UK., Pramanik, H., "Physically Crosslinked KOH Impregnated Polyvinyl alcohol Based Alkaline Membrane for Direct Methanol Fuel Cell" Canadian. J. Chem. Eng. 9999:1–8 (2018); DOI 10.1002/cjce.23233.
- 8. Gaurh, P., Pramanik, H., "Production of benzene/toluene/ethyl benzene/xylene (BTEX) via multiphase catalytic pyrolysis of hazardous waste polyethylene using low cost fly ash synthesized natural catalyst" Waste Management, 77(2018) 114–130.
- 9. Gupta, UK., Pramanik, H., "A Study on Synthesis of Chemical Crosslinked Polyvinyl Alcohol-Based Alkaline Membrane for the Use in Low-Temperature Alkaline Direct Ethanol Fuel Cell" J. Electrochem. En. Conv. Stor. (2019) doi: 10.1115/1.4043156
- 10. R.K. Singh, A. Sarkar, J.P. Chakraborty (2019), Effect of torrefaction on the physicochemical properties of pigeon pea stalk (cajanus cajan) and estimation of kinetic parameters, Renewable Energy 138: 805-819
- 11. Deepak Yadav, Pradeep Kumar, Meghna Kapur, and Monoj Kumar Mondal, (2019) "Phosphate Removal from Aqueous Solutions by Nano-Alumina for the Effective Remediation of Eutrophication" Environmental Progress & Sustainable Energy, Vol. 38, No. S1, S77-S85 (DOI 10.1002/ep12920)
- 12. Preparation of Hydrophilic Bentonite Grafted Mixed Matrix Polyvinylchloride Membrane with Superior Hydrophilicity Pawan Kumar, Shobhit Dixit, Vijay Laxmi Yadav\* RJC, Vol.12, No.2, 2019
- 13. Neha Srivastava, Manish Srivastava, Bansi D. Malhotra, Vijai K. Gupta d, P.W. Ramteke, Roberto N. Silva, Pratyoosh Shukla, Kashyap Kumar Dubey, P.K. Mishra. Nanoengineered cellulosic biohydrogen production via dark fermentation: A novel approach. *Biotechnology Advances*. [Accepted in March 2019 Revision] [IF: 11.36]
- 14. Mohit Kumar, S.N. Upadhyay, P.K. Mishra, A comparative study of thermochemical characteristics of lignocellulosic biomasses. Bioresource Technology Reports. [Accepted in March 2019] [IF: Pending]
- 15. Zeenat Arif, Naresh K. Sethy, Lata Kumari, P.K. Mishra, B. Verma, Development of antimicrobial and anti-fouling nanocomposite membranes by a phase inversion technique, Journal of Polymer Engineering [Accepted in March 2019] [IF: 0.79].
- 16. Kumar Rohit Srivastava, Manoj Kumar Singh, Pradeep Kumar Mishra, Pradeep Srivastava, Pre-treatment of banana pseudo stem fiber for green composite packaging film preparation with polyvinyl alcohol, Journal of polymer research, 26:95 [Accepted in March 2019] [IF: 1.4]
- 17. Zeenat Arif, Naresh K. Sethy, Lata Kumari, P. K. Mishra, B. Verma, Antifouling Behaviour of PVDF/ TiO<sub>2</sub> Composite Membrane: A Quantitative and Qualitative Assessment. Iranian Polymer Journal [Accepted in March 2019] [IF: 1.3]
- 18. Renato Graciano de Paula, Amanda Cristina Campos Antoniêto, Liliane Fraga Costa Ribeiro, Neha Srivastava, Anthonia O'Donovan, P.K. Mishra, Vijai K. Gupta. Engineered microbial host selection for value-added bioproducts from Lignocellulose, Biotechnology Advances, Elsevier, [Accepted February 2019] [Impact factor: 11.36]
- 19. Mohit Kumar, Shivesh Sabbarwal, P. K. Mishra, and S. N. Upadhyay. "Thermal Degradation Kinetics



- of Sugarcane Leaves (*Saccharum officinarum* L) using Thermo-gravimetric and Differential Scanning Calorimetric Studies. "*Bioresource technology*" 279 (2019) 262-270. [Impact factor: 5.807]
- 20. Neha Srivastava, Manish Srivastava, Vijai Kumar Gupta, P. K. Mishra and Pramod W. Ramteke, A novel strategy to enhance biohydrogen production using Graphene oxide treated thermostable crude cellulase and sugarcane bagasse hydrolyzate under co-culture system. *Bioresource Technology*, 183 (2018) 262-266. [Impact factor: 5.807]
- 21. D. B. Pal, R. Chand, S. N. Upadhyaya, P. K. Mishra, Performance of water gas shift reaction catalysts: A review, *Renewable and Sustainable Energy Review*, 93 (2018) 549-565. [Impact factor:8.05]
- 22. Neha Srivastava, Manish Srivastava, Vijai Kumar Gupta, Ambepu Manikanta, Kajal Mishra, Shipra Singh, Sangram Singh, P.W. Ramteke, P. K. Mishra, Recent development on sustainable biodiesel production using sewage sludge, *3Biotech*, 8(2018) 245. [Impact factor:1.361]
- 23. Neha Srivastava, Manish Srivastava, P. K. Mishra, Vijai K. Gupta, Gustavo Molina, Susana Rodriguez-Couto, Ambepu Manikanta and P.W. Ramteke. Applications of fungal cellulases in biofuel production: advances and limitations *Renewable & Sustainable Energy Reviews*, 82 (2018) 2379-2386. [Impact factor: 8.05]
- 24. Sonwani, R. K., Swain, G., Giri, B. S., Singh, R. S., & Rai, B. N. (2019). A novel comparative study of modified carriers in moving bed biofilm reactor for the treatment of wastewater: Process optimization and kinetic study. *Bioresource technology*, 281, 335-342.
- 25. Bharti, V., Vikrant, K., Goswami, M., Tiwari, H., Sonwani, R. K., Lee, J., & Rai, B. N. (2019). Biodegradation of methylene blue dye in a batch and continuous mode using biochar as packing media. *Environmental research*, 171, 356-364.
- 26. Sonwani, R.K., Giri, B.S., Das, T., Singh, R.S., & Rai, B.N. (2019). Biodegradation of fluorene by neoteric LDPE immobilized Pseudomonas pseudoalcaligenes NRSS3 in a packed bed bioreactor and analysis of external mass transfer correlation. *Process Biochemistry*, 77, 106-112.
- 27. Sonwani, R.K., Giri, B.S., Geed, S.R., Sharma, A., Singh, R.S., & Rai, B.N. (2018). Combination of UV-Fenton oxidation process with biological technique for treatment of polycyclic aromatic hydrocarbons using Pseudomonas pseudoalcaligenes NRSS3 isolated from petroleum contaminated site. *Indian J Exp. Biol.* 56:460–469.
- 28. Roy, K., Verma, K., Vikrant, K., Goswami, M., Sonwani, R., Rai, B., & Singh, R. (2018). Removal of Patent Blue (V) Dye Using Indian Bael Shell Biochar: Characterization, Application and Kinetic Studies. *Sustainability*, 10(8), 2669.
- 29. Sonwani, R.K., Giri, B.S., Sabbarwal, S., Singh, R.S., & Rai, B.N. (2019). Performance evaluation and kinetic study of fluorene biodegradation in continuous bioreactor using polyurethane foam as packing media. *Indian J Exp. Biol. (Accepted)*.
- 30. Goutam Kishore Gupta, Pavan Kumar Gupta, Monoj Kumar Mondal. Experimental process parameters optimization and in-depth product characterizations for teak sawdust pyrolysis. *Waste Management*, 2019, 87, 499-511.
- 31. Goutam Kishore Gupta, Monoj Kumar Mondal, Kinetics and thermodynamic analysis of maize cob pyrolysis for its bioenergy potential using thermogravimetric analyzer. *Journal of Thermal Analysis and Calorimetry*, 2019.
- 32. Goutam Kishore Gupta, Monoj Kumar Mondal, Iso-conversional kinetic and thermodynamic studies of Indian sagwan sawdust pyrolysis for its bioenergy potential. *Environmental Progress & Sustainable Energy* (AICHE), 2018.
- 33. Renu Bala, Goutam Kishore Gupta, Betty Varghese Dasgupta, Monoj Kumar Mondal, Pre-treatment optimisation and kinetics of batch anaerobic digestion of liquidised OFMSW treated with NaOH: Models verification with experimental data. *Journal of Environmental Management*, 2019, 237, 313-321
- 34. Mahendra Ram, Monoj Kumar Mondal. 2019. Investigation on fuel gas production from pulp and paper



- waste water impregnated coconut husk in fluidized bed gasifier via humidified air and CO2 gasification, Energy, Elsevier B.V. (Accepted on 23 April 2019). Impact factor: 4.968
- 35. Goutam Kishore Gupta, Monoj Kumar Mondal, 2019, Experimental process parameters optimization and in-depth product characterizations for teak sawdust pyrolysis, Waste Management, 87, 499-511, Elsevier B.V. Impact factor: 4.723
- 36. Goutam Kishore Gupta, Monoj Kumar Mondal, 2019, Bio-energy generation from Sagwan sawdust via pyrolysis: Product distributions, characterizations and optimization using response surface methodology, Energy 170, 423-437, Elsevier B.V. Impact factor: 4.968
- 37. Renu Bala, Vaishali Gautam, Monoj Kumar Mondal, 2019, Improved biogas yield from organic fraction of municipal solid waste as preliminary step for fuel cell technology and hydrogen generation, 44, 164-173, International Journal of Hydrogen Energy, Elsevier B.V. Impact factor: 4.229, 2018
- 38. Pradeep Kumar Saw, Anuj Kumar Prajapati, Monoj Kumar Mondal. 2018. The extraction of Cr (VI) from aqueous solution with a mixture of TEA and TOA as synergic extractant by using different diluents, Journal of Molecular Liquids, 269, 101-109, Impact factor: 4.513.
- 39. Mahendra Ram, Monoj Kumar Mondal. 2018. Comparative study of native and impregnated coconut husk with pulp and paper industry waste water for fuel gas production, Energy 156, 122-131, Elsevier B.V. Impact factor: 4.968
  - Shalini Srivastava, S. B. Agrawal and M. K. Mondal. 2019. Fixed bed column adsorption of Cr(VI) from aqueous solution using nanosorbents derived from magnetite impregnated Phaseolus vulgaris husk, Environmental Progress & Sustainable Energy, 38, S68-S76, American Institute of Chemical Engineers. Impact factor: 1.631
- 40. Deepak Yadav, Pradeep Kumar, Meghna Kapur, Monoj Kumar Mondal, 2019. Phosphate Removal from Aqueous Solutions by Nano-alumina for the Effective Remediation of Eutrophication, Environmental Progress & Sustainable Energy, 38, S77-S85, American Institute of Chemical Engineers. Impact factor: 1.631
- 41. Shailesh Kumar, M.K. Mondal, 2018. Equilibrium solubility of CO2 in aqueous binary mixture of 2-(diethylamine) ethanol and 1, 6-hexamethyldiamine, Korean Journal of Chemical Engineering, 35 (6), 1335-1340, Springer, US. Impact factor: 2.199
- 42. Renu Bala, Monoj Kumar Mondal, 2018, Exhaustive characterization on chemical and thermal treatment of sawdust for improved biogas production, Biomass Conversion and Biorefinery, 8, 991–1003, Impact factor: 1 310
- 43. R.K. Sonwani, B.S. Giri, T. Das, R.S. Singh, B.N. Rai, Biodegradation of fluorene by neoteric LDPE immobilized Pseudomonas pseudoalcaligenes NRSS3 in a packed bed bioreactor and analysis of external mass transfer correlation, Process Biochemistry, https://doi.org/10.1016/j.procbio.2018.11.015
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- 46. Akbar Ali A. M, Karthikeyan R. K, Sentamil Selvan M, Mithilesh K. Rai, Madhangi Priyadharshini, Maheswari N, Janani Sree G, Padmanaban V. C, and R. S. Singh, Removal of Reactive Orange 16 by adsorption onto activated carbon prepared from rice husk ash: statistical modelling and adsorption kinetics; Separation Science and Technology00(00):1-9; DOI:10.1080/01496395.2018.1559856
- 47. Nandita Singh, Vishnu Murari, Tirthankar Banerjee, Ram S. Singh and Rajesh K. Mall, Aerosol characteristics



- during Intense crop residue burning: A case study over Indo-Gangetic Plain, Proceedings of Conference: International Aerosol Conference 2018, September 2018, At: St. Louis, Missouri
- 48. Arpana Yadav, Dhananjay Kumar, Ram Sharan Singh, Lalit K. Pandey and Jyoti Rai, Seasonal variations in response of periphytic algal community to nutrient enrichment in the river Ganga (Varanasi, India), Ann. Limnol. Int. J. Lim. 2018, 54, 32, https://doi.org/10.1051/limn/2018025
- 49. Kangkan Roy, Kapil Mohan Verma, Kumar Vikrant, Mandavi Goswami, Ravi Kumar Sonwani, Birendra Nath Rai, Kowsalya Vellingiri, Ki-Hyun Kim, Balendu Shekher Giri and Ram Sharan Singh, Removal of Patent Blue (V) Dye Using Indian Bael Shell Biochar: Characterization, Application and Kinetic Studies, Sustainability 2018, 10, 2669; doi:10.3390/su10082669 (Impact Factor 2.177).
- 50. M.K. Kureel, S.R. Geed, B.N. Rai, R.S. Singh, Novel investigation of the performance of continuous packed bed bioreactor (CPBBR) by isolated Bacillus sp. M4 and proteomic study, Bioresource Technology 266 (2018) 335–342 (Impact Factor 5.65).
- Vikrant K, Kailasa SK, Tsang DCW, Lee SS, Kumar P, Giri BS, Singh RS, Kim K-H, Biofiltration of hydrogen sulfide: Trends and challenges, Journal of Cleaner Production(2018),doi:10.1016/j.jclepro.2018.03.188. (Impact Factor 6.20)
- 52. Sachin Geed, Sachin Prasad, MK Kureel, RS Singh, BN Rai, Biodegradation of wastewater in alternating aerobic-anoxic lab scale pilot plant by Alcaligenes sp. S 3 isolated from agricultural field, Journal of Environmental Management, Volume 214, 15 May 2018, Pages 408-41. (Impact Factor 4.01)
- 53. K Vikrant, KH Kim, YS Ok, DCW Tsang, YF Tsang, BS Giri, RS Singh, Engineered/designer biochar for the removal of phosphate in water and wastewater, Science of the Total Environment 616, 1242-1260, 2018 (Impact Factor 4.90)
- 54. K Vikrant, BS Giri, N Raza, K Roy, KH Kim, BN Rai, RS Singh, Recent advancements in bioremediation of dye: Current status and challenges, Bioresource Technology, 2018 (Accepted). (Impact Factor 5.65).
- 55. Ravi Kumar Sonwani, Balendu Shekhar Giri, Sachin Rameshrao Geed, Anjney Sharma, Ram Sharan Singh, Birendra Nath Rai, Combination of UV–Fenton oxidation process with biological technique for treatment of PAHs using Pseudomonas pseudoalcaligenes NRSS3 isolated from petroleum contaminated site, Indian Journal of Experimental Biology , 56, 460-469, 2018 (Impact Factor 1.115)
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- 57. S. Tiwari, R.K. Singh, A.K. Srivastava, V.K. Soni, Suresh Tiwari, R.S. Singh, M.K. Srivastava and A.K. Singh, Identification of Aerosol Sources and Its Characterization at Varanasi: An Air Mass Based Study, International Journal of Earth and Atmospheric Science, 5 (1), 19-35, 2018
- 58. SR Geed, M.K. Kureel, S. Prasad, R.S. Singh, B.N. Rai, Novel study on biodegradation of malathion and investigation of mass transfer correlation using alginate beads immobilized Bacillus sp. S4 in bioreactor, Journal of Environmental Chemical Engineering, Volume 6, Issue 2, April 2018, Pages 3444-3450
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- 60. B.S. Shrirame, S.R. Geed, A. Raj, S. Prasad, M.K. Rai, A.K. Singh, R.S. Singh and B.N. Rai, Optimization of Supercritical Extraction of Coriander (Coriandrum sativum L.) Seed and Characterization of Essential Ingredients (2018), Journal of Essential Oil Bearing Plants, DOI: 10.1080/0972060X.2018.1470943
- 61. Sambhawika Srivastava, Manish Kumar, R S Singh, BN Rai, Rajesh Kumar Mall and Tirthankar Banerjee, Long-term observation of black carbon aerosols at an urban location over central Indo-Gangetic Plain, South Asia, Atmosfera, Jan 2019 (IF -1.083)
- 62. Vikash Bharti, Kumar Vikrant, Mandavi Goswami, Himanshu Tiwari, Ravi Kumar Sonwani, Jechan Lee,



- Daniel C.W. Tsang, Ki-Hyun Kim, Mohd Saeed, Sunil Kumar, Birendra Nath Rai, Balendu Shekher Giri, Ram Sharan Singh, Biodegradation of methylene blue dye in a batch and continuous mode using biochar as packing media, Environment Research 171 (2029), 356-364 (IF 4.732)
- 63. Nirupama Patra, R.S. Singh and P. Ghosh, BUBBLE DYNAMICS IN DILUTE OXIDE BASED NANOFLUID FLOW BOILING, International Journal of Heat and Mass Transfer (Accepted) (IF -3.89)
- 64. Munna Kumar, Durga Prasad, Balendu Shekher Giri, R S Singh, Accepted Manuscript Title: Temperature control of fermentation bioreactor for ethanol production using IMC-PID controller Temperature control of fermentation bioreactor for ethanol production using IMC-PID controller, Biotechnology Reports, February 2019, DOI: 10.1016/j.btre.2019.e00319
- 65. Ravi Kumar Sonwani, Ganesh Swain, Balendu Shekher Giri, R.S. Singh and B.N. Rai, A novel comparative study of modified carriers in moving bed biofilm reactor for the treatment of wastewater: Process optimization and kinetic study, Bioresource Technology, February 2019, DOI: 10.1016/j.biortech.2019.02.121
- 66. Ravi Kumar Sonwani, Balendu Shekher Giri, Tapas Das, R.S. Singh and B.N. Rai, Biodegradation of fluorene by neoteric LDPE immobilized Pseudomonas pseudoalcaligenes NRSS3 in a packed bed bioreactor and analysis of external mass transfer correlation, PROCESS BIOCHEMISTRY 77:106-112, DOI: 10.1016/j. procbio.2018.11.015
- 67. Manish Kumar, Vani Pawar, Priyanka A. JhaS. K. Gupta, A. S. K. Sinha Pardeep K. Jha, Prabhakar Singh, Thermo-optical correlation for room temperature synthesis: cold-sintered lead halides, Journal of Materials Science: Materials in Electronics, March 2019, Volume 30, Issue 6, pp 6071–6081
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- 69. Sudhakar Saroj, Laxman Singh, Satya Vir Singh, Photodegradation of Direct Blue-199 in carpet industry wastewater using iron-doped TiO2 nanoparticles and regenerated photocatalyst, International Journal of Chemical Kinetics. 2019; 51:189–205. DOI: 10.1002/kin.21243 SCI, IF -1.416
- 70. Sudhakar Saroj, Laxman Singh, Rajiv Ranjan, Satya Vir Singh, Enhancement of photocatalytic activity and regeneration of Fe doped TiO2 (Ti1-xFexO2) nanocrystalline particles synthesized via inexpensive TiO2 precursor, Research on Chemical Intermediates, (2019) 45:1883–1906, DOI: 10.1007/s11164-018-3708-2 SCI, IF 1.674
- 71. Synthesis and Catalytic Activity of SBA-15 Supported Catalysts for Oxidation Reactions, Sweta, Vasu Chaudhary, Chinese Journal of Chemical Engineering, 26 (6), 1300-1306, 2018
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- 73. Synthesis of polystyrene polymer: Effect of various synthesis parameters on polymer properties, Vasu Chaudhary, Sweta, Journal of Porous Materials, (2019) DOI: 10.1007/s10934-019-00753-7

#### **Chapters in Book**

- 1. Neha Srivastava, Manish Srivastava, S. N. Upadhyay, P. K. Mishra and Pramod W. Ramteke, Biofuels from Protein-Rich Lignocellulosic Biomass: New Approach, Book: Sustainable Approaches for Biofuels Production Technologies, From Current Status to Practical Implementation, Biofuel and Biorefinery Technologies 7, Publisher: Springer Nature [ISBN 978-3-319-94797-6 (eBook)] pp-83-92, chapter no.-7.
- 2. Neha Srivastava, Manish Srivastava, P.W. Ramteke and P. K. Mishra, Synthetic biology strategy for microbial cellulases; an overview, Book name: New and Future Developments in Microbial Biotechnology and Bioengineering, Publisher: Elsevier, ISBN: 978-0-444-63503-7, pp-229-236, chapter no.-14.
- 3. Neha Srivastava, Manish Srivastava, P.W. Ramteke and P. K. Mishra, Solid state fermentation strategy for microbial metabolites production; an overview, Book name: Microbial Genes, Publisher: Elsevier [Under revision]
- 4. Zeenat Arif, P. K. Mishra, and S.N. Upadhyay. "Drug Delivery: Polymers and Polymeric



- Membranes", Encyclopaedia of Polymer Applications, First Edition, Taylor & Francis. ISBN 978-1-498-72993-2.
- 5. Shilpa Narang, Zeenat Arif, P. K. Mishra, and S.N. Upadhyay, Rajeev Mehta. "Polymers and Polymeric Membranes". Encyclopaedia of Polymer Applications, First Edition, Taylor & Francis ISBN 978-1-498-72993-2.
- 6. Goutam Kishore Gupta and Monoj Kumar Mondal, Chapter: Bio-energy generation from agricultural wastes and enrichment of end products, Refining Biomass Residues for Sustainable Energy and Bioproducts, ELSEVIER (On production).
- 7. Manish Chandra Kannaujiya, Tamal Mandal, Dalia Dasgupta Mandal and Monoj Kumar Mondal, Chapter: Treatment of leather industry wastewater and recovery of valuable substances to solve waste management problem in Environment, Environmental Contaminants: Ecological Implications and Management, Springer Nature, Singapore (On production).

#### **Refereed National Journal** (From 1st April 2018 to 31st March 2019)

1. Zeenat Arif, Naresh K. Sethy, P. K. Mishra, S. N. Upadhyay, B. Verma, Swelling and sorption behavior of PVA and PVA/silica nanocomposite membrane at different silica loadings. *Indian Journal of Chemical technology* (ID:IJCT-2847) [Accepted January 2019] [IF: 0.5].

#### **Proceedings of International Conferences** (From 1st April 2018 to 31st March 2019)

- 1. Panjiara, D., Pramanik, H., "Electrooxidation Study of Glycerol on Synthesized Anode Electrocatalyst Pd/C and Pt-Pd/C in a Membraneless Air Breathing Microfluidic Fuel Cell for Power Generation" International Conference SDEWES-2018, Novi Sad, Serbia (Europe), June 30 July 4, 2018.
- 2. J.P. Chakraborty (2018), Comparison of torrefaction of agricultural and forest residues, Auburn University, Alabama, USA
- 3. Naresh K. Sethy, Zeenat Arif, P.K.Mishra & Pradeep Kumar "Synthesis & Characterization of PDMS(Polydimethylsiloxane) Membrane and Enhance its Dye Degradability property by Incorporating the Silica Nanoparticle" Proceeding's of the "Ninth International Conference on Environmental Science and Technology, American Academy of Sciences" held on June 25th -29th ,2018 at Houston, Texas, USA.
- 4. Pradeep Kumar, Neha Srivastava, Deepika Kushwaha, P.K.Mishra "Process parameters evaluation to enhance cellulase production using residual algal biomass by Cladosporium cladosporioides strain NS2; application in sugar production" Poster Persentation in the "8th International Conference on Algal Biomass, Biofuels and Bioproducts" held on June 11th -13th, 2018 at Seattle, WA, USA.
- 5. R. K. Sonwani, S. Verma, S. Aryan, S. Gaurav, R. S. Singh, B. N. Rai\*. A novel integrated approach for the treatment of real textile wastewater. CHEMCON-2018, Annual session of IICHE at NIT-Jalandhar, India (27-30, December 2018).
- 6. Ravi Kumar Sonwani, Balendu Shekhar Giri, Tapas Das, Ram Sharan Singh, Birendra Nath Rai\*, "Biodegradation of PAH by immobilized *Pseudomonas pseudoalcaligenes* NRSS3 in a packed bed bioreactor and analysis of external mass transfer correlation", International conference on Bio-Innovation for environmental and health sustainable developments (BEHSD-2018), CSIR-IITR, Lucknow, India (27-28 Nov 2018).
- 7. Ashutosh Yadav, Ravi Kumar Sonwani, Balendu Shekhar Giri, Ram Sharan Singh, Birendra Nath Rai<sup>\*</sup>, "Optimization, equilibrium and kinetics studies of aqueous Cr (VI) removal by a modified "eco-friendly" *sterculia alata* biochar", International conference on Biotechnological research and innovation for sustainable development (BioSD-2018), CSIR-IICT Hyderabad, India (22-25 Nov 2018).
- 8. Ganesh Swain, Ravi Kumar Sonwani, Balendu Shekhar Giri, Ram Sharan Singh, Birendra Nath Rai<sup>\*,</sup> "A novel comparative study of modified polypropylene, polyethylene and polyurethane foam as carriers in moving bed biofilm reactor (MBBR) for the treatment of PAHs in wastewater", International conference



- on Biotechnological research and innovation for sustainable development (BioSD-2018), CSIR-IICT Hyderabad, India (22-25 Nov 2018).
- 9. R. K. Sonwani, B. S. Giri, T. Das, R. S. Singh, B. N. Rai\*, "Performance evaluation of continuous packed bed bioreactor for the treatment of wastewater containing PAH by *Exiguobacterium sp.* RKS3 (MG696729) isolated from petroleum contaminated site", International conference on sustainable water resources, innovations and impacts (TECHNOSCAPE-18), VIT Vellore, India (6-8 Sep 2018).
- 10. S. Pandey, M. Chaudhary, R. K. Sonwani, R. S. Singh, B. N. Rai<sup>\*</sup>, "Coupling of ozonation and biological treatment system for degradation of Acid orange 7 dye in wastewater", International conference on sustainable water resources, innovations and impacts (TECHNOSCAPE-18), VIT Vellore, India (6-8 Sep 2018) (Oral presentation).

#### **Proceedings of National Conferences** (From 1st April 2018 to 31st March 2019)

- 1. D.K. Shrivastava, J.P. Chakraborty (2018), Torrefaction of banana peel (NIT Mizoram)
- 2. S. Singh, J.P. Chakraborty (2018), Kinetic parameter estimation of torrefaction of babool
- 3. J.P. Chakraborty (2018), Torrefaction as an efficient pretreatment step in biomass processing, NIT Mizoram
- 4. Mohit Kumar, Nehal Govil, Siddh Upadhyay & P. K. Mishra (2019). Thermochemical and biochemical characterization of thermally assisted acid treated rice husk for pyrolysis: Thermogravimetric Analysis. The 3<sup>rd</sup> National Conference on Materials for Energy Conversion and Storage. Varanasi, India, October 2018.
- 5. Mohit Kumar, Nehal Govil & P. K. Mishra. (2019). Thermochemical Characterization of Raw and Thermally Assisted Alkali Treated Rice Husk. 71<sup>th</sup> Annual Session of Indian Institute of Chemical Engineers, CHEMCON-2018, Jalandhar, India, December 2018.

## Brief Details of 5 Articles from the Department/School with maximum no. of Citations in last 5 years

- 1. S.K. Srikar, D.D. Giri, D.B. Pal, P.K. Mishra, S.N. Upadhyay, "Green synthesis of silver nanoparticles: a review", Green and Sustainable Chemistry 6 (01), 34, 2016 [citation 86]
- 2. S.K. Srikar, D.D. Giri1, D.B. Pal, P.K. Mishra, S.N. Upadhyay, "Green Synthesis of Silver Nanoparticles: A Review", Green and Sustainable Chemistry, 6, 34-56, 2016 [citation 62]
- 3. S. Srivastava, S.B. Agrawal, M.K. Mondal, "A review on progress of heavy metal removal using adsorbents of microbial and plant origin", Environmental Science and Pollution Research 22 (20), 15386-15415, 2015 [citations 58]
- 4. Y.C. Sharma, A. Kumar, R. Prasad, S.N. Upadhyay, "Ethanol steam reforming for hydrogen production: latest and effective catalyst modification strategies to minimize carbonaceous deactivation", Renewable and Sustainable Energy Reviews 74, 89-103, 2017 [citation 52]
- 5. M. Yadav, N. Srivastva, R.S. Singh, S.N. Upadhyay, S.K. Dubey, "Biodegradation of chlorpyrifos by Pseudomonas sp. in a continuous packed bed bioreactor", Bioresource technology 165, 265-269, 2014, [citation 46]

#### **Distinguished Visitors** (From 1st April 2018 to 31st March 2019)

Sl. No.	Name of the visitor & Designation	Date of Visit	Purpose of Visit
1	Dr. Vijay Batra, Entrepreneur in US	October 02-04, 2018	Invited talk
2	Dr. Robert Muller, German Biogas Association	July2 <sup>nd</sup> -13 <sup>th</sup> , 2018	Workshop on biogas
3	Ms. Ante Kramer, German Biogas Association	July2 <sup>nd</sup> -3 <sup>th</sup> , 2018	Workshop on biogas
4	Mr. L.C. Singh, Nihilent Tech. Pvt. Ltd., Pune	February 9 <sup>th</sup> – 12 <sup>th</sup> , 2019	Invited talk
5	Mr. Satish Jha, GM, R&D and New initiatives, NCL, Singrauli	March 2019	Discussion regarding collaboration

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Sl. No.	Name of the visitor & Designation	Date of Visit	Purpose of Visit
6	Mr. Shivraj Singh Chief Engineer, NCL	March 2019	Discussion regarding collaboration
7	Anirudha Maheshwari, Dy. GM (Retd.) ONGC	February 7 <sup>th</sup> , 2019	Invited talk
8	Mr. Harsh Kumar Serial Entrepreneur, US	January 20 <sup>th</sup> ,2019	Invited talk
9	Mr. Sanjay Sethi MD, ShopClues.com	January 2019	Invited talk
10	Mr. Abhishek Gupta Venture capitalist & Entrepreneur	August 14, 2018	Invited talk
11	Mr. James Buford Jr. Exe. Director, KARUNA	May 17, 2018	Meeting regarding collaboration
12	Mr. S.K. Gupta Alumni & Entrepreneur	May 17, 2018	Meeting regarding collaboration

#### 6. Other activities

## International collaboration/achievements by the Department/School

(From 1st April 2018 to 31st March 2019)

- 1. MEMORANDUM OF UNDERSTANDING between Tallinn University of Technology, Estonia and Indian Institute of Technology (BHU) Varanasi, India by P.K. Mishra (Status: Completed)
- 2. The MoU between Indian Institute of Technology (Banaras Hindu University) Varanasi and University of Louisville (UofL), USA by P.K. Mishra (Status: In process)
- 3. The MoU between Indian Institute of Technology (BHU) Varanasi, India and Sultan Qaboos University, Oman by P.K. Mishra (Status: In process)

## Indian Faculty visits in the Department/School/School

(From 1st April 2018 to 31st March 2019)

Sl. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Dr. Anil Kumar, IIT Bombay	Ph.D. Viva-voice	07.06.2018
2	Dr. Deb Brat Das, IIT Kharagpur	Ph.D. Viva-voice	24.08.2018
3	Dr. A.B. Pandit, ICT Mumbai	Ph.D. Viva-voice	24.10.2018
4	Dr. Tarak Mondal, IIT Delhi	Ph.D. Viva-voice	10.11.2018
5	Dr. R.P. Verma, IOC R&D, Faridabad	Ph.D. Viva-voice	01.12.2018

## Foreign Faculty Visits in the Department/School (From 1st April 2018 to 31st March 2019)

Sl. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Dr. Robert Muller, German Biogas Association	Workshop on biogas	July2 <sup>nd</sup> -13 <sup>th</sup> , 2018
2	Ms. Ante Kramer, German Biogas Association	Workshop on biogas	July2 <sup>nd</sup> -3 <sup>rd</sup> , 2018

#### Foreign Students Visits in the Department/School (From 1st April 2018 to 31st March 2019)

Sl. No.	Name of Faculty Member	Purpose of Visit	Date and Venue

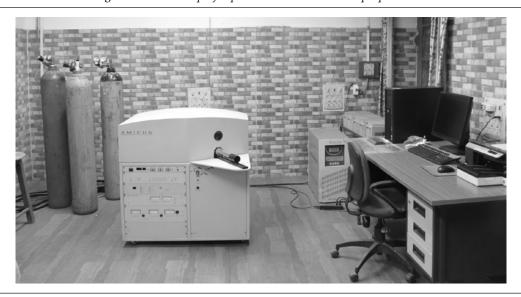


## Any other Information

## Glimpses of Laboratory/ Equipments in the Department/School



The scanning electron microscope (SEM) uses a focused beam of high-energy electrons to generate a variety of signals at the surface of solid specimens. The signals that derive from electron-sample interactions reveal information about the sample including external morphology (texture), chemical composition, and crystalline structure and orientation of materials making up the sample. In most applications, data are collected over a selected area of the surface of the sample, and a 2-dimensional image is generated that displays spatial variations in these properties.



X-ray Photoelectron Spectroscopy (XPS) also known as Electron Spectroscopy for Chemical Analysis (ESCA) is the most widely used surface analysis technique because it can be applied to a broad range of materials and provides valuable quantitative and chemical state information from the surface of the material being studied.





ICP (Inductively Coupled Plasma) Spectroscopy is an analytical method used to detect and measure elements to analyze chemical samples. The process is based on the ionization of a sample by extremely hot plasma, usually made from argon gas.



# \_\_\_\_\_\_ 8. Department of Civil Engineering

Year of Establishment: 1949

**Head of the Department:** Prof. Prabhat Kumar Singh (w.e.f. 14.03.2016)

#### 1. Brief Introduction of the Department:

The Civil Engineering Department was established in 1949 (then known as Civil and Municipal Engineering) in BENCO (Banaras Engineering College) which was a part of BHU. The formal sanction of the Visitor of the University to create this Dept. was received in 1956 and the B.Sc Engineering (Civil & Municipal) Degree was recognized by the Govt. of India in 1958. The department was rechristened to the present name in the year 1975. Presently, it caters its student with seven specialized Post Graduate courses like Environmental Engineering, Geotechnical Engineering, Hydraulic Engineering, Structural Engineering, and Transportation Engineering. The department has taken up various research programmes apart from regular teachings and the research activities, namely CSIR, UGC, SAP, HUDCO, DST and AICTE. It has a created cooperation with industries to work for the various tasks given by Govt., Semi-Govt. and other Private organisations. It is particularly dedicating in providing solutions to the people of the country with technical solutions and guidelines. It conducts short-term courses, training courses, seminars, workshops and conferences for enrichment in quality of students and entrepreneurs. The department has its own Civil Engineering Society which is dedicated in organising lectures by various experts in their respective field, group discussions, competitions, sports and various other extra-curricular and cultural activities so that there would be an holistic all round development of students. Also this society conducts a separate fest for the Civil Engineering Students, known as, Shilp.

#### Major areas of Research

Group A: Structural Engg., Geotechnical Engg., Transportation Engg. and Engg. Geoscience:

Thrust Areas: Development and characterization of Smart materials and Construction Technologies for sustainable infrastructure.

Group B: Hydraulics & Water Resource Engg., Env. Engg., Geoinformatics Engg.

Thrust Areas: Water Resources Management, River Modelling, Water quality monitoring and treatment, River Health Restoration, Waste Management and Pollution Control

#### Area of the Department/School (in square meters):

#### Infrastructure

S. No.	Particulars	Number
1	No. of Classrooms	05
2	No. of Lecture Halls	04
3	No. of Laboratory	10
4	No. of Computers available for students in the Department/School/ School	60

## Unique Achievement / Preposition of the Department



# 2. Academic Programmes offered

# New Courses Introduced (From 1st April 2018 to 31st March 2019)

S. No.	Course Code	Course name	Course credit
1	CE 567	Mechanics of Composite Materials	9
2	CE 322	Introduction to FEM in Civil Engineering Applications	8
3	CE 423	Introduction to Geotechnical Earthquake Engineering	8

## **Students on Roll** (From 1st April 2018 to 31st March 2019)

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1.	B. Tech./B. Pharm.	79	74	81	76	05
2.	Dual Degree	22	22	21	22	25
3.	M. Tech./ M. Pharm.	45	34	Nil	Nil	Nil
4.	Ph. D. (Under Institute Fellowship)	12	13	4	10	05
5.	Ph. D. (Under Project Fellowship)	Nil	Nil	Nil	Nil	Nil
6.	Ph. D. (Under Sponsored Category)	Nil	Nil	01	Nil	Nil

S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/ Workshop	Date & Venue	Financial Assistance From
ÌNDIA					
1	Atul Kumar Rahul	15061005	1. Recent trends in civil Engineering and water resources engineering	10-11 Aug, 2017 Hyderabad	Institute
			2. Mountain Hydrology and Climate Change	28Mar-Apr 08, 2016 Pantnagar,UK	NIH, India
			3. River Training and Management	27-29 Janu2016 Pune, India	Institute
			4. Open Source GIS	9-10 Oct, 2015 IIT(BHU), Varanasi	Institute
			5. Flood Risk Mitigation & Management	Sep,07-11, 2015 NIH, Roorkee	NIH, India
			6. Recent advances in structural dynamics for protection of bridge against extreme hazards	1-5 November 2017,IIT(BHU), Varanasi	NIH, India



S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/ Workshop	Date & Venue	Financial Assistance From
2	Padam Jee Omar	15061014	Recent Advances in Structural Dynamics for Protection of Bridges against Extreme Hazards	1-5 Nov 2017 IIT(BHU), Varanasi	Institute
			2. Repairing, Retrofitting and Rehabilitation of Bridge Structures (RRRBS)	24-28 August 2017 IIT(BHU), Varanasi	
			3. Modeling Energy Systems using CFD: Theory and Practice	01-07 July 2017 IIT(BHU), Varanasi	Institute
			4. Application of Principles of Reliability and Risk Analysis to Various Sub-disciplines of Civil Engineering	May, 29- June 09, 2017 IIT(BHU), Varanasi	Institute
			5. Integrated Modeling of Subsurface Flow and Solute Transport in Porous Media – Challenges and Opportunities	02-14 January 2017 IIT Roorkee	Institute
			6. River Training and Management	27-29th January 2016 CWPRS Pune	Institute
3	Gaurav Verma	16061007	ICOPAC-2018	16-17 Nov-2018, CSIR- CRRI, New Delhi	Didn't get
4	Sandeep Kumar Maddeshiya	17061007	1. Groundwater exploration and Management.	28 Jan to 09 Feb. 2019, Hyderabad.	Institute
			2.Application of Remote Sensing and GIS in Mineral Exploration	26 Dec.2018 to 24Jan.2019, Hyderabad	Institute
ABROA	AD .				
1	Jayvant Choudhary	15061008	International Conference on Resource Sustainability	June 27-29, 2018 & Beijing, China	Student Travel Support Grant, IIT (BHU), Varanasi
2	Jayvant Choudhary	15061008	Graduate Student Colloquium on Transportation Research 2018	August 03-09, 2018 & Moratuwa, Srilanka	University of Moratuwa, Srilanka
3	Jayvant Choudhary	15061008	98th annual meeting of Transportation Research Board	January 13-17, 2019 & Washington D.C, USA	Science and Engineering Research Board of India, New Delhi, India
4	Gaurav Verma	16061007	ICOPAC-2018	16-17 Nov-2018, CSIR- CRRI, New Delhi	Didn't get
5	Nikita Shivhare	15061012	ICOGEL 2018 Bali Indonesia	8TH AUG TP 12th Aug 2018	IIT BHU (RS 30,000)



S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/ Workshop	Date & Venue	Financial Assistance From
6	B. Singh Rana	16061004	16th Int. Conf. on Software Engineering Research and Practice (SERP-2018), Las Vegas, Nevada, USA	July 30-Aug 02, 2018	Institute
7	Atul Kumar Rahul	15061005	Eco-Summit 2016 Ecological Sustainability: Engineering Change	France	Institute
8	Padam Jee Omar	15061014	Second Scientific Meeting: Rehabilitation and Enhancement of Polluted Sites and Soils	France	Institute

Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India (From 1st April 2018 to 31st March 2019)

Names of students/scholars who got prizes and awards outside the Institute (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of Prize	Date & Venue	Prize awarded by
1	Jayvant Choudhary	15061008	International Travel Support Fellowship (INR 1,29,480) to attend 98 <sup>th</sup> annual meeting of Transportation Research Board held at Washington D.C (USA)	November 30, 2018 & New Delhi.	Science and Engineering Research Board of India, New Delhi, India
2	Jayvant Choudhary	15061008	Full Scholarship (effectively worth \$450) to attend Graduate Student Colloquium on Transportation Research 2018 held at Moratuwa, Srilanka.	August 3-9, 2018 & Moratuwa, Srilanka	University of Moratuwa, Srilanka
3	Nikita Shivhare	15061012	Best Paper Presentation Award	12 <sup>th</sup> Aug 2018 ICOGEL 2018 Aston Denpasar Hotel and Convention Center, Bali Indonesia	ICOGEL
4	Atul Kumar Rahul	15061005	Best Paper award	Hyderabad, India	Holy Mary Institute of Technology & Science, Hyderabad, India

Names of scholars/students who won Convocation/Institute Day prizes (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of Prize	Prize awarded by



# Names of Students/Scholars who went for foreign Internship (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration

# 3. Faculty & their Activity

# Faculty and their areas of specialisation

S. No.	Name, Qualifications, Employee No.	Date of award of PhD Degree	Major Areas of Specialization (Max. 3 Areas)
PROFE			
1	Prabhat Kumar Singh Dikshit	2009	Hydraulics and Water Resources Engineering, R S and GIS
2	Prabhat Kumar Singh	2000	Environmental Engineering (Water Quality Monitoring and Control, Solid Waste Engineering and Management, River Health Studies)
3	Dr. Shyam Bihari Dwivedi, Ph.D.	Dec.,1992	Engineering Geosciences
4	Dr. Arun Prasad	2000	Geotechnical Engineering (Soil stabilization, Unsaturated soil mechanics, Slope stability)
5	Dr. Devendra Mohan	2004	Environmental Engineering
6	Dr. Gautam Banerjee		Environmental Engineering
7	Dr. Krishna Kant Pathak	2001	Structural Engineering
8	Dr. Rajesh Kumar	May, 2004	Structural Engineering (Earthquake Engineering, Structural Optimization and Design and Concrete Materials)
9	Dr. Sasankasekhar Mandal	2002	Structural Engineering (Wind effect on Structures, Advanced concrete technology, Finite element method)
10	Prof. Veerendra Kumar	1986	Structural Engineering; Plastic design and analysis
ASSOC	IATE PROFESSORS		
1	Dr. Brind Kumar	19.10.2001	Transportation Engineering
2	Dr. Anurag Ohri	04.01.2012	Remote Sensing, GIS, Surveying, Solid Waste management
3	Dr. Sanjay K. Gupta	September 07, 2008	Hydraulics and Water Resources, Modelling and Computation, Hydraulic Systems Design
4	Dr. Kamlesh Kumar Pandey		Hydraulics & Water Resources Engineering
5	Dr. Medha Jha	December, 2003	Engineering Geosciences
6	Dr. P. Bala Ramudu	12.10.2007	Geotechnical Engineering- Environmental Geotechnics; Geopolymers; Remediation of Contaminated Sites; Electreo Osmotic consolidation
7	Dr. Pabitra Ranjan Maiti		Structural Engineering
ASSIST	ANT PROFESSORS		
1	Dr. Ankit Gupta	29 <sup>th</sup> June, 2012	Transportation and Traffic Engineering; Pavement Materials, Design and Performance; Road Safety



S. No.	Name, Qualifications, Employee No.	Date of award of PhD Degree	Major Areas of Specialization (Max. 3 Areas)
2	Dr. Nikhil Saboo	May 2, 2016	Transportation and Pavement Materials, Analysis and Design
3	Dr. Manash Chakraborty	31st July, 2015	Geotechnical Engineering, Limit Analysis, Numerical Techniques
4	Dr. Rosalin Sahoo	26-03-2015	Shear Deformation Theory; Composite Plate/Shell; CNT/FGM/Piezo; FEM; Static/Free Vibration/Buckling/ Dynamic Stability Analysis; Uncertainty Quantification
5	Dr. Shishir Gaur	2010	Hydrological Modelling, Optimization, Groundwater Management, GIS
6	Dr. Supriya Mohanty	June 18, 2014	Geotechnical Earthquake Engineering, Liquefaction Potential Evaluation, Nonlinear Dynamic Response Analysis,
7	Dr. Abhisek Mudgal	Dec. 2011	Transportation Engineering
8	Dr. Kesheo Prasad		Hydraulics & Water Resources Engineering
9	Dr. Suresh Kumar		Geotechnical Engineering
Disting	uished Professors		
Emeritu	s Professors		
1	Dr. Ramji Agarwal		Structural Engineering
Guest F	aculty		
Visiting	Faculty		
1	Dr. P.K.Basudhar		Geotechnical Engineering
2	Shri Ramesh Singh		Environmental Engineering
3	Dr. Prithvish Nag		Geoinformatics
DST IN	SPIRE Faculty		

# Technical and Non-Teaching Staff

Sl. No.	Name, Qualifications	Designation	Date of Appointment in the department
1.	Shri Kamlesh Kumar	Junior Superintendent	31/07/2017
2	Shri Kamelsh Kumar	Junior Assistant	16/02/2016
3	Shri Ajit Kumar	Skilled Clerical Staff (Ex-Cadre)	16/04/2015
4	Shri L. S. Yadav	Technical Superintendent	19/08/1992
5	Shri Lalji	Technical Superintendent	30/05/1987
6	Shri Sharada Prasad	Technical Superintendent	12/01/1989
7	Shri Dinesh Singh	Jr. Technical Superintendent	21/12/1990
8	Shri Basanta Prasad	Jr. Technical Superintendent	28/12/1990
9	Shri Vinod Kumar Singh	Senior Technician	14/10/1993
10	Shri Raman Jee Jha	Senior Technician	07/01/1997



Sl. No.	Name, Qualifications	Designation	Date of Appointment in the department
11	Shri A. K. Jaiswar	Senior Technician	22/02/2007
12	Shri R. B. Bhandari	Senior Technician	16/05/2007
13	Shri Yashwant Singh	Senior Technician	06/06/2007
14	Shri Amit Kumar Singh	Senior Technician	11/11/2011
15	Shri Shankar Ram	Junior Technician	13/06/2012
16	Shri Netrapal	Junior Technician	13/06/2012
17	Shri Rama Shankar Singh	Skilled Worker	01/01/2010
18	Shri Jai Singh Yadav	MTS-Skilled Worker	01/01/2015
19	Shri Deepak Kharwar	Unskilled Worker	22/01/2015
20	Shri Mintoo Lal Srivastava	MTS-Skilled Worker	13/12/2016
21	Shri Nitin Srivastava	MTS-Skilled Worker	13/12/2016
22	Shri Amar Srivastava	MTS-Skilled Worker	19/01/2017

# Short-term courses/workshops/seminars/symposia/conferences organised by faculty members ( $From\ 1^{st}\ April\ 2018\ to\ 31^{st}\ March\ 2019$ )

S. No.	Cordinator	Title	Period
1	Dr. Ankit Gupta and Dr. Nikhil Saboo	Recent Development in Pavement Analysis and Design	17-22 September, 2018
2	Dr. Ankit Gupta	Road Safety	22-26 October, 2018
3	Dr. Ankit Gupta and Dr. Nikhil Saboo	Recent Development in Pavement Analysis and Design	17-22 September, 2018
4	Prof. K. K. Pathak and Dr. Rosalin Sahoo	Invited lectures on FEM & Mechanics of Fibre Reinforced Composites	13-02-2019 to 14-02- 2019
5	Prof. Prabhat Kumar Singh, Dr. Shishir Gaur, Dr. S.B. Dwivedi, Dr. Anurag Ohri	International Conference on "River Health: Assessment to Restoration".	Feb. 14-16, 2019.
6	Dr. Anurag Ohri, Dr. Medha Jha and Dr Shishir Gaur	QIP and CEP course on Principals and Applications of GIS, Department of Civil Engineering, Indian Institute of Technology (Banaras Hindu University), Varanasi,	January 7-12, 2019
7	Dr. P. R. Maiti and Dr. P. Bala Ramudu	Course coordinator, CEP Short term course on Recent Advances in Structural Dynamics and Structural Health Monitoring	25 <sup>th</sup> -27 <sup>th</sup> March 2019
8	Dr. P. R. Maiti and Prof. V. Kumar	Skill Development Program, Mason Training Program for better workmanship in reinforce concrete and masonry work	22-23 June 2018

# Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings ( $From\ 1^{st}\ April\ 2018\ to\ 31^{st}\ March\ 2019$ )

S. No.	Name of Faculty Member	Title	Period and Venue
Seminars	s/Symposia/Conferences		
1	Dr. Ankit Gupta	International Conference on Transportation Infrastructure Projects – Conception to Execution (TIPCE-2019), IIT Roorkee	07-10 Jan, 2019, IIT Roorkee



S. No.	Name of Faculty Member	Title	Period and Venue
2	Dr. Rosalin Sahoo	"Principles and Applications of GIS"	Department of Civil Engineering, IIT (BHU), Varanasi during 7-12, Jan, 2019.
3	Prof. Prabhat Kumar Singh	International Conference On Water Resources Management, HYDRO 2018, Patna.	Dec. 18-20, 2018
4	Prof.S.B.Dwivedi	2 <sup>nd</sup> Scientific meeting: Workshop on Rehabilitation of polluted Sites and Soils	28-30 Oct.,2018 Saint –Etienne,France
5	Dr. Sanjay K. Gupta	International Conference on Water Resources Management, HYDRO 2018	Dec. 18-20, 2018
6	Dr. Supriya Mohanty	"Principles and Applications of GIS"	7-12 January, 2019, Department of Civil Engineering, IIT(BHU), Varanasi.
7	Prof. Veerendra Kumar	2018 RVSS Conference	October 29-30, 2018, Saint-Etienne France
Meeting	s		
1	Prof. Prabhat Kumar Singh Dikshit,	Special Committee of the School of Environmental Sciences, JNU	3 <sup>rd</sup> April, 2019
2	Prof. Prabhat Kumar Singh Dikshit,	Special Committee of the School of Environmental Sciences, JNU	12 <sup>th</sup> November, 2018
3	Prof. Prabhat Kumar Singh Dikshit,	Member Building and Works Committee CUSB, Gaya	14 <sup>th</sup> Dec. 2018
4	Prof. Rajesh Kumar	Member Building Works Committee, NIT, Patna, 33 <sup>rd</sup> Meeting	6 <sup>th</sup> June, 2018
5	Prof. Rajesh Kumar	Member Building Works Committee, NIT, Patna,35 <sup>rd</sup> Meeting	26 <sup>th</sup> February, 2019
6.	Prof. S. Mandal	Meeting of University Quality monitoring Committee, UWD, BHU, Varanasi	December, 2018

# $\textbf{Special lectures delivered by faculty members in other institutions} \ (\textit{From 1st April 2018 to 31st March 2019})$

S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
1	Dr. Ankit Gupta	Understanding Pedestrian Flow Characteristics	IIT Kharagpur	01st Nov. 2018
2	Dr. Nikhil Saboo	Development of Hierarchical Ranking Strategy for Asphalt Skeleton in Semi- Flexible Pavements	NIT Jalandhar	03 <sup>rd</sup> Nov. 2018
3	Prabhat Kumar Singh Dikshit	Sustainability in Construction Projects	Madhav Institute of Technology & Science, Gwalior	23.2.19
4	Prof. S.B. Dwivedi Keynote Address	Geochemical Characterization of polluted Soil and Its remediation	ENISE France	29 Oct.,2018
5	Dr. P. Bala Ramudu	A Study on Effect of Alkali Interaction on Soil Behaviour	MNNIT Allahabad	02 March, 2019
6	Dr. Anurag Ohri	Applications of Remote Sensing	REC Azamgarh	27.09.2018
7	Prof. Rajesh Kumar	Analysis of Differential Heaving Distress in the Structure due to Degradation of Founding Soil	ENISE, France	28 Oct. 2018



8	Prof. Rajesh Kumar	Soil-Structure Interaction under Earthquake Excitation	Shri Ramswaroop Memorial University, Lucknow, U.P., India	3 <sup>rd</sup> March, 2019
			· '	

# Visits abroad by faculty members (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Country Visited	Date of Leaving india	Date of Returning India	Purpose of Visit	Funding from
1	Dr. Ankit Gupta	Qatar	14-04-2018	20-04-2018	International Conference	CPDA
2	Dr. Nikhil Saboo	Qatar	14-04-2018	20-04-2018	International Conference	CPDA
3	Dr. Rosalin Sahoo	Paris, France	12-07-2019	24-07-2019	Presentation in Conference	International Travel Support, SERB
4	Prof. Prabhat Kumar Singh	Germany	June 14, 2019	June 20, 2019	International Conference 'Reuse 2019' at Berlin.	CPDA
5	Prof. Prabhat Kumar Singh	Netherland	June 21, 2019		International Conference on 'Electrochemical Chemistry'  The Hague, Netherland	CPDA
6	Prof. S.B. Dwivedi	France	26 Oct.,2018	4 Nov,2018	Key note lecture	CPDA
7	Prof. Rajesh Kumar	France	26 <sup>th</sup> Oct, 2018	4th Nov. 2018	Delivered a Lecture	CPDA, IIT(BHU)
8	Dr. Shishir Gaur	France	Oct, 2018	Oct, 2018	Organising Workshop	CPDA
9	Dr. Supriya Mohanty	USA	08-06-2018	15-06-2018	International Conference	CPDA

# **Honours and awards** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Details of Award
1	Dr. Ankit Gupta	Session Lead (Session Chair) on topic "Design and Safety Issues" at International Conference on Transportation Infrastructure Projects – Conception to Execution (TIPCE-2019), IIT Roorkee (7-10 Jan.).
2	Dr. Ankit Gupta	Member, G-3 Technical Committee, Indian Roads Congress. Nominated for three years 2018-2020.
3	Dr. Nikhil Saboo	Key Note on topic "Development of Hierarchical Ranking Strategy for Asphalt Skeleton in Semi-Flexible Pavements" at ASMMCE, 2018, National Institute of Technology, Jalandhar, November 3-4, 2018
4	Dr. Nikhil Saboo	"Young Scientist in Civil Engineering", Centre for Advanced Research and Design, Venus International Foundation, August 2018
5	Dr. Nikhil Saboo	"Achievement Award for Academician / Scientist / Technologist / Innovator", 11th CIDC Vishwakarma Awards, Construction and Industry Development Council, March 2019
6	Dr. Sanjay K. Gupta	Jal Vigyan Puraskar-2018 by The Indian Society for Hydraulics, Central Power and Research Station, Khadakwasla, Pune (https://ish.net.in/) This was awarded as the "Best Paper Award" for the paper published in ISH journal of Hydraulic Engineering, Taylor & Francis. The award constituted a Certificate, Trophy and cash prize of Rs. 5000/-



S. No.	Name of Faculty Member	Details of Award
7	Dr. Supriya Mo- hanty	Track Chair of "Civil and Environmental Engineering" track of the 2018 Moratuwa Engineering Research Conference (MERCon), May 30- June 1, 2018, Sri Lanka.
8	Prof. Rajesh Ku- mar	National Research Development Corporation (NRDC) National Meritorious Invention Awards-2018 on "making of Self-Adjusting Fixed Type Jetty (SAFTJ)" by an Enterprise of Department of Scientific and Industrial Research, Ministry of Science and Technology, Gov- ernment of India, New Delhi. Trophy and total cash Prize of Rs.500000/-
9	Prof. Rajesh Ku- mar	Indian Concrete Institute(ICI)-Ultratech Jury Award (2018), for Outstanding Concrete Structure

## Fellowships of academic and professional societies (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Details of Fellowship
1	Prof. Rajesh Kumar	Fellow of Institution of Engineers (FIA),30 <sup>th</sup>
		September, 2018
2	Prof. Prabhat Kumar Singh Dikshit	Fellow of Institution of Engineers

## Books, monographs authored/co-authored (From 1st April 2018 to 31st March 2019)

S. No.	Name of Author/Co- Author	Title	Publisher
1			

## Editorial boards of journals (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1	Prof. S. Mandal	Member	International Journal of Engineering and Technology Innovation

## 8. Design and Development Activities

New facilities added (From 1st April 2018 to 31st March 2019)

S. No.	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)
1	Dynamic Shear Rheometer	Rs 27 Lakhs
2	Rotational Viscometer with Thermocell	Rs 7 Lakhs
3	VBox and Performance Box	Rs 4 Lakhs
4	Direction controlled seepage apparatus (Fabricated)	0.45 Lakhs
5	ArcGIS, ArcServer, ArcCity3D engine, ArcGIS Online	Rs 50 Lakhs
6	IMAGINE Professional, Photogrammetry, GeoMedia Professional	Rs 20 Lakhs
7	Tinkering Lab, Dept. of Civil Engineering	Rs.7.0 Lakh
	Total	Rs. 115.45 Lakh

## Patents filed (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Title of Patent
1	Prof. Arun Prasad	A Stabilized Green Product/Composition from Hazardous Jarosite Waste and Process of
		Preparation

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# 5. Research and Consultancy

# **Sponsored research projects** (Ongoing only)

<u>Note:</u> Sponsored project name is to be given only in case a faculty member is Project Incharge

S. No.	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co- ordinator
1	Smart and Integrated Pedestrian Network Design	2017-2019	MHRD, MoUD, GMR, Vikram Solar	Rs. 218 Lakhs	Dr. Ankit Gupta from IIT (BHU) Varanasi and Dr. Arkopal K. Goswami from IIT Kharagpur
2	Development and Assessment of Asphalt Mastic from Typical Indian and Austrian Filler Materials with a New Test Method	2018-2020	DST	Rs. 9.5 Lakhs	Dr. Nikhil Saboo and Dr. Ankit Gupta
3	Development and Assessment of Asphalt Mastic from Typical Indian and Austrian Filler Materials with a New Test Method	2018-2020	DST	Rs. 9.5 Lakhs	Dr. Nikhil Saboo and Dr. Ankit Gupta
4	Assessing the Suitability of warm mix asphalt (WMA) Technology Using Tribological and Performance Characteristics	2019-	Science and Engineering Research Board (SERB), India	Rs. 40 Lakhs	Dr. Nikhil Saboo
5	Rheophysics of semi-rigid road-building materials and optimization of their compositions for the perception of heavy transport load	2019-	Department of Science and Technology	Rs. 10 Lakhs	Dr. Nikhil Saboo and Dr. Ankit Gupta
6	Life Cycle and Performance Assessment of Roads Constructed Using Cold Mix Technology	2019-	National Rural Infrastructural Development Agency, (Ministry of Rural Development, Government of India)	20.5 Lakhs	Dr. Nikhil Saboo and Dr. Abhisek Mudgal
7	Performance Assessment of Roads Constructed Using Waste Plastics	2019-	National Rural Infrastructural Development Agency, (Ministry of Rural Development, Government of India)	Rs. 20.5 Lakhs	Dr. Nikhil Saboo and Dr. Ankit Gupta
8	Propagation and mitigation model of mixed traffic noise for planning of mid-sized Indian cities	2017-2020	MHRD and MoUD	Rs. 373.53 Lakhs	Dr. Brind Kumar



S. No.	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co- ordinator
9	Studying fewaspects of soil behaviour and in corporating them in Limit Analysis	2018-2023	DST	Rs. 35 Lakhs	Dr. Manash Chakraborty
10	Numerical Analysis of Shearing Test on Soils	2018-2019	IIT (BHU)	Rs. 10 Lakhs	Dr. Manash Chakraborty
11	Active Vibration Control of Smart Composite and Sandwich Structures in Hygrothermal Environment	03	SERB, DST	Rs. 19 Lakhs	Dr. Rosalin Sahoo
12	An Experimental Approach to Dynamic Response of Woven Fibre composite Plates in Hygrothermal Environment	02	ІІТВНИ	Rs. 10 Lakhs	Dr. Rosalin Sahoo
13	H2020 SPRING (Strategic Planning for Water Resources, Development and Implementation of Novel Biotechnical Treatment Solutions for Good Practices)	2019-2022	European Union- DBT	Rs 92.0 Lakhs	Prof. Prabhat Kumar Singh, Dr Shishir Gaur, Dr Anurag Ohri
	Project No. 821423 Version 4 10 May 2019				
14	River-Aquifer Exchanges & Hydro geological Study for Watershed management of Betwa River Basin.	2019-2021	NRDMS-DST	Rs 25 Lakhs	Dr Shishir Gaur
15	Investigation on Dynamic Response Analysis of Shallow Foundation Resting on Pond Ash Deposits	2016-2019	SERB Division, Department of Science & Technology, New Delhi, India	Rs 36.14 Lakhs	Dr. Supriya Mohanty
16	Measurement of Shear Wave Velocity Using Bender Element Tests for Earthquake Response Analysis	2018-2019	IIT(BHU), Varanasi	Rs 14.65 Lakhs	Dr. Supriya Mohanty

# Rs. 943.32 Lakhs

# ${\bf Industrial\ consultancy\ projects\ } (Ongoing\ only)$

S. No.	Name of Faculty Member	Title	Industry	Amount (in lakhs of Rs.)
1	Dr. Brind Kumar	Design of runway, taxiway and apron for airport at Azamgarh, Aligarh, Srawasti and Moradabad.	Govt. of UP and Airport Authority of India.	10.00
2	Dr. Brind Kumar	Structural design of PJCC pavement for Dalla-Billi of Sonebhadra district.	PWD, UP	15.00



S. No.	Name of Faculty Member	Title	Industry	Amount (in lakhs of Rs.)
3	Prof. S. Mandal	Vetting of 10 MLD STP at Sultanganj, Bihar	Bihar Urban Infrastructure development corporation limited (BUIDCO), Patna	5.00
4	Prof. S. Mandal	Vetting of Structural deisgn and drawings of LC 40 and LC 42 between Karmnasha to Delhri-on-sone.	Dedicated Freight Corridor Corporation of India Limited, Mughalsarai	5.00
5	Dr. Sanjay K. Gupta	Design of interceptor pipeline laid beneath the river Varuna	UP Irrigation and Water Resources Dept.	8.85
6	Dr. Sanjay K. Gupta	Design of pipeline bedding and L/B & R/B sumps	UP Irrigation and Water Resources Dept.	7.08
7	Dr. Sanjay K. Gupta	Site investigation and technical remedy for Bansagar Canal Project	UP Irrigation and Water Resources Dept.	2.36
8	Dr. Sanjay Gupta	Site inspection and solution for Kanhar Canal Project	UP Irrigation and Water Resources Dept.	2.36
9	Prof. Rajesh Kumar	Vetting of Structural Design of various structures including Cancer Hospital and Multi-Speciality Hospital of BHU (2018-19)	CPWD	30.00
10	Prof. Rajesh Kumar	Vetting of Structural Design and Drawings of ROB and others of Various Project in India	M/s Dilip Buildcon Limited, Bhopal, Madhya Pradesh, for National Highway Authority, Govt. of India, Delhi	20.00
11	Prof. Rajesh Kumar	Vetting of Structural Design and Drawings of ROB at Giddalur-Vinkuonda Section, NH-544D	BVSR Construction Pvt. Ltd., Plot No.9, RoadNo.12, Banjara Hills, Hyderabad-500034	3.54
12	Prof. V. Kumar	Design and vetted different several type of structures of State and Central Govt. Organisation	State and Central Govt. As well as Private Agency	151

## (Indicative and Major works only) Rs. 256.00 lakhs

## Faculty members' participation with other universities under MoUs (Ongoing only)

**Research Publications** (From 1st April 2018 to 31st March 2019)

S. No.	Papers Published/ Presented	No.
1	Papers Published in Refereed National Journals	13
2	Papers Published in Refereed International Journals	65
3	Papers Presented in National Conferences	13
4	Papers Presented in International Conferences	41

## **Refereed International Journals** (From 1st April 2018 to 31st March 2019)

- 1. Rahardjo, H., Prasad, A., Krisnanto, S., Leong E. C. and Wang, C. L. (2019). "Soil-Water Characteristic Curve and Permeability Function of Recycled Concrete Aggregates Coated with Oil or Wax", *Geotechnical Testing Journal* (ASTM), 42(2).
- 2. Gupta, C. and Prasad, A. (2018). Variables Controlling Strength of Lime Stabilized Jarosite Waste, International Journal of Geo-Engineering (Springer), 9:6. https://doi.org/10.1186/s40703-018-0074-2

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- 3. Kumar, S., and Prasad, A. (2018) Strength Retrieval of Artificially Cemented Bauxite Residue Using Machine Learning: An Alternative Design Approach Based on Response Surface Methodology, *Neural Computing and Applications* (Springer), DOI: 10.1007/s00521-018-3482-5 (*Online First*)
- 4. Gupta, C. and Prasad, A. (2018). "A parametric strength study of jarosite waste", *Proceedings of the ICE Waste and Resource Management*, (Ahead of print), <a href="https://doi.org/10.1680/jwarm.17.00041">https://doi.org/10.1680/jwarm.17.00041</a>.
- 5. Saboo, N., Shivhare, S., Kori, K., Chandrappa, A. K. (2019) "Effect of Flyash and Metakaolin on Pervious Concrete Properties", Construction and Building Materials, Elsevier, Vol 233, No. 10, pp 322-328.
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- 7. Saboo N., Khalpada, V., Sahu, P. K., R, Ranjeesh., Gupta, A. (2019). "Optimal proportioning of grout constituents using mathematical programming for semi flexible pavement", International Journal of Pavement Research and Technology, Springer, Vol 12, No. 3, pp 297-306.
- 8. Gugliani, G. K., Sarkar, A., Bhadani, S., Mandal, S. (2019). A novel approach for accurate assessment of design wind speed for variable wind climate. KSCE Journal of Civil Engineering, Springer, Volume 23, Issue 2, pp 608–623.
- 9. Choudhary, J., Kumar, B. and Gupta, A. (2019). "Effect of Filler on the Bitumen-Aggregate Adhesion in Asphalt Mix", International Journal of Pavement Engineering, Taylor and Francis. [IF: 2.322] (http://dx.doi.org/10.108 0/10298436.2018.1549325) (Online Published)
- 10. Mondal, S. and Gupta, A. (2019). "An Optimized Approach for Saturation Flow Estimation of Signalized Intersections", Proceedings of the Institution of Civil Engineers Transport. [IF: 0.239] (DOI: 10.1680/jtran.18.00206) (Published Online)
- 11. Mondal, S. and Gupta, A. (2019). "Discharge Characteristics Analysis of Queued-Up Vehicles at Signal Controlled Intersections Under Heterogeneous Traffic Conditions", International Journal of Civil Engineering, Springer, Vol. 17, No. 05, pp. 619-628. (DOI: 10.1007/s40999-018-0343-7) [IF: 0.624]
- 12. Mishra, S., Kushwaha, A., Aggrawal, D. and Gupta, A. (2019). "Comparative Emission Study by Real-Time Congestion Monitoring for Stable Pollution Policy on Temporal and Meso-Spatial Regions in Delhi", Journal of Cleaner Production, Elsevier, Vol. 224, pp. 465-478. [IF: 5.651] (https://doi.org/10.1016/j.jclepro.2019.03.122)
- 13. Saboo, N., Ranjeesh, R., Gupta, A. and Majji, S. (2019). "Development of Hierarchical Ranking Strategy for the Asphalt Skeleton in Semi Flexible Pavement", Construction and Building Materials, Elsevier, Vol. 201, pp 149-158. [IF: 3.485]
- 14. Mishra, S., Bhattacharya, D. and Gupta, A. (2018). "Congestion Adaptive Traffic Light Control and Notification Architecture using Google Maps APIs", Data, MDPI, Vol. 3, Issue 4, 67. (DOI: 10.3390/data3040067) (ESCI)
- 15. Mishra, S., Bhattacharya, D., Gupta, A. and Singh, V. R. (2018). "Adaptive Traffic Light Cycle Time Controller using Microcontrollers and Crowdsource Data of Google APIs for Developing Countries", ISPRS Ann. Photogramm. Remote Sens. Spatial Inf. Sci., IV-4/W7, pp 83-90. (DOI: https://doi.org/10.5194/isprs-annals-IV-4-W7-83-2018)
- 16. Choudhary, J., Kumar, B. and Gupta, A. (2018). "Application of Waste Materials as Fillers in Bituminous Mixes", Waste Management, Elsevier, Vol. 78, No. 8, pp 417-425. (DOI: 10.1016/j.wasman.2018.06.009) [IF: 4.723]
- 17. Saboo, N., Kumar, R., Kumar, P. and Gupta, A. (2018). "Ranking the Rheological Response of SBS and EVA Modified Bitumen using MSCR and LAS Test", Journal of Materials in Civil Engineering, ASCE, Vol. 30, No. 8, pp 1-8. [IF: 1.43] (DOI: 10.1061/(ASCE)MT.1943-5533.0002367)
- 18. Saboo, N., R, Ranjeesh., M, Suresh., and Gupta, A. (2019). "Development of Hierarchical Ranking Strategy for the Asphalt Skeleton in Semi-Flexible Pavements", Construction and Building Materials, Elsevier, Vol 201, No. 3, pp 149-158.
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- 20. Saboo, N., Mudgal, A. (2018). "Modelling Creep and Recovery Response of Asphalt Binders Using Generalized Burgers Model", Petroleum Science and Technology, Taylor & Francis, DOI: https://doi.org/10.1080/10916466 .2018.1496109.
- 21. Saboo, N., Kumar, R., Kumar, P., Gupta, A. (2018). "Ranking the Rheological Response of SBS and EVA Modified Bitumen Using MSCR and LAS Test", Journal of Materials in Civil Engineering, ASCE Vol. 30, No. 8, pp 31-38.
- 22. Saboo, N., Singh, B., Kumar, P., and Vikram, D. (2018). "Study on Viscosity of Conventional and Polymer Modified Asphalt Binders in Steady and Dynamic Shear Domain" Mechanics of Time Dependent Materials, Springer, Vol 22, No. 1, pp 67-78.
- 23. Verma, G., & Kumar, B. (2019). Prediction of compaction parameters for fine-grained and coarse-grained soils: a review. International Journal of Geotechnical Engineering, 1-8.
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- 31. Garg N, RS, Karkhanis, Sahoo R., Maiti, PR, Singh BN. (2019). "Trigonometric zigzag theory for static analysis of laminated composite and sandwich plates under hygro-thermo mechanical loading" Composite Structures 209, 460- 471.
- 32. Shivhare N., Dikshit P.K.S., Dwivedi S.B., (2018). "A Comparison of SWAT Model Calibration Techniques for Hydrological Modeling in the Ganga River Watershed", Elsevie, J. of Watershed Ecology, Engineering 4, 643–652
- 33. Shivhare N., Rahul A. K., Omar PJ, Chauhan M. S., Gaur S., Dikshit P.K.S., Dwivedi S.B., (2018). Identification of critical soil erosion prone areas and prioritization of micro-watersheds using geoinformatics techniques", Elsevie, J. of Ecological Engineering, 121, pp. 26-34
- 34. Shivhare, N., Dikshit, P. K. S., & Dwivedi, S. B. (2018). ARIMA Based Weather forecasting Tool: A case study for Varanasi. Mausam
- 35. Shivhare, N., Dikshit, P. K. S., & Dwivedi, S. B. (2018). Principal Causes of Soil Erosion in a Watershed from the Ganga Basin- India: Evidence from Land Use Land Cover Dynamics. Arabian Journal of GeoSciences.
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- 39. Singh, P.K. and Saxena, S. (2018). Towards Developing River Health Index. Ecological Indicators. Ecological Indicators, 85 (2018) 999–1011. (5Years IF=4.254).
- 40. Maurya S.P., Ohri A., Singh P. K., Debnath A. (2018). Development of a Decision Making Tool for Selection of Wastewater Treatment Technology Based on Urban Water Reuse", International Journal of Civil Engineering and Technology (IJCIET), E-ISSN 0976-6316, Vol. 9 (2), pp. 497-506, Scopus Indexed.
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- 42. M. Ranjan, P.K.Singh, A.L.Srivastav, V.Kumar, (2018). Adsorptive properties of cation added Hydrous bismuth oxide on nitrate sorption. Journal of Water Chemistry and Technology. (Accepted manuscript) (Springer Publication, 2016 Impact Factor=0.343).
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- 44. Gaur, S, Dave, A, Gupta, A., Ohri, A, Graillot, G, Dwivedi, S.B. (2018) Application of Artificial Neural Networks for Identifying Optimal Groundwater Pumping and Piping Network Layout, Water Resource Management December 2018, Volume 32, Issue 15, pp 5067–5079
- 45. Shivhare, N., Rahul, A, Omar, P.J., Chauhan, M. S, Gaur, S., Dikshit, P.K.S., and Dwivedi.S.B. (2018) Identification of critical soil erosion prone areas and prioritization of micro-watersheds using geoinformatics techniques. Ecological Engineering Volume 121, 1 October 2018, Pages 26-34.
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- 48. Gyani Jail Singh, Sasankasekhar Mandal, Rajesh Kumar and Veerendra Kumar (2019). Simplified Analysis of Negative Shear Lag in Laminated Composite Cantilever Beam, Journal of Aerospace Engineering, ASCE, ISSN03-1321, 2020, 33(1): 04019103.
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- 50. Alok Ranjan, Rajesh Kumar and Devendra Mohan (2018), Comparative Analysis of Phenolphthalein Indicator, XRDA and FTIR methods for measurement of Carbonation depth of Concrete, International Journal of Civil Engineering and Technology (Scopus Index), Volume 9, Issue 5.
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- 64. Megha Jain, Pathak K,K, Analysis of cool roof passive techniques for residential buildings in subtropical humid climate, Int. J. of Environment and Sustainability, Vol.7, No.2, 2018, pp.41-56.
- 65. G Banerjee (2019). Aquatic plant systems for sustainable wastewater treatment: Indian case studies J of Biodiversity, Management & Forestry, 08 20-21.

#### **Refereed National Journal** (From 1st April 2018 to 31st March 2019)

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- 2. Tongaria, K., Mandal, S., and Mohan, D. (2019). A review of carbonation of concrete and its prediction modelling. Journal of Environmental Nanotechnology, Vol. 7, No. 4, 75 90.
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- 5. Saboo, N., Kumar, P. (2018) "Equivalent Slope Method for Construction of Master Curves", Indian Highways, Indian Roads Congress, Vol. 46, No. 2, pp 19-28.
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- 7. Padam Jee Omar, S. B. Dwivedi, P. K. S. Dikshit (2019) Temporal Variability Study in Rainfall and Temperature over Varanasi and adjoining areas, Disaster Advances, Vol. 12 (1) pp: 1-7
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- 11. Mudi Charitha, P R Maiti and C Sashidhar (2018) "Experimental and Numerical Analysis of Structures under Blast Loading A Review" i-manager's Journal on Structural Engineering. Vol 7, No. 2, pp-27-36.
- 12. Kshitiz Beranwal, Abhishek Sharma, Pramod K. Singh, K.K.Pathak, Experimental and Numerical Investigations of an Underslung Steel Bridge Model, INSDAG Year Book 2017-18, pp.167-173, Sept. 2018.
- 13. Prajanya Kr. Yadav, Parijat Pushpam, Prabhat Kumar, Pathak K.K., Effect of Aggregate-Cement Ratio on Engineering Properties of Pervious Concrete, NBM&CW February 2019.

## **Proceedings of International Conferences** (From 1st April 2018 to 31st March 2019)

- 1. Rahul Soni, Padam Jee Omar, S. B. Dwivedi, P. K. S. Dikshit, Modeling of Groundwater using two different approaches, International Conference on Modern Trends in Civil Engineering (Towards Sustainable Development Goals) (ICMTCE 2019), Shri Ramswaroop Memorial University, Lucknow, 01-02 March 2019.
- 2. Padam Jee Omar, Nikita Shivhare, Shishir Gaur, S. B. Dwivedi, P. K. S. Dikshit, Anurag Ohri, Surface Soil and Water modelling for a part of Ganga Basin, India, Second Scientific Meeting: Rehabilitation and Enhancement of Polluted Sites and Soils, École Nationale d'ingénieurs de Saint-Étienne (ENISE), Saint Etienne, France, October 29-30, 2018.
- 3. Padam Jee Omar, S. B. Dwivedi, P. K. S. Dikshit, Sustainable Development and Management of Groundwater in Varanasi, India, International Conference on "Trends and Recent Advances in Civil Engineering (TRACE-2018)", Amity University, Noida, 23-24 August 2018.
- 4. Padam Jee Omar, Shishir Gaur, S. B. Dwivedi, P. K. S. Dikshit, Assessment of the impact of Landfill Leachate on the quality of Groundwater in Varanasi District, India, International Conference "Geomatics in Civil Engineering, IIT Roorkee, 5-6 April 2018.
- 5. Choudhary, J., Kumar, B. and Gupta, A. (2018). "Performance of Asphalt Mix with Glass and Glass-Lime Composite Fillers", Proc., of Advances in Materials and Pavement Performance Prediction, AM3P-2018, Doha, Qatar, pp. 387-390. (16-18 April 2018)
- 6. Saboo, N., Kumar, P., Gupta, A. and Ranjeesh, R. (2018). "Shear Rate Dependence on Mixing and Compaction Temperatures", Proc., of Advances in Materials and Pavement Performance Prediction, AM3P-2018, Doha, Qatar, pp. 171-176. (16-18 April 2018)
- 7. Choudhary, J., Kumar, B. and Gupta, A. (2018). "A Review of Solid Waste Materials as Alternative Fillers in Asphalt Mixes", In Abstract book of International Conference of Resource Sustainability, Beijing, China, June



- 27-29, pp 246-247.
- 8. Choudhary, J., Kumar, B. and Gupta, A. (2018). "Recycling of Glass and Glass-Hydrated Lime Composite as Filler in Asphalt Mixes", In Abstract book of International Conference of Resource Sustainability, Beijing, China, June 27-29, pp 243-244.
- 9. Choudhary, J., Kumar, B. and Gupta, A. (2018). "Performance Evaluation of Waste Fillers Admixed Asphalt Mixes", In Abstract book of International Conference of Transport Research Forum (TRF-2018), University of Moratuwa, Sri Lanka, August 04, pp 12-14.
- Mondal, S. and Gupta, A. (2018). "Queue Dissipation at Signalized Intersection under Mixed Traffic Conditions",
   In Abstract book of International Conference of Transport Research Forum (TRF-2018), University of Moratuwa, Sri Lanka, August 04, pp 22-24.
- 11. Choudhary, J., Kumar, B. and Gupta, A. (2019). "Performance Evaluation of Industrial Waste Filler Modified Asphalt Mixes", Proc., of 98th Annual Meeting of Transportation Research Board, TRB-2019, Washington D.C., USA. (Paper Id: 19-01157)
- 12. Mondal, S., Sharma, V. K. and Gupta, A. (2019) "Modelling U-Turning Behaviour of Vehicles at Mid-Block Median Opening in Multilane Urban Roads", Proc. of International Conference on Transportation Infrastructure Projects Conception to Execution (TIPCE-2019), IIT Roorkee (7-10 Jan.).
- 13. Choudhary, J., Kumar, B. and Gupta, A. (2019). "Performance Evaluation of Carbide Lime Modified Asphalt Mixes", Proc. of International Conference on Transportation Infrastructure Projects Conception to Execution (TIPCE-2019), IIT Roorkee (7-10 Jan.)
- 14. Saboo, N., Kumar, P., Gupta, A. and Ranjeesh, R. (2018). "Shear Rate Dependence on Mixing and Compaction Temperatures", Proc., of Advances in Materials and Pavement Performance Prediction, AM3P-2018, Doha, Qatar, pp. 171-176. (16-18 April 2018)
- 15. Saboo, N., Khalapada, V., Sahu, P., R, Ranjeesh., Gupta, A. "Optimal proportioning of grout constituents using mathematical programming for semi-flexible pavement", Transportation Research Board 2019 Annual Meeting, January 7- January 11, Walter E. Washington Convention Centre, Washington D.C, 2019.
- 16. Jayvant Choudhary, Brind Kumar and Ankit Gupta, "Performance evaluation of industrial waste filler modified asphalt mixes", In 98th Annual Meeting of Transportation Research Board, Washington D.C., USA, January 13-17, 2019.
- 17. Jayvant Choudhary, Brind Kumar and Ankit Gupta, "Performance evaluation of carbide lime modified asphalt mixes", In International Conference of Transportation Infrastructure Projects: Conception to Execution, Roorkee, India, January 07-10, 2019.
- 18. Jayvant Choudhary, Brind Kumar and Ankit Gupta, "Performance evaluation of waste fillers admixed asphalt mixes.", In International Conference of Transportation Research Forum, Moratuwa, Srilanka, August 03-04, 2018.
- 19. Jayvant Choudhary, Brind Kumar and Ankit Gupta, "Evaluation of mechanical and durability properties of asphalt mixes comprising recycled materials as fillers", In International Conference of Resource Sustainability, Beijing, China, June 27-29, 2018
- 20. Jayvant Choudhary, Brind Kumar and Ankit Gupta, "A review of solid waste materials as alternative fillers in asphalt mixes", In International Conference of Resource Sustainability, Beijing, China, June 27-29, 2018
- 21. Jayvant Choudhary, Brind Kumar and Ankit Gupta, "Recycling of glass and glass-hydrated lime composite as filler in asphalt mixes", In International Conference of Resource Sustainability, Beijing, China, June 27-29, 2018
- 22. Jayvant Choudhary, Brind Kumar and Ankit Gupta, "Performance of Asphalt Mix with Glass and Glass-Lime Composite Fillers", In International Conference of Advances in Materials and Pavement Performance Prediction, Doha, Qatar, April 16-18, 2018
- 23. Kumar, P. and Chakraborty, M. (2019). "Bearing capacity of shallow circular and strip foundation resting on two layered clays." International Association for Computer Methods and Advances in Geomechanics, IIT



- Gandhinagar, 5-7th March, 2019. (Accepted).
- 24. Sarkar, S. and Chakraborty, M. (2019). "Pseudostatic Slope stability analysis for cohesive-frictional soil by using variational method." International Association for Computer Methods and Advances in Geomechanics, IIT Gandhinagar, 5-7th March, 2019. (Accepted).
- 25. Singh, A. and Chakraborty, M. (2019). "Effect of strain rate on strength behaviour of cohesionless soil." International Association for Computer Methods and Advances in Geomechanics, IIT Gandhinagar, 5-7th March, 2019. (Accepted).
- 26. Sarkar, S. and Chakraborty, M. (2019). "Pseudostatic Slope stability analysis in two-layered soil by using variational method." 7th ICEGE, Rome, 2019 Associazione Geotecnica Italiana, Rome, Italy, 4857-4864.
- 27. Kumar, P. and Chakraborty, M. (2019). "Seismic bearing capacity of shallow strip footing resting on two layered sands." 7th ICEGE, Rome, 2019 Associazione Geotecnica Italiana, Rome, Italy, ISBN 978-0-367-14328-2, 3474-3482.
- 28. Sahoo, R. and Singh, B. N., Grover, N. "Free vibration and buckling analysis of laminated composite and sandwich plates using nonpolynomial zigzag theory" 26th Annual International Conference on Composites or Nano Engineering (ICCE-26). Paris, France 2018
- 29. Garg N, RS, Karkhanis, Kumar R, Sahoo R., Maiti, PR, Singh BN. "Static analysis of laminated composite and sandwich plates using improved trigonometric zig-zag model" Sixth International Conference on Recent Advances in Composite Materials (ICRACM-2019) IIT BHU, Varanasi, India 2019 (accepted)
- 30. Saxena, S. and Singh, P.K. . 2018. Understanding River Health: Some observations on River Ganga near Varanasi and Patna, India . Proceedings of HYDRO 2018 International, Dec.19-21, 2018, NIT PATNA.
- 31. Singh, P.K., Maurya, S.P. and Ohri, A. 2019. Reuse focused water reclamation technology in urban areas: An analysis of Indian Scenario. 12th IWA International Conference on Water Reclamation and Reuse, Berlin. June 15-20, 2019. P.3.32
- 32. Saxena, S. And Singh, P.K. 2019. A framework for River Health Assessment under Indian Conditions. Proceedings of International Conference on River Health: Assessment to Restoration, IIT (BHU) Varanasi. Feb. 14-16, 2019.
- 33. Mishra, U., Kumar, G.K., Gupta, S.K., Kiron, P.S., Vinay, N. and Ara, M.L. (2019). Runoff Volume Estimation by SCS-CN Method Through Arc-GIS Approach, Proc. of Int. Conf. on Recent Advancements in Civil Engineering and Infrastructural Developments, IC-RACEID-2019 (Springer indexed), Nagpur, May, 28-29, 2019
- 34. Rana, BS, Gupta, SK, Putcha, C (2018). Probabilistic study of beam –column, Proc. of 16th Int. Conf. on Software Engineering Research and Practice (SERP-2018), World Congress in Computer Science, Computer Engineering and Applied Computing, Las Vegas, Nevada, USA, July 30-Aug. 02, 2018
- 35. Anjani Kumar Shukla, Vishal Korthou Philip, P.R. Maiti (2019) Analysis of Moment and Torsion in skew plates using ABAQUS, National Conference on Advances in Structural Technologies CoAST 2019, 1-3 Feb 2019, NIT Silchar.
- 36. Anjani Kumar Shukla, Saurav, P.R. Maiti, 2019: Finite Element Analysis of Unconfined Brick Masonry with Experimental Verification, National Conference on Advances in Structural Technologies CoAST 2019, 1-3 Feb 2019, NIT Silchar
- 37. Mohanty, S., and Patra, N. R. (2018). "Liquefaction and Ground Response Analysis of Indian Pond Ash using Shear Wave Velocity Measurements." Geotechnical Earthquake Engineering and Soil Dynamics V 2018, (ASCE Geotechnical Special Publication No. 291), 504-513.
- 38. Rajesh Kumar, V.Kumar, K.K. Pandey, K.K. Pathak, P. Maiti and Suresh Kumar (2018), "Analysis of Differential Heaving Distress in the Structure due to Degradation of Founding Soil". 2nd Scientific Meeting Rehabilitation of Polluted Sites and Soil, October 29-30, Saint-Etienne, France.
- 39. Shreya Thusso, Akshat Sinha and Rajesh Kumar (2019), "Soil-Structure Interaction under Earthquake Excitation", International Conference on Modern Trend in Civil Engineering-Towards Sustainable Development



- Goals(ICMTCE-2019), March 2-3, 2019, at Shri Ramswaroop Memorial University, Lucknow, U.P., India.
- 40. Rakesh Patel, S.K.Dubey, K.K.Pathak, Vikrant S. Vairagade, Analysis of reinforced cement concrete beams for sustainability, 3<sup>rd</sup> RN Raikar Memorial International Conference & 'Gettu - Kodur' International Symposium, Advances in Science and Technology of Concrete, Mumbai, December 14-18, 2018.
- 41. Rakesh Patel, S.K.Dubey, K.K.Pathak, Study on the behavior of concrete beams under different loading conditions, UKERI Concrete Congress, Concrete-The Global Builder, Dr.B.R.Ambedkar National Institute of Technology Jalandhar, 5-8 March, 2019.

### **Proceedings of National Conferences** (From 1st April 2018 to 31st March 2019)

- 1. Mondal, S., Arya, V.K. and Gupta, A. (2018). "Comparative Analysis of Saturation Flow Using Various PCU Estimation Methods", Proc., of National Conference on Recent Advances in Traffic Engineering, RATE-2018 (11-12 Aug.), SVNIT Surat, Gujarat, India, Paper Id 80.
- 2. Kumar ,R.R and Dwivedi,S,B (2019): U-Th-Pb chemical dating of Monazite from Daltonganj of CGGC, Eastern India and geodynamic implications National Conference on "Role of Remote Sensing and GIS in Natural Hazard Assessment for Sustainable Development: Present Scenario and Future Perspective" At: University of Lucknow
- 3. Kumar ,R.R,Dwivedi,S,B and Srivastava,M (2018) Occurrences of three stages of gedrite in granulitic gneiss from NW of Chhotanagpur-granite-gneissic complex, India: TEM perspective October 2018 Conference: NATIONAL CONFERENCE ON ADVANCES IN MANTLE PETROLOGY At: Department of Geology, Institute of Science, Banaras Hindu University, Varanasi 221005, U.P. India
- 4. Ram, A.K., and Mohanty, S. (2019). "Numerical Analysis of Layered Soil-Ash- Foundation System." 7th Indian Young Geotechnical Engineers Conference, 7IYGEC 2019, 15–16 March 2019, NIT Silchar, Assam, India, 298-305.
- 5. Rawat, P., and Mohanty, S. (2019). "Study of Municipal Solid Waste in Road Embankment." 7th Indian Young Geotechnical Engineers Conference, 7IYGEC 2019, 15–16 March 2019, NIT Silchar, Assam, India, 172-179.
- 6. Reddy, M.V.R.K., Mohanty, S., and Rehana, S. (2019). "Comparative Study on Static and Seismic Performance of Ash–Foundation System." 7th Indian Young Geotechnical Engineers Conference, 7IYGEC 2019, 15–16 March 2019, NIT Silchar, Assam, India, 306-313.
- 7. Verma, A.K., and Mohanty, S. (2018). "Finite Element Analysis of Foundation on Layered and Homogeneous Soil Deposit under Dynamic Loading." Indian Geotechnical Conference-2018, 1-9.
- 8. Reddy, M.V.R.K., Mohanty, S., and Rehana, S. (2018). "Comparative Study of 1D, 2D and 3D Ground Response Analysis of Pond Ash from Odisha under Different Earthquake Motions." Indian Geotechnical Conference-2018, 1-8.
- 9. Ram, A.K., and Mohanty, S. (2018). "Behavior of Sheet Pile Wall with Pond Ash as Backfill Material under Seismic Condition." 16th Symposium on Earthquake Engineering, 20th-22nd December 2018, IIT Roorkee, Paper No. 91, 1-10.
- 10. Abhishek Sharma, Pramod Kumar Sharma, K.K.Pathak, RCC deck with steel truss composite bridge, 33<sup>rd</sup> Indian Engineering Congress, Udaipur, Dec. 21-23, 2018.
- 11. Pramod Kumar Singh, Abhishek Sharma, K.K.Pathak, Robust box type minor bridge, 33<sup>rd</sup> Indian Engineering Congress, Udaipur, Dec. 21-23, 2018.
- 12. R.K.Agrahari, V.K.Singh, K.K.Pathak, Linear dynamic analysis of irregular multi storey RC frame building in sesmic zone V, 16<sup>th</sup> Symposium on Earthquake Engineering, IIT Roorkee, 20-22 December 2018.
- 13. Narayan, K.K.Pathak, Buckling analysis of braced frames under axial and lateral loadings: The effect of bracing location and frame configuration, National conference on Advances in Structural Technologies (CoAST 2019) NIT Silchar, 1-3 Feb., 2019.

#### Brief Details of Articles from the Department with maximum no. of Citations in last 5 years

1. G.D. Ransinchung R.N. and Brind Kumar (2010), "Investigations on pastes and mortars of ordinary Portland cement admixed with wollastonite and microsilica", Journal of Materials in Civil Engineering, ASCE, Vol. 22(4),



- pp. 305-313. [Citations: 25].
- 2. G.D. Ransinchung R.N., Brind Kumar and Veerendra Kumar (2009), "Assessment of water absorption and chloride ion penetration of pavement quality concrete admixed with wollastonite and microsilica", Construction and Building Materials, Elsevier, Vol. 23(2), pp. 1168-1177. [Citations: 51].

## Distinguished Visitors (From 1st April 2018 to 31st March 2019)

S. No.	Name of the visitor & Designation	Date of Visit	Purpose of Visit
1	Prof. Amit Bhasin, Associate Professor and Chair, Centre for Transportation, University of Texas,	26-27 Dec. 2018	Personal
	Austin		

#### 6. Other activities

International collaboration/achievements by the Department/School (From 1st April 2018 to 31st March 2019)

- 1. Dr. Brind Kumar: Ph.D. under his supervision was awarded to Ms. Kanakabandi Shalini on the research topic, 'Study of traffic jam noise at different floor levels near intersections of Varanasi city'.
- 2. Visited TU Delft, Netherlands and held discussion with Prof. Zoran, Head, Department of Civil Engineering for areas of strengths and possible cooperation (June 2019)

#### Indian Faculty visits in the Department/School/School (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Dr. V. K. Raina	Short term training program on Bridge Engineering & Construction Management	March, 2019

## Foreign Faculty Visits in the Department/School/School (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Prof. Amit Bhasin, Associate Professor and	Personal	26-27 Dec. 2018, Transportation
	Chair, Centre for Transportation, University		Engineering Lab., Civil Engineering
	of Texas, Austin		Department.

#### Foreign Students Visits in the Department/School/School (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue

#### Any other Information

Five membered delegation Visited National Geotechnical Facility (NGF) at Dehradun for understanding the possibilities of mutual cooperation. Draft MOU under finalisation.



# Glimpses of Laboratory/ Equipments in the Department/School



Flow meter Demonstration Rig



Bomb Calorimeter



Automated Triaxial Apparatus



# 9. Department of Computer Science and Engineering

Year of Establishment: 1983

Head of the Department: Prof. Rajeev Srivastava (w.e.f. 01.08.2017)

### 1. Brief Introduction of the Department:

The Department of Computer Science and Engineering was established in July 1983. The department offers a 4 year course, B.Tech. in Computer Sc. & Engineering, 5 year Integrated Dual Degree (B.Tech. and M.Tech.) in Computer Sc. & Engineering from 2005-2006, and Ph.D. degree in various specializations of Computer Sc. and Engineering. Computer Sc. & Engineering is the most sought- after branch for the JEE (Advanced) selected students that come to the Institute. Our graduates have distinguished themselves in higher studies at the top Universities. They also occupy positions of eminence in the computer industry. Our Alumni remain in constant touch with us and are contributing in the development of the department. Placements for our graduates are the best in the Institute. The faculty members of the department have international experience and training. The departmental research is focused in the areas of Artificial Intelligence, Parallel and Distributed Computing, Software Engineering, Image Processing and Computer Vision, Machine Learning\Deep Learning, Medical Image Processing, Pattern Recognition, Datamining and Web mining, semantic web, Natural Language Processing (NLP) and Information Extraction. The department has all the facilities to carry out the related teaching and research work.

### Major areas of Research

Image Processing, Computer Vision and Pattern Recognition
Artificial Intelligence, Natural Language Processing, and Information Retrieval
Software Engineering
Computer Networks
Machine Learning
Cyber Security
High Performance Computing

### Area of the Department (in square meters): 1454.66 Square Meters

### Infrastructure

S. No.	Particulars	Number
1	No. of Classrooms	05
2	No. of Lecture Halls	03
3	No. of Laboratory	15
4	No. of Computers available for students in the Department/School	200+

### Unique Achievement / Preposition of the Department/School

### 2. Academic Programmes offered

New Courses Introduced (From 1st April 2018 to 31st March 2019) None

**Students on Roll** (From 1st April 2018 to 31st March 2019)



S. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1.	B. Tech/B. Pharm	75	66	65	66	-
2.	Dual Degree	21	17	17	17	17
3.	M. Tech/ M. Pharm	-	-	-	-	-
4.	Ph. D (Under Institute Fellowship)	15	28	11	-	-
5.	Ph. D (Under Project Fellowship)	01 (External)	01 (External)	01 (Internal)	-	-
6.	Ph. D (Under Sponsored Category)	06 (QIP)	03 (QIP) 03 (Sponsored)	01 (Sponsored)	-	-

Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From		
ÌNDI	ÌNDIA						
1	Abhinav	17071021	ACM India Joint International Conference CoDS-COMAD 2019	3-5 Jan 2019, Swissotel, Kolkata, India	Travel Grant by ACM		
2	Anshul	16071502	ACM India Joint International Conference CoDS-COMAD 2019	3-5 Jan 2019, Swissotel, Kolkata, India	RSGF, IIT(BHU)		
3	Vandana Bharti	17071011	ACM India Joint International Conference CoDS-COMAD 2019	3-5 Jan 2019, Swissotel, Kolkata, India	Travel Grant by ACM		
4	Sandeep S Udmale	17071027	ACM India Joint International Conference CoDS-COMAD 2019	3-5 Jan 2019, Swissotel, Kolkata, India	Travel Grant by ACM		
5	Abhinav	17071021	3rd IWML Workshop	1-3 July 2018, IIT BHU	RSGF, IIT(BHU)		
6	Anshul	16071502	3rd IWML Workshop	1-3 July 2018, IIT BHU	RSGF, IIT(BHU)		
7	Vandana Bharti	17071011	3rd IWML Workshop	1-3 July 2018, IIT BHU	RSGF, IIT(BHU)		
8	Avijit Thawani	14074004	CoDS-COMAD	3 - 5 Jan 2019. Kolkata	Contingency Fund - department		
9	Shreyansh Singh	6075052	SPACE 2018	15-19 December 2018, IIT Kanpur	Free as part of Internship at IITK		
10	Swati Gupta	17071008	PDGC-2018	20-22 DECEMBER 2018, Solan,HP	Contingency Fund - department		
11	Vinod Kumar	18071013	HPCCP-2018	08-13 OCTOBER 2018, NIT Calicut	STGS - department		
12	Amit Biswas	17071510	PDGC-2018	20-22 December 2018, Solan, Himachal Pradesh	STGS- Department		



S. No.	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
13	Navin Mani Upadhyay	17071023	PDGC-2018	20-22 December 2018, Solan, HP	Contingency Fund- department
14	Anita Saroj	16071006	Forum for Information Retrieval Evaluation (FIRE) 2018	6th - 9th December 2018, DAIICT , Gandhinagar	RSGF, IIT(BHU)
15	Sanjay Kumar Gupta	17071010	3rd IWML Workshop	1-3 July 2018, IIT BHU	RSGF, IIT(BHU)
16	Nirbhay Kumar Tagore	17071509	ICAESMT-2019	14-15 March 2019, Uttaranchal University Dehradun	Self
17	Jani Kuntesh K	17071026	I2CT-2019	29-31 March 2019, Pune	STGS-Department
18	Akshal Sharma	15075003	ICAESMT-2019	14-15 March 2019, Uttaranchal University Dehradun	Partially funded by HP
19	Utsav Krishnan	15074014	ICAESMT-2019	14-15 March 2019, Uttaranchal University Dehradun	Partially funded by HP
20	Dipty Tripathi	17071001	PDGC-2018	20-22 December 2018, Solan, Himachal Pradesh	STGS- Department
21	Dipty Tripathi	17071001	COMITCOM-2019	14-16 February 2019, Faridabad, Haryana	STGS- Department
22	Medara Rambabu	18071016	HPCCP-2018	08-13 OCTOBER 2018, NIT Calicut	Contingency Fund - QIP
ABRO	OAD				
1	Shreyansh Singh	16075052	Black Hat Asia	26th-28th March 2019, Singapore	20% self, rest by Black Hat student scholarship
2	Avijit Thawani	14074004	ACM Hypertext	6-9 July 2018. Baltimore, Maryland	STGS - department
3	Shashwat Trivedi	15075063	CALCS workshop @ ACL	19th July 2019 Melbourne, Australia	STGS- Department and institute
4	Harsh Rangwani	15075018	CALCS Workshop @ ACL	19th July 2018 Melbourne, Australia	Self Funded
5	Ishank Arora	14074009	PyCon CZ 2018	1-3 June 2018	Student Travel Grant
6	Shivang Agarwal	16071503	MLSS Africa	7-18 January 2019 Cape Town, South Africa	Registration & Accommodation sponsored by MLSS.
7	Shri Prakash Dwivedi	16071004	IAPR Intl. Workshop on structural, syntactical and statistical pattern recognition (S+SSPR) 2018	17-19 August 2018, Beijing, China	STGS- Department and institute



## Names of students/scholars who got prizes and awards outside the Institute (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of Prize	Date & Venue	Prize awarded by
1	Avijit Thawani	14074004	Annenberg Fellowship	13 January 2019. University of Southern California, Los Angeles	Viterbi School of Engineering, University of Southern California
2	Harsh Rangwani and Shashwat Trivedi	15075018 and 15075063	Best system award, CALCS shared task 2018	19th July 2018, Melbourne Australia	Workshop organizers, CALCS
3	Sujal Maheswari and Saurabh Rathi	15075052 and 15075041	3rd Position in RIVIGO Coding Championship	11th August - 18th August 2018	RIVIGO
4	Divesh Pandey	15075015	Winner, Mykaarma's Bitbattle Appathon 2018	11th August - 26th August 2018	Mykaarma
5	Dhiraj Singh	15075014	Codechef May Long Challenge India Rank 1	May 2018	Codechef
6	Dhiraj Singh	15075014	Codechef August Long Challenge India Rank 1	August 2018	Codechef
7	Pranjal Jain, Debrup Roy Choudhary and Himanshu Singh	15075038, 14123003, 16075031	ACM ICPC Kolkata- Kanpur Regionals 3rd place	December 2018	ACM
8	Naveen Punjabi, Keshav Kumar and Suyash Shukla	16075061, 16074007, 16074014	PAN-IIT AI Hackathon, among top 10	January 2019	PAN-IIT
9	Harsh Rangwani	15075018	Prime Minister's Research Fellowship	December 2018	Govt. of India.

### Names of scholars/students who won Convocation/Institute Day prizes (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student (s)	Roll No.	Name of Prize	Prize awarded by
1	Tribikram Pradhan	16071505	Best poster presentation	IIT (BHU), Varanasi
2	Harsh Rangwani and Krishnkant Swarnkar	15075018 15075024	Best Poster Runner Up (Undergraduate)	IIT (BHU), Varanasi

### Names of Students/Scholars who went for foreign Internship (From 1st April 2018 to 31st March 2019)

Note: Individual faculty members should provide the data

S. No.	Name of Student (s)	Roll No.	Name of Organization	Place of Internship	Country	Duration
1	Keshav Kumar	16074007	Changwon National University	Changwon	South Korea	21st May to 13th July



S. No.	Name of Student (s)	Roll No.	Name of Organization	Place of Internship	Country	Duration
2	Suyash Shukla	16074014	Changwon National University	Changwon	South Korea	21st May to 13th July
3	Avijit Thawani	14074004	Northeastern University	Boston	USA	7 May to 7 July 2018
4	Harshit Mehrotra	15075019	Technical University of Munich	Munich	Germany	10 May 2018 to 28 July 2018
5	Manik Goyal	15075029	Nanyang Technological University	Singapore	Singapore	13th May to 13th July 2018
6	Krishnkant Swarnkar	15075024	UKP Lab, Technische Universität Darmstadt	Darmstadt	Germany	10th May to 30th July 2018
7	Ishank Arora	14074009	National University of Singapore	Singapore	Singapore	21st January to 10th May 2019
8	Ishank Arora	14074009	University of Hildesheim	Hildeshem	Germany	15th May to 25th July 2018
9	Dhawal Jethwani	15074006	ENS de Lyon	Lyon	France	1st June to 31st July, 2018

## 3. Faculty & their Activity

## Faculty and their areas of specialisation

S. No.	Name, Qualifications, Employee No.	Date of award of PhD Degree	Major Areas of Specialization (Max. 3 Areas)	
PROF	FESSORS			
1	Dr. Anil Kumar Tripathi (13770)	1992	Parallel/Distributed Computing and Software Engineering	
2	Dr. Kaushal Kumar Shukla (13772)	1993	Artificial Intelligence, Neural Networks, Data Mining	
3	Dr. Rajeev Srivastava (18363)	April 2011	Image Processing, Computer Vision, Machine Learning	
4	Dr. Sanjay Kumar Singh (18362)	August 2004	Artificial Intelligence, Data Science, Machine Learning	
ASSO	ASSOCIATE PROFESSORS			
1	Dr. Bhaskar Biswas (16832)	2010	Data Mining, Web Mining and Social Networks	
2	Dr. Ravi Shankar Singh (17184)	2010	Data Structures, Algorithms and High Performance Computing	
3	Dr. Anil Kumar Singh (50014)	July 2010	Natural Language Processing, Computational Linguistics, Information Retrieval	
ASSIS	STANT PROFESSORS			
1	Dr. Vinayak Shrivastava (13773)	07.03.2009	Software Engineering,Software Re-engineering	
2	Dr. Ravindranath Chowdary C (19845)	31.07.2009	Information Extraction, Text Summarization, Web Mining	
3	Dr. Sukomal Pal (50052)	10.09.2012	Information Retrieval, Recommender Systems, Text Mining, Data Science	



S. No.	Name, Qualifications, Employee No.	Date of award of PhD Degree	Major Areas of Specialization (Max. 3 Areas)
4	Dr. Ruchir Gupta (50126)	18.06.2014	Peer-to-peer network, Social Networks, Game Theory, NLP and Machine Learning
5	Dr. Lakshmanan Kailasam (50127)	28.06.2013	Reinforcement Learning, Network Science
6	Dr. Hari Prabhat Gupta (50031)	31.10.2014	Computer Networks, WSN, Ubiquitous Computing, and IoT
7	Dr. Tanima Dutta (50075)	08.06.2015	Multimedia Forensics, Vision and Graphics, Machine / Deep Learning, Human Computer Interaction, Multimedia Sensor Networks
8	Dr. Amrita Chaturvedi (50125)	27.06.2016	Software Architecture and Design Patterns, Ontologies, Artificial Intelligence, Semantic Web, Big Data Analytics and Machine Learning
9	Dr. Pratik Chattopadhyay (50151)	06.11.2015	Image and Video Processing, Pattern Recognition, Machine Learning, Cyber-security

### Institute Professors N/A

### Distinguished Professors N/A

### **Emeritus Professors N/A**

### **Guest Faculty**

1	Dr. Ravi Bhushan Mishra (Old	October 1989	Artificial Intelligence, Multiagent Systems, Semantic
	Employee Id. 13769)		Web,Robotics

## Visiting Faculty N/A

## DST INSPIRE Faculty N/A

## **Technical and Non-Teaching Staff**

Sl. No.	Name, Qualifications	Designation, Employee Number	Date of Appointment in the department
1.	Shri Roshan Singh (M.Tech)	System Analyst (50008)	27.06.2015 (F/N)
2.	Shri Mahesh Pandey (MCA)	System Analyst (50013)	27.08.2015 (F/N)
3.	Shri Ravi Kumar Bharti (Bachelor of Arts)	Junior Assistant (50004)	27.04.2015 (F/N)
4.	Shri Prakhar Kumar, (MA - Economics)	Junior Assistant (50132)	10.07.2017 (A/N)
5.	Shri Ritesh Singh, (BA – Archaeology)	Junior Assistant (50136)	10.07.2017 (A/N)
6.	Shri Shubham Pandey (M.Sc Physics)	Junior Assistant (50189)	13.06.2018 (F/N)
7.	Dr. Ram Prasad Meena Ph.D. (Botany)	Technical Superintendent (18756)	06.01.2009 (A/N)
8.	Shri Raghuvir Sharan Tripathi M.Sc.(Tech.)- (Geophysics)	Technical Superintendent (18753)	03.01.2009 (F/N)
9.	Shri Dinesh Kumar Tiwari (M.AEconomics)	Senior Technician (18600)	18.08.2008 (A/N)



Sl. No.	Name, Qualifications	Designation, Employee Number	Date of Appointment in the department
10.	Shri Shashi Kant Singh (B.Sc.)	Senior Technician (18640)	18.08.2008 (F/N)
11.	Shri Manoj Kumar Singh (B.Sc.)	Senior Technician (18601)	18.08.2008 (A/N)
12.	Shri Pramod Kumar (B.Sc.)	Senior Technician (18661)	27.04.2011 (A/N)

Short-term courses/workshops/seminars/symposia/conferences organised by faculty members (From 1st April 2018 to 31st March 2019)

S. No.	Coordinator	Title	Period
1	Dr. Amrita Chaturvedi, Dr. Kailasam Lakshmanan, Dr. Pratik Chattopadhyay	3rd Indian Workshop on Machine Learning	01-03 July, 2018
2	Dr. Pratik Chattopadhyay	QIP and CEP Short Term Course on Machine Learning in Image and Video Analytics	03-09 December, 2018
3	Dr. Tanima Dutta, Prof. K.K. Shukla, Dr. Hari Prabhat Gupta	Deep Learning: Theory and Practice	12-17 December, 2018

Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Title	Period and Venue
Seminars/Symposia/Conferences			
1.	Prof. Rajeev Srivastava	Session Chair for the session "Image Analysis and Computer Vision" at International Conference on Emerging Trends in Communication, Computing and Electronics (IC3E-2018).	14 <sup>th</sup> April, 2018.  J. K. Institute of Applied Physics and Technology University of Allahabad, Allahabad.
2.	Prof. Sanjay Kumar Singh	IIoT based Integrated Performance Monitoring Software Platform	01-03 February, 2019, Goa
3.	Dr Sukomal Pal, Dr Pratik Chattopadhyay, Dr. Ruchir Gupta, Dr. Kailasam Lakshmanan, Dr. Amrita Chaturvedi, Dr. Anil Kumar Singh, Dr. Tanima Dutta	Faculty Development Programme	14 May - 2 Jun 2018, ABLT, IIT(BHU), Varanasi
4.	Dr. Pratik Chattopadhyay	International Conference on Emerging Technology in Modelling and Graphics	06-07 September, 2018, Indian Institute of Engineering and Management, Kolkata
5.	Dr. Anil Kumar Singh	CEP Workshop on Experimental and Empirical Linguistics	4-11 June, 2018, IIT Delhi



S. No.	Name of Faculty Member	Title	Period and Venue
6.	Dr. Kaushal Kumar Shukla	Session Chair of EECS Singapore 2019 and also presented a paper in the same conference	12-15 February, 2019 Singapore
7.	Dr. Pratik Chattopadhyay	International Conference on Advances in Engineering Science Management & Technology	14-15 March, 2019
Meetin	gs		
1.	Prof. Rajeev Srivastava	Expert Member, Selection Committee, PMRF- 2018 in CSE discipline, IIT Delhi	25-26 May, 2018
2.	Prof. Rajeev Srivastava	Expert Member, UGC committee to visit a Technical Institute in Vijayawada, A.P.	22-23 June, 2018
3.	Prof. Rajeev Srivastava	External Expert member, for academic audit of CSE department, NIT Patna.	
4.	Prof. Rajeev Srivastava	Orientation Workshop on Outcome Based Education and Accreditation, National Board of Accreditation (NBA), New Delhi	24 <sup>th</sup> October, 2018
5.	Prof. Rajeev Srivastava	Expert, Faculty Selection Committee Meeting, NIT Hamirpur (H.P.)	29 <sup>th</sup> October 2018
6.	Dr Sukomal Pal	UP State Disaster Management Authority, Lucknow 25 <sup>th</sup> Jan, 2019	
7.	Dr. Anil Kumar Singh	Linguistic Data Consortium for Indian Languages (LDC-IL) Project Advisory Committee Meeting, CIIL, Mysore	27 <sup>th</sup> June, 2018

## $\textbf{Special lectures delivered by faculty members in other institutions} \ (\textit{From 1st April 2018 to 31st March 2019}) \\$

S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
1.	Prof. Rajeev Srivastava	Invited Talk on the topic: 'Automatic scene analysis from images using computer vision and machine learning /Deep learning approaches' at International Conference on Emerging Trends in Communication, Computing and Electronics (IC3E-2018).	J. K. Institute of Applied Physics and Technology University of Allahabad.	14 <sup>th</sup> April, 2018.
2.	Prof. Rajeev Srivastava	Invited Talk on "Computer Vision applications using IoT" In Short Term Course on "Emerging Trends And Technology in Internet of Things (IOT) and Cloud Computing"	G.B. Pant Institute of Engineering and Technology, Pauri-Garhwal (Uttarakhand)	10 <sup>th</sup> September 2018
3.	Prof. Rajeev Srivastava	Invited lecture series on topic "Image Processing and Machine Learning"	YCCE Nagpur	24-26 September 2018
4.	Prof. Rajeev Srivastava	Key Note Address, 2 <sup>nd</sup> International Conference on Advanced Computing and Software Engineering (ICACSE-2019).	KNIT Sultanpur	February 8 <sup>th</sup> , 2019
5.	Prof. Sanjay Kumar Singh	Machine Learning Methods for Cattle Recognition	Shiv Nadar University, Gautam Buddha Nagar (UP)	25 <sup>th</sup> January, 2019



S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
6	Dr Sukomal Pal	Basics of Machine Learning	IERT Prayagraj, FDP on Advancement of ML in BI: Concepts, Techniques, Applications	2 <sup>nd</sup> March, 2019
7	Dr Sukomal Pal	Keynote address	IFET College of Engineering, Villipuram, National Conference on Deep Learning Applications in Medical Fields	16 <sup>th</sup> March, 2019
8	Prof. Kaushal Kumar Shukla	Keynote Address on "Information Security: Challenges and Responses"	RGPV, Bhopal, International Conference on Social Networking & Computation Intelligence	08-09 March, 2019
9	Prof. Kaushal Kumar Shukla	QIP Short Term Course Lecture Series (TEQIP III )on Machine Learning with Stream Mode Data	NIT Meghalaya	29-31 October, 2018
10	Dr. Bhaskar Biswas	High utility item set mining in TEQIP-III Sponsored one Week F.D.P. on "Applications of Artificial Intelligence" AAI-2018	Department of Information Technology Rajkiya Engineering College Banda	30 <sup>th</sup> October – 3 <sup>rd</sup> November, 2018

## **Visits abroad by faculty members** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Country Visited	Date of Leaving India	Date of Returning India	Purpose of Visit	Funding from
1	Dr. Anil Kumar Singh	USA	2nd July, 2018	18th July, 2018	Organize a Research Workshop at ACM HyperText Conference, Baltimore, USA	CPDA & PDA
2	Prof. Ravi Shankar Singh	Beijing, China	16 <sup>th</sup> August, 2018	20 <sup>th</sup> August, 2018	Attend conference at Beijing, China	CPDA
3	Dr. Hari Prabhat Gupta	Paris, France	18 <sup>th</sup> June, 2018	23 <sup>rd</sup> June, 2018	Attend conference at Paris, France	CPDA
4	Prof. Kaushal Kumar Shukla	Singapore	11 <sup>th</sup> February, 2019	17 <sup>th</sup> February, 2019	Research paper presentation and session chair	CPDA

## **Honours and awards** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Details of Honours/Award
1.	Prof. Rajeev Srivastava	Guest of Honour-Engineers Day Ceremony at Sasan Power (Reliance), Singrauli, 15.9.2018
2.	Dr. Hari Prabhat Gupta	Project supervised by Dr. Hari Prabhat Gupta has emerged as the winner in Microsoft Code.fun.do Oncampus Hackathon at IIT (BHU) Varanasi



S. No.	Name of Faculty Member	Details of Honours/Award
3.	Dr. Pratik Chattopadhyay	NVIDIA GPU Grant Awarded in April 2018
4.	Dr. A K Singh	NVIDIA GPU Grant Awarded in June 2018

Fellowships of academic and professional societies (From 1st April 2018 to 31st March 2019): NIL Books, monographs authored/co-authored (From 1st April 2018 to 31st March 2019)

S. No.	Name of Author/Co- Author	Title	Publisher
1	Santosh Kumar, <b>Sanjay Kumar Singh</b> , Rishav Singh, and Amit Kumar Singh,, 2018.	Animal Biometrics Techniques and Applications,	Springer
2	Debi Prosad Dogra, <b>Pratik Chattopadhyay</b> , and Shamik Sural	Video Analytics- A Machine Intelligence Approach	Book submitted to Springer, Singapore (Submitted in January 2019)
3	Shashank Sheshar Singh, Kuldeep Singh, Ajay Kumar, and <b>Bhaskar</b> <b>Biswas</b>	Advanced Informatics for Computing Research	Book Chapter in Advanced Informatics for Computing Research, Springer, pp. 440-453, Singapore.
4	Shashank Sheshar Singh, Kuldeep Singh, Ajay Kumar, Harish Kumar Shakya, and <b>Bhaskar Biswas</b>	A Survey on Information Diffusion Models in Social Networks	Book Chapter in Advanced Informatics for Computing Research, Springer, pp. 426-439, Singapore.
5	Ajay Kumar, Shashank Sheshar Singh, Kuldeep Singh, <b>Bhaskar Biswas</b>	Level-2 node clustering coefficient-based link prediction	Book Chapter in Applied Intelligence, Springer, pp. 1-8, US.
6	Antriksh Goswami, <b>Ruchir Gupta</b> , Gopal Sharan Parashari	Infrastructure in Mobile Opportunistic Networks	Book Chapter in Emerging Wireless Communication and Network Technologies, Springer, pp. 139-254.
7	Amit Sinha, Suneet Kumar Gupta, Anurag Tiwari, and Amrita Chaturvedi	Deep Learning: An Overview and Innovative Approach in Machine Learning	Book Chapter in Hidden Link Prediction in Stochastic Social Networks, pp. 108-134.
8	Prateep Upadhyay, S.K. Upadhyay, Kaushal Kumar Shukla	Heat Equation Based ECG Signal Denoising in the Presence of White, Colored and Muscle Artifact Noises	Book Chapter in Emerging Technologies in Data Mining and Information Security, pp 355-367

Editorial boards of journals (From 1st April 2018 to 31st March 2019) N/A

### 4. Design and Development Activities

New facilities added (From 1st April 2018 to 31st March 2019)

S. No.	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)
1	Workstations – 03 Nos	~11.93 Lacs
2.	PCs: 30 Nos	~18 Lacs

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### Patents filed (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Title of Patent
1	Dr. Sanjay Kumar Singh	A Biometric Based Method and System for Identifying An Infant
2	Dr. Hari Prabhat Gupta	A System and Method for Generating Real-time Text Preserved Oil Painting Using Smart-Device

### 5. Research and Consultancy

### **Sponsored research projects** (Ongoing only)

S. No.	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Coordinator
1	Water-to-Cloud, Agency: Tata Centre for Development at UChicago	2018-2020	Tata Centre for Development at UChicago	10.0000 Lakhs	Dr. Tanima Dutta, Dr. Hari Prabhat Gupta
2	A Robust Medical Image Forensics System for Smart Healthcare	2018-2019	SERB, Govt of India	14.0787 Lakhs	Dr. Tanima Dutta
3	Incorporating Intelligence in Email System	April 2017-March 2019	BRNS	13.6800 Lakhs	Dr. Ruchir Gupta
4	Building a Sanskrit Text Collection for Information Retrieval	24 <sup>th</sup> May, 2018	Project Varanasi - DIH	4.5000 Lakhs	Dr. Sukomal Pal

### Industrial consultancy projects (Ongoing only)

S. No. Name of Faculty Member		Title	Industry	Amount (in lakhs of Rs.)	
1 Dr. Ruchir Gupta,		Nokia Donation/	Nokia	15,000 Euros (~11.5 Lakhs	
Dr. Kailasam Lakshmanan		Research Grant		INR)	

### Faculty members' participation with other universities under MoUs (Ongoing only)

Dr. Pratik Chattopadhyay has taken the initiative to form an MoU between IIT(BHU), Varanasi and Universidad Politecnica de Madrid, Spain. Two copies of the MoU have been signed by the Dean R&D of our institute and has already been sent to the Spanish University to get a signature from the rector of the university after which they will mail back one copy of the MoU.

### **Research Publications** (From 1st April 2018 to 31st March 2019)

Sl. No.	Papers Published/ Presented	No.		
1	Papers Published in Refereed National Journals			
2	Papers Published in Refereed International Journals			
3	Papers Presented in National Conferences			
4	Papers Presented in International Conferences	30		

### **Refereed International Journals** (From 1st April 2018 to 31st March 2019)

1. Rajeev Srivastava and Kuntesh K. Jani, "A Survey on Medical Image Analysis in Capsule Endoscopy", Current Medical Imaging (2019) 15: 1.



- 2. Singh, Roshan, Alok Kumar Singh Kushwaha, and **Rajeev Srivastava**. "Multi-view recognition system for human activity based on multiple features for video surveillance system." Multimedia Tools and Applications (2019): 1-32.
- 3. Singh, Vibhav Prakash, and **Rajeev Srivastava**. "Improved image retrieval using fast Colour-texture features with varying weighted similarity measure and random forests." Multimedia Tools and Applications (2018): 1-26.
- 4. Singh, Roshan, Jagwinder Kaur Dhillon, Alok Kumar Singh Kushwaha, and **Rajeev Srivastava**. "Depth based enlarged temporal dimension of 3D deep convolutional network for activity recognition." Multimedia Tools and Applications (2018): 1-16.
- 5. Singh, Vibhav Prakash, and **Rajeev Srivastava**. "Automated and effective content-based mammogram retrieval using wavelet based CS-LBP feature and self-organizing map." Biocybernetics and Biomedical Engineering 38.1 (2018): 90-105.
- 6. Garg, Shivam, and **Rajeev Srivastava**. "Object sequences: encoding categorical and spatial information for a yes/no visual question answering task." IET Computer Vision 12.8 (2018): 1141-1150.
- 7. Singh, Vibhav Prakash, and **Rajeev Srivastava**. "Effective image retrieval based on hybrid features with weighted similarity measure and query image classification." International Journal of Computational Vision and Robotics 8.2 (2018): 98-121.
- 8. Singh, Vibhav Prakash, Subodh Srivastava, and **Rajeev Srivastava**. "Automated and effective content-based image retrieval for digital mammography." Journal of X-ray Science and Technology 26, no. 1 (2018): 29-49.
- 9. Singh, N. P. and **Srivastava**, **R**. "Extraction of retinal blood vessels by using an extended matched filter based on second derivative of Gaussian", Proceedings of the National Academy of Sciences, India Section A: Physical Sciences, (2018):1-9.
- **10. Pratik Chattopadhyay**, Lipo Wang, Yap-Peng Tan, Scenario-Based Insider Threat Detection From Cyber Activities, IEEE Transactions on Computational Social Systems, 5(3), 1-16, 2018.
- 11. Abhishek Tripathi, Hari Prabhat Gupta, **Tanima Dutta**, Durgesh Kumar, K. K. Shukla, and S. Jit, "A Target Tracking System using Directional nodes in Wireless Sensor Networks", **IEEE System Journal**, 2018.
- 12. Abhishek Tripathi, Hari Prabhat Gupta, **Tanima Dutta**, Rahul Mishra, K. K. Shukla, and S. Jit, "Coverage and Connectivity in WSNs: A Survey, Research Issues and Challenges", **IEEE Access**, Volume 6, pp. 26971-26992, April 2018.
- 13. Surbhi Saraswat, Vishal Agarwal, **Hari Prabhat Gupta**, Rahul Mishra, Ashish Gupta, and **Tanima Dutta**, "A Target Tracking System using Directional nodes in Wireless Sensor Networks", Elsevier Journal of Network and Computer Applications, 2019 (Accepted and inpress).
- 14. Udmale, S. S., & **Singh, S. K**. (2019). Application of Spectral Kurtosis and Improved Extreme Learning Machine for Bearing Fault Classification. *IEEE Transactions on Instrumentation and Measurement*.
- 15. Udmale, S. S., Patil, S. S., Phalle, V. M., & **Singh, S. K**. (2018). A bearing vibration data analysis based on spectral kurtosis and ConvNet. *Soft Computing*, 1-19.
- **16. Kumar, S., Singh**, S. K., Abidi, A. I., Datta, D., & Sangaiah, A. K. (2018). Group sparse representation approach for recognition of cattle on muzzle point images. *International Journal of Parallel Programming*, 46(5), 812-837.
- 17. Amit Kumar Singh, Basant Kumar, **Sanjay Kumar Singh**, SP Ghrera, and Anand Mohan, "Multiple watermarking technique for securing online social network contents using Back Propagation Neural Network," *Future Generation Computer Systems*, Volume 86, Pages 926-929, September 2018.
- 18. Sadhya Debanjan, and **Sanjay Kumar Singh**, "Design of a cancelable biometric template protection scheme for fingerprints based on cryptographic hash functions," *Multimedia Tools and Applications*, Volume 77, Issue 12, Pages 15113-15137, June 2018.



- 19. Sadhya Debanjan, and **Sanjay Kumar Singh**, "Construction of a Bayesian decision theory-based secure multimodal fusion framework for soft biometric traits," *IET Biometrics*, Volume 7, Issue 3, Pages 251-249, May 2018.
- 20. Santosh Kumar, **Sanjay Kumar Singh**, Amit Kumar Singh , Shrikant Tiwari, and Ravi Shankar Singh, "Privacy preserving security using biometrics in cloud computing," *Multimedia Tools and Applications*, Volume 77, Issue 9, Pages 11017-11039, May 2018.
- 21. Santosh Kumar, Amit Pandey, K. Sai Ram Satwik, Sunil Kumar, **Sanjay Kumar Singh**, Amit Kumar Singh, and Anand Mohan, "Deep learning framework for recognition of cattle using muzzle point image pattern," *Measurement*, Volume 116, Pages 1-17, 2018.
- 22. Santosh Kumar, D Datta, **Sanjay Kumar Singh** and AK Sangaiah, "An intelligent decision computing paradigm for crowd monitoring in the smart city," *Journal of Parallel and Distributed Computing*, Volume 118, Part 2, Pages 344-358, 2018.
- 23. Santosh Kumar, **Sanjay Kumar Singh**, "Monitoring of pet animal in smart cities using animal biometrics," *Future Generation Computer Systems*, Volume 83, Pages 553-563, June 2018.
- **24. Sanjay Kumar Singh**, Amit Kumar Singh, Basant Kumar, Subir Kumar Sarkar, and Karm Veer Arya, "Guest Editorial: Multimedia for Predictive Analytics," *Multimedia Tools and Applications*, Volume 77, Issue 7, Pages 9189-9201, April 2018.
- 25. Amit Kumar Singh, Pardeep Kumar, Satya Prakash Ghrera, Basant Kumar and **Sanjay Kumar Singh**, "Guest Editorial: Advanced Techniques in Multimedia Watermarking," *International Journal of Information and Computer Security*, Volume 10, Issue 2/3, 2018.
- 26. Pradeepika Verma, **Sukomal Pal**, hari Om: "A Comparative Analysis on Hindi and English Extractive Text Summarization", ACM Transactions on Asian and Low-Resource Language Information Processing (TALLIP), Vol. 18, Article No. 111, 39 pages, 2019.
- 27. Dinesh Kumar Prabhakar, **Sukomal Pal**,: "A Survey on Transliterated Text Processing", Sadhana Academy Proceedings in Engineering Science, 43(6), 93, 25 pages, 2018.
- 28. Shashank Sheshar Singh, Kuldeep Singh, Ajay Kumar, and **Bhaskar Biswas** (2019) "MIM2: Multiple Influence Maximization across Multiple Social Networks", in Physica A: Statistical Mechanics and its Applications, Elsevier, vol. 526, ISSN: 0378-4371. (SCI, IF 2.132)
- 29. Shashank Sheshar Singh, Ajay Kumar, Kuldeep Singh, and **Bhaskar Biswas** (2019) "C2IM: Community based context-aware influence maximization in social networks", in Physica A: Statistical Mechanics and its Applications, Elsevier, vol. 514, pp. 796 818, ISSN: 0378-4371. (SCI, IF 2.132)
- 30. Shashank Sheshar Singh, Kuldeep Singh, Ajay Kumar, and **Bhaskar Biswas**, "Influence Maximization on Social Networks: A Study", in Recent Patents on Computer Science, Bentham Science, 2019, ISSN: 1874-4796. (SCOPUS) [ACCEPTED]
- 31. Mahato, Dharmendra Prasad, and **Ravi Shankar Singh**. "Load balanced scheduling and reliability modeling of grid transaction processing system using colored Petri nets." ISA transactions 84 (2019): 225-236. Workflow scheduling using Jaya algorithm in cloud, Concurrency and Computation: Practice and Experience- Wiley, 2019.
- 32. Dwivedi, Shri Prakash, and **Ravi Shankar Singh**. "Error-tolerant graph matching using node contraction." Pattern Recognition Letters 116 (2018): 58-64. Privacy Preserving Security using Biometrics in Cloud Computing. Multimedia tools and applications, Springer- 2018, Impact Factor: 1.530
- 33. Mahato, Dharmendra Prasad, and **Ravi Shankar Singh**. "Maximizing availability for task scheduling in ondemand computing-based transaction processing system using ant colony optimization." Concurrency and Computation: Practice and Experience 30, no. 11 (2018): e4405.



34. Tiwari, Anoop Kumar, Shivam Shreevastava, Tanmoy Som, and **Kaushal Kumar Shukla**. "Tolerance-based intuitionistic fuzzy-rough set approach for attribute reduction." Expert Systems with Applications 101 (2018): 205-212.

Refereed National Journal (From 1st April 2018 to 31st March 2019) None

**Proceedings of International Conferences** (From 1st April 2018 to 31st March 2019)

- 1. Harshit Mehrotra, **Sukomal Pal**: "IIT BHU at FIRE 2018 IRMiDis Track Obtaining Factual Tweets during Natural Disasters". FIRE 2018 (Working Notes), 24-27, India, 2018.
- 2. Akanksha Mishra, Rajesh Kumar Mundotiya, **Sukomal Pal**: "IIT(BHU)@IECSIL-FIRE2018: Language Independent Automatic Framework for Entity Extraction in Indian Languages". FIRE 2018 (Working Notes), 145-152, India, 2018.
- 3. Nita Saroj, Rajesh Kumar Munodtiya, **Sukomal Pal**: "Rule based Event Extraction System from Newswires and Social Media Text in Indian Languages (EventXtract-IL) for English and Hindi Data". FIRE 2018 (Working Notes), 302-307, India, 2018.
- 4. Phanideep Gampa, Satwik Kondamudi, **Kailasam. Lakshmanan**, A Tractable Algorithm for Finite-Horizon Continuous Reinforcement Learning, ICoIAS'2019 Singapore.
- 5. Shailesh Shrivastava, Alakh Aggarwal, **Pratik Chattopadhyay**, Broad Neural Network for Change Detection in Aerial Images, International Conference on Emerging Technology in Modelling and Graphics, 2018. (accepted)
- 6. Sanjay Kumar Gupta, Gaurav Mahesh Sultaniya, **Pratik Chattopadhyay**, An Efficient Descriptor for Gait Recognition using Spatio-Temporal Cues, International Conference on Emerging Technology in Modelling and Graphics, 2018. (accepted)
- 7. Utsav Krishnan, Akshal Sharma, **Pratik Chattopadhyay**, Feature Fusion from Multiple Paintings for Generalized Artistic Style Transfer, International Conference on Advances in Engineering Science Management & Technology 2019, 2019. (accepted)
- 8. A. Kumar, S.S. Singh, K. Singh, H.K. Shakya, and **Bhaskar Biswas**, An Implementation of Malware Detection System Using Hybrid C4.5 Decision Tree Algorithm, 2<sup>nd</sup> International Conference on Advanced Informatics for Computing Research, 579-589, ICAICR 2018, Shimla, India.
- 9. A Dadu, A Kumar, HK Shakya, SK Arjaria, **Bhaskar Biswas**, A Study of Link Prediction Using Deep Learning, International Conference on Advanced Informatics for Computing Research pp 377-385 ICAICR 2018, Shimla, India.
- 10. Surbhi Saraswat, Hari Prabhat Gupta, and Tanima Dutta, "Analysis of Energy Consumption in
- 11. Ashish Gupta, Rajdeep Pal, Rahul Mishra, **Hari Prabhat Gupta**, **Tanima Dutta**, and Priyank Hirani, "Game Theory Based Early Classification of Rivers Using Time Series Data", in proc. of IEEE 5<sup>th</sup> World Forum on Internet of Things (WF-IoT), Limerick, Ireland, 15-18 April 2019 (Accepted).
- 12. Ashish Gupta, **Hari Prabhat Gupta**, Preti Kumari, Rahul Mishra, Surbhi Saraswat, and **Tanima Dutta**, "A Real-time Precision Agriculture Monitoring System using Mobile Sink in WSNs", In proc. of IEEE International Conference on Advanced Networks and Telecommunications Systems (IEEE ANTS), Indore, 16-19 December 2018.
- 13. Surbhi Saraswat, **Hari Prabhat Gupta**, and **Tanima Dutta**, "A Minimum Cost Real-Time Ubiquitous Computing System Using edge-fog-cloud", in proc. of IEEE International Conference on Advanced Networks and Telecommunications Systems (IEEE ANTS), Indore, 16-19 December 2018.
- 14. Manu Agrawal, Kartik Manchanda, Akshita Agarwal, Surbhi Saraswat, Hari Prabhat Gupta, and Tanima



- **Dutta**, "A Supervised Approach-based Job Scheduling Technique for Distributed Real Time Systems", in proc. of IEEE International Conference on Advanced Networks and Telecommunications Systems (IEEE ANTS), Indore, 16-19 December 2018.
- 15. Sabyasachi Mohanty, **Tanima Dutta**, **Hari Prabhat Gupta**, "Recurrent Global Convolutional Network for Scene Text Detection", In IEEE International Conference on Image Processing (IEEE ICIP), Athens, Greece, 2018 (Accepted).
- 16. Sabyasachi Mohanty, **Tanima Dutta**, **Hari Prabhat Gupta**, "An Efficient System for Hazy Scene Text Detection using a Deep CNN and Patch-NMS", In International Conference on Pattern Recognition (ICPR), Beijing, China, 2018 (Accepted).
- 17. Sabyasachi Mohanty, **Tanima Dutta**, **Hari Prabhat Gupta**, "Robust Scene Text Detection with Deep Feature Pyramid Network and CNN based NMS Model", In International Conference on Pattern Recognition (ICPR), Beijing, China, 2018 (Accepted)
- 18. Shri Prakash Dwivedi, **Ravi Shankar Singh**, Error-Tolerant Geometric Graph Similarity, Structural, Syntactic, and Statistical Pattern Recognition, S+SSPR 2018. Lecture Notes in Computer Science, vol 11004. Springer, pp 337-344.
- 19. Mahato, Dharmendra Prasad, and **Ravi Shankar Singh**, Reliability Modeling And Analysis For Deadline-Constrained Grid Service, 2018 32<sup>nd</sup> International Conference on Advanced Information Networking and Applications Workshops (WAINA). IEEE, 2018.
- 20. Ashish Kumar Maurya, **Anil Kumar Tripathi**, On Benchmarking Task Scheduling Algorithms For Heterogeneous Computing Systems, The Journal of Supercomputing, 74(7), 3039-3070.
- 21. Kumar, V., Singh, L.K., Singh, P., Singh, K.V., Maurya, A.K. and **Tripathi, A.K.**, 2018. Parameter Estimation For Quantitative Dependability Analysis Of Safety-Critical And Control Systems Of NPP. IEEE Transactions on Nuclear Science, 65(5), pp.1080-1090.
- 22. Ashish Kumar Maurya, **Anil Kumar Tripathi**, An edge priority-based clustering algorithm for multiprocessor environments, DOI: <a href="https://doi.org/10.1002/cpe.5060">https://doi.org/10.1002/cpe.5060</a>.
- 23. Upadhyay, Prateep, S. K. Upadhyay, and **K. K. Shukla**. "Heat Equation-Based ECG Signal Denoising in The Presence of White, Colored, and Muscle Artifact Noises." In Emerging Technologies in Data Mining and Information Security, pp. 355-367. Springer, Singapore, 2019.
- 24. Singla, Manisha, and **K. K. Shukla**. "Experimental Evaluation of Nature-Inspired Algorithms on High Dimensions." In Proceedings of 2nd International Conference on Communication, Computing and Networking, pp. 615-625. Springer, Singapore, 2019.
- 25. Srivastava, Gargi, and **Rajeev Srivastava**. "A Survey on Automatic Image Captioning." International Conference on Mathematics and Computing. Springer, Singapore, 2018.
- 26. Singh, Vibhav Prakash, and **Rajeev Srivastava**. "Improved Content-Based Image Classification Using a Random Forest Classifier." Advances in Computer and Computational Sciences. Springer, Singapore, 2018. 365-376.
- 27. Srivastava, Gargi, and **Rajeev Srivastava**. "An Improved Active Contour Model for Salient Object Detection Using Edge Cues." Recent Trends in Communication, Computing, and Electronics. Springer, Singapore, 2019. 365-375.
- 28. Jaiswal, Ankit Kumar, and **Rajeev Srivastava**. "Copy-Move Forgery Detection Using Shift-Invariant SWT and Block Division Mean Features." Recent Trends in Communication, Computing, and Electronics. Springer, Singapore, 2019. 289-299.
- 29. Rai, Shalini, and **Rajeev Srivastava**. "FPGA Realization of Scale-Free CORDIC Algorithm-Based Window Functions." Recent Trends in Communication, Computing, and Electronics. Springer, Singapore, 2019. 245-257.



30. Jain, Vandit, Prakhar Bansal, Abhinav Kumar Singh, and **Rajeev Srivastava**. "Efficient Single Image Super Resolution Using Enhanced Learned Group Convolutions." In International Conference on Neural Information Processing, pp. 466-475. Springer, Cham, 2018.

Proceedings of National Conferences (From 1st April 2018 to 31st March 2019): NA

### Brief Details of Articles from the Department/School with maximum no. of Citations in last 5 years

- 1. Gupta HP, Chudgar HS, Mukherjee S, Dutta T, Sharma K. A continuous hand gestures recognition technique for human-machine interaction using accelerometer and gyroscope sensors. IEEE Sensors Journal. 2016 Aug 15;16(16):6425-32. (43 Citations)
- 2. Chakraborty, M., Pal, S., Pramanik, R., & Chowdary, C. R. (2016). Recent developments in social spam detection and combating techniques: A survey. *Information Processing & Management*, *52*(6), 1053-1073. (**37 Citations**)
- 3. Kumar, R., Srivastava, R., Srivastava, S. (2015). Detection and classification of cancer from microscopic biopsy images using clinically significant and biologically interpretable features. Journal of Medical Engineering, 2015. (37 Citations)
- 4. Singh, A. K., Kumar, B., Singh, S. K., Ghrera, S. P., & Mohan, A. (2018). Multiple watermarking technique for securing online social network contents using back propagation neural network. *Future Generation Computer Systems*, 86, 926-939. (37 Citations)

**Distinguished Visitors** (From 1st April 2018 to 31st March 2019)

S. No.	Name of the visitor & Designation	Date of Visit	Purpose of Visit
1	Ms Jayanthi Sampathkumar, Principal Engineering Manager in Microsoft	09.10.2018	Talk on building a webscale knowledge graph
2	Shailesh Kumar, Chief Data Scientist, CoE AI/ML in Jio and Visiting faculty at Indian School of Business	20.12.2018	Discussion regarding collaboration of department with his company

### 6. Other activities

**International collaboration/achievements by the Department/School** (From 1st April 2018 to 31st March 2019): **None** 

Indian Faculty visits in the Department/School (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Dr Arabin Dey, Department of Mathematics, IIT Guwahati	Talk on Application of Deep Learning	7.3.2019 at Seminar Room, CSE
2	Dr. Dipti Prasad Mukherjee, ISI Kolkata	4 Hour Talk on Random Forest and its Applications at the QIP STC on Machine Learning in Image and Video Analytics	08.12.2018 at ABLT Room 1
3	Dr. Debdoot Sheet, IIT Kharagpur	4 Hour Talk on Generative Adversarial Networks and Its Applications in Ultrasound Imaging at the QIP STC on Machine Learning in Image and Video Analytics	04.12.2018 and 05.12.2018 at ABLT Room 1
4	Dr. Adway Mitra, IIT Bhubaneswar	2 Hour Talk on Video Summarization at the QIP STC on Machine Learning in Image and Video Analytics	08.12.2018 at ABLT Room 1



### Foreign Faculty Visits in the Department/School (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue	
1	Dr. Leisa Armstrong from Edith Cowan University Students, Australia	Delivering a Talk and Presenting the Seminar on the Topic "Digital Agriculture"	10th January 2019, Committee Room, CSE Department	
2	Prof. Sunil Kumar Gupta, Associate Professor in Artificial Intelligence at Deakin University, Australia	Talk on Bayesian Optimisation and its Applications	4 <sup>th</sup> January 2019, Committee Room, CSE Department	

### Foreign Students Visits in the Department/School (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue	
1	Student delegation team of Dr. Leisa Armstrong from Edith Cowan University Students, Australia	Interaction with students and faculties	10th January 2019, Committee Room, CSE Department	

### Glimpses of Laboratory/Equipments in the Department/School





Figure 1: Tyron Workstation for Deep Learning



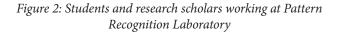




Figure 3: Students and research scholars working at Information Retrieval Laboratory



## 10. Department of Electrical Engineering

Year of Establishment: 1919

Head of the Department: Prof. Devender Singh (w.e.f. 09.05.2018)

### 1. Brief Introduction of the Department/School:

Mahamana Pt. Madan Mohan Malviya founded BHU in the year 1916, with benevolent and magnanimous contributions of the then maharajas and other persons of eminence. The University was nurtured by Sir Sunderlal, as the 1<sup>st</sup> V.C. of the university, followed by the great visionaries, such as Pt. Madan Mohan Malviya, Acharya Narendradev, Sir S. Radhakrishnan and many other eminent personalities.

The Benaras Engineering College (BENCO) was started in the year 1919, with its strong foundation laid by revered Prof. Charles A. King, Prof. H. P. Philpot and Prof. M. Sengupta. With the passage of time, College of Mining and Metallurgy (MINMET) and College of Technology (TECHNO) were included, expanding its horizon. These three colleges were merged and named as Institute of Technology in the year 1968 with a view to give more autonomy for its better perspective in terms of academic as well as administrative decisions. Its undergraduate students are admitted through Joint Entrance Examination (JEE) being conducted for all IITs.

Since the inception of BENCO in 1919, combined Bachelor's degree in Mechanical and Electrical Engineering was awarded till 1952. Department of Mechanical Engineering and Department of Electrical Engineering were separated in 1953 and conferred separate degrees in respective disciplines.

Presently, Department of Electrical Engineering runs five post graduate (M. Tech.) programmes in Electrical Machines and Drives (started in 1956), Power Systems (started in 1964), Control Systems (started in 1964), Power Electronics (started in 1982) and Interdisciplinary Systems Engineering (started in, 1982) and Ph. D. programme in all disciplines of Electrical Engineering. The department has also a five year Integrated Dual Degree Program (started in 2006) leading to Masters degree with specialization in Power Electronics.

The department has been sanctioned Special Assistance Programme (SAP) of UGC since 1988 and COSIST program of UGC from 1995 to 2000. Apart from these, the department has been conducting research projects funded by DST, AICTE, CPRI and other R&D organizations of Govt. of India.

Department has very good placement records over the years. The students of this department are joining core companies such as PGCIL, IOCL, HPCL, Trident, Reliance, Maruti, etc. Electronics companies such as Broadcom, Sony, etc are also regularly recruiting students of this department. Our students are also regularly joining software companies such as Morgan Stanley, Goldman Sachs, Citrix, Oracle, SISO, etc. The vast number of job offers is mainly due to the versatility of the branch which ensures that students are allowed to sit for interviews in software, core electrical, electronic as well as non technical companies.

Some of the department's famous alumni includes, Mr.Nikesh Arora: Senior Vice President and Chief Business Officer at Google, Mr. Rajiv Dogra: Indian diplomat, Ex- Consul General to Karachi, Pakistan, Mr. Gyanesh Pandey: Co-founder, CEO and CTO of Husk Power Systems and Mr. Narla Tata Rao: Winner of Padma Shree, a doyen of power sector in India.

The department is pursuing academic activities with the following goals and objectives:

- Further up-gradation and technological modernization of infrastructural facilities.
- Encouraging teaching innovations through audio visual and multimedia aids.
- Channelizing expertise of faculty in the frontier areas of electrical engineering.
- Research, testing and consultancy.
- Training the undergraduate and post graduate students towards entrepreneurship in consonance with liberalization and privatization policies of the Government.
- Development of energy efficient, environment-friendly electrical technologies as per the norms set by various planning, regulatory and other statutory bodies



Major areas of Research: Power System, Power Electronics, Machines and Drives, Control System

Area of the Department/School (in square meters): ---

### Infrastructure

S. No.	Particulars	Number
1	No. of Classrooms	07
2	No. of Lecture Halls	(Classrooms and Lecture Halls are same)
3	No. of Laboratory	5
4	No. of Computers available for students in the Department/School/ School	140

### Unique Achievement / Preposition of the Department/School:

### 2. Academic Programmes offered

**New Courses Introduced** (From 1st April 2018 to 31st March 2019)

S. No.	Course Code	Course name	Course credit	
1				

### **Students on Roll** (From 1st April 2018 to 31st March 2019)

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1.	B. Tech/B. Pharm	96	89	87	89	
2.	Dual Degree	22	22	23	22	22
3.	M. Tech/ M. Pharm	45	35			
4.	Ph. D (Under Institute Fellowship)	10	11	8	9	11+5(Rs.10,000)
5.	Ph. D (Under Project Fellowship)	-	-	-	1	-
6.	Ph. D (Under Sponsored Category)	1(QIP)	-	-	1	-

## Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/ Workshop	Date & Venue	Financial Assistance From	
ÌNDL	ÌNDIA					
1	Lovesh B. Xaxa	16081013	CEP Course on E.M. Fields and Waves: Pedagogy and Computation	12-16 Nov. 2018, IIT Bombay	IIT (BHU) Varanasi	
2	Aditya Kumar	17082005	CEP Course on E.M. Fields and Waves: Pedagogy and Computation	12-16 Nov. 2018, IIT Bombay	IIT (BHU) Varanasi	



S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/ Workshop	Date & Venue	Financial Assistance From
3	Praveen Kumar	14081002	Short Term Training Program on Electric Transportation	Aug. 20-24, 2018 EED, DTU, Delhi Speaker: Prof. Sheldon S. Williamson	IIT(BHU) Varanasi
4	Shailendra Singh	14081011	2018 IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES),	Conference on Power Electronics, Drives and Energy Systems IIT Madras Chennai, India,	
5	Shailendra Singh	14081011	8th IEEE Power India International Conference, Kurukshetra, India,	9-11 Dec. 2018, NIT Kurukhetra Haryana	Institute Research support Grant
6	Shailendra Singh	14081011	20th National Power System Conference, (NPSC)	18-21 Dec,2018, Trichy, India	Institute RTGS
7	Devesh Shukla	15081001	20th National Power System Conference, (NPSC)	18-21 Dec,2018, Trichy, India	Institute RTGS
8	Srilakshmi E	15181002	ICTSES-2018	Manipal University , Jaipur,Dec-22-23,2018	IIT(BHU)
9	Devesh Shukla	15081001	PERA 2018	IIT Kanpur (21-23 Oct 18)	IIT (BHU)
10	Amit Kr Thakur	15081005	PERA 2018	IIT Kanpur (21-23 Oct 18)	IIT (BHU)
11	M. Raghuram	14081007	International conference on power electronics, drives and systems	18-21 December 2018	IIT (BHU) Varanasi
ABR	OAD				
1	Praveen Kumar	14081002	IEEE Transportation Electrification Conference and Expo, Asia-Pacific (ITEC Asia-Pacific)	6-9 June 2018, Bangkok, Thailand	IIT (BHU) Varanasi
2	Shailendra Singh	14081011	IEEE PES General Meeting,	Portland USA, August 05-09, 2018.	IUSSTF and DST, India
3	Shailendra Singh	14081011	Young Investigators Meeting, Science and Research Opportunities in India-2018 Event	University of Chicago, Chicago, USA, September 08-09, 2018	IUSSTF and DST, India
4	Jitendra K. Goyal	16181001	International Conference on Range Technology (ICORT)	15-17 Feb 2019 at Chandipur, India	IIT (BHU)
5	M Raghuram	14081007	International conference on power electronics, drives and systems	18-21 December 2018	IIT (BHU) Varanasi
6	B. Vinod Kumar	14081005	IAS Annual Meeting 2018	23-27 December 2018 Portland, USA	DST



## Names of students/scholars who got prizes and awards outside the Institute (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of Prize	Date & Venue	Prize awarded by
1	Mr. Anand Kumar K.S. (Ph.D. Scholar, External Registration)	15081011	Design Impact Award	Vivanta President, Mumbai, India : July 24, 2018	Padma Vibhushan Ratan N. Tata
2	Sunil Kumar Muwal	16082020	POSOCO Power System Awards (PPSA) – 2019, under Master category	February 25, 2019 at IIT Delhi	POSOCO, India
3	Avneet Kumar	13081011	IACC Second Prize Paper Award, IAS Annual meeting 2018	24 September, Portland, USA	IEEE Industry Application Society

### Names of scholars/students who won Convocation/Institute Day prizes (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of Prize	Prize awarded by
1.	Avneet Kumar	13081011	Keshardevi kantilal deora memorial award	Prof. Rajeev Sangal Director IIT-BHU

### Names of Students/Scholars who went for foreign Internship (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
1	Shailendra Singh	14081011	National Renewable Energy Laboratory (NREL), Golden Colorado	Golden Colorado, USA	USA	6 Months
2	Ankit Sachan	15081006	Harbin Institute of Technology, Shenzhen China	Shenzhen	China	2 Months
3	Mr. Aditya Dhookia	17085007	Changwon National University	Changwon	South Korea	8 weeks
4	Ms. Ananya Gupta	16085007	University of South California, Viterbi School of Engineering, Los Angeles	California	USA	8 weeks
5	Ms. Nidhi Malhotra	16084010	University of Michigan, Ann Arbor	Michigan Ann Arbor	USA	10 weeks
6	Ms. Yogita Choudhary	16084021	DAAD WISE Scholarship Program	TU Munich	Germany	12 weeks
7	Mr. Jayesh Kumar Motwani	15084008	Duke University	Durham, North Carolina	USA	12 weeks

### 14. Faculty & their Activity

### Faculty and their areas of specialisation

S. No.	Name, Qualifications, Employee No.	Date of award of PhD Degree	Major Areas of Specialization (Max. 3 Areas)
PROFE	ESSORS		
1	Dr. S P Singh, PhD, Emp. No. 13783	1991	Power System Operation and Control, Smart Grid, Distribution Automation.
2	Prof. S. K. Nagar Ph.D. Emp. No.13780	1991	Control Systems, AI Applications



S. No.	Name, Qualifications, Employee No.	Date of award of PhD Degree	Major Areas of Specialization (Max. 3 Areas)
3	Prof. R. K. Pandey Ph.D. Emp. No.16623	22/05/1992	EHV AC & DC Transmission, FACTS Controllers Design & Analysis, Integrated Large Power System Operation & Control, Intelligent Grid Control, High Voltage DC Transmission Technology, Electricity Policy and Planning, Distribution System Planning & Automation, Distributed Energy Resources & Management
4	Rakesh Kumar Srivastava, Ph.D., Emp. No. 13788	March , 2000	Linear Induction Motor, Special Electrical machines, Numerical analysis of Electrical Machines
5	Prof. R. K. Misra Ph.D. Emp. No.13791	23/03/ 2005	Power Distribution Systems , AI and its application in Power Systems
6	Prof. R. Mahanty Ph.D. Emp. No. 13792	10/10/2005	Power Electronics
7	Prof. Devender Singh Ph.D. Emp. No.17094	05/04/ 2002	Short term Load Forecasting, State Estimation, Distributed Generation,
8	M. K. Verma Ph.D. Emp. No. 17590	31/5/2005	Power System
9	R.K.Saket B.E.(Electrical Engineering), M.E.(Power Electronics), Ph.D.(Reliability Engineering) Emp. No. 17548	16/06/2006	Reliability Engineering, Electrical Machines & Drives, Renewable Energy
ASSOC	CIATE PROFESSORS		
1	Kalpana Chaudhary, Ph. D, Emp no. 16629	19 <sup>th</sup> July 2009	Power Electronics, Electrical Machines and drives, Renewable energy generation, Special drives for electric vehicle applications, Satellite solar power station
2	Santosh Kumar Singh PhD, Emp. No.17446	Date of award: 24th March 2012 Date of PhD defense: 28th November 2011	Power Electronics, Electric Drives, Renewable energy integration
3	Dr. R. K. Singh Ph.D. Emp. No. 17464	12/02/2013	Power Electronics, Energy Storage System and Optimal Bidirectional Battery Chargers, Modelling, simulation, and control of Power Electronics System, Power Electronics for the Hybrid Renewable AC/DC microgrid, Modeling and control for Point-of-load's, EV/PHEV interface with renewable energy and grid.
4	Dr S.R.Mohanty, PhD (IIT Kharagpur), (Employee No50224)	February 2007	Distributed generation (DG) Power System and smart grid & Samp; signal processing and optimization applied to Power System Protection
5	Dr. V. N. Lal Ph.D., Emp. No. 175549	09/09/2015	Power Electronics. Design and Control of Solar PV system, Renewable Energy, ANN application in Power Electronics.
ASSIST	TANT PROFESSORS		
1	Dr. Jeewan Chandra Pandey PhD, Emp. No. 17538	28-06-2018	(i)High Voltage electrical insulation (ii) Nanodielectrics



S. No.	Name, Qualifications, Employee No.	Date of award of PhD Degree	Major Areas of Specialization (Max. 3 Areas)
2	Sandip Ghosh Ph.D. Emp. No 50063	11/11/2010	Control System Engineering
3	Dr. Manish Kumar Ph.D. Emp. No. 17101		Renewable Energy Technologies Plasma Physics Coherent Radiation Generation, Terahertz Radiation Generation
4	Dr. Shyam Kamal Ph.D. Emp No 50062	14-08-2014	Nonlinear control, Adaptive control, Fault Tolerant Control
5	NK Swami Naidu Ph.D. Emp. No 50209	19/05/2015	Power Electronics and Drives, Renewable Energy integration to grid, Microgrid.
6	Ms. Sobhita Meher M. Tech. 17589		Computer Science
Institu	te Professors		
Disting	guished Professors		
Emerit	tus Professors		
Guest	Faculty		
Visitin	g Faculty		
DST IN	NSPIRE Faculty		

## Technical & Non-Teaching Staff

CI				E1	Date of appointment	
Sl. No.	Name	Qualification	Designation	Employee Number	In IT(BHU)/ (BHU)	In the Department
1	Mr. Sanjeev Kumar Maurya	B.Sc.	Junior Superintendent	50149	21.07.2017	25.07.2017
2	Mr. Sunil Kumar Sonkar	MBA	Junior Assistant	19876	19.02.2015	27.04.2015
3	Mr. A.N.Singh	M.A., B.Sc., CIC	Technical Superintendent	14007	16.06.1988	16.06.1988
4	Mr. R. C. Sharma	B.A.	Technical Superintendent	14008	26.04.1991	26.04.1991
5	Mr. Radhe Shyam Patel	Intermediate, Polytechnic in EE	Technical Superintendent	18648	05.08.2008	05.08.2008
6	Mr. B. L. Singh	B.A., Diploma in E.E., DBM	Technical Superintendent	18657	06.08.2008	06.08.2008
7	Mr. Umesh Mishra	B.Sc.	Senior Technician	18658	05.08.2008	05.08.2008
8	Mr. Satish Kumar Singh	B.A.	Senior Technician	18652	06.08.2008	06.08.2008



Sl.			Employee		Date of appo	intment
No.	Name	Qualification	Designation	Number	In IT(BHU)/ (BHU)	In the Department
9	Mr. Dharmendra Kumar Singh	High School+ITI	Senior Technician	18647	07.08.2008	07.08.2008
10	Mr. Sanjay Kumar Bharti	B.Sc., B.Ed.	Senior Technician	18659	11.08.2008	11.08.2008
11	Mrs. Ranjana Singh	Postgraduate	Senior Technician	14740	16.05.1996	13.04.2012
12	Mr. Anjneya Kumar	M.Sc., B.Ed.	Senior Technician	19649	03.08.2012	21.09.2012

Short-term courses/workshops/seminars/symposia/conferences organised by faculty members (From 1st April 2018 to 31st March 2019)

S. No.	Cordinator	Title	Period

Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Title	Period and Venue			
Seminars/Symposia/Conferences						
1	S.K.Singh	PEDES 2018	18-21 December 2018, IIT Madras, Chennai			
2	R. K. Singh	IEEE ECCE 2018	23-27 Sep 2018 Portland, USA			
3	V. N. Lal	IAS Annual Meeting	23-27 Sep 2018 Portland, USA			
4	R. Mahanty	IEEE ECCE 2018	23-27 Sep 2018 Portland, USA			
Meetings						

Special lectures delivered by faculty members in other institutions (From 1st April 2018 to 31st March 2019)

S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
1	M. K. Verma	Voltage Stability Monitoring and Control in Smart Grid Architecture	MMM University of Technology. Gorakhpur	12/9/2018
2	M. K. Verma	Smart Distribution System	MMM University of Technology, Gorakhpur	13/9/2018
3	R. K. Singh	Recent Advancements in Power Electronic Interface	GE Global Research, Bangalore	18/12/2018
4	N. K. Swami Naidu	Doubly Fed Induction Generator for Wind Energy Conversion System	Aligarh Muslim University	26 <sup>th</sup> October 2018
5	N. K. Swami Naidu	Recent Trends and Opportunities in Power Electronics	Raghu Engineering College, Visakhapatnam, AP	16 <sup>th</sup> October 2018



S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
6	Prof R K Srivastava Keynote speaker	Linear Induction Motor Technology-an Indian perspective & challenges	IEEE INTERNATIONAL CONFERENCE ON COMPUTATIONAL AND CHARACTERIZATION TECHNIQUES IN ENGINEERING & SCIENCES (CCTES-18, SEPTEMBER 14-15, 2018) <a href="http://cctes18.iul.ac.in">http://cctes18.iul.ac.in</a> Integral University, Lucknow	14-15 Sept 2018
7	Sandip Ghosh	Wide-area control of power system	NIT Silchar	23 Jan, 2019
8	Dr. Shyam Kamal	A Transition from PID Controllers to Sliding Modes	Govt. Engg. College, Thrissur	12-12-2018
9	Dr. Shyam Kamal	A Transition from First Order to Higher Order Sliding Modes	NIT Silchar	03-12-2018
10	Dr S.R.Mohanty	Delivering Expert Lecture on Faculty Development Programme on "Smart Energy Delivery Systems"	S.I.E.T Allahabad	29.04.2019

## Visits abroad by faculty members (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Country Visited	Date of Leaving india	Date of Returning India	Purpose of Visit	Funding from
1	R. K. Singh	USA	21 Sep 2018	29 Sep 2018	Attending Conference	CPDA
2	V. N. Lal	USA	21 Sep 2018	29 Sep 2018	Attending Conference	CPDA
3	R. Mahanty	USA	21 Sep 2018	29 Sep 2018	Attending Conference	CPDA

### **Honours and awards** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Details of Award	
1	R.K.Saket	Design Impact Award - 2018: Awarded by Padma Vibhushan Ratan N. Tata for Innovation and Social Entrepreneurship, Titan Company in collaboration with Tata trusts, Vivanta President, Mumbai, India: July 24, 2018.	
2	Dr. S. K. Singh	IACC Second Prize Paper Award, IAS Annual meeting 2018	

### Fellowships of academic and professional societies (From 1st April 2018 to 31st March 2019)

S. No. Name of Faculty Member		Details of Fellowship	
1	Kalpana Chaudhary	31. 10.2018 (Fellowship no. F-124564-5)	

## Books, monographs authored/co-authored (From 1st April 2018 to 31st March 2019)

S. No.	Name of Author/Co- Author	Title	Publisher
1	S .K. Bharadwaj & S.K.Nagar	Modern control systems with advanced topics	New age publishers 2019



## Editorial boards of journals (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1	R.K.Saket	Editorial Board Member	Engineering, Technology and Applied Science Research (ESCI Indexing)

### 5. Design and Development Activities

New facilities added (From 1st April 2018 to 31st March 2019)

S. No.	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)
1	Designing of wall climbing Robot for Laboratory	1 Lakhs
2	Experimental setup was developed to couple a separately excited DC motor with a Five phase permanent magnet synchronous generator	3 lakhs (approx)
3	AC Grid Simulator	30 Lakh (approx)

### Patents filed (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Title of Patent	
1	R.K.Saket	[1] Anand Kumar K. S. and R. K. Saket (2019), "Bio Dry Cell Based Lantern Lamp", Indian Patent, Intellectual Property Rights, India (Patent ID: IPR/2018-19/021), Application Date: <b>January 01, 2019</b> .	
		[2] Anand Kumar K. S. and R. K. Saket (2018), "Bio Dry Cell - A Novel Green Energy System", Indian Patent, Intellectual Property Rights, India (Patent ID: IPR/2018-19/020), Application Date: <b>December 31, 2018</b> .	

### 5. Research and Consultancy

### Sponsored research projects (Ongoing only)

Note: Sponsored project name is to be given only in case a faculty member is Project Incharge

S. No.	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co- ordinator
1	Virtual Synchronous Generator for Microgrid Applications	2019-2022	DST SERB	45 Lakhs	N K Swami Naidu
2	Design, Modelling And Simulation Of Linear Induction Drive For Propulsion Applications	10 July 2018-09 July 2020	RCI, Hyderabad	10 L	R K Srivastava
3	Construction of Non-monotonic Lyapunov Function for the Dynamical Systems governed by Differential Inclusions	2019-2021	Mathematical Research Impact Centric Support (MATRICS) to the Science and Engineering Research Board (SERB)	6 Lakhs	Dr Shyam Kamal
4	Mix-Energy-Source Electric Vehicle Charging System Design and its Impact on Indian Smart-distribution-grid	Ongoing since July 2018	DST, India	90 Lakh	Dr. R. K. Singh



## **Industrial consultancy projects** (Ongoing only)

S. No.	Name of Faculty Member	Title	Industry	Amount (in lakhs of Rs.)
1	S. R. Mohanty	Advanced signal processing algorithm and Revenue Support system using pattern classification approach		3.9 Lakhs
2	Dr. R. K. Singh	Third party inspection of electrical air conditioning and fire fighting and networking	Uttar Pradesh Rajkiya Nirman Nigam Ltd. Lucknow	
3	R. Mahnty	1. Quality inspection of electrical work of Dr. Ram Manohar Lohiya State Administration Management Academy	Uttar Pradesh Rajkiya Nirman Nigam Ltd.	1.0
		2. Vetting of electro-mechanical part of Pahari sewerage Pumping Station	EMS Infracom Pvt Ltd . Ghaziabad	1.8
		3. Review and vetting of electrical and instrument drawing and data sheets for 50 MLD STP Ramana Varanasi	Varanasi STP Project Pvt. Ltd. 50 MLD Sewage Treatment Plan, UP Jal Nigam Compound Shantipuram Colony Road Ramana, Varanasi	3.61
4	D. Singh, R. K. Misra	1. Veting of HT and LT cable and transformer and VCB & RMU	NCCF Lucknow	1.18
		2. Inspection of HT/LT cable	NCCF Lucknow	0.78
		3. Inspection of transformers	NCCF Lucknow	0.78
		4. Inspection of VCB & RMU	NCCF Lucknow	0.78
5	J. C. Pandey	Sample testing of Insulated     Copper Conductor (FRLS)	Hindustan Prefab Ltd, New Delhi	0.49
		2. Calibration of Insulation Tester	Raj Construction Varanasi	0.04

## $\textbf{Faculty members' participation with other universities under MoUs} \ (Ongoing \ only)$

**Research Publications** (From 1st April 2018 to 31st March 2019)

S. No.	Papers Published/ Presented	No.
1	Papers Published in Refereed National Journals	60
2	Papers Published in Refereed International Journals	2
3	Papers Presented in National Conferences	36
4	Papers Presented in International Conferences	2



### **Refereed International Journals** (From 1st April 2018 to 31st March 2019)

- 1. J. C. Pandey and Nandini Gupta (2019) Study of Treeing in Epoxy-Alumina Nanocomposites using Electroluminescence. *IEEE Transactions on Dielectrics and Electrical Insulation* 26(2): 648-653. ISSN:1558-4135.
- 2. Deepak Kumar, Kalpana Chaudhary, "Design of an Improved Differentially Fed Antenna Array for RF Energy Harvesting", IETE Journal of Research (Taylor and Francis), <a href="https://doi.org/10.1080/03772063.2018.1488628">https://doi.org/10.1080/03772063.2018.1488628</a>, 2018.
- 3. K. Chaudhary, D. Kumar, "Satellite Solar Wireless Power Transfer for Baseload Ground Supply: Clean Energy for the Future", European Journal of Futures Research, pp. 6-9, <a href="https://doi.org/10.1186/s40309-018-0139-7">https://doi.org/10.1186/s40309-018-0139-7</a>, 2018.
- 4. Deepak Kumar, Kalpana Chaudhary, "Cost Minimization Strategy for Satellite Solar Power Station", International Journal of Renewable Energy Research, Vol 8, No.1, pp. 488-494 (2018).
- 5. D Kumar, K. Chaudhary, "High Frequency Harmonic Harvester Rectenna for Energy Storage Application", International Journal of Power Electronics and Drive Systems, Vol 9, Issue 1, pp. 252-259,2018.
- 6. D Kumar, K. Chaudhary, "Design of Differential Source Fed Circularly Polarized Rectenna with Embedded Slots for Harmonics Suppression", Progress in Electromagnetics Research C, pp. 175-187, 2018.
- 7. Pankaj Sahu and M. K. Verma, "An approach for voltage stability estimation of real time systems using phasor measurements", *Journal of Advanced Research in Dynamical & Control Systems*, Vol. 10, 02-Special Issue, pp. 854-863, 2018.
- 8. Praveen Kumar and R. K. Srivastava, (2018).Influence of Rotor Magnet Shapes on Performance of Axial Flux Permanent Magnet Machines. Progress in Electromagnetics Research C, Vol. 85, 155-165.
- 9. Praveen Kumar, M. M. Reza, and R. K. Srivastava, (2018). Analytical Method for Calculation of Cogging Torque Reduction Due to Slot Shifting in a Dual Stator Dual Rotor Permanent Magnet Machine with Semi-Closed Slots. Progress in Electromagnetics Research M, Vol. 70, 99-108.
- 10. M. M. Reza, and R. K. Srivastava, (2018). Semi-Analytical Model for Skewed Magnet Axial Flux Machine. Progress In Electromagnetics Research M, Vol. 68, 109-117.
- 11. M. M. Reza and R. K. Srivastava, (2018).Cogging Reduction in Permanent MagnetMachines via Skewed Slot Openingand its Analytical Modeling, Progress In ElectromagneticsResearch M, Vol. 70, 167-176.
- 12. PiyushChoudhary, Rakesh KumarSrivastava, SomnathDe,(2018).Integrating Greenhouse gases (GHG) assessment for low carbon economy path: Live case study of Indian national oil company,Journal of Cleaner Production, Vol. 198, 351-363.
- 13. Raja Ram Kumar, S. K. Singh,R. K. Srivastava, R. K. Saket(2018). Thermal analysis of five-phase PMSG for small-scale wind power application. International Journal of Mechanical and Production Engineering Research and Development, 8(6),667-680.
- 14. Raja Ram Kumar, S. K. Singh,R. K. Srivastava, R. K. Saket (2018). Design, control and experimental investigation of fault-tolerant five phase PMSG for wind power application, International Journal of Mechanical and Production Engineering Research and Development,8(4), 1107-1122
- 15. Sanjay Kumar, Debottam Mukherjee, Pabitra K. Guchhait, Ramashis Banerjee, A.K. Srivastava, D.N. Vishwakarma, R.K. Saket (2019), "A Comprehensive Review of Condition Based Prognostic Maintenance (CBPM) for Induction Motor", IEEE Access (WoS, Scopus & SCIE), Impact Factor: 4.098, Volume: 07; pp: 90690 90704. Web Site: <a href="http://www.ieeexplore.org">http://www.ieeexplore.org</a>.
- 16. K.S. Anand Kumar, R.K. Saket, R. Rajendran, S. Eslamian (2019), "Design and Development of Green Energy Conversion System Using Waste Water and Organic Kitchen Wastes", International Journal of Hydrology Science & Technology (Scopus), Inderscience Publishers (UK), Impact Factor: 0.246, Volume: 00; No: 00; pp: 000-000, In Press. Web Site: <a href="http://www.indercsience.com/ijpec">http://www.indercsience.com/ijpec</a>. ISSN online: 2042-7816, ISSN print: 2042-7808.
- 17. Sunil Kumar Singh, D. N. Vishwakarma and R. K. Saket (2019), "An Intelligent Scheme for Categorizing Fault Events in Compensated Power Network Using K-nearest Neighbor Technique", International Journal of Power



- and Energy Conversion (Scopus), Inderscience Publishers (UK), Impact Factor: 0.246, Volume: 00; No: 00; pp: 000-000, In Press. Web Site: <a href="http://www.indercsience.com/ijpec">http://www.indercsience.com/ijpec</a>. ISSN online: 1757-1162, ISSN print: 1757-1154
- 18. K.S. Anand Kumar, Sachin Kumar, R. K. Saket, R. Rajendran (2019), "Technological Aspects of Microbial Fuel Cells and Soil Based Green Energy Conversion System", GMSARN International Journal (Scopus); Volume: 13, Issue: 04, pp: 159-170. Web-site: <a href="http://www.gmsarn.com">http://www.gmsarn.com</a>. ISSN:1905-9094
- 19. Sanjay Kumar, Sachin Kumar, K.S. Anand Kumar, O.P. Bharti, Lokesh Varshney, R.K. Saket, D.N. Vishwakarma (2019), "Probabilistic Evaluation and Design Aspects for Reliability Enhancement of Induction Motor", International Journal of Reliability and Safety (Scopus), Inderscience Publishers (UK), Impact Factor: 0.246, Volume: 00; No: 00; pp: 000-000, In Press. Web Site: <a href="http://www.indercsience.com/ijrs">http://www.indercsience.com/ijrs</a>. ISSN online: 1479-3903, ISSN print: 1479-389X
- 20. Om Prakash Bharti, R. K. Saket; S. K. Nagar (2019), "Reliability assessment and Performance analysis of DFIG based WT for wind energy conversion system", International Journal of Reliability and Safety (Scopus), Inderscience Publishers (UK), Impact Factor: 0.246, Volume: 00; No: 00; pp: 000-000, In Press. Web Site: <a href="http://www.indercsience.com/ijrs">http://www.indercsience.com/ijrs</a>. ISSN online: 1479-3903, ISSN print: 1479-389X
- 21. Om Prakash Bharti, R. K. Saket and S. K. Nagar (2019), "MPPT based On-off control for DFIG Driven by Variable Speed Wind turbine", GMSARN International Journal (Scopus); Volume: 13, Issue: 03, pp: 125-137, Web-site: <a href="http://www.gmsarn.com">http://www.gmsarn.com</a>. ISSN:1905-9094
- 22. Sunil Kumar Singh, D. N. Vishwakarma and R. K. Saket (2019), "Intelligent Computing Based Scheme for Evolving Fault Events Location in Series Compensated Power Networks", Journal of Electrical Systems (WoS; Scopus & ESCI), Volume: 15, Issue: 02, pp: 303-313, June 2019. Web-site: <a href="https://journal.esrgroups.org/jes">https://journal.esrgroups.org/jes</a>. ISSN 1112-5209
- 23. Sunil Kumar Singh, D. N. Vishwakarma and R. K. Saket (2019), "An Intelligent Scheme for Categorization and Tracing of Shunt Abnormalities in Compensated Power Transmission Network", Journal of Electrical Systems (WoS; Scopus & ESCI), Volume: 15, Issue: 01, pp: 68-80, March 2019. Web-site: <a href="https://journal.esrgroups.org/jes">https://journal.esrgroups.org/jes</a>. ISSN 1112-5209
- 24. Sanjay Kumar, D. N. Vishwakarma and R. K. Saket (2018), "Induction Motor Condition Assessment Using Field Programmable Gate Array Based Technologies", Journal of Computational and Theoretical Nanoscience (Scopus), Volume: 15, Issue: 6-7, pp: 2309-2312, Web-site: <a href="https://www.aspbs.com/jnn">www.aspbs.com/jnn</a>. ISSN: 1546-1955 (Print): EISSN: 1546-1963 (Online)
- 25. Pamshetti, Vijay Babu, and Shiv Pujan Singh. "Optimal coordination of PV smart inverter and traditional volt-VAR control devices for energy cost savings and voltage regulation." *International Transactions on Electrical Energy Systems* (2019): e12042.
- 26. S. L. Edathil and S. P. Singh, "ACO and CS-based hybrid optimisation method for optimum sizing of the SHES," in *IET Renewable Power Generation*, vol. 13, no. 10, pp. 1789-1801, 29 7 2019.
- 27. E. Purwar, D. N. Vishwakarma and S. P. Singh, "A Novel Constraints Reduction-Based Optimal Relay Coordination Method Considering Variable Operational Status of Distribution System With DGs," in *IEEE Transactions on Smart Grid*, vol. 10, no. 1, pp. 889-898, Jan. 2019.
- 28. Singh, B., Mahanty, R., & Singh, S. P. (2018). Social welfare maximization for congestion management in multiutility market using improved PSO incorporating transmission loss cost allocation. *International Transactions on Electrical Energy Systems*, 28(9), e2593.
- 29. A. Patel, S. Ghosh and K. Folly (2018) Inter-Area Oscillation Damping With Non-Synchronized Wide-Area Power System Stabilizer. IET Generation, Transmission and Distribution Vol. 12, pp.3070 3078.
- 30. 2S. Ghosh, K. Folly and A. Patel (2018) Synchronized versus non-synchronized feedback for speed-based wide-area PSS: Effect of time-delay. IEEE Trans. Smart Grid Vol. 9, pp. 3976-3978.
- 31. J. K. Jain, S. Ghosh and S. Maity (2018) A numerical bifurcation analysis of indirect vector-controlled induction motor IEEE Trans. Control Systems Tech. Vol. 26, pp. 282-290



- 32. Anil Kumar Pal, Shyam Kamal, S. K. Nagar, B. Bandyopadhyay, and L. Fridman (2019) 'Design of Controllers with Arbitrary Convergence Time', Automatica, (Provisionally Accepted as aBrief paper).
- 33. Sandip Soni, Shyam Kamal, Xinghuo Yu and Sandip Ghosh (2019) 'Global Stabilization of Uncertain SISO Dynamical Systems Using A Multiple Delayed Partial State Feedback Sliding Mode Control', IEEE Transactions on Circuits and Systems II: Express Briefs, (Early Access), DOI:10.1109/TCSII.2019.2928573
- 34. Shyam Kamal, R. K. Sharma, D. Thach, M. S. Harikrisnan and B. Bandyopadhyay (2019) 'Sliding Mode Control of Uncertain Fractional Order Systems: A Reaching Phase Free Approach', Asian Journal of Control, (Accepted).
- 35. X. Xiong, Shyam Kamal, and S. Jin (2019) 'Adaptive Gains to Super-twisting Technique for Sliding Mode Design', Asian Journal of Control, (Early Access), DOI.org/10.1002/asjc.2202.
- 36. Shyam Kamal, Xinghuo Yu, Rahul Kumar Sharma, Jyoti Mishra and Sandip Ghosh (2019) 'Non-Differentiable Function Tracking,' IEEE Transactions on Circuits and Systems II: Express Briefs, (Early Access), DOI:10.1109/TCSII.2018.2890403
- 37. Jitendra Kumar Goyal, Shyam Kamal, Ragini Brijesh Patel, Xinghuo Yu, Jyoti Mishra, Sandip Ghosh (2019) 'Higher Order Sliding Mode Control Based Finite-time Constrained Stabilization,' IEEE Transactions on Circuits and Systems II: Express Briefs, (Early Access), DOI: 10.1109/ACCESS.2019.2901806.
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- 39. Ankit Sachan, Shyam Kamal, Devender Singh and Xiaogang Xiong (2019) 'A Robustness Consideration in Continuous time [K, KL] Sector for Nonlinear System', IEEE Access, (Early Access), DOI: 10.1109/ACCESS.2019.2901806.
- 40. Ankit Sachan, Shyam Kamal, Devender Singh and Xiaogang Xiong (2018) 'A [K, KL] sector based control design for nonlinear system, ISA transactions, (Early Access), DOI: 10.1016/j.isatra.2018.12.017.
- 41. Shyam Kamal, Ankit Sachan, D Kranthi Kumar and Devender Singh (2018) 'Robust finite time cooperative control of second order agents: A Multi-input Multi-output higher order super-twisting based approach', ISA transactions, vol. 86, pp. 1-8, DOI: 10.1016/j.isatra.2018.10.041.
- 42. Maria Thomas, Shyam Kamal, B. Bandyopadhyay and Leena Vachhani (2018) 'Continuous Higher Order Sliding Mode Control for a Class of Uncertain MIMO Nonlinear Systems: An ISS Approach', European Journal of Control, vol. 41, pp. 1-7, DOI: /doi.org/10.1016/j.ejcon.2018.01.005.
- 43. Dong Luo, Xiaogang Xiong, Shanghai Jin and Shyam Kamal (2018) 'Adaptive Gains of Dual Level to Super-Twisting Algorithm for Sliding Mode Design', IET Control Theory & Applications, vol. 12, no. 17, pp. 2347-2356, DOI:10.1049/iet-cta.2018.5380.
- 44. Yinghao Chu, Chen Huang, Xiaodan Xie, Bohai Tan, Shyam Kamal and Xiaogang Xiong (2018) 'Multilayer Hybrid Deep-Learning Method for Waste Classification and Recycling', Computational Intelligence and Neuroscience, Article ID 5060857, pp. 1-9, doi.org/10.1155/2018/5060857.
- 45. S. K. S. Kushwaha, S. R. Mohanty, and P. Samuel (Jan 2019) Robust H∞ control for stability assessment in grid-connected offshore wind and marine current hybrid system. IET Renewable Power Generation 13(2): 318–329
- 46. T. Prakash, V. P. Singh, and S. R. Mohanty (Feb2019) A synchrophasor measurement based wide-area power system stabilizer design for inter-area oscillation damping considering variable time-delays. International Journal of Electrical Power & Energy Systems, Elsevier journal 105: 131-141.
- 47. M. Juneja, S. Nagar, and S. R. Mohanty(March 2019) ABC based reduced order modelling of microgrid in grid-tied mode. Control Engineering Practice, Elsevier journal.84:337-348.
- 48. R. Singh, S. R. Mohanty, N. N. Kishor, and A. T. K(May,2019) Real-Time Implementation of Signal Processing Techniques for Disturbances Detection. IEEE Transactions on Industrial Electronics 66 (5):3550-3560.



- 49. S. Agrawal, S. Patra, S. R. Mohanty, V. Agarwal, and M. Basu(November2018) Use of Matrix-Pencil Method for efficient islanding detection in Static DG and a parallel comparison with DWT method. IEEE Transactions on Industrial Electronics 66(11):
- 50. Kumar, A., Jha, B. K., Dheer, D. K., Singh, D., & Misra, R. K. (2019). Nested backward/forward sweep algorithm for power flow analysis of droop regulated islanded microgrids. *IET Generation, Transmission & Distribution*, 13(14), 3086 3095.
- 51. Jha, B. K., Kumar, A., Singh, D., & Misra, R. K. (2019). Coordinated effect of PHEVs with DGs on distribution network. *International Transactions on Electrical Energy Systems*, 29(4), e2800.
- 52. Roy, A., Singh, D., Misra, R. K., & Singh, A. (2019). Differential protection scheme for power transformers using matched wavelets. *IET Generation, Transmission & Distribution*, *13*(12), 2423-2437.
- 53. Maini, T., Misra, R. K., Singh, D., & Kumar, A. (2018). Rough Set Based Feature Selection Using Swarm Algorithms with Improved Initialization. *Journal of Computational and Theoretical Nanoscience*, 15(6-7), 2350-2354.
- 54. Maini, T., Kumar, A., Misra, R. K., & Singh, D. (2018). Intelligent fuzzy rough set based feature selection using swarm algorithms with improved initialization. *Journal of Intelligent & Fuzzy Systems*, 1-10.
- 55. Abhinandan Routray, Rajeev Kumar Singh, and R. Mahanty, "Harmonic Minimization in Three-Phase Hybrid Cascaded Multilevel Inverter Using Modified Particle Swarm Optimization" *IEEE TII early access*, DOI 10.1109/TII.2018.2883050.
- 56. Somdut Dey, Bussa Vinod Kumar, Rajeev Kumar Singh, "Transformerless Hybrid Converter with AC and DC outputs and Reduced Leakage Current" *IEEE Journal Emerging and Selected Topics in Power Electronics*, Vol. 7, Issue. 2, pp. 1329–1341, June. 2019
- 57. Rajat Chapannavar, Santanu Mishra, and Rajeev Kumar Singh, "An Inductor Current Estimator for Digitally Controlled Synchronous Buck Converter" *IEEE Transactions on Power Electronics.*, Vol. 34, Issue. 5, pp. 4883–4894, May 2019.
- 58. Anish Ahmad, B. Vinod Kumar, Rajeev Kumar Singh and R. Mahanty "Switched-Boost Modified Z-Source Inverter Topologies with Improved Voltage Gain Capability" *IEEE Journal Emerging and Selected Topics in Power Electronics*, Vol. 6, Issue. 4, pp. 2227–2244, April. 2018.
- 59. B. Vinod Kumar, Anish Ahmad, Rajeev Kumar Singh and R. Mahanty, "Single-phase high voltage gain switched LC Z-source inverters," *IET Power Electron.*, Vol. 11, Issue. 5, pp. 796–807, April. 2018.
- 60. V. K. Bussa, A. Ahmad, Rajeev Kumar Singh, and R. Mahanty, ``Interleaved hybrid converter with simultaneous DC and AC outputs for DC microgrid applications," *IEEE Trans. on Ind. Appl*, 54(3), 2763-2772, 2018.

### **Refereed National Journal** (From 1st April 2018 to 31st March 2019)

- 1. Praveen Kumar and R. K. Srivastava, (2018) Effect of Relative Slot-Opening Shift on Cogging Torque and Performance of an Axial Flux Permanent Magnet Machine. Journal of The Institution of Engineers (India): Series B, doi: 10.1007/s40031-018-0368-y.
- 2. S. K. Gupta, R. K. Srivastava, (2018). Roof-top Wind Energy Conversion System, Journal of The Institution of Engineers (India): Series B, 99(6), 597-604

### **Proceedings of International Conferences** (From 1st April 2018 to 31st March 2019)

- 1. Alok Jain and M. K. Verma, "A state-of-the-art on power quality enhancement techniques: present scenario and future challenges", *Proc. of the 2<sup>nd</sup> International Conference on Innovative Research in Science, Technology and Management (ICIRSTM-2018)*, NUS, Singapore, September 29-30, 2018.
- 2. Praveen Kumar and R. K. Srivastava, 2018.Cost Effective Stator Modification Techniques for Cogging Torque Reduction in Axial Flux Permanent Magnet Machines. IEEE Transportation Electrification Conference and Expo, Asia-Pacific (ITEC Asia-Pacific), Bangkok, Thailand, June 2018.



- 3. M. M. Reza and R. K. Srivastava, 2018.Semi-Analytical Model for Skewed MagnetAxial Flux Machine, 2018 IEEE Industry Applications Society Annual Meeting (IAS), Portland, OR, USA.
- 4. Balram Meena, Arti Koli, Pawan Verma, Lovesh Xaxa, R K Srivastava, 2018. Development of Tubular Linear Induction Motor, 2018 IEEE Industry Applications Society Annual Meeting (IAS), Portland, OR, USA.
- 5. Vijay babu.P, Shailendra Singh,Amit Kumar; Singh, S. P., B.V.kumar, "Integrated Operation of Conservation Voltage Reduction and Network Reconfiguration in PV-Rich Distribution Network considering Soft Open Point Impact, IEEE Industry Application Society Annual Meeting, Baltimore, Maryland, United States, September 2019 (accepted)
- 6. Shailendra Singh, Santosh Veda, S. P. Singh and Murali Baggu, "Smart Grid enabled CVR: Advance application of Distribution Management Systems" 2018 IEEE PES General Meeting, Portland USA, August 05-09, 2018.
- 7. Shailendra Singh, Santosh Veda, S. P. Singh and Murali Baggu, "Maximizing the Benefits of Volt/VAR Optimization in the Presence of Community Energy Storage" 2018 IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES), Chennai, India, Dec. 18-21, 2018
- 8. Shailendra Singh, S. Muwal, D. Shukla and S. P. Singh, "Model Predictive Driven Volt/VAr Control for Smart Grid Enabled CVR in Active Distribution Network" 8th IEEE Power India International Conference, Kurukshetra, India,9-11 Dec. 2018
- 9. Sri Lakshmi E, S.P.Singh, 'A Comprehensive Comparative Economic Analysis of ACO and CS Technique for Optimal Operation of Standalone HES', International Conference on Intelligent Computing Techniques for Smart Energy Systems (ICTSES 2018), Springer LNEE, Vol.607, Manipal University Jaipur, Dec. 22-23, 2019. DOI: 10.1007/978-981-15-0214-9
- 10. D. Shukla, S. P. Singh and S. R. Mohanty, "Optimal Strategy for ATC Enhancement and Assessment in presence of FACTS devices and Renewable Generation," 2018 20th National Power Systems Conference (NPSC), Tiruchirappalli, India, 2018, pp. 1-6.
- 11. J. Goyal, S. Aggarwal, S. Ghosh, and Shyam Kamal 2019. Robust H∞ Based PI Control Design For 2-DOF Helicopter: An LMI Approach. International Conference on Range Technology (ICORT) 15-17 Feb 2019 at Chandipur, India
- 12. X. Xiong, W. Chen, G. Jiao, S. Jin, and Shyam Kamal (2019) 'Consistent Digital Implementation of Continuous Terminal Algorithm with Implicit Euler Method', IEEE International Conference on Real time Computing and Robotics 2019, Irkutsk, Russia.
- 13. D. Kumar, Shyam Kamal, Kumar, S Tripurari and S. Ghosh (2018) 'Lyapunov Function Analsis for System with Stochastic Nonsmooth PI Controller', 3rd IFAC Conference on Advances in Proportional-Integral-Derivative Control, from May 9-11, 2018, Ghent, Belgium, vol. 51, no. 04, pp. 474-478.
- 14. Xiaogang Xiong, Shyam Kamal, Kranthi Kumar Deveerasetty, Shanghai Jin and Yanjie Li (2018) 'Sliding Mode Control of Quasi-Static Micro Mirrors with Implicit-Euler Implementation', 2018 IEEE International Conference on Real-time Computing and Robotics (RCAR), pp. 463-468.
- 15. A. Sachan, Shyam Kamal, and D. Singh (2018) 'Stabilization of Uncertain Nonlinear Systems via Immersion and Invariance based Sliding Mode Control', 15th International Workshop on Variable Structure Systems and Sliding Mode Control, July 9-11, 2018, Graz University of Technology, Austria, paper no. 39, pp. 1-6.
- 16. M. Raghuram, Avneet K. Chauhan, and Santosh Kumar Singh (2018) Integrated High Gain Indirect Matrix Converter. IEEE Journal of Emerging and Selected Topics in Power Electronics, 7(3): 1846 1853. ISSN: 2168-6785.
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- for Hybrid Electric Vehicle. IEEE Transactions on Transportation Electrification , 4(3): 732 743. ISSN: 2372-2088.
- 19. Naresh K Pilli, Avneet K. Chauhan, Santosh Kumar Singh, and Xiaogang Xiong (2018) An Inductor-Less, Discontinuous Current Source Gate Driver for SiC Devices. IEEE Access, 7(1): 34227 34237. ISSN: 2169-3536.
- 20. M. Raghuram, Avneet K. Chauhan, and Santosh K. Singh. "Integrated Modu- lation Technique for Switched capacitor Ultra Sparse Matrix converter" IEEE In-ternational Conference on Power Electronics, Drives and Energy Systems (PEDES),pp. 1-6, 2018.
- 21. Avneet K Chauhan, M Raghuram, Abhishek K Tripathi, Santosh K Singh, Xiaogang Xiong, Pan Xuewei. "A High Gain DC-DC Converter based on Switched Capacitor/Switched Inductor Arrangement" IEEE International conference on Power Electronics, Drives and Energy Systems (PEDES), pp. 1-6, 2018.
- 22. Satendra Kr Singh Kushwaha,S. R. Mohanty and Paulson Samuel,2019. Stability Assessment and robust controller design of Grid Interactive Offshore Wind Farm and Marine Current Farm using STATCOM. IEEE ICESIP, IIITDM Kancheepuram, Chennai 2019.
- 23. Satendra Kr Singh Kushwaha,S. R. Mohanty and Paulson Samuel, Dec 22-23,2018. Stability analysis of an offshore wind and marine current farm in grid connected mode using SMES. International Conference on Intelligent Computing Techniques for Smart Energy Systems ICTSES 2018, Manipal University, Jaipur with association with MNIT Jaipur.
- 24. Satendra Kr Singh Kushwaha, Paulson Samuel and S. R. Mohanty, October,22-24,2018. Non-linear H-infinity Control for Grid-interactive Offshore Wind Farm and Marine Current Farm. Second International Conference on Power Electronics, Intelligent Control & Energy system, IEEE ICPEICES 2018, Delhi Technological, University, Bawana Road, New Delhi
- 25. S. R. H., S. R. Mohanty, N. Kishor and D. K. Singh, 18-21 Dec, 2018. Comparison of Empirical Mode Decomposition and Wavelet Transform for Power Quality Assessment in FPGA, IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES), Chennai, India, IIT Madras.
- 26. R. Goyal, R. H. Singh, S. R. Mohanty and N. Kishor, 2<sup>nd</sup>-4<sup>th</sup> November,2018. Comparative Analysis of Control Schemes in Grid Connected PV System, 5th IEEE Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON), Gorakhpur, MMUT, Gorakhpur, India
- 27. Kumar, A., Misra, R. K., Singh, D., & S. Das (2019). Testing A Multi-Operator based Differential Evolution Algorithm on the 100-Digit Challenge on Single Objective Numerical Optimization. In IEEE Congress on Evolutionary Computation (CEC), 2019, Welington, New-Zealand
- 28. Mishra, S., Kumar, A., Singh, D., & Misra, R. K. (2018). Butterfly Optimizer for Placement and Sizing of Distributed Generation for Feeder Phase Balancing. In Computational Intelligence: Theories, Applications and Future Directions-Volume II (pp. 519-530). Springer, Singapore.
- 29. Maini, T., Kumar, A., Misra, R. K., & Singh, D. (2018). Fuzzy Rough Set-Based Feature Selection with Improved Seed Population in PSO and IDS. In Computational Intelligence: Theories, Applications and Future Directions-Volume II (pp. 137-149). Springer, Singapore.
- 30. Kumar, A., Maini, T., Misra, R. K., & Singh, D. (2018). Butterfly constrained Optimizer for Constrained Optimization Problems. In Computational Intelligence: Theories, Applications and Future Directions-Volume II (pp. 477-486). Springer, Singapore.
- 31. 5. Roy, A., Misra, R. K., & Singh, D. (2018). Matched Wavelets for Differential Protection of Power Transformers Using Differential Evolution. In Computational Intelligence: Theories, Applications and Future Directions-Volume II (pp. -). Springer, Singapore.
- 32. Vinod Kumar Bussa, Rajeev Kumar Singh, and R. Mahanty, "Two Switch Non-Isolated High Gain DC-DC Converter," *in IEEE-PEDES*, IIT Madars, India, pp 1-6, 18-21 *Dec*.2018.



- 33. Vinod Kumar Bussa, Rajeev Kumar Singh, and R. Mahanty, V. N. Lal "Steady State Analysis of High Gain Interleaved Boost Converter at Different Operating Regions for Universal Line PFC Applications," in *IAS Annual Meeting*, Oregon, USA, pp 1-6, 23-27 Sep. 2018.
- 34. Anish Ahmad and Rajeev Kumar Singh, "Analysis of Single-Phase Modified Quasi-Switched Boost ZSI and Extended Quasi-Switched Boost ZSI," in *IAS Annual Meeting*, Oregon, USA, pp 1-6, 23-27 Sep. 2018.
- 35. Anish Ahmad and Rajeev Kumar Singh, "Topologies of Switched-Inductor Switched-Capacitor Based Enhanced Boost Z-Source Inverters for Renewable Energy Applications," *in IEEE-ECCE 2018*, Oregon, USA, pp 6674-6681,23-27 Sep. 2018.
- 36. Abhinandan Routray, Rajeev Kumar Singh, R.Mahanty, "Modified Particle Swarm Optimization Based Harmonic Minimization in Hybrid Cascaded Multilevel Inverter," *in IEEE-ECCE 2018*, Oregon, USA, pp 5573-5578, 23-27 Sep. 2018.

### **Proceedings of National Conferences** (From 1st April 2018 to 31st March 2019)

- 1. Shailendra Singh, P. Vijay Babu and S. P. Singh, "Impact of Combined Operation of CVR and Energy Storage System in Distribution Grid" 20th National Power System Conference, Trichy, India, 18-21 Dec,2018
- 2. Jitendra Goyal, Shubham Aggarwal, Sandip Ghosh and Shyam Kamal (2019) 'Robust H-infinity Based PI Control Design For 2-DOF Helicopter: An LMI Approach', International Conference on Range Technology 2019, Chandipur, Odisha.

## Kindly Provide Brief Details of 5 Articles from the Department/School with maximum no. of Citations in last 5 years

- 1. S.P. Singh and A.R. Rao, "Optimal allocation of capacitors in distribution systems using particle swarm optimization", International Journal of Electrical Power and Energy Systems, pp. 1267–1275, vol. 43, 2012. (69)
- 2. "Load type impact on distribution system reconfiguration," Singh, Devender; Misra, Rakesh K, International Journal of Electrical Power & Energy Systems, vol. 42, no. 1, pp 583-592, 2012, Elsevier
- 3. Anish Ahmad and Rajeev Kumar Singh, "Analysis of Single-Phase Modified Quasi-Switched Boost ZSI and Extended Quasi-Switched Boost ZSI," in *IAS Annual Meeting*, Oregon, USA, pp 1-6, 23-27 Sep. 2018.
- 4. RK Srivastava, S Kumar: "An alternative approach for calculation of braking force of an eddy-current brake", 1/2009, 45, IEEE Transactions on Magnetics, 150-154
- 5. Shyam Kamal, A. Raman, and B. Bandyopadhyay (2013) 'Finite Time Stabilization Fractional Order Uncertain Chain of Integrator: An Integral Sliding ModeApproach', IEEE Transactions on Automatic Control, vol. 58, no. 6, pp.1597–1602.

#### **Distinguished Visitors** (From 1st April 2018 to 31st March 2019)

S. No.	Name of the visitor & Designation	Date of Visit	Purpose of Visit
1	Professor Xinghuo Yu, RMIT University, Melbourne, Australia	23-01-2019	Expert lecture
2	Prof. Bhim Singh, Professor & Dean (Academic affairs), IIT Delhi	December 07, 2018	Expert talk and PhD oral examination

#### 6. Other activities

International collaboration/achievements by the Department/School (From 1st April 2018 to 31st March 2019): Nil Indian Faculty visits in the Department/School/School (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue



### Foreign Faculty Visits in the Department/School/School (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Professor Xinghuo Yu, RMIT University,	Expert Lecture	23-01-2019, Seminar Hall,
	Melbourne, Australia		Department of Electrical Engineering

### Foreign Students Visits in the Department/School/School (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue

### **Any other Information**

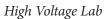
## Glimpses of Laboratory/ Equipments in the Department/School





Grid Emulator procured for Department in 2018-19







Electrical Machine Lab



## 11. Department of Electronics Engineering

Year of Establishment: 1971

Head of the Department/School: Prof. V. N. Mishra (w.e.f. 09.05.2018)

### 1.1 Brief Introduction of the Department/School:

The Department of Electronics Engineering came into existence as an offshoot of Electrical Engineering Department in the year 1971 with a great effort from Prof. S.S. Banerjee. In the same year the erstwhile Banaras Engineering College (BENCO), College of Mining and Metallurgy and College of Technology were amalgamated to form the Institute of Technology-Banaras Hindu University (IT-BHU). The Department offers Bachelor, Master and Doctoral programs in Electronics Engineering with the major thrust areas of Microelectronics, Microwave Engineering, Digital Techniques & Instrumentations and Communication Systems. The Department has been actively engaged in research since its inception as evidenced by the research publications. The first major financial support from the Department of Electronics (DoE), Govt. of India in the tune of Rs.1.0 Crore was received by the Department in 1980 to carry out research for development of High Power Microwave Tubes. Subsequently, in recognition of excellent research contribution, the University Grants Commission (UGC) identified the Department to provide financial support under Special Assistance Program (SAP) in 1983 for five years. During this period, the department established three independent research centers e.g., Centre of Research in Microwave Tubes (CRMT), Centre for Research in Microelectronics (CRME) and Centre for Research in Microprocessor Applications (CRMA) supported by UGC/MHRD. The Department was further recognized as a Centre of Advanced Studies (CAS) by the UGC in 1989. The Department successfully completed three phases of CAS in the year 2009. The Department is also one of the DRDO centers for M.Tech. in Electronics Engineering. In addition to this, the Department has been actively pursuing manpower training and collaborative research programs in specialized areas to meet the national manpower requirement in R&D laboratories, academic institutions and industries. The Department has a close interaction with many reputed national R&D laboratories such as DRDO, CSIR, Bharat Electronics Ltd. and leading software companies as well as foreign Universities.

### 1.1.2 Major areas of Research

- Communication System Engineering
- Digital Techniques & Instrumentation
- Microwave Engineering
- Microelectronics Engineering

### 1.1.3 Area of the Department/School (in square meters): 77.25 m x 46.10 m = 3561.22 m<sup>2</sup>

### 1.1.4 Infrastructure

S. No.	Particulars	Number
1	No. of Class rooms	08
2	No. of Lecture Halls	01
3	No. of Laboratory	16
4	No. of Computers available for students in the Department/School/ School	25

### Unique Achievement / Preposition of the Department/School

#### 1. Academic Programmes offered



**New Courses Introduced** (From 1st April 2018 to 31st March 2019): None **Students on Roll** (From 1st April 2018 to 31st March 2019)

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1.	B. Tech	100	88	88	88	
2.	M. Tech/ M. Pharm	27	28	-	-	-
3.	Ph. D (Under Institute Fellowship)	9	20	2	13	17
4.	Ph. D (Under Project Fellowship)	1	-	-	-	-
5.	Ph. D (Under Sponsored Category)	-	2	1	-	2
6.	Ph. D (Under QIP Category)	2	2	-	-	-

Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/ Workshop	Date & Venue	Financial Assistance From			
ÌNDIA	ÌNDIA							
1	Purnendu Mishra	1609104	Advances in Deep Architectures for Signal, Image & Discontinuous Applications, IIIT Allahabad	14-28 July, 2018	STGS			
2	Purnendu Mishra	1609104	3rd International Workshop on Pattern Analysis and Applications, ISI Kolkata	24-26 September, 2018	STGS			
3	Gourav Modanwal	14091 006	3rd International Workshop on Pattern Analysis and Applications, ISI Kolkata	24-26 September, 2018	STGS			
4	Sudhir Bhaskar	14091004	URSI Asia Pacific Radio Science Conference (AP-RASC) 2019	09-15 March, 2019 India Habitat Centre, New Delhi	STGS			
5	Amit Kumar	17091002	IEEE MTT-S International Microwave and RF Conference (IMaRC) 2018	28-30 November, 2018 Novotel Kolkata	Conference			
6	Arjun Kumar	15091006	IEEE MTT-S International Microwave and RF Conference (IMaRC) 2018	28-30 November 2018, Kolkata, India	STGS			
7	Prabhakar Tripathi	15091003	VEDA 2018	22-24 November 2018, IIT Guwahati, Assam India.	STGS			
8	Prabhakar Tripathi	15091003	IEEE MTT-S International Microwave and RF Conference (IMaRC) 2018	28-30 November 2018, Kolkata, India	STGS			
9	Prabhakar Tripathi	15091003	URSI Asia Pacific Radio Science Conference (AP-RASC) 2019	09 - 15 March 2019, New Delhi, India	Not availed any financial assistance			
10	Vineet Singh	15091009	URSI Asia Pacific Radio Science Conference (AP-RASC) 2019	09 - 15 March 2019, New Delhi, India	STGS			



S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/ Workshop	Date & Venue	Financial Assistance From
11	Rajan Agrahari	14091010	IEEE MTT-S International Microwave and RF Conference (IMaRC) 2018	e and RF Conference Kolkata, India	
12	Aman	17092028	URSI Asia Pacific Radio Science 09 - 15 March 2019, Conference (AP-RASC) 2019 New Delhi, India		STGS
13	Smriti Rai	17092030	URSI Asia Pacific Radio Science Conference (AP-RASC) 2019	09 - 15 March 2019, New Delhi, India	STGS
14	Dipti Ranjan Samantaray	17091013	IEEE-INAE Workshop On Electromagnetics IIWE 2018	6-8 December, 2018 Mascot Hotel, Trivandrum, Kerala	IIWE 2018 Travel Support Award
15	Dipti Ranjan Samantaray	17091013	Indian Conference on Antennas and Propagation (InCAP) 2018	16-19 December, 2018, Novotel Hyderabad	STGS
16	Dipti Ranjan Samantaray	17091013	URSI Asia Pacific Radio Science Conference (AP-RASC) 2019	09 - 15 March 2019, New Delhi, India	STGS
17	Nilotpal	17091010	URSI Asia Pacific Radio Science Conference (AP-RASC) 2019	09 - 15 March 2019, New Delhi, India	STGS
18	Nilotpal	17091010	IEEE MTT-S International Microwave and RF Conference (IMaRC) 2018	28-30 November 2018, Kolkata, India	STGS
19	Sambit Kumar Ghosh	17091021	URSI Asia Pacific Radio Science Conference (AP-RASC) 2019	09 - 15 March 2019, New Delhi, India	STGS
20	Sambit Kumar Ghosh	17091021	IEEE MTT-S International Microwave and RF Conference (IMaRC) 2018	28-30 November 2018, Kolkata, India	STGS
21	Vineet Singh	15091009	URSI Asia Pacific Radio Science Conference (AP-RASC) 2019	09 - 15 March 2019, New Delhi, India	STGS
22	Smrity Ratan	15091013	Conference: International Conference for Convergence in Technology	6-8 April, 2018, Hotel Taj, Pune	STGS
23	Smrity Ratan	15091013	Conference: International Conference on Micro-Electronics and Telecommunication Engineering (ICMETE)	20-21 September, 2018, SRMIST Campus, Ghaziabad	STGS
24	Smrity Ratan, Amit Kumar	15091013, 15091005	Conference: IEEE India Council International Conference (INDICON) 2018	16 – 18 December, 2018, Amrita Vishwa Vidyapeetham Coimbatore	Visveswaraya's Student Research Support Grant
25	Rishibrind K. Upadhyay	17091005	Conference: IEEE India Council International Conference (INDICON) 2018	16 – 18 December, 2018, Amrita Vishwa Vidyapeetham Coimbatore	STGS



S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/ Workshop	Date & Venue	Financial Assistance From
26	Rishibrind K. Upadhyay	17091005	Hands-on Training Workshop on Fabrication & Characterization of Crystalline Silicon Solar Cells	27-31 August, 2018 IIT Mumbai	Photovoltaic users and mentorship programme (Pump), NCPRE
27	Rishibrind K. Upadhyay	17091005	National Symposium on Nano Science & Technology (NSNST-2018)	20-22 June, 2018, Indian Institute of Science (IISc) Bangalore	Indian Nanoelectronics User Program (INUP)
28	Deep Chandra Upadhyay	17091024	Hands-on Training Workshop on Fabrication & Characterization of Crystalline Silicon Solar Cells	27-31 August, 2018, IIT BOMBAY	Photovoltaic users and mentorship programme (Pump), NCPRE
29	Ashish Kumar Singh	17091009	MMS-2018 summer course	6-8 July, 2018, IIT Patna	STGS
30	Ashish Kumar Singh	17091009	Conference: IEEE India Council International Conference (INDICON) 2018	16 – 18 December, 2018, Amrita Vishwa Vidyapeetham Coimbatore	STGS
31	Manas Ranjan Tripathy	17091026	MMS-2018 summer course	6-8 July, 2018, IIT Patna	STGS
32	Manas Ranjan Tripathy	17091026	National Symposium on Nano Science & Technology (NSNST-2018)	20-22 June, 2018, Indian Institute of Science (IISc) Bangalore	Indian Nanoelectronics User Program (INUP)
33	Prince Kumar Singh	15091002	MMS-2018 summer course	6-8 July, 2018, IIT Patna	STGS
34	Kamalaksha Baral	15091011	MMS-2018 summer course	6-8 July, 2018, IIT Patna	STGS
35	Kamalaksha Baral	15091011	Conference: International Conference for Convergence in Technology	6-8 April, 2018, Hotel Taj, Pune	STGS
36	Sanjay Kumar	13091008	Conference: International Conference for Convergence in Technology	6-8 April, 2018, Hotel Taj, Pune	STGS
37	Arun Kumar Saurabh	17091015	Indian Conference on Antennas and Propagation (InCAP) 2018	16-19 December 2018, Hyderabad	STGS
38	Surabh Kumar Srivastava	17091008	IEEE MTT-S International Microwave and RF Conference (IMaRC) 2018	28-30 November 2018, Kolkata	STGS
39	Sweta Srivastava	18091004	URSI Asia Pacific Radio Science Conference (AP-RASC) 2019	9-15 March 2019, New Delhi	QIP Centre IIT(BHU)



S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/ Workshop	Date & Venue	Financial Assistance From
40	Soumojit Shee	17091027	URSI Asia Pacific Radio Science Conference (AP-RASC) 2019	9-15 March 2019, New Delhi	STGS
41	S. Shee,	17091027	IEEE MTT-S International Microwave and RF Conference (IMaRC) 2018	28-30 November 2018, Kolkata	STGS
42	Shivani Chandra		URSI Asia Pacific Radio Science Conference (AP-RASC) 2019	9-15 March 2019, New Delhi	STGS
43	Nisheeth Upadhyay	17091003	URSI Asia Pacific Radio Science Conference (AP-RASC) 2019	9-15 March 2019, New Delhi	STGS
44	Soumojit Shee	17091027	National Symposium on Vacuum Electronics Devices and Applications (VEDA-2018)	IIT Guwahati, 22 – 24 November 2018, Assam	STGS
45	V. Veera Babu	17091016	National Symposium on Vacuum Electronics Devices and Applications (VEDA-2018)	IIT Guwahati, 22 – 24 November 2018, Assam	STGS
46	Abhishek Kumar Singh	16091001	IEEE International Conference on Devices for Integrated Circuit (DevIC)	23-24 March, 2019, Kolkata	STGS
47	Ashutosh Kumar Dikshit	17091025	IEEE International Conference on Devices for Integrated Circuit (DevIC)	23-24 March, 2019, Kolkata	STGS
48	Ashutosh Kumar Dikshit	17091025	International Conference on Functional Nanomaterials	22 -25 February, 2019	STGS
49	Mr. Akash	15091007	IEEE MTT-S International Microwave and RF Conference (IMaRC) 2018	28-30 November 2018, Kolkata	STGS
50	Mr. Mumtaz Ali Ansari	15091012	IEEE MTT-S International Microwave and RF Conference (IMaRC) 2018	28-30 November 2018, Kolkata	STGS
51	Mr. Shyam Gopal Yadav	16091005	IEEE MTT-S International Microwave and RF Conference (IMaRC) 2018	28-30 November 2018, Kolkata	STGS
52	Mr. Rajanish Kumar Singh	15091008	URSI Asia Pacific Radio Science Conference (AP-RASC) 2019	New Delhi, March 9-15th, 2019.	STGS
53	Mr. Akash	15091007	National Symposium on Vacuum Electronics Devices and Applications (VEDA-2018)	IIT Guwahati, 22 – 24 November 2018, Assam	STGS
54	Mr. Mumtaz Ali Ansari	15091012	National Symposium on Vacuum Electronics Devices and Applications (VEDA-2018)	IIT Guwahati, 22 – 24 November 2018, Assam	STGS
55	Mr. Shyam Gopal Yadav	16091005	National Symposium on Vacuum Electronics Devices and Applications (VEDA-2018)	IIT Guwahati, 22 – 24 November 2018, Assam	STGS



S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/ Workshop	Date & Venue	Financial Assistance From
56	Mr. Anshu Sharan Singh	14091012	National Symposium on Vacuum Electronics Devices and Applications (VEDA-2018)	IIT Guwahati, 22 – 24 November 2018, Assam	STGS
57	Mr. V. Venkata Reddy	17091028	National Symposium on Vacuum Electronics Devices and Applications (VEDA-2018)	IIT Guwahati, 22 – 24 November 2018, Assam	STGS
ABRO	AD				
1	Rajan Agrahari	14091010	SPIE OPTO 2019	2-7 February 2019, San Francisco, California, USA	STGS, IIT (BHU), Varanasi and International Travel Support, SERB, India
2	Chandan Kumar	14091005	European School on Nano science and Nanotechnology (ESONN)- Session 2018	26 August – 15 September, 2018, Université Grenoble Alpes, Grenoble, France	DST- CEFIPRA Fellowship-2018
3	Kamalaksha Baral	15091011	Conference: 3 <sup>rd</sup> Electron Devices Technology and Manufacturing	13-15 March, 2019, Singapore	STGS, IIT (BHU), Varanasi
4	Aman Sikri	15091010	The 21st International Symposium on Wireless Personal Multimedia Communication (WPMC 2018)	25-28 Nov. 2018, Chiang Rai, Thailand	STGS, IIT (BHU), Varanasi

# Names of students/scholars who got prizes and awards outside the Institute ( $From\ 1st\ April\ 2018\ to\ 31st\ March\ 2019$ )

S. No.	Name of Student	Roll No.	Name of Prize	Date & Venue	Prize awarded by
1	Dipti Ranjan Samantaray	17091013	IIWE 2018 TRAVEL SUPPORT AWARD	6-8 December, 2018 Mascot Hotel, Trivandrum, Kerala	IIWE
2	Dipti Ranjan Samantaray	17091013	IEEE In-CAP 2018 TRAVEL SUPPORT AWARD	16-19 December, 2018, Novotel Hyderabad	IEEE InCAP
3	Arun Kumar Saurabh	17091015	IEEE In-CAP 2018 TRAVEL SUPPORT AWARD	16-19 December, 2018, Novotel Hyderabad	IEEE InCAP
4	Khajjayam Sai Teja & Shubham Agarwal	15095084 & 15095083	2 <sup>nd</sup> prize for the project  "Design and Implementation of Non-invasive Glucometer" 10th Inter-University Engineering, Science &Technology Academic Meet 2019	31 March, 2019, Kolkata	Forum of Scientists, Engineers & Technologists (FOSET) and Indian Society for Technical Education, West Bengal Section



## Names of Students/Scholars who went for foreign Internship (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
1	Shreyas Tripathi	16095070	Changwon National University	Changwon	South Korea	20 May – 20 July, 2018
2	Himanshu Maurya	15095033	University of Freiburg	Freiburg	Germany	14 May – 10 August, 2018

## 2. Faculty & their Activity

## Faculty and their areas of specialisation

S. No.	Name, Qualifications, Employee No.	Date of award of PhD Degree	Major Areas of Specialization (Max. 3 Areas)
PROFESS	ORS		
1	Prof. P. Chakrabarti (On Deputation) Ph.D Employee ID: 13803	1988	High Speed Semiconductor Devices Optoelectronic Devices Optical Communication
2	Prof. P. K. Jain (On Deputation) Ph.D Employee ID: 13802	1988	Microwave Engineering
3	Prof. V. N. Mishra Ph.D Employee ID: 10389	1996	Microelectronics
4	Prof. Satyabrata Jit Ph.D Employee ID: 13804	2002	Advanced CMOS Devices, Thin Film Based Nanoelectronic Devices for Electronic, Gas Sensing and Optoelectronic Applications
<i>ASSOCIA</i>	TE PROFESSORS		
1	Dr. Manoj Kumar Meshram Ph.D Employee ID: 16628	2001	Microwave antennas, Artificial materials, Microwave passive devices
2	Dr. N. S. Rajput Ph.D Employee ID: 16800	July 2011	Digital Techniques & Instrumentation
3	Dr. Amit Kumar Singh Ph.D Employee ID: 18299	June 2010	Microwave Engineering
4	Dr. Amritanshu Pandey Ph.D Employee ID: 18360	2016	Communication System Engineering, Microelectronics
5	Dr. M. Thottappan Ph.D Employee ID: 18358	15 May, 2014	Microwave Engineering
ASSISTAI	NT PROFESSORS		
1	Mr. M. K. Singh M.Tech. Employee No. 13806	N. A.	Communication System Engineering



S. No.	Name, Qualifications, Employee No.	Date of award of PhD Degree	Major Areas of Specialization (Max. 3 Areas)
2	Kishor P Sarawadekar M.Tech., Ph.D. Employee No. 19847	5 July, 2012	VLSI Architectures, VLSI based Signal and Image Processing, Image Coding and Image Compression
3	Dr. Somak Bhattacharyya M.Tech., Ph.D. Employee No. 50074	30 April, 2015	RF & Microwave Engineering, Metasurfaces, Terahertz Modelling
4	Dr. Smrity Dwivedi M.Tech., Ph.D. Employee No. 50101	29 December, 2012	RF & Microwave Engineering
Institute I	Professors		
1	Prof. S.P. Singh Ph.D., FAC-IP09	1989	Bioelectromagnetics, Antennas, Microwave Circuits and Measurements
2	Dr. Anand Mohan Ph.D., FAC-IP03	1994	Digital Techniques & Instrumentation
Institute A	Associate Professors		
1	Dr. R. Dwivedi Ph.D Employee ID: 13796	1978	Microelectronics
2	Dr. R. U. Khan Ph.D Employee ID: 13799	1987	Microelectronics
Emeritus	<b>Emeritus Professors</b>		
1	Dr. K. P. Singh Ph.D., 13797	1973	Microwave Engineering

## **Technical and Non-Teaching Staff**

Sl. No.	Name, Qualifications	Designation, Employee No.	Date of Appointment in the department
1	Dr. Ashok Kumar Sharma, M.Sc., Ph.D.	Scientific Officer, 17019	RES.AST -01.01.1990 Scintet-15.05.2004
2	<b>Dr. Vinod kumar Singh,</b> Ph.D	Senior Technical Superintendent GrII), 14165	16.01.1990
3	Sri. Tarun Kumar Singh, M.Sc. (Electronics)	Sr. Technical Superintendent, 16564	15.02.1995
4	Sri. Lal Bhadur Vishwakarma, B.A.	Sr. Technical Superintendent, 14166	11.03.1988
5	Sri. Krishna Kumar Srivastava, Intermediate	Sr. Technical Superintendent, 14167	16.01.1990
6	<b>Sri. Lalji Prasad</b> , Intermediate, Diploma	Sr. Technical Superintendent, 18022	18.01.2007
7	Sri. Mohan, High School	Technical Superintendent, 14170	11.03.1988
8	Sri. Binod Kumar Singh, Intermediate	Technical Superintendent, 16567	11.03.1988
9	Sri. Rajesh Kumar Rai, Intermediate, ITI	Technical Superintendentt, 16566	11.03.1988



Sl. No.	Name, Qualifications	Designation, Employee No.	Date of Appointment in the department
10	Sri. Bahru Ram, High School, ITI	Technical Superintendent, 14013	07.02.1995
11	Sri. Jay Ram, High School	Technical Superintendent, 14014	07.02.1995
12	Sri. Purnwasi, High School, ITI	Jr. Technical Superintendent, 14015	07.02.1995
13	Sri. Sanjiv Kumar Srivastava, B.A., ITI	Jr. Technical Superintendent, 18056	20.02.2007
14	Sri. Shyam Narayan, Intermediate, ITI	Jr. Technical Superintendent, 18087	26.02.2007
15	Sri. Bahadur Lal, B.A.	Senior Technician, 18660	05.08.2008
16	<b>Sri. Vinod KumarVerma</b> , Intermediate, ITI Diploma	Senior Technician, 18653	05.08.2008
17	<b>Sri. Dinesh Kumar</b> , Intermediate, ITI DIploma	Senior Technician, 18673	06.08.2008
18	Sri. Vinay Kumar Srivastava, B.Sc.	Senior Technician, 18907	18.01.2010
19	Sri. Gyan Chand Vishwakarma, High School	Senior Technician, 18904	18.01.2010
20	Sri. Amit Kumar Srivastava, B.A.	Senior Technician, 18609	05.08.2008
21	Sri. Ravindra Nath Ram, Intermediate	Senior Technician, 14016	01.04.1990
22	Sri. Ajit Kumar Singh, Intermediate, ITI	Senior Technician, 19270	09.02.2011
23	Sri. Sanjay Kumar Vishwakarma, M.Sc.	Senior Technician, 19594	11.07.2012
24	Smt.Sudha Misha, M .Sc, Ph.D,	Junior Superintendent, 17436	01.10.2015
25	Sri.Ashish Kumar Vishwakarma, B.Tech. (E&C)	Jr. Assistant, 50081	20.05.2017
26	Sri. Rajeev Ratan Sahaya, B.Tech, MBA	Junior Assistant, 50186	06.03.2018
27	Sri. Ved Prakash Yadav, M.A.	MTS	16.12.2016
28	Sri. Pavan Singh, B.A., ITI,	MTS	16.12.2016

# Short-term courses/workshops/seminars/symposia/conferences organised by faculty members (From 1st April 2018 to 31st March 2019)

S. No.	Cordinator	Title	Period
1	Dr. Manoj Kumar Meshram	Workshop on Electromagnetics and Antenna Design (WEAD-2018)	23-27 May, 2018
2	Dr. Somak Bhattacharyya	Recent Advances on Passive and Active Components at High Frequencies	25-30 June, 2018
3	Dr. N. S. Rajput	Smart Sensors and Systems	22-27 October, 2018



Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Title	Period and Venue		
Seminars/Symposia/Conferences					
1	Dr. Kishor P Sarawadekar	Technical Planning & Evaluation Meet and Workshop of Young Faculty Research Fellows (YFRFs) of the Visvesvaraya PhD Programme	held at Indian Institute of Science – Bangalore; 28-29 May, 2018		
2	Dr. Kishor P Sarawadekar	ZoPP Workshop	held at "The International Center," Goa during 25-26 October, 2018		
3	Dr. Kishor P Sarawadekar	Workshop For Presentations of Research Work of Visvesvaraya PhD Scholars	held at MNIT Jaipur, 13 -15 September, 2018		
4	Dr. Somak Bhattacharyya	IEEE MTT-S International Microwave and RF Conference (IMaRC) 2018	28-30 November, 2018, Kolkata		
5	Dr. Somak Bhattacharyya	IEEE-INAE Workshop On Electromagnetics IIWE 2018	6-8 December, 2018, Trivandrum		
6	Dr. Somak Bhattacharyya	URSI Asia Pacific Radio Science Conference (AP-RASC) 2019	9-15 March, 2019, New Delhi		
7	Prof. S. P. Singh	URSI Asia Pacific Radio Science Conference (AP-RASC) 2019	9-15 March, 2019, New Delhi		
8	Dr. Amit Kumar Singh	URSI Asia Pacific Radio Science Conference (AP-RASC) 2019	9-15 March, 2019, New Delhi		
9	Dr. Smrity Dwivedi	Faculty Development Program	14 May 2018-2 June 2018		
10	Dr. M. Thottappan	IEEE MTT-S International Microwave and RF Conference (IMaRC) 2018	28-30 November, 2018, Kolkata		
Meeting	S				
1	Dr. Kishor P Sarawadekar	PRSG Meeting, SMDP-C2SD Project	held at IIT, Bhubaneshwar, 23-24 August, 2018		
2	Dr. Kishor P Sarawadekar	PRSG Meeting, SMDP-C2SD Project	held at NIT, Kurukshetra, 4 October, 2018		
3	Dr. Kishor P Sarawadekar	PRSG Meeting, SMDP-C2SD Project	held at IIT, Bhubaneshwar, 9-10 March, 2019		
4	Dr. Manoj Kumar Meshram	5G Workshop- India Perspective	21 September 2018 IIT Delhi		
5	Dr. Somak Bhattacharyya	Local Organizing Committee Meeting of URSI Asia Pacific Radio Science Conference (AP-RASC) 2019	5 December, 2018, New Delhi		
6	Dr. M. Thottappan	Conceptual Design Review of short pulse 170 GHz Gyrotron	4-6 October 2018 , Institute for Plasma Research (IPR), Gandhinagar		



## **Special lectures delivered by faculty members in other institutions** (From 1st April 2018 to 31st March 2019)

S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
1	Dr. Kishor P Sarawadekar	Expert Lecture, "ZynQ Architecture and AXI Interconnect,"	in TEQIP-III sponsored one-week FDP on Emerging Issues in VLSI Design, at Shri Mata Vaishno Devi University, Katra, J&K	7-11 May, 2018
2	Dr. Kishor P Sarawadekar	Invited Speaker (for initial two days), "Introduction to High Efficiency Video Coding Algorithm and VLSI Design of the Core Transform used in it",	TEQIP-III sponsored Five Day Short Term Training Program on Algorithms and Architectures for High Efficiency Video Processing Systems, at NIT Surathkal, Karnataka	20-24 August, 2018
3	Dr. Somak Bhattacharyya	Electromagnetic Metamarterials: Concept and Applications	CSIR-Central Electronics Engineering Research Institute Pilani	8 October, 2018
4	Dr. Somak Bhattacharyya	Frequency Selective Metasurfaces for Microwave and Terahertz Applications	Faculty Development Program on "Metasurfaces: Theory, Design and Application" in Department of Electronics Engineering, NIT Patna	17-21 December, 2018
5	Dr. Somak Bhattacharyya	Studies of Graphene based Metasurfaces for Terahertz Frequencies	India-UK Second International Conference on "Advanced Nanomaterials for Energy, Environment and Healthcare Applications", Bishop Heber College, Trichy	4 February, 2019
6	Dr. Somak Bhattacharyya	Microwave and Terahertz Applications of Metasurface	TEQIP Phase III Short Term Course on "Engineered Materials for Future Electromagnetic Research and Antenna Applications" in Department of Electronics and Telecommunication Engineering, Jadavpur University, Kolkata	6-9 February, 2019
7	Dr. Somak Bhattacharyya	Applications of Metamaterials and Metasurface in High Frequencies	IEEE Antenna Propagation and Microwave Theory & Techniques Society (AP-MTT-S) Student Branch Chapter (SBC) in Department of Electronics & Electrical Communication Engineering, IIT Kharagpur	8 February, 2019
8	Prof. S. P. Singh	Bioelectromagnetics: Concepts and Applications	SSN College of Engineering, Kalavakkam, Chennai	27 September, 2018
9	Prof. S. Jit	Advances in MOSFET Transistors: Issues and Challenges	Faculty Development Program on Microsystems & Advanced Semiconductor Devices organized by Department of Electronics & Communication Engineering, S.R.M.S. College of Engineering & Technology Bareilly	3-7 July, 2018
10	Prof. S. Jit	Metal Oxide Nanostructures: Materials, Devices and Applications	Workshop on Recent Trends in Nanotechnology: Devices and Materials Perspective organized by the Jaypee Institute of Information Technology, Noida	15-16 February, 2019



S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
11	Dr. Manoj Kumar Meshram	Reconfigurable Antennas	Galgotias College of Engineering and Technology, Greater Noida	19 July 2018
12	Dr. Manoj Kumar Meshram	Recent Advances in Microstrip Antennas	JSS Academy of Technical Education, Noida	3 August 2018
13	Dr. Amritanshu Pandey	2D material based optoelectronic devices	IIT (ISM) Dhanbad	26 October 2018
14	Dr. Amritanshu Pandey	Optoelectronic Devices from Silicon to Graphene	RML Avadh University	27 February 2019
15	Dr. N. S. Rajput	Smart Sensors & Systems: use cases for Artificial Intelligence	Department of Computer Science and Engineering and Information Technology, Coimbatore Institute of Technology, Coimbatore	3-9 December, 2018
16	Dr. N. S. Rajput	Smart Systems: A Discussion through Use Cases	Department of Electronics Engg.  NIT - Raipur (C.G.)	15 March, 2019
17	Dr. M.Thottappan	Millimeter wave Technology and its challenges towards design perspective	Thiagarajar College of Engineering, Madurai, Tamilnadu	8 February, 2019

# $\textbf{Visits abroad by faculty members} \ (\textit{From 1st April 2018 to 31st March 2019})$

S. No.	Name of Faculty Member	Country Visited	Date of Leaving india	Date of Returning India	Purpose of Visit	Funding from
1	Dr. Kishor P Sarawadekar	Las Vegas, USA	13 July, 2018	23 July, 2018	To attend the 20th International Conference on Human- Computer Interaction	Visvesvaraya Ph.D. Scheme for Electroncis and IT, Ministry of Electronics and Information Technology, New Delhi
2	Dr. Kishor P Sarawadekar	Bali, Indonesia	23 July, 2018	27 July, 2018	10th International Conference on Information Technology and Electrical Engineering	CPDA, Ministry of Human Resource Development, New Delhi
3	Dr. Somak Bhattacharyya	Boston, USA	5 July, 2018	17 July, 2018	2018 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting	CPDA, Ministry of Human Resource Development, New Delhi
4	Dr. Amritanshu Pandey	Germany	21 June, 2018	05 July, 2018	Conference	CPDA, Ministry of Human Resource Development, New Delhi
5	Dr. Smrity Dwivedi	Bangkok, Thailand	3 June 2018	8 June 2018	Conference	CPDA, Ministry of Human Resource Development, New Delhi



#### **Honours and awards** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Details of Award
1	Dr. Kishor P Sarawadekar	Recognized as an "Outstanding Scientist in Electronics Engineering" under the Engineering Discipline by the Venus International Foundation, Chennai
2	Prof. P. Chakrabarti	MRSI Distinguished Lectureship Award for the year 2019-2020
3	Dr. N. S. Rajput	MHRD's Teaching Innovator Award from the Honorable MHRD Minister, Govt. of India as recognition to the country's top 15 teachers who have significantly innovated the teaching practices in higher education
4	Prof. Anand Mohan	Member, Executive Council (w.e.f. July 2018 for 3 years) Banaras Hindu University, Varanasi, UP

## Fellowships of academic and professional societies (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Details of Fellowship
1	Dr. Kishor P Sarawadekar	Visvesvaraya Young Faculty Research Fellowship, awarded by the Ministry of Electronics and Information Technology, New Delhi
2	Dr. Somak Bhattacharyya	Early Career Research Award, Science & Engineering Research Board, Department of Science & Technology, Govt. of India

### Books, monographs authored/co-authored (From 1st April 2018 to 31st March 2019)

S. No.	Name of Author/Co- Author	Title	Publisher
1	Amit Kumar Singh, <b>Anand</b> <b>Mohan</b>	Handbook of Multimedia Information Security: Techniques and Applications	Springer, USA, ISBN: 978-3-030-15886-6
2	T N Sasamal, Ashutosh Kumar Singh and <b>Anand Mohan</b>	Quantum-Dot Cellular Automata Based Digital Logic Circuits: A Design Perspective	Springer Nature, Singapore (in press)

### Editorial boards of journals (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1	Prof. S. P. Singh	Member	International Journal of RF and Microwave Computer-aided Engineering (Wiley Publication)
2	Dr N. S. Rajput	Member	Glacier Journal of Scientific Research (ISSN:2349-8498)

### 3. Design and Development Activities

New facilities added (From 1st April 2018 to 31st March 2019)

S. No.	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)	
1	Smart Fusion 2 Starter Kits	0.4	
2	Handheld 44 GHz Vector Network Analyzer	34.91	



#### Patents filed (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Title of Patent
1	S. Das, R. Bhattacharyya, <b>S. Bhattacharyya</b> , P. Maiti	Preparation of graphene-oxide nanocomposites based sprayable paint and making of a large-scale coating with superior broadband absorptivity in the range of GHz frequency (Patent Application No: 201911008550)

#### 4. Research and Consultancy

**Sponsored research projects** (Ongoing only)

S. No.	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co- ordinator
1	Design and Development of Miniaturized Pattern/Frequency Reconfigurable MIMO Antennas and its Performance Improvement using Artificial Electromagnetic Material	2017-2021	SERB, DST	42.52	Dr. Manoj Kumar Meshram
2	Study, Design and Implementation of Frequency Selective Metasurfaces for Microwave Applications	2017-2021	SERB, DST	46.7	Dr. Somak Bhattacharyya
3	Swachh Bharat App		IBM	6.35 Lacs	Dr N. S. Rajput
4	Teaching Learning Cell @ IITBHU		MHRD	7.85 Cr.	Dr. N. S. Rajput (Co-coordinator)
5	Electromagnetic Analysis, Design and Simulation of an X-band Gyro-Twystron Amplifier	2015-2018	SERB, DST	29.1	Dr. M. Thottappan

#### Industrial consultancy projects (Ongoing only) Nil

Faculty members' participation with other universities under MoUs (Ongoing only) Nil

**Research Publications** (From 1st April 2018 to 31st March 2019)

S. No.	Papers Published/ Presented	No.
1	Papers Published in Refereed International Journals	61
2	Papers Published in Refereed National Journals	0
3	Papers Presented in International Conferences	60
4	Papers Presented in National Conferences	9

### **Refereed International Journals** (From 1st April 2018 to 31st March 2019)

- 1. Subiman Chatterjee and **Kishor Sarawadekar**, "WHT and Matrix Decomposition Based Approximated IDCT Architecture for HEVC," *IEEE Transactions on Circuits and Systems--II: Express Briefs*, Accepted for publication, Early Access, DOI: 10.1109/TCSII.2018.2874071.
- 2. Subiman Chatterjee and **K. Sarawadekar**, "An Optimized Architecture of HEVC Core Transform using Real-Valued DCT Coefficients," *IEEE Transactions on Circuits and Systems--II: Express Briefs*, vol. 65, no. 12, pp. 2052 2056, December 2018.
- 3. Gourav Modanwal and **Kishor Sarawadekar**, "A Robust Wrist Point Detection Algorithm using Geometric Features," *Pattern Recognition Letters*, vol. 110, pp. 72–78, July 2018.



- 4. Gourav Modanwal and **K. Sarawadekar**, "A New Dactylology and Interactive System Development for Blind–Computer Interaction," *IEEE Transactions on Human-Machine Systems*, vol. 48, no. 2, pp. 207–212, April 2018.
- 5. Sudhir Bhaskar, **Amit Kumar Singh**, "A Dual Band Dual Antenna with Read Range Enhancement for UHF RFID Tags," *International Journal of RF and Microwave Computer Aided Engineering*, e21717, 2019.
- 6. Sudhir Bhaskar, **Amit Kumar Singh**, "Meandered Cross-shaped Slot Circularly Polarised Antenna for Handheld UHF RFID Reader," *International Journal of Electronics and Communications*, Vol. 100, pp. 106-113, 2019.
- 7. Sudhir Bhaskar and **Amit Kumar Singh**, "Linearly tapered meander line cross dipole circularly polarized antenna for UHF RFID tag applications," *International Journal of RF and Microwave Computer Aided Engineering*, e21563, 2018.
- 8. Bidisha Barman, Sudhir Bhaskar and **Amit Kumar Singh**, "Spiral Resonator Loaded S-shaped Folded Dipole Dual Band UHF RFID Tag Antenna," *Microwave and Optical Technology Letters*, vol. 61, no. 3, pp. 720-726, 2019.
- 9. Bidisha Barman, Sudhir Bhaskar and **Amit Kumar Singh**, "Dual-Band UHF RFID Tag Antenna Using Two Eccentric Circular Rings," *Progress In Electromagnetics Research M*, Vol. 71, pp. 127–136, 2018.
- 10. R. Agrahari, A. Lakhtakia, and **P. K. Jain**, "Information Carried by a Surface-Plasmon-Polariton Wave Across a Gap," *Journal of Applied Physics*, 124 (5), 053104 (2018).
- 11. R. Agrahari, A. Lakhtakia, and **P. K. Jain**, "Towards Information Transfer Around a Concave Corner by a Surface-Plasmon-Polariton Wave," *IEEE Photonic Journal*, 11 (1), 6100112 (2019).
- 12. V. Kumar, **S. Dwivedi**, **P. K. Jain**, "Circular Sectoral Waveguide TM01 to TE11 Mode Converter", *Microwave and Optical Technology Letters*, 61 (7), 1-5, (2019).
- 13. Kumar, H.; Kumar, Y.; Mukherjee, B.; Rawat, G.; Kumar, C.; Pal, B. N.; **Jit, S.** Effects of Optical Resonance on the Performance of Metal (Pd, Au)/CdSe Quantum Dots (QDs)/ZnO QDs Optical Cavity Based Spectrum Selective Photodiodes. *IEEE Trans. Nanotechnol.* 2019, *18*, 365–373.
- 14. Yadav, S. K.; Rawat, G.; Pokharia, S.; **Jit, S.**; Mishra, H. Excited-State Dynamics of Quinine Sulfate and Its Di-Cation Doped in Polyvinyl Alcohol Thin Films Near Silver Nanostructure Islands. *ACS Omega* 2019, *4* (3), 5509–5516.
- 15. Mishra, A. K.; Mukherjee, B.; Kumar, A.; Jarwal, D. K.; Ratan, S.; Kumar, C.; **Jit, S.** Superficial Fabrication of Gold Nanoparticles Modified CuO Nanowires Electrode for Non-Enzymatic Glucose Detection. *RSC Adv.* 2019, 9 (4), 1772–1781.
- 16. Kumar, C.; Rawat, G.; Kumar, H.; Kumar, Y.; Kumar, A.; Prakash, R.; **Jit, S.** Electrical and Ammonia Gas Sensing Properties of PQT-12/CdSe Quantum Dots Composite-Based Organic Thin Film Transistors. *IEEE Sens. J.* 2018, 18 (15), 6085–6091.
- 17. Kumar, C.; Rawat, G.; Kumar, H.; Kumar, Y.; Prakash, R.; **Jit, S.** Electrical and Optical Characteristics of PQT-12-Based Organic TFTs Fabricated by Floating-Film Transfer Method. *IEEE Trans. Nanotechnol.* 2018, *17* (6).
- 18. Ratan, S.; Kumar, C.; Kumar, A.; Jarwal, D. K.; Mishra, A. K.; **Jit, S.** Fabrication and Characterization of Titanium Dioxide Based Pd/TiO2/Si MOS Sensor for Hydrogen Gas. *IEEE Sens. J.* 2018, *18* (10), 3952–3959.
- 19. Sharma, A.; Chourasia, N. K.; Sugathan, A.; Kumar, Y.; **Jit, S.**; Liu, S. W.; Pandey, A.; Biring, S.; Pal, B. N. Solution Processed Li5AlO4 Dielectric for Low Voltage Transistor Fabrication and Its Application in Metal Oxide/Quantum Dot Heterojunction Phototransistors. *J. Mater. Chem. C* 2018, 6 (4), 790–798.
- 20. Tripathi, A.; Gupta, H. P.; Dutta, T.; Kumar, D.; **Jit, S.**; Shukla, K. K. A Target Tracking System Using Directional Nodes in Wireless Sensor Networks. *IEEE Syst. J.* 2018, *PP*, 1–10.
- 21. Tripathi, A.; Gupta, H. P.; Dutta, T.; Mishra, R.; Shukla, K. K.; **Jit, S.** Coverage and Connectivity in WSNs: A Survey, Research Issues and Challenges. *IEEE Access* 2018, 6, 26971–26992.



- 22. V. S. Gangwar, R. K. Samminga, A. K. Singh, M. Jijenth, K. K. Suman, and **S. P. Singh** (2018) A novel strategy for the synthesis of thinned planar antenna array which furnishes lowest possible peak side lobe level without appearance of grating lobes over wide steering angles. *Journal of Electromagnetic Waves and Applications* 32(7): 842-857. ISSN: 0920-5071
- 23. Bhagirath Sahu, Soni Singh, **Manoj Kumar Meshram** and **S. P. Singh** (2018) Super-compact ultra-wideband microstrip band-pass filter with improved performance using defected ground structure-based low-pass filter. *Journal of Electromagnetic Waves and Applications* 32(5): 635-650. ISSN: 0920-5071
- 24. Bhagirath Sahu, Soni Singh, **Manoj Kumar Meshram**, and **S. P. Singh** (2018) Study of compact microstrip lowpass filter with improved performance using defected ground structure. *International Journal of RF and Microwave Computer-Aided Engineering* 28 (4): 1-11. Online ISSN: 1099-047X
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- 26. Situ Rani Patre and **S. P. Singh**, "Shared radiator MIMO antenna for broadband applications (2018) *IET Microwaves, Antennas and Propagation*. 12(7): 1153-1159. ISSN: 1751-8725
- 27. Saba Shahin, **Surya P. Singh** and Chandra M. Chaturvedi (2018) 1800 MHz mobile phone irradiation induced oxidative and nitrosative stress leads to p53 dependent Bax Mediated Testicular Apoptosis in Mice, Mus musculus. *Journal of Cellular Physiology*. 233(9): 7253-7267. ISSN: 0021-9541
- 28. Soni Singh, Bhagirath Sahu and **S. P. Singh** (2018) Bi-layered/tri-layered bio-media in direct contact with metal diagonal horn for hyperthermia. *International Journal of Microwave and Wireless Technologies* 10(8): 921-932. ISSN: 1759-0787
- 29. Preeti Kumari, Pankaj Tripathi, B. Sahu, **S.P. Singh**, and Devendra Kumar (2018) Four-element composite triangular dielectric resonator antenna using Li2O-1.94 MgO-0.02 Al2O3-P2O5 ceramic for wideband applications. *Journal of Electronic Materials*. 47(9): 5218-5228. ISSN: 0361-5235
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- 31. Bhagirath Sahu, Soni Singh, **Manoj Kumar Meshram** and **Surya Pal Singh** (2018) Integrated design of filtering antenna with high selectivity and improved performance for L-band applications. *AEU- International Journal of Electronics and Communications*. 97: 185-194. ISSN: 1434-8411
- 32. Bhagirath Sahu, Soni Singh, **Manoj Kumar Meshram** and **S. P. Singh** (2019) A new compact ultra-wideband filtering antenna with improved performance. *Journal of Electromagnetic Waves and Applications*. 33(1): 107-124. ISSN: 0920-5071
- 33. P. Tripathi, P. Kumari, R Singh, B. Sahu, **S.P. Singh** and D. Kumar (2019) Cylindrical dielectric resonator antenna excited by a composite feed to generate monopole like radiation characteristics. *Journal of Electronic Materials* 48(2): 1184-1195. ISSN: 0361-5235.
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- 37. L. L. Naik, **R. U. Khan**, and R. B. Mishra, "A Study on Different Security Attacks Associated with Routing in Mobile Ad Hoc Networks," International Journal of Pure and Applied Mathematics, Volume 119 No. 14 2018, 1833-1841.
- 38. L. L. Naik, **R. U. Khan**, and R. B. Mishra, "Comparative Performance Analysis on DSR Routing Protocol in MANETs," accepted for publication in Asian Journal of Scientific Research.
- 39. L. L. Naik, **R. U. Khan**, and R. B. Mishra, "Study and Analysis of Different Node Velocity Effects on OLSR, DSDV and AODV," accepted for publication in International Journal of Pure and Applied Mathematics.



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- 41. Sukesh Kumar Gupta, **Manoj Kumar Mesharam**, and Sairam Krishnamurthy, "Electromagnetic radiation 2450 MHz exposure causes cognition deficit with mitochondrial dysfunction and activation of intrinsic pathway of apoptosis in rats," *Journal of Biosciences*, 43(2): 263-276, 2018.
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- 45. Sambit Kumar Ghosh, Vinit Singh Yadav, Santanu Das, and **Somak Bhattacharyya**, "Tunable Graphene Based Metasurface for Polarization-Independent Broadband Absorption in Lower Mid Infrared (MIR) Range," accepted for publication in *IEEE Transactions on Electromagnetic Compatibility*.
- 46. Rajarshi Bhattacharyya, Somnath Roy, Om Prakash, Akhilendra Pratap Singh, Tapas Kumar Bhattacharyya, Pralay Maiti, **Somak Bhattacharyya**, and Santanu Das, "Mg0.5Zn0.5Fe2O4-polyurethane thin nanocomposite coating as broadband microwave absorber," *Springer Nature Applied Sciences*, Vol. 1, Issue 1, Article No. 38, January 2019.
- 47. Vinit Singh Yadav, Sambit Kumar Ghosh, **Somak Bhattacharyya**, and Santanu Das, "Wideband Tunable Midinfrared Cross-polarization Converter Using Monolayered Graphene-Based Metasurface over A Wide Angle of Incidence," *IET Microwaves*, *Antennas and Propagation*, Vol. 13, Issue 1, pp. 82-87, January 2019.
- 48. Vinit Singh Yadav, Sambit Kumar Ghosh, **Somak Bhattacharyya**, and Santanu Das, "Graphene Based Metasurface for Tunable Broadband Terahertz Cross Polarization Converter over Wide Angle of Incidence," *Applied Optics*, Vol. 57, Issue 29, pp. 8720-8726, October 2018.
- 49. Praneet Munaga, **Somak Bhattacharyya**, Saptarshi Ghosh, and Kumar Vaibhav Srivastava, "An Ultra-thin Compact Polarization-Independent Hexa-Band Metamaterial Absorber," *Springer Applied Physics A*, Vol. 124, Issue 4, pp. 331, April 2018.
- 50. Amulya Nemoori, Himanshu Mishra, Vijay K. Singh, P. K. Shukla, Anchal Srivastava and **Amritanshu Pandey**, "A curious observation of Pauli-Blocking in MoS<sub>2</sub>-Quantum dots/ Graphene hybrid system," *Journal of Applied Physics*, vol. 124, 124501 (2018).
- 51. Mishra, A., **N. S. Rajput**, and D. Singh (2018) Performance evaluation of normalized difference based classifier for efficient discrimination of volatile organic compounds. Materials Research Express 5(9), 095901. ISSN: 2053-1591.
- 52. Mishra, A., and N. S. Rajput. (2018). A novel modular ANN architecture for efficient monitoring of gases/odours in real-time. *Materials Research Express* 5(4), 045904. ISSN: 2053-1591.
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- 54. Aman Sikri, Aashish Mathur, and **K.V. Srinivas**, "Performance analysis of coordinate interleaved PLC system with Rayleigh channel gain under Nakagami-m additive noise," *IET Communications*, Volume 13, Issue 7, pp. 857-862, 2019.
- 55. Rahul Pal, **K. V. Srinivas**, and A. Krishna Chaitanya, "A Beam Selection Algorithm for Millimeter-Wave Multi-User MIMO Systems," *IEEE Communication Letters*, vol. 22, Issue 4, pp. 852-855, 2018.



- 56. Rahul Pal, A. Krishna Chaitanya, and **K. V. Srinivas**, "Low-Complexity Beam Selection Algorithms for Millimeter Wave Beamspace MIMO Systems," *IEEE Communication Letters*, vol. 23, Issue 4, pp. 768-771, 2019.
- 57. Mumtaz Ali Ansari and **M. Thottappan**, "Design and Performance Analyses of High Efficiency X-band Relativistic Backward Wave Oscillator using an Improved Resonant Reflector under Low Guiding Magnetic Field," *IEEE Transactions on Plasma Science*, vol. 47, no. 4, pp. 1754-1761, 2019.
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- 59. Anshu Sharan Singh, and **M. Thottappan**, "Stability Study in Dielectric Ring Loaded Periodic Interaction Structure for a Mega-Watt Class Gyro-twystron," *IEEE Transactions on Electron Devices*, vol. 65, no. 10, pp. 4585-4591, Oct. 2018.
- 60. Praveen Kumar Sahu, Lalit Chandra, Rajiv K. Pandey, Niraj Singh Mehta, **R. Dwivedi**, **V. N. Mishra**, and Rajiv Prakash, "Fast Development of Self-Assembled, Highly Oriented Polymer Thin Film and Observation of Dual Sensing Behavior of Thin Film Transistor for Ammonia Vapor," Macromolecular Chemistry and Physics, pp. 1900010, 2019.
- 61. Soni Singh, Bhagirath Sahu, and **S. P. Singh** (2018) Direct-contact water-loaded metal- dielectric wall diagonal horn applicators for hyperthermia. *IETE Technical Review*, 35(2): 122-131.

**Refereed National Journal** (From 1st April 2018 to 31st March 2019): Nil

**Proceedings of International Conferences** (From 1st April 2018 to 31st March 2019)

- 1. Rahul Srivastava and **Kishor Sarawadekar**, "Multi-Voltage GPIO Design and its Physical Implementation," in the IEEE Sponsored 4'th International Conference for Convergence in Technology (I2CT) 2018", Mangalore, Karnataka
- 2. Jaydeep Banik Mazumdar and **Kishor Sarawadekar**, "Design and Physical Implementation of a Low Frequency On-Chip Oscillator," in the *10th International Conference on Information Technology and Electrical Engineering*, Bali, Indonesia, pp. 79-82, July 24-26, 2018.
- 3. Gourav Modanwal and **Kishor Sarawadekar**, "A Gesture Elicitation Study with Visually Impaired Users," in the 20th International Conference on Human-Computer Interaction, Las Vegas, Proceedings Part II, pp 54-61, July 15-20, 2018, *Proceedings of National Conferences*.
- 4. Sudhir Bhaskar, Bidisha Barman and **Amit Kumar Singh**, "Circularly Polarized Meander Line Cross Dipole Antenna for UHF RFID Applications," *URSI Asia Pacific Radio Science Conference*, New Delhi, 9-15 March 2019.
- 5. Bidisha Barman, Sudhir Bhaskar and **Amit Kumar Singh**, "Eccentric Circular Ring RFID Tag Antenna for Dual-Band Operation," *URSI Asia Pacific Radio Science Conference*, New Delhi, 9-15 March 2019.
- 6. Bidisha Barman, Sudhir Bhaskar and **Amit Kumar Singh**, "Dual-Band UHF Folded Dipole RFID Tag Antenna Loaded with Spiral Resonator," *URSI Asia Pacific Radio Science Conference*, New Delhi, 9-15 March 2019.
- 7. R. Agrahari, A. Lakhtakia, and **P. K. Jain**, "Scattering of Surface-Plasmon-Polariton Wave by an Abrupt Discontinuity," *IEEE International Symposium on Antenna and Propagation and USNC-URSI Radio Science Meeting*, 8-13 July 2018, Boston, Massachusetts, USA.
- 8. R. Agrahari, A. Lakhtakia, and **P. K. Jain**, "Transfer of Information using Surface-Plasmon-Polariton Waves," *Proceedings of SPIE 10924*: Optical Interconnects XIX, 2-7 February 2019, San Francisco, California, USA, Paper No. 109240R [doi: 10.1117/12.2506456]
- 9. A. Kumar, P. Tripathi, S. Dwivedi, and **P. K. Jain**, "Simulation Investigation of S/Ku dual-band magnetically insulated line Oscillator," *IMaRC 2018*, 28-30 November 2018, Kolkata, India.



- 10. A. Kumar, P. Tripathi, **S. Dwivedi**, and **P. K. Jain**, "PIC Simulation Study of L-band Bifrequency Magnetically Insulated Line Oscillator," *URSI AP-RASC 2019*, 09 15 March 2019, New Delhi, India.
- 11. V. Singh, A. Kumar, **S. Bhattacharyya**, and **P. K Jain**, "Behind the Wall Heartbeat Detection using SVD and MTI Filtering," *URSI AP-RASC 2019*, 09 15 March 2019, New Delhi, India.
- 12. V. Singh, **S. Bhattacharyya**, and **P. K Jain,** Through the Wall Human Signature Detection using Principle Component Analysis (PCA), *IEEE International Symposium on Antennas and Propagation & USNC/URSI National Radio Science Meeting*, 8-13 July 2018, Boston, Massachusetts, USA.
- 13. P. Tripathi, A. Kumar, S. Shee, **S. Dwivedi**, and **P. K. Jain**, "Beam-wave Interaction Analysis of X-band Gridless Reltron," *URSI AP-RASC 2019*, 09 15 March 2019, New Delhi, India.
- 14. P. Tripathi, A. Kumar, S. Shee, **S. Dwivedi** and **P. K. Jain**, "Simulation Investigation of Ku- Band Gridless Reltron," *IMaRC 2018*, 28-30 November 2018, Kolkata, India.
- 15. Kumar, S.; Baral, K.; Chander, S.; Singh, P. K.; Singh, K.; **Jit, S.** Influence of Localized Interface Charges on Drain Current of Dual-Material Double-Gate Tunnel FETs. 2018 3rd Int. Conf. Converg. Technol. I2CT 2018, 1–4.
- 16. Ratan, S.; Mondal, D.; Kumar, C.; Kumar, A.; Jarwal, D. K.; Mishra, A. K.; Kar, R.; **Jit, S**. Optimization of Area of CMOS Differential Amplifier Using Modified PSO Algorithm. *2018 3rd Int. Conf. Converg. Technol. I2CT 2018*, 1–6.
- 17. Smrity Ratan, Chandan Kumar, Amit Kumar, Deepak Kumar Jarwal, Ashawani Kumar Mishra, Rishibrind Kumar Upadhyay, and **Satyabrata Jit**, "Performance of ZnO Quantum Dots Based Photodetectors: Effect of Metal Electrodes," *IEEE INDICON*, Coimbatore, India, 2018.
- 18. Smrity Ratan, Debalina Mondal, Anima Rajendran, Chandan Kumar, Amit Kumar, Deepak Kumar Jarwal, Ashwani Kumar Mishra, Rishibrind Kumar Upadhyay, Rajib Kar and **Satyabrata Jit**, "Design of a High Gain Low Noise Amplifier Using 0.18µm CMOS Technology," *IEEE ICMETE*, Ghaziabad, India, 2018.
- 19. Rishibrind Kumar Upadhyay, Chandan Kumar, Abhinav Pratap Singh, Deep Upadhyay, Deepak Kumar Jarwal, Amit Kumar, Smrity Ratan, and **Satyabrata Jit**, "Fabrication and Characterization of Organic-Inorganic Hybrid Perovskite CH3NH3PbI3 Based Metal-Semiconductor-Metal Photodetector," *IEEE INDICON*, Coimbatore, India, 2018.
- 20. Singh, B.; **Jit, S.** Performance Investigation of Cylindrical Double Gate Junctionless FET. 2018 5th IEEE Uttar Pradesh Sect. Int. Conf. Electr. Electron. Comput. Eng. UPCON 2018, No. November 2018, 1–5.
- 21. Baral, K.; Singh, P. K.; Kumar, S.; Chander, S.; Singh, K.; **Jit, S.** Performance Analysis of Nanotube Junctionless Accumulation Mode MOSFETs with Ion Implanted Doping Profile. *2018 3rd Int. Conf. Converg. Technol. I2CT 2018*, 1–5.
- 22. Kumar, Y.; Kumar, H.; Rawat, G.; Kumar, C.; Goel, V.; Pal, B. N.; **Jit, S.** Advances in Signal Processing and Communication; Springer Singapore, 2019; Vol. 526.
- 23. A. K. Singh, M. R. Tripathy, P. K. Singh, K. Baral, S. Chander, **S. Jit**, "DC and RF Performance Optimization of Strained Si/Si1-xGex Heterojunction SOI P-TFET," *15th IEEE Int. Conf. INDICON 2018*.
- 24. Kamalaksha Baral, Prince Kumar Singh, Sanjay Kumar, Sweta Chander, Manas Ranjan Tripathy and **S. Jit**, "Dual Material-Stacked Hetero-Dielectric-Junctionless Accumulation Mode Nanotube MOSFET for enhanced Hot Carrier and Trapped Charges Reliability," *3rd EDTM*, *Singapore*, *2019*.
- **25. Surya P. Singh**. 2019. Microwave thermotherapy for clinical applications. *URSI Asia Pacific Radio Science Conference*, New Delhi, India, March 2019.
- 26. Prakash, M Agarwal and **M K Meshram**, "An Active Polarization-Insensitive Ultrathin Metamaterial Absorber with Frequency Controllability," *Advances in Signal Processing and Communication, Lecture Notes in Electrical Engineering*, vol 526. Springer, Singapore, 157-163.
- 27. Saurabh Kumar Srivastava and **Manoj Kumar Meshram**, "Ultra Wideband Reflective Polarization Converter Based on Double Slit Split Ring Resonators Shaped Metasurface," *International Microwave and RF Conference (IMaRC) 2018*, 28-30 November 2018, Kolkata.



- 28. Arun Kumar Saurabh and **Manoj Kumar Meshram**, "Compact Quad-Element Triple-Band MIMO Antennas for WLAN/WiMAX Applications," *2018 IEEE Indian Conference on Antennas and Propagation (InCAP 2018)*, 16-19 Dec 2018, Hyderabad.
- 29. Sweta Agarwal and **M K Meshram**, "Pattern Reconfigurable Antenna using Key-shaped Monopoles for WiMAX Application," *Asia Pacific Radio Science Conference (AP-RASC)* 2019, 9-15 March 2019, New Delhi.
- 30. Diptiranjan Samantaray, **Somak Bhattacharyya**, and **K. V. Srinivas**, "A Gain Enhanced Multiband Antenna using SRRs with Defected Ground Structure," in *2019 URSI Asia Pacific Radio Science Conference (AP-RASC 2019)*, New Delhi, India, 9-15 March, 2019.
- 31. Rudranil Nandi, Nilotpal, and **Somak Bhattacharyya**, "A Transmittive Type Broadband Cross Polarization Converter for Mid Wavelength Infrared Region," in *2019 URSI Asia Pacific Radio Science Conference (AP-RASC 2019)*, New Delhi, India, 9-15 March, 2019.
- 32. Nilotpal, **Somak Bhattacharyya**, and **P. Chakrabarti**, "A Simple Ultrathin Quad Band Polarization Insensitive Metamaterial Absorber for Infrared Applications," in 2019 *URSI Asia Pacific Radio Science Conference (AP-RASC 2019)*, New Delhi, India, 9-15 March, 2019.
- 33. Aman, Vineet Singh, and **Somak Bhattacharyya**, "Reconstruction of Relative Permittivity and Thickness Profiles of Different Dielectric Samples Using Time Domain Multiple Reflection Method," in *URSI Asia Pacific Radio Science Conference (AP-RASC 2019)*, New Delhi, India, 9-15 March, 2019.
- 34. Sambit Kumar Ghosh, Santanu Das, and **Somak Bhattacharyya**, "A Graphene Based Broadband Metasurface Absorber in the Terahertz Region," in 2019 *URSI Asia Pacific Radio Science Conference (AP-RASC 2019)*, New Delhi, India, 9-15 March, 2019.
- 35. Sambuddha Sarkar, Tanmoy Chakrabarti, Sambit Kumar Ghosh, and **Somak Bhattacharyya**, "A Broadband FSS Bandstop Filter in Terahertz Region," in 2019 *URSI Asia Pacific Radio Science Conference (AP-RASC 2019)*, New Delhi, India, 9-15 March, 2019.
- 36. Sambuddha Sarkar, Tanmoy Chakrabarti, Sambit Kumar Ghosh, and **Somak Bhattacharyya**, "A Broadband Bandpass FSS Filter in Terahertz Region," in *URSI Asia Pacific Radio Science Conference (AP-RASC 2019)*, New Delhi, India, 9-15 March, 2019.
- 37. Smriti Rai, **Somak Bhattacharyya**, and Akhlesh Lakhtakia, "Pixelated Metasurfaces for Terahertz Absorption and Polarization Conversion," in *URSI Asia Pacific Radio Science Conference (AP-RASC 2019)*, New Delhi, India, 9-15 March, 2019.
- 38. Roopan Tuli, Diptiranjan Samantaray, and **Somak Bhattacharyya**, "A Multiband Wearable Antenna with Defected Ground Structure," in 2019 *URSI Asia Pacific Radio Science Conference (AP-RASC 2019)*, New Delhi, India, 9-15 March, 2019.
- 39. Rajarshi Bhattacharyya, Jyoti, Aman Gupta, Om Prakash, Somnath Roy, Tapas Kumar Bhattacharyya, Pralay Maiti, **Somak Bhattacharyya**, and Santanu Das, "In-situ synthesis of (Mg0.5Zn0.5)Fe2O4-graphene oxide nanocomposite for broadband microwave absorption in GHz frequency range," in 2019 *URSI Asia Pacific Radio Science Conference (AP-RASC 2019)*, New Delhi, India, 9-15 March, 2019.
- 40. Diptiranjan Samantaray, **Somak Bhattacharyya**, and **K. V. Srinivas**, "Modified Fractal-shaped Slotted Patch Antenna with Dipole-shaped Slotted Ground Plane with Enhanced Gain for X-band Applications," in *IEEE Indian Conference on Antennas and Propagation (InCAP 2018)*, Hyderabad, India, 16-19 December, 2018.
- 41. Sohom Das, Soham Ghosh, Diptiranjan Samantaray, and **Somak Bhattacharyya**, "An Efficient Terahertz Antenna using CPW Interdigital Capacitor," in *IEEE Indian Conference on Antennas and Propagation (InCAP 2018)*, Hyderabad, India, 16-19 December, 2018.
- 42. Diptiranjan Samantaray, **Somak Bhattacharyya**, and **K. V. Srinivas**, "Modified Fractal-shaped Slotted Patch Antenna with Defected Ground Structure for Multiband Applications," in *IEEE INAE Workshop on Electromagnetics (IIWE 2018)*, Trivandrum, India, 6-8 December, 2018.
- 43. Soham Ghosh, Sohom Das, Diptiranjan Samantaray, and **Somak Bhattacharyya**, "Meander Line based Defected Ground Microstrip Antenna slotted with SRR for Terahertz range," in *IEEE INAE Workshop on Electromagnetics (IIWE 2018)*, Trivandrum, India, 6-8 December, 2018.
- 44. Rudranil Nandi, Nilotpal, and **Somak Bhattacharyya**, "A Broadband Polarization Insensitive Cross Polarization Converter using Metasurface for Long Wavelength Infrared Region," in *IEEE INAE Workshop on Electromagnetics (IIWE 2018)*, Trivandrum, India, 6-8 December, 2018.



- 45. Nilotpal, **Somak Bhattacharyya**, and **P. Chakrabarti**, "An Ultrathin Wide Angle Polarization Insensitive Mid-Infrared Metamaterial Absorber for THz Detection," in *IEEE International Microwave & RF Conference (IMaRC 2018)*, Kolkata, India, 28-30 November, 2018.
- 46. Sambit Kumar Ghosh, **Somak Bhattacharyya**, and Santanu Das, "A Graphene Based Metasurface with Wideband Absorption in the Lower Mid Infrared Region," in *IEEE International Microwave & RF Conference (IMaRC 2018)*, Kolkata, India, 28-30 November, 2018.
- 47. Lavesh Nama, **Somak Bhattacharyya**, and **Pradeep Kumar Jain**, "An Ultra-thin Wideband Linear to Circular Polarization Converter using Metasurface," in *IEEE International Symposium on Antennas and Propagation and USNC/URSI National Radio Science Meeting*, pp. 777-778, 8-13 July, 2018, Boston, USA.
- 48. Sambit Kumar Ghosh, Vinit Singh Yadav, **Somak Bhattacharyya**, and Santanu Das, "A Graphene Based Bandwidth Enhanced Metamaterial Absorber using Circular Ring," in *IEEE International Symposium on Antennas and Propagation and USNC/URSI National Radio Science Meeting*, pp. 1491-1492, 8-13 July, 2018, Boston, USA.
- 49. Nilotpal, Abhishek Kumar Singh, Mamta Upadhyay, Rashmi Lata, **Somak Bhattacharyya**, and **P. Chakrabarti**, "A Proposed Long Wavelength Infra-red Metamaterial Absorber for THz Detection," in *IEEE International Symposium on Antennas and Propagation and USNC/URSI National Radio Science Meeting*, pp. 2067-2068, 8-13 July, 2018, Boston, USA.
- 50. Nisheeth Upadhyay and **Smrity Dwivedi**, "Frequency Tunable SIW Cavity Resonator Integrated With Schottky Diode," *IEEE International Microwave and RF Conference 2018*, 28-30 November 2018.
- 51. S. Shee, **S. Dwivedi**, "PIC Simulation of a Double Side-cavity Reltron, Calculation of Cavity Reactance and Comparison with Conventional Reltron," *APRASC*, *09-15* March 2019, Indian Habitat Center, New Delhi, India.
- 52. Shivani Chandra and **Smrity Dwivedi**, "Comparative analysis of Reconfigurable Patch Antenna Array for different Liquid Crystal Substrates," URSI AP-RASC 2019, 09 15 March 2019, New Delhi, India.
- 53. Soumojit Shee and **Smrity Dwivedi**, "Parametric Analysis of Reltron Modulation Cavity and Q-factor Calculation from S11", *IEEE International Microwave and RF Conference 2018*, 28-30 November 2018.
- 54. Rahul Garg, **Smrity Dwivedi** and R. Tomar, "A Wide Band, Highly-Efficient Circular Patch Antenna with Split Triangular-Shape Slit", *8th IEEE CSNT 2018 at RGPV Bhopal*, 24-66 Nov 2018.
- **55. Smrity Dwivedi**, Analysis of Wideband Millimeter Wave PBG Antenna, *International Conference on Recent Innovations in Engineering and Technology (ICRIET)*, 5-June 2018, Bangkok, Thailand.
- **Rajput, Navin Singh**, A. Mishra, A. Sisodia, and I. Makarov.2018. A novel autonomous taxi model for smart cities. IEEE 4th World Forum on Internet of Things (WF-IoT), pp. 625-628.Singapore, 2018.
- 57. Rajanish Kumar Singh and **M. Thottappan**, "Mode Analysis and Design of PBG Cavity for Tunable Gyrotron", *URSI Asia Pacific Radio Science Conference (AP-RASC)-2019*, New Delhi, India, March 9-15th, 2019.
- 58. Akash and **M. Thottappan**, "3D Beam-Wave Interaction Study in a Dielectric Loaded W-band Gyro-TWT using MAGIC", *IEEE MTT-S International Microwave and RF Conference (IMaRC)-2018*, Kolkata, India, Nov. 28-30th, 2018.
- 59. Mumtaz Ali Ansari and **M.Thottappan**, "Study of Improved Cavity Resonant Reflector for an X-Band Relativistic Backward Wave Oscillator", *IEEE MTT-S International Microwave and RF Conference (IMaRC)-2018*, Kolkata, India, Nov. 28-30th, 2018.
- 60. S. G. Yadav, A.S. Singh, and **M.Thottappan**, "3D Particle-In-Cell Simulation of W-band Gyro-Twystron Amplifier", *IEEE MTT-S International Microwave and RF Conference (IMaRC)-2018*, Kolkata, India, Nov. 28-30th, 2018.



#### **Proceedings of National Conferences** (From 1st April 2018 to 31st March 2019)

- 1. A. Kumar, P. Tripathi, **S. Dwivedi** and **P. K. Jain**, "Eigenmode and PIC Simulation Study of S-band Bifrequency MILO," *National conference on Emerging trend in vacuum electronics device and applications (VEDA)*, 22-24 November 2018, IIT Guwahati, Assam India.
- 2. P. Tripathi, A. Kumar, S. Shee, **S. Dwivedi** and **P. K. Jain**, "Beam Wave Interaction Analysis of X- Band Gridded Reltron," *National conference on Emerging trend in vacuum electronics device and applications (VEDA)*, 22-24 November 2018, IIT Guwahati, Assam India.
- 3. S. Shee, P. Tripathy, **S. Dwivedi**, "Beam Wave Interaction Study and Calculation of Cavity Reactance Near Resonance for a Gridless Reltron," *National conference on Emerging trend in vacuum electronics device and applications (VEDA)*, 22-24 November 2018, IIT Guwahati, Assam India.
- 4. V. Veera Babu, Anshu Sharan Singh, **Smrity Dwivedi**, **M.Thottappan**, "Design Studies of a Ka-band Gyro-Twystron," *National conference on Emerging trend in vacuum electronics device and applications (VEDA)*, 22-24 November 2018, IIT Guwahati, Assam India.
- 5. Anshu Sharan Singh and **M. Thottappan**, "Analysis of Pre-bunching RF Sections for Weakly Relativistic Gyro-Twystron," *National Symposium on Vacuum Electronic Devices & Applications (VEDA)-2018*, IIT, Guwahati, India, 22-24 November, 2018.
- 6. V. Venkata Reddy, Mumtaz Ali Ansari and **M. Thottappan**, "Design Studies on S-Band Uniform Relativistic Backward Wave Oscillator," *National Symposium on Vacuum Electronic Devices & Applications (VEDA)-2018*, IIT, Guwahati, India, 22-24 November, 2018.
- 7. Akash and **M. Thottappan**, "Numerical Analysis of Resistively Loaded Waveguide for W-band Gyro-TWT," *National Symposium on Vacuum Electronic Devices & Applications (VEDA)-2018*, IIT, Guwahati, India, 22-24 November, 2018.
- 8. S. G. Yadav, A.S. Singh, and **M. Thottappan**, "Beam-Wave Interaction Studies of W-band Gyro-twystron," *National Symposium on Vacuum Electronic Devices & Applications (VEDA)-2018*, IIT, Guwahati, India, 22-24 November, 2018.
- 9. Mumtaz Ali Ansari and **M. Thottappan**, "PIC Simulation of Relativistic Backward Wave Oscillator using Bragg Structure," *National Symposium on Vacuum Electronic Devices & Applications (VEDA) 2018*, IIT, Guwahati, India, 22-24 November, 2018.

#### Brief Details of Articles from the Department/School with maximum no. of Citations in last 5 years

S. Shahin, V. Mishra, **S. P. Singh**, C.M. Chaturvedi, "2.45 GHz microwave irradiation adversely affects reproductive function in male mouse, *Mus musculus* by inducing oxidative and nitrosative stress," *Free Radical Research*, Vol. 48, No. 5, May 2014, pp. 511–525, doi: 10.3109 / 10715762.2014.888717, **No. of Citations:** 35

#### **Distinguished Visitors** (From 1st April 2018 to 31st March 2019)

S. No.	Name of the visitor & Designation	Date of Visit	Purpose of Visit
1	Prof. Subra Ananthakrishnan Adjunct Professor & Raja Ramanna Fellow, Department of Electronic Science University of Pune Pune, Maharashtra – 411007, India (Previously Observatory Director, Giant Meterwave Radio Telescope, Pune, India)	31 October, 2018	Giving lecture on "Acharya Jagadish Chandra Bose – The Genius ahead of his times" organized by jointly IEEE MTT-S and IEEE Photonics Society Student Branch Chapters IIT BHU

#### 6. Other activities

**International collaboration/achievements by the Department/School** (From 1st April 2018 to 31st March 2019): Nil



#### **Indian Faculty visits in the Department/School/School** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Dr. Shrivishal Tripathi IIIT, Naya Raipur	IEEE MTT-S SBC sponsored Technical Talk on "Design and Implementation of Massive MIMO"	24 May, 2018
2	Dr. Vishal Kesari Microwave Tubes Research and Development Centre, Defence Research and Development Organisation	IEEE MTT-S SBC sponsored Technical Talk on "nalytical Techniques to Variants of Disc-loaded Circular Waveguide for their Potential Application in Gyro-Travelling- Wave Tube"	18 August, 2018
3	Prof. Somenath Sarkar University of Calcutta	Lecture entitled "Journey to Photonics and Nano-Photonics following Milestones of Fiber Optic" during QIP Sponsored Short Term Course	27 June, 2018
4	Mr. R. K. Malaviya Retired Scientist, Space Application Centre, Indian Space Research Organization	Lecture entitled "Microwave Antenna Measurement Yesterday, Today And Tomorrow" during QIP Sponsored Short Term Course	27 June, 2018
5	Prof. Bhaskar Gupta Jadavpur University	Lecture entitled "RF MEMS" during QIP Sponsored Short Term Course	28 June, 2018

#### **Foreign Faculty Visits in the Department** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue	
1	Prof. Akhlesh Lakhtakia	VAJRA Program	June-July & December, 2018	

### **Foreign Students Visits in the Department** (From 1st April 2018 to 31st March 2019): N.A

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue	

### **Any other Information**

## Glimpses of Laboratory/ Equipments in the Department/School





Photoluminescence (PL) measurement setup (F980) from Edinburgh Photonics, UK. This setup can provide PL from 200-800 nm.







Vaccum evaporation and deposition systems (FL 300 and BC 300) from Hind High vac, Bangalore, India. These setup works with e-beam evaporation (FL 300) and thermal evaporation (FL 300 and BC 300) for depositing thin films.

An 'anechoic chamber" ("an-echoic" meaning non-reflective, non-echoing or echo-free) is a room designed to completely absorb reflections of either sound or electromagnetic waves. They are also often isolated from waves entering from their surroundings.





(Anechoic Chamber with 6 axis position for RF Characterization (upto 20GHz))



## 12. Department of Mechanical Engineering

Year of Establishment: 1919

Head of the Department: Prof. A. P.Harsha (w.e.f. 02.08.2018)

#### 1. Brief Introduction of the Department/School:

The Department of Mechanical Engineering came into existence in 1919 under the leadership of Professor Charles A. King, the first Head of the Department and Principal of the erstwhile Banaras Engineering College. Over the last ninety nine years, the department has grown four folds to become the largest department in IIT (BHU), Varanasi. The post-graduate and doctoral program in the department is well-established and infrastructural facilities exist for studies and research for a range of specialisations such as Machine Design, Thermal and Fluid Engineering, Production Engineering and Industrial Management.

#### Major areas of Research

Fracture mechanics, Vibrations and dynamic analysis, Smart materials, Tribology, Heat Transfer, Fluid dynamics, Metal forming/joining, Machining, Micro-Machining, Welding engineering, Supply Chain Management.

#### Area of the Department/School (in square meters):8000 sq.mtr. (approx.)

#### Infrastructure

S. No.	Particulars	Number
1	No. of Classrooms	04
2	No. of Lecture Halls	04
3	No. of Laboratory	20
4	No. of Computers available for students in the Department/School/ School	273

#### Unique Achievement / Preposition of the Department/School

#### 2. Academic Programmes offered

**New Courses Introduced** (From 1st April 2018 to 31st March 2019)

S. No.	Course Code	Course name	Course credit	

#### **Students on Roll** (From 1st April 2018 to 31st March 2019)

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1.	B. Tech	122	111	111	109	-
2.	Dual Degree	25	21	23	23	22
3.	M. Tech/ M. Pharm	34	30	-	-	-
4.	Ph. D (Under Institute Fellowship)	11	18	13	24	03
5.	Ph. D (Under Project Fellowship)	-	-	02	-	-
6.	Ph. D (Under Sponsored	1	-	-	-	-
	Category)					



# Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
ÌNDIA					
1	Sarvesh Kumar	16131012	7 <sup>th</sup> International and 45 <sup>th</sup> National Conference on Fluid Mechanics and Fluid Power, IIT Mumbai, India	10-12 December, 2018	IIT (BHU)
2	Ajeet Kr. Yadav	17101001	International conference (ORSI 2018), IIT Bombay	16-19 Dec.2018	IIT (BHU)
3	Anand Jaiswal	13101001	International Conference of SOM, IIM Kozhikode	20-22, Dec.2018	Self
4	Ajit Kumar Jha	15131507	FMFP 2018  Paper number: 643  Title: Experimental investigation of free convection boundary layer over a vertical flat plate by PIV	10 <sup>th</sup> -12 <sup>th</sup> December at IIT Bombay	IIT (BHU)
5	Asgar Shakil	17131006	ICRACM-2019	25-28 <sup>th</sup> February 2019, IIT (BHU), Varanasi	IIT (BHU)
6	B. Rajak	17131007	ICRACM-2019	25-28 <sup>th</sup> February 2019, IIT (BHU), Varanasi	IIT (BHU)
7	R. Moharana	16132040	NFEST 2019	18-22 <sup>th</sup> February 2019 NIT Kurukshetra	Self
8	Sagar Sringal	17132026	Advance Combustion Modelling with CFD	April 8-12, 2019 IIT, Indore	Self
9	Sagar Sringal	17132026	CFD of Fluidized Beds	Nov. 12-16, 2018 NIT Warangal	Self
10	Sagar Sringal	17132026	Advance in Combustion and Gasification Technology	29 Oct -02 Nov, 2018 IIT, Guwahati	Self
11	Dheeraj Kumar	17132038	Recent advances on welding & Casting	Feb 22-28, 2019 IIT(BHU)	Self
12	Anil Kr. Choudhari	17132047	Recent advances on welding & Casting	Feb 22-28, 2019 IIT(BHU)	Self
13	Abhay Kr. Singh	17132005	Workshop on "Recent development in Mechatronics and Adoptronics (RDMA2018)	29 Oct -04 Nov. 2018 IIT(BHU)	IIT(BHU)
14	Gaurav Barman	17132007	Workshop on "Recent development in Mechatronics and Adoptronics (RDMA2018)	29 Oct -04 Nov. 2018 IIT(BHU)	IIT(BHU)
15	Sarvesh Kumar	16131012	7 <sup>th</sup> International and 45 <sup>th</sup> National FMFM conferences, IIT Bombay	10-12 Dec 2018, Mumbai	IIT (BHU)



S. No.	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
16	Homender Kumar	15131501	Workshop programs on "LaTeX for Beginners" & "LaTeX for Thesis Writing"	06 & 30 October 2018, IIT(BHU)	IIT (BHU)
17	Homender Kumar	15131501	TRIBOINDIA-2018- An International Conference on Tribology	13-15 December 2018, VJTI, Mumbai	IIT (BHU)
18	Homender Kumar	15131501	Workshop on "Academic writing for research scholars"	15-19 January,2019, IIT (BHU)	IIT (BHU)
19	Sooraj Singh Rawat	15131502	Latex workshop	6 October, 2018,  Department of Electrical Engg., IIT(BHU),  Varanasi	No Fee
20	Sooraj Singh Rawat	15131502	Wiley author workshop	24 October, 2018,  ABLT Hall, IIT(BHU),  Varanasi	No Fee
21	Sooraj Singh Rawat	15131502	An introductory workshop on thesis writing & publishing with Latex	30 October, 2018,  Dept. of Electrical Engineering, IIT(BHU), Varanasi	self
22	Sooraj Singh Rawat	15131502	Triboindia 2018 – An International Conference on Tribology	13-15 December, 2018 VJTI, Mumbai	IIT (BHU)
23	Sooraj Singh Rawat	15131502	Academic writing for research scholars	15-19 January, 2019  ABLT complex, IIT(BHU), Varanasi	No Fee
24	Sarvesh Kashyap	16131503	Fluid Mechanics and Fluid Power (FMFP)	December 10-12, 2018, IIT Bombay, Mumbai, India	IIT (BHU)
25	Chandrmani Yadav	17131009	International Conference on  Recent Innovations and Developments in Mechanical Engineering  (IC-RIDME-2018)	Nov.8-10, 2018  National Institute of Technology Meghalaya	IIT (BHU)
26	Chandrmani Yadav	17131009	2nd International Conference on New Frontiers in Engineering, Science & Technology (NFEST 2019)	Feb.18-22, 2019.  National Institute of Technology Kurukshetra	IIT (BHU)
27	Akash Awale	16131003	International Conference on Mechanical Engineering and Allied Sciences	14 <sup>th</sup> -15 <sup>th</sup> Sept 18	IIT (BHU)



S. No.	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
28	Akash Awale	16131003	Multi-physics Modeling Techniques using CFD (Workshop)	25 <sup>th</sup> – 29 <sup>th</sup> June 18	IIT (BHU)
29	Amit Ambar Gupta	15101001	XXII Annual International Conference of the Society of Operations Management (SOM 2018)	December 20 – 22, 2018	IIT (BHU)
30	Susheel Yadav	15101002	XXII Annual International Conference of the Society of Operations Management (SOM 2018)	December 20 – 22, 2018	IIT (BHU)
31	Ankit Chouksey	17101502	XXII Annual International Conference of the Society of Operations Management (SOM 2018)	December 20 – 22, 2018	IIT (BHU)
32	Ajit Kumar Jha	15131507	Conference name: FMFP 2018 Paper number: 643 Title: Experimental investigation of free convection boundary layer over a vertical flat plate by PIV	10 <sup>th</sup> -12 <sup>th</sup> December at IIT Bombay	IIT (BHU)
33	Rakesh Ranjan Chand	17131004	CSIR Sponsored two days Seminar on "Emerging Advancements in Smart Materials Applications"	21-22 feb. 2019  Kongu Engineering College, Perundurai, Tamilnadu, India	Self
34	Meghavatu Krishna PrasannaNaik	16101501	16th international conference on Humanizing Work and Work Environment Technology Enabled Workplace Design, HWWE 2018	CET Thiruvananthapuram	Self
35	Meghavatu Krishna PrasannaNaik	16101501	XXII Annual international conference of the society of operations Management	IIM Kozhikode	IIT(BHU)
36	Ajeet kumar yadav	17101001	51st Annual convention of operational research society of India and International conference (ORSI 2018) (16-19 December, 2018). IIT Bombay, India	16-19 December, 2018 IIT Bombay	IIT (BHU)
37	Sujeet Yadav	15131509	Conference name: FMFP 2018  Title: Simplified numerical simulation of BERL combustor and prediction of NOx formation	10 <sup>th</sup> -12 <sup>th</sup> December at IIT Bombay	IIT (BHU)



S. No.	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
ABROA	.D				
1	Rishikesh kumar singh	15131014	Thermal and Catalytic Sciences Symposium for bio-fuels and bio products	October 8-10 (2018) at Auburn University, Alabama (U.S.A)	IIT (BHU)
2	Anand Jaiswal	13101001	IEOM Conference, Pretoria, Johannesburg, S.Africa	Oct.29 – Nov 1, 2018	Self
3	Abhishek Das	16134021	Conference – Harvard Project of Asian & International Relations (HPAIR 2018)	15/08/18 – 21/08/18, Kuala Lumpur (Malaysia)	Received a Scholarship from conference

# Names of students/scholars who got prizes and awards outside the Institute (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of Prize	Date & Venue	Prize awarded by
1	Anand Jaiswal	13101001	Best track paper award	Oct 29-Nov 1	IEOM Society
2	Akash Awale	16131003	Best paper Award	14 <sup>th</sup> -15 <sup>th</sup> Sept 18	International Conference on Mechanical Engineering and Allied Sciences, Shri Mata Vaishno Devi University, Katra, J&K,.
3	Nitish kumar	17135059	1st prize	4 Jan 2019, IIT MADRAS	Honeywell
4	Pankaj meena	17135060	1st prize	4 Jan 2019, IIT MADRAS	Honeywell
5	Sooraj Singh Rawat	15131502	2 <sup>nd</sup> best paper	13-15 December, 2018 VJTI, Mumbai	Ajay Kumar (Secretary, Tribology Society of India)
6	Kaustav De	16135040	Finalist Cerificate of Merit of EXL EQ	29 <sup>th</sup> March 2019	EXL
7	Abhishek Das	16134021	Finalist Certificate of Merit EXL'EQ'19 Challenge	29/03/19, Gurgaon (India)	EXL Company

## Names of scholars/students who won Convocation/Institute Day prizes (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of Prize	Prize awarded by
1	Suchit Pandey	16102003	M.Tech. Thesis Award	IIT (BHU)
2	Arun Chand	166132020	M.Tech. Thesis Award	IIT (BHU)
3	Arun Chand	166132020	Prof. (Dr.) Mahendra Kumar Jain Nyayacharya Gold Medal	Prof. Mahendra Kr. Jain Nyayacharya
4	Sandeep	16132011	S.K. Memorial Gold Medal	S.K. Memorial



S. No.	Name of Student	Roll No.	Name of Prize	Prize awarded by
5	Baljinder Kumar Badhan	16132036	BENCO- 64 Gold Medal	BENCO- 64
6	Baljinder Kumar Badhan	16132036	BENCO- 64 Cash Prize (25,000)	BENCO- 64
7	Kartika Ahuja	13134008	5 <sup>th</sup> Year I.D.D. Thesis Award	IIT (BHU)
8	Thacker Part Paresh	14135090	Medal for Standing First at the B.Tech. Programme	IIT (BHU)
9	Thacker Part Paresh	14135090	The Prince of Wales Medal	The Prince of Wales
10	Thacker Part Paresh	14135090	Sudhir Kumar Sharma Memorial Gold Medal	Sudhir Kumar Sharma Memorial
11	Thacker Part Paresh	14135090	CRS Lyengar Memorial Gold Medal	CRS Lyengar Memorial
12	Thacker Part Paresh	14135090	Late Prof. Manoranjan Sengupta Platinum Jubilee Merit Award (1000)	Late Prof. Manoranjan Sengupta
13	Srishti Shukla	14135103	Smt. Indira Tripathi Gold Medal	Smt. Indira Tripathi

## Names of Students/Scholars who went for foreign Internship (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
1	Siddharth Kumar Patel	15135082	National Taiwan University	Taipei	Taiwan	2 months
2	Vedant Kumar	15135091	LadHyX	Paris	France	2 months

## 3. Faculty & their Activity

## Faculty and their areas of specialisation

S. No.	Name, Qualifications, Employee No.	Date of award of PhD Degree	Major Areas of Specialization (Max. 3 Areas)
PROFI	ESSORS		
1	Dr. V.P.Singh, Ph.D, 13818	27.8.1987	Vibrations, Solid Mechanics
2	Dr. A.K.Agrawal, Ph.D, 13819	1990	Quality Control, Six Sigma, Optimization
3	Dr. V.K.Srivastava, Ph.D, 13811	1987	NDT of Composites, Delaminating of Fibre Composites, Fracture, Toughness and interface of Fibre Composites.
4	Dr. Santosh Kumar, Ph.D, 13831	2000	Metal Forming/CAD-CAM-RP & Manufacturing Automation/Machine tools & Unconventional Manufacturing, Additive manufacturing.
5	Dr. S. P. Tewari, Ph.D., 13817	1998	Production Engineering, Welding
6	Dr. A.P.Harsha, Ph.D, 16722	2004	Tribology, Material Tribology and Design
7	Dr. Sandeep Kumar Ph.D, 17343	1999	Computational Mechanics (Wavelets, FEM, Meshless)
8	Dr. K.S.Tripathi, Ph.D, 13821	1992	Mechanisms, Vibrations
9	Dr. S.K.Sinha, Ph.D., 17364	1993	CNC
10	Dr. Rajesh Kumar, Ph.D., 17318	2002	Tribology, MEMS Reliability, Optimization
11	Dr. Prasant Shukla, Ph.D., 16723	2000	Thermal and Fluid Sciences
12	Dr. Pradyumna Ghosh, Ph.D, 16801	2007	Heat Transfer, CFD, Microgravity Fluid Physics
13	Dr. S.K.Shukla Ph.D. 18130	2005	Thermal Engineering, Renewable Energy, Alternate Fuels



S. No.	Name, Qualifications, Employee No.	Date of award of PhD Degree	Major Areas of Specialization (Max. 3 Areas)	
14	Dr. Rajnesh Tyagi, Ph.D., 17341	2001	Materials Development and Tribology, Manufacturing Engineering.	
15	Dr. S.K.Panda, Ph.D., 17390	29 <sup>th</sup> June, 2005	Failure Analysis and Reliability Design, Finite Element Analysis, Impact Dynamics and Ballistics.	
16	Dr. P.Bhardwaj, Ph.D., 16720	24 <sup>th</sup> May, 2006	Cellular Manufacturing System, Supply Chain Management, Production Systems	
ASSOC	CIATE PROFESSORS			
1	Mr.S.K.Shah, M.Tech., 13822	N.A.	Production Engg.	
2	Dr. Mohd Zaheer Khan Yusufzai, Ph.D., 16657	Sept., 2012	Welding, Material Characterization	
3	Dr. Meghanshu Vashista, Ph.D., 16721	22 <sup>nd</sup> Feb., 2010	Grinding, Welding, Material characterization	
4	Dr.S.S.Mondal Ph.D., 17339,	2004	Thermal Engg.	
5	Dr. Jahar Sarkar, Ph.D., 17388	2006	Thermodynamic cycle, Heat Transfer, Sustainable cooling	
6	Dr. Arnab Sarkar, Ph.D., 17252	11.5.2012	Wind Climatology, Renewable Energy, Microfluidics	
7	Dr. Debashis Khan, Ph.D., 18139	December, 2007	Solid Mechanics, Fracture Mechanics, Finite Element Method	
8	Dr. R.K.Gautam, Ph.D, 18239	May 22, 2009	Hybrid Cu-base in-situ composite, processing of Lighalloybase composites and nano-composite, Microwav sintered composite.	
9	Dr.Om Prakash Singh, Ph.D., 50061	December 2016	Heat and mass transfer, CFD, double-diffusive convection	
10	Dr.J.V.Tirkey, Ph.D., 16724	2008	SI and CI Engine Design simulation, Alternate fuel	
11	Dr. Cherian Samuel, PhD, 16798	2005	Operations Management, Supply chain mgt, Industrial Engg.	
12	Dr.N.Mallik Ph.D., 17253	13 <sup>th</sup> August, 2005	Smart materials and structures	
13	Dr.Amit Tyagi, Ph.D., 17268	November 2011	Machine Design	
14	Dr. U. Srinivas Rao, PhD., 17269	23.12.2013	Modeling and Simulation, Micro-machining, Machining, Tool Condition Monitoring	
15	Dr R. R. Sahoo. PhD, 17335	3/10/2017	I.C. Engine, Combustion Technology, Nanofluid	
16	Dr.Laltu Chandra, Ph.D., 50223	7 <sup>th</sup> July 2005	Heat Transfer and Fluid Flow; Computation and Experiment; Turbulent Flow Simulation and Modelling	
ASSIST	TANT PROFESSORS			
1	Shri P.C.Mani, M.Tech., 18214	N.A.	Tribology and Maintenance Engineering	
2	Dr. Amitesh Kumar Ph.D., 50073	Oct, 2010	Turbulent flow, High Mach Number Flow, Cryotherapy	
3	Dr. Ajinkya Nandkumar Tanksale, Ph.D., 50225	20 July 2018	Operations Research, Facility Location, Supply Chain Management	
Institu	te Professors			
1	Dr. S.K.Sharma,Ph.D.FAC-IP21	9 <sup>th</sup> March, 1987	Industrial Management	
2	Dr. M.Prasad, Ph.D.FAC-IP20	January 1977	Thermal and Fluid Engineering	
3	Dr. A.K.Jha, Ph.D.FAC-IP23	1 <sup>st</sup> March, 1988	Manufacturing process and Manufacturing System	
Disting	guished Professors			
1				
Emerit	tus Professors			



S. No.	Name, Qualifications, Employee No.	Date of award of PhD Degree	Major Areas of Specialization (Max. 3 Areas)
1	Dr. P.C.Upadhyay		Machine Design
Guest	Faculty		
1	Dr.A.Bhattacharya	1985	Engineering Drawing, Engineering Mechanics, Strength of Materials
Visitin	g Faculty		
1	Dr.Kripa Shanker Ph.D. FAC-VF18		
DST INSPIRE Faculty			
1			

# Technical and Non-Teaching Staff

Sl. No.	Name, Qualifications	Designation, Employee No.	Date of Appointment in the department
1	Sri P K Pandey, B.Com. (Hons.)	Junior Superintendant,50162	01/08/2017
2	Sri J.K. Sinha, Diploma in Computer Sci. & Engg., BCA, B.Tech., MPA	Junior Assistant, 50016	04/09/2015
3	Sri Akash Mishra, M.Com. & B.Com.	Junior Assistant,50079	08/05/2017
4	Sri Rajendra Prasad, Intermediate, ITI	Sr. Tech. Superintendent, 13904	29/09/1986
5	Sri P.N. Singh, Graduation (B.A.)	Sr. Tech. Superintendent, 13963	01/06/1987
6	Sri K.C. Mishra, 12 <sup>th</sup> , Diploma in Mech. Engg.	Sr. Tech. Superintendent, 13979	30/05/1987
7	Sri Kali Prasad, High School, ITI	Sr. Tech. Superintendent, 13977	10/03/1989
8	Sri Ram Adhar Yadav, Intermediate, Diploma in Mechanical Engg.	Technical Superintendent, 13981	05/05/1988
9	Sri Barmeshwar Rai, Graduation	Technical Superintendent, 13975	12/10/1988
10	Sri Dhaniram Shankar Singh, Intermediate (Sci.)	Technical Superintendent, 13967	04/06/1991
11	Sri Hari Shankar, 12 <sup>th</sup> , Diploma in Computer in Off. Management	Technical Superintendent, 13982	08/01/1997
12	Sri D.P. Sharma, Intermediate (Sci.)	Technical Superintendent, 13984	15/10/1998
13	Sri V.P. Srivastava, Graduation (B.Sc.)	Technical Superintendent, 13983	15/10/1998
14	Sri S.P. Singh, High School, ITC	Jr. Tech. Superintendent, 13985	12/10/1998
15	Sri Ranjeet Sharma, High School	Jr. Tech. Superintendent, 13986	12/10/1998
16	Sri Rajendra Kumar, Intermediate (Sci.)	Jr. Tech. Superintendent, 18062	22/02/2007
17	Sri Nand Lal, Intermediate, ITI	Jr. Tech. Superintendent, 18055	21/02/2007
18	Sri Anil Kr. Singh, Graduaion (B.A.), ITI	Jr. Tech. Superintendent, 18060	20/02/2007
19	Sri Surendra P. Yadav, Intermediate (Sci.)	Sr. Technician, 18610	05/08/2008
20	Sri Dinesh Kumar, Graduation (B.Sc.)	Sr. Technician, 18614	11/08/2008
21	Sri Sunil Kr. Bardhan, 12 <sup>th</sup> , ITI, Diploma in Mechanical Engg.	Sr. Technician, 18613	05/08/2008
22	Sri Shambhu Prasad, Post Graduation (M.P.Ed.)	Sr. Technician, 18611	05/08/2008
23	Sri Shivendra Tewari , Diploma in Mech. Engg.	Sr. Technician, 18615	06/08/2008
24	Sri Ravi Prakash Singh, Intermediate, ITI (Draftsman)	Sr. Technician, 18612	06/08/2008
25	Ms. Saroj K. Patel, M.A. (Sociology), ITI	Sr. Technician, 19271	09/02/2011



Sl. No.	Name, Qualifications	Designation, Employee No.	Date of Appointment in the department
26	Sri Mool Chand, Intermediate (Sci.)	Sr. Technician, 13974	16/09/1987
27	Sri Barmeshwar Prasad, Intermediate	Sr. Technician, 19597	11/07/2012
28	Sri Anupam Mishra, Graduation (B.Sc.), ADCA	Sr. Technician, 19600	11/07/2012

# Short-term courses/workshops/seminars/symposia/conferences organised by faculty members (From 1st April 2018 to 31st March 2019)

S. No.	Cordinator	Title	Period
1	Dr. C. Samuel	Supply Chain Management	October 8 <sup>th</sup> -13 <sup>th</sup> , 2018
2	Dr. Jahar Sarkar	Efficient Energy Conversion in Harmony with Environment	October 29 <sup>th</sup> - November 03 <sup>rd</sup> , 2018
3	Dr.Om Prakash Singh	Multi-physics Modeling Techniques using CFD	25 <sup>th</sup> -29 <sup>th</sup> June 2018, Mechanical Engineering, IIT (B.H.U), Varanasi, U.P, India
4	Dr. R. R. Sahoo	Efficient Energy Conversion in Harmony with Environment	29 <sup>th</sup> Oct – 02 <sup>nd</sup> Nov, 2018
5	Dr. S.K. Shukla	National Workshop on Technology Development for Grass root Innovators	September 30 <sup>th</sup> - October 01 <sup>st</sup> , 2018
6	Dr. S. P. Tewari	Recent Advances in Casting and Welding	22/02/2019 to 28/02/2019
7	Dr. Pradyumna Ghosh	"Critical Heat Flux and Multiphase Flow"	22 <sup>nd</sup> & 23 <sup>rd</sup> Dec, 2018 IIT(BHU)

# Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Title	Period and Venue
Semina	ars/Symposia/Conferences		
1	Dr. Ajinkya Nandkumar Tanksale	XXII Annual International Conference of the Society of Operations Management (SOM 2018)	December 20 <sup>th</sup> – 22 <sup>nd</sup> , 2018 Indian Institute of Management Kozhikode
2	Dr. Ajinkya Nandkumar Tanksale	BIS-IEC International Conference on Smart City Standardization	10 <sup>th</sup> Dec 2018, The Clarks Hotel, Varanasi
3	Dr. Meghanshu Vashista	9 <sup>th</sup> International conference on Material Processing and Characterization (ICMPC 2019)	8 <sup>th</sup> -10 <sup>th</sup> March 2019 and Department of Mechanical Engineering, Gokaraju Rangaraju Institute of Engineering and Technology (GRIET), Hyderabad, Telangana
4	Dr. Meghanshu Vashista	National Welding Seminar Kochi	13 <sup>th</sup> -15 <sup>th</sup> Dec., 2018 organized by IIW Cochin Branch
5	Dr. Mohd Zaheer Khan Yusufzai	9 <sup>th</sup> International conference on Material Processing & Characterization (ICMPC 2019)	8 <sup>th</sup> -10 <sup>th</sup> March 2019 & Department of Mechanical Engineering, Gokaraju Rangaraju Institute of Engineering and Technology (GRIET), Hyderabad, Telangana
6	Dr. Mohd Zaheer Khan Yusufzai	National Welding Seminar Kochi	13 <sup>th</sup> -15 <sup>th</sup> Dec., 2018 organized by IIW Cochin Branch
7	Dr. A.P.Harsha	Leadership for Academicians Program (LEAP)	25 <sup>th</sup> Feb – 15 <sup>th</sup> March 2019; Jointly by IIT (BHU) with Penn State, USA,



S. No.	Name of Faculty Member	Title	Period and Venue
8	Dr. S.K. Shukla	National Seminar on Technological Advancement in Man-made Appliances of Rural Area (TAMAR	4 <sup>th</sup> -6 <sup>th</sup> January, 2019, Main Workshop, IIT(BHU), Varanasi
9	Dr. S.K. Shukla	BIS-IEC International Conference on "Smart City Standardization"	10 <sup>th</sup> December, 2018 at Hotel Clarks Inn Varanasi.
10	Dr. Santosh Kumar	8 <sup>th</sup> International Conference & Exhibition on 3D printing & additive manufacturing technologies.	SEP, 7 <sup>th</sup> -8 <sup>th</sup> , 2018 AT Bangalore.
11	Dr. Santosh Kumar	2nd Regional workshop (Central region) under PMMMNMTT	April 6 <sup>th</sup> , 2018 and IISER Bhopal,
12	Dr. Santosh Kumar	7TH international & 28th All India Manufacturing Technology, Design & Research Conference	Dec 13 <sup>th</sup> -15 <sup>th</sup> , (2018) and Anna University Channai (India),
13	Dr. S. P. Tewari	International Conference on Science, Engineering and Technology- ICSET'2018	16/12/2018 to 17/12/2018 New York
Meetin	ıgs		
1	Dr. S.K. Shukla	AICTE- EVC Meeting at Varanasi	16th, 17th and 18th March 2019
2	Dr. S.K. Shukla	RDC Meeting at AKTU, Lucknow	16 <sup>th</sup> and 17 <sup>th</sup> April, 2019
3	Dr. Rajesh Kumar	AICTE- EVC Meeting at Bhuvaneshwar	16 <sup>th</sup> , 17 <sup>th</sup> and 18 <sup>th</sup> March 2019
4	Dr. Sandeep Kumar	AICTE- EVC Meeting at Bhuvaneshwar	16 <sup>th</sup> , 17 <sup>th</sup> and 18 <sup>th</sup> March 2019
5	Dr. S. P. Tewari	AICTE- EVC Meeting at Bhuvaneshwar	16 <sup>th</sup> , 17 <sup>th</sup> and 18 <sup>th</sup> March 2019
6	Dr. S.P.Tewari	SCRO-AICTE at Hyderabad	01st April, 2019
7	Dr. S.P.Tewari	EVC Meeting at Tinsukia Polytechnic, Tinsukia(Assam)	04 <sup>th</sup> April,2019
8	Dr. S. P. Tewari	EVC Meeting at Golaghat Engineering College, Golaghat (Assam)	05 <sup>th</sup> April,2019

## **Special lectures delivered by faculty members in other institutions** (From 1st April 2018 to 31st March 2019)

S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
1	Dr. Pradyumna Ghosh	Flow boiling behaviour of nanofluids and nano-textured surfaces	TEQIP program Jadavpur University, Kolkata	Sep,2018
2	Dr. Arnab Sarkar	Wind Energy: Current and Future Perspective	NIT, Patna	21.12.2019
3	Dr. Arnab Sarkar	Wind Power Meteorology: Wind Data Modeling for Wind Resources Assessment	Govt. Engineering College, Banswara, Rajasthan	11.2.2019
4	Dr.Laltu Chandra	Keynote: Solar Thermal System Design and Evaluation	IITRAM Ahmadabad	February 2019



S. No.	Name of faculty Member	lty Topic of Lecture Institution		Date
5	Dr.Laltu Chandra	Invited: Dust Deposition on a Solar Thermal Sub-system	IIT Jodhpur	December 2018
6	Dr.Laltu Chandra	Institute Lecture: Concentrated Solar Thermal System: Some Challenges, Innovations, and Enabling Research & Development	IIT (ISM) Dhanbad	July 2018
7	Dr. Meghanshu Vashista	Latest advancement in material science	SKIT Jaipur	6 feb 2019.
8	Dr. Meghanshu Vashista	Advancement in abrasive machining	SMCET Jaipur	8 feb 2019.
9	Dr. Mohd Zaheer Khan Yusufzai	Advances in Welding:friction stir welding and friction stir processing	IERT, Prayagraj	March 14, 2019
10	Dr. Mohd Zaheer Khan Yusufzai	Advanced Welding Processes	BIT, Sidhri	1st December 2018
11	Dr. Mohd Zaheer Khan Yusufzai	Friction stir surfacing	MMMTU, Gorakhpur	21st December 2018
12	Dr. Mohd Zaheer Khan Yusufzai	Advanced Welding Processes	MNNIT, Allahabad	13 <sup>th</sup> October 2018
13	Dr.Om Prakash Singh	Intellectual Property rights	Aryabhat Knowledge University, Patna	5 <sup>th</sup> June 2018
14	Dr. A.P.Harsha	The prospects of biolubricants as alternatives for industrial applications	Department of Mechanical Engineering, IIT Delhi	25 <sup>th</sup> -29 <sup>th</sup> March 2019
15	Dr. A.P.Harsha	Challenges associated with <i>in vitro</i> testing of biopolymers used in total joint replacements	Department of Mechanical Engineering, BITS, Hyderabad	15 <sup>th</sup> -16 <sup>th</sup> November 2018
16	Dr. S.K. Shukla	Energy and Economics of Biofuels	BBAU, Central University, Lucknow	April 01 and 02, 2019
17	Dr. S.K. Shukla	Two Day Workshop on "Developing Scientific Paper Writing Skills and Research Ethics".	Dr. A.P J. Abdul Kalam Technical University (AKTU) Lucknow	4 <sup>th</sup> and 5th April 2019
18	Dr. S.K. Shukla	Water Purification and Application of Solar Energy" under Royal Society UK Workshop on Q-dot-NMat-2019 workshop.	C-MET, Pune	February 20-21, 2019.
19	Dr. S.K. Shukla	Green Energy Summit	NEDA and PHD CC Lucknow at Hyatt Rgency, Lucknow, UP	7th December, 2018
20	Dr.R.K.Gautam	Tribology: History and Advancements MMMUT, Gorakhpur		20/12/2018
21	Dr.R.K.Gautam	Composites Materials and its Challenges to Machining	Shambhu Nath Institute of Engineering and Technology(SNIET), Prayagraj	07/12/2018
22	Dr.R.K.Gautam	Research Methodology and Recent trends of Research in Mechanical Engineering  MMMUT, Gorakhpur		07/07/2018
23	Dr.R.K.Gautam	Composites Materials and its Machining	MMMUT, Gorakhpur	08/07/2018



S. No.	Name of faculty Member	Topic of Lecture Institution		Date
24	Dr. Santosh Kumar	Additive Manufacturing  Dr. A.P.J. Abdul Kalam  Technical University,  Lucknow, Uttar Pradesh		June 30, 2018
25	Dr. Santosh Kumar	Developments in Digital forming methods: setup, simulation, analysis & experiments		July 16-17, 2018
26	Dr. Santosh Kumar	ar CNC & Robotc Technology Dr. A.P.J. Abdul Kalam Technical University, Lucknow, Uttar Pradesh		June 29, 2018
27	Dr. Santosh Kumar	Advances in Sheet Metal Forming. MITS Gwalior		October 28, 2018
28	Dr. Santosh Kumar	Advances in Forming Processes MNNIT Allahabad		Oct 12-16, 2018
29	Dr. Santosh Kumar	Innovation in Manufacturing IIT (BHU)		September 30 - Oct 1, 2018
30	Dr. U. S. Rao	Mechanical Micro-Machining  United College of Engineering and Research, Naini, Allahabad		03.05.2018
31	Dr. Sandeep Kumar	Wavelets for solution of PDEs	of PDEs IIT (ISM) Dhanbad Oct 9	
32	Dr. Rajesh Kumar	"DoE and Optimization" in an FDP on Instructional Design Delivery System Embedded With Useful/State of the Art Software Tools	JSS Academy of Technical Education, Noida	27 <sup>th</sup> August – 01 <sup>st</sup> September 2018

## Visits abroad by faculty members (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Country Visited	Date of Leaving india	Date of Returning India	Purpose of Visit	Funding from
1	Dr. A.P.Harsha	Germany	15 <sup>th</sup> May 2018	31st July 2018	Guest Scientist	Federal Institute for Materials Research and Testing (BAM), Berlin, Germany
2	Dr. A.P.Harsha	USA	10 <sup>th</sup> March 2019	16 <sup>th</sup> March 2019	Training	MHRD, Govt of India
3	Dr. S. P. Tewari	U.S.A.	13/12/2018	20/12/2018	To present paper in International Conference ICSET-2018	CPDA
4	Dr. Santosh Kumar	NTU Singapore	18/03/2019	22/03/2019	LEAP Training	MHRD, Govt of India

# **Honours and awards** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Details of Award
1	Dr. Arnab Sarkar	Received Certificate of Excellence for delivering expert lecture on "Renewable Energy & Application (REA-2018) from NIT Patna 2018
2	Dr. Arnab Sarkar	Session Chair in "Advances in Power Generation from Renewable Energy Resources (APGRES-2019) held during February, 2019 at Govt. Engineering College, Banswara, Rajasthan



S. No.	Name of Faculty Member	Details of Award
3	Dr. Arnab Sarkar	Guest of Honor in APGRES-2019held during February, 2019 at Govt. Engineering College, Banswara, Rajasthan
4	Dr. Arnab Sarkar	Institute Post Doctoral Scholarship at IIT, Kharagpur
5	Dr. Laltu Chandra	Organizing committee member of FMFP 2019, India
6	Dr. Laltu Chandra	Scientific committee member of EuroSun 2018, Switzerland
7	Dr. S.K. Shukla	Dronacharya Award on 05/09/2018 at Noida
8	Dr. Santosh Kumar	Springer Best Paper Award at the 7th International and 28th All India Manufacturing Technology, Design and Research Conference 2018 (AIMTDR 2018), December 13–15, 2018, Chennai, India [paper-Pull out Forming: Experiments and Process Simulation]
9	Dr. Santosh Kumar	Awarded Certificate of Merit for the Invited Talk 'Advancements in Manufacturing Technologies: Mechatronics, Automation and Robotics, During June 26-30, 2018 at Dr. A.P.J. Abdul Kalam Technical University, Lucknow, Uttar Pradesh (ME Deptt, SRMSCET, UNNAO).
10	Dr. Santosh Kumar	Awarded certificate of Reviewing since 2019 for the 'Journal of Optics & Laser Technology'. (Feb 2019)
11	Dr. S. P. Tewari	Best paper award medal in ICSET-2018
12	Dr. Arnab Sarkar	Certificate for Outstanding Contribution in Reviewing was awarded by Energy Journal (Elsevier)

## Fellowships of academic and professional societies (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Details of Fellowship
1	Dr. Debashis Khan	Member (ASME)
2	Dr. U. S. Rao	Fellow, Institution of Engineers, India

## **Books, monographs authored/co-authored** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Author/ Co- Author	Title	Publisher
1	Dr. P.Ghosh	Theory and Applications of Heat Transfer in Humans Edited by Devashish Shrivastava	John Willey UK,
2	Dr. S.K. Shukla,	Alternate Fuels for IC Engine	Springer International Publishing AG, part of Springer Nature 2018
			J. P. Davim (ed.), Introduction to Mechanical Engineering, Materials Forming,
			Machining and Tribology, https://doi.org/10.1007/978-3-319-78488-5_6
3	Dr. S.K. Shukla,	Solar Thermal Energy Storage	Encyclopedia of Energy Engineering and Technology Copyright © 2018 by Taylor & Francis.
4	Dr. S.K. Shukla,	Sustainable Biofuels for Automotive Application	Encyclopedia of Renewable and Sustainable Materials doi:10.1016/B978-0-12-803581-8.11115-4, @2018 by Elsevier Inc.



# **Editorial boards of journals** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1	Dr.Ajinkya Nandkumar Tanksale	Member	International Journal of Industrial Engineering: Theory, Applications and Practice
2	Dr. Pradyumna Ghosh	Associate (Lead) Editor/Editorial Board Member for Multiphase Science and Technology	Multiphase Science & Technology, Beggel House
3	Dr. Jahar Sarkar	Member	Energy Science and Technology
4	Dr. Meghanshu Vashista	Member	International Journal of Production Engineering
5	Dr. Meghanshu Vashista	Member	Journal of Advanced Research in Mechanical Engineering and Technology
6	Dr. Mohd Zaheer Khan Yusufzai	Member	Journal of Advanced Research in Mechanical Engineering and Technology
7	Dr. S.P. Tewari	Editorial board Member	International Journal of Research Innovations in Mechanical Engineering(IJRIME)
8	Dr. S.P. Tewari	Editorial board Member	International Journal on Current Research in Mining, Material & Metallurgical Engineering
9	Dr. S.P. Tewari	Editorial board Member	International Journal of Engineering Research in Mechanical and Civil Engineering (IJERMCE)

# 3. Design and Development Activities

New facilities added (From 1st April 2018 to 31st March 2019)

S. No.	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)
1	IR Camera	4.5
2	Hot Wire Anemometer	1.0
3	Blower	2.0
4	Wind Tunnel for Visualisation of Streamlines	12.9
5	Workstation (20 Cores)	4.5
6	Pulsed GTAW	6.0
7	Computational lab (high end workstations with 20 cores)	18.0
8	Planar Laser Induced Flourescence (PLIF)	17.0
9	Infrared camera	35.0
10	4 cylinder 4 stroke diesel engine with variable speed	6.0
11	ORC Setup	5.0
12	Work station (HpZ238)	1.0
13	3 axis force dynamometer	1.0
14	Wax injector	0.4
15	Surface Roughness Measuring Device	15.0



# Patents filed (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Title of Patent
1	Dr. Om Prakash Singh	Curved Solar Air Heater
2	Dr. Om Prakash Singh	Bell mouth Solar air Heater

# 5. Research and Consultancy

# **Sponsored research projects** (Ongoing only)

S. No.	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co- ordinator
1	Characterisation and validation of Schilieren technique for capturing shock wave	March, 2017- August, 2019	DRDO	17.84	Dr.Amitesh Kumar
2	Experimental study of turbulent jet	April, 2018 onwards	IIT(BHU), Seed Grant	10.00	Dr.Amitesh Kumar
3	Effective necrosis of skin tumour using cryospray	June, 2018 onwards	IIT(BHU), DIC	5.00	Dr.Amitesh Kumar
4	Development of Eco-friendly Heat Pump Dryer for Bio Applications	2017-ongoing	DIC - BHU & IIT (BHU) Varanasi	3.00	Dr. Jahar Sarkar
5	Development of an intelligent evaporative cooler for composite climate	2018-ongoing	Department of Science & Technology, New Delhi	9.00	Dr. Jahar Sarkar
6	Photonic radioactive cooler for passive sub-ambient cooling	2019-ongoing	Science and Engineering Research Board, New Delhi	42.00	Dr. Jahar Sarkar
7	Investigation of double diffusive finger convection	2016-2019	IIT (BHU) (seed grant)	10 .00	Dr.O.P.Singh
8	Waste heat recovery systems in automobiles using TEG and PCM	May 2018 – May 2020	DIC	4 .00	Dr.R.R.Sahoo
9	"Development of Ti alloy based composites by mechanical alloying and stirrer casting route for dental applications"	2018-2021	DST, SERB	50.21	Dr.R.K.Gautam
10	Development of Rubber based Sheet hydro forming Setup	2016-19	DRDL, Hyderabad, (INDIA)	9.84	Dr. Santosh Kumar
11	Technology Development and fabrication of Tabletop CNC Machine for Micro-tube hydro forming with process optimization	2013-19	BRNS, Mumbai	48.00	Dr. Santosh Kumar
12	Setting of 'Teaching Learning Centre (Technical) under PMMMNMTT Scheme	2016-20	Min. of education, MHRD	760.00	Dr. Santosh Kumar
13	Manufacturing of 3D concepts using additive Manufacturing	2017-19	INDIVIDUAL FACILTY PROJECT (INSTITUTE)	15.00	Dr. Santosh Kumar



S. No.	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co- ordinator
14	Use of flow visualization and thermographic tools for thermal and biomedical applications	July, 2018 onwards	R&D Lab Grant, IIT(BHU)	52.00	Dr.P.Shukla
15	Wind Simulation for Fatigue Failure Analysis and Design Wind Load Specification for High-rise Buildings and Slender Structures in India	2018-20	Individual Faculty Grant, IIT (BHU)	14.95	Dr. Arnab Sarkar

### **Industrial consultancy projects** (Ongoing only)

S. No.	Name of Faculty Member	Title	Industry	Amount (in lakhs of Rs.)
1	Dr. Pradyumna Ghosh, Dr. M.Z.Khan	Vetting of pumping systems mechanical components	UP Jal Nigam	8.000
2	Dr. Om Prakash Singh	CFD Modeling on Effect of Wall Breakage of the Water Storage Tank of Godda Thermal Power Plant	Floodkon Consultant Ltd.	5.175

### Faculty members' participation with other universities under MoUs (Ongoing only)

- 1. Udayana University, Indonesia (Prof.S.K.Shukla)
- 2. NDA with NiTech, Japan (Prof.S.K.Shukla)

### **Research Publications** (From 1st April 2018 to 31st March 2019)

S. No.	Papers Published/ Presented	No.
1	Papers Published in Refereed National Journals	3
2	Papers Published in Refereed International Journals	96
3	Papers Presented in National Conferences	2
4	Presented in International Conferences	21

### **Refereed International Journals** (From 1st April 2018 to 31st March 2019)

- 1. Nirupama Patra, Pradyumna Ghosh, R.S. Singh, Arun K.Nayak; (2019) Flow visualization in dilute oxide based nanofluid boiling, International Journal of Heat and Mass Transfer, 135: 331–344.
- 2. Soumoyadeep Pal,Sumit Roy,Pradyumna Ghosh et.al (2019)A Novel Method for Permeability Estimation from Micro-tomographic Images, Transport in Porous Media, 127(1): 171–190.
- 3. A Bhattad, J Sarkar, P Ghosh (2019)Energetic and Exergetic Performances of Plate Heat Exchanger Using Brine-Based Hybrid Nanofluid for Milk Chilling Application, Heat Transfer Engineering, <a href="https://doi.org/10.1080/01457632.2018.1546770">doi.org/10.1080/01457632.2018.1546770</a>.
- 4. P Goel, AK Nayak, P Ghosh, JB Joshi (2018)Experimental study of bubble departure characteristics in forced convective subcooled nucleate boiling, Experimental Heat Transfer, 31(3): 194–218.
- 5. A Bhattad, J Sarkar, P Ghosh (2018)Energy-Economic Analysis of Plate Evaporator using Brine-based Hybrid Nanofluids as Secondary Refrigerant, International Journal of Air-Conditioning and Refrigeration, 26(1), doi. org/10.1142/S2010132518500037.



- 6. A Bhattad, J Sarkar, P Ghosh (2018)Discrete phase numerical model and experimental study of hybrid nanofluid heat transfer and pressure drop in plate heat exchanger, International Communications in Heat and Mass Transfer, 91:262–273.
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- 11. Kumari, C, Kumar, A, Sarangi, S K, and Thirugnanam, A, (2019) Effect of adjuvant on cutaneous cryotherapy, Heat and Mass Transfer, 55:247-260
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- 13. Ramajayam, K K, Kumar, A, Sarangi, S K, and Thirugnanam, A, (2018) Adjuvant-perfluorocarbon based approach for improving the effectiveness of cryosurgery in gel phantoms, International Journal of Thermal Sciences, 132:296-308
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- 15. Kumari, C, Kumar, A, Sarangi, S K, and Thirugnanam, A, (2018) An experimental and numerical study on nodular gel phantom, Cryoletters, 39:137-146.
- 16. Ramajayam, K K, Kumar, A, Kumari, C, Sarangi, S K, and Thirugnanam, A, (2018) A new approach to improve the efficacy of cryosurgery in gel phantoms, Cryobiology, 80:160-161.
- 17. Singh, R. K., Sarkar, A., & Chakraborty, J. P. (2018). Influence of Alternate Fuels on the Performance and Emission from Internal Combustion Engines and Soot Particle Collection Using Thermophoretic Sampler: A Comprehensive Review. Waste and Biomass Valorization, 1-23.
- 18. Gugliani, G. K., Sarkar, A., Ley, C., & Mandal, S. (2018). New methods to assess wind resources in terms of wind speed, load, power and direction. Renewable energy, 129:168-182.
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- 88. N K Dubey, A Roushan, U S Rao, K Sandeep and K Patra, (2018) "Tool Condition Monitoring in Micro-End Milling using wavelets" IOP Conference Series: Materials Science and Engineering 346 (2018) doi:10.1088/1757-899X/346/1/012045.
- 89. K. Sandeep, U. S. Rao and R. Balasubramaniam, (2018) "Tool wear compensation scheme for DTM" IOP Conference Series: Materials Science and Engineering 346 (2018) doi:10.1088/1757-899X/346/1/012046
- 90. A Sharma, Sandeep Kumar, Amit Tyagi (2018) Selection of optimal noise filtering technique for guided waves in diagnosis of structural cracks. International Journal of Structural Integrity 9(2): 168 184. ISSN:1757-9864.
- 91. A Sharma, Sandeep Kumar, Amit Tyagi (2018) Noise filtering techniques for Lamb waves in structural health monitoring. Multidiscipline Modeling in Materials and Structures 14(4): 676 694. ISSN: 1573-6105.
- 92. Abhishek Kumar, Santosh Kumar and Dasharath Ram, Comparative Numerical and Experimental Investigation of Conventional Deep Drawing and Rubber Assisted Forming Cup Made up of Stainless Steel304, (2018), International Journal of Mechanical and Production Engineering Research and Development (IJMPERD) ISSN (P): 2249-6890; ISSN (E): 2249-8001 8(3): 743-754.
- 93. Abhishek Kumar, Santosh Kumar and Dasharath Ram, Comparative formability study of Natural rubber, B-nitrile rubber and silicon rubber in rubber assisted forming of hemispherical copper cup, (2018), International Journal of Mechanical and Production Engineering Research and Development (IJMPERD) ISSN (P): 8:269-278.
- 94. Anil Kumar, Santosh Kumar & N.K Mukhopadhyay, (2018) Introduction to Magnesium Alloy Processing Technology and Development of Low-Cost Stir Casting Process for Magnesium Alloy and Its Composites, Journal of Magnesium and Alloys (Ref.No.: JMA-D-17-00085R1).



- 95. Kumar Y., & Kumar S., (2018). "Analysis of pressure assisted incremental sheet forming process through simulation", International Journal of Mechanical and Production Engineering Research and Development (IJMPERD), ISSN (Print): 2249-6890; ISSN (Online): 2249-8001, 8 (3): 921-932.
- 96. Kumar Y., & Kumar S., (2018). "Incremental Sheet Forming process through simulation", International Journal of Mechanical and Production Engineering Research and Development (IJMPERD), ISSN (Print): 2249-6890; ISSN (Online): 2249-8001, 8 (3):145-152.

### **Refereed National Journal** (From 1st April 2018 to 31st March 2019)

- 1. Sarkar, A., & Mondal, S. S. (2018). External and Internal Irreversibility. Resonance, 23(5): 535-544.
- 2. Saurabh Pathak, Approva Jha and S.K.Shukla, (2018), Second Law Analysis of Small Scale Organic Rankine Cycle, IJEP, 38(8):653-658.
- 3. Jeewan V Tirkey, Ashish Patel , Shailendra K Shukla\*and , Radhey Lal , Energy and Cost Estimation of Biodiesel Production from Neem feedstock-a parametric study accepted for publication in Indian Journal of Environmental Protection, (IJEP).

### **Proceedings of International Conferences** (From 1st April 2018 to 31st March 2019)

[ <u>Example</u>: Vincy Verghese, Shankar C. Subramanian and Lelitha Vanajakshi. 2013. Model based traffic control in Indian conditions. Procedia-Social and Behavioral Sciences 104: 516–525, 2nd Conference of Transportation Research Group of India (CTRG), Agra, India, December 2013.]

- 1. S. Kumar and A. Kumar. 2018. Computational study of fluid flow characteristics of a three dimensional offset jet, 7th International and 45th National Conference on Fluid Mechanics and Fluid Power, IIT Mumbai, India, 10th -12th December 2018.
- 2. S.Kumar, J.Sarkar and A.Kumar. 2018. Numerical analysis of a novel dual mode evaporative cooler, 7th International and 45th National Conference on Fluid Mechanics and Fluid Power, IIT Mumbai, India, 10th -12th December 2018.
- 3. V K Sharma, and A.Kumar. 2018. Numerical study on the cryosurgery of gel mimicking tissue phantoms, 7th International and 45th National Conference on Fluid Mechanics and Fluid Power, IIT Mumbai, India, 10th -12th December 2018.
- 4. T P Singh, A.Kumar and A K Satapathy, 2018. Study of fluid flow behaviour of two dimensional incompressible turbulent dual jet impinging on a wavy surface, 7th International and 45th National Conference on Fluid Mechanics and Fluid Power, IIT Mumbai, India, 10th -12th December 2018.
- 5. R.K.Singh, A.Sarkar and J.P. Chakraborty .2018. Effect of torrefaction on the physicochemical properties of pigeon pea stalk (cajanus cajan). TCS, Auburn University, Alabama, USA.
- 6. A. Jaiswal, C.Samuel & C. C.Mishra (2018). Time-dependent traffic route selection for unsignalized junctions in tandem queueing network. Proceedings of the International Conference on Industrial Engineering and Operations Management Pretoria / Johannesburg, South Africa, October 29 November 1, 2018 [Scopus Indexed Proceedings]
- 7. A. Jaiswal, M. Kumar, C. Samuel & V.M. Kadabgaon. (2018). Normality Distribution Analysis of Air Pollutants' Seasonal Concentrations in Varanasi. Proceedings of XXII Annual International Conference of the Society of Operations Management (SOM 2018), IIM Khozhikode, December 2018.
- 8. M. Kumar, Jaiswal, A. Jaiswal, C. Samuel. (2018). Use of the green building philosophy from the ancient methodologies with some novel features. Proceedings of XXII Annual International Conference of the Society of Operations Management (SOM 2018), IIM Khozhikode, December 2018.
- 9. Y. Mittal, P. Kartheek and Debashis Khan. (2018) Effect of Single Overload on Fatigue Crack Growth in



- Plastically Compressible Hardening Solid, Proceedings of the 63<sup>rd</sup> Congress of the Indian Society of Theoretical and Applied Mechanics (An International Conference) ed. Pradhan, B, College of Engineering, Andhra University, Bangalore, India. pp. 191-197.
- 10. I.Alam, Debashis Khan and S.Kumar (2019) Effect of Crack Tip Shape on the Deformation and Near Tip Fields in Plastically Compressible Solid, INCAM 2019 Conference, IISc Bangalore, 3-5 July 2019.
- 11. S Kashyap, J Sarkar, A. Kumar Numerical analysis of a novel dual mode evaporative cooler (FMFP2018–700), 7th International & 45th National Conference on Fluid Mechanics & Fluid Power, IIT Bombay, Mumbai, India, December 10-12, 2018.
- 12. V. K. Upadhyay, L. Chandra (2018), Isolated Dust Particle Transport in a Straight Heated Absorber Pore with an Asymptotically Improved Developing Laminar Velocity Profile, 7<sup>th</sup> International and 45<sup>th</sup> National FMFP Conference 2018, IIT Bombay. (Invited among select paper for publication with JEES)
- 13. Akash Awale, Atul Shrivastava, Ashish Srivastava, Meghanshu Vashista, M.Z. Khan Yusufzai, 2018. "Surface integrity characterization of Hardened H13 die steel in minimum quantity lubrication grinding with vegetable oil" International Conference on Mechanical Engineering and Allied Sciences organized by School of Mechanical Engineering, Shri Mata Vaishno Devi University, Katra, J&K, India, 14th-15th Sept 2018
- 14. Anubhav Singh, Avinash Ravi Raja, Mohd Zaheer Khan Yusufzai, Meghanshu Vashista, 2019."Magnetic response of mild steel at various analyzing parameters", 9<sup>th</sup> International conference on Material Processing and Characterization (ICMPC 2019), conducted by Department of Mechanical Engineering, Gokaraju Rangaraju Institute of Engineering and Technology (GRIET), Hyderabad, Telangana during 8-10 March 2019
- 15. Pai Namit Narasimhan, Shivansh Mehrotra, Avinash Ravi Raja, Meghanshu Vashista, Mohd Zaheer Khan Yusufzai, 2019. "Development of hybrid welding processes incorporating GMAW and SMAW" 9<sup>th</sup> International conference on Material Processing and Characterization (ICMPC 2019), conducted by Department of Mechanical Engineering, Gokaraju Rangaraju Institute of Engineering and Technology (GRIET), Hyderabad, Telangana during 8-10 March 2019
- 16. Sanjay Kr. Gupta, Shivansh Mehrotra, Avinash Ravi Raja, Meghanshu Vashista, Mohd Zaheer Khan Yusufzai 2019. "Effect of welding speed on weld bead geometry and percentage dilution in gas metal arc welding of SS409L" 9th International conference on Material Processing and Characterization (ICMPC 2019), conducted by Department of Mechanical Engineering, Gokaraju Rangaraju Institute of Engineering and Technology (GRIET), Hyderabad, Telangana during 8-10 March 2019
- 17. Arun Chand, O. P. Singh 2018. Effect of viscosity stratification on double-diffusive salt fingers, , Fluid Mechanics and Fluid Power (FMFP) Conf., IIT Bombay, 2018.
- 18. Ajeet P. Singh, O. P. Singh , 2018.Ribs optimization of a thermally efficient curved solar air heater, , Fluid Mechanics and Fluid Power (FMFP) Conf., IIT Bombay, 2018.
- 19. Arun Chand, O. P. Singh, 2018.Effect of dust on efficiency of solar PV modules for off grid purpose: A case study of Varanasi, , Int. J. Green Energy (Springer, submitted) 2018).
- 20. Ajit Kumar Jha, Prashant Shukla and Pradyumna Ghosh (2018). Experimental Investigation of Free Convection Boundary Layer Over a Vertical Flat Plate by PIV.Proceedings of the 7th International and 45th National Conference on Fluid Mechanics and Fluid Power (FMFP), IIT Bombay, Mumbai, India, December 10-12, 2018
- 21. Ajeet Kumar\*, J.V. Tirkey, Tarachand Kumar Maurya and S.K. Shukla, 2017.Prediction of Engine Performance and Emissions Characteristics of CI Engine with the Variation of Stroke/Bore Ratio, Proceedings of International conference on Advances in Thermal Systems, Materials and Design Engineering (ATSMDE2017), VJTI Mumbai, December 21-22, 2017

### **Proceedings of National Conferences** (From 1st April 2018 to 31st March 2019)

1. Pawani Verma, and S. K. Shukla, (2019) Performance evaluation of improved cook stove using briquette as fuel AIP Conference Proceedings 2091, 020001 (2019); National Conference on Renewable & Alternate Energy



(ICRAE-2018) ASTU Guwahati, Assam4th -6th December, 2018.

2. Arun Kumar and S.K.Shukla, (2019) Thermal Performance Analysis of Nano Enhanced Organic Phase Change Material for Solar Thermal Energy Storage Application National Conference On Emerging Materials And Nanotechnology (Eman-2019) Savitribai Phule Pune University, Pune 7January 18-19, 2019.

### Brief Details of 5 Articles from the Department/School with maximum no. of Citations in last 5 years

- 1. Sarkar J, Ghosh P, Adil A. A Review on hybrid nanofluids: Recent research, development and applications, Renewable and Sustainable Energy Reviews, 2015; 43: 164-177. (Citations in last 5 years = 225, Total citations = 225)
- 2. Sarkar J, A critical review on convective heat transfer correlations of nanofluids, Renewable and Sustainable Energy Reviews, 2011; 15(6): 3271-3277. (Citations in last 5 years = 171, Total citations = 212)
- 3. Sarkar J, Bhattacharyya S, Ramgopal M. Optimization of a transcritical CO<sub>2</sub> heat pump cycle for simultaneous cooling and heating applications. International Journal of Refrigeration 2004; 27(8); 830-838. (Citations in last 5 years = 151, Total citations = 281)
- 4. Sarkar J. Ejector Enhanced Vapor Compression Refrigeration and Heat Pump Systems A Review, Renewable and Sustainable Energy Reviews, 2012; 16(9): 6647-6659. (Citations in last 5 years = 137, Total citations = 144)
- 5. Sarkar J. Second law analysis of supercritical CO<sub>2</sub> recompression Brayton cycle, Energy, 2009; 34(9): 1172-1178. (Citations in last 5 years = 98, Total citations = 114)

### **Distinguished Visitors** (From 1st April 2018 to 31st March 2019)

S. No.	Name of the visitor & Designation	Date of Visit	Purpose of Visit
1	Dr. Krishna Mohan Pillai, UWM, USA	3 months (Oct-Dec), 2018	Adjunct Professor during that period
2	Dr. Hari M. Upadhyay, Professor, LSBU UK		Deliver a special lecture organized by the international office for students.

#### 6. Other activities

International collaboration/achievements by the Department/School (From 1st April 2018 to 31st March 2019)

Dr. Arnab Sarkar has collaborated with Prof. Christophe Ley, Ghent University, Belgium and out of this collaboration, one joint article has been published in Renewable Energy.

- 1. MOU with Udayana University (Coordinator: Dr. S.K.Shukla)
- 2. NDA with NiTech, Japan (Coordinator: Dr. S.K.Shukla)

### Indian Faculty visits in the Department/School/School (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Dr. N. Viswanadham, IIS Bangalore	Delivering a lecture on "Transparent, Trade Efficient Supply Chain Network Design using New Technologies"	1 November 2018, Deptt. of Mech.Engg., IIT(BHU).

### Foreign Faculty Visits in the Department/School/School (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Dr. Vitthal Prabhu Penn State University, USA	Delivering a lecture on "Energy aware Manufacturing and Research and Postgraduate opportunities at Penn State University"	Thursday, January 17, 2019 G-7



### Foreign Students Visits in the Department/School/School (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue

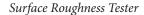
### Any other Information

Dr. Arnab Sarkar has been nominated as the Convener of Indian Standard IS 15498: 2004 for improving the cyclonic resistance of low-rise houses and other building/structures for CED 57 of Bureau of Indian Standards.

Dr. Rajesh Kumar has been invited as the Chief Guest and addressed the Engineers of Vindhyachal NTPC, Vindhyanagar, Singrauli on Engineers Day 15th September 2018.

### Glimpses of Laboratory/ Equipments in the Department/School







Wind Tunnel



Four Ball Tester



# 13. Department of Metallurgical Engineering

Year of Establishment: 1923

**Head of the Department:** Prof. N.K. Mukhopadhyay (w.e.f. November 2017)

### 1. Brief Introduction of the Department :

The Department of Metallurgical Engineering, established in the year 1923 has pioneered metallurgical education and research in the country. The far-sighted vision of Mahamana Pandit Madan Mohan Malaviyaji has helped this Department to attain such a distinction. This is now a part of IIT (BHU). The UG programme began in the year 1923 itself and the first ever undergraduate and doctoral degrees in metallurgy in the country were awarded by this Department in the years 1927 and 1955 respectively. This is also one of the first two Departments in the country to confer a postgraduate degree in metallurgy in the year 1959. The undergraduate programme was set on a firm foundation by the first Head of the Department, Professor Nagardas Purushottam Gandhi. The postgraduate programme was nurtured by the second Head of the Department, Professor Daya Swarup. Professor Tanjore Ramachandra Anantharaman, the third Head of the Department, established a fine research school of metallurgy, firmly rooted in exemplary traditions and ensured all-round growth and high profile image of the Department. Subsequently, illustrious successive Heads of the Department have continued to do their utmost to enhance the levels of excellence that the Department is known for. The Department celebrated its Golden Jubilee in the year 1973, Diamond Jubilee in 1983 and Platinum Jubilee in the year 1998 in a befitting manner.

The Department of Metallurgical Engineering has so far produced 2626 graduates, 531 postgraduates (including M.Tech dual degree) and 189 Ph.D. degree holders. The first one is a record for any Metallurgy Department in the country. The outstanding research contributions of the Department culminated in its recognition as a Centre of Advanced Study (CAS) in Metallurgy by the UGC in 1980, the first-ever Engineering Department to be so recognized in the country and the first one in our University. The Department is also recognized as a Centre for Quality Improvement Programme of MHRD/AICTE from the year 1981. The Department has received special assistance under the COSIST programmes of UGC and also as a National Electron Microscopy Facility (NELMIF) from DST in 1982. The Department has a unique distinction of receiving special assistance under CAS for four consecutive phases. The Ministry of Steel, Govt. of India approved setting up Advanced Research Centre for Iron and Steel, in the Department in project mode (2016-2021). Ministry of Railways, Govt. of India has also sanctioned Rs. 5 Crore for setting up Malaviya Chair for Railways Technology with Department as its nodal centre.

Members of the staff, research scholars and students have won a very large number of awards and distinctions in recognition of their outstanding contributions. These include Medals, Prizes, Awards and Fellowships from many prestigious national and international professional societies and other organizations. Some of the above recognitions include to John Taylor Gold Medal, Henry C. Sorby Award, Henry Marion Howe Medal, Alexander von Humboldt Fellowships, Al Kharazmi Award, S.S. Bhatnagar Prizes of CSIR, S.S. Bhatnagar Medal of INSA, Platinum Medal, Tata Gold Medal and Prizes, G.D. Birla Award, National Metallurgists' Day Awards of IIM, MRSI Medals, Young Metallurgists' Awards, INSA Medals for Young Scientists, ISCA Young Scientist Awards, Young Engineer Award of IE(I), Dr. R.H. Kulkarni Memorial Fellowships, Prof C.N.R. Rao Award, ASM-IIM visiting lectureship award, besides several best paper Awards. The faculty members have the distinction of receiving Fellowships of various professional societies such as Indian National Science Academy (INSA), International Academy of Sciences (IASc), The National Academy of Sciences, India (NASI), The Indian National Academy of Engineering (INAE), Asia Pacific Academy of Materials (APAM), The Indian Institute of Metals (IIM), The Institution of Engineers India-IE(I), The Electron Microscope Society of India (EMSI), West Bengal Academy of Science and Technology (AScT).



The current faculty strength consists of 8 Professors, 8 Associate Professors and 3 Assistant Professors. In addition, we continue to have the services of Prof. S. Lele as Visiting Faculty and Distinguished Professor, Prof. S.N. Ojha and Prof. G.V.S Sastry, as Institute Professor. Prof. Vakil Singh and Prof. T.R. Mankhand are continuing their services as Emeritus Faculty. Prof. S.N. Tiwari and Prof. A.K. Ghose have been kind enough to engage the classes of our students in this session. Shri Gangeshwar Singh from SAIL is continuing his services as Visiting Faculty since 2015.

### Major areas of Research

- 1. Microstructural, Structural and Chemical Characterization
- 2. Mechanical Behavior, Deformation Processing and Failure Analysis
- 3. Phase Equilibria and Phase Transformation
- 4. Non-Equilibrium Processing of Advanced Materials
- 5. Ultra-Fine Grained and Nano-Structured Material
- 6. Metallurgical and E-Waste Utilization
- 7. Design and Development of Advanced Steels
- 8. Tribology and Surface Engineering
- 9. Thermodynamics and Kinetics of Metallurgical Processes
- 10. Advanced Structural and Functional Materials

### Area of the Department/School (in square meters):

#### Infrastructure

S. No.	Particulars	Number
1	No. of Classrooms	04
2	No. of Lecture Halls	03
3	No. of Laboratory	10 labs+1 workshop + 1 Centre
4	No. of Computers available for students in the Department/School/ School	40
5	Conference Hall	01

### Unique Achievement / Preposition of the Department/School

The Department of Metallurgical Engineering has so far produced 2626 graduates, 531 postgraduates (including M.Tech dual degree) and 189 Ph.D. degree holders. The first one is a record for any Metallurgy Department in the country. The outstanding research contributions of the Department culminated in its recognition as a Centre of Advanced Study (CAS) in Metallurgy by the UGC in 1980, the first-ever Engineering Department to be so recognized in the country and the first one in our University. The Department is also recognized as a Centre for Quality Improvement Programme of MHRD/AICTE from the year 1981. The Department has received special assistance under the COSIST programmes of UGC and also as a National Electron Microscopy Facility (NELMIF) from DST in 1982. The Department has a unique distinction of receiving special assistance under CAS for four consecutive phases. The Ministry of Steel, Govt. of India approved setting up Advanced Research Centre for Iron and Steel, in the Department in project mode (2016-2021). Ministry of Railways, Govt. of India has also sanctioned Rs. 5 Crore for setting up Malaviya Chair for Railways Technology with Department as its nodal centre.

Members of the staff, research scholars and students have won a very large number of awards and distinctions in recognition of their outstanding contributions. These include Medals, Prizes, Awards and Fellowships from many prestigious national and international professional societies and other organizations. Some of the above recognitions



include to John Taylor Gold Medal, Henry C. Sorby Award, Henry Marion Howe Medal, Alexander von Humboldt Fellowships, Al Kharazmi Award, S.S. Bhatnagar Prizes of CSIR, S.S. Bhatnagar Medal of INSA, Platinum Medal, Tata Gold Medal and Prizes, G.D. Birla Award, National Metallurgists' Day Awards of IIM, MRSI Medals, Young Metallurgists' Awards, INSA Medals for Young Scientists, ISCA Young Scientist Awards, Young Engineer Award of IE(I), Dr. R.H. Kulkarni Memorial Fellowships, Prof C.N.R. Rao Award, ASM-IIM visiting lectureship award, besides several best paper Awards. The faculty members have the distinction of receiving Fellowships of various professional societies such as Indian National Science Academy (INSA), International Academy of Sciences (IASc), The National Academy of Sciences, India (NASI), The Indian National Academy of Engineering (INAE), Asia Pacific Academy of Materials (APAM), The Indian Institute of Metals (IIM), The Institution of Engineers India-IE(I), The Electron Microscope Society of India (EMSI), West Bengal Academy of Science and Technology (AScT).

### 2. Academic Programmes offered

New Courses Introduced (From 1st April 2018 to 31st March 2019): NIL

S. No.	Course Code	Course name	Course credit	

### **Students on Roll** (From 1st April 2018 to 31st March 2019)

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1.	B. Tech/B. Pharm	66	60	59	55	
2.	Dual Degree	16	21	18	17	20
3.	M. Tech/ M.Pharm	35	13			
4.	Ph. D (Under Institute Fellowship)	14	15	8	9	9
5.	Ph. D (Under Project Fellowship)					
6.	Ph. D (Under Sponsored Category)	Nil	Nil	Nil	Nil	Nil

Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
ÌNDIA					
1	Mr. Subham Kumar Shaw	16141007	ICMAGMA-2018	9-13 Dec. 2018 Bhubaneswar	IIT (BHU)
2	Mr. Asnit Gangwar	15141502	ICMAGMA-2018	9-13 Dec. 2018 Bhubaneswar	IIT (BHU)
3	Ms. Nandini Singh	13141501	EMSI-2018	18-20 July, 2018, Bhubaneswar	IIT (BHU)
4	Mr. Ankit Singh	15141001	EMSI-2018	18-20 July, 2018, Bhubaneswar	IIT (BHU)
5	Mr. Avnish Singh Pal	15141503	EMSI-2018	18-20 July, 2018, Bhuvneshwar	IIT (BHU)
6	Mr. V. Shivam	15141001	EMSI-2018	18-20 July, 2018, Bhubaneswar	IIT (BHU)



S. No.	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
7	Mr. Y. Shadangi	15141503	EMSI-2018	18-20 July, 2018, Bhubaneswar	IIT (BHU)
8	Mr. Aman Kumar Lal Das	16141001	EMSI-2018	18-20 JULY, 2018, Bhubaneswar	IIT (BHU)
9	Mr. Mukesh Raushan Kumar	13141003	ICCMMEMS-2018	15-17 March, 2018 Punjab	IIT (BHU)
10	Mr. Divyanshu Gautam	16144007	Materials for Energy Conservation and Storage	18-20 Oct., 2018 BHU	IIT (BHU)
11	Mr. Vatsal Jain	16145060	Materials for Energy Conservation and Storage	18-20 Oct., 2018 BHU	IIT (BHU)
12	Mr. Asnit Gangwar	15141502	ICFNM-2019	23-25 Feb, 2019 BHU	IIT (BHU)
13	Mr. Subham Kumar Shaw	16141007	ICFNM-2019	23-25 Feb, 2019 BHU	IIT (BHU)
14	Ms. Monika Gautam	15141504	NMD ATM-2018	14-16 Nov., 2018 Kolkata	IIT (BHU)
15	Mr. Nitesh Kr. Sinha	17141007	NMD ATM-2018	14-16 Nov., 2018 Kolkata	IIT (BHU)
16	Mr. Vineet Kumar	17141013	NMD ATM-2018	14-16 Nov., 2018 kolkata	IIT (BHU)
17	Mr. Shanker Kumar	17141011	NMD ATM-2018	14-16 Nov., 2018 Kolkata	IIT (BHU)
18	Mr. Shanker Kumar	17141011	Workshop on Atom Probe Tomography at on	8-9 March 2019 Chennai	IIT (BHU)
19	Mr. Vinay Kumar Rai	16141008	ICMPC-2019	8-10 March, 2019 Hyderabad	IIT (BHU)
20	Mr. Vikrant Singh	17142021	ICMPC-2019	8-10 March, 2019 Hyderabad	IIT (BHU)
21	Mr. Mukesh Raushan Kumar	13141003	ICMPC-2019	8-10 March, 2019 Hyderabad	IIT (BHU)
22	Mr. Ankitendran Mishra	15141501	ICAMPS-2018	25-27 October, 2018, Kerala	IIT (BHU)
ABROA	AD .				
1	Mr. Vikas Shivam	15141001	ISMANAM 2018	2-7 July, 2018 Rome, Italy	IIT (BHU)
2	Mr. Y. Shadangi	15141503	ISMANAM 2018	2-7 July, 2018 Rome, Italy	IIT (BHU)
3	Mr. Ankit Singh	15141001	IMC-19, 2018	9-14 Sept, 2018 Sydney, Australia	IIT (BHU)
4	Mr. Avnish Singh Pal	15141503	IMC-19, 2018	9-14 Sept, 2018 Sydney, Australia	IIT (BHU)



Names of students/scholars who got prizes and awards outside the Institute (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of Prize	Date & Venue	Prize awarded by
1	Manish Kumar Singh		First prize for poster presentation in EMSI-2018	July 2018 (Bhubaneswar, Odisha)	Electron Microscope Society of India
2	Yagnesh Shadangi	15141503	International Travel Support (ITS)" from DST for attending ISMANAM 2018		DST
3	Subham Kumar Shaw	16141007	Best poster award in ICMAGMA-2018	NISER, Bhubaneswar during 9-13 <sup>th</sup> December, 2018	
4	Ketan Balaji Ganne		INAE Travel Grant for presenting paper at 6 <sup>th</sup> Nano Today Conference, Lisbon (Portugal).		INAE
5	Divyansh Gautam	16144007	Received 1st prize in the Oral Presentation on Coal Processing, Non-ferrousExtraction and Waste Utilization in the Students' Seminar- "Behind The Teacher's Desk 2018" organized jointly by CSIR-NML, TATA Steel and IIM Jamshedpur Chapter.	CSIR-NML, Jamshedpur	CSIR-NML, Jamshedpur
6	Anant Jain	16145008	Selected for the ThinkSwiss Research Scholarship (among 6 students selected from India) for undertaking research internship at University of Neuchatel for summers of 2019.		
7	Hriddhi Ghosh		First in electric vehicle prototype of Shell Eco Marathon India with an efficiency of 362km/kWhr. Won the kaha I award and the safety award.		
8	Nupur		Aryabhatta Mathematics Competition winner, Worked as industrial trainee at SAIL,Bokaro Steel City.		
9	Raghav Bagri		Secured first position in the National Sustainability Case Challenge held on 19th January 19 organized by BIMTECH held at Greater Noida. We won a cash prize of Rs 1 lakh.		
10	Aryan Kumar		Gold medal in handball at udghosh'18 (IIT KANPUR SPORTS FEST)		



### Names of scholars/students who won Convocation/Institute Day prizes (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of Prize	Prize awarded by
1	Shri Geetam Singh	16142008	I.I.T.(B.H.U.) Varanasi Medal	I.I.T.(B.H.U.)
2	Ms. Varnita Bajpai	13144014	I.I.T.(B.H.U.) Varanasi Medal	I.I.T.(B.H.U.)
3	Shri Anitya Gupta	14145007	I.I.T.(B.H.U.) Varanasi Medal	I.I.T.(B.H.U.)
4	Shri Anitya Gupta	14145007	Swarnamma Memorial Gold Medal	I.I.T.(B.H.U.)
5	Ms. Swati Rai	14145058	Smt. Indira Tripathi Gold Medal	I.I.T.(B.H.U.)
6	Shri Dhiraj Kumar Mahato	14145012	Ms. Indira Anathachari Endowment Fund Prize	I.I.T.(B.H.U.)
7	Shri Mohit Gupta	14145032	Ms. Indira Anathachari Endowment Fund Prize	I.I.T.(B.H.U.)
8	Shri Rajnish Kumar	14145039	Ms. Indira Anathachari Endowment Fund Prize	I.I.T.(B.H.U.)

### Names of Students/Scholars who went for foreign Internship (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
1	Yash Shukla		Chennupati and Vidya Jagadish Endowment Scholarship	The Australian National University, Canberra	Australia	May-July 2018

### 3. Faculty & their Activity

### Faculty and their areas of specialisation

S. No.	Name, Qualifications, Employee No.	Date of award of PhD Degree	Major Areas of Specialization (Max. 3 Areas)
PROFESSO	ORS		
1	Prof. R.K. Mandal (Ph.D.) (13849)	1990	Quasicrystals, Nanostructured Materials, Phase Transformations, Microstructural Evolution
2	Prof. N.K. Mukhopadhyay (Ph.D.) (13853)	1990	Physical Metallurgy, Mechanical Alloying, Nanoindentation
3	Prof. Sunil Mohan (Ph.D.) (13857)	1990	Metal-Matrix Composites, Tribology of composites, Erosion in steels, Transport processes
4	Prof. (Smt.) N.C.S. Srinivas (Ph.D.) (13851)	1999	Physical/Mechanical Metallurgy-Phase Transformations, Deformation and Fracture, Failure Analysis and Low Cycle Fatigue
5	Prof. B.N. Sarma (Ph.D.) (13852)	2001	Computational Thermodynamics, Integrated Computational Materials Engineering
6	Prof. K.K. Singh (Ph.D.) (18188)	2010	Extractive Metallurgy, Electronic waste treatment
7	Prof. O.P. Sinha (Ph.D.) (18218)	1992	Ferrous Process Metallurgy, N <sub>2</sub> bearing Special Steels, Industrial wastes utilization, Plasma Technology
8	Prof. I. Chakrabarty (Ph.D.) (18242)	1990	Foundry Metallurgy, Phase Transformations, Wear of metals, Metal Matrix composite



S. No.	Name, Qualifications, Employee No.	Date of award of PhD Degree	Major Areas of Specialization (Max. 3 Areas)
ASSOCIA	TE PROFESSORS		
1	Dr. C.K. Behera (Ph.D.) (16732)	2007	Extractive Metallurgy, Experimental Thermo-lead free solder, nitrogen steel
2	Dr. R. Manna (Ph.D.) (16805)	2008	Heat Treatments of Metals, Ultra Fine Grained Metals, Severe Plastic Deformation, Phase Transformation
3	Dr. Kausik Chattopadhyay (Ph.D.) (18242)	2008	Mechanical Metallurgy, Structure-Property Relationship of Materials, Oxidation of Metals and Alloys, Powder Metallurgy, Fatigue & Fracture
4	Dr. G.S. Mahobia (Ph.D.) (18287)	2013	Welding Engineering, Heat-Treatment, Ferrous Metallurgy, Corrosion Fatigue & Fracture, Hot Corrosion
5	Dr. Joysurya Basu (Ph.D.) (50054)	2005	Electron Microscopy, Energy and Electronic Materials, Complex Structures and Phase Transformation in Metals and Ceramics
6	Dr. Vikas Jindal (Ph.D.) (18229)	2014	Computational Thermodynamics, Advanced Materials
7	Dr. J.K. Singh (Ph.D.) (18194)	2015	Foundry Metallurgy, Transport Phenomena
8	Dr. N.K. Prasad (Ph.D.) (18221)	2007	Physical Metallurgy, Magnetic Materials, Nanomaterials and Biomaterials
ASSISTAN	NT PROFESSORS		
1.	Dr. Bratindranath Mukherjee (Ph.D.) (50180)	2010	Nanomaterials for Energy Applications
2.	Dr. Randhir Singh (Ph.D.) (50214)	2009	Extractive/Electro-Metallurgy, Fuel Cells and Batteries, Hydrogen Production
3.	Dr. Ashok Kumar Mondal (Ph.D.) (50218)	2009	Mechanical behaviour of materials, Light metals, alloys (mostly magnesium alloys) and composites - Processing, microstructural characterization and evaluation of mechanical behavior, High temperature deformation behavior (Creep)
Institute l	Professors		
1.	Prof. S.N. Ojha (Ph.D.)	1979	Rapid Solidification Processing, Undercooling of Metallic Melts, Atomisation and Spray Deposition Processing, Directional Solidification of Binary Alloys, Physical Metallurgy of Alloy Steels
2.	Prof. G.V.S. Sastry (Ph.D.)	1982	Physical Metallurgy, Rapid Solidification, Electron Microscopy, Ni-Base Superalloys, Quasi Crystals, Nanomaterials
Distingui	shed Professors		
1	Prof. S. Lele (Ph.D.)	1967	Physical Metallurgy and Materials Engineering
Emeritus	Professors		
1	Prof. Vakil Singh (Ph.D.)	1974	Mechanical Behaviour of Metals and Alloys Fatigue, Fracture, and Environmental Effects Bio-implant Materials
2	Prof. T.R. Mankhand (Ph.D.)	1979	Extractive Metallurgy, Sulphide & Oxide Reduction, Utilization of Metallurgical Waste, Bioleaching



S. No.	Name, Qualifications, Employee No.	Date of award of PhD Degree	Major Areas of Specialization (Max. 3 Areas)	
Guest Fac	ulty			
1	Prof. S.N. Tiwari (Ph.D.)	1974	Metal casting and welding technology, Composite Materials and Tribology, Production of alloy Steels and Iron Making Technology	
2	Prof. A.K. Ghose (Ph.D.)	1985	Foundry Technology & Welding Technology	
Visiting Fa	Visiting Faculty			
1	Shri Gangeshwar Singh (M.Tech)		Ferrous Metallurgy, Alloy Steel Technology, Hot Rolling & Heat Treatment of special steels	

# Technical and Non-Teaching Staff

Sl. No.	Name, Qualifications	Designation, Employee No.	Date of Appointment in the department
1	Shri Lalit Kr. Singh (B.E.)	Sr. Technical Superintendent (19262)	14/02/2011
2	Shri Arun Prakash (M.A.)	Sr. Technical Superintendent (14047)	18/02/1995
3	Shri A.K. Vishwakarma (B.A.)	Sr. Technical Superintendent (14099)	27/05/1987
4	Dr. Ashutosh Dubey (M.sc. , Ph.D.)	Technical Superintendent (18754)	22/12/2008
5	Shri Mohd. Sharaj (B.A.)	Technical Superintendent (18621)	06/08/2008
6	Shri J.P. Minz (Intermediate)	Technical Superintendent (14109)	26/05/1990
7	Shri Kamala Prasad (Intermediate)	Technical Superintendent (14116)	15/10/1998
8	Shri Rana Pratap Yadav (Intermediate)	Technical Superintendent (14117)	16/10/1998
9	Shri Chhote Lal (ITI)	Jr. Technical Superintendent (18053)	21/02/2007
10	Shri Setu Prasad (High School)	Jr. Technical Superintendent (14222)	16/05/2007
11	Shri Ashok Kr. Mishra (B.A.)	Jr. Technical Superintendent (10227)	16/05/2007
12	Shri Binod Kr. Pathak (ITI)	Jr. Technical Superintendent (12492)	18/05/2015
13	Shri Bal Govind Singh (ITI)	Sr. Technician (16253)	13/04/2012
14	Shri Rajendra Prasad Yadav (B.A.)	Sr. Technician (18618)	05/08/2008
15	Shri Shashi Kant Pandey (M.Sc.)	Sr. Technician (18619)	05/08/2008
16	Shri Samish Kr. Singh (M.A.)	Sr. Technician (18620)	05/08/2008
17	Shri Sunil Kumar (Intermediate)	Sr. Technician (18616)	06/08/2008
18	Shri Anjani Kr. Singh (B.A.)	Sr. Technician (18638)	06/08/2008
19	Shri Mahendra Narain Mishra (ITI)	Sr. Technician (18639)	05/08/2008
20	Shri Kamlesh Mishra (Intermediate)	Sr. Technician (18617)	12/08/2008
21	Shri Balwant Singh (ITI)	Sr. Technician (19273)	10/02/2011
22	Shri Ram Ashre (Intermediate)	Sr. Technician (14109)	10/09/1996
23	Shri Sushil Kumar (B.Sc.)	Sr. Technician (19604)	13/07/2012
24	Shri Rishabh Tiwari (B.Tech, MBA)	Junior Assistant (50092)	08/05/2017



Short-term courses/workshops/seminars/symposia/conferences organised by faculty members (From 1st April 2018 to 31st March 2019)

S. No.	Coordinator	Title	Period
1	Dr. K. Chattopadhyay	Mechanical Properties and Deformation Behaviour of Structural Materials	27 August – 1 September, 2018
2	Dr. G.S. Mahobia	Metallurgical Failures	18 <sup>th</sup> – 23 <sup>rd</sup> February, 2019

Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Title	Period and Venue
Semina	rs/Symposia/Conferences		
1	Prof. Vakil Singh	Delivered invited talk on Effect of ultrasonic shot peening on microstructure, corrosion behaviour and cell response of commercially pure titanium (ICNT 2018)	12-10 October 2018 Kottayam, Kerala
2	Prof. S.N. Ojha	Delivered lecture on Materials in Growth of Human Civilization	August 04, 2018 Global Institute of Technology, Bangalore
3	Prof. T.R. Mankhand	Delivered Key-note lecture at 72 <sup>nd</sup> ATM of Indian Institute Metals	Kolkata November 14 <sup>th</sup> -16 <sup>th</sup> 2018
4	Prof. N.K. Mukhopadhyay	Invited Lecture in ICSSP-2018	Tiruvananthapuram, November 21-23, 2018
5	Prof. N.K. Mukhopadhyay	Invited Lecture and Chief Guest on One Day Workshop on "Mechanical Characterization of Materials	February 22, 2019
6	Prof. Sunil Mohan	Delivered an invited talk in International Conference MSAM	Kitakyushu, Japan April 2018
7	Prof. I. Chakrabarty	Delivered talk on Mechanical and Wear Behavior of Centrifugally Cast Functionally Graded Al-(Mg2Si)p in-situ Metal Matrix Composites	AMPRI, Bhopal, 7th. December, 2018
8	Dr. R. Manna	Delivered talk on Electropulsing of Steels for Nanocrystallisation, 56th NMD and 72nd ATM	Kolkata, 14-16 Nov, 2018
9	Dr. C.K. Behera	Presented a paper titled: Drop calorimetric measurements of In-Sn system for lead-free solder applications at International conference on "Recent advances in Engineering and Technology-2019"	21-22 March, 2019 Bangkok, Thailand
10	Dr. Vikas Jindal	Attended Indo-German Bilateral Workshop on "Additive Manufacturing of Metals Current Issues and Way Forward (AMM-2019	CSIR-National Metallurgical Laboratory February 04-06, 2019
11	Dr. Vikas Jindal	Delivered a lecture in the Faculty Development Program on "MANUFACTURING SCIENCE AND TECHNOLOGY	SRMS College of Engineering & Technology, Bareilly April 24 -28, 2018



S. No.	Name of Faculty Member	Title	Period and Venue
12	Dr. K. Chattopadhyay	Delivered talk on 'Development of Ti alloy for biomedical application' in 56th NMD and 72nd ATM	Kolkata, 14-16 Nov, 2018
13	Dr. K. Chattopadhyay	Delivered an invited talk on 'USSP and its effect on fatigue and corrosion behaviour of Al 7075 alloy	IIT Kharagpur 28 Feb 2019
14	Dr. Joysurya Basu	Delivered Invited Lecture on "Microstructure Evolution Phase Stability, Interfaces and Impurity Induced Transitions in Solidified V-(Ti/Ta) and V-Ti-(Ta/Cr) alloys at 7th International Conference on Solidification Science & Processing	Trivandrum, India November 19-22, 2018,
15	Dr. Joysurya Basu	Delivered Invited Lecture on "Quantitative Imaging of Chemically Graded Oxide Thin Films and Nanostructures for Energy and Electronics", International Conference on Microscope and XXXIX Annual Meeting of Electron Microscope Society of India	Bhubaneswar, India July 18-20, 2018,
16	Dr. Joysurya Basu	Delivered Invited Lecture on "Fundamentals of Microscopy for Materials Science", Short Term Course on Characterization of Materials	Visvesvaraya National Institute of Technology, Nagpur, March 21-26, 2018,
17	Dr. N.K. Prasad	Attended "International Conference on Magnetic Materials and Applications (ICMAGMA-2018)	NISER Bhubaneswar during 9-13th December, 2018

# **Special lectures delivered by faculty members in other institutions** (From 1st April 2018 to 31st March 2019)

S. No.	Name of faculty Member	Topic of Lecture	Institution	Date

# Visits abroad by faculty members (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Country Visited	Date of Leaving India	Date of Returning India	Purpose of Visit	Funding from
1	Prof. Sunil Mohan	Japan	10/04/2018	13/04/2018	To attend International Conference MSAM	IIT (BHU)
2	Prof. N.C. Santhi Srinivas	USA	17/11/2018	08/12/2018	Leadership for Academicians Programme (LEAP)	MHRD
3	Prof. K.K. Singh	United Kingdom	09/07/2018	23/07/2018	Visited as India Lead Researcher	UGC
4	Dr. C.K. Behera	Thailand	21/03/2019	23/03/2019	To attend International conference on "Recent advances in Engineering and Technology-2019"	IIT (BHU)



### **Honours and awards** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Details of Award
1	Dr. Joysurya Basu	Excellence in Microscopy Award 2018 by Electron Microscopy Society of India at International Conference on Microscope and XXXIX Annual Meeting of Electron Microscope Society of India, July 18-20, 2018, Bhubaneswar, India

### Fellowships of academic and professional societies (From 1st April 2018 to 31st March 2019):

S. No.	Name of Faculty Member	Details of Fellowship	

### Books, monographs authored/co-authored (From 1st April 2018 to 31st March 2019):

S. No.	Name of Author/Co- Author	Title	Publisher

### **Editorial boards of journals** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Position (Editor/ member)	Name of Journal	
1	Prof. R.K. Mandal	Member	CMC-Transtech.	
2	Prof. N.K. Mukhopadhyay	Key-Reader	Metallurgical and Materials Transactions A (USA)	
3	Prof. N.K. Mukhopadhyay	Editor	Journal of Institution of Engineers, Metallurgical and Materials: Series D: (Springer)	

### 1. Design and Development Activities

New facilities added (From 1st April 2018 to 31st March 2019):

S. No.	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)	

### **Patents filed** (From 1st April 2018 to 31st March 2019):

S. No.	Name of Faculty Member	Title of Patent	

### 5. Research and Consultancy

### **Sponsored research projects** (Ongoing only)

S. No.	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co- ordinator
1	Setting up of Advanced Research Center for Iron and Steel at IIT(BHU), Steel Development Fund	2016-2021	Ministry of Steel, Govt. of India	3098.00	Dr. R. Manna (Coordinator) & all teachers of the Dept.
2	Malaviya Chair For Railways Technology	2015-2020	Ministry of Railways, Govt. of India	500.00 (Corpus Fund)	Prof. R.K. Mandal (Coordinator)



S. No.	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co- ordinator
3	Structural optimization and band gap engineering of lead-free perovskite based photovoltaics	2017-2019	Center for Energy Research & Development, IIT (BHU)	22.00	Prof. R.K. Mandal (PI), Dr. B. Mukherjee , Dr. Joysurya Basu
4	Development of Ni-Free Austenitic Stainless Steel for Biomedical Application	2016-19	Ministry of Steel, Govt. of India	284	Dr. G.S. Mahobia (PI), Prof. N.C. Santhi Srinivas, Dr. K. Chattopadhyay, Prof. Vakil Singh
5	In-situ electron microscopy at atomic scale for understanding nucleation growth and interfaces of omega phase.	2017-2020	SERB, DST, Govt. of India	81.50	Dr. Joysurya Basu (PI) Prof. N. K. Mukhopadhyay, Prof. R. K. Mandal, Dr. Imteyaz Ahmad (Cer.)
6	Alloy design, phase and microstructural stability of advanced amorphous, nanocrystalline alloys and composites	2016-2018	Seed Grant, IIT (BHU)	11.00	Dr. Joysurya Basu (PI)
7	Development and structural characterization of Bi2- xMxO3+x(y-3)/2 (M=Fe, Cr, Mn) coating for protection against liquid coolant and sensors	2017-2020	UGC-DAE- CSIR, Govt. of India	18.00	Dr. Joysurya Basu (PI) Dr. N. K. Prasad
8	Design of Broad spectrum 'Rainbow Solar Cell'	2013-2018	DST-INSPIRE Faculty Award	35.00	Dr. Bratindranath Mukherjee (PI)
9	Design and Development of Indigenous Dental Implant of Titanium	2015-2018	DST, Govt. of India	84.16	Dr. Rajesh Bansal, IMS-BHU (PI) Dr. K. Chattopadhyay (Co-PI), Prof. S.K. Sinha (Co-PI)
10	Role of short-range ordering in designing High Entropy Alloys	2019-2022	SERB, DST, DST, Govt. of India	34.00	Dr. Vikas Jindal (PI), Prof. N. K. Mulhopdhyay (Co-PI)
11	Cyclic Thermochemical fuel generation	2019-2022	SERB, DST, DST, Govt. of India	51.00	Dr. Randhir Singh (PI)
12	Optimization of recovery of valuable metal from waste printed circuit boards by modified hydrometallurgical route.	2018-2020	UGC-UKIERI	GBP 29000.00	Dr. K.K. Singh, Prof. Jason Love, Dr. Carole Morrison
13	Processing, microstructural characterization and evaluation of mechanical properties of creep resistant magnesium alloy-based nanocomposites	2019-2021	Seed grant for new faculty, IIT (BHU) Varanasi	10.0	Dr. Ashok Kumar Mondal (PI)



### **Industrial consultancy projects** (Ongoing only)

The Department maintains a close interaction with major private sector industries of the region, with public sector undertakings and national R&D laboratories. Major beneficiaries of consultancy, testing services as well as Refresher Courses for executives, include DMRL, DRDL, VSSC, BHEL, HINDALCO, Tata Steel, JAMIPOL, Northern Coalfields Ltd, NTPC, Railways etc. and the small scale industries of Varanasi region.

S. No.	Name of Faculty Member	Title	Industry	Amount (in lakhs of Rs.)
1	Prof. O.P. Sinha & Dr. J.K. Singh	Assisting NCL in short listing of vendors under – Make in India, for import substitution and establishing an indigenous supply chain for replacement of HEMM spares and reduce the reliance on overseas sources for supply of high value HEMM spares	NCL, Singrauli	20.40
2	Dr. Kausik Chattopadhyay (PI), Prof. Vakil Singh, Prof. N C Shanti Srinivas, Prof. S K Panda, Dr. G S Mahobia	Failure Analysis of gudgeon pin	M/s Maruti Suzuki India Limited	4.92

### Faculty members' participation with other universities under MoUs (Ongoing only)

**Research Publications** (From 1st April 2018 to 31st March 2019)

S. No.	Papers Published/ Presented	No.
1	Papers Published in Refereed National Journals	
2	Papers Published in Refereed International Journals	68
3	Papers Presented in National Conferences	
4	Papers Presented in International Conferences	

### **Refereed International Journals** (From 1st April 2018 to 31st March 2019)

- V. Pandey, K.Chattopadhyay, N.C.S. Srinivas, V. Singh, 'Thermal and microstructural stability of nanostructured surface of the aluminium alloy 7075', Materials Characterization, 2019, 151, 242-251
- 2 D.S. Bandla, P. Verma, K. Chattopadhyay, V. Singh, 'Enhancement of Hot Corrosion Resistance of Modified 9Cr-1Mo Steel Through Surface Nanostructuring and Pre-oxidation', Journal of Materials Engineering and Performance, 2018, 27(12), 6443–6457.
- S. Kumar, K. Chattopadhyay, V. Singh, 'Surface nanocrystallization induced by ultrasonic shot peening and its effect on corrosion resistance of Ti-6Al-4V alloy', Transactions of the Indian Institute of Metals, 2019, 72 (3), 789–792 (doi.org/10.1007/s12666-018-1531-5)
- 4 V. Pandey, J.K. Singh, K. Chattopadhyay, N.C.S. Srinivas, V. Singh, 'Optimization of USSP duration for enhanced corrosion resistance of AA7075' Ultrasonics, 91 (2019) 180-192.
- D. Pradhan, G.S. Mahobia, K. Chattopadhyay, V. Singh, 'Severe Hot Corrosion of the Superalloy IN718 in Mixed Salts of Na2SO4 and V2O5 at 700° C', Journal of Materials Engineering and Performance, 2018, 27 (8), 4235-4243.



- D. Pradhan, G.S. Mahobia, K. Chattopadhyay, V. Singh, 'Salt induced corrosion behaviour of superalloy IN718', Materials Today: Proceedings, 2018, 5 (2), 7047-7054.
- D. Pradhan, G.S. Mahobia, K. Chattopadhyay, V. Singh, 'Effect of pre hot corrosion on high cycle fatigue behavior of the superalloy IN718 at 600° C', International Journal of Fatigue, 2018, 114, 120-129.
- 8 D. Pradhan, G.S. Mahobia, K. Chattopadhyay, V. Singh, 'Effect of surface roughness on corrosion behavior of the superalloy IN718 in simulated marine environment', Journal of Alloys and Compounds, 2018, 740, 250-263.
- 9 P. Verma, N.C. Santhi Srinivas, V. Singh, 'Low Cycle Fatigue Behavior of Modified 9Cr-1Mo steel', Materials Science and Engineering A, 2018, 715, 17-24.
- 10 Khemraj, A.K. Jha, S.N. Ojha, 'Deformation behaviour of A356, Al-11Si-2.5 Cu-0.6 Fe, and Al-18Si-2.5 Cu-0.6 Fe alloys forged under different processing conditions', International Journal of Materials Engineering Innovation, 2019, 10 (1), 34-45
- A.K. Jha, S.N. Ojha, 'Tribo-mechanical behavior of complex hypereutectic Al–Si alloy compressed through a converging die at elevated temperatures', Materials Research Express, 2018, 5 (7), 076509
- 12 L.S. Rao, A.K. Jha, S.N. Ojha, 'Microstructure and Tribological Characteristics of Strain-Induced Melt Activation (SIMA)-Processed Al–10Cu–Fe alloy, International Journal of Metalcasting, 2019, 12 (3), 523-542
- 13 L.S. Rao, K. Raju, A.K. Jha, S.N. Ojha, 'Microstructural and Tribological Characteristics of Al–10Cu–Fe alloy Produced by Vertical Centrifugal Casting process', Transactions of the Indian Institute of Metals, 2018, 71 (6), 1427-1438
- A.K. Jha, S.N. Ojha, 'Deformation behavior of aluminum-silicon (Al-Si) alloy during forging under various processing conditions', Materials Today: Proceedings, 2018, 5 (13), 26955-26960
- 15 K. Raju, N.G. Krishna, L.S. Rao, S.N. Ojha, 'Microstructural Features and Wear Characteristics of Semi-Solid Processed A356 Aluminum Alloy' Journal of Materials Science and Technology Research, 2018, 5, 11-15
- P. Meshram, Abhilash, B. D. Pandey, T.R. Mankhand and H. Deveci 'Extraction of metals from spent lithium ion batteries-Role of acid, reductant and process intensification in recycling', Indian Journal of Chemical Technology, 2018, 25, 368-375
- 17 K.K. Singh, B. Kishore, T.R. Mankhand, 'Reduction of Manavalakurichi Ilmenite by Activated Charcoal in Presence of Catalyst', Trans. Indian Institute of Metals (Springer), 2018, 71 (12), 2993-3001
- 18 R.K. Mandal, M.D. Purkayastha, T.P. Majumder, 'Silver modified cadmium oxide–A novel material for enhanced photodegradation of malachite green', Optik, 2019, 180, 174-182
- 19 K.K. Mehta, R.K. Mandal, A.K. Singh, 'Effects of Mode of Deformation and Extent of Reduction on Evolution of {111}-Fiber During Cold Rolling of Ni-16Cr Alloy', Metallurgical and Materials Transactions A, 2019, 49 (7), 2832-2842
- 20 M.K. Singh, B. Mukherjee, J. Basu, R.K. Mandal, 'Vacancy-mediated structural changes in Au–Cu nanoparticles,' Philosophical Magazine Letters, 2018, 98 (3), 1-10
- M.K. Singh, P. Chettri, A. Tripathi, A. Tiwari, B. Mukherjee, R.K. Mandal, 'Defect mediated magnetic transitions in Fe and Mn doped MoS<sub>2</sub>,' Physical Chemistry Chemical Physics, 2018, 20 (23), 15817-15823
- V. Shivam, Y. Shadangi, J. Basu, N.K. Mukhopadhyay, 'Alloying behavior and thermal stability of mechanically alloyed nano AlCoCrFeNiTi high-entropy alloy' Journal of Materials Research, 2019, 34 (5), 787-795
- 23 S.S. Mishra, S. Mukhopadhyay, T.P. Yadav, N.K. Mukhopadhyay, 'Synthesis and characterization of hexanary Ti–Zr–V–Cr–Ni–Fe high-entropy Laves phase', Journal of Materials Research, 2019, 1-12, DOI: 10.1557/jmr.2018.502



- A. Khare, A. Kumar, S. Jaiswar, N.K. Mukhopadhyay, K. Mandal, 'Dielectric studies of CCTO-based nanocomposite ceramic synthesized by a solid state route', International Journal of Materials Research, 2018, 109 (10), 916-921
- V. Shivam, J. Basu, V.K. Pandey, Y. Shadangi, N.K. Mukhopadhyay, 'Alloying behaviour, thermal stability and phase evolution in quinary AlCoCrFeNi high entropy alloy', Advanced Powder Technology, 2018, 29 (9), 2221-2230
- A. Kumar, S. Kumar, N.K. Mukhopadhyay, 'Introduction to magnesium alloy processing technology and development of low-cost stir casting process for magnesium alloy and its composites', Journal of Magnesium and Alloys, 2018, 6 (3), 245-254
- V. Shivam, J. Basu, Y. Shadangi, M.K. Singh, N.K. Mukhopadhyay, 'Mechano-chemical synthesis, thermal stability and phase evolution in AlCoCrFeNiMn high entropy alloy', Journal of Alloys and Compounds, 2018, 757, 87-97
- 28 T.P. Yadav, C.F. Woellner, S.K. Sinha, T. Sharifi, A. Apte, N.K. Mukhopadhyay, 'Liquid exfoliation of icosahedral quasicrystals', Advanced Functional Materials, 2018, 28 (26), 1801181
- 29 M.I.R. Basariya, N.K. Mukhopadhyay, 'Structural and Mechanical Behaviour of Al-Fe Intermetallics, Intermetallic Compounds-Formation and Applications, 2018, 10.5772/intechopen.73944
- 30 T.P. Yadav, N.K. Mukhopadhyay, 'Quasicrystal: a low-frictional novel material', Current opinion in chemical engineering, 2018, 19, 163-169
- A. Khare, S.S. Yadava, P. Gautam, A. Kumar, N.K. Mukhopadhyay, 'Dielectric properties of nanocomposite based on bismuth copper titanate', Journal of the Australian Ceramic Society, 2018, 54 (1), 139-147
- A. Kumar, S. Kumar, N.K. Mukhopadhyay, 'Casting and characterization of TiC particulate reinforced AZ91 magnesium alloy [[/col2]] metal matrix composite through stir casting process' Int. J. Mech. Eng. Technol, 2018, 9, 856-863
- 33 R.B. Singh, N.K. Mukhopadhyay, G.V.S. Sastry, R. Manna, 'Effect of Flash Annealing on Ultra-Fine Grained Low-Carbon Steel Processed Through Equal-Channel Angular Pressing Followed by Cryorolling', Advanced High Strength Steel, 2018, 103-113
- A Mishra, D Pradhan, CK Behera, S Mohan, A Mohan, Effect of Prehot Corrosion on Erosion Behavior of High Chromium Ferritic Steel for Heat Exchangers, Journal of Tribology 141 (4), 041607
- A Mishra, D Pradhan, CK Behera, S Mohan, A Mohan, Modeling and optimization of parameters for hightemperature solid particle erosion of the AISI 446SS using RSM and ANN, Materials Research Express 6 (2), 026513
- MR Kumar, CK Behera, S Mohan, Drop Calorimetric Measurements on Binary Bi–In System, International Journal of Thermophysics 39 (9), 101
- 37 K Tiwari, G Gautam, N Kumar, A Mohan, S Mohan, Effect of Primary Silicon Refinement on Mechanical and Wear Properties of a Hypereutectic Al-Si Alloy, Silicon, 2018, 10 (5), 2227-2239
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Refereed National Journal (From 1st April 2018 to 31st March 2019): Nil

Proceedings of International Conferences (From 1st April 2018 to 31st March 2019): Nil

Proceedings of National Conferences (From 1st April 2018 to 31st March 2019): Nil

Brief Details of 5 Articles from the Department/School with maximum no. of Citations in last 5 years: Nil

Distinguished Visitors (From 1st April 2018 to 31st March 2019)

Sl. No.	Name of the visitor & Designation	Date of Visit	Purpose of Visit
1	Prof. Dipankar Banerjee, FNA Department of Materials Engineering, Indian Institute of Science, Bangalore, India	April 06, 2018	To deliver Prof. T.R. Anantharaman Memorial Lecture-2018
2	Sandhya Susarla Graduate Student, Rice University, Houston, Texas	May 21, 2018	To deliver lecture
3	Kumar Ankit Assistant Professor, Arizona State University	May 24, 2018	To deliver lecture
4	Mr. Rahul Choudhary Maruti Suzuki India Limited, Delhi NCR	October 22, 2018	To deliver lecture
5	Dr. Padmanathan Sriram Chairman & Promoter Director, Rapsri Engg Products Co Ltd.,	November 13, 2018	To deliver lecture
6	Dr. Venimadhav A. Associate Professor, Cryogenic Engineering, IIT Kharagpur	December 17, 2018	To deliver lecture



7	Prof. Jason B Love & Dr. Carole Morrison The University of Edinburgh, Scotland U.K. (Visitor under UKIERI Project)	January 8, 2019	To deliver lecture
8	Prof. Dipankar Banerjee, FNA Department of Materials Engineering, Indian Institute of Science, Bangalore, India	January 28-30, 2019	Centenary Visitor
9	Prof. Ashok Saxena Department of Mechanical Engineering, University of Arkansas, Fayetteville	February 08, 2019	To deliver lecture
10	Prof. Brahma Deo School of Minerals, Metallurgical & Materials Engineering, Indian Institute of Technology Bhubaneswar	February 28, 2019	Centenary Visitor
11	Prof. Krishanu Biswas Department of Materials Science and Engineering, IIT Kanpur	March 26, 2019	To deliver lecture
12	Dr. K. Muraleedharan, Director, CSIR-Central Glass and Ceramic Research Institute, Kolkata	March 29, 2019	To deliver Professor P. Ramachandra Rao Memorial Lecture – 2019

### 6. Other activities

International collaboration/achievements by the Department/School (From 1st April 2018 to 31st March 2019)

UK India Research and Education Initiative (UKIERI)

UKIERI supports bilateral research between the institutions of India and United Kingdom. Two eminent researchers namely Prof. Jason Love and Dr. Carole Morrison from the The University of Edinburgh, Scotland and Prof. Kamalesh Singh of Department of Metallurgical Engineering, IIT (BHU) in India are trying to develop a non-hazardous process to recover most of the inherent metals available in waste printed circuit boards. The project has wide applicability across the globe because of high growth of waste generation it is even more relevant for developing countries like India which have high population using cheaper electronic gadgets with frequent change.

Funding: GBP 29,000.00 jointly by UGC (GoI) & British Council (UK) for 2018-2020.

Indian Faculty visits in the Department/School/School (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Prof. Dipankar Banerjee, FNA Department of Materials Engineering, Indian Institute of Science, Bangalore, India	To deliver Prof. T.R. Anantharaman Memorial Lecture-2018	April 06, 2018
2	Dr. Venimadhav A. Associate Professor, Cryogenic Engineering, IIT Kharagpur	To deliver lecture	December 17, 2018
3	Prof. Brahma Deo School of Minerals, Metallurgical & Materials Engineering, Indian Institute of Technology Bhubaneswar	To deliver lecture	February 28, 2019
4	Prof. Krishanu Biswas Department of Materials Science and Engineering, IIT Kanpur	To deliver lecture	March 26, 2019



# **Foreign Faculty Visits in the Department** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Kumar Ankit Assistant Professor, Arizona State University	To deliver lecture	May 24, 2018
2	Prof. Jason B Love & Dr. Carole Morrison The University of Edinburgh, Scotland U.K. (Visitor under UKIERI Project)	To deliver lecture	January 8, 2019
3	Prof. Ashok Saxena Department of Mechanical Engineering, University of Arkansas, Fayetteville	To deliver lecture	February 08, 2019

# Foreign Students Visits in the Department (From 1st April 2018 to 31st March 2019): NIL

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue	



## \_\_\_\_\_ 14. Department of Mining Engineering

Year of Establishment: 1923

Head of the Department: Prof. Piyush Rai

**Brief Introduction of the Department/School:** 

The Department of Mining Engineering a well conceived dream of the founder of this university **PANDIT MADAN MOHAN MALVIYAJI** and the oldest Mining Engineering Department in the country, came into existence as early as 1923, as a section of the Department of Geology, Mining and Metallurgy. Later, in the year 1944, separate departments of Mining and Metallurgy were constituted under the College of Mining and Metallurgy.

The first Ph.D. degree in Mining Engineering in the country was awarded from this department in the year 1964. This lead was further strengthened by introducing the First Post- Graduate course in 1966 leading to M.Sc. degree in Mining Engineering n Metal Mining and Coal Mining, respectively and later the M.Sc. degree in Mine Planning was introduced in 1972. Since, 1995-96 the department offers M.Tech. degree in Mine Environment, Mine Planning and Rock Mechanics.

The Department of Mining Engineering, BHU was one of the first in the country to receive UGC Assistance under COSIST and SAP Programme in 1984. Subsequently, the Department was upgraded as a Centre of Advanced Study in the area of Rock Mechanics and Ground Control in 1984.

The Department of Mining Engineering, IIT (BHU) occupies a pioneering position in the field of mining education and research. It has many firsts to its credit. The first Bachelor, Postgraduate and Doctoral degrees in mining engineering in India have been awarded by this department. Today's Mineral Industry is being run by many of its illustrious alumni who are holding key positions within the country and abroad. Senior faculty members have been recognized by the mining and allied industries as experts in the respective fields and are members of the important decision making bodies associated with CIMFR, NIRM, UGC, ISMU, NCL, CCL, SCCL, CIL, HZL, UCIL etc. The Department received generous grants to accelerate its research and developmental activities.

The Department is divided into six divisions with laboratories that are well equipped with the conventional and modern facilities. Facilities have also been developed for research in collaboration with mining industry to deal with their practical problems, these laboratories are also equipped to undertake fundamental research in the field of mining.

The above divisions consist of 19 laboratories. The Department is also provided with an Underground Experimental Model Mine well equipped for demonstration, experimental and research purposes particularly in the field of underground mechanised transport systems, mine ventilation and mine surveying experiments.

### Major areas of Research

- Rock Mechanics & Ground Control and numerical modelling
- Mine Environment, Mine Ventilation, Mine Safety, Water Soluble Polymer
- Mining Geology, Mine Water Management & Environmental Pollution



- Mining Methods, Production and Productivity analysis of Mining Machines
- Design of Structure in Rock, Mine Planning, Mine Environment
- Reliability Analysis and and Slope stability
- Environmental Economic, GIS and Remote Sensing, Operations Research
- Mine Surveying, Mine economics, Mine legislation and Computer Applications in Mining
- Mine Safety, Risk Analysis, Reliability and Rock Cutting Technology
- Rock Fragmentation Engineering, Rock Mechanics, Surveying
- Coal Analysis, Mineral Beneficiation

### Area of the Department/School (in square meters):

Ground floor (including Model Experimental of Underground Mine) = 5815.0826 m<sup>2</sup>

Ground Floor Open Space & Workshop & Laboratories = 1829.179 m<sup>2</sup>

First Floor =  $3219.4264 \text{ m}^2$ 

Second Floor =  $505.3867 \text{ m}^2$ 

#### Infrastructure

S. No.	Particulars	Number
1	No. of Classrooms	03
2	No. of Lecture Halls	01
3	No. of Laboratory	07
4	No. of Computers available for students in the Department/School/ School	32

### Unique Achievement / Preposition of the Department/School:

- Special Assistance Programme
- COSIST
- FIST Assistance
- MODROB
- Centre of Advanced Study in the area of Rock Mechanics & Ground Control and Geo-Environment

### Students on Roll (From 1st April 2018 to 31st March 2019)

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1.	B. Tech/B. Pharm	78	84	87	85	-
2.	Dual Degree	13	19	18	18	7
3.	M. Tech/ M. Pharm	31	25	-	-	-
4.	Ph. D (Under Institute Fellowship)	16	06	06	08	15
5.	Ph. D (Under Project Fellowship)	-	-	-	-	-
6.	Ph. D (Under Sponsored Category) (JRF)	01	-	01	04	-



# Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/ Workshop		
ÌNDIA		-			
1	Ramita Varshney	14151007	International conference on River Health: Assessment to Restoration	14-16 Feb, 2019 Department of Civil Engg., IIT (BHU), Varanasi	IIT (BHU)
2	Ramita Varshney	14151007	LaTeX for Beginners	6 October 2018 IIT(BHU), Varanasi	IIT (BHU)
3	Ramita Varshney	14151007	Wiley Author Workshop	24 October 2018 IIT(BHU), Varanasi	IIT (BHU)
4	Ramita Varshney	14151007	IIRS 41th outreach course on "Hyperspectral remote sensing and its Applications"	21 Jan to 1 Feb 2019 IIT(BHU), Varanasi	IIT (BHU)
5	Saba Shirin	13151503	"LaTex for Beginners" Jointly Organised by IEEE IAS Student Chapter & IEEE Student Chapter.	6 October 2018 IIT (BHU)	IIT (BHU)
6	Saba Shirin	13151503	"Wiley Author Workshop" with the Wiley Publication.	24 October 2018 IIT (BHU)	IIT (BHU)
7	Pawan Kumar Yadav	15151004	Workshop on Academic writing for research scholars, IIT (BHU), Varanasi	January 15-19, 2019	IIT (BHU)
8	Pawan Kumar Yadav	15151004	6 Days short term course/workshop on advances in graph theory and network sciences, IIT (BHU), Varanasi	August 6-11, 2018	NA
9	Pawan Kumar Yadav	15151004	Data analytics in R, IIT (BHU), Varanasi	August, 13, 2018	NA
10	Deepak Kumar	16151005	6 Days short term course/workshop on advances in graph theory and network sciences, IIT (BHU), Varanasi	August 6-11, 2018	NA
11	Deepak Kumar	16151005	Data analytics in R, IIT (BHU), Varanasi	August, 13, 2018	NA
12	Vivekanand Kumar	15151013	National Conference: Mine Environment: Techniques, Equipments & Challenges	M.B.M. Engineering College, Jodhpur, Rajsthan, India 15-16 Dec, 2018	IIT (BHU)
13	Aishwarya Mishra		Int. Conference: International Conference and Exhibition on Energy & Environment : Challenges & Opportunities (ENCO 2019),	Vigyan Bhawan, New Delhi. February 20–22, 2019.	IIT (BHU)
ABRO	AD				
1	Akhilesh Kumar Yadav	13151501	3rd Green & Sustainable Chemistry Conference	13-16 May 2018 & Berlin, Germany	Indian Council of Medical Research (ICMR), New Delhi



S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/ Workshop	Date & Venue	Financial Assistance From
2	Saba Shirin	13151503	3rd Green & Sustainable Chemistry Conference	13-16 May 2018 & Berlin, Germany	Partial fund by Institute

# 1. Faculty & their Activity

# Faculty and their areas of specialisation

S. No.	Name & Qualification	Major Areas of Specialization (Max. 3 Areas)
PROFE	SSORS	
1	Dr. B.K. Shrivastava	Mining Machinery, Rock Mechanics & Ground Control
2	Dr. N.C. Karmakar	Mine Environment, Mine Ventilation, Mine Safety, Water Soluble Polymer
3	Dr. A. Jamal	Mining Geology, Mine Water Management & Environmental Pollution
4	Dr. Piyush Rai	Mining Methods, Production and Productivity analysis of Mining Machines, Fragmentation and Blasting
5	Dr. S.K. Sharma	Design of Structure in Rock, Mine Planning, Mine Environment
6	Dr. S. Gupta	Reliability Analysis, Mine Ventilation
ASSOC	IATE PROFESSORS	
1	Shri R. P. Singh	Mine fire, Mine mechanization & Planning
2	Dr. Ashok Jaiswal	Rock Mechanics & Ground Control
3	Dr. Rajesh Rai	Rock Mechanics and Slope stability
4	Dr. A Kumar	Environmental Economic, GIS and Remote Sensing, Operations Research
5	Dr. G.S.P. Singh	Rock Mechanics and Ground Control
6	Dr. S. K. Palei	Mine Safety, Risk Analysis, Reliability and Rock Cutting Technology
ASSIST	ANT PROFESSORS	
1	Dr. Tarun Verma	Mine Environment, Mine Ventilation, Mine Surveying, Mine economics
2	Dr. Suresh Kumar	Rock Fragmentation Engineering, Rock Mechanics, Surveying
3	Dr. Nawal Kishore	Mine planning, draggling and surface continuous miner
4	Dr. Amit Kumar Verma	Geo-Mechanics, Underground Space Technology and slope stability

### **Research Staff:**

S. No.	Name & Qualification	Major Areas of Specialization (Max. 3 Areas)	
1	Dr. A.K. Singh	Mine Environment	
2.	Dr. C.S. Singh	Rock Mechanics	

# **Technical and Non-Teaching Staff**

Sl. No.	Name, Qualifications	Designation	Date of Appointment in the department				
Technical Staff							
1	Shri Mithilesh Kumar Gupta, B.A. & Polytechnic in Mechanical Automobile Engineering	Senior Technical Superintendent	29.01.2007				



Sl. No.	Name, Qualifications	Designation	Date of Appointment in the department
2.	Shri Lalmani, Intermediate and Diploma in Mechanical Engineering	Technical Superintendent	12.08.2008
3.	Shri Balgovind, High School, Diploma Degree	Senior Technical Superintendent	01.04.1980 (Retired on 31.01.2019)
4.	Shri Kanhaiya Lal, Intermediate (Science)	Senior Technical Superintendent	27.05.1987
5.	Shri Anupam Kumar Debey, M.Sc. (Biochemistry), PG (Envi. Science.) & M.A. (Social Science)	Technical Superintendent	16.12.2008
6.	Shri A.K.Pandey, M.A. (Hindi)	Technical Superintendent	13.04.1989
7.	Shri Rajendra Prasad, B.A.	Technical Superintendent	20.04.1989
8.	Shri C.B.Singh, M.Sc. Ag (Entomology and Agricultural Zoology)	Technical Superintendent	21.12.1990
9.	Shri Bindresh Yadav, High School Science	Technical Superintendent	22.12.1990
10.	Shri Indu Bhusan Pal, Intermediate (Science)	Technical Superintendent	01.02.1991
11.	Shri Ramdhani Prasad, Intermediate (Science)	Technical Superintendent	01.06.1994
12.	Shri Ram Sewak Singh, Intermediate (Science)	Technical Superintendent	07.01.1997
13.	Shri Mahendra Yadav, Intermediate (Science)	Senior Technician	05.08.2008
14.	Shri Vijay Prakash Shrivastava, Intermediate (Science)	Senior Technician	05.08.2008
15.	Shri Ajay Kumar Patel, M.Sc. (Geology)	Senior Technician	06.08.2008
16.	Shri Sunil Kumar Mishra, B.A. & ITI Degree	Senior Technician	05.08.2008
17.	Shri Bansh Narayan Pal, Intermediate (Science)	Junior Technician	02.06.1980
18.	Shri Rajkumar Singh, Intermediate (Science)	Junior Technician	23.04.2004
19.	Shri Pyarelal, Intermediate & ITI Degree	Junior Technician	11.07.2012
Non-Tea	aching Staff		
20.	Shri Ashish Shankar Gupta, B.A. & Pursuing M.A. in Sociology from IGNOU	Junior Assistant	08.05.2017
21.	Ms. Neha Gautam, Master in Mass Communication & Journalism	Junior Assistant	27.07.2017



Short-term courses/workshops/seminars/symposia/conferences organised by faculty members (From 1st April 2018 to 31st March 2019)

S. No.	Coordinator	Title	Period
1	Dr.Amit Kumar Verma	· · · · · · · · · · · · · · · · · · ·	4th - 6th Feb, 2019 at Department of Mining Engineering, IIT (BHU), Varanasi

Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Title	Period and Venue
Seminars/Symposia/Conferences			
1 Prof. Piyush Rai		Keynote Speaker Challenges and Possibilities in Surface Blasting.	March 2018 Barajamda Chapter and Tata Steel, Noamundi.
2	Dr Rajesh Rai	Stability analysis of internal dragline dump	Spain, 13-16 April 2018
Meeting	S		
1	Prof. Piyush Rai	<b>External Expert</b> , Academic audit of department of mining. engineering.	10 May 2018,NIT RAIPUR
2	Prof. Piyush Rai	External Expert, Academic audit review of department of mining engineering.	4 Sep 2018, VNIT NAGPUR
3	Prof. Piyush Rai	External Member selection committee.	25 Sep 2018, UPSC NEW DELHI
4	Prof. Piyush Rai	<b>External Examiner</b> for evaluation of dissertation thesis, seminar and Viva-Voce	May 2018 NIT ROURKELA
5	Prof. Piyush Rai	<b>External Examiner</b> for evaluation of dissertation thesis, seminar and Viva-Voce	2 MAY 2019,IIT ISM DHANBAD
6	Prof. Piyush Rai	External Expert, Academic audit review of department of mining engineering.	VNIT NAGPUR
7	Prof. N. C. Karmakar	Member, Expert Appraisal Committee for EIA (Non-Coal), MoEFCC, GoI	For 3 yrs. up to Nov 2018; Paryavaran Bhavan, New Delhi
8	Prof. N. C. Karmakar	Chairman, PRSG, MeitY, GoI	From July 2017 still continuing; CGO Complex, New Delhi
9	Prof. N. C. Karmakar	Member, Selection Committee Meeting, CIMFR (CSIR), Dhanbad	3 Jan 2019; CIMFR, Dhanbad
10	Prof. N. C. Karmakar	Examiner, PhD viva-voce	8 July 2018; Dept of Mining Engg, IIT Kharagpur
11	Prof. N. C. Karmakar	Examiner, PhD viva-voce	1 Feb 2019; Dept of Mining Engg NIT Suratkal



#### Special lectures delivered by faculty members in other institutions (From 1st April 2018 to 31st March 2019)

S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
1	Prof. N. C. Karmakar	Tracer Gas	Dept of Mining Engg NIT Suratkal	31 Jan 2019
2	Prof. N. C. Karmakar	Education and Living	Dept of Mining Engg NIT Suratkal	31 Jan 2019
3	Prof. N. C. Karmakar	Controlled Recirculation	Dept of Mining Engg NIT Suratkal	31 Jan 2019
4	Prof. N. C. Karmakar	Evasee Design	Dept of Mining Engg NIT Suratkal	31 Jan 2019
5	Dr. S. K. Palei	Risk Management: A Decision Making Tool for Managers	Ashoka Institute of Technology & Management, Varanasi, FDP on 'Modern Optimization Techniques for Engineering and Scientific Applications'	25 June 2018 in Faculty Development Program, 25-29 June 2018.

#### **Visits abroad by faculty members** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Country Visited	Date of Leaving india	Date of Returning India	Purpose of Visit	Funding from
1	Dr Rajesh Rai	Spain	11 April	16 April	To attend the conference	IIT (BHU)

## **Honours and awards** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Details of Award
1	Prof. Piyush Rai	Nominated as an <b>Academic Reviewer</b> , Dept. of Mining Engineering, by NIT , Raipur for a period of 3-years w.e.f. April 2018

## **Editorial boards of journals** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1	Prof. N. C. Karmakar	Member	J. Institution of Engineers (I)

## 3. Design and Development Activities

New facilities added (From 1st April 2018 to 31st March 2019)

S. No.	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)
1	Galena software for slope analysis	1.5 approximately

## Patents filed (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Title of Patent
1	Yadav, A.K. & A. Jamal	A Method to Reduce Suspended Particulate Matter in Air

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#### 5. Research and Consultancy

#### **Sponsored research projects** (Ongoing only)

S. No.	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co- ordinator
1	Whole Body Vibration Exposure on HEMM Operators in Surface Coal Mines – An Assessment of Various Contributing Factors	Three years (Started since 30 March 2019)	SERB-DST	Rs <b>40.03</b> 7	Dr. S. K. Palei (PI)
2	Design and Development of Micro Seismic based technique for monitoring and prediction of slope failure in Pandoh, Himachal Pradesh, India	3 years	SERB	50	Dr.A.K.Verma
3	National Geotechnical Conclave for developing an early warning system for Landslide Mitigation	2 days	DST	5.50	Dr.A.K.Verma

#### **Industrial consultancy projects** (Ongoing only)

S. No.	Name of Faculty Member	Title	Industry	Amount (in lakhs of Rs.)
1	Prof. Aarif Jamal, Er. R. P. Singh	Carrying capacity of the ecosystem to asses optimal mining operation of Dipka OCP & Gevra OCP	SECL, Coal India Ltd, Bilaspur	35.4 Lac
2	Suprakash Gupta	Scientific Study on Vibration studies of various machinery operating at Jhanjra Project colliery	Eastern Coal Fields Limited	₹ 708000
3	A.K.Verma	Dump Slope Stability Study	Vikram Cement Work	4.0
4	A.K.Verma	Rock sample study of Rishikesh site	SM Consultant	6.0

#### **Research Publications** (From 1st April 2018 to 31st March 2019)

S. No.	Papers Published/ Presented	No.
1	Papers Published in Refereed National Journals	1
2	Papers Published in Refereed International Journals	14
3	Papers Presented in National Conferences	3
4	Papers Presented in International Conferences	5

### **Refereed International Journals** (From 1st April 2018 to 31st March 2019)

- 1. Azam, Shah Fateh and **Rai, Piyush** Modelling of Dragline Bucket for Determination of Stress, **Int. Jour. Modelling, Measurement and Control C**, Vol. 78, No. 3, pp; 392-402.
- 2. Ashish Kumar Vishwakarma, Rajesh Rai and B. K. Shrivastva (2018) "Distribution Characteristics of Micronutrients in Mining Induced Subsided Land of an Underground Coal Mine of South Eastern Coalfields, India", Nature Environment and Pollution Technology, Vol. 18 No. 2 pp. 491-496.
- 3. A. K. Yadav and A. Jamal (2018) Suspended particulate matter and its management system surrounding opencast coal mines. Environmental Quality Management 28(2), 123–128. ISSN: 1520-6483



- 4. A.K. Yadav and A. Jamal (2019) Impact of Mining on Human Health in and around Mines. Environmental Quality Management 28(1), 83–87. ISSN: 1520-6483
- 5. A.K. Yadav and A. Jamal (2018) Technological reviews of particulate matter and their source identification techniques 27(4):87–95. ISSN: 1520-6483
- 6. Shirin, S., and A. Jamal (2018) Environmental impact of mine water, utilization and management in Indian mines. Rasayan Journal of Chemistry 11(2): 531 536.
  - doi:10.31788/RJC.2018.1121998
- 7. Shirin, S., and A. Jamal (2019 Study on assessment of slope stability and mixed disposal of overburden in voids of Singrauli coalfield. Environmental Quality Management 28(3), 131-139. doi:10.1002/tqem.21616
- 8. Shirin, S., and A. Jamal (2018) Neutralization of acidic mine water using flyash and overburden. Rasayan Journal of Chemistry 11(1): 74 79. doi:10.7324/RJC.2018.1111957
- 9. Ramita Varshney and Aarif Jamal (2018) Evaluation of Reservoir Water Quality Using Water Quality Index in Govind Ballabh Pant Sagar Reservoir, India. Rasayan Journal of Chemistry, 11 (3), 1177-1182 (2018).ISSN: 0976-0083.
- 10. Ramita Varshney and Aarif Jamal (2019) A Multivariate Statistical Analysis Approach for the Assessment of Water Quality in Govind Ballabh Pant Sagar Reservoir. Rasayan Journal of Chemistry, 12 (1), 251-256 (2019). ISSN: 0976-0083.
- 11. Gupta Suprakash, Kumar Pramod and Raju Gunda Yuga, A fuzzy causal relational mapping and rough set-based model for context-specific human error rate estimation International Journal of Occupational Safety and Ergonomics (JOSE), 2019, DOI: 10.1080/10803548.2019.1578114.
- 12. Pushpendra Sharma, Amit Kumar Verma, Anil Negi, Manish Kumar Jha and Pradeep Gautam (2018) Stability assessment of jointed rock slope with different crack infillings under various thermomechanical loadings, Arabian Journal of Geosciences 11:431, https://doi.org/10.1007/s12517-018-3772-3 (I.F. 0.862, SCI)
- 13. Sahil Sardana, A.K. Verma, Laldinpuia, T.N. Singh (2019) Investigation of Rockfall Prone Road Cut Slope near Lengpui Airport, Mizoram, India, Journal of Rock Mechanics and Geotechnical Engineering(to be published in Feb. 2019 (SNIP:2.256; Scopus, SCIE)
- 14. AK Verma, S Sardana, TN Singh, N Kumar (2018) Rockfall analysis and optimized design of rockfall barrier along a strategic road near Solang Valley, Himachal Pradesh, India, Indian Geotechnical Journal 48 (4), 686-699 (I.F. 0.5, ESCI, Scopus)

#### **Refereed National Journal** (From 1st April 2018 to 31st March 2019)

1. Azam, Shah Fateh and **Rai, Piyush**, 2019 Finite Element Based Simulation and Analysis of Dragline Bucket in Static and Dynamic Loading Condition, **Current Science**, V.116, No.4, Feb., 2019, pp: 612-619.

#### **Proceedings of International Conferences** (From 1st April 2018 to 31st March 2019)

- 1. Ramita Varshney, Ashish Kumar Vishwakarma, Ashwani Kumar Sonkar and Aarif Jamal 2019. An Assessment of Water Quality of Rihand River (India) using Multivariate Statistical Techniques. Souvenir of the International Conference on River Health; Assessment to Restoration (RHAR-2019) 64, International Conference on River Health; Assessment to Restoration (RHAR-2019), Department of Civil Engineering, IIT (BHU), Varanasi, India, 14-16 February 2019.
- 2. Yadav, A. K., and A. Jamal, 2018. Distribution of taxic metals in particulate matter around coal mines. NSE-20, IIT Gandhinagar 2018.
- 3. Aishwarya Mishra, Sanjay Kumar Palei, Netai Chandra Karmakar, Rajesh Rai, C. K. Behera. 2019. Inclusion



- of Environmental Cess in Coal Pricing A Broad Framework. International Conference and Exhibition on Energy & Environment: Challenges & Opportunities (ENCO 2019), February 20 22, 2019 held at Vigyan Bhawan, New Delhi.
- 4. Ashish Kuamr Vishkarma, Ashok Jasiwal, Sankit Maroo, Rajesh Rai and B. K shrivastva (2019), Input-Output analysis in Mining Industry: The Application, International Conference and Exhibition On Energy & Environment: Challenges & Opportunities. ENCO 2019 February 20 22, New Delhi, india.
- 5. Roshan Kumar Patel, Arunava Ray, Rajesh Rai and B K Shrivastva (2018) "Effect of Coal Rib on Stability of Internal Dragline Dump" International symposium on Slope Stability Symposium, April 10-13, Sevilla, Spain.

#### **Proceedings of National Conferences** (From 1<sup>st</sup> April 2018 to 31<sup>st</sup> March 2019)

- 1. Rai, Piyush 2018. Challenges and Possibilities in Surface Blasting" in the Nat. Sem. on Technology Innovation and Safety in Mining Industry, on Mar. 23-24, 2018, Jointly Org. by MEAI of India, Barajamda Chapter and Tata Steel, Noamundi.
- 2. Sharma, Suresh and Rai, Piyush 2018. "A case Study on Stemming Confinement in Surface Blasting", Procs. National Symp. on Advanced Technology in Rock Fragmentation and Blasting, Jan. 20-21, 2018, Jointly Org. by MEAI of India, Jodhpur Chapter and Inst. of Engrs (I), Jodhpur Chapter, Jodhpur.
- 3. D.K. Chaudhary, Vivekananda Kumar, M. K. Atal, S.K. Palei, N. C. Karmakar (2018) A Study on Whole-body Vibration Exposure of Heavy Earth Moving Machineries Operators in a Coal Mine, National Conference: Mine Environment: Techniques, Equipments & Challenges (15-16 December 2018) organised by M.B.M. Engineering College, Jodhpur, Rajsthan, India.

**Distinguished Visitors** (From 1st April 2018 to 31st March 2019)

Sl. No.	Name of the visitor & Designation	Date of Visit	Purpose of Visit	

#### 6. Other activities

International collaboration/achievements by the Department (From 1st April 2018 to 31st March 2019) None Indian Faculty visits in the Department (From 1st April 2018 to 31st March 2019)

Sl. No.	Name of Faculty Member	Purpose of Visit	Date and Venue	

#### Foreign Faculty Visits in the Department (From 1st April 2018 to 31st March 2019)

Sl. No.	Name of Faculty Member	Purpose of Visit	Date and Venue	

### **Foreign Students Visits in the Department** (From 1st April 2018 to 31st March 2019)

Sl. No.	Name of Faculty Member	Purpose of Visit	Date and Venue



# 15. Department of Pharmaceutical Engineering and Technology

**Year of Establishment:** 1932

#### **Head of the Department:**

Dr. Sushil Kumar Singh up to 08.05.2018 (FN)

Dr. Sanjay Singh w.e.f. 08.05.2018 (AN) - 23.02.2019

Dr. Sushant Kumar Shrivastava w.e.f. 26.02.2019

#### 1. Brief Introduction of the Department:

Department of Pharmaceutical Engineering & Technology is a pioneer in Pharmaceutical education in India at University level. It was started in July 1932 by Prof. Mahadev Lal Schroff under the auspicious guidance of Mahamana Madan Mohan Malaviya Ji. Initially, a two-year course was introduced in 1934 for the degree of B.Sc. (Pharmaceutical Chemistry). Later, the department has expanded academically by the inception of B.Pharm. (1937), M.Pharm. (1941), Ph.D. (1945) and integrated dual degree (2006) as its regular programmes. In the year 2014, the UG and IDD programmes have been restructured and renamed as 4-year B Tech Programme in Pharmaceutical Engineering and Technology and 5-year IDD (B Tech & M Tech) programme in Pharmaceutical Engineering and Technology, respectively.

The Department has produced over 2126 B.Pharm., 1184 M.Pharm., 52 M.Pharm.(Integrated Dual Degree) and 102 Ph.D. (as on May 2017) students who enjoy leading positions in industry, academia, drug administration, research institutes and contemporary pharmacy practice worldwide. The Department has also hosted many events at the National level and to name a few are the 17<sup>th</sup>, 34<sup>th</sup> & 59<sup>th</sup> editions of Indian Pharmaceutical Congress in the year 1965, 1982 & 2007 in conjunction with Silver Jubilee, Golden Jubilee and Platinum Jubilee of the Department, respectively.

#### Major areas of Research

The department is actively involved in the following broad research areas.

- Drug discovery Identification and optimization of new chemical agents from natural and synthetic origin for the treatment of diabetes, epilepsy, depression, pain, Alzheimer's disease, cancer, tuberculosis and other infectious diseases.
- ii) Drug formulation design and development Design and development of new drug delivery systems with improved pharmacokinetic and pharmacodynamic profiles.

#### Area of the Department: 5823 Square metre

#### Infrastructure

S. No.	Particulars	Number
1	No. of Classrooms	06
2	No. of Lecture Halls	02
3	No. of Laboratory	26
4	No. of Computers available for students in the Department	40



#### Unique Achievement / Preposition of the Department

The Department of Pharmaceutical Engineering & Technology is the pioneer department to start the degree level pharmacy education in the Country and in South-east Asia. This department is known for its enormous contribution to the growth and expansion of pharmaceutical education and research across the country. In pursuit of achieving its goal, the department has been continuously imparting quality education to produce pharmacists befitting to the requirements of industry and society. Recently the department introduced a research based undergraduate and integrated dual degree curriculum to impart innovative research skills and expertise among the students. Recent the department has proposed to start a new M Pharm programme; Quality Control in Pharmaceuticals and Medical Devicesand is currently under review at the Institute level. The new M Pharm programme is aimed to provide the students in-depth knowledge of the quality methods for pharmaceutical substances and drug products prescribed in Indian Pharmacopoeia (IP) and enable them to gain extensive practical training on such products (including medical devices) in collaboration with Indian Pharmacopoeia Commission (IPC).

On the research front, the department has been actively engaged in the cutting edge research areas of drug discovery and development. The R & D expertise available in the department includes; (a) New drug target identification and validation; (b) Discovery of natural and synthetic lead compounds and their optimization; (c) Development of novel drug delivery systems including nano-formulations for synthetic and herbal drugs; (d) Authentication and standardization of herbal products; (e) Preclinical evaluation of drug candidates; (f) Analytical method development for drugs and drug formulations.

Apart from institute funded research projects, extramural research funding to the tune of about two crores has been generated during the last two years. To date, nearly 1600 peer-reviewed research papers have been documented by the department. Approximately ~700 research communications have been registered with Scopus alone. During the last five years, the department has published about ~300 peer-reviewed research papers. Besides this, a dozen of patents have been filed by the faculty members during the last five years. The high order research credits of faculty members viz., cumulative h-index of 210 and cumulative citations of ~26000, further corroborates the research strength of the department of Pharmaceutical Engineering & Technology.

Some of the key research accomplishments of the department in the area of drug discovery and development include; (a) discovered of some potential multifunctional anti-Alzheimer's and anticancer lead compounds, active at nanomolar to micromolar concentration, (b) enhancement of bioavailability and efficacy of drugs through nanoformulations and target-directed carrier systems, (c) identified newer cellular and molecular mechanisms involved in neuropathic pain, (d) developed a bioactive glass based formulation for the treatment of cerebral ischemia, and (e) created a well characterized natural product library of ~100 compounds from plants and microbial origin.

On an average the faculty members of the department publish around 60-70 peer-reviewed research papers annually. Over 14 patent applications have been filed by the faculty members so far.

#### 2. Academic Programmes offered

**New Courses Introduced** (From 1st April 2018 to 31st March 2019)

S. No.	Course Code	Course name	Course credit

#### **Students on Roll**(From 1st April 2018 to 31st March 2019)

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year& above
1.	B. Tech/B. Pharm	53	58	44	39	
2.	Dual Degree	13	20	14	16	18
3.	M. Tech/ M. Pharm	39	32			
4.	Ph. D (Under Institute Fellowship)	19	05	12	04	15
5.	Ph. D (Under Project Fellowship)	02	03			01



S. No.	S. No. Programme		II Year	III Year	IV Year	V Year& above
6.	Ph. D (Under Sponsored Category)					

# Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in $India(From\ 1st\ April\ 2018\ to\ 31st\ March\ 2019)$

S. No.	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
ÌNDIA-	B.Tech/IDD studen	its			
1	Shubham Jain	16165043	Inno Pharm-3 3 <sup>rd</sup> international Conference	22-23 October 2018 & Goa	STGS
2	Ashok Kumar	16165007	Inno Pharm-3 3 <sup>rd</sup> international Conference		
3	Shubham Singh	16165044	Inno Pharm-3 3 <sup>rd</sup> international Conference	22-23 October 2018 & Goa	STGS
4	Shreshth Poddar	16164013	Inno Pharm-3 3 <sup>rd</sup> international Conference	22-23 October 2018 & Goa	STGS
5	Prince Kumar	14164005	Dept of Zoology, BHU	October 29-31, 2018	self
6	Prem Chopra	16165034	Dept of Zoology, BHU	October 29-31, 2018	self
M.Phar	m. students				
1	G. Rajendra Pd. Reddy	17162007	70th IPC 2018	21-23 Dec, 2018 & Noida, U.P.	STGS
2	Tanmaya Saha	17162026	70th IPC 2018	21-23 Dec, 2018 & Noida, U.P.	STGS
3	Gajendra T.A.	17162026	70th IPC 2018	21-23 Dec, 2018 & Noida, U.P.	STGS
4	Chethan HV	17162032	70th IPC 2018	21-23 Dec, 2018 & Noida, U.P.	STGS
5	Boolchandani Khusbu Prakash	17162024	70th IPC 2018	21-23 Dec, 2018 & Noida, U.P.	STGS
6	Mangal Singh Rathod	18162008	70th IPC 2018	21-23 Dec, 2018 & Noida, U.P.	STGS
7	Arpit Jain	17162005	70th IPC 2018	21-23 Dec, 2018 & Noida, U.P.	STGS
8	Adity Sharma	17162002	70th IPC 2018	21-23 Dec, 2018 & Noida, U.P.	STGS
9	Neelesh Kori	17162009	70th IPC 2018	21-23 Dec, 2018 & Noida, U.P.	STGS
10	Meenu Yadav	17162016	Dept of Zoology, BHU	October 29-31, 2018	self
11	C.S. Praveen Kumar	17162012	ISCB	11.01.2019, Lucknow	Self
12	Meenu Yadav	17162016	ISCB	11.01.2019, Lucknow	Self
Ph.D					
1	Kaushik Neogi	16161005	2 <sup>nd</sup> workshop on Advanced techniques in Anti-Cancer Drug Evaluation	08-12 October, 2018 & Navi Mumbai	STGS



S. No.	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From		
2	Akansha Mishra	14161001	International Conference on Neuroscience & XXXVI Annual meeting of Indian Academy of Neurosciences (IAN 2018) on "Translational Research in Improving Mental Health"	October 29-31, 2018.  Centre of Advanced Study, Department of Zoology, Varanasi, India	STGS		
3	Priyanka Sharma	13161501	IAN-2018 conference	29-31 Dec, 2018 & Deptt. Of Zoology, BHU	STGS		
4	Srabanti Jana	14161009	25 <sup>th</sup> ISBC International conference	12-14 <sup>th</sup> January 2019, Lucknow	STGS		
5	Yash Pal Singh	16161009	Dept of Zoology, BHU October 29-31, 2018, Varanasi		self		
6	Yash Pal Singh	16161009	ISCB	11.01.2019, Lucknow	Self		
ABROA	ABROAD						
1							

Names of students/scholars who got prizes and awards outside the Institute(From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of Prize	Date & Venue	Prize awarded by
1	Priyanka Sharma	13161501	PharmaRatan	25.11.2018 & New Delhi	RDM
2	Jai Dev	17162027	Anti-Addiction Campaign Quiz, Ethiccraft Club	March 30, 2017; IIT(BHU)	Ethic craft Club

Names of scholars/students who won Convocation/Institute Day prizes (From 1st April 2018 to 31st March 2019)

S	. No.	Name of Student	Roll No.	Name of Prize	Prize awarded by
	1	Smriti Gupta	18161502	M.Pharm.Gold medal	IIT (BHU)
	2	Juhi Singh	13164003	IIT(BHU) Gold Medal	Director, IIT(BHU)

Names of Students/Scholars who went for foreign Internship (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
1	Mr. Digambar Waiker	17161006	Purdue University	SERB-OVDF	USA	1 Year Jan 2019- Jan 2020

### 3. Faculty & their Activity

Faculty and their areas of specialisation



S. No.	Name, Qualifications, Employee No.	Date of award of PhD Degree	Major Areas of Specialization (Max. 3 Areas)
PROFES	SORS		
1	Brahmeshwar Mishra (M.Pharm., PhD.)	10.08.1988	Pharmaceutics –Rate Controlled Novel Drug Delivery Systems, Nanotechnology based drug formulations Pharmacokinetics and Pharmacodynamics
2	Sushil Kumar Singh (M.Pharm., PhD.)	21.02.1989	Pharmaceutical Chemistry – Chemistry of Natural Drug Products, Synthetic Analogues and Evaluation of their Biological Activity
3	Sanjay Singh (M.Pharm., PhD.)	03.04.1993	Pharmacology – Nanomedicine, PK/PD Modeling, Stress and Diabetic Pharmacology
4	Sushant Kumar Shrivastava (M.Pharm., PhD.)	19.06.2000	Pharmaceutical Chemistry – Rational Drug Design and Molecular Modeling
5	S. Hemalatha (M.Pharm., PhD.)	29.07.2005	Pharmacognosy – Pharmacognostical and Pharmacological Evaluation of Indian Medicinal Plants
6	Sairam K (M.Pharm., PhD.)	05.04.2003	Pharmacology – Neuropharmacology, Mitochondrial Medicine, New Drug Discovery, Organelle Targeted Drug Development
ASSOCIA	ATE PROFESSORS		
7	A.K.Srivastava (M.Pharm.)	N.A.	Pharmaceutics – Newer Drug Delivery System especially Oral Controlled Release Solid Dosage Form
8	Senthil Raja A (M.Pharm., PhD.)	18.07.2009	Pharmaceutical Chemistry – Synthetic Medicinal Chemistry, Computational Chemistry, Lead identification and Optimization
9	Alakh Niranjan Sahu (M.Pharm., PhD.)	08.12.2014	Pharmacognosy –Quality control studies and standardization of medicinal plants and herbal formulations
10	Ruchi Chawla (M.Pharm., PhD)	17.10.2016	Pharmaceutics – Nano-drug Delivery System and Pharmacokinetics
11	M.S. Muthu (MS., Ph.D.)	02.01.2010	Pharmaceutics –Cancer Nanotechnology, Theranostics, Anti-psychotic nanomedicine
ASSISTA	NT PROFESSORS		
1	Sunil Kumar Mishra (M.Pharm., Ph.D.)	02.11.2013	Pharmacognosy – Medicinal & Aromatic Plants (MAP) Research, MAP Tissue Culture, Natural Drugs
2	Prasanta Kumar Nayak (M.Pharm., Ph.D.)	25.05.2013	Pharmacology –Brain injury; Memory impairment; Breast cancer; Gallbladder cancer
3	Gyan Prakash Modi (M.Pharm., Ph.D.)	14.12.2013	Pharmaceutical Chemistry – Design, Development of Novel Drugs to Treat Infections and CNS Disorders
4	Shreyans Kumar Jain (MS, PhD)	15.09.2015	Medicinal Chemistry of Natural Products



S. No.	Name, Qualifications, Employee No.	Date of award of PhD Degree	Major Areas of Specialization (Max. 3 Areas)
5	Vinod Tiwari (MS, PhD)	19.06.2012	Pharmacology: Cellular molecular mechanisms driving Neuropathic Pain, Role of reward circuitry in Chronic Pain, Targeting Kinesins for the treatment of neuropathic pain
6	Ashish Kumar Agrawal	15.06.2015	Pharmaceutical Nanotechnology and drug delivery
	(M Pharm, PhD)		
SENIOR	RESEARCH OFFICER		
1	Ashok Kumar (M.Sc., Ph.D.)	1993	Pharmaceutical Chemistry – Synthesis and Characterization of Novel Compounds
Institute	Professors		
Distingui	shed Professors		
Emeritus	Professors		
Guest Fac	culty		
Visiting F	aculty		
DST INSI	PIRE/Ramalingam Swami F	aculty	
1.	Arun Khattri, 048	2010	Cancer Biology, bioinformatics and human genetics

# **Technical and Non-Teaching Staff**

Sl. No.	Name, Qualifications	Designation & Employee No.	Date of Appointment in the department	
Office St	aff			
1	Sh. Atul Kumar Gupta, B.Tech. (Electrical)	Junior Assistant, 50109	21.05.2017	
2	Sh. Yashwant Singh, M.A.	Skilled Clerical Staff	27.04.2015	
3	Sh. Ram Jiyawan,B.A.	Ex. Senior Assistant, 12126	05.06.2007	
4	Sh. Anand Kumar, B.A.	Caretaker cum Clerk	06.12.2016	
5	Sh. Surya Pratap Singh, Intermediate	Multitasking Staff	01.05.2019	
Library S	Staff			
1	Km. Shyamali Ghosal, B. Lib.	Semi Professional Assistant, 14073	01.08.1987	
Laboratory Staff				
1	Sh. Kapil Dev Rai, M.A.	Technical Superintendent, 14179	02.02.1987	
2	Smt. Archana Singh, M.Sc	Technical Superintendent,18747	15.12.2008	
3	Sh. Madan Lal, M.A.	Technical Superintendent, 14185	12.08.1995	
4	Sh. Virendra Kumar, I Sc.	Technical Superintendent, 14187	15.10.1998	
5	Sh. Ram Hriday Pathak, H.Sc.	Technical Superintendent, 14186	15.10.1998	



Sl. No.	Name, Qualifications	Designation & Employee No.	Date of Appointment in the department
6	<b>Sh. Sunil Kumar Singh</b> , Dip. In Electrical Engg	Senior Technician, 19269	20.12.2013
7	<b>Sh. Akhila Nand Upadhyay</b> , B. Sc., D. Pharm.	Senior Technician, 18628	07.08.2008
8	Sh. Arun Kumar, Intermediate	Senior Technician, 18624	02.07.1996
9	Sh. Mohd. Jameel, Intermediate	Senior Technician, 18633	02.07.1996
10	Sh. Amit Kumar, Intermediate	Senior Technician, 17371	03.12.2015
11	Sh. Nand Lal, B. Sc.	Ex. Technical Superintendent, 14183	11.01.1979
12	Sh. Chhote Lal, B.A.	Ex. Technical Superintendent, 6497	02.02.1987
13	Sh. Rafique Ahmad, High School	Ex Sr Laboratory Attendant, 14184	26.05.1992

Short-term courses/workshops/seminars/symposia/conferences organised by faculty members ( $From\ 1^{st}\ April\ 2018\ to\ 31^{st}\ March\ 2019$ )

S. No.	Coordinator	Title	Period
1	Sanjay Singh – Chairman	Spirit 2019 & Seminar on	2-3 February, 2019
	AK Srivastava – Org. Secretary	"Emerging Trends in Healthcare"	·

Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings (From  $1^{st}$  April 2018 to  $31^{st}$  March 2019)

S. No.	Name of Faculty Member	Title	Period and Venue
Seminar	rs/Symposia/Conferences		
1	B. Mishra	Advanced Faculty Training Program	5 <sup>th</sup> September, 2018, Banaras Hindu University, Varanasi.
2	B. Mishra	81st Orientation Course	6 <sup>th</sup> December, 2018, Banaras Hindu University, Varanasi.
3	B. Mishra	80 <sup>th</sup> orientation course	10 <sup>th</sup> August, 2017, Banaras Hindu University, Varanasi.
4	Sushant Kumar Shrivastava	LEAP Programme 2019	IIT-Roorkee and University of Michigan, USA 17 November – 7 December 2018.
5	Sanjay Singh	LEAP Programme 2019	IIT-Kanpur, 17 November – 7 December 2018.
6	S.HEMALATHA	23 <sup>rd</sup> National Convention of Society of Pharmacognosy	22.02.19 & 23.02.19 NBRI Lucknow
7	S.HEMALATHA	Interactive session on Phytopharmaceuticals	5.4.19 & Jamia Hamdard
8	A N Sahu	National Convention of Society of Pharmacognosy & International Conference on "New Age Opportunities and Challenges for Quality, Safety and GMP's in Herbal Drug Development"	February 22 – 23, 2019, CSIR- NBRI, Lucknow, India



S. No.	Name of Faculty Member	Title	Period and Venue
9	M.S. Muthu	Nanopharmaceutics and Advanced Drug Delivery With title "Nanotheranostics: micelles for early diagnosis and therapy of cancer"	17 <sup>th</sup> August 2018 in Dublin, Ireland.
10	M.S. Muthu	International Conference on Advanced Nanomaterials for energy, environment and healthcare applications With Title"Theranostic nanomedicine for cancer therapy"	04 <sup>th</sup> -06 <sup>th</sup> February, 2019 in Trichy, India
11	Sairam Krishnamurthy	Unmet medical need: Disease modifying strategy for Parkinson's disease	International Conclave for the advancement of Biotechnology, Chemical and Pharmaceutical Technology' (BIOFLAIR 2019) during 6-8 <sup>th</sup> March 2019 at Department of Biotechnology, Pavendar Bharathidasan College of Engineering and Technology (PABCET), Tiruchirappalli
12	G. P. Modi	Novel Naturally Inspired Multifunctional Molecules as Potential Therapeutic Agents for Alzheimer's Disease	2018 October  Indian Academy of Neurosceicne
13	G. P. Modi	1. Development of Novel Dual Acting Nueroprotective Agents for the Treatment of Alzheimer's Disease  Acting Nueroprotective Swati Vishwakarma, General Modi* (EMBO works) to be held from Augu Spetember 01, 2018)	
14	Senthil Raja A	Self-Awareness and Higher Goals in Education	Jun 4-8, 2018, IIT Madras
15	Senthil Raja A	Building Curriculum for Data Science & Business Analytics	October 9 – <b>11, 2018,</b> Amrita School of Business Coimbatore
16			
Meeting			
17	S.HEMALATHA	Ayurvedic Pharmacoepia committee 9.4.18 -10.4.18 Pharma commission for Indian Medicines (PCIM)Ghaz	
18	S.HEMALATHA	Selection Committee meeting	15.10.18  Anna University Chennai
19	S.HEMALATHA	Standing Expert Committee meeting on Phytopharmaceuticals	8.1.19 CDSCO DCGI New Delhi
20	S.HEMALATHA	Ayurvedic Pharmacoepia committee	30.1.19- 31.1.19 PCIMGhaziabad



S. No.	Name of Faculty Member	Title	Period and Venue
21	S.HEMALATHA	Editorial Board Ayurvedic Pharmacoepia committee	25.3.19-26.3.19 PCIMGhaziabad
22	S.HEMALATHA	Ayurvedic Pharmacoepia committee	26.3.19-28.3.19 PCIMGhaziabad
23	Young Investigators Meeting (YIM-2019)	Naturally Inspired Novel Neuroprotective Molecules for The Treatment of Alzheimer's Disease	Yash Pal Singh, C. Praveen Kumar, Meenu Yadav, <u>Gyan</u> <u>Modi</u> *

# $\textbf{Special lectures delivered by faculty members in other institutions} (\textit{From 1}^{\text{st}} \textit{April 2018 to 31}^{\text{st}} \textit{March 2019})$

S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
1	B. Mishra	Health Management – Food and Nutrition	Centre for Food Science and Technology, Banaras Hindu University, Varanasi.	5 <sup>th</sup> September, 2018
2	B. Mishra	Risk Management for Effective Medication	UGC-Human Resource Development Centre, Banaras Hindu University, Varanasi.	6th December, 2018
3	B. Mishra	Risk Management for Effective Medication	UGC-Human Resource Development Centre, Banaras Hindu University, Varanasi.	10 <sup>th</sup> August, 2017

# Visits abroad by faculty members (From $1^{st}$ April 2018 to $31^{st}$ March 2019)

S. No.	Name of Faculty Member	Country Visited	Date of Leaving india	Date of Returning India	Purpose of Visit	Funding from
1	Sushil K. Singh	Czech, Hungary	6-09-2018	28-09-2019	Attending Conference	IIT(BHU)
2	Sushant Kumar Shrivastava	USA	1/12/2018	8/12/2018	LEAP programme	IIT-Roorkee
3	Sanjay Singh	Singapore	3/12/2018	8/12/2018	LEAP programme	IIT-Kanpur
4	M.S. Muthu	Ireland	13-08-2018	19-08-2019	Conference	IIT(BHU)
5	Gyan Prakash Modi	Germany	August 29, 2018	September 3, 2018	EMBO Chemical Biology workshop, Germany	SERB- ITS/2018/003609
6	Ashok Kumar	Czech Republic, Hungary	6-09-2018	28-09-2019	Attending Conference	IIT(BHU)

# Honours and awards(From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Details of Award
1	M.S. Muthu	Life Member, 2019 Scientific Membership, National Academy of Sciences, India (NASI)
2	G. P. Modi	Selected as participant in Young investigator meeting, India bioscience, DBT
3	G. P. Modi	SERB International travel award, EMBO workshop, Germany ITS/2018/003609
4	B. Mishra	"Certificate of Appreciation" by Pharmaceutical Council of India, New Delhi
5	Ruchi Chawla	Awarded 'Outstanding Researcher In Pharmaceutics', VIHA 2018 by Venus International Foundation (28-29, Sep 2018)
6	Ruchi Chawla	Waste Management Model from our lab was awarded 1 <sup>st</sup> prize on Institute Day, 2018



# Fellowships of academic and professional societies (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Details of Fellowship	

# Books, monographs authored/co-authored (From $1^{st}$ April 2018 to $31^{st}$ March 2019)

S. No.	Name of Author/Co- Author	Title	Publisher
1	Mishra B, Chandewar A. V., Hedau-Bakade B. A.	Laboratory Manual of Industrial Pharmacy (Theoretical Concepts and Practical Exercises)	Career Publication., Nashik (Maharashtra)
2	Sharma, P., Tripathi, M. & Shrivastava, S.K.	Cholinesterase as a target for drug development in Alzheimer's disease	Humana Press,Springer, USA
3	Kumar, M., Sharma, P., Maheshwari, R., Tekade, M., Shrivastava, S.K. & Tekade, R.K.	Chapter 15 – Beyond the Blood–Brain Barrier: Fac- ing New Challenges and Prospects of Nanotech- nology-Mediated Targeted Delivery to the Brain.	Academic Press (Elsevier)
4	Ankit Ganeshpurkar, Gopichand Gutti, Sushil Kumar Singh	RNA-Dependent RNA Polymerases and Their Emerging Roles in Antiviral Therapy in Viral Polymerase	Academic Press

# **Editorial boards of journals**(From 1<sup>st</sup> April 2018 to 31<sup>st</sup> March 2019)

S. No.	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1	Prasanta Kumar Nayak	Editorial Board Member	Journal Of Research Innovation And Management Science (http://www.jrim.net/editorial-board)
2	Prasanta Kumar Nayak	Managing Editor	The Pharmstudent (https://www.thepharmstudent.com/editorial_board.html)
3	B. Mishra	Member	Recent Patents On Drug Delivery & Formulation
		Associate Editor	Journal of Pharmaceutical Research
		Editor-In-Chief	SPER Journal of Pharmaceutical Sciences [SJPS]
		Member	Austin Therapeutics
		Advisory Board Member	SPER Times
		Member	Journal of Advanced Pharmaceutical Technology and Research
		Member	Inventi Impact: Pharmaceuticals
		Member of Reviewer's panel	Pharmbit
		Editorial Advisors	The Pharmstudent



# 16. Design and Development Activities

New facilities added(From 1st April 2018 to 31st March 2019)

S. No.	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)			
Equipmo	Equipments				
1	Multimode Microplate Reader (Biotek Synergy H1M)	12			
2	Particle Size Analyzer, Malvern UK	15			
3	Rotary Evaporator with vacuum pump and Water Regulation Chiller	06			
4	Vertical Autoclave	1.75			
5	Aqua guard Pure Chill 120 PSS	1.12			
6	Florescence microscopy facility	19.00			
Infrastru	Infrastructure				
1	Faculty chambers and lab renovation	~11.00			
2	Koba Roof Treatment of roof of the Department	~42.00			
3	Renovation of Phytomedicine Lab	~6.00			

# Patents filed (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Title of Patent
1	Sushant Kumar Shrivastava	Compositions and methods for reducing cell viability- US Patent 2932719-019-US1
2	Sushant Kumar Shrivastava	Methods for treating cancer and metabolic syndrome- US Patent 2932719-025-US1
3	Sushant Kumar Shrivastava	5-Oxoisoxazolidine- 2-carboxamide compounds as inhibitors of cyclo-oxygenase and lipo- oxygenase as anti- inflammatory analgesic agents-Indian Patent 201811019910
4	Sushant Kumar Shrivastava	Composition and methods for treating cancer- US Patent 62/728439-2932719-053-US1
5	A N Sahu	01, 2018, A multi-utility equipment, Filed: Application no.: 201811033581
6	Sairam Krishnamurthy, Pankaj Paliwal	Formulation of silver containing bioactive glass". Indian Patent filed on 11th May 2018. Application No. 201811017805.
7	Sairam Krishnamurthy, Pankaj Paliwal	"A Novel Formulation of Dabigatran Solid Dispersion Formulation and a Method of Preparation Thereof" Indian Patent filed on 3 <sup>rd</sup> August 2018. Application No. 201811029316.
8	Sairam Krishnamurthy, Pankaj Paliwal and Smriti Gupta	"A novel barium bioactive glass (BaBG) formulation and a method thereof" Indian Patent filed on September 10, 2018, under Application No.201811033966.
9	Sairam Krishnamurthy Pankaj Paliwal	"A bioactive glass drug formulation for bone repair and regeneration and a method of preparation thereof" y; Indian Patent filed on October 25, 2018, under Application No.201811040152.
10	Sairam Krishnamurthy Pankaj Paliwal, Gyan Prakash Modi, Gopichand Gutti, and Sushil K Singh	A novel anti-coagulant formulation and a method of preparation thereof; Indian Patent filed on March 27, 2019, under Application No.201911012094.



S. No.	Name of Faculty Member	Title of Patent
11	Pralay Maiti, Arun Kumar Mahanta, Sairam Krishnamurthy and Pankaj Paliwal	Material for faster bone healing Indian Patent filed on April 02, 2019, under Application No.201911013103.
12	G. P. Modi	IMPDH-targeted antibiotics, Michael J. Pepi, Lizbeth K. Hedstrom, Deviprasad R. Gollapalli, Shibin Chacko, Gyan Modi, and Suresh Kumar, Filing Date: April 26, 2018, FH Reference No.: BUG-07360 (22247-07360)
13	Lizbeth K. Hedstrom, Deviprasad R. Gollapalli, Suresh Kumar and <b>Gyan Modi</b> ,	Compounds and methods for the treating chronic microbial infections Filing Date: November 30, 2018, U.S. Application No. 62/773,703
14	<b>Gyan Modi,</b> Yash Pal Singh, and Amruta Pandey	Development of multifunctional hybrid 3-(4-hydroxy-3-methoxy-phenyl)prop-2-enoic acid and substituted amine/piperazine derivatives for the treatment of neurodegenerative disorders (Patent Application # 201911000362)

# 5. Research and Consultancy

 ${\bf Sponsored\ research\ projects\ } (Ongoing\ only)$ 

SI. No.	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co- ordinator
1	Phytochemical and pharmacological evaluations of bioactivity guided fractions of medicinal plants of Tripura	2018- 2021	DBT	26.50	A.N. Sahu PI
2	Evaluation of reversal potential of <i>Bryonia laciniosa</i> seeds (Shivlingi) extract against Bisphenol-A induced epigenetic changes during pre and post natal development in rat model: A focus on female reproductive health	2018- 2020	UGC	10.00	A.N. Sahu Co-PI
3	Stabilized liposomes for oral delivery of bio-actives (Insulin)	2018- 2020	IIT (BHU)	10	A.K. Agrawal
4	"Evaluation of some compounds in experimental Alzheimer's Disease"	2016-19	Natreon Inc.USA	29.40	Sairam Krishnamurthy (PI)
5	Pharmacological effect of novel formulation in experimental allergic encephalomyelitis rodent model	2016-19.	M/S Disto Pharmaceuticals Pvt. Ltd.Hyderabad	5.04	Sairam Krishnamurthy (PI)
6	"Experimental Evaluation of Geroprotective Activity of Some Compounds"	2016-19	Natreon Inc.USA	22.06	Sairam Krishnamurthy (PI)
7	"Pharmacology of Natural Drugs in Obesity and Eating Disorders"	2018-20	Natreon Inc.USA;	26.54	Sairam Krishnamurthy (PI)
8	Natural Template Based Novel Neuroprotective Molecules for The Management of Alzheimer's Disease	2019- 2022	SERB-Core Research Grant SERB- CRG/2018/003490	40.00	G. P Modi



#### Industrial consultancy projects (Ongoing only)

S. No.	Name of Faculty Member	Title	Industry	Amount (in lakhs of Rs.)

Faculty members' participation with other universities under MoUs (Ongoing only): Nil

**Research Publications** (From 1st April 2018 to 31st March 2019)

S. No.	Papers Published/ Presented	No.
1	Papers Published in Refereed National Journals	04
2	Papers Published in Refereed International Journals	67
3	Papers Presented in National Conferences	03
4	Papers Presented in International Conferences	02

#### **Refereed International Journals**(From 1st April 2018 to 31st March 2019)

- (1) P.N. Tripathi, P. Srivastava, P. Sharma, A. Seth, S.K. Shrivastava (2019)Design and development of novel N-(pyrimidin-2-yl)-1, 3, 4-oxadiazole hybrids to treat cognitive dysfunctions. Bioorganic & Medicinal Chemistry 27(7): 1327-1340.
- (2) J. Fu, A. Shrivastava, S.K. Shrivastava, R.K. Srivastava, S. Shankar (2019) Triacetyl resveratrol upregulates miRNA-200 and suppresses the Shh pathway in pancreatic cancer: A potential therapeutic agent. International Journal of Oncology 54 (4): 1306-1316.
- (3) P. Sharma, A. Tripathi, P.N. Tripathi, S.K. Prajapati, A. Seth, M.K. Tripathi, P. Srivastava, V. Tiwari, S. Krishnamurthy, S.K. Shrivastava (2019) Design and development of multitarget-directed N-Benzylpiperidine analogs as potential candidates for the treatment of Alzheimer's disease. European Journal of Medicinal Chemistry 167: 510-524 [Impact Factor: 4.816].
- (4) P. Sharma, P.Srivastava, A.Seth, P.N.Tripathi, A.G.Banerjee, S.K. Shrivastava (2019) Comprehensive review of mechanisms of pathogenesis involved in Alzheimer's disease and potential therapeutic strategies. Progress in Neurobiology 174, 53-89. [Impact Factor: 14.163].
- (5) P.N.Tripathi, P.Srivastava, P.Sharma, M.K.Tripathi, A.Tripathi, A.Seth, S.N.Rai, S.P.Singh, S.K.Shrivastava (2019) Biphenyl-3-oxo-1,2,4-triazine linked piperazine derivatives as potential cholinesterase inhibitors with anti-oxidant property to improve the learning and memory. Bioorganic Chemistry 85, 82-96 [Impact Factor: 3.929].
- (6) P.Srivastava, P.N.Tripathi, P.Sharma, S.N.Rai, S.P.Singh, R.K.Srivastava, S.Shankar,S.K. Shrivastava (2019) Design and development of some phenyl benzoxazole derivatives as a potent acetylcholinesterase inhibitor with antioxidant property to enhance learning and memory. European Journal of Medicinal Chemistry 163, 116-135 [Impact Factor: 4.816].
- (7) S.K.Shrivastava, S.K.Sinha, P.Srivastava, P.N.Tripathi, P.Sharma, M.K.Tripathi, A.Tripathi, P.K.Choubey, D.Waiker, L.M.Aggarwal, M.Dixit, S.C.Kheruka, S.Gambhir, S.Shankar, R.K. Srivastava (2018)Design and development of novel p-aminobenzoic acid derivatives as potential cholinesterase inhibitors for the treatment of Alzheimer's disease. Bioorganic Chemistry 82, 211-223 [Impact Factor: 3.929].
- (8) S.K.Shrivastava, P.Tripathi, P.Srivastava, P.Sharma, A.Tripathi, A.Seth, M.K.Tripathi (2018) Synthesis, evaluation and docking studies of some 4-thiazolone derivatives as effective lipoxygenase inhibitors. Chemical Papers 72, 2769-2783 [Impact Factor: 0.963].
- (9) Arun Kumar Mahanta, Sudipta Senapati, Pankaj Paliwal, Sairam Krishnamurthy, Siva Hemalatha & Pralay Maiti. (2018)Nanoparticle- induced controlled drug delivery using chitosan based hydrogel and scaffold: Application to Bone Regeneration. Molecular Pharmaceutics,. DOI 10.1021/acsmolpharmaceut8b00995. (Impact factor 4.556)



- (10) Anima Tripathi, Pawan K. Dubey, Vivek K. Pandey, Garima Tripathi, Sangeeta Hazarika, K. Sairam, A. N. Sahu (2018) Di-(2-ethylhexyl) phthalate (DEHP) and ovarian physiology: A brief review of therapeutic potential of Asparagus racemosus on DEHP- induced toxicity Journal of medicinal plant and herbal therapy research 6: 9-18,ISSN 2053-1826, IF: 0.252.
- (11) Anima Tripathi, Vivek Pandey, A.N. Sahu, Alok Singh, Pawan K. Dubey (2019) Di (2-ethylhexyl) phthalate (DEHP) inhibits steroidogenesis and induces mitochondria-ROS mediated apoptosis in rat ovarian granulosa cells Toxicology Research. IF: 1.89
- (12) Viswanadh, M.K., Muthu, M.S. (2018): Targeted bioadhesive nanomedicine: An effective approach for synergistic drug delivery to cancers. Nanomedicine (Lond.) 13(12), 1401–1403.
- (13) 2. Muthu, M.S., and Sonali (2018): Stem cell therapy and nanomedicine for Alzheimier's disease. Research and Reviews: Journal of Pharmacology and Toxicological Studies. 6(2), 14-17.
- (14) 3. Mehata A.K, Bharti S, Singh P, Viswanadh M.K, Kumari L, Agrawal P, Singh S, Koch B, Muthu.M.S. (2019):Trastuzumab decorated TPGS-g-chitosan nanoparticles for targeted breast cancer therapy. Colloids and Surfaces B: Biointerfaces. 173, 366-377.
- (15) N.Shivavedi, GNVCTej, KNeogi, PKNayak (2019) Ascorbic acid therapy: A potential strategy against comorbid depression-like behavior in streptozotocin-nicotinamide-induced diabetic rats. Biomedicine & Pharmacotherapy 109: 351-359.
- (16) GNVC Tej and PK Nayak (2018), Mechanistic considerations in chemotherapeutic activity of caffeine. Biomedicine and Pharmacotherapy 105: 312-319.
- (17) Shilpkala Gade, Krishna Kumar Patel, Chandan Gupta, Meraj Anjum, Deepika Deepika, Ashish Kumar Agrawal, Sanjay Singh (2019) An ex vivo Evaluation of Moxifloxacin Nanostructured Lipid Carrier enriched in situ gel for Transcorneal permeation on Goat Cornea. Journal of Pharmaceutical Sciences, (<a href="https://doi.org/10.1016/j.xphs.2019.04.005">https://doi.org/10.1016/j.xphs.2019.04.005</a>) ISSN: 0022-3549
- (18) Krishna Kumar Patel, Muktanand Tripathi, Nidhi Pandey, Ashish Kumar Agrawal, Shilpkala Gade, Md. Meraj Anjum, Ragini Tilak, Sanjay Singh (2019) Alginate lyase immobilized chitosan nanoparticles of ciprofloxacin for the improved antimicrobial activity against the biofilm associated mucoid P. aeruginosa infection in cystic fibrosis. International Journal of Pharmaceutics, 563:30-42. ISSN: 0378-5173
- (19) Krishna Kumar Patel, Shilpkala Gade, Md. Meraj Anjum, Sanjay Kumar Singh, Pralay Maiti, Ashish Kumar Agrawal, Sanjay Singh (2019) Effect of penetration enhancers and amorphization on transdermal permeation flux of Raloxifene encapsulated solid lipid nanoparticles: an ex vivo study on human skin. Applied Nanoscience, (https://doi.org/10.1007/s13204-019-01004-6) ISSN: 2190-5509 (Print) 2190-5517 (Online)
- (20) Farrukh Aqil, Radha Munagala, Jeyaprakash Jeyabalan, Ashish Kumar Agrawal, Al-Hassan Kyakulaga, Sarah A. Wilcher Ramesh C. Gupta (2019) Milk exosomes Natural nanoparticles for siRNA delivery. Cancer Letters, 449:186-195. ISSN: 0304-3835
- (21) Dileep Urimi, Ashish Kumar Agrawal, Varun Kushwah, Sanyog Jain (2019) Polyglutamic acid functionalization of chitosan nanoparticles enhances the therapeutic efficacy of insulin following oral administration. AAPS PharmSciTech, 20:131ISSN: 1530-9932
- (22) Varun Kushwah, Sameer S. Katiyar, Ashish Kumar Agrawal, Isha Saraf, Inder Pal Singh, Dimitrios A. Lamprou, Ramesh C. Gupta, Sanyog Jain (2018) Implication of linker length on cell cytotoxicity, pharmacokinetic and toxicity profile of gemcitabine-docetaxel combinatorial dual drug conjugate. International Journal of Pharmaceutics, 548(1):357-374ISSN: 0378-5173
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- based pharmacophore, molecular docking, and density functional theory approaches. Journal of Biomolecular Structure and Dynamics. 2019;37(4):944-65.
- (26) Ganeshpurkar A, Gutti G, Singh SK. RNA-Dependent RNA Polymerases and Their Emerging Roles in Antiviral Therapy. Viral Polymerases: Elsevier; 2019. p. 1-42.
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- (29) Sellamuthu S, Gutti G, Kumar D, Kumar Singh S. Carbazole: A Potent Scaffold for Antitubercular Drugs. Mini-Reviews in Organic Chemistry. 2018;15(6):498-507.
- (30) Sellamuthu S, Bhat MF, Kumar A, Singh SK. Phenothiazine: A Better Scaffold against Tuberculosis. Mini reviews in medicinal chemistry. 2018;18(17):1442-51.
- (31) Sellamuthu S, Asseri AH, Goojani HG, Nath G, Singh SK. Preliminary studies on ligand-based design and evaluation of new mycobacterial ATP synthase inhibitors. Current Drug Therapy. 2018;13(1):56-73.
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- (33) Gupta S K, Patel SK, Tomar MS, Singh SK, Mesharam MK and Krishnamurthy S (2019) Long-term exposure of 2450 MHz Electromagnetic radiation induces stress and anxiety like behavior in rats, Neurochemistry International (IF-3.603)
- (34) Mishra A, Krishnamurthy S (2019) Rebamipide Mitigates Impairments in Mitochondrial Function and Bioenergetics with α-Synuclein Pathology in 6-OHDA-Induced Hemiparkinson's Model in Rats, Neurotoxicity research, 1-21. (IF-2.945)
- (35) Arepalli S K, Tripathi H, Manna PP, Pankaj P, Krishnamurthy S, Shashikant CU Patne, Pyare R, Singh SP (2019) Preparation and in vitro investigation on bioactivity of magnesia-contained bioactive glasses. Journal of the Australian Ceramic Society, 55 (1), 145-155 (IF:0.744)
- (36) Gaurav Kumar, Pankaj Paliwal, Sumedha Mukherjee, Nishant Patnaik, Sairam Krishnamurthy, Ranjana Patnaik (2019) Pharmacokinetics and Brain Penetration Study of Chlorogenic Acid. Xenobiotica, 49 (3), 339-345. (IF:1.932)
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- (38) Arun Kumar Mahanta, Sudipta Senapati, Pralay Maiti, Pankaj Paliwal, Sairam Krishnamurthy, Siva Hemalatha (2018) Nanoparticle Induced Controlled Drug Delivery using Chitosan based Hydrogel and Scaffold: Application to Bone Regeneration. Molecular pharmaceutics (IF:4.556)
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- (41) Sampath Kumar Arepalli, Himanshu Tripathi, Partha Pratim Manna, Paliwal Pankaj, Sairam Krishnamurthy, Shashikant CU Patne, Ram Pyare, SP Singh (2018) Enhanced in vivo biocompatibility of magnesia-contained bioactive glasses Journal of the Australian Ceramic Society, 1-6 (IF:0.744)



- (42) Reddy NR, Krishnamurthy S (2018) Repeated olanzapine treatment mitigates PTSD like symptoms in rats with changes in cell signaling factors. Brain research bulletin. (IF:3.033)
- (43) Hussain Y, Krishnamurthy S(2018) Piracetam attenuates binge eating disorder related symptoms in rats. Pharmacol Biochem Behav. 169, 35-47.(IF:2.748)
- (44) Paliwal P, Chauhan G, Gautam D, Dash D, Patne SCU, Krishnamurthy S (2018) Indole-3-carbinol improves neurobehavioral symptoms in a cerebral ischemic stroke model Naunyn-Schmiedeberg's archives of pharmacology, 391 (6), 1-13. (IF:2.558)
- (45) Gupta SK, Krishnamurthy S (2018) Electromagnetic radiation 2450 MHz exposure causes cognition deficit with mitochondrial dysfunction and activation of intrinsic pathway of apoptosis in rats. Journal of biosciences. (IF:1.422)
- (46) Samaiya PK, Narayan G, Kumar A, KrishnamurthyS (2018) 2, 4 dinitrophenol attenuates mitochondrial dysfunction and improves neurobehavioral outcomes post-anoxia in neonatal rats. Neurotoxicity Research1-16 (DOI: 10.1007/s12640-018-9873-7) (IF-2.945)
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- (48) A review on iron chelators as potential therapeutic agents for the treatment of Alzheimer's and Parkinson's diseases. Yash Pal, Amruta Pandey, Swati Vishwkarma, Gyan Modi (Mol diversity, Springer, September 2018, 1-8, I.F. 2.2)
- (49) G Ajmal, GV Bonde, S Thokala, P Mittal, G Khan, J Singh, V Pandey, B Mishra (2019) Ciprofloxacin HCl and Quercetin functionalized electrospun nanofiber membrane: fabrication and its evaluation in full thickness wound healing. Artificial Cells, Nanomedicine and Biotechnology. 47(1):228-240.
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- (51) K Bharti, B Mishra (2018) Formulation and characterization of fast dissolving oral films containing buspirone hydrochloride nanoparticles using design of experiment. Journal of Drug Delivery Science and Technology. (Accepted on November 9, 2018)
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- (53) P Mittal, H Vardhan, G Ajmal, GV Bonde, A Mittal, B Mishra (2018) Formulation, Optimization, Heamocompatibility and pharmacokinetic evaluation of PLGA Nanoparticles containing Paclitaxel. Drug Development and Industrial Pharmacy. 45(3):365-378, 2019.
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- (55) J Singh, P Mittal, GV Bonde, G Ajmal, B Mishra (2018) Design, optimization, characterization and invivo evaluation of Quercetin enveloped Soluplus\*/P407 micelles in diabetes treatment. Artificial Cells, Nanomedicine and Biotechnology. 46(sup3):S546-S555, 2018.
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- (64) Lakshmi, Vijayakumar, M.R. and Dewangan, H.K., Singh, S., 2018. Lipid Based Aqueous Core Nanocapsules (ACNs) for Encapsulating Hydrophillic Vinorelbine Bitartrate: Preparation, Optimization, Characterization and In vitro Safety Assessment for Intravenous Administration. Current drug delivery, 15(9), pp.1284-1293.
- (65) Patel, K.K., Gade, S., Anjum, M.M., Singh, S.K., Maiti, P., Agrawal, A.K. and Singh, S., 2019. Effect of penetration enhancers and amorphization on transdermal permeation flux of raloxifene-encapsulated solid lipid nanoparticles: an ex vivo study on human skin. Applied Nanoscience, pp.1-12.
- (66) Patel, K.K., Tripathi, M., Pandey, N., Agrawal, A.K., Gade, S., Anjum, M., Tilak, R. and Singh, S., 2019. Alginate Lyase Immobilized Chitosan Nanoparticles of Ciprofloxacin for the improved antimicrobial activity against the Biofilm associated mucoid P. aeruginosa infection in Cystic Fibrosis. International Journal of Pharmaceutics.
- (67) Gade, S.. Patel, K.K., Gupta, C., Anjum, M., Deepika, Agrawal A.K., Singh, S. 2019. An ex vivo Evaluation of Moxifloxacin Nanostructured Lipid Carrier enriched in situ gel for Transcorneal permeation on Goat Cornea. Journal of Pharmaceutical Sciences (Accepted).
- (68) Shivani J, Rati K.P.Tripathi, Senthil Raja A. (2018) Scaffold Hopping-Guided Design of Some Isatin Based Rigid Analogs as Fatty Acid Amide Hydrolase Inhibitors: Synthesis and Evaluation Biomed Pharmcother, 107 1611–1623 (IF: 3.42)
- (69) Rati K.P.Tripathi, Senthil Raja A. 2019, Monoamine Oxidase-B Inhibitors as Potential Neurotherapeutic Agents
   An overview and update Medicinal Research Reviews, DOI: http://doi/org/10.1002/med\_21561. (IF: 8.5)

#### **Refereed National Journal** (From 1st April 2018 to 31st March 2019)

- 1. P. Srivastava, P.N. Tripathi, P. Sharma, S.K. Shrivastava (2019)Quantitative Structure-activity Relationship basedDesign, Synthesis, and Evaluation of Novel Diaryletherderivatives as a potent Acetylcholinesterase inhibitorand Antioxidant to treat Cognitive dysfunctions. Current Trends in Biotechnology and Pharmacy 13(2): 124-145.
- 2. Deepali Pandey, Apurva Joshi, Shardenu Mishra, Krishnamurthy Sairam, S.Hemalatha, (2018). Antinociceptive, anti inflammatory and anti arthritic activity of ethanolic root extract and fractions of Aganosma dichotama (Roth) K schum.Indian Journal of Experimental Biology,56,646-656. Impact factor- 1.475.



- 3. Sonam Sharma, Gopalnath, S. Hemalatha, 2018. Antimicrobial activity of Exacum lawii and volatile oil against ocular infection. International Journal of Pharmaceutical Sciences and research. 9(6), 2266-2272. ISSN (Online): 0975-8232, ISSN (Print): 2320-5148
- 4. Stuti Pandey, Alakh N. Sahu, Manmath K. Nandi (2018) A phytopharmacological review on Ludwigia octovalvisInternational Journal of Green Pharmacy 11 Special Issue 2018: S185- S190 (SCOPUS indexed)

#### **Proceedings of International Conferences** (From 1st April 2018 to 31st March 2019)

- 1. Sushil Kumar Singh, Rayala Swetha, Devendra Kumar, Design, Synthesis and Biological Evaluation of Novel MMP-2 and AChE Inhibitors for the Treatment of Alzheimer's Disease, Chemistry towards Biology (CTB9) Biomolecules as Potential Drugs, September 24-28, 2018, Budapest
- 2. Sushil Kumar Singh, Devendra Kumar, Ankit Ganeshpurkar, Piperazinediones asAcetylcholinesterase and Matrix Metalloproteinase-2 inhibitors for treatment ofAlzheimer's Disease, Czech. Chem. Soc. Symp. Ser. Sept 14, 2018, Zlin

#### **Proceedings of National Conferences** (From 1st April 2018 to 31st March 2019)

- 1. Gajendra TA, Jain SK, Sahu AN, and Nayak PK (2018), Estimation of diethylhexyl phthalate in different packaged food products by high performance liquid chromatography. Proceedings Indian Pharmaceutical Congress, Varanasi, India.
- 2. NB Dhedage, SR GV Rathod, Bonde, B Mishra. 2018. Development and evaluation of metronidazole loaded film based delivery system: A cure for peridontitis. 70<sup>th</sup> Indian Pharmaceutical Congress 2018, New Delhi (India), 21-23 December, 2018.
- 3. GRP Reddy, B Mishra. 2018. Preparation and characterization of multidrug loaded liposomal nanocarriers in the treatment of pancreatic cancer. 70<sup>th</sup> Indian Pharmaceutical Congress 2018, New Delhi (India), 21-23 December, 2018.

#### Brief Details of 5 Articles from the Department/School with maximum no. of Citations in last 5 years

- 1. G Khan, SK Yadav, RR Patel, G Nath, M Bansal, B Mishra 2016, Development and evaluation of biodegradable chitosan films of metronidazole and levofloxacin for the management of periodontitis, Aaps Pharmscitech 17 (6), 1312-1325 (26 Citations)
- 2. D Garabadu, A Ahmad, S Krishnamurthy, 2015,Risperidone attenuates modified stress–re-stress paradigm-induced mitochondrial dysfunction and apoptosis in rats exhibiting post-traumatic stress disorder-like symptoms, Journal of Molecular Neuroscience 56 (2), 299-312. (32 Citations)
- 3. D Kumar, A Ganeshpurkar, D Kumar, G Modi, SK Gupta, SK Singh 2018, Secretase inhibitors for the treatment of Alzheimer's disease: Long road ahead, European journal of medicinal chemistry 148, 436-452 (30 Citations)
- 4. RKP Tripathi, S Krishnamurthy, SR Ayyannan, 2016, Discovery of 3-hydroxy-3-phenacyloxindole analogues of isatin as potential monoamine oxidase inhibitors, ChemMedChem 11 (1), 119-132 (25 Citations).
- 5. AG Banerjee, N Das, SA Shengule, RS Srivastava, SK Shrivastava, 2015, Synthesis, characterization, evaluation and molecular dynamics studies of 5, 6–diphenyl–1,2,4–triazin–3(2H)–one derivatives bearing 5–substituted 1,3,4–oxadiazole as potential anti–inflammatory and analgesic agents, European journal of medicinal chemistry 101, 81-95, (31 Citations)

#### **Distinguished Visitors**(From 1st April 2018 to 31st March 2019)

S. No.	Name of the visitor & Designation	Date of Visit	Purpose of Visit
1	Arun Mishra, Ex Vice President, GSK	09.08.2018	Alumni visit
2	Ashwini Kumar, Ex DCG(I)	13.11.2018	Alumni batch 1967



S. No.	Name of the visitor & Designation	Date of Visit	Purpose of Visit
3	Rakesh Kumar Sinha, Head, site operations, Alembic Pharmaceuticals, Vadodara	17.11.2018	Alumni batch 1993
4	Surendra Prasad, Joint director, Technical Education, East Zone	28.12.2018	Alumni interaction
5	Bharat Bhardwaj Chairman & Director, Medisurge Technologies Pvt Ltd	28.12.2018	Alumni interaction
6	Sanjay Singh, Head of manufacturing, GULF Pharmaceuticals, UAE	28.12.2018	Alumni interaction
7	Suresh Kumar, Shehnaz Herbals, Delhi	22.01.2019	Alumni

#### 6. Other activities

#### **International collaboration/achievements by the Department/School**(From 1st April 2018 to 31st March 2019)

- 1. Signed a MoU with NIPER Hyderabad w.e.f. 06 Feb, 2019 for research, exchange of scientific personnel for education and training, Development of curriculum for new courses and joint symposia/workshops/conferences between the two Institutes.
- 2. Recognition of IIT (BHU) as a Collaborative Research Centre of Indian Pharmacopoeia Commission and MoU regarding the same.

#### Indian Faculty visits in the Department/School/School(From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Prof. Ramesh K. Goyal, VC, DPSRU	Interaction session	09.08.2018
2	Prof. S. Dwivedi, Former Dean, HIMSR, Jamia Hamdard	Interaction session	09.08.2018
3	Dr. Satyawan Singh, Sr. Scientist & Ex HOD CDRI, Lucknow	Alumni batch 1967	13.11.2018
4	Dr. Ganga Srinivasan, HOD, VES College of Pharmacy, Mumbai	Alumni interaction	28.12.2018
5	Dr. Sadanand Sharma, HOD, Govt. Girls Polytechnic, Prayagraj	Alumni interaction	28.12.2018
6	Dr. Mohana Kumar, Director, IUCBR&SSH	Lecture for Pharm. Society	31.10.2018

#### Foreign Faculty Visits in the Department/School/School (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Dr. Sokol V. Todi, Associate Professor of Pharmacology,	Lecture for Pharm. Society	30.10.2018
	Wayne University, USA		
2	Arun Dhar, NC, USA	Alumni batch 1967	13.11.2018

#### Foreign Students Visits in the Department/School (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue



# **Any other Information**

# Glimpses of Laboratory/ Equipments in the Department/School

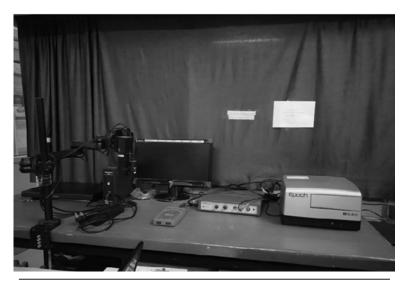


Pharmaceutics Laboratory

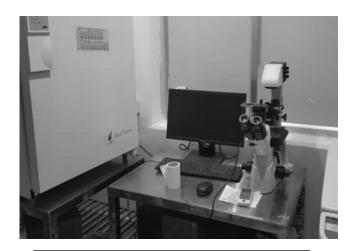


Instrument Laboratory- CAMAG HPTLC





Laser doppler flowmetry is a non-invasive method for measurement of microvascular blood perfusion in various tissues
 Tail Non invasive blood pressure system
 Micro plate spectrophotometer in UV-visible range



Cell Culture Laboratory



Sophisticated Instrument Laboratory- Shimadzu HPLC, Agilent HPLC



# 16. Department of Humanities Studies

**Department of Humanistic Studies** 

Year of Establishment: 2015

Head of the Department: Prof. Rakesh Kumar Misra

#### 1. Brief Introduction of the Department/School:

The Department of Humanistic Studies was initiated in the year 2015. Prior to its inception, Technical Writing Section was looking after the language and communication needs of the students of the institute for a little more than two decades. This department as an academic entity envisages to enhance the power of science and technology with an inspiring touch of human sensibility that our world urgently needs in the present civilizational crisis pertaining to the mindless development in the form of three dimensional projections as the hallmarks of growth. It will be an interdisciplinary platform to develop finer sensibilities in the students of engineering and technology to creatively engage themselves in the development of a society which upholds values our heritage has provided us with its multifarious sources.

This department comprises of faculty in many disciplines such as History, Philosophy, Sociology, Psychology, Language, Linguistics, Literature and culture, but not limited to these only. As and when a worthwhile academic proposition that evidently indicates a civilizational change will be considered worthy to be included in its curriculum for teaching and research in this department.

#### Major areas of Research

- 1. English (Literature, Cultural Studies, Gender Studies, Film Studies and Visual Culture, Narrative Studies, Professional Communication, Creative writing, Literary Theory)
- 2. Philosophy (Indian and Western Logic, Gandhian Philosophy, Peace and Ahimsa Studies, Indian Philosophy-Sanskrit-Navya Nyaya and Bharatiya Tarka)
- **3. Linguistics** (Computational Linguistics, MT, CALL, Computational Semantics, Grammar Formalism, Cognitive Linguistics, Sanskrit Computational Linguistics, Sociolinguistics)
- 4. Psychology (Intelligence, Macro Organizational Behaviour, Social Psychology)
- 5. Sociology (Environmental Sociology, Sustainable Urbanization, Smart Cities, Gender Studies, Science, Technology and Society, Social Anthropology in India, Ethnography of Performance, Post-colonialism and the Inter-disciplinary Dialogues on Caste and Literature in India )
- 6. History

#### 7. Political Science

#### Area of the Department/School (in square meters):

#### Infrastructure

S. No.	Particulars	Number
1	No. of Classrooms	0
2	No. of Lecture Halls	0
3	No. of Laboratory	0
4	No. of Computers available for students in the Department/School/ School	10



New facilities added (From 1st April 2018 to 31st March 2019)

S. No.	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)

# Unique Achievement / Preposition of the Department/School

## 2. Academic Programmes offered

**New Courses Introduced** (From 1st April 2018 to 31st March 2019)

S. No.	Course Code	Course name	Course credit
1	HID-331	Language Media and Technology	9
2	HID-332	Science, Technology and Society	9
3	HID-333	Introduction to Environmental Studies	9
4	HID-334	Introduction to Machine Translation	9
5	HLT-329	Literature Coping Skills	9
6	HLT-330	New Literature	9
7	HPH-324	Formal Semantics	9
8	HPH-320	bhāratīya tarkaśāstra evam pramāņa mīmāmsā	9
9	HPH-323	Formal Logic	9
10	HPH-325	Introduction to Gandhian Philosophy	9
11	H-7105	Worldview of Research: Art and Skill	11
12	HHI-322	Ancient Knowledge Traditions and Contemporary Science & Technology	9
13	HPY-321	Integrative Intelligence and Learning	9
14	HPY-326	Entrepreneurship: Mindset, Behaviour and Action	9
15	HPY-327	Macro Organizational Behaviour	9
16	LLG-306	Language and Communication	9
17	LLG-309	Academic Writing for Science and Technology	9
18	LLG-310	Communication for Engineers	9
19	LLN-311	Phonetics	9
20	LLN-307	Language and Linguistics	9
21	LLN-312	English Syntax	9
22	LLT-303	Elements of Literature	9
23	H-7106	Advance Qualitative Research methods	11

# **Students on Roll** (From 1st April 2018 to 31st March 2019)

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1.	B. Tech/B. Pharm	Nil	Nil	Nil	Nil	Nil
2.	Dual Degree	Nil	Nil	Nil	Nil	Nil
3.	M. Tech/ M. Pharm	Nil	Nil	Nil	Nil	Nil
4.	Ph. D (Under Institute Fellowship)	5	1	1	3	Nil
5.	Ph. D (Under Project Fellowship)	2	Nil	3	1	Nil
6.	Ph. D (Under Sponsored Category)	Nil	1	Nil	Nil	Nil



# Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.   Conference/Seminar/Symposia/Workshop   Date & Venue		Financial Assistance From	
ÌNDI	A				
1	Shivam Dwivedi	18191003	Dwivedi, Shivam (2018), "Developing annotation scheme for SLP corpus.", International seminar on "Exigency in the Field of Speech-Language Pathology in India"	7-9 May 2018, IIAS, Rashtrapati Nivas, Shimla	IIAS, Rashtrapati Nivas, Shimla
2	Satyam Dwivedi	15191502	Invited talk on "Digital Linguistics" in How to do things with Language	February 15-16, 2019 VCW, Rajghat, Varanasi	VCW
3	Shivam Dwivedi	18191003	Invited talk on "Hands-on Language" in How to do things with Language	February 15-16, 2019 VCW, Rajghat, Varanasi	VCW
4	Pratik Kumar Mahant	18191503	Drama and theatre in education orientation course (15 days)	July 20-Aug 5, 2018, National School of Drama, TIE wing, Agartala, Tripura	
5	Pratik Kumar mahant	18191503	Mahant, Pratik. 2018. Teaching Parts of Speech through theatre. in ICOLSI 40	Dec 5-7, 2018, CIIL, Mysore	partially funded by CIIL
6	Pratik Mahant	18191503	पाणिनि अष्टाध्यायी में उपदर्शित अन्तर्वेषयिक विमर्श	Jan 3-12, 2019	
7	RAVIKANT DUBEY	18191002	BIS-IEC "INTERNATIONAL CONFERENCE ON SMARTCITY STANDARDIZATION"	Dec 10, 2018,Hotel Clarks , Nadesar ,Varanasi	
8	RAVIKANT DUBEY	18191002	"Effect of leachate on surface water bodies: A Case Study of Subarnarekha River, Jamshedpur"An International Conference on "River Health:Assessment to Restoration (RHAR-2019)	Feb 14-16,Dept of Civil Engg.IIT(BHU),Varanasi.	
9	RAVIKANT DUBEY	18191002	A seminar on "Language for Empowerment of Self and Society" (LESS).	Feb 21, Dept of Humanistic Studies, IIT (BHU), Varanasi.	
10	RAVIKANT DUBEY	18191002	JOINT STUDIO WORKSHOP between IIT (BHU), IIT Kharagpur and Georgia Tech, Atlanta, USA	March 16 -23, 2019,IIT(BHU),Varanasi.	
11	SUMIT SHEKHAR	18191504	International conference on Multi- Disciplinary Approach towards Sustainable Development: Role of Government, Academicians, Corporate, Civil Societies and Citizens (Anusandhan 2019)	Feb 21-22, 2019, IIFM, Bhopal	
12	SUMIT SHEKHAR	18191504	JOINT STUDIO WORKSHOP between IIT (BHU), IIT Kharagpur and Georgia Tech, Atlanta, USA	March 16 -23, 2019,IIT(BHU),Varanasi.	



S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/Workshop	Date & Venue	Financial Assistance From
13	Pratyusha Pramanik	18191001	Pramanik, Pratyusha (2018), "Repressed Revolutions: Understanding the Psychology of the Audiences". 7 Day International Workshop on Pedagogy and Performance: From Text to Stage	November 12-18, 2018, VCW, Rajghat, Varanasi	Self-funding
14	Pratyusha Pramanik	18191001	Four Day National Workshop on Moving Image: A Hands-on Workshop  Manipal Academy of Higher Education (MAHE)		Self-funding
15	Pratyusha Pramanik	18191001	Pramanik, Pratyusha (2019), "Gender Struggle in University Campus".  March 18-19, 2019, CES JNU		NYRC 2019 committee (UGC-SAP- DSA-I- Sponsored)
16	Sooraj S. S.	18191004	S.S.,Sooraj(2018),"The Pragmatics of Political Discourse in the Public Sphere."	October 21-26,2018, IIT Gandhinagar, Gandhinagar (Gujarat)	Self-funding
17	Sooraj S. S.	18191004	S.S.,Sooraj(2019),Four Day National Workshop on 'Moving Image: A Hands-on Workshop'	February 13-16, 2019, Manipal Academy of Higher Education (MAHE), Manipal(Karnataka)	Self-funding
18	Samapika Roy			NA	
19	Samapika Roy	15191003	QIP-CEP Workshop on Experimental and Empirical Methods in Linguistics	4 <sup>th</sup> June - 11th June 2018, Dept. of CSE & Humanistic Studies	Self-funding
20	Samapika Roy	15191003	'{\LaTeX }: The software for thesis and research papers'	6 <sup>th</sup> October 2018, Dept. of Electrical Engg, IIT BHU,Varanasi	NA
21	Samapika Roy	15191003	Extended LaTex workshop(2nd Phase)	30 <sup>th</sup> October 2018, Dept. of Electrical Engg, IIT BHU,Varanasi	Self-funding
22	Samapika Roy	15191003	Conference on Language for Empowerment of Self and Society	21st February 2019,Dept of Humanistic Studies, IIT (BHU), Varanasi.	NA
23	Samapika Roy	15191003	STEC 2019	TLC, IIT (BHU) Varanasi	March 8-9, 2019
24	Prashant Priyadarshi	shant 17191002 'VAC Verbal Awareness and Cognition' 28th May to 14th June 2018		NA	
25	Prashant Priyadarshi	ant 17191002 QIP-CEP Workshop on Experimental and 4 <sup>th</sup> June - 11th June 2018,		Self-funding	
26	Prashant Priyadarshi	17191002	'{\LaTeX }: The software for thesis and research papers'	6 <sup>th</sup> October 2018, Dept. of Electrical Engg, IIT BHU,Varanasi	NA



S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/Workshop	Date & Venue	Financial Assistance From
27	Prashant Priyadarshi	17191002	Extended LaTex workshop(2nd Phase)	30 <sup>th</sup> October 2018, Dept. of Electrical Engg, IIT BHU,Varanasi	Self-funding
28	Prashant Priyadarshi	17191002	of Self and Society of Humanistic Studies, IIT(BHU), Varanasi.		NA
29	Prashant Priyadarshi	17191002			March 8-9, 2019
ABR	OAD-				
1	Satyam Dwivedi	15191502	Dwivedi, Satyam (2018), "Practicing Language, Attaining Enlightenment", ILA's 63rd Annual Conference	April 20- 22, 2018, Saint Johns University in Queens, New York	Self-funding
2	Satyam 15191502 Dwivedi, Satyam (2018), "Cognition November 1-3, 2018, University at Albany, State University of New York		Partial funding from the Institute		
3	Satyam Dwivedi	15191502 Dwivedi, Satyam; Ghosh, Sanjukta (2019), "Developing Anupam: A SentiWordNet for Hindi in use", The CALA 2019  Dwivedi, Satyam; Ghosh, Sanjukta (2019), "Developing Anupam: A SentiWordNet for Hindi in use", The CALA 2019  Gambodia		Pannashastra university,	Self-funding
4	Satyam Dwivedi	15191502	Dwivedi, Satyam (2019), "NEGFramator and NEGFrame repository", The CALA 2019	January 23 -26, 2019 Pannashastra university, Cambodia	Self-funding
5	Satyam Dwivedi	15191502	Chaired Session on "Cognitive Pragmatics", AMPRA-4		
6	Satyam Dwivedi	15191502	Chaired Session on "Conversation Analysis", AMPRA-4	Session on "Conversation Analysis", November 1-3, 2018,	
8	Shivam Dwivedi	hivam 18191003 Dwivedi, Shivam (2019), "Kannauji: An January 23 -26, 2019		Self-funding	
9	Pratik Kumar Mahant	18191503			SALA committee
10	Pratyusha Pramanik	18191001	18191001 Pramanik, Pratyusha (2018). "Ideology and Subversion: A Comparative Study of Mrinal Sen's 'Padatik' and Raghav Bandopadhyay's 'Communis'"		Self-funding

Names of students/scholars who got prizes and awards outside the Institute ( $From\ 1st\ April\ 2018\ to\ 31st\ March\ 2019$ )

S. No.	Name of Student	Roll No.	Name of Prize	Date & Venue	Prize awarded by
1					



# Names of scholars/students who won Convocation/Institute Day prizes (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of Prize	Prize awarded by
1				

# Names of Students/Scholars who went for foreign Internship (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
1						

# Faculty & their Activity

# Faculty and their areas of specialisation

S. No.	Name	Major Areas of Specialization
PROFESS	ORS	
1	Prasanta Kumar Panda	Literary Theory, Technical Communication, Creative Writing,
ASSOCIA	TE PROFESSORS	
1	Dr. Sanjukta Ghosh	Cognitive semantics, syntax-pragmatics interface, Computational lexical semantics, Cognitive Linguistics, Historical Linguistics, Grammar Formalism, Natural Language Processing
2	Dr. Anil Kumar Thakur	Language teaching and language technology, syntax, descriptive grammar, Linguistics, Education
3	Dr. Ajit Kumar Mishra	Critical Narrative Studies, Visual Culture, Precarity Studies (Gerontology, Ecosophy, Grievable Life), Humanistic Communication
4	Dr. Nirmalya Guha	Logic, Semantics, Epistemology
5	Dr. Vinita Chandra	Gender Studies; Disability Studies
6	Dr. K V Cybil	Sociology and Social Anthropology in India, Ethnography of Performance, Post- colonialism and the Inter-disciplinary Dialogues on Caste and Literature in India
ASSISTA	NT PROFESSORS	
7	Dr. Puneet Kumar Bindlish	Integrative Intelligence, VUCA, Research Worldviews, Macro Organizational Behaviour, Leadership, Entrepreneurship
8	Dr. Swasti Mishra	Sociolinguistics, Language Culture & Society, lexicon and Lexicography, lexical semantics, Computational Lexicography, Applied Linguistics, Computational Linguistics
9	Dr. Amrita Dwivedi	Environmental Sociology, Sanitation & Human Health, Solid Waste Management, Drainage & Sewerage System, Socio-Economic conditions of Slum dwellers, Yoga & Meditation.
10	Dr. Sukhada	Computational Linguistics, Machine Translation, Natural Language Processing, Sanskrit Grammar
11	Dr. Manhar Charan	Humanistic Philosophy & Research, Gandhian Philosophy, Peace & Non-violence
12	Dr. Kavya Krishna K. R.	Gender Studies, Cultural Studies, Postcolonial Literature, Regional Indian Literatures, Film and Media Studies.
13	Dr. Vishwanath Dhital	Bhāratīya tarkaśāstra , Indian Philosophy , Navya Nyaya & pāramparika śāstra adhyayana



S. No.	Name	Major Areas of Specialization	
14	Dr. Shail Shankar	Group dynamic, Identity, Health and Well being	
15	Dr. Satish Kanaujia	Physical-Education	
Institute Professors			
Distingui	shed Professors		
Emeritus	Professors		
Adjunct Faculty			
1	Prof. Rajaram Shukla	Vedic Darshan.	
2	Prof. A. K. Rai	Philosophy of Nagarjuna and Kant, Navya-Nyaya, Philosophy of Science.	
3	Dr. Yogesh Velankar	Science, Technology, Engineering, Mathematics Education	
Visiting Faculty			
1	Prof. Kamal Sheel	History & Chinese Language	
2	Dr. Sanjaya Kumar Lenka	Morphosyntax, Language & Communication, Academic Writing & Speaking	
DST INSPIRE Faculty			

# Technical and Non-Teaching Staff

Sl. No.	Name, Qualifications	Designation	Date of Appointment in the department
1	Vinay Prakash Singh, Graduation	Junior Assistant	22.05.2017
2	Ajay Kumar Pandey, Graduation	Skilled Clerical Staff	11.06.2016
3	Amit Kumar Prajapati	Multi Tasking Staff	13.12.2016

# Short-term courses/workshops/seminars/symposia/conferences organised by faculty members (From 1st April 2018 to 31st March 2019)

S. No.	Coordinator	Title	Period
1	Dr. Sanjukta Ghosh and Dr. Sukhada	VAC Verbal Awareness and Cognition	28th May to 14th June 2018
2	Dr. Anil Thakur	Conference on Language for Empowerment of Self and Society	21st February 2019
3	Prof. Prasanta Kumar Panda and Dr. Ajit K Mishra	WORKSHOP ON ACADEMIC WRITING FOR RESEARCH SCHOLARS	January 15-19, 2019
4	Dr. Ajit K Mishra (Joint Coordinator)	Faculty Induction Programme	28 january-26 February 2019 under PMMMNMTT scheme
5	Dr. Swasti Mishra (Member Core Organizing Committee)	International Conference on Human Values in Higher Education (ICHVHE-2019)	March 01-03, 2019
6	Dr. Manhar Charan (Member Core Organizing Committee)	International Conference on Human Values in Higher Education (ICHVHE-2019)	March 01-03, 2019
7	Dr. Vinita Chandra	Three weeks international Course on 'Lived Sanskrit Cultures in Varanasi', sponsored by DAAD (Member, Core Course Committee)	18th February, 2019- 8th March, 2019



# Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Title	Venue	Period
Seminars/Symposia/ Conferences				
1	Prof. Kamal Sheel	AAS in Asia - Int'l Conference	Ashoka University -IHC, New Delhi;	July 4-8, 2018
2	Prof. Kamal Sheel	Beijing Forum - Int'l Symposia	Peking University, China;	May 1-3, 2018
3	Prof. Kamal Sheel	Future Perspective of India-China Civ. Interaction	Vishva-Bharti, Shantiniketan;	Sept 28-29, 2018
4	Prof. Kamal Sheel	All India Conference of Chinese Studies	Christ University & NIAS, Bengaluru;	Nov. 14-17, 2018
5	Prof. Kamal Sheel	May Fourth Centenary Int'l Conference	Jawaharlal Nehru University, New Delhi;	March 15-16, 2019
6	Dr. Sukhada	Two day workshop on Promoting Applied Research in Samskrit	IIIT, Hyderabad	August 18th-19th 2018
7	Dr. Sukhada	Three day seminar on Vedic Ways of Living	Vanprastha Sadhak Ashram, Rojad, Ahmedabad	Feb. 7th-10th 2019
8	Prof.Prasanta Kumar Panda	12 <sup>th</sup> international Festival of Writers	Indore	24-25th Oct 2018,
9	Prof. Prasanta Kumar Panda	International Conference on Interdisciplinary Studies of Literature and Culture	Andhra University, Visakhapatnam	14-16th March 2019
10	Dr. Vishwanath Dhital	Two days National Seminar on Thoughts and Works of "Vādavidhi: The Methods of Debate". Organized by ICPR.	ICPR Academic Center, Lucknow.	27-28th February 2019,
11	Dr. Vishwanath Dhital	One day International Seminar on 'Contribution of Chandrika Magazine for the upliftment of Nepali Language in India'.	Department of Indian Languages, Faculty of Arts BHU, Varanasi	26th Match, 2019
12	Dr. Sanjukta Ghosh	paper presentation at 46th International Conference of Dravidian Linguistics Association	Jadavpur University, Kolkata	June 21-23, 2018
13	Dr. Sanjukta Ghosh	paper presentation at L3 conference organized by Global Science and Technology Forum	Singapore	June 25-26, 2018
14	Dr. Sanjukta Ghosh	paper presentation at STEC 2019 (jointly with Anil Thakur)	TLC, IIT (BHU) Varanasi	March 8-9, 2019
15	Dr. Sanjukta Ghosh	paper presentation at STEC 2019 (jointly with Kavya Krishna K.R)	TLC, IIT (BHU), Varanasi	March 8-9, 2019
16	Dr. Anil Thakur	paper presentation at 46th International Conference of Dravidian Linguistics Association	Jadavpur University, Kolkata	June 21-23, 2018
17	Dr. Anil Thakur	paper presentation at L3 conference organized by Global Science and Technology Forum	Singapore	June 25-26, 2018



S. No.	Name of Faculty Member	Title	Venue	Period
18	Dr. Kavya Krishna K.R.	'Language/Region as Mother: The Corporeal Aesthetics of Region/Nation in Vallathol Narayana Menon's Poetry' at the National Seminar on "The Literary Across Cultures: Cultural Poetics of Bhasha Literatures in Theory and Praxis".	Forum on Contemporary Theory, Vadodara, Gujarat.	25-27 February, 2019.
19	Dr. Swasti Mishra	Workshop on "Applied Grammar"	IIIT, Hyderabad	5 <sup>th</sup> - 7 <sup>th</sup> April 2018
20	Dr. Swasti Mishra	Workshop on "Hindi Area and its Regional Languages"	Bharat Adhyayn Kendra, BHU.	26 <sup>th</sup> Nov. to 6 <sup>th</sup> Dec. 2018
21	Dr. Swasti Mishra	"Varanasi Smart City Joint Studio Workshop"	jointly organized by IIT (BHU), IIT Kharagpur and Georgia Institute of Technology, Atlanta, USA	16-March-2019 - 23-March-2019
22	Dr. Nirmalya Guha	Tenth International Intensive Sanskrit Reading Retreat (organized by Ecole Francaise d'extreme Orient, Paris)	Siem Reap, Cambodia	January, 02-15,
23	Dr. Vinita Chandra	Paper presentation at the IASTEM- 464th International Conference on Social Science and Humanities	Vienna, Austria	September, 25-26 , 2018
24	Dr. Vinita Chandra	Paper presentation at the Seminar on Bharatiya Sabhyata Vimarsh: Dharampal ki Itihas Drishti	Bharat Adhyayan Kendra, BHU	October 24-25, 2018
25	Dr. Amrita Dwivedi	"Varanasi Smart City Joint Studio Workshop"	jointly organized by IIT(BHU), IIT Kharagpur and Georgia Institute of Technology, Atlanta, USA	16-March-2019 - 23-March-2019
Meetin	ıgs			
1	Dr. Puneet Kumar Bindlish Dr. Sukhada Dr. Vishwanath Dhital	National Level Brainstorming Session	Vedic Heritage Portal, Indira Gandhi National Centre for the Arts (IGNCA), New Delhi	18th and 19th of December, 2018
2	Dr. Swasti Mishra Dr. Amrita Dwivedi	For the discussion regarding the ongoing Collaborative Projects	Department of Humanities and Social Sciences, IIT Kharagpur	02 & 04 May 2018
n				

# $\textbf{Special lectures delivered by faculty members in other institutions} \ (\textit{From 1st April 2018 to 31st March 2019}) \\$

S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
1	Prof. Kamal Sheel	Keynote Address- Geneology of India- China Modern Discourse	Visva-Bharti, Santiniketan	Sept. 28. 2018
2	Prof. Kamal Sheel	Lectures on Modern Chinese History	Sikkim Central University, Gangtok	April 1 to June 30, 2018



S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
3	Dr. Puneet Kumar Bindlish	Course - Entrepreneurship: Transcending Borders	Nyenrode Business University, Netherlands	11th June 2018 to 13th July 2018
4	Dr. Puneet Kumar Bindlish	Workshop - Computer Assisted Research Profiling for Qualitative Research Methods	Nyenrode Business University, Netherlands	Nov 21-23. 2018
6	Dr. Puneet Kumar Bindlish	Lecture on Academic Leadership for Fourth Industrial Revolution: Dealing with Millennial Learners, Researchers & Innovators	Teaching & Learning Cell, IIT(BHU)	22nd Feb, 2019
6	Dr. Sukhada	विज्ञान एवं प्रौद्योगिकी के युग में संस्कृत की उपयोगिता	Sant Gani Nath Rajkiya PG College, Mohammadabad Gohna, Mau, U.P. India	30th Sep. 2018
7	Dr. Sukhada	New Research Directions on Applied Paninian Grammar	IIIT Hyderabad, India	Aug. 18th- 19th 2018
8	Dr. Sukhada	Applied GRAMMAR: A Tool to Overcome Language Barrier	University of Mumbai	March 30-31, 2019
9	Prof. Prasanta Kumar Panda	Self-Editing Skills	IIT(ISM) Dhanbad	24th. Sept, 2018
10	Dr. Vishwanath Dhital	वर्तमानसमये संस्कृतशिक्षायाः स्थितिः, समस्याः, प्रवर्धनम्, अवसरश्च (vartamānasamaye saṃskṛtaśikṣāyāḥ sthitiḥ, samasyāḥ, pravardhanam, avasaraśca)	Janata Vidyapeeth, Nepal Sanskrit University, dān, Nepal.	9-10th Sept, 2018
11	Dr. Vishwanath Dhital	न्यायशास्त्रे लक्षणम् (Nyāyaśāstre lakṣaṇam)	Sampurnananda Sanskrit University, Varanasi	22th Sept, 2018
12	Dr. Vishwanath Dhital	न्यायशास्त्रे प्रमाणम् (Nyāyaśāstre pramāṇam)	Sampurnananda Sanskrit University, Varanasi	23th Sept, 2018
13	Dr. Vishwanath Dhital	पौरस्त्यदर्शनम्, साम्प्रतिकसमाजे तदुपयोगश्च (paurastyadarśanaṃ sāmpratikasamāje tadupayogaśca)	Mahesh Sanskrit Gurukulam, Devghat, Nepal	05-10th Feb, 2019
14	Dr. Amrita Dwivedi	"Effect of leachate on surface water bodies: A Case Study of Subarnarekha River, Jamshedpur", International Conference on River health Assessment to Restoration	Deptt. Of Civil Engineering, IIT(BHU) Varanasi, India	Feb. 14-16, 2019
15	Dr. Amrita Dwivedi	Invited for the plenary session in the International Symposium on Creativity & Freedom	India International Center , New Delhi	5-6 Feb, 2019
15	Dr. Sanjukta Ghosh	Introduction to Linguistics as part of two day workshop on How to do things with language	Vasanta College Rajghat,Varanasi	Feb 16, 2019
16	Dr. Anil Thakur	Applications of Linguistics as part of two day workshop on How to do things with language	Vasanta College Rajghat, Varanasi	Feb 16, 2019
17	Dr. Sanjukta Ghosh and Dr. Anil Thakur	5 day workshop conducted on Basics of Computational Linguistics	Department of Linguistics, University of Mumbai	Dec 18-22, 2018



S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
18	Dr. Anil Thakur and Dr. Sanjukta Ghosh	lecture cum-workshop in SCONLI-13 2019 on Parsing	HSS, IIT (ISM), Dhanbad	Jan 24-25, 2019
19	Dr. Ajit K Mishra	Leadership Skills, Human & Organisational Behavioural Approach (Interpersonal and Negotiation Skills)	Institute of Chartered Accountants of India (Central India Regional Council) Kanpur	18 October 2018
20	Dr. Ajit K Mishra	DOs and DONTs in Presentation Skills through GD (Presentation)	Institute of Chartered Accountants of India (Central India Regional Council) Kanpur	18 October 2018
21	Dr. Ajit K Mishra	Interview Preparation	Institute of Chartered Accountants of India (Central India Regional Council) Kanpur	20 October 2018
22	Dr. Ajit K Mishra	Written Communication (Official letters, Report, minutes, legal documents, press release)	Institute of Chartered Accountants of India (Central India Regional Council) Kanpur	20 October 2018
23	Dr. Kavya Krishna K.R.	Plenary Talk- 'Narrating Trauma: Thinking Through the #Me Too Moment'	National Seminar on "Trauma: Experience and Language" organized by Dept.of English, Government College, Kottayam, Kerala	18-19 December 2018.
24	Dr. Kavya Krishna K.R.	Plenary Talk- 'Is there a Cultural Studies way of reading a text?'	National Workshop on "Understanding the text: Approaches to Literary STudies and Academic Writing" conducted by Mahila Maha Vidyalaya, BHU, Varanasi.	August 30-September 1, 2018
25	Dr. Swasti Mishra	Invited Talk on "Regional Languages and Technology: Special Context of Bhojpuri, Maithili & Magahi"	Bharat Adhyayan Kendra, BHU	03-Dec2018
26	Dr. Swasti Mishra	Invited for the plenary session in the International Symposium on Creativity & Freedom	India International Center, New Delhi	5-6 Feb, 2019
27	Dr. Shail Shankar	Invited talk on "Teaching skills and Scientific Writing"	Iswar Sharan Degree College, University of Allahabad	11 December, 2018
28	Dr. Shail Shankar	Invited talk on 'Behavioural and Communication Skills for Teachers-I'	TLC, IIT (BHU)	07/02/2018
29	Dr. Shail Shankar	talk on 'Behavioural and Communication Skills for Teachers-II'	TLC, IIT (BHU)	15/02/2018
30	Dr. Vinita Chandra	Invited Talk on 'Creating an Inclusive Classroom'	TLC, IIT (BHU)	08/02/2019
31	Dr. Vinita Chandra	Invited Talk on 'Teaching in 'Flow"	TLC, IIT (BHU)	22/02/2019



## Visits abroad by faculty members (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Country Visited	Date of Leaving india	Date of Returning India	Purpose of Visit	Funding from
1	Prof. Kamal Sheel	China	May 1, 2018	May 6, 2018	Int'l Symposium	Peking University
2	Dr. Puneet K. Bindlish	Netherlands	9th June 2018	14th July 2018	Teaching a Course - Entrepreneurship: Transcending Borders	Nyenrode Business University, Netherlands
3	Dr. Puneet K. Bindlish	Switzerland	9th June 2018	14th July 2018	Visiting Google Zurich Office - 19 - 23rd June, 2018	Google
3	Dr. Puneet K. Bindlish	Netherlands	Nov 20, 2018	Nov 26, 2018	Delivering PhD Workshop - Computer Assisted Research Profiling for Qualitative Research Methods	Nyenrode Business University, Netherlands
4	Dr. Vishwanath Dhital	Nepal	08th Sep, 2018	11th Sep 2018	To present Paper in Workshop	UGC, Nepal
5	Dr. Vishwanath Dhital	Nepal	24-Jul, 2018	27 Jul,2018	To Deliver Lecture	MS Gurukul, Nepal
6	Dr. Vishwanath Dhital	Nepal	04-Feb- 2019	09-02-19	To receive the "maheśaprajñāvibhūṣaṇam" award	Self
7	Nirmalya Guha	Cambodia	January 01, 2019	January 07, 2019	Tenth International Intensive Sanskrit Reading Retreat	Ecole Française d'extreme Orient, Paris
8	Vinita Chandra	Vienna	September 24, 2018  September 23, 2018	September 26, 2018  September 23, 2018	To present paper in a Conference, to meet Director, Department of South Asian, Tibetan and Buddihist Studies, University of Vienna. Meetings with Chairperson, Department of Sociology and Political Science, and Associate Director, International Relations, University of Salzburg	

## **Honours and awards** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Details of Award
1		Received the honour of "Sahitya Shree" in the 12 <sup>th</sup> International Writers Festival in Indore 25th. Oct. 2018.
2	Dr. Vishwanath Dhital	Received the "maheśaprajñāvibhūṣaṇam" award by Mahesh Sanskrit Gurukulam presented by the President of Nepal on 05-02-2019

## Fellowships of academic and professional societies (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Details of Fellowship
1	Prof. Kamal Sheel	Continued ICHR Fellowship for translation project

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#### Books, monographs authored/co-authored (From 1st April 2018 to 31st March 2019)

S. No.	Name of Author/ Co- Author	Title	Publisher
1	Nandram S., Bindlish P.	Integral Yoga as foundation for Social Entrepreneurship leading towards sustainable welfare (Shubh Laabh) in Routledge Companion to Management and Workplace Spirituality, Eds. Joan Marques, Routledge, (2019), ISBN-978-1-138-49918-8, Ch-27	Routledge
2	Verma, V. and Shankar, S.	Moral Reasoning in Conflict Zones: A Case Study of Kashmiri Youths, in Aradhana Shukla and Anubhuti Dwivedi (Eds.), Psyche of Asian Society	Concept
3	Nirmalya Guha, Stephen Phillips, Mathew Dasti	God and the World Arrangement	Hackett Publishing (forthcoming)
4	Nirmalya Guha	Indian Deductive System: A Basis for Indian Sciences (Book Chapter)	Routledge, London
5	Shyam Sundra, Manhar Charan	Value Education Universal need	DIET-New Delhi
6	Vinita Chandra	Decolonizing the Mind: Insights from Dharampal's 'The Beautiful Tree' (Book Chapter)	IIAS, Shimla

#### **Editorial boards of journals** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1	Prof. Prasanta Kumar Panda	Editor-in- Chief	Nuances: A Journal of Humanistic Inquiry (ISSN NO 2395-0943)
2	Prof. Prasanta Kumar Panda	In the editorial board of	Journal of Research and Innovation in Social Sciences (ISSN -2394-0123)
3	Prof. Prasanta Kumar Panda	In the advisory Board of	Platform: A Bi-Lingual Magazine Based on Literature and Culture (ISSN- 2347-5242)
4	Nirmalya Guha	Member, International Editorial Board	Reformare, Journal of Educational Research. Department of Public Education, Mexico
5	Nirmalya	Member, International Editorial Board	Revista Innovacion Educativa, Mexico
6	K V Cybil	Contributing Editor	Jesus and Mary College Review, New Delhi

#### 3. Research Activities

#### **International Publications** (From 1st April 2018 to 31<sup>st</sup> March 2019)

- 1. Bindlish P., Nandram S., Gupta R. (2019). Definition schema for redefining leadership: an integrative approach. International Journal of Indian Culture and Business Management, 18(1), DOI: 10.1504/IJICBM.2019.096921, pp 34-58.
- 2. Bindlish P., Nandram S., (2019). Regulatory focus and growth intentions: the mediating role of an opportunity register. International Journal of Technology Transfer and Commercialisation (in Press).
- 3. Bindlish P., Nandram S. (2019). Manifestation of Worldview in a Metaphor. International Journal of Business and Globalisation, (In Press).
- 4. Nandram S., Bindlish P., Keizer N. (2018). Integrative Intelligence for a Trust-based Worldview for Business. The European Business Review, Sep 2018, pp 38-43.
- 5. Nandram S., Bindlish P., Blok J. (2018). What if Business Revisits Pavlov's Kennel? The Case of Buurtzorg Nederland. The European Financial Review, June 2018, pp 57-60.



- 6. Bindlish P., Nandram S., Gupta R., Joshi A. (2018). How to prepare the researcher for indigenous context: An integrative approach. International Journal of Indian Culture and Business Management, 17(2). 221-237.
- 7. Bindlish P., Nandram S., (2018). Illuminating the blind spots and skewness in Leadership. International Journal of Technology Transfer and Commercialisation, 16(1). 75-101.
- 8. Nandram S., Mourmant G, Heaton D., Smith E., Bindlish P. (2018). Understanding Entrepreneurial Decision making by Objectivizing Subtle Cues. Journal of Management, Spirituality & Religion, 15(5),pp 398-423, DoI: 10.1080/14766086.2018.1503088
- 9. Hopkins, N., Reicher, S., Stevenson, C., Pandey, K., Shankar, S. and Tewari, S. (2019). Social relations in crowd: Recognition, Validation and Solidarity. *European Journal of Social Psychology*. https://doi.org/10.1002/ejsp.2586
- 10. N. Guha (2019) "Indian Deductive System: The Logical Basis of Indian Sciences" in M. Paranjape (ed.). New Perspectives in Indian Science and Civilization. London: Routledge.

### **Proceedings of International Conferences** (From 1st April 2018 to 31st March 2019)

1. Ghosh Sanjukta. (2018). (Im) politeness in Indian TV Advertisements. in the proceeding of 7th Annual International Conference of Language, Literature and Linguistics (L3), Singapore. ISSN: 2251-3566.

## National Publications (From 1st April 2018 to 31st March 2019)

- 1. Ghosh Sanjukta (2018). Understanding Creativity'. Prajna. BHU. Pp 252-254.
- 2. Ghosh Sanjukta. (2018). 'Grammaticalization: A study of Selected Bangla Postpositions.' In Journal of Advanced Linguistic Studies (JALS). Bahri Publications.
- 3. Mishra, Ajit K. (2019), "Transcending the 'Immanent Frame': James Baldwin's *Another Country* and Inclusive Humanism." *International Journal of English Language, Literature in Humanities* (IJELLH) Vol. 7 No. 3
- 4. Mishra, Ajit K. "The Insurmountable Malaise: Richard Wright's *The Long Dream* and the 'Will to Being' " *Language in India*. Vol. 19 No. 3
- 5. Prasanta Kumar Panda "Study of Some Negative aspects of professionalism in managing ethical standards in higher education in India". Nuances, Vol.4 Issue 1 2008.
- 6. Swasti Mishra, 'Bhojpuri Kriya Sanrachana' "Bhojpuri Janpad", BHU, ISSN: 2320-8309, Vol. 3
- 7. Swasti Mishra, 'Sanskrit Sahitya me Stri Vimarsha Ka Samajbhashik Vishleshan', "Udgata Kashi" ISSN: 2350-0034, Vol. 3

#### **Proceedings of National Conferences** (From 1st April 2018 to 31st March 2019)

#### 5. Other activities

## **International collaboration/achievements by the Department/School** (From 1st April 2018 to 31st March 2019)

MoU with South Asia Institute, Heidelberg University (Coordinated by Vinita Chandra)

 $MoU\ with\ Institute\ of\ Cultural\ Studies\ of\ East\ and\ South\ Asia, Wurzburg\ University\ (Coordinated\ by\ Vinita\ Chandra)$ 

**Distinguished visits in the Department/School from India** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Geetanjali Shree, New Delhi		
		conducting interaction sessions	Room, Dept of Electrical Engineering
3	Dr Udayan Vajapeyi, Gandhi	apeyi, Gandhi Delivering two lectures on "Art 8 & 10 May 2018, Department of Electr	
	Medical College, Bhopal	Aesthetics and Ethics"	Engineering,

#### **Distinguished Visits in the Department/School from abroad** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
	Shri Sudhir Chandra, IAS-Nantes, France	Delivering lectures and	2-6 April, 2018,Conference Room/
		conducting interaction sessions	Seminar Room, Dept of EE



S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Prof. Sharda S. Nandram, Nyenrode Business University, Netherlands	Delivering Talk & Interaction with Faculty	19 Sept 2018, Department Committee Room
2	Prof. Ute Husken, South Asia Institute, Heidelberg University	MoU and interaction with faculty and students	8th March, 2019
3	Prof. Jorg Gengnagel, Wurzburg University	MoU and interaction with faculty and students	8th March, 2019

## Foreign Students Visits in the Department/School (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue	

## Any other Information:

K V Cybil Allied Life Member, International Trust for Art and Cultural Heritage INTACH, (Thrissur chapter, Kerala)



# 17. School of Bio-Chemical Engineering

Year of Establishment: 1986

Coordinator of the School: Prof. Pradeep Srivastava

#### **Brief Introduction of the School:**

The School was established for achieving several benchmarks in teaching and research in the modern field of Bioengineering. It has kept on modernizing its programmes to impart education in upcoming areas of Biochemical engineering.

The School presently offers courses leading to IDD, M.Tech. and Ph.D. degrees in Biochemical Engineering. The School also offers courses to undergraduate students of Department of Chemical Engineering., Department of Pharmaceutics, and postgraduate students of School of Materials Science & Technology, School of Biomedical Engg, Department of Civil Engg, Department of Food Sc& Tech, IAgSc, and School of Biotechnology, Faculty of Science. In the new undergraduate curriculum, the School has been entrusted to offer a number of institute level courses either independently or jointly with other departments. The research facilities of the School are utilized not only by other departments of the institute and BHU but also by other teaching institutions and research laboratories. The faculty also guides.

#### Major areas of Research

- 1. BioProcess and Bioreactor Engg
- 2. Enzyme Engineering & Tissue Engineering
- 3. Molecular Biology and Genetic Engg

#### Area of the School (in square meters):

The School has been functioning the premise of Dept of Chemical Engineering since its inception. However, the school developed two dedicated laboratories in the Dept of Biochemical Engineering, IIT(BHU), subsequently has also developed its own building adjacent to the Dept of Chemical Engg(Total Area about 5,000 sq ft.). Recently the school has a new building, three storied which includes all teaching and Laboratories. The floor area of the new building of School is 10,000 sq. feet.(Total 30,000sq ft).

#### 1.1.4 Infrastructure

The School has 12 laboratories, 06 lecture theatres, a 100 seat conference room, small library with textbook bank and internet facility. The School also has a seminar room and a few instruction rooms and rooms for its faculty. The School enjoys an excellent professional interaction with various industrial organizations, Experts and consultants. Faculty members are engaged in high level research collaborations and consultancy work in industry, where as some others have projects funded by the industry. Besides these, the School also provides know-how for process improvement/development, raw materials and products analysis, microbiological testing, etc to the industries in and around Varanasi.

S. No.	Particulars	Number
1	No. of Classrooms	06
2	No. of Lecture Halls	01
3	No. of Laboratory	12
4	No. of Computers available for students in the Department/School/School	20

#### Unique Achievement / Preposition of the Department/School

Unique Achievement/Preposition of the Department/School

• 1986: M Tech Degree course & PhD degree



- 2006: Five Year Integrated Dual Degree Course in Bio-chemical Engineering & Biotechnology
- In addition, School offers theory and laboratory courses to the students of M.Sc. (Food Sc& Tech) and M.Sc. (Biotechnology) programmes of the Banaras Hindu University.
- The School offers Ph. D. Degree in Biochemical Engineering. The yearly intake varies between 10 and 20. Students with Biochemical engineering degree or allied disciplines (as listed in the ordinances) join the Ph.D. Programme. The School also offers joint research programmes with other Schools of the Institute or other academic institution/ R&D organizations.

### 1.1 Academic Programmes offered

#### **New Courses Introduced**

Streams in Biochemical Engg:

- 1. BRE X1X Bioprocess and Bioreactor Engg
- 2. ETE X2X Enzyme & Tissue Engg
- 3. MBG X3X Molecular Biol& Genetic Engg

#### **IDD SEM V**

	Course Code	Subjects	L-T-P	Credits
DC	BC311	Microbial Engineering	3-1-0	11
DC	BC331	Waste WaterEngg	2-0-2	08
DC	BC312	BioprocesTechnol	3-0-0	09
DE I	ВС	Enzyme Engineering (Common Elective)	3-1-0	11
OE-I		(From ChemEngg/Chemistry/Pharmacy)	3-0-0	9
HU			1-2-0	5
	BC391	Stream Project	0-0-10	10
			Total	63

#### **IDD SEM VI**

	Course Code	Subjects	L-T-P	Credits
DC	BC 314	Bio Reactor Design	3-0-2	11
DC	BC 301	Waste WaterEngg	3-0-0	9
DC	BC 332	MolBiol& GE		11
DE II	BC 3	Adv Ferment. Tech (315)/Adv Enzyme Engg (323)/Structural Biology (333)		9
OE-II	AC	Anal Tech in Chem (Preferred OE)		9
	HU	Humanities	2-0-0	6
HU	BC 392	Stream/ UG Project	0-0-10	10
			Total	65

#### **IDD SEM VII**

	Course Code	Subjects	L-T-P	Credits
DC	BC 401	Downstream Processing		9
DC	BC 402	Food Engg&Biotechnol		11
DE III	BC 4	Intro Bioinformat (434)/ Animal Cell Culture (424)/ Adv BRD (416)	3-0-0	9
OE III		From Other Departments	3-0-0	9
ВС	BC 491	Stream/UG Project	0-0-10	10
HU	IH	Humanities	3-0-0	9
			Total	63



#### **IDD SEM VIII**

	Course Code	Subjects	L-T-P	Credits
DC	BC 403	Bio-Process Plant Design	3-0-0	9
DE IV	BC 4	BioproSimula& Control(417)/Cell & Tissue Engg (425)/rDNA Tech(435)	3-0-0	9
OE V		From Other Departments	3-0-0	9
OE VI		From Other Departments	3-0-0	9
HU			1/2/2000	8
DP	BC 492	PG Project/Thesis	0-0-10	10
			Total	54

## **IDD SEM IX**

	Course Code	Subjects	L-T-P	Credits
DC	BC 501	Bio Business Planning & Management	3-0-0	9
DE VII (PG Open)	ВС	Protein Engg(536)/Metabolic Engg(526)/ Biosensor(516)	3-0-0	9
HU	IH		3-0-0	9
DP	BC 591		0-0-20	20
PE				
			Total	47

### IDD X

	Course Code	Subjects	L-T-P	Credits
DC	BC 592	Dissertation	0-0-50	50
			Total	576

## **Stream Electives**

## Stream I BRD

- 1. Advance Fermentation Technology
- 2. Advance Bio Reactor Design
- 3. Bioprocess Simulation & Control
- 4. Biosensors

## **Stream II ETE**

- 1. Adv Enzyme Engg
- 2. Animal Cell Culture
- 3. Cell & Tissue Engg
- 4. Metabolic Engg

### Stream III MBG

- 1. Structural Biology
- 2. Intro to Bioinformatics
- 3. rDNA Technology
- 4. Protein Engg.



#### 1.2.3 Students on Roll

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year& above
1.	B. Tech/B. Pharm					
2.	Dual Degree	14	11	12	12	14
3.	M. Tech/ M. Pharm	08	08			
4.	Ph. D (Under Institute Fellowship)	03	18			
5.	Ph. D (Under Project Fellowship)	Nil	Nil			
6.	Ph. D (Under Sponsored Category)	Nil	Nil	Nil	Nil	Nil
5.	Ph. D (Under Project Fellowship)					
6.	Ph. D (Under Sponsored Category)					

## 1. Faculty & their Activity

## Faculty and their areas of specialisation

S. No.	Name, Qualifications, Employee No.	Date of award of PhD Degree	Major Areas of Specialization (Max. 3 Areas)
PROFESSORS			
1	Vikash Kumar Dubey, PhD, 50211	2003	Protein Engineering Biochemical Parasitology Cellular Engineering
	PradeepSrivastava	1998	Bioreactor Design, Secondary metabolite production and Tissue Engineering
ASSO	OCIATE PROFESSORS		
1.	Abha Mishra	2001	Biochemistry, Fermentation technology for enzyme and secondary metabolite production, Intellectual Property Rights
ASSI	STANT PROFESSORS		
1	Vishal Mishra	2012	Separation Process and Bioreactor Design
2	Sanjay Kumar	19-01-2011	Bioprocess Technology and Bioenergy

## **Short-term courses/workshops/seminars/symposia/conferences organised by faculty members** (From 1st April 2018 to 31st March 2019)

S. No.	Coordinator	Title	Period
1	Prof. Vikash Kumar Dubey	Recent advancement in Biochemical	March 15-16, 2019
	Dr. Sanjay Kumar	Engineering and Biotechnology	

## Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings(From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Title	Period and Venue
Semina	ars/Symposia/Conferences		
	Prof. Vikash Kumar Dubey	Emerging Trends in Disease Model Systems	National Center for Cell Sciences, Pune,March 25-26, 2019
Meetings			
1	Prof. Vikash Kumar Dubey	SERB-Taskforce meeting as expert	New Delhi, December 14-15, 2018
2	Prof. Vikash Kumar Dubey	Assam Universiry, Silchar - Faculty recruitment (expert) Meeting	Meeting held at Kolkata, September 22, 2018
3	Prof. Vikash Kumar Dubey	Jharkhand Public Service Commission, Ranchi- as expert of question papers	Ranchi, August 16, 2018



S. No.	Name of Faculty Member	me of Faculty Member Title	
4	Prof. Vikash Kumar Dubey	As expert in technical Expert Committee (taskforce)	New Delhi, March 31, 2018- May 1, 2019

## **Special lectures delivered by faculty members in other institutions**(From 1st April 2018 to 31st March 2019)

S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
1	Prof. Vikash Kumar Dubey	Understanding redox metabolism and host defence mechanism of Leishmanidonovani for possible therapeutics		March 25, 2019
2	Prof PradeepSrivastava	Cartilage repair product : A Translational journey( Coulter lecture Series)	Dept of Biomedical Engg, FIU, Miami, USA	13 <sup>th</sup> March, 2019
3	Prof PradeepSrivastava	Technology Transfer from Bench to Bedside	KGMU, Lucknow	Dec, 2018
4	Prof PradeepSrivastava	Talk on Emerging Research trends in Bioengineering	HBTU, kanpur	23 <sup>rd</sup> , Jan, 2019
5	Prof PradeepSrivastava	Innovation in Biotechnology	MNIT, Allahabad	28th March, 2019
6	Prof PradeepSrivastava	Waste water to Biofuels	NMCG, NRI Convention	Jan,20, 2019

## Visits abroad by faculty members (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Country Visited	Date of Leaving india	Date of Returning India	Purpose of Visit	Funding from
1	Prof Pradeep Srivastava	USA	8 <sup>th</sup> March, 2019	20st March, 2019	Deliver a Talk at FIU, Miami	MHRD

## **Honours and awards** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	<b>Details of Award</b>	
1	Dr. Vishal Mishra	Young Scientist Award, from Council of Science and Technology, Lucknow, UP	

## Editorial boards of journals(From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Position (Editor/ member)	Name of Journal	
1	Prof. Vkash Kumar Dubey   Associate Editor		Scientific Report (Nature Publishing Group)	
2	Prof. Vkash Kumar Dubey	Associate Editor	Journal of Proteins and Proteomics (Publisher:Springer)	
3 Prof PradeepSrivastava		Associate Editor	Critical Rev on Biomedical Engg,	

## Patents filed(From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Title of Patent
1	Dr. Sanjay Kumar	A NOVEL COMPOSITION FOR SURFACE MODIFICATION OF ANODE FOR ELECTROCHEMICAL APPLICATION
2	Prof. PradeepSrivastava	A novel process for the production of chitosan based bioactive composite bone restoration material (Patent Applied).
3	Prof. PradeepSrivastava	A bioreactor for culturing of living cells or tissues (Patent Applied).
4	Prof. PradeepSrivastava	A novel process for generation of three dimensional scaffold for chondrocyte culture using chitosan/platelet rich plasma based cartilage repair product (Patent Applied).



#### Research and Consultancy

## **Sponsored research projects** (Ongoing only)

S. No.	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co- ordinator
1	SPARC INDO-US	2 yrs	DST	60	Prof. PradeepSrivastava
2.	Targeted drug delivery of methotrexate / gallic acid folate conjugated Poly L-Lysine nanoparticles	3Yrs	DBT	3461200.00	PI-Dr.Abha Mishra Co- PI:Prof. Pradeep Srivastava

#### **Research Publications** (From 1st April 2018 to 31st March 2019)

S. No.	Papers Published/ Presented	No.
1	Papers Published in Refereed National Journals	
2	Papers Published in Refereed International Journals	10
3	Papers Presented in National Conferences	5
4	Papers Presented in International Conferences	

#### **Refereed International Journals**(From 1st April 2018 to 31st March 2019)

- 1 Prakash J, Yadav S, Saha G, Chiranjivi AK, Kumar S, Sasidharan S, Saudagar P, Dubey VK\*. Episomal expression of human glutathione reductase (HuGR) in Leishmania sheds light on evolutionary pressure for unique redox metabolism pathway: Impaired stress tolerance ability of Leishmaniadonovani. Int J BiolMacromol. 2019 Jan;121:498-507. [\*Corresponding author; Publisher: Elsevier].
- 2 Verma K, Saha G, Kundu LM, Dubey VK\*. Biochemical characterization of a stable azoreductase enzyme from Chromobacteriumviolaceum: Application in industrial effluent dye degradation. Int J BiolMacromol. 2019, 121:1011-1018. [\*Corresponding author; Publisher: Elsevier].
- 3 Barman J, Kumar R, Saha G, Tiwari K, Dubey VK\*. Apoptosis: Mediator Molecules, Interplay with Other Cell Death Processes and Therapeutic Potentials. Curr Pharm Biotechnol. 2018;19(8):644-663.[\*Corresponding author; Publisher: Bentham].
- 4 Najar IN, Sherpa MT, Das S, Verma K, Dubey VK, Thakur N. Geobacillusyumthangensis sp. nov., a thermophilic bacterium isolated from a north-east Indian hot spring. Int J SystEvolMicrobiol. 2018 68(11):3430-3434.
- 5 B N Singh, V Veerse, S Sinha, A Jain, S P Mallick, A Rastogi, and P Srivastava. Design and evaluation of chitosan/chondroitin sulfate/nano-bioglass based composite scaffold for bone tissue engineering. International Journal of Biological Macromolecules 133 (2019) 817–830.
- 6 Akher Ali, Md Ershad, Vikash Kumar Vyas, B.N. Singh, Sushma Yadav, Sumit Kumar Hira, Partha Pratim Manna, P. Srivastava, S.P. Singh, Ram Pyare, Studies on effect of CuO addition on mechanical properties and in vitro cytocompatibility in 1393 bioactive glass scaffold. Material Science & Engineering C, 2018, 93, 341-355.
- 7 Sarada P Mallick, B N Singh, A Rastogi & P srivastava. Design and evaluation of chitosan/poly(l-lactide)/pectin based composite scaffolds for cartilage tissue regeneration.International journal of biological macromolecules.112 (2018): 909-920.
- 8 S. Kumari, B N Singh,& P Srivastava, Effect of copper nanoparticles in physic-chemical properties of Chitosan and gelatin based scaffold developed for skin tissue engineering application. 3Biotech, Springer, BITC-D-18-01784.
- 9 Yadav, Namrata, and PradeepSrivastava. "In vitro studies on gelatin/hydroxyapatite composite modified with osteoblast for bone bioengineering." *Heliyon* 5.5 (2019): e01633.
- 10 Yadav, Namrata, and PradeepSrivastava. osteoblast studies on gelatine based biomaterial in rabbit bone bioengineering. MSEC 104 (2019) 109892.
- 11 ChoudharyDk&Mishra A\*. Characterization, Inhibitory Activity and Mechanism of Polyphenols from Faba Bean (gallicacid and catechin) on  $\alpha$ -glucosidase: Insights from Molecular Docking and Simulation Study, Preparative Biochemistry and Biotechnology.2019; Accepted in Press IF 1. 241



- 12 Chaturvedi N, Mishra A and Rawat V. Synthesis -- the effect on sigma non opoidintrecellular protein receptor. Structural Chemistry https://doi.org/10.1007/s11224-019-01324-x IF 2.0
- 13 ViswakarmaR and Mishra A\*, Protective effect of --- against oxidative stress. Preparative Biochemistry and Biotechnology. ISSN: 1082-6068; 1532-2297 (Online)2019. Taylor & Francis, IF 1. 241
- 14 Sharma D, Singh K, Singh K and Mishra A\*. Insights --practical applications, Current protein and Peptide Science. 2019; 20(5): 452-464 DOI: 10.2174/1389203720666181114111035 IF 3.105
- 15 Singh K, Mishra A\*, Sharma D, Singh K. Nanotechnology -- Matrix, Current Nanoscience. 2019; 15: 1-8. DOI:10.2174/1573413714666181008144144. IF 1.306
- 16 Tamboli E, Bhatnagar A and Mishra A\*. Alpha-amylase inhibitors from mycelium of an oyster mushroom, Preparative Biochemistry and Biotechnology.2018; (8):693-699. IF 1. 241
- 17 Yadav VK and Mishra A\*. In vitro -- heartwood extract. Natural Product Research.2018:(doi.org/10.1080/14786419.2018 .1471078. IF 1.828
- 18 ChoudharyDk&Mishra A\*. *In vitro -- Saccharomyces cerevisiae*2376. Preparative Biochemistry and Biotechnology.2018; ISSN: 1082-6068 (Print) 1532-2297 IF 1. 241
- 19 ChoudharyDk&Mishra A\*, In vitro -- potential. Natural Product Research 2018; https://doi.org/10.1080/14786419. 2018.1460831, 19:1-5. Imapct Factor 1.828
- 20 Singh K,Singh A and Mishra A\*, Synthesis characterization and in vitro release study of ciprofloxacin loaded chitosan nanoparticle. Nano Science, Springer 2018; 8: 229–236. IF 1.354
- 21 Viswakarma R and Mishra A\*, Production -- Methodology. Preparative Biochemistry and Biotechnology. 2017;ISSN: 1082-6068:1532-2297. IF 1.241
- 22 Pandey U, Pandey J Singh AV, Mishra A.- river water. CURRENTSCIENCE. 2017; (113) 05:959-964. . IF 0.883
- 23 Choudhary DK and Mishra A\*. In vitro -- activity. Bioengineered. Taylor &FrancisISSN: ISSN: 2165-5979 (Print) 2165-598, 2016: 2165-5987. IF 1.639

#### **Proceedings of International Conferences**(From 1st April 2018 to 31st March 2019)

Vikash Kumar Dubey. Understanding redox metabolism and host defence mechanism of *Leishmanidonovani* for possible therapeutics. Emerging Trends in Disease Model Systems, 25-27 March 2019, National Centre for Cell Sciences, Pune.

GundappaSaha, Bakulesh M Khamar, Manish Kumar Vikash Kumar Dubey. *Leishmanidonovani* targets host proteins to alter the regulation of pyroptosis for their survival. Emerging Trends in Disease Model Systems. Emerging Trends in Disease Model Systems, 25-27 March 2019, National Centre for Cell Sciences, Pune.

GundappaSaha, Bakulesh M Khamar, Manish Kumar Vikash Kumar Dubey. Blimp-1 playing a role in the regulation of pyroptosis during *Leishmanidonovani* infection. Recent Advancements in Biochemical Engineering and Biotechnology, 15-16 March 2019, IIT (BHU) Varanasi

KamaleshVerma, Lal Mohan Kundu and Vikash Kumar Dubey. Studies on stable azoreductase enzyme from *Chromobacteriumviolaceum*: application in industrial effluent dye degradation. Recent Advancements in Biochemical Engineering and Biotechnology, 15-16 March 2019, IIT (BHU) Varanasi.

Adarsh Kumar Chiranjivi, Pranjal Chandra and Vikash Kumar Dubey. Site directed mutagenesis of *Leishmanidonovani* Dihydrolipoamide dehydrogenase to investigate role of Cysteine 38, Alanine 48, Aspartate 49 and Alanine 54 in regulation of catalytic activity. Recent Advancements in Biochemical Engineering and Biotechnology, 15-16 March 2019, IIT (BHU) Varanasi.

#### 5. Other activities

- 1. A National Conference was held in the School of Biochemical Engg, RABEB 2019 on March 15-16<sup>th</sup> 2019
- 2. An Invited lecture, in Centenary Lecture Series, was held in the School from Dr VS Bisariya, IIT(D), on Feb,9<sup>th</sup> 2019.



# 18. School of Bio-Medical Engineering

Year of Establishment: 1978

Coordinator of the School: Prof. Neeraj Sharma (w.e.f.\_March 2016)

#### 1. Brief Introduction of the Department/School:

Biomedical Engineering is a highly interdisciplinary and upcoming field of technology. The School of Biomedical Engineering is involved in Teaching and Research in collaboration with Institute of Medical Sciences (BHU), and with other Departments of IIT (BHU). The School follows a constant path of progress and diversification to be in pace with the time of change. The School runs the Integrated Dual Degree (IDD) program that offers B. Tech in Bioengineering and M. Tech in Biomedical Technology, besides there is also a two year M. Tech program and PhD program in Biomedical Engineering. Further, post-doctoral research opportunities are also available in the School for funded candidates. The school time to time updates the curriculum, introduces new electives and new practical components according to the requirements.

The objective of the School is to play an important role in the development of Biomedical Engineers. The research credentials of the School is multifarious and interdisciplinary so as to integrate all the thematic of the field in one common pool and thereby achieve progress is unison. The School of Biomedical Engineering was established by the UGC during the Fifth Five Year Plan in the year 1978. Banaras Hindu University is fortunate in having both the Institute of Technology and Institute of Medical Sciences in the same campus. This results in excellent collaborative work related to Biomedical Engineering. The infrastructure development work of the School was started in 1985 with the appointment of core faculty members.

### Major areas of Research

- Biomedical signal and image processing
- Brain-Computer Interfaced based on Motor Imagery and Steady State Visual Evoked Potential.
- Stem cell therapy/engineering and regenerative medicine
- Nanocomposites and bio-devices
- Tissue Engineering and Biomicrofluidics, nanotoxicology
- BioMEMS and Biosensors
- Brain Circulation, Autoregulation, Its Disturbance and Neuroprotection
- Bio-effects of electromagnetic radiation, specially the biohazards of Microwave radiation
- Design and fabrication of low cost diagnostic and therapeutic instruments
- Development and characterization of functionally graded materials & conducting IPN composites and their medical application
- Control system modelling, analysis and simulation in health and diseases.
- Molecular pathogenesis of Infectious diseases and nanomedicine based therapeutics for infectious diseases
- Neuroscience; Neurotechnology; Brain disorders, Affordable Health Care.
- Computational Biomechanics (Design and modelling of Orthopaedics implants i.e. Hip Joint, Knee Joint, Spine spacers, Bone Plates and Screws, Dental implants, Cardiovascular Blood flow dynamics study, Stent and Heart valve design and development; FEA/CFD Simulation). Energy harvesting for biomedical applications. Tissue Engineering and Regenerative Medicine
- Stem Cell Engineering
- Biomicrofluidics, Neuroengineering and Nanotoxicology



- Neurotechnology, Brain Research, Cognitive Science, and Affordable Mental Health Care.
- Materials of health care and therapeutic application, such as for cancer therapy, treatment of malaria, Tuberculosis, immune therapy etc.

### Area of the Department/School (in square meters):

#### Infrastructure

S. No.	Particulars	Number
1	No. of Classrooms	03
2	No. of Lecture Halls	01
3	No. of Laboratory	09
4	No. of Computers available for students in the Department/School/ School	20

#### New facilities added (From 1st April 2018 to 31st March 2019)

S. No.	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)
1	Electrospinning Instrument, E- SPIN NANOTECH	2.39
2	Functional Brain Imaging Platforms	Analysis facility set up with existing equipments (no extra expenditure incurred)
3	Structural Neuroradiological Analytics	Analysis facility set up with existing equipments (no extra expenditure incurred)
4	1 (i) 5.0 KVA online UPS Numeric (ii) FE 02 –EP 100-12-12V, 100AH Battery	2.62
5	Wooden Modular Laboratory working table	0.50
6	Electrospinning Instrument, E- SPIN NANOTECH	2.39
7	High Energy Probe Sonicator (750W)	5.00
8	Gel-Documentation System	12.00

#### Unique Achievement / Preposition of the Department/School

#### (A) Surgical Process for Reducing Spread of Brain Tumour:

The team of Prasun K. K. Roy have shown that the human brain's largest unidirectional fibre bundle (corpus callosum) has a second set of oblique fibre tracts, which enable migration of brain tumour cells (as glioma) in a second angular direction. Thereby these researchers have delineated that to lessen the tumour cell spread across brain tissue, one needs to also surgically interrupt the oblique tracts by ablation resection or radiosurgery.

#### (B) Preventive Neuroprotection Measures against Human Ageing:

Analysis of MRI signals and Brain Volumetry of Patients have been utilized in the laboratory of Prasun K. Roy to demonstrate that the Brain's interior White matter fibres enable the transport of neurotropic factors outwards to the exterior Grey Matter. This enables the generation and patterning of the Cerebral Cortex neural network. These findings indicate the feasibility of using neurotropic pharmacological agents (as Vitamin B3 related Pantothenate kinase 2 modulators) for neuroprotection during old-age induced degeneration or senescence.

#### (C) Materials for Health Care and Therapeutic Applications

The group of Dr. Pradip Paik has invented the nanomedicine for treatment of cerebral malaria. Dr. Paik's research group invented novel hydro-gel for tissue engineering. This invention is filled for Indian patent ((Ref. 201811045481, TEMP/E-1/49511/2018-DEL, December 1, 2018.) In this regards, Dr. Paik, has been awarded Outstanding Scientist Awards in Biomedical Engineering, by VIRA (11th August 2018). Dr. Paik's research group signed a new MoU with industry and for the translation of nanomedicine.



## (D) Extramural support and Industrial Collaboration

The school received funding under the MODROBS scheme of MHRD. Projects from DST, DAE and CoirBoard were also obtained. The school was also funded under the DST-FIST program. Currently all faculty members are engaged in research. The school developed well equipped laboratories with financial assistance from various agencies. MoU's have been signed with medical device making companies and consultancy work are also done by the faculties.

#### 2. Academic Programmes offered

**New Courses Introduced** (From 1st April 2018 to 31st March 2019)

S. No.	Course Code	Course name	Course credit
1	NIL	NIL	NIL

## Students on Roll (From 1st April 2018 to 31st March 2019)

(Please give No. of students only in respective years)

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1.	B. Tech/B. Pharm	-	-	-	-	-
2.	Dual Degree	13	15	19	13	10
3.	M. Tech/ M. Pharm	08	06	-	-	-
4.	Ph. D (Under Institute Fellowship)	29 (25+ 4 (on professional Leave))				
5.	Ph. D (Under Project Fellowship)	Part Time	e (Project Fellow):- 0	)2		
6.	Ph. D (Under Sponsored Category)	Part Time (Institute Staff):- 01 Quality Improvement Programme (QIP):- 03 External Fellowship/Scholarship (UGC/CSIR/DBT etc):- 03 Full Time External Category-Nil Full Time Sponsored Category-Nil				

## Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From		
ÌNDI	ÌNDIA						
1	Neelima Varshney and Ajay Sahi	16021002 and 15021005	International Conference on BioMaterials, BioEngineering and BioTheranostics (BioMET 2018)	24-28th July 2018; Vellore Institute of Technology, Tamil Nadu	STGS, IIT BHU		
2	Suruchi Poddar and Piyush Sunil Agarwal	15021007 and 14024003	International Conference on BioMaterials, BioEngineering and BioTheranostics (BioMET 2018)	24-28th July 2018; Vellore Institute of Technology, Tamil Nadu	STGS, IIT BHU		
3	Suruchi Poddar and Kiran Yellappa Vajanthri	15021007 and 14021004	International Conference on Neuroscience & XXXVI Annual Meeting of Indian Academy of Neuroscience	29-31 October, 2018; Banaras Hindu University, Varanasi, Uttar Pradesh.	Self-funded		
4	Ajay Sahi and Snehalata Rai	15021005 and 17021502	7th Inter IIT Tech Meet 2018 - Engineers' Conclave	December 2018. IIT Bombay, India.	IIT BHU		



S. No.	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
5	Ajay Sahi	15021005	1st IEEE EMBS International Student Conference	19-21 December 2018; Ramaiah Institute of Technology, India.	STGS, IIT BHU
6	Mr. Ajay Sahi	15021005	IP Management, Regulatory pathway and Grant writing in Life sciences	4-5 December 2018; IIT Kanpur	Self-funded
7	Neelima Varshney	16021002	IP Management, Regulatory pathway and Grant writing in Life sciences	4-5 December 2018; IIT Kanpur	Self-funded
8	Kiran Yellappa Vajanthri	14021004	National Life Science Entrepreneurship Awareness Programme	21 February 2019; Banaras Hindu University, Varanasi	Self-funded
9	Suruchi Poddar	15021007	National Life Science Entrepreneurship Awareness Programme	21 February 2019; Banaras Hindu University, Varanasi	Self-funded
10	Ajay Sahi	15021005	National Life Science Entrepreneurship Awareness Programme	21 February 2019; Banaras Hindu University, Varanasi	Self-funded
11	Neelima Varshney	16021002	National Life Science Entrepreneurship Awareness Programme	21 February 2019; Banaras Hindu University, Varanasi	Self-funded
12	Neelima Varshney	16021002	Global Initiative For Academic Networks	1-5 April 2019; IIT Kanpur	Self-funded
13	Prateek Purohit	17021501	Workshop on "Basic Aspects of NMR Spectroscopy and its Applications"	24.9.18 to 26.9.18 ;NISER Bhubaneswar	Nuclear Magnetic Resonance Society of India
14	Bindu Kumari	17021508	IBRO-APRC Associate School of Neuroscience	28.11.18 to 2.12.18 ; Punjab University, Chandigarh	International Brain Research Organization
15	Fahad A. Fazjar	16024006	International Meeting on Neuroscience: Translational Research in Improving Mental Health	27.10.18 to 29.10.18 ; Institute of Medical Sciences, Varanasi	STGS, IIT BHU
16	Nitesh Singh Malan	16021003	1st IEEE EMBS International Student Conference	19-21 December 2018, Bengaluru, India	STGS, IIT BHU
17	Alok Prakash	15021004	1st IEEE EMBS International Student Conference	19-21 December 2018, Bengaluru, India	STGS, IIT BHU
18	Alok Prakash	15021004	National conference on disability and social inclusion-the role of technology	10-11 January 2018, IIT Guwahati	STGS, IIT BHU
19	Juhi Jaiswal	17021001	Hands of Training at Central Laboratory for Stem Cell Research and Translational Medicine, Deccan College of Medical Sciences, Hyderabad	9-31 July, 2018, Hyderabad	DBT Project



S. No.	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
20	Devdutt Sharma	18021001	Training of Electrochemical Work station and LB Film Preparation, Analytical Chemistry Laboratory, CSIR- NEIST, Jorhat, Assam, India	6-28 June, 2018, Jorhat	DBT Project
21	Rati	15021001	2 <sup>nd</sup> International Conference on Computation Methods in Manufacturing	March 8-9, 2019, IIT Guwahati, Guwahati, India	SBME, IIT BHU
ABR	OAD				
1	Mr. Uvanesh Kasiviswanathan and Ms. Suruchi Poddar	15021002 and 15021007	Advanced Nano Materials Conference (ANM-2018)	June 2018; University of Aveiro	DBT-CTEP Scheme Vide No: DBT/ CTEP/02/201800285 and STGS, IIT BHU
2	Ms. Suruchi Poddar and Mr. Piyush Sunil Agarwal	15021007 and 14024003	27th Annual Conference on Biomaterials in Medicine and Veterinary Medicine in association with Polish Society of Biomaterials and AGH University of Science and Technology	11-14th October 2018; Hotel Perla Poludnia, Rytro. Poland.	STGS, IIT BHU
3	Bindu Kumari	17021508	ISN-APSN Neuroscience School	Macau University of Science and Technology, China; 22.8.18 to 26.8.18	International Society of Neuro-chemistry
4	Nitesh Singh Malan	16021003	2nd International Conference on Biomedical Engineering (IBIOMED)	July 24-26, 2018 Kuta, Bali Indonesia	STGS, IIT BHU
5	Taresh Sarvesh Sharan	16021005	Artificial Intelligence in Healthcare Conference	25-26 October, 2018 Boston, USA	Self-funded
6	Taresh Sarvesh Sharan	16021005	Image Guided Therapy Workshop	7 October, 2018 Harvard University, Boston, USA	Self-funded
7	Taresh Sarvesh Sharan	16021005	Poster Photomedicine and Biophysical Microscopy of Cancer	6 September, 2018 Boston, USA	Self-funded
8	Romel Bhattacharjee	15021006	iCube Deep Learning Workshop Presented work on "Fusion and Registration on Multimodal Medical Images"	11th Dec, 2018 Faculté de Médecine, University of Strasbourg, France	University of Strasbourg
9	Bindu Kumari	17021508	Travelling Scholar Fellowship	For participating in Neuroscience workshop at Macau University of Science and Technology,	China



S. No.	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
10	Gaurav Kumar	14021001	Asia Pacific Stroke Conference 2018	September 6-9, 2018, Jakarta Indonesia	STGS, IIT BHU
11	Sumedha Mukherjee	14021002	"Workshop on the Mathematics of Drug Design/Discovery"	June 4 - 8, 2018, The Fields Institute for Research in Mathematical Sciences, Toronto, Canada	Self-funded
12	Sumedha Mukherjee	14021002	14th PARIS – FRANCE International Conference on "Advances in Science, Engineering and Technology" (PASET-19),	14th- 16th March, 2019. Paris, France.	STGS, IIT BHU

Names of students/scholars who got prizes and awards outside the Institute (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of Prize	Date & Venue	Prize awarded by
1	Suruchi Poddar	15021007	2 <sup>nd</sup> prize for outstanding rapid fire and poster presentation	14th October 2018, Hotel Perla Poludnia, Rytro. Poland	By Polish Society of Biomaterials
2	Omkar Rajesh Shinde	15024010	Academy Student Fellowship	IIT, Guwahati (May-July, 2018)	Indian Academy of Science, Bangalore
	Bindu Kumari	17021508	Travelling Scholar Fellowship	Macau University of Science and Technology, China (Aug. 2018)	International Society of Neurochemistry
3	Ajay Sahi	15021005	1 <sup>st</sup> prize in oral presentation	21 December 2018, Ramaiah Institute of Technology, India.	By 1st IEEE EMBS International Student Conference
4	Nitesh Singh Malan	16021003	1st Prize Poster for Presentation at 1st IEEE EMBS International Student Conference	19-21 December 2018, Bengaluru, India	1st IEEE EMBS International Student Conference
5	Romel Bhattacharjee	15021006	Received the prestigious Eiffel Excellence Scholarship	Laboratory iCube, University of Strasbourg, France	France
6	Romel Bhattacharjee	15021006	France Life Imaging (FLI) fellowship	for participating in Deep Learning for Medical Imaging School, Campus de la Doua, INSA Lyon, France.	France

Names of scholars/students who won Convocation/Institute Day prizes (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of Prize	Prize awarded by
1				

Names of Students/Scholars who went for foreign Internship (From 1st April 2018 to 31st March 2019)\_



S. No.	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
1	Taresh Sarvesh Sharan	16021005	Department of Physics and Department of Bioengineering, North-eastern University	Boston, USA	USA	1 st of august to 30 th of November, 2018
2	Romel Bhattacharjee	15021006	iCube, University of Strasbourg, France	France	France	September 2018 to June 2019

## 3. Faculty & their Activity

## Faculty and their areas of specialisation

S. No.	Name, Qualifications, Employee No.	Date of award of PhD Degree	Major Areas of Specialization (Max. 3 Areas)
PROI	FESSORS		
1	Dr. Ranjana Patnaik	1992	Neurophysiology, Electrophysiology, Biomaterials, Biochemistry
2	Dr. Neeraj Sharma	2008	Neurophysiology, Electrophysiology, Biomaterials, Biochemistry
3	Dr. Prasun Kumar Roy	2003	Neurotechnology, Brain Research, Cognitive Science, Affordable Health Care
ASSO	CIATE PROFESSORS		
1	Dr. Shiru Sharma	2009	Biological control system, Mathematical modeling of biological system, Bio-instrumentation
2	Dr. Sanjay Kumar Rai	1998	Computational Biomechanics (Design and modelling, FEA/CFD Simulation). Energy Harvesting for biomedical applications.
3	Dr. Marshal	2004	Biophyiscs, Biomaterials and Tissue Engineering, Stem Cell Reprogramming, Biosensors, Bio-MEMS, Nano- medicine, Plasma Physics
4	Dr. Pradip Paik	2008	Materials for Health Care and Therapeutic Applications: New designing and synthesis of Polymers, Ceramic, Composites, other Nanoscale Materials of Health care and Nanomedicine, in-plantable materials, Drug Delivery, Cancer Therapy, Nano vaccination, in-vitro and in-vivo studies
ASSIS	STANT PROFESSORS		
1	Dr. Sanjeev Kumar Mahto	2011	Cell and Tissue Engineering, Biomicrofluidics, Neuroengineering, Nanotoxicology
Instit	ute Professors		
	-	-	-
Disti	nguished Professors		
	-	-	-
Emer	itus Professors		
	-	-	-
Gues	t Faculty		
1	Dr. Smita Pradhan	2017	Biomedical Signal and Image Processing, Soft Computing



Visiting Faculty			
	-	-	-
DST	INSPIRE Faculty		
	-	-	-

## **Technical and Non-Teaching Staff**

Sl. No.	Name, Qualifications	Designation	Date of Appointment in the department
1.	Mr. Ajay Kumar, Diploma in Mechanical Engineering	Senior Technical Superintendent	17.02.1992
2	Mr. Bhuwaneshwari Sharan, Intermediate (Science)	Technical Superintendent	06.06.1988
3	Dr. Anuj Srivastava, D.M.L.T., B.Sc. MLT, M.Sc. (Microbiology), Ph.D	Senior Technician	06.08.2008
4	Mr. Bharat Kumar Vishwakarma, B.Sc., B.Ed., P.G.D.C.A.	Senior Technician	12.07.2012
5	Mr. Divyanshu Singh, M.A. (Journalism & Mass Communication), D.C.A. (Diploma in Computer Application)	Junior Assistant	20.05.2017
6	Mr. Vipin Kumar Verma, B.Tech (Electronics & Communication Engg.)	Junior Assistant	01.08.2017

**Short-term courses/workshops/seminars/symposia/conferences organised by faculty members** (From 1st April 2018 to 31st March 2019)

S. No.	Coordinator	Title	Period
1	Dr Shiru Sharma	QIP short term course on "BioMEMS	10 <sup>th</sup> December to 16 <sup>th</sup> December
	Dr Marshal	and Bioinstrumentation"	2018

Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Title	Period and Venue			
Semina	Seminars/Symposia/Conferences					
1	Prof. Prasun K. Roy	International Conference on Neuroinformatics.	16.8.18 to 17.8.18. McGill University, Canada.			
2	Prof. Prasun K. Roy	Educational week workshop on Neurological Disorders: Mechanisms and Therapies	3.11.18.Lucknow Medical College, Era University, Lucknow			
3	Dr. Marshal	Nano Engineered Functional Materials for Application in Biomedical Energy Application", National Conference on "Recent Trends in Material Scence and Nanotechnology	18-19 January, 2019; Jaipur			
4	Dr. Marshal	Engineered Functional Nano-materials for Advancement in Biomedical Application", National Conference on Advances in Nano and Functional Materials (NCANFM-2019),	held on 30th to 31st January 2019, Hyderabad			
Meetin	ngs					
1	Prof. Prasun K. Roy	CTSI Meeting of International Neuroinformatics Coordination Facility	18.8.18. Montreal Neurological Institute, Canada			



S. No.	Name of Faculty Member	Title	Period and Venue
2	Prof. Prasun K. Roy	International Meeting on Neuroscience: Translational Research in Improving Mental Health	27.10.18 to 29.10.18. Institute of Medical Sciences, Varanasi
3	Dr. Pradip Paik	Fourth International Conference on Advanced Complex Inorganic Nanomaterials	16th-20th July 2018, Namur, Belgium.
4	Dr. Pradip Paik	4th International Conference on Biomedical Polymers & Polymeric Biomaterials	15-18 July 2018, Kraków, POLAND
5	Dr. Marshal	Laboratory for Stem Cell Research and Translational Medicine, Deccan College of Medical Sciences, Hyderabad	12-14 April, 2018, Hyderabad
6	Dr. Marshal	CSIR- Indian Institute of Chemical Technology, Hyderabad	15-16 July 2018, Hyderabad

## **Special lectures delivered by faculty members in other institutions** (From 1st April 2018 to 31st March 2019)

S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
1	Dr. S.K. Mahto	Scaffold Fabrication and Enabling Technologies for Tissue Engineering	DHR-MRU KGMU	December 3-5, 2018
2	Dr. S.K. Mahto	Applications of 3D Printing for Improving Tissue Engineering and Drug Delivery	SASTRA University, Thanjavur district, Tamil Nadu, India.	August 16-18, 2018
3	Prof. Prasun K. Roy	From Neuroprotection to Neurorestoration: Harnessing the Self- regulating Brain	Lucknow Medical College, Era University, Lucknow	3.11.18
4	Prof. Prasun K. Roy	Pattern Formation and Neuronal Dynamics	Tibet House, New Delhi	2.12.18
5	Prof. Prasun K. Roy	Introduction to Neuroimaging.	Institute of Neurosciences, Kolkata	22.3.19
6	Prof. Prasun K. Roy	MRI Connectomics show Brain's Clearance of Amyloid as modulated by Blood Pressure	Institute of Neurosciences, Kolkata	23.3.19
7	Dr. Pradip Paik	New Hollow core-shell nanocapsules facilitate sustained release of immunomodulatory drugs and exhibit adjuvant properties	Faculty of Materials Science and Ceramics, AGH-UST, Kraków, POLAND	15-18 July 2018
8	Dr. Pradip Paik	CPMV-inspired Hierarchical Self- Assembled Zinc phosphate: in vitro cell cycle, proliferation and prospective for tissue regeneration	University of Namur, Belgium,	16th-20th July 2018
9	Dr. Pradip Paik	Mesoporous and Hollow Polymeric- Inorganic Nanostructure Materials for Drug Delivery	University of Delhi	December 9-14, 2018
10	Dr. Marshal	Micro-Nano Engineered Functional Materials for Biomedical and Energy Application	International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI), Hyderabad	20 <sup>th</sup> March 2019



collaborative work  & Technology (CNST), Jawaharlal Nehru Technological University Hyderabad, Telangana, Hyderabad	11	Dr. Marshal	Invited talk and discussed about research collaborative work	Jawaharlal Nehru Technological University Hyderabad, Telangana,	18 <sup>th</sup> March 2019
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## Visits abroad by faculty members (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Country Visited	Date of Leaving india	Date of Returning India	Purpose of Visit	Funding from
1	Prof. Prasun K. Roy	Canada	8.8.19	17.8.19	Conference Presentation	CPDA & INCF
2	Prof. Prasun K. Roy	USA	17.8.19	25.8.19	Research Collaboration	CPDA
3	Dr. Pradip Paik	POLAND	14th July, 2018	21st July, 2018	Conference Presentation	CPDA and DST
4	Dr. Pradip Paik	Belgium	14th July, 2018	21st July, 2018	Conference Presentation	CPDA and DST

## **Honours and awards** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Details of Award
1	Dr. Pradip Paik	OUTSTANDING SCIENTIST IN BIOMEDICAL
		ENGINEERING, - VIRA 2018

## Fellowships of academic and professional societies (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Details of Fellowship
1		

## Books, monographs authored/co-authored (From 1st April 2018 to 31st March 2019)

S. No.	Name of Author/Co- Author	Title	Publisher
1	M. Abrams, J. Bjaalie, S. Das, G. Egan, S. Ghosh, W. Goskinski, J. Grethe, E. Ho, L. Lanyon, J. Poline, P.K. Roy, T. Tang, T. Wachtler, D. Wojcik, M. Martone.	A standards organization for Open and FAIR neuroscience. (DOI: 10.31219/osf.io/3rt9b)	International Neuroinformatics Coordinating Facility, Karolinska Institute, Stockholm, 2019.
2	Uvanesh Kasiviswanathan, Abhishek Kushwaha & Shiru Sharma	Development of human speech signal based intelligent human-computer interface for driving a wheelchair in enhancing the quality-of-life of the persons," Intelligent Systems for Healthcare Management and Delivery edited by NardjesBouchemal	IGI Global
3	Patnaik, Ranjana, Tripathi, Amit Kumar, Dwivedi, Ashish	Advancement in the Pathophysiology of Cerebral Stroke	Springer Singapore
4	Gaurav Kumar, Sumedha Mukherjee, Amit kumar Tripathi, Pankaj Paliwal, Sairam Krishnamurthy, Ranajana Patnaik	Stem cell-based therapy for ischemic stroke. Advancement in the Pathophysiology of Cerebral Stroke, 1st ed. Edited by Patnaik, Ranjana, Tripathi, Amit Kumar, Dwivedi, Ashish	Springer Singapore



S. No.	Name of Author/Co- Author	Title	Publisher
5	Sumedha Mukherjee, Amit kumar Tripathi, Gaurav Kumar, Ranjana Patnaik, et al.	Neuroprotective Potential of Small Molecule Phytochemicals in Stroke Therapy. Advancement in the Pathophysiology of Cerebral Stroke, 1st ed. Edited by Patnaik, Ranjana, Tripathi, Amit Kumar, Dwivedi, Ashish	Springer Singapore
6	Chandra Kant Singh Tekem, Amit kumar Tripathi, Gaurav Kumar, Ranjana Patnaik.	Emerging Role of Electromagnetic Field Therapy in Stroke. Advancement in the Pathophysiology of Cerebral Stroke, 1st ed. Edited by Patnaik, Ranjana, Tripathi, Amit Kumar, Dwivedi, Ashish	Springer Singapore
7	Pankaj Paliwal, Sairam Krishnamurthy, Gaurav Kumar, Ranjana Patnaik.	"Critical Role of Mitochondrial Authophagy in Cerebral Stroke." Advancement in the Pathophysiology of Cerebral Stroke, 1st ed. Edited by Patnaik, Ranjana, Tripathi, Amit Kumar, Dwivedi, Ashish	Springer Singapore

## **Editorial boards of journals** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1	Prof. Prasun K. Roy	Member	INAE Letters of Indian National Academy of Engg.
2	Prof. Prasun K. Roy	K. Roy Member Int. J. Artificial Intelligence and Soft Computing	
3	3 Prof. Ranjana Patnaik Deputy Editor in chief Journal of Biological Engineering Research		Journal of Biological Engineering Research and Review
4	Dr. Pradip Paik	Member	Journal of Engineering Technology (JET)
5	Dr. Pradip Paik	Member	Archives of Nanomedicine
6	Dr. Marshal	Guest Editor	Advanced Science, Engineering and Medicine, American Scientific Publishers, USA, 2018
7	Dr. Marshal	Editorial Board	Journal of Biosensors & Bioelectronics

## 4. Design and Development Activities

New facilities added (From 1st April 2018 to 31st March 2019)

S. No.	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)
1	Electrospinning Instrument, E- SPIN NANOTECH	2.39
2	Functional Brain Imaging Platforms	Analysis facility set up with existing equipments (no extra expenditure incurred)
3	Structural Neuroradiological Analytics	Analysis facility set up with existing equipments (no extra expenditure incurred)
4	1 (i) 5.0 KVA online UPS Numeric (ii) FE 02 –EP 100-12-12V, 100AH Battery	2.62
5	Wooden Modular Laboratory working table	0.50



## Patents filed (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Title of Patent
1	Dr. S.K. Mahto	"Psyllium Husk Based Bioink for Three-dimensional Bioprinting and the Method of Making Thereof".
2	Dr. S.K. Mahto	"A Syringe with Controlled Volume Dispensing System".
3	Dr. S.K. Mahto	"A Microfluidic Platform for Low Density Culture of Cells and A Method for Controlling the Same"
4	Prof. Prasun K. Roy	Automated Classification Technique for Alzheimer's Disease Magnetic Resonance Imaging signal from Ventricular zone contour of Brain. European Patent Granted. 2018. Patent No. EP2355703B1.
5	Dr. Shiru Sharma, Prof. Neeraj Sharma	EMG sensor for prosthetic hand control
6	Dr. Pradip Paik	A novel hydrogel with high mechanical stability and a method of making the same, (Ref. 201811045481, TEMP/E-1/49511/2018-DEL, December 1, 2018

## 5. Research and Consultancy

## **Sponsored research projects** (Ongoing only)

Note: Sponsored project name is to be given only in case a faculty member is Project Incharge

S. No.	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co- ordinator
1	"Development of Microfluidic Tools for Neuromuscular Synaptogenesis and Nanotoxicological Studies"	Jul. 2014 – Jun. 2019	INSPIRE Project, Department of Science and Technology, New Delhi, India.	35.00	Dr. S.K. Mahto
2	Spatiotemporal Dynamics of the Neural System: Feasibility Study of Perceptual Spatiotemporal Mapping & Information Flux Imaging with clinical applicability	2014-19	Ministry of Electronics & Information Technology, New Delhi.	86.00	Prof. Prasun K. Roy
3	Design and Development of Affordable Myoelectric Prosthetic Hand	3 Years	Science and Engineering Research Board (SERB)	6.00	Dr. Shiru Sharma
4	Functional-hollow-porous-biopolymer based Nanoformulations and Interventions of Tuberculosis: concept of nanomedicine with multiple drugs against MTB	3 Years 2017-2020	DST Nano mission	57.00	Dr. Pradip Paik
5	Neem-seed based Nanocapules and nanomedicine for targeted drug delivery and cancer therapy,	3 Years 2017-2020	Science and Engineering Research Board (SERB)	40.33	Dr. Pradip Paik
6	Nanoparticles supported self-assembled conducting polymer monolayer based platform for rapid detection of monosodium glutamate in food products in collaboration with Dr Raju Khan, NEIST, Jorhat	3 Years 2017-2020	Department of Biotechnology, Govt of India	89.32	Dr. Marshal



#### **Industrial consultancy projects** (Ongoing only)

S. No.	Name of Faculty Member	Title	Industry	Amount (in lakhs of Rs.)
1				

## Faculty members' participation with other universities under MoUs (Ongoing only)

**Research Publications** (From 1st April 2018 to 31st March 2019)

S. No.	Papers Published/ Presented	No.
1	Papers Published in Refereed National Journals	01
2	Papers Published in Refereed International Journals	
3	Papers Presented in National Conferences	04
4	Papers Presented in International Conferences	21

#### **Refereed International Journals** (From 1st April 2018 to 31st March 2019)

- 1. Poddar, S. U. R. U. C. H. I., Agarwal, P. S., & Mahto, S. K. (2018). Preparation of psyllium husk powder based microporous composite scaffolds for tissue engineering. Engineering of Biomaterials, 21(147).
- 2. Singh, M., Singh, R. K., Singh, S. K., Mahto, S. K., & Misra, N. (2018). In vitro biocompatibility analysis of functionalized poly (vinyl chloride)/layered double hydroxide nanocomposites. RSC advances, 8(71), 40611-40620.
- 3. Balavigneswaran, C. K., Mahto, S. K., Mahanta, A. K., Singh, R., Vijayakumar, M. R., Ray, B., & Misra, N. (2018). Cell proliferation influenced by matrix compliance of gelatin grafted poly (d, l-Lactide) three dimensional scaffolds. Colloids and Surfaces B: Biointerfaces, 166, 170-178.
- 4. Vajanthri, K. Y., Yadav, P., Poddar, S., & Mahto, S. K. (2018). Development of optically sensitive liver cells. Tissue and Cell, 52, 129-134.
- 5. Poddar, S., Agarwal, P. S., Sahi, A. K., Vajanthri, K. Y., Singh, K. N., & Mahto, S. K. (2019). Fabrication and Cytocompatibility Evaluation of Psyllium Husk (Isabgol)/Gelatin Composite Scaffolds. Applied biochemistry and biotechnology, 1-19.
- 6. Varshney, N., Sahi, A. K., Vajanthri, K. Y., Poddar, S., Balavigneswaran, C. K., Prabhakar, A., ...& Mahto, S. K. (2019). Culturing melanocytes and fibroblasts within three-dimensional macroporous PDMS scaffolds: towards skin dressing material. Cytotechnology, 71(1), 287-303.
- 7. Vajanthri, K. Y., Sidu, R. K., Poddar, S., Singh, A. K., & Mahto, S. K. (2019). Combined Substrate Micropatterning and FFT Analysis Reveals Myotube Size Control and Alignment by Contact Guidance. Cytoskeleton.
- 8. V. Pareek, A. K. Kumar, P. K. Roy (2018). Oxidative Stress and Role of Neuroimaging Modalities in Assessment of Free radicals-induced changes in brain morphology, CNS and Neurological Disorders: Drug Targets, 2018 (Accepted). DOI: 10.2174/1871527318666190507102340
- 9. V. Pareek, VPS Rallabandi, P.K. Roy (2018). A Correlational Study between Micro-structural White matter properties and Macro-structural Gray matter volume across Normal Ageing. Magnetic Resonance Insights, 11, 1-13, 2018
- 10. N.S. Malan and S. Sharma (2019). Feature selection using regularized neighbourhood component analysis to enhance the classification performance of motor imagery signals. Computers in biology and medicine, 107, pp.118-126.
- 11. Hemlata Shakya, Shiru Sharma "The Effectiveness of Cervical Traction for Neck Pain Using Time-Frequency Features" Journal of Advanced Research in Dynamical and Control Systems (JARDCS), Issue 6, pp.10-19, (2018)
- 12. Hemlata Shakya, Shiru Sharma "Quantitative Analysis of Para spinal Muscle strain during Cervical Traction Using Wireless EMG Sensor" International Journal of Biomedical Engineering and Technology (IJBET) [accepted in March 2018].



- 13. Singh SS, Rai SN, Birla H, Zahra W, Kumar G, Rao GM, Tiwari N, Patnaik R, Singh RK, Singh SP. (2018). Effect of Chlorogenic acid supplementation in MPTP intoxicated mouse. Front. Pharmacol., doi: 10.3389/fphar.2018.00757 (IF: 4.4)
- 14. Kumar G, Paliwal P, Mukherjee S, Patnaik N, Krishnamurthy S, Patnaik R. (2018). Pharmacokinetics and Brain Penetration Study of Chlorogenic Acid in Rats. Xenobiotica. DOI: 10.1080/00498254.2018.1445882
- 15. Sharma HS, Muresanu DF, Lafuente JV, Patnaik R, Tian ZR, Ozkizilcik A, Castellani RJ, Mössler H, Sharma A. (2018). Co-Administration of TiO2 Nanowired Mesenchymal Stem Cells with Cerebrolysin Potentiates Neprilysin Level and Reduces Brain Pathology in Alzheimer's Disease. Molecular neurobiology. 55(1):300-11. (Impact Factor: 6.1)
- 16. Patnaik R, Sharma A, Skaper SD, Muresanu DF, Lafuente JV, Castellani RJ, Nozari A, Sharma HS. (2018). Histamine H3 Inverse Agonist BF 2649 or Antagonist with Partial H4 Agonist Activity Clobenpropit Reduces Amyloid Beta Peptide-Induced Brain Pathology in Alzheimer's Disease. Molecular neurobiology. 55(1):312-21. (Impact Factor: 6.1)
- 17. Lafuente JV, Sharma A, Muresanu DF, Ozkizilcik A, Tian ZR, Patnaik R, Sharma HS. (2018). Repeated Forced Swim Exacerbates Methamphetamine-Induced Neurotoxicity: Neuroprotective Effects of Nanowired Delivery of 5-HT3-Receptor Antagonist Ondansetron. Molecular neurobiology. 55(1):322-34. (Impact Factor: 6.1)
- 18. Sharma A, Muresanu DF, Lafuente JV, Sjöquist PO, Patnaik R, Tian ZR, Ozkizilcik A, Sharma HS. (2018). Cold environment exacerbates brain pathology and oxidative stress following traumatic brain injuries: potential therapeutic effects of nanowired antioxidant compound h-290/51. Molecular neurobiology. 55(1):276-85. (Impact Factor: 6.1)
- 19. Ozkizilcik A, Sharma A, Muresanu DF, Lafuente JV, Tian ZR, Patnaik R, Mössler H, Sharma HS. (2018). Timed release of cerebrolysin using drug-loaded titanate nanospheres reduces brain pathology and improves behavioral functions in Parkinson's disease. Molecular neurobiology. 55(1):359-69. (Impact Factor: 6.1)
- 20. Wiklund L, Patnaik R, Sharma A, Miclescu A, Sharma HS. (2018). Cerebral Tissue Oxidative Ischemia-Reperfusion Injury in Connection with Experimental Cardiac Arrest and Cardiopulmonary Resuscitation: Effect of Mild Hypothermia and Methylene Blue. Molecular neurobiology. 55(1):115-21. (Impact Factor: 6.1)
- 21. C Kumar, A Gaur, S. Tiwari, A. Biswash, S K Rai, P Maiti "Bio-waste polymer hybrid as induced piezoelectric material with high energy harvesting efficiency. Composites Communications, 11, pp 56-61, (2019)."
- 22. Monte Carlo Study of Unflattened Photon Beams Shaped by Multileaf Collimator, A Kajaria, N Sharma, Sharma, S Pradhan, A Mandal, LM Aggarwal, Journal of Biomedical Physics and Engineering Vol. 9(2), pp 137-150, 2019.
- 23. An Optimized Cascaded Stochastic Resonance for the Enhancement of Brain MRI, Munendra Singh, A Verma, N Sharma, Published by Elsevier Masson, Vol. 39, issiue 5, pp 334-342, year 11/2018
- 24. Alka Pareek, Pradip Paik, Joydip Joardar, K.Murugan, Pramod H. Borse, Fabrication of conducting polymer modified CdS photoanodes for photoelectrochemical cell, Thin Solid Films, (2018), 661, 84-91. (Sept. 2018)
- 25. Pradip Paik\*, K. Santhosh Kumar, Monami Das Modak, Koushi Kumar U and Somedutta Maity, UCN–SiO2–GO: a core shell and conjugate system for controlling delivery of doxorubicin by 980 nm NIR pulse, RSC Adv., 2018,8, 37492-37502. (Oct, 2018).
- 26. Debasrita Bharatia, Santhosh Kumar, S Raghunandan and Pradip Paik\* Dielectrics of the noble synthesized nanocomposite silica coated CCTO over Graphene oxide with the efficacy of CCTO@SiO2 NPs decoration, Journal of Materials Science, 54(8), 6272–6285, 2019 (January 2019)
- 27. R R Pandey, Marshal Dhayal, and K K Saini, Electrochemical Quantification of Enzymatic Responses on Metal Oxide Surfaces Doped with Higher Electronegativity Metal Ions; Adv. Sci. Eng. Med. 10 (2018) 992-99.



#### **Refereed National Journal** (From 1st April 2018 to 31st March 2019)

1. Farhan Durrani, Arpit Galohda, S K Rai, Nishant Kumar Singh, Rati Verma, Dhananjay Singh Yadav, SM Karthickraj "Evaluation ad comparison of stress distribution around periodontally compromised mobile teeth splinted with different materials: Three dimensional finite element analysis" Indian Journal of Dental Research, V 30 (issue 1), pp 97-101, (2019).

## **Proceedings of International Conferences** (From 1st April 2018 to 31st March 2019)

- 1. Uvanesh Kasiviswanathan, Poddar, S., Kumar, C., Jit, S., Mahto, S.K., Sharma, N. (2018) "In-house Developed Electric Cell-Substrate Impedance Sensing (ECIS) System for Studying Dynamic Behaviour of Myoblast cells", Advanced Nano Materials Conference (ANM-2018), University of Aveiro, Portugal, 2018. (Support by DBT-CTEP Scheme Vide No: DBT/CTEP/02/201800285)
- Neelima Varshney, Sahi, A., Mahto, S. K. (2018) "Fabrication of Macroporous Three-dimensional PDMS Scaffold for Tissue Engineering Applications" International Conference on BioMaterials, BioEngineering and BioTheranostics (BioMET 2018) in association with SBAOI and STERMI 24-28th July 2018, Vellore Institute of Technology, Tamil Nadu, 2018.
- 3. Suruchi Poddar, Agarwal, P.S., Sahi, A.K., Vajanthri, K.Y., Mahto, S.K. (2018) "Stabilization and Characterization of Psyllium Husk (Isabgol) Scaffolds for Wound Care Applications" International Conference on BioMaterials, BioEngineering and BioTheranostics (BioMET 2018) in association with SBAOI and STERMI 24-28th July 2018, Vellore Institute of Technology, Tamil Nadu, 2018.
- 4. Suruchi Poddar, Agarwal, P.S., Mahto, S.K. (2018) "Preparation of Psyllium Husk Powder Based Microporous Composite Scaffolds for Tissue Engineering" 27th Annual Conference on Biomaterials in Medicine and Veterinary Medicine in association with Polish Society of Biomaterials and AGH University of Science and Technology, 11-14th October, Hotel Perla Poludnia, Rytro. Poland.
- 5. Suruchi Poddar, Vajanthri, K.Y., Mahto, S.K. (2018) "Spatio-temporal guiding of axons within compartmentalized microfluidic devices" International Conference on Neuroscience & XXXVI Annual Meeting of Indian Academy of Neurosciences, 29-31 October, Banaras Hindu University, Varanasi, Uttar Pradesh.
- 6. Sahi, A. K., Rai. S., Mahto, S. K. (2018) "A 3D Printed Dual Chamber Syringe for Drug Delivery" 7th Inter IIT Tech Meet 2018 Engineers' Conclave, IIT Bombay, India. December 2018.
- 7. Sahi, A. K., Mahto, S. K. (2018) "Electrospun Silk mat for Corneal Tissue Engineering, 1st IEEE EMBS International Student Conference in Ramaiah Institute of Technology, India, from 19-21 December 2018.
- 8. P. K. Roy (2018). Clinical Neuro-Informatics Programs across India: Prospects and Challenges in Multi-ethnic Scenario. Proc. Neuroinformatics-2018. International Neuroinformatics Coordination Facility, Montreal, Canada, August 2018.
- 9. V. Pareek, P.K. Roy (2018). Quantitatively Predicting and Grading the Clinical Efficiency of beta-Lactams in Neuroprotective Therapy of Encephalitis, Proc. Neuroscience-2018, Society for Neuroscience, San Diego, USA, November 2018.
- 10. M. Belmonte, D. Vu, P. Pal, A. Arora, R. Midha, P.K. Roy (2018). Individual Variations in Autistic Traits are Reflected in Brain Network Topologies: Behavioural, Psychometric and Neuroimaging Assays. Proc. Annual Meeting on Experimental Psychology, The Society of Experimental Psychology, Leicester, U.K., April 2019.
- 11. Nitesh S. Malan and Shiru Sharma, 2018, July. Removal of Ocular Atrifacts from Single Channel EEG Signal Using DTCWT with Quantum Inspired Adaptive Threshold. In 2018 2nd International Conference on Biomedical Engineering (IBIOMED) (pp. 94-99). IEEE.
- 12. Debasrita Bharatiya, Pradip Paik, Study of AB and ABC Types of Bio-Compatible Amio-Acids Based nanomicro Block Copolymer vesicles for Biomedical Applications, 2nd international conference on Nanoscience and Engineering applications 2018:4th to 6th October, 2018 under TEQIP-III.
- 13. Dhiman Banik, S. Chennakeasavulu, AramatiBinduMadhava Reddy, Pradip Paik Mesoporous complex matrix involving oxides of copper and silicon with copper domain immobilized silicon matrix: Effective antibacterial



- activities, 2nd international conference on Nanoscience and Engineering applications 2018:4th to 6th October,2018 under TEQIP-III
- 14. Monami Das Modak and Pradip Paik, Up-conversion-nanoparticles: synthetic procedures and properties for biological applications, 2nd international conference on Nanoscience and Engineering applications 2018:4th to 6th October,2018 under TEQIP-III.
- 15. Himadri Medhi, Somedutta Maity, Mrinal K. Bhattacharys, Prdip Paik Mesoporous polymer nanoformulations with antimalarial drugs: Intervention of P. falciparum, 4th International Conference on Biomedical Polymers & Polymeric Biomaterials | 15-18 July 2018, Kraków, POLAND/
- 16. Pradip Paik, Designing of mesoporous ZnO nanocarrier for the improvement of the induction of enhanced antigen-specific immunological responses, ACIN2018/Belgium, 17-20th July, 2018.
- 17. Pradip Paik, Mesoporous and Hollow Polymeric-Inorganic Nanostructure Materials for Drug Delivery, ISNSCON 2018, December 9-14, Vigyan Bhawan, New Delhi, India.
- 18. Anil Kumar Yamala, Vinod Nadella, Yitzhak Mastai, Hridayesh Prakash, Pradip Paik, New Hollow coreshell nanocapsules facilitate sustained release of immunomodulatory drugs and exhibit adjuvant properties, 4th International Conference on Biomedical Polymers & Polymeric Biomaterials | 15-18 July 2018, Kraków, POLAND/ (For oral presentation only, ISBPPB 2018
- 19. Kumar G, Mukherjee S, Patnaik R. Exploring the Neuroprotective Potential of Chlorogenic Acid: An In-vivo and In-silico Approach. Cerebrovasc Dis. 2018;46(1):1-49.7 (SCI; IF: 2.9)

## **Proceedings of National Conferences** (From 1<sup>st</sup> April 2018 to 31<sup>st</sup> March 2019)

- 1. P. K. Roy (2018). MRI Connectomics show Blood Pressure-modulated Clearance of Amyloid: Validated Hypotensive therapy for MCI Dementia. Annual Conference of Indian Academy of Neuroscience, Institute of Medical Sciences, Varanasi, October 2018.
- 2. P. K. Roy (2018). Pattern Formation and Neuronal Dynamics. Proc. Quantum Physics and Brain Function. Tibet House, New Delhi. December 2018.
- 3. Marshal (2019). Nano Engineered Functional Materials for Application in Biomedical Energy Application, National Conference on "Recent Trends in Material Science and Nanotechnology, 18-19 January, 2019; Jaipur.
- Marshal (2019). Engineered Functional Nano-materials for Advancement in Biomedical Application", National Conference on Advances in Nano and Functional Materials (NCANFM-2019), 30-31 January 2019, Hyderabad.

#### Brief Details of Articles from the School with maximum no. of Citations in last 5 years

S.N.	Article title	No. of citation
1	Pandey AK, Bhattacharya P, Swet Chand Shukla SP, Patnaik R. Resveratrol inhibits matrix metalloproteinases to attenuate neuronal damage in cerebral ischemia: a molecular docking study exploring possible neuroprotection. Neural regeneration research. 2015 Apr;10(4):568.	20
2	Sharma A, Muresanu DF, Lafuente JV, Patnaik R, Tian ZR, Buzoianu AD, Sharma HS. Sleep Deprivation-Induced Blood-Brain Barrier Breakdown and Brain Dysfunction are Exacerbated by Size-Related Exposure to Ag and Cu Nanoparticles. Neuroprotective Effects of a 5-HT 3 Receptor Antagonist Ondansetron. Molecular neurobiology. 2015 Oct 1;52(2):867-81.	17
3	S Sharma H, Feng L, V Lafuente J, F Muresanu D, R Tian Z, Patnaik R, Sharma A. TiO2-Nanowired delivery of mesenchymal stem cells thwarts diabetes-induced exacerbation of brain pathology in heat stroke: an experimental study in the rat using morphological and biochemical approaches. CNS & Neurological Disorders-Drug Targets (Formerly Current Drug Targets-CNS & Neurological Disorders). 2015 Apr 1;14(3):386-99.	15
4	S Srivastava, N Sharma, SK Singh, R Srivastava. A combined approach for the enhancement and segmentation of mammograms using modified fuzzy C-means method in wavelet domain, - Journal of medical physics, Vol. 39, issue 3, 2014	14



S.N.	Article title	No. of citation				
5	Kumar G, Patnaik R. Exploring neuroprotective potential of Withania somnifera phytochemicals by inhibition of GluN2B-containing NMDA receptors: An in silico study. Medical hypotheses. 2016 Jul 1;92:35-43.	12				
6	Muresanu DF, Sharma A, Lafuente JV, Patnaik R, Tian ZR, Nyberg F, Sharma HS. Nanowired delivery of growth hormone attenuates pathophysiology of spinal cord injury and enhances insulin-like growth factor-1 concentration in the plasma and the spinal cord. Molecular neurobiology. 2015 Oct 1;52(2):837-45.					
7	M Singh, A Verma, N Sharma. Bat optimization based neuron model of stochastic resonance for the enhancement of MR images, Biocybernetics and Biomedical Engineering, Year 2017 37 (1), 124-134	12				
8	S Saxena, S Sharma, N Sharma. Research Article Parallel Image Processing Techniques, Benefits and Limitations; Research Journal of Applied Sciences, Engineering and Technology, year 2016, 12 (2), 223-238	12				
9	Munendra Singh, Ashish Verma, Neeraj Sharma. Optimized multistable stochastic resonance for the enhancement of pituitary microadenoma in MRI, Authors: Publication date 2018/5, Journal IEEE journal of biomedical and health informatics. Volume 22, Issue 3, Pages 862-873	07				
10	S Saxena, N Sharma, S Sharma, SK Singh, A Verma. An automated system for atlas based multiple organ segmentation of abdominal CT images, Journal of Advances in Mathematics and Computer, Vol, 12(1), pp 1-14 2016.	07				
11	Patnaik R, Sharma A, Skaper SD, Muresanu DF, Lafuente JV, Castellani RJ, Nozari A, Sharma HS. Histamine H3 inverse agonist BF 2649 or antagonist with partial H4 agonist activity clobenpropit reduces amyloid beta peptide-induced brain pathology in Alzheimer's disease. Molecular neurobiology. 2018 Jan 1;55(1):312-21.	07				
12	Kumar G, Patnaik R. Inhibition of gelatinases (MMP-2 and MMP-9) by Withania somnifera phytochemicals confers neuroprotection in stroke: an in silico analysis. Interdisciplinary Sciences: Computational Life Sciences. 2018 Dec 1;10(4):722-33.	05				
13	Singh SS, Rai SN, Birla H, Zahra W, Kumar G, Gedda MR, Tiwari N, Patnaik R, Singh RK, Singh SP. Effect of chlorogenic acid supplementation in MPTP-intoxicated mouse. Frontiers in pharmacology. 2018;9.	05				
14	Ozkizilcik A, Sharma A, Muresanu DF, Lafuente JV, Tian ZR, Patnaik R, Mössler H, Sharma HS. Timed release of cerebrolysin using drug-loaded titanate nanospheres reduces brain pathology and improves behavioral functions in Parkinson's disease. Molecular neurobiology. 2018 Jan 1;55(1):359-69.	05				
15	Kumar G, Paliwal P, Mukherjee S, Patnaik N, Krishnamurthy S, Patnaik R. Pharmacokinetics and brain penetration study of chlorogenic acid in rats. Xenobiotica. 2018 Mar 4;49(3):339-45.	04				

#### **Distinguished Visitors** (From 1st April 2018 to 31st March 2019)

S. No.	Name of the visitor & Designation	Date of Visit	Purpose of Visit
1			

#### 6. Other activities

### **International collaboration/achievements by the Department/School** (From 1st April 2018 to 31st March 2019)

Collaboration of Prasun K Roy with Clinical Neuroscience Division, University of Cambridge, U.K.: Newton International scheme project on: "Microglia Dynamics and its Modulation in Traumatic Brain Injury: Enhancing the Window of Neuroprotection", sponsored by Royal Society, London.

Cooperation of Prasun K Roy with Council of Science, Technology & Infrastructure (CTSI), International Neuroinformatics Coordination Facility, Karolinska Institute, Stockholm, Sweden, in the area of clinical informatics applied to neuroscience (as Council member of CTSI).



#### Indian Faculty visits in the Department/School/School (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1			

### Foreign Faculty Visits in the Department/School/School (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
	Prof. Anil Chauhan, Department of Internal Medicine, Division of Hematology, University of		` `
	Iowa, Iowa City	stroke	

## Foreign Students Visits in the Department/School/School (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue	

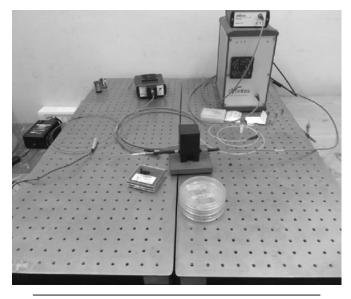
### Any other Information

Expertise for the National Academies:

Prasun K. Roy has been selected as Member for Young Engineer Award Committee, Indian National Academy of Engineering (INAE), New Delhi.

Prasun K. Roy has been selected as Advisory Panel Member for speciality panel of the Fellowship of National Academy of Medical Sciences, India ( NAMS ), New Delhi.

### Glimpses of Laboratory/ Equipments in the Department/School

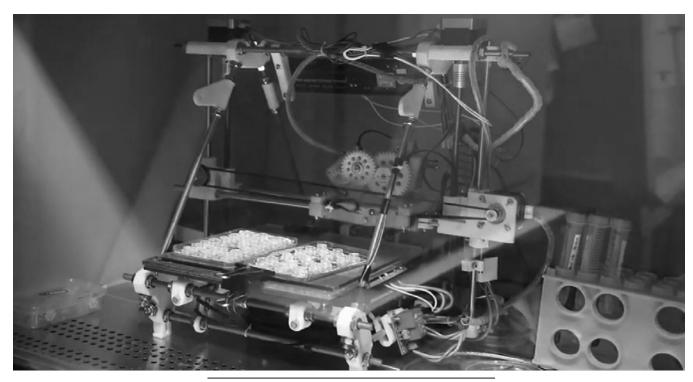






Electrospinning Machine





3D Bio-Printer



# 19. School of Materials Science and Technology

Year of Establishment: 1978

Coordinator of the School: Dr. Akhilesh Kumar Singh (w.e.f. 10th November 2017)

#### 1.1 Brief Introduction of the Department/School:

- 1. The School of Materials Science and Technology is an internationally renowned Centre of Materials Research and Education. It was established in 1978 following the recommendations of the V Plan Visiting Committee of the UGC. It serves as Institute's nodal center for fostering interdisciplinary teaching and research in the field of materials science and technology. School runs successful Ph.D., M.Tech. and Integrated Dual Degree programmes since 1982, 1984 and 2005, respectively. All these students are gainfully employed, several of them in premier Research and Development organizations, industry and teaching institutions. The syllabi of different programsare revised periodically to include topics of current significance in the field. Five-year dual degree programme leading to B.Tech. & M.Tech. Degrees together has been initiated from the session 2005-06 through JEE.
- 2. The School has a modest four floor building. The laboratories are equipped with modern and sophisticated equipment for materials preparation, characterization, processing and phase transformation studies. Working in these frontiers areas the faculty members of the School have generated nearly Rs. 13.5 crores during the last five years through various projects/schemes funded by agencies like DST, SERB, DBT, IMPRINT, DST-Nanomission, BRNS, SPARC, DRDO, UGC-DAE-CSR, etc. and have published more than 242 research papers in reputed journals such as Nature Comm., Phys. Rev. Lett., Appl. Phys. Lett., Phys. Rev. B, J. Phys. Cond. Matter, J. Appl. Phys., Acta Materialia, Macromolecules, Dalton Trans., J. Controlled Release, J. Mater. Chem, J. Phys Chem., Nanoscale, RSC Advances, Polymer, Electroanalysis, Langmuir, Sensors and Actuators B., Scientific Report etc.

### 1.1.2 Major areas of Research

- Nanomaterials for energy, health and electronics
- Magnetic materials and Nanomagnetism
- X-ray and Neutron Crystallography
- Ferroics and Multiferroics
- Metals, alloys and multifunctional material
- Functional Materials and Devices
- Biopolymers for drug delivery
- Polymersand polymer nanocomposite
- Sensors and Biosensors
- Thin film devices and organic electronics
- Advanced Ceramics

## **1.1.3** Area of the Department/School (in square meters): The School has a modest building of about 16,000 sq. ft. floor area.

#### 1.1.4 Infrastructure

S. No.	Particulars	Number
1	No. of Classrooms	One
2	No. of Lecture Halls	One



S. No.	Particulars	Number
3	No. of Laboratory	Nineteen
4	No. of Computers available for students in the Department/School/School	Thirty five

## **Unique Achievement / Preposition of the Department/School**

## 1.2 Academic Programmes offered

Ph.D., M. Tech and Integrated Dual Degree (IDD)

## **1.2.1 New Courses Introduced**(From 1st April 2018 to 31st March 2019)

The complete course structure of the UG and PG programs is under revision and several new courses are being introduced.

S. No.	Course Code	Course name	Course credit
1			
2			

## Students on Roll(From 1st April 2018 to 31st March 2019)

(Please give No. of students only in respective years)

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year& above
1.	1. B. Tech/B. Pharm		N/A	N/A	N/A	N/A
2.	Dual Degree	16	19	16	14	11
3.	M. Tech/ M. Pharm	20	17			
4.	Ph. D (Under Institute Fellowship)	21				
5.	Ph. D (Under Project Fellowship)	25				
6.	Ph. D (Under Sponsored Category)	1				

## Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From		
ÌND	ÌNDIA						
1.	Mr. Shyam Babu	16111010	ICMAGMA-2018	Dec. 09-13, 2018	Bhubaneswar, India		
2.	Mr. Sandeep Kumar	15114010	IMESD-2018	Dec. 10-12, 2018	Roorkee, India		
3.	Ms. Richa Mishra	14111010	ICAMEES-2018	Dec. 14-15, 2018	Dehradun, India		
4.	Ms. Priyanka Tiwari	14111009	ICMAGMA-2018	Dec. 09-13, 2018	Bhubaneswar, India		
5.	Ms. Monika Singh	15111004	ICME-2018	Dec. 06-08 2018	Jaipur, India		
6.	Ms. Anupama Gaur	14111002	MACRO-2018	Dec. 19 -22 2018	Pune, India		
7.	Ms. Aparna Shukla	14111003	MACRO-2018	Dec. 18 -22 2018	Pune, India		
8.	Ms. Dipti Saxena	15111002	MACRO-2018	Dec. 19 -22 2018	Pune, India		
9.	Mr. Om Prakash	15111502	MACRO-2018	Dec. 19 -22 2018	Pune, India		
10.	Mr. Shivam Tiwari	17111013	MACRO-2018	Dec. 19 -22 2018	Pune, India		
11.	Mr. Vineet Kumar Mall	15111503	ICAMEES-2018	Dec. 14-15, 2018	Dehradun, India		
12.	Mr. Pragyanand Prajapati	16111008	63 <sup>rd</sup> DAE SSPS	Dec. 18 -22 2018	Hisar, Haryan		
13.	Mr. Arun Kumar	13111002	ICMAGMA-2018	Dec. 09-13, 2018	Bhubaneswar, India		
14.	Mr. Chandra Bhal Singh	13111503	63 <sup>rd</sup> DAE SSPS	Dec. 18 -22 2018	Hisar, Haryan		



S. No.	Name of Student	Roll No.	Conference/Seminar/ Symposia/Workshop	Date & Venue	Financial Assistance From
15.	Mr. Satya Veer Singh	14111013	I CAN- 2019	Jan. 27-29 2019	Gwalior, MP
16.	Mr. Nitesh Kumar Chourasia	15111006	I CAN- 2019	Jan. 27-29 2019	Gwalior, MP
17.	Mr. Sandeep Kumar	14111011	I CAN- 2019	Jan. 27-29 2019	Gwalior, MP
18.	Mr. Narendra Kumar Verma	13111005	ICABS-19	Feb. 07-09 2019	Bhiwani, Haryana
19.	Mr. Sushil Kumar	12615EN006	ICABS-19	Feb. 07-09 2019	Bhiwani, Haryana
20.	Ms. B. Bharti	14111004	MRSI AGM-2019	Feb. 12-15 2019	IISc. Bangalore
21.	Mr. Satya Veer Singh	14111013	AMEST- 2019	Feb. 26-28 2019	Shilong, Meghalay
22.	Mr. Raman Hissariya	18111009	ICFNM	Feb. 22-25 2019	IIT(BHU), Varanasi
23.	Ms. Dipti Saxena	15111002	ICRAOM-2019	Feb. 25-28 2019	IIT(BHU), Varanasi
24.	Mr. Anand Sharma	14111001	I CAN- 2019	Jan. 27-29 2019	Gwalior, MP
25.	Mr. Shivaji Hemant Wankhade	15114013	RC-2019	Mar.14-17 2019	Guwahati, India
26.	Mr. Brajesh Kumar	15114005	RC-2019	Mar.14-17 2019	Guwahati, India
ABR	OAD				
1					
2					
n					

## Names of students/scholars who got prizes and awardsoutsidethe Institute(From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of Prize	Date & Venue	Prize awarded by
1	Nitesh Chawrasia	15111006	Best poster awards, ICAN 2019, IIIM, Gwalior	ICAN 2019, IIIM, Gwalior	ACS
2	Ravi Prakash Ojha	16111009	Springer Poster Presentation (1st Prize)	November 1-3, 2018 Kathmandu, Nepal	International Conference on Advances in Polymeric Science and Technology
3	Mr. Sandeep Kumar	14111011	Best Poster award	23.12.2018, Allahabad (UP)	National conference on advances Nanomaterials and their applications, Department of Physics at MNIT Allahabad.

## Names of scholars/students who won Convocation/Institute Day prizes(From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of Prize	Prize awarded by
1	Shweta Pal	17111014	Rivista Poster Presentation	Anveshan'19 Metallurgical Engineering,
			(1st Prize)	IIT BHU

## Names of Students/Scholars who went for foreign Internship (From 1st April 2018 to 31st March 2019)

1	<i>Vote:</i>	Individual	faculi	ty membei	rs should	prov	ride the da	ta
	S. No.	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration	
	1	Mr. Sandeep Kumar	14111011	FRM II	Munich	Germany	17.10.2018 to 28.10.2018	



## Faculty & their Activity

## Faculty and their areas of specialisation

S. No.	Name, Qualifications, Employee No.	Date of award of PhD Degree	Major Areas of Specialization (Max. 3 Areas)	
PRO	FESSORS			
1	Rajiv Prakash(Ph.D.) 17100	2000	Materials Chemistry and Nanotechnology Conducting Polymer and Composites Sensors & Biosensors and Organic Devices	
2	Pralay Maiti(Ph.D.) 17337	1996	Polymer Nanocomposites, Biomaterials, and Biodegradable polymer, Polymer for renewable resource and Fuel cell membrane	
3				
n				
ASSC	OCIATE PROFESSORS			
1	Mrs. Chandana Rath (Ph.D.) 17280	-	Nanomagnetics, Dilute Magnetic Semiconductors, Ion Irradiation, Semiconducting Nanostructured Materials	
2	Akhilesh Kumar Singh (Ph.D.)17387	2006	Smart Materials, Structural Phase Transitions in Electroceramics, Synthesis and Characterization of Novel Electroceramics, CMR Manganites, Nanomaterials	
3.	Chandan Upadhyay (Ph.D.) 18433	2004	Ferroic and Multiferroic Materials, Magnetism in Low Dimensional System, Spin dynamics, Self assembly and Organic Electronics	
n				
ASSI	STANT PROFESSORS			
1	Bhola Nath Pal(Ph.D.) 19817	2005	Thin film devices, Optoelectronics, Low operating voltage-portable electronics, Nanoelectronics	
2	Ashish Kumar Mishra(Ph.D.) 50065	2011	Carbon and TMDs nanostructures, Raman Spectroscopy, Optoelectronics, Energy devices, Design of sensors, gas capture units and water filters.	
3	Shrawan Kumar Mishra (Ph.D.) 50071	2010	Energy efficient quantum materials and phase change materials, Magnetic materials and nano magnetism, Magnetic memory devices and spintronics, Charge, lattice and spin dynamics.	
4	Sanjay Singh (Ph.D.) 50072	2012	Magnetic shape memory alloys Caloric materials, Magneto-structural transitions Aperiodic crystallography, X-ray and neutron diffraction, Magnetism, Spintronics Multiferroic Device	
Instit	tute Professors			
1	Prof.Dhananjai Pandey (Ph.D.) FAC-IP11		Ferroics and Multiferroics, Functional Materials, X-ray and Neutron Crystallography	
Disti	nguished Professors		N/A	
1				
Emei	ritus Professors		N/A	
1				
Gues	t Faculty		N/A	
1	•			



S. No.	Name, Qualifications, Employee No.	Date of award of PhD Degree	Major Areas of Specialization (Max. 3 Areas)	
Visiting Faculty				
FAC-VF 03 materials; Ceramic membranes for gas separation conductors; Phosphors; Photonic crystals; Thin		Nano-materials and devices; Electronic, magnetic and energy storage materials; Ceramic membranes for gas separation; Transparent conductors; Phosphors; Photonic crystals; Thin films and interfaces, Chemical sensors, Materials characterization; Electron microscopy.		
2	Dr. Shri Ram Singh FAC- VF06	1980	Phase transformation and Deformation behavior of Materials, High resolution electron microscopy and image simulation, Development of erosion resistance steel, ultra high strength steel, Shape memory alloys, Damping alloy, Amorphous alloys, Life assessment and life extension of engineering components	
DST INSPIRE Faculty				
1	Dr. Ashish Kumar Singh Ph.D.) FAC-DIF02	2011	Nanomaterials for Chemical Hydrogen Storage, Metal chalcogenides/ dichalcogenide for electrocatalysts, Metal and metal oxide nanocatalysts for organic transformation	

## **Technical and Non-Teaching Staff**

Sl. No.	Name, Qualifications	Designation, Employee No.	Date of Appointment in the department
1.	Ashwani Kumar Sonkar	Junior Assistant (50100)	07/06/2017
	<b>B.Tech.</b> (Electronics & Instrumentation Engineering),		
2.	Samir Kumar Dubey B.A., M.A. (Sociology), Diploma in Electrical Engg.	Senior Technician (18632)	06/08/2008
3.	Sitaram Tiwari	Senior Technician(19592)	04/09/2012
	Diploma in Mechanical Engg. (Pursuing)		
4.	Mahendra Kumar Patel B.A., COPA and B.Sc. (Pursuing)	Senior Technician (19599)	04/09/2012

## Short-term courses/workshops/seminars/symposia/conferences organised by faculty members(From 1st April 2018 to 31st March 2019)

S. No.	Coordinator	Title	Period
1	Dr. Chandan Upadhyay	QIP-STC on Materials Characterization for Engineers AICTE 24-Dec-2018 - 29-Dec-2018	24-Dec-2018 - 29-Dec-2018
2	Rajiv Prakash	Leadership for Academician program (LEAP) IIT-BHU and Penn State University	25 <sup>th</sup> Feb to 15 <sup>th</sup> March 2019
n	Rajiv Prakash	3rd "National Conference of Materials for Energy Conversion and Storage" at IIT(BHU) Varanasi in collaboration with Energy Science Society of India	18-20 October 2018

## Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings(From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Title	Period and Venue
Seminar	s/Symposia/Conferences		

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S. No.	Name of Faculty Member	Title	Period and Venue
n			
Meetings	3		
1			
2			
n			

# Special lectures delivered by faculty members in other institutions(From 1st April 2018 to 31st March 2019)

S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
1.	Dr. Akhilesh Kumar Singh	46 <sup>th</sup> National Seminar on Crystallography	NIMHANS, Bengaluru	June 27-29, 2018
2.	Dr. Akhilesh Kumar Singh	National Conference on Advanced Nanomaterials and Their Applications (ANA-2018)	MNNIT, Allahabad. INDIA	Dec., 21-23,2018
3.	Dr. Akhilesh Kumar Singh	umar Singh Invited talk National Seminar on RAMSE-2019 Avadh University, Ayodhya, INDIA		Feb. 26-27, 2019
4	Dr. (Mrs) Chandana Rath	Deliver Talk	OUAT, Bhubaneswar	Apr. 21-25, 2018
5	Dr. (Mrs) Chandana Rath	Framing the Syllabus	CET, Bhubaneswar	May. 21-25, 2018
6	Dr. (Mrs) Chandana Rath	National Conference on Advanced Nanomaterials and Their Applications (ANA-2018)	MNNIT, Allahabad. INDIA	Dec., 21-23,2018
7	Dr. Shrawan Kumar Mishra	Invited talk ICMAGMA-2018	NISER, Bhubaneswar	Dec. 10-14, 2018
8	Dr. Shrawan Kumar Mishra	International Conference	Jain University Bengaluru	Jan. 14-18, 2019
9	Dr. Shrawan Kumar Mishra Invited talk Frontiers in materials from Basic Science to real time Application		Mar. 13-16, 2019	
10	Dr. Sanjay Singh	Presentation in SNBOSE	SNBOSE Kolkotta	Oct. 29-31, 2018
11	Dr. Sanjay Singh	Invited talk	Gorakhpur University	Dec, 07-08, 2018
12	Dr. Sanjay Singh	INSA award and delivering lecture,	Ahmedabad	
13	Dr. Ashish Kumar Mishra	Invited Talk in National Seminar on New Trends in Nanotechnology and Applications	ARSD College, University of Delhi	28-09-2018
14	Dr. Ashish Kumar Mishra	Invited Talk in National Conference on Advanced Nanomaterials and their Applications,	MNNIT, Allahabad	21-12-2018
15	Prof. Rajiv Prakash			2018-12-22
16	Prof. Rajiv Prakash	of. Rajiv Prakash  Advanced Polymers and Nanocomposites with Controlled Morphology  AMPRI, Bhopal		2018-09-18
17	Prof. Pralay Maiti	Food Safety and Quality Management of Food Products	BHU Center of Food Science and Technology	2018-09-22
18	Prof. Pralay Maiti	Development of biodegradable scaffold for faster wound healing and better patient compliance	Chitrakoot NASI national Meeting (award lecture)	2018-07-28



S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
19	Dr. Chandan Upadhay	Magnetically Disordered Systems & the Role of Crystal Chemistry	National Seminar on Recent Advances in Material Science and Electronics (RAMSE-2019)	2019-02-27
20	Dr. Ashish Kumar Mishara	Carbon based nanomaterials for supercapacitor applications	National Conference on Advanced Nanomaterials and their Applications, MNNIT, Allahabad	2018-12-21
21	Dr. Ashish Kumar Mishara	Energy and environmental applications of carbon nanostructures	National Seminar on New Trends in Nanotechnology and Applications, ARSD College, University of Delhi	2018-09-28
22				

## Visits abroad by faculty members(From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Country Visited	Date of Leaving India	Date of Returning India	Purpose of Visit	Funding from
	Dr. (Mrs) Chandana Rath	Germany	Oct. 15, 2018	Oct. 31, 2018	Research related activities	IIT-BHU
1	Dr. Shrawan Kumar Mishra	Germany	June 14, 2018	June 21, 2018	Abroad for research Collaboration	IIT-BHU
2	Dr. Sanjay Singh	Hamburg Germany	May. 31, 2018	Jun. 04, 2018	Abroad for analysis experiments	DST-DESY Project
3	Dr. Sanjay Singh	Hamburg Germany	Sep. 22, 2018	Sep. 26, 2018	Abroad for analysis experiments	DST-DESY Project
4	Dr. Sanjay Singh	Hamburg Germany	Nov. 21, 2018	Nov. 27, 2018	Abroad for research related work	DST-DESY Project
5	Dr. Sanjay Singh	Dresden Germany	Nov. 28, 2018	Dec. 01, 2018	Research Collaborative Work	DST-DESY Project
6.	Dr. Bhola Nath Pal	Ming Chi University of Technology, Taiwan	June 6, 2018	June 15, 2018	Research Collaborative Work	Ming Chi University of Technology, Taiwan

## **Honours and awards**(From 1st April 2018 to 31st March 2019)

<b>S.</b> ]	No.	Name of Faculty Member	Details of Award
	1	Prof. Pralay Maiti	NASI-Reliance Industries Platinum Jubilee Award" in 2018

# Fellowships of academic and professional societies (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Details of Fellowship
1		

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## Books, monographs authored/co-authored (From 1st April 2018 to 31st March 2019)

S. No.	Name of Author/Co- Author	Title	Publisher
1	Arpan Biswas, Manoranjan Sahu and Pralay Maiti	"Dressing Materials Using Herbal Drugs for Better Wound Management"	Nova Science
2	Anupama Gaur, Aparna Shukla, Dipti Saxena and Pralay Maiti	"Polymer Composites for Structural, Device and Biomedical Applications"	Wiley-VCH
3	Ashish Kumar, Priya Singh, Rajiv Prakash	Enzymatic Electrode–Electrolyte Interface Study During Electrochemical Sensing of Biomolecules	Wiley-VCH
4	Rajul Vivek, Ashish Kumar, T.P. Chaturvedi, Rajiv Prakash	Mechanical and Wear Properties of Nano Titanium based Dental Composite Resin,	Elsevier Inc.

### **Editorial boards of journals**(From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1	Rajiv Prakash	1. Editor-in-Chief of Frontiers in Sensors (FS), Science and Engineering Publ. Company, USA. ISSN Print: 2327-7297	
		2. In Editorial Board German Journal of Materials Engineering (GJME)	
		3. Editorial Board, Biosensors Journal, OMICS International Journals.	

## **Design and Development Activities**

Prof. Rajiv Prakash

Prof. Pralay Maiti

New facilities added(From 1st April 2018 to 31st March 2019)

S. No.	Details (Infrastructure, 1	Details (Infrastructure, Equipments, etc.)				Value	(in Lakhs of Ru	pees)
1	Extension of New Buildin	ıg (two n	ew floors adde	d)			500	
Patents	filed(From	1st	April	2018	to	31st	March	2019)
S. No.	Name of Faculty Member		Title of Patent					
1	Dr. Chandan Upadhyay	Janus Sl	haped Silver-M	lagnetite Nano	particles and	d a Method fo	or Preparation T	hereof
2	Dr. Chandan Upadhyay	Friction	n Reducing Co	ating on Ortho	dontic Wire	S		
3	Dr. Chandana Rath		Latent Fingerprint Imaging Using rare earth doped HfO2 Nanophosphors synthesized through Sol-gel technique					
4	Prof. Rajiv Prakash	Ultrafast formation of Self-assembled, large area, polymers/2d nano-materials composite thin film via Floating Film Transfer Method at air-liquid interface and a process thereof Patent Application No. 201811013068 Dated: 05 April 2018						
5	Prof. Rajiv Prakash	A porta fluids.	A portable biosensing system and method for visual detection of glucose in biological fluids.					
		Invento	ors- Rajiv Praka	ash, Vinita, Nai	rsingh R. Nii	rala.		
		Patent A	Patent Application No. 201811010352, 2018					
6	Prof. Rajiv Prakash	A porta	A portable test kit for detection of glucose in biological fluids and a method thereof.					
		Invento	ors- Rajiv Prak	ash, Vinita, Na	rsingh R. Ni	rala.		
		Patent	Application No	o. 20181100923	39, 2018			

Friction Reducing Coating on Orthodontic Wires

Patent Application No. 201911013104, 2019

Inventors: Chandan Upadhyay; Thakur Prasad Chaturvedi and Rajiv Prakash

Indian Patent Application No. 201911008550 filed onMarch 5, 2019

A Method for Preparation of Graphene Oxide Nanocomposites Based Sprayable Paint

Coating Santanu Das, Rajarshi Bhattacharyya, Somak Bhattacharyya, Pralay Maiti



S. No.	Name of Faculty Member	Title of Patent
9	Prof. Pralay Maiti	A Bio-piezoelectric Device and a Method of Preparation Thereof
10	Prof. Pralay Maiti	A Metal Ceramic Joint Adhesive Pralay Maiti, Shivam Tiwari and Santanu Das Indian Patent Application No. 201911002765 filed on January 23, 2019 (Technology transferred)
11	Prof. Pralay Maiti	A Cyclodextrin Grafted Polyurethane Hydrogel for Drug Delivery and a Method of Making the Same Aparna Shukla, Akhand P. Singh and Pralay Maiti Indian Patent Application No. 201811035914 filed on September 24, 2018
12	Prof. Pralay Maiti	Nanohybrid with High Energy Harvesting Efficiency Shivam Tiwari, Anupama Gaur, Chandan Kumar and Pralay Maiti Indian Patent Application No. 201811018838 filed on May 19, 2018
13	Prof. Pralay Maiti	A Bio-waste Polymer Hybrid with High Energy Harvesting Efficiency Chandan Kumar, Anupama Gaur, Shivam Tiwari, Sanjay Kumar Rai and Pralay Maiti Indian Patent Application No. 201811016816 filed on May 3, 2018
14	Prof. Pralay Maiti	A Bioactive Glass as an Orthodontic Adhesive and a Method of Production Thereof Ajit V. Parihar, Sadhana Swaraj, Pralay Maiti, Sudipta Senapati, T. P. Chaturvedi Indian Patent Application No. 201811014080 filed on April 12, 2018

# 5. Research and Consultancy

# ${\bf Sponsored\ research\ projects} (Ongoing\ only)$

S. No.	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co- ordinator
1	Low cost ammonia gas sensor based on polymer/polymer nanocomposite device formed by novel floating film transfer (FTM) technique	02 years and 0 Month, started in 2018	IMPRINT-SERB	51.0	Prof. Rajiv Prakash
2	Development of low cost sodium-ion battery: Fabrication and application of NASICON based electrodes	03 years and 0 Month, started in 2018	DST	84.0	Prof. Rajiv Prakash
3	Harnessing the synergy of low band gap organic semiconductors and highly facile floating film transfer method for low cost efficient organic electronic devices	02 years and 0 Month, started in 2018	SPARC-SERB	45.0	Prof. Rajiv Prakash
4	Novel Electrode Materials for Reversible Alkaliion (Li+/Na+) capacitors and Pseudocapacitors	03 years and 0 Month, started in 2018	SERB	45.0	Prof. Rajiv Prakash
5	Understanding the mechanism of action through cell biology and upgradation of herbal drug in solution and biodegradable patch for the treatment of diabetic foot ulcer	01 years and 0 Month, started in 2018	BIRAC, DBT	28.6	Prof. Pralay Maiti
6	Radionuclide sensing platform based on functionalized polymer having nanochannels using accelerator	03 years and 0 Month, started in 2018	BRNS	35.0	Prof. Pralay Maiti



S. No.	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co- ordinator
7	Development of Anticorrosive Paints	01 years and 0 Month, started in 2018	Harind Chemical and Pharmaceuticals Pvt. Ltd.	1.2	Prof. Pralay Maiti
8	Chemical modification of Guar Gum to improve its properties	01 years and 0 Month, started in 2018	Hindustan Gum & Chemicals Ltd.	7.7	Prof. Pralay Maiti
9	Aging studies and estimation of thermal properties of liner materials	02 years and 0 Month, started in 2019	DRDO	156.85	Prof. Pralay Maiti
10	Photonic radiative cooler for passive sub-ambient cooling	03 years and 0 Month, started in 2019	IMPRINT-II (SERB)	41.88	PI: Jahar Sarkar Co-PI: Pralay Maiti
11	Hierarchically Structured Micro- Nano Pore Nanocomposite Membrane made of Ferric-Oxide Decorated-Titania-Activated- Carbon-Flyash in Carbonized Epoxy Resin as Versatile Filters for Water Purifications:Removal of Organic- Dyes- Heavy-Metals-Microbial- Pathogens	03 years and 0 Month, started in 2018	IMPRINT (SERB)	10.0	PI: Kamal Kar IIT Kanpur Co-PI: Pralay Maiti
12	Polarised Neutron Reflectometry of HfO <sub>2</sub> thin films deposited through MBE and Ebeam evaporation techniques	02 years and 0 Month, started in 2018	NFFA, Europe	~4000 Euro	Dr. Chandana Rath
13	Development of low voltage, low power, colloidal quantum dot light emitting transistors for next generation display technology	03 years and 0 Month, started in 2016	SERB	55.5	Dr. Bhola Nath Pal
14	FIST Level II Project	Started in 2018	DST	395.0	PI: Akhilesh Kumar Singh Co- PI: All The Faculty Members Of The School
15	Design and investigation of thermal conducting two dimensional heterostructures	03 years and 0 Month, started in 2017	SERB	54.8	Dr. Ashish Kumar Mishra
16	Carbon based nanocomposites for CO2 capture	05 years and 0 Month, started in 2015	DST	35.0	Dr. Ashish Kumar Mishra
17	Mott transistors based Neuromorphic memory devices	03 years and 0 Month, started in 2018	DST	101.0	Dr. Shrawan Kumar Mishra



S. No.	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co- ordinator
18	Nanoscale interfacial magnetic skyrmions and its applications in memory devices	03 years and 0 Month, started in	Nanomission DST	103.0	Dr. Shrawan Kumar Mishra
19	Minimizing hysteresis in magnetic shape memory Heusler alloys for reversible magnetocaloric effect	03 years and 0 Month, started in 2018	SERB	48.5	Dr. Sanjay Singh
20	Mutifunctional Properties of Heusler alloys	05 years and 0 Month, started in 2017	SERB	35.0	Dr. Sanjay Singh
21	Elastocaloric effect measurement setup to study caloric effect in shape memory alloys	03 years and 0 Month, started in 2018	UGC-DAE CSR	11.0	Dr. Sanjay Singh

## **Industrial consultancy projects**(Ongoing only)

S. No	Name of Faculty Member Title		Industry	Amount (in lakhs of Rs.)
1	Prf. Pralay Maiti	Polymer testing NTPC 1		1.7
2	Prof. Rajiv Prakash	Polymer Testing	Sentiss Pharma	2.56 lakhs
3	Prof. Rajiv Prakash	Corrosion Testing	Indira Gandhi National Center for Arts, N Delhi	2.36 lakhs

### Faculty members' participation with other universities under MoUs(Ongoing only)

**Research Publications** (From 1st April 2018 to 31st March 2019)

S. No.	Papers Published/ Papers Presented			
1	Papers Published in Refereed National Journals	0		
2	Papers Published in Refereed International Journals	82		
3	Papers Presented in National Conferences	5		
4	Papers Presented in International Conferences	0		

## Refereed International Journals(From 1st April 2018 to 31st March 2019)

- 1. Richa Mishra, Rajiv K Pandey and Rajiv Prakash, (2018), Mobile liquid-substrate for selfassemblyof solution-processable poly (5-aminoindole) by Langmuir technique, Vacuum, 162-167
- 2. Preeti Tiwari, Monika Srivastava, Richa Mishra, Gopal Ji, Rajiv Prakash (2018), Economic use of waste Musaparadisica peels for effectivecontrol of mild steel loss inaggressive acid solutions, J. Environ. Chem. Eng., 6, 4773-4783
- 3. Madhu Tiwari, RajivPrakash (2018), Colorimetric detection of picricacid using silver nanoparticlesmodified with 4-amino-3-hydrazino-5-mercapto-1, 2, 4-triazole, Appl. Surf. Sci., 449, 174-180
- 4. Monika Prakash Rai, Anwesha Khanra, ShrutiRai, Monika Srivastava, Rajiv Prakash (2018), Pivotal role of levoglucosenone and hexadecanoic acid from microalgae Chlorococcum sp. for corrosion resistance on mild steel: Electrochemical microstructural and theoretical analysis, J. Mol. Liq. 266, 279-290
- Anwesha Khanra, Monika, Srivastava, Monika Prakash, Rai, Rajiv Prakash (2018), Application of Unsaturated Fatty Acid Molecules Derived from Microalgae toward Mild Steel Corrosion Inhibition in HCl Solution: A Novel Approach for Metal–Inhibitor Association, Acs Omega, 3, 12369-12382,
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- 9. Gopal Ji, Rajiv Prakash (2019), Composites of Donor-Acceptor type configured organic compound and porous ZnO nano sheets as corrosion inhibitors of copper in chloride environment, J. Mol. Liq., 280, 160-172
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- 14. Madhu Tiwari, Vinod Kumar Gupta, Ram Adhar Singh, Gopal Ji, and Rajiv Prakash, Donor–π–Acceptor-Type Configured, Dimethylamino-Based Organic Push–Pull Chromophores for Effective Reduction of Mild Steel Corrosion Loss in 1 M HCl, ACS Omega, 3 (2018) 4081–4093
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- 81. R.V.Yadav, Akhilesh Kumar Singh, A.Bahadur, T.P.Yadav,R.S.Yadav and S.B.Rai(2018), Effect of Li+ on frequency upconversion and intrinsic optical bistability of Ho3+/Yb3+ co-doped gadolinium tungstate phosphor, J. Phys. Chem. Solids, 119, 138-146
- 82. Paramananda Jena, Pankaj Kumar Patro, Amit Sinha, Raja Kishora Lenka, Akhilesh Kumar Singh, Tarasankar Mahata and Pankaj Kumar Sinha (2018), Hydrothermal synthesis and characterization of apatite type lanthanum silicate ceramic (La 10 Si 60 27) for SOFC electrolyte application, Energy Technology, 6, 1739-1746

Refereed National Journal (From 1st April 2018 to 31st March 2019): NIL

Proceedings of International Conferences(From 1st April 2018 to 31st March 2019): NIL

**Proceedings of National Conferences**(From 1st April 2018 to 31st March 2019)

- 1. B. Bharati, Chandana Rath, Study of Structural and Magnetic Properties of Mn doped TiO2 nanoparticles AIP Conference Proceeding, 0501341-0501344, BARC, MUMBAI 2018,
- 2. Ajay Kumar, Ashish Kumar, Rajiv Prakash (2018), Electro-oxidation of formic acid by
- 1. Polycarbazole: WO3 nanocomposite modified electrode, organized by APA, Kathmandu, Nepal,
- 3. Nikhil, Rajiv, Kumar Pandey, Rajiv Prakash (2018) Synthesis of few layer graphene oxide nanosheet and its morphological, structural and spectral characterizations, National Conference on Advanced Nanomaterials and their Applications, organized by MNNIT Allahabad, India
- 4. Pralay Maiti, Controlled Drug Delivery for Better Healthcare, International Conference on Polymer Science and Technology "SPSI-Macro-2018" organized by IISER, Pune during 19-22 December, 2018, Pune 2018
- 5. Pralay Maiti, Polymers as Energy Materials: Energy Generation and Harvesting National Conference on 'Recent Advances in Material Science and Technology' during February 4-5, 2019, Rajasthan, Jaipur,
- 6. Bishnu pada Majee,Rajiv Prakash, Ashish Kumar Mishra, Investigation of CVD grown MoS<sub>2</sub> film and its physical Properties, National Conference on Recent Trands in Condensed Matter Physics and Materials Science, Sept 15-16, 2018 Department of Physics BHU, India.
- 7. Shanu Mishra, Rajiv Prakash, Ashish Kumar Mishra, Capacitive Performance of Chemically Derived Reduced Graphene Oxide Sample, 3<sup>rd</sup> National Conference on Materials for Energy Conversion and storage, Oct 18-20, 2018,IIT (BHU) Varanasi, India.
- 8. Bishnu pada Majee, Rajiv Prakash, Ashish Kumar Mishra, Theoretical and Experimental Investigation of



- Electronic Structure for CVD grown 2H-MoS<sub>2</sub>, National Conference on Advanced Nanomaterials and their Applications, Dec 21-23, 2018 MNNIT Allahabad, India.
- 9. Shanu Mishra, Ashish Kumar Mishra, Synthesis of MoS<sub>2</sub> via Chemical Route for Supercapacitor Application, National Conference on Advanced Nanomaterials and their Applications, Dec 21-23, 2018 MNNIT Allahabad, India.
- 10. Bishnu pada Majee, Ashish Kumar Mishra, CVD Grown Few-layer MoS<sub>2</sub> as a SERS Substrate, International Conference on Advanced Materials, Mar 6-7, 2019 Jamia Millia Islamia, New Delhi, India.
- 11. Shanu Mishra, Ashish Kumar Mishra, Hydrothermally Synthesized MoS<sub>2</sub> Nanostructure for Supercapacitor Application, International Conference on Advanced Materials, Mar 6-7, 2019 Jamia Millia Islamia, New Delhi, India.
- 12. Bhawna, Ashish Kumar Mishra, Hydrothermally Grown ZnO Nanoparticles for SERS Application, International Conference on Advanced Materials, Mar 6-7, 2019 Jamia Millia Islamia, New Delhi, India

# Kindly Provide Brief Details of 5 Articles from the Department/School with maximum no. of Citations in last 5 years

1. Gopal Ji, Shadma Anjum, Shanthi Sundaram, Rajiv Prakash (2015), Musa paradisica peel extract as green corrosion inhibitor for mild steel in HCl solution, *Corrosion Science*, 90, 2015, p 107-117

Citation: 186

Description: The inhibition and adsorption effects of the aqueous extracts of *Musa paradisica* (Banana) peels on mild steel corrosion in 1 M HCl as well as change in inhibition efficiency with ripening of the peels are investigated by weight loss measurement, electrochemical impedance spectroscopy (EIS), Tafel polarization and atomic force microscopy (AFM) techniques. Inhibition ability of the extracts decreases with the maturity stages. Furthermore, the extracts are characterized by FTIR spectroscopy, UV–visible spectroscopy and high performance liquid chromatography (HPLC) techniques. Adsorption behavior of the extracts is also studied, which suggest Langmuir isotherm model as a most suitable adsorption mechanism.

2. Sudipta Senapati, Mahanta Arun Kumar, Kumar Sunil, Maiti Pralay (2018), Controlled drug delivery vehicles for cancer treatment and their performance, *Signal Transduction and Targeted Therapy* (2018) 3:7

Citation: 146

Description: Although conventional chemotherapy has been successful to some extent, the main drawbacks of chemotherapy are its poor bioavailability, high-dose requirements, adverse side effects, low therapeutic indices, development of multiple drug resistance, and non-specific targeting. The main aim in the development of drug delivery vehicles is to successfully address these delivery-related problems and carry drugs to the desired sites of therapeutic action while reducing adverse side effects. In this review, we will discuss the different types of materials used as delivery vehicles for chemotherapeutic agents and their structural characteristics that improve the therapeutic efficacy of their drugs and will describe recent scientific advances in the area of chemotherapy, emphasizing challenges in cancer treatments

3. Sudipta Senapati, Ravi Thakur, Shiv Prakash Verma, Shivali Duggal, Durga Prasad Mishra, Parimal Das, T Shripathi, Mohan Kumar, Dipak Rana, Pralay Maiti (2016), Layered double hydroxides as effective carrier for anticancer drugs and tailoring of release rate through interlayer anions, *Journal of Controlled Release* 224 (2016) 186–198

Citation: 60

Description:Hydrophobic anticancer drug, raloxifene hydrochloride (RH) is intercalated into a series of magnesium aluminum layered double hydroxides (LDHs) with various charge density anions through ion exchange technique for controlled drug delivery. The particle nature of the LDH in presence of drug is determined through electron microscopy and surface morphology. The release of drug from the RH intercalated LDHs was made very fast or sustained by altering the exchangeable anions followed by the modified Freundlich and



parabolic diffusion models. The drug release rate is explained from the interactions between the drug and LDHs along with order–disorder structure of drug intercalated LDHs. Nitrate bound LDH exhibits greater interaction with drug and sustained drug delivery against the loosely interacted phosphate bound LDH-drug, which shows fast release. Cell viability through MTT assay suggests drug intercalated LDHs as better drug delivery vehicle for cancer cell line against poor bioavailability of the pure drug. In vivo study with mice indicates the differential tumor healing which becomes fast for greater drug release system but the body weight index clearly hints at damaged organ in the case of fast release system. Histopathological experiment confirms the damaged liver of the mice treated either with pure drug or phosphate bound LDH-drug, fast release system, vis-à-vis normal liver cell morphology for sluggish drug release system with steady healing rate of tumor. These observations clearly demonstrate that nitrate bound LDH nanoparticle is a potential drug delivery vehicle for anticancer drugs without any side effect.

4. Monika Srivastava, SK Srivastava, NR Nirala, Rajiv Prakash (2014), A chitosan-based polyaniline–Au nanocomposite biosensor for determination of cholesterol, *Anal. Methods*, 2014, 6, 817-824

Citation: 46

Description: A polyaniline–gold (PAni–Au) nanocomposite is chemically synthesized and impregnated in a chitosan matrix for immobilization of cholesterol oxidase on an indium tin oxide-coated glass plate for development of cholesterol biosensors. The PAni–Au nanocomposite is characterized for structural and thermal properties. Further the PAni–Au nanocomposite is used for cholesterol oxidase immobilization and linkage is examined by FTIR. The nanocomposite is used to form a modified bioelectrode by immobilizing cholesterol oxidase in the chitosan matrix and examined under an optical microscope for uniformity and morphological studies. A modified bioelectrode (ChOx/PAni–Au–CH/ITO) is used to detect cholesterol by using a voltammetric technique with a redox mediator. The sensor exhibits linearity in a wide range of 50–500 mg dL–1 with a detection limit of 37.89 mg dL–1, a sensitivity of 0.86  $\mu$ A mg dL–1 and a shelf life of more than 3 weeks when stored at 4 °C. Voltammetric studies have also been carried out with common possible interferents. Responses are recorded to get enzyme–substrate kinetics for the biosensor and found as Km = 10.84 mg dL–1. The low value of Km indicates that the prepared nanocomposite facilitates the enzymatic reaction and enzymatic activity. Excellent immobilization and enzyme–substrate reactions show a distinct advantage of this matrix over other matrixes used for cholesterol biosensors. The novelty of the prepared electrode lies in its reusability, higher sensitivity, better shelf life, and accuracy.

5. Karun Kumar Jana, Chumki Charan, Vinod K Shahi, Kheyanath Mitra, Biswajit Ray, Dipak Rana, Pralay Maiti (2015), Functionalized poly (vinylidene fluoride) nanohybrid for superior fuel cell membrane, *Journal of Membrane Science* 481, 2015, p 124-136

Citation: 56

Description: Functionalization of poly(vinylidene fluoride) (PVDF) nanohybrid has been performed in template system using two-dimensional layered silicate and superior fuel cell membrane has been demonstrated. Sulfonation of nanohybrid has been carried out at control condition to maintain the mechanical stiffness and toughness of the membrane using chlorosulfonic acid and the results have been compared with pure PVDF. The sulfonation and its relative extent have been confirmed through NMR, FTIR and UV-vis measurements showing greater degree of functionalization in nanohybrid which arises from the specific arrangement of polymer chains on top of nanoplatelets. The structural change over from common crystallized form  $\alpha$ - to piezoelectric  $\beta$ -phase in nanohybrid has been established and the amount of  $\beta$ -phase has been enhanced after sulfonation as evident from deconvoluted XRD patterns and DSC measurement. A plausible mechanism has been proposed for this improvement which led to the formation of smart membrane. Essential criteria of an ideal membrane have been verified through high water uptake, low permeability and hydrophilic nature by measuring contact angle. The molecular level clustering due to the attachment of sulfonate group in main chain has been explored which in turn explain the higher barrier property both for gas and liquid (fuel). Proton conductivity of functionalized nanohybrid has been found to be quite high along with significantly low methanol cross over as compared to



standard Nafion membrane. I–V characteristics of the nanohybrid membrane show high potential at low current density with considerably lower value of slope. Membrane electrode assembly using functionalized nanohybrid exhibit significantly high value of current density and prove its worth for superior fuel cell membrane using common thermoplastic polymer.

**Distinguished Visitors**(From 1st April 2018 to 31st March 2019)

S. No.	Name of the visitor & Designation	Date of Visit	Purpose of Visit
1	-	-	-

#### 6. Other activities

International collaboration/achievements by the Department/School(From 1st April 2018 to 31st March 2019)
Indian Faculty visits in the Department/School/School(From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	-	-	-

Foreign Faculty Visits in the Department/School/School(From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	-	-	-

Foreign Students Visits in the Department/School/School(From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	-	-	-



# 20. Department of Chemistry

Year of Establishment: 1985

Head/Coordinator of the Department/School: Prof. Dhanesh Tiwary (w.e.f. 10.05.2018)

### 1. Brief Introduction of the Department/School:

The Department of Chemistry, IIT-BHU, previously known as Department of Applied Chemistry (Institute of Technology), was established in the year of 1985. Earlier this Department was functioning as a Section in the School of Basic Sciences in Banaras Hindu University-Varanasi. This Department currently constitutes 15 faculty members including 07 Professors, 1 Institute professor, 2 Associate Professors and 5 Assistant Professors. The prime responsibility of the department is to organize the teaching of chemistry courses in various B. Tech and integrated M. Tech programs. In addition, this department is also providing an excellent research platform to the students in various thrust areas of chemistry.

The Department of Chemistry offers a five-year Dual Degree M. Tech program in Industrial Chemistry and Ph. D programs in Organic, Inorganic, Physical and Analytical chemistry. More than 100 PhD's have been awarded from this department and about 50 students are currently pursuing their research. Research programs in the department have been supported by DST, CSIR, BRNS, UGC and AICTE. The department has received 85 lakhs from DST-FIST for the establishment of research and teaching facilities. The department is presently equipped with primary instruments including AAS, AFM, LC MS & GC MS, UV-Vis spectrophotometers, FTIR, and powder-XRD, Particle size analyser, NMR, etc.

#### 1.1 Major areas of Research

Computational Chemistry, Nanoparticles for adsorption and catalytic applications; Composite materials

Organic synthesis, Carbohydrate chemistry; Photocatalytic digradatation

Corrosion Inhibitors, Ant wear/Extreme Pressure Lubricant Additives, Sensors, Energy materials.

## 1.2 Area of the Department/School (in square meters):

503 square meter (Total Plinth Area)

#### 1.3 Infrastructure

S. No.	Particulars	Number
1	No. of Classrooms	03
2	No. of Lecture Halls	03
3	No. of Laboratory	03
4	No. of Computers available for students in the Department/School/ School	15

#### 1.4 Unique Achievement / Preposition of the Department/School

- 1. Started M.Sc. Programme 2019-20.
- 2. Purchased new instrument named "LC MS & GC MS"



# 2. Academic Programmes offered

# **2.1 New Courses Introduced** (From 1st April 2018 to 31st March 2019)

S. No.	Course Code	Course name (2-Year M.Sc. I-Semester)	Course credit
1	DC-CY-401	Quantum Chemistry & Thermodynamics	9
2	DC-CY-402	Reaction Kinetics & Photochemistry	9
3	DC-CY- 403	Analytical Chemistry	9
4	DC-CY- 404	Organic Chemistry-I: Stereochemistry and Reactive Intermediates	9
5	DC-CY -405	Chemistry of Transition and Inner Transition Elements	9
6	DP-CY-491	Chemistry Lab. I (Physical Chemistry)	3
7	DP-CY-492	Chemistry Lab. II (Inorganic Chemistry)	3
8	DP-CY-493	Chemistry Lab. III (Organic Chemistry)	3
9	HU/L	Humanities	5/9
		Total	59/63
		2-Year M.Sc. II-Semester	
1	DC-CY-406	Group Theory and Molecular Spectroscopy	9
2	DC-CY- 407	Electrochemistry and Surface Phenomena	9
3	DC-CY- 408	Chemistry of Coordination Compounds	9
4	DC-CY-409	Organic Chemistry-II: Synthesis and Reaction Mechanisms	9
5	DC-CY-410	Bioorganic Chemistry	9
6	DP-CY-494	Chemistry Lab. IV (Physical Chemistry)	3
7	DP-CY-495	Chemistry Lab. V (Inorganic Chemistry)	3
8	DP-CY-496	Chemistry Lab. VI (Organic Chemistry)	3
		Total	54
		2-Year M.Sc. III-Semester	
1	DC-CY-501	Organometallic Chemistry	9
2	DC-CY -502	Spectroscopic Techniques in Organic Chemistry	9
3	DE	Department Elective (DE-1)	9
4	DE	Department Elective (DE-2)	9
5	DE	Department Elective (DE-3)	9
6	DT-CY-592	Thesis	10
		Total	55
S. No.	Course Code	Department Elective - (DE-1)	Course credit
1	DE-CY-511	Adsorption and Heterogeneous Catalysis	9
2	DE-CY-531	Chemistry of Biomolecules	9
3	DE-CY-521	Bioinorganic Chemistry	9
		Department Elective - (DE-2)	
1	DE-CY-512	Solid State Chemistry	9
2	DE-CY-513	Instrumental Methods of Chemical Analysis	9
3	DE-CY-532	Advance of Heterocyclic Compounds	9



S. No.	Course Code	Course name (2-Year M.Sc. I-Semester)	Course credit
		Department Elective - (DE-3)	
1	DE	Department Elective (DE-4)	9
2	DE	Department Elective (DE-5)	9
3	DE	Department Elective (DE-6)	9
		2-Year M.Sc. IV-Semester	
1	DE	Department Elective (DE-4)	9
2	DE	Department Elective (DE-5)	9
3	DE	Department Elective (DE-6)	9
4	DT-CY-592	Thesis	30
	•	Total	57
		Department Elective - (DE-4)	
1	DE-CY-516	Molecular Simulation	9
2	DE-CY-533	Natural Products	9
3	DE-CY-523	Energy Storage Devices	9
		Department Elective - (DE-5)	
1	DE-CY-534	Green Chemistry	9
2	DE-CY-517	Lasers And Their Applications In Chemistry & Biology	9
3	DE-CY-518	Nuclear & Radiation Chemistry	9
		Department Elective - (DE-6)	
1	DE-CY-524	Bioinspired Energy Conversion	9
2	DE-CY-5219	Electroanalytical Chemistry	9
3	DE-CY-525	Inorganic Clusters	9

## [2.2 Students on Roll (From 1st April 2018 to 31st March 2019)

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1.	B. Tech/B. Pharm	NA	NA	NA	NA	NA
2.	Dual Degree	17	11	19	16	13
3.	M. Tech/ M. Pharm	NA	NA	NA	NA	NA
4.	Ph. D (Under Institute Fellowship)	43 Fellowships				
5.	Ph. D (Under Project Fellowship)	09 (Project: 01 + UGC: 02 + CSIR: 06 Fellowships)				
6.	Ph. D (Under Sponsored Category) NA NA		NA	NA	NA	

# $\hbox{\bf [2.3 Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India} \ (From\ 1^{st}\ April\ 2018\ to\ 31^{st}\ March\ 2019)$

S. No.	Name of Student	Roll No.	Conference/Seminar/ Symposia/ Workshop	Date & Venue	Financial Assistance From
ÌNDI	Í <b>A</b>				
1	Vikas Kumar Singh	14051004	Conference	4 <sup>th</sup> to 6 <sup>th</sup> October, JNTU, Hyderabad.	50% from R&D and 50% from Department
2	Atendra Kumar	15051013	3 <sup>rd</sup> National Conference of Materials For Energy Conversion & Storage, IIT(BHU)	18 to 20 Oct. 2018	Self



S. No.	Name of Student	Roll No.	Conference/Seminar/ Symposia/ Workshop	Date & Venue	Financial Assistance From
3	Shalini Sahani	15051502	ICAMEES-2018,Oral presentation	14-15 <b>Jan</b> 2018, UPES, Dehradun	UGC
			ISEEC-2018, Oral presentation	18-21 Dec2018, IIT Roorkee	Institute
			NCRACS-2019, Oral presentation	MMMUT, Gorakhpur	UGC
			CE <sub>2</sub> C-2019	VNIT,Nagpur,18-19 Jan 2019	UGC
			NSETCS-2018	Banaras Hindu University.17-18 Nov, 2018	UGC
			RABEB-2019	IITBHU.15-16 Mar 2019	UGC
4	Savita 16051002 ICAMEES Inter Kumari		ICAMEES International Conference	14 to15 <sup>th</sup> Dec. 2018, Dehradun.	Department
			ISCB International Conference	12 to 14 <sup>th</sup> Jan. 2019, Lucknow.	Department
5	Manish Kumar Verma	16051502	3 <sup>rd</sup> National Conference of Materials For Energy Conversion & Storage, IIT(BHU)	18 to 20 Oct. 2018	Self
6	Pradeep Kumar Yadav	17051010	Conference	4 to 6 <sup>th</sup> Oct. 2018, JNTU, Hyderabad.	50% from R&D and 50% from Department
			Conference	22 to 25 <sup>th</sup> Feb. 2019, Physics, IIT(BHU).	50% from R&D and 50% from Department
ABR	OAD				
1	Nil	Nil	Nil	Nil	Nil

# **2.4** Names of students/scholars who got prizes and awards outside the Institute ( $From\ 1^{st}\ April\ 2018\ to\ 31^{st}\ March\ 2019$ )

S. No.	Name of Student Roll No.		Name of Prize	Date & Venue	Prize awarded by
1	Vikas Kumar Singh 14051004		Best poster presentation	4 <sup>th</sup> to 6 <sup>th</sup> Oct. 2018, JNTU, Hyderabad.	JNTU
2	Shalini Sahani	15051502	Best Poster award	VNIT Nagpur	VNIT Nagpur

# **2.5 Names of scholars/students who won Convocation/Institute Day prizes** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of Prize	Prize awarded by
1	Nil	Nil	Nil	Nil

## **2.6 Names of Students/Scholars who went for foreign Internship** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
1	Siddhartha Malani	15053009	Australian National University	Canberra, Australia	Australia	18 May 2018 to 18 July 2018
2	Sourav Majumdar	15053011	University of Strasbourg	Strasbourg, France	France	12 May 2018 to 12 July 2018
3	Vaidyula Rinish Reddy	15053013	C2P2, CPE Lyon, University Lyon	Lyon, France	France	10 May 2018 to 22 July 2018



# 3. Faculty & their Activity

# 3.1 Faculty and their areas of specialisation

S. No.	Name, Qualifications, Employee No.	Date of award of PhD Degree	Major Areas of Specialization (Max. 3 Areas)	
PROF	EESSORS			
1	Prof. Rashmi Bala Rastogi	1979	Coordination Chemistry, Corrosion Inhibitors, Antiwear /Extreme Pressure Lubricant Additives	
2	Prof. P. C. Pandey	1986	Sensors Technology, bioelectrochemistry, Organically modified silicate based Nanomaterial and optoelectrochemistry	
3	Prof. S. H. Hasan	1989	Nanomaterials, Nuclear Materials, Water Remediation	
4	Prof. V. Srivastava	1985	Synthetic Organic and Green Chemistry	
5	Prof. Y. C. Sharma	1984-1991	Renewable Energy and Bio-fuels, Development and characterization of heterogenous catalysts, Synthesis and application of nanoadsorbents, Macrophytes for Uptake of Metallic Species from industrial effluents.	
6	Prof. Dhanesh Tiwary	1992	Bioremediation, composites for photoderadation, Development of surface functionalized iron oxide and mesoporous silica	
7	Prof. K. D. Mandal	1989	Electro -Ceramics, Nano-materials, Materials Chemistry, Solid State Chemistry	
ASSO	CIATE PROFESSORS			
1	Dr. Sundaram Singh	1994-1999	Synthetic Organic Chemistry, Microwave Assisted Organic Synthesis	
2	Dr. Indrajit Sinha	2000	Chemistry of nanomaterials and Computational Chemistry	
ASSIS	STANT PROFESSORS			
1	Dr. Manisha Malviya	2008	Synthesis of Metal oxide nanoparticles, renewable energy, photo electrochemistry, bio electrochemistry, alkaline fuel cell	
2	Dr. Jeyakumar Kandasamy	31 July 2008	Organic Synthesis, Carbohydrate Chemistry	
3	Dr. Asha Gupta	2010	Energy Storage devices (Lithium-ion, Sodium Ion battery, Supercapacitors), Heterogeneous Catalysis, Electrochemistry, Photocatalysis, Catalyst for green and renewable energy, First-Principles Density Functional Calculations	
4	Dr. Arindam Indra	18 <sup>th</sup> August 2012	Artificial photosynthesis, Bioinspired energy conversion, Metal Organic Framework (MOF) derived catalysts for the water splitting, Photocatalytic organic reaction, Catalysis, Energy Conversion	
5	Dr. V. Ramanathan	July 2003 - Aug 2008	Laser Spectroscopy, Raman Spectroscopy and Imaging, Computational chemistry	
Institu	ute Professors			
1	Prof. A. K. Mukherjee	1982	Physical Chemistry, Computational Chemistry	
	1101.11.11.11.11.11.101.101.01.01	1702	1 myorous distinion ), doing utumonus distinion )	

# 3.2 Technical and Non-Teaching Staff

Sl. No.	Name, Qualifications	Designation, Employee No.	Date of Appointment in the department
1	Mr. Param Hans Ram, B.Sc.(Hons) & LLB	Technical Superintendent	15.12.2008
2	Mr. Prakash Narayan Pandey, Post Graduate	Technical Superintendent	22.12.1990
3	Mr. Sundip Kumar, Intermediate (Science)	Jr. Tech. Superintendent	26.02.2007



Sl. No.	Name, Qualifications	Designation, Employee No.	Date of Appointment in the department
4	Mr. Rajesh Kumar, Intermediate (Science)	Senior Technician	06.08.2008
5	Mr. Jagdish Kumar, B.Sc.(Hons)	Senior Technician	06.08.2008
6	Mr. Pooran Singh Rana, Intermediate (Science)	Senior Technician	25.07.2014
7	Mr. Chhote Lal, High School	Senior Technician	25.07.2014
8	Ms. Anshu Kaushal, M.Sc. (Computer Science)	Junior Assistant	20.05.2017
9	Mr. Rambish Gond, M.A (Sociology)	Junior Assistant	07.06.2017
10	Mr. Lakhan Chand Jana, (9th Pass)	Ex. Peon	24.06.2000
11	Mr. Amit Anand Singh, M. Lib. I. Sc.	Care Taker Cum-Clerk	02.08.2017
12	Mr. Niraj Kumar, Intermediate	MTS	19.01.2017

**3.3 Short-term courses/workshops/seminars/symposia/conferences organised by faculty members** (From 1<sup>st</sup> April 2018 to 31<sup>st</sup> March 2019)

S. No.	Coordinator	Title	Period
1	NIL	NIL	NIL

3.4 Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Title	Period and Venue		
Semi	nars/Symposia	/Conferences			
1	Prof. R. B. Rastogi	6th International Conference on Recent Advances in Composite Materials (ICRACM-2019),	25 - 28 February 2019 Department of Mechanical Engineering, IIT(BHU) Varanasi		
		(ANA- 2018)	21 – 23 December 2018 MNNIT, Allahabad.		
		(TRIBOINDIA-2018)	12 – 15 December 2018 TSI, VJTI, Mumbai		
		NSETCS 2018	17 – 18 November 2018 Banaras Hindu University, Varanasi		
2	Prof. K. D. Mandal	National Symposium on Materials Science (Invited Speaker)	<b>07 - 08 December 2018</b> DDU Gorakhpur University		
		Faculty Development Programme (Invited Speaker)	01 – 04 December 2018 HBTU Kanpur Chemistry Department		
3	Prof. Y.C. Sharma	River Health: Assessment to Restoration	<b>14 – 16 February 2019</b> DST, DBT, IIT(BHU)		
4	Arindam Indra	NTA-JEE workshop	<b>20-24 August - 2018</b> Delhi		
		Recent Trends and Advancements in Chemical Sciences	<b>29-31 March 2019</b> Delhi University		
		3rd National Conference on Materials for Energy Conversion and Storage	<b>18-20-Oct-2018</b> IIT(BHU)		



S. No.	Name of Faculty Member	Title	Period and Venue
5	Dr. Jeyakumar Kandasamy	International Conference On Research Initiatives in Chemistry for Sustainable Development	18 - 19 March 2019  The Gandhi Gram Rural Institute (Deemed to be University), 624302, Dindigul District, Tamil Nadu, India.
		Max Planck Indian Partner Group Meeting Max-Planck - Gesellschaft zurFörderungder Wissenschaftene.V.	<b>15 - 16 March 2019</b> Hotel Taj Lands' End in Mumbai
6	Dr. Sundaram Singh	ISCB-2019	11 – 13 January 2019 DST, CSIR etc, Lucknow
7	Dr. V. Ramanathan	Sharing Teaching Learning Experience STEC 2019	<b>07 - 08 March 2019</b> PMMMNMTT
8	Dr. Asha Gupta	Conference Organized: The 3rd National Conference on materials for Energy Storage and Conversion	18 - 20 October 2018 ESSI and IIT-BHU, held at IIT-BHU, Lecture Complex, Varanasi 221005, U.P.

# 3.5 Special lectures delivered by faculty members in other institutions (From 1st April 2018 to 31st March 2019)

S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
1	Prof. K. D. Mandal	Synthesis and characterization of perovskite oxides	Department of Chemistry, HBTU, Kanpur	02 Dec. 2018
2	Prof. Y.C. Sharma	Indian Institute of Technology Bombay	LEAP IITB 2019	25 Feb. 2019 to 08 March 2019
		Nianyang Technological University, Singapore	LEAP 2019	18 - 23-March 2019
3	Dr. V. Ramanathan	Giving Motivational talk and being a judge for a national level competition for teachers	KV , Varanasi Zone	03 Oct. 2018
4	Dr. Asha Gupta	Lecture Series for teachers training program.	Invited Speaker: in Indian Institute of Science, Challakere, Bangalore	10-15 December, 2018

# **3.6 Visits abroad by faculty members** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Country Visited	Date of Leaving India	Date of Returning India	Purpose of Visit	Funding from
1	Nil	Nil	Nil	Nil	Nil	Nil

# **3.7 Honours and awards** (From $1^{st}$ April 2018 to $31^{st}$ March 2019)

S. No.	Name of Faculty Member	Details of Award	
1	Prof. K. D. Mandal	Academic honour's, Fellow of Royal Society of Chemistry (FRSC)	
2	Prof. Y. C. Sharma	Editorial board member of Energy Conversion and Management, Elsevier	
		Editorial board member, Current Alternative Energy, Bentham Press	
		Bentham Ambassador	
		Editorial board member, General Chemistry, USA	
		Associate Editor, SADHNA (Indian Academy of Sciences Bangalore)	



S. No.	Name of Faculty Member	Details of Award
3	3 Dr. V. Ramanathan INYAS is Indian National Young Academy of Science is a body of INS National Science Academy) and I was elected as a core committee member of	
		in 2018.

# 3.8 Fellowships of academic and professional societies (From $1^{st}$ April 2018 to $31^{st}$ March 2019)

S. No.	Name of Faculty Member	Details of Fellowship	
1	Nil	Nil	

## **3.9 Books, monographs authored/co-authored** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Author/ Co- Author	Title	Publisher
1	Dr. Arindam Indra and Prashanth W. Menezes	Nanomaterials for Sustainable Energy and Environmental Remediation	Elsevier
2	Dr. Sundaram Singh and Shivam Bajpai	Eco-Friendly and Facile Synthesis of Substituted Imidazoles via Nano Zirconia Catalyzed One-Pot Multicomponent Reaction of Isatin Derivatives with Ammonium Acetate and Substituted Aromatic Aldehydes under Solvent Free Conditions.	Intec Open

## **3.10 Editorial boards of journals** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1	Nil	Nil	Nil

## 4. Design and Development Activities

## **4.1 New facilities added** (From 1st April 2018 to 31st March 2019)

S. No.	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)
1	LC - MS & GC -2 MS	1.20 Crore

## **4.2 Patents filed** (From 1<sup>st</sup> April 2018 to 31<sup>st</sup> March 2019)

S. No.	Name of Faculty Member	Title of Patent	
1 Prof. P.C. Pandey A Process For Making Screen Printed Electrodes In Three; Indian, Patent 201811 (National, 2018).		A Process For Making Screen Printed Electrodes In Three; Indian, Patent 201811035930, (National, 2018).	
		A Process For Making All Solid-State Ph . ensor; Indian Patent 201911004219, (National, 2018).	
		A Process For Making Screen Printed Electrode Derived; 201911004221, (National, 2019).	
		A Process For Functional Alkoxysilane Stabiilized Nanocatalyst For Toxic Dye Degradation; Indian Patent 201911021861, (National, 2019).	
	A Process For Organosilanes Functionalized Metal Nanoparticles And Prussian Blue Induced Fluorescence For Selective Sensing 6 Of Cesium And Arsenic Ions; Indian P7 201931021659, (National, 2019).		
,		A Process For Functional AlkoxysilanesFunctionalizedmetal Nanoparticles Induced Fluorescence Of Selective Fluorophore; Indian Patent 201811044934, (National, 2018).	
		A Process For Controlled Synthhesis of Prussian Blue Nanoparticles For Toxic Dye Degradation; ; Indian Patent 201911016184, (National, 2019).	



S. No.	Title of Patent	
		A Process For Microwave Assisted Functional Alkoxysilanes Mediated Synthesis Of Monometallic, Bimetallic And Trimetallic Noble Metal Nanoparticles; Indian Patent 201911021365, (National, 2019).
		A Process for Making Microneedle-Based Transdermal Biosensor Involving Poyethylenimine-Modified Prussian Bluegold Nanohybrids-Enzyme Ink for On-Chip Electrochemical Biosensing in Body Fluid;Indian Patent 201811044930, (National, 2018).
		A Process for Making Solid-State Ionsensor for On-Chip Determination Of Potassium Ion In Body Fluid;Indianpatent 201811041978, (National, 2018).

### 5. Research and Consultancy

#### **5.1 Sponsored research projects** (Ongoing only)

S. No.	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co- coordinator
1	Microalgae for biodiesel production	2015-2018	IBSA-DST	66.00	Prof. Y. C. Sharma
2	Development of portable electrochemical sensors for hydrogen peroxide $(H_2O_2)$	2017-2020	BRNS	35.00	Prof. P. C. Pandey
3	Metal Hexacyanoferrate modified screen printed electrodes for the removal of radio nuclides	2019	DRDO	44.00	Prof. P. C. Pandey Prof. Y. C. Sharma
4	Development of screen printed electrodes for caesium (Cs) ion removal	2018-2021	DRDO	50.00	Prof. P. C. Pandey
5	"Photo labile Protected Monosaccharides: Synthesis and Application to Oligosaccharides Synthesis Using a Continuous Flow Photo reactor	2016-2019	Indo- German DST-MPI	95.00	Dr. Jeyakumar

## **5.2 Industrial consultancy projects** (Ongoing only)

S. No.	Name of Faculty Member	Title	Industry	Amount (in lakhs of Rs.)
1	Nil	Nil	Nil	Nil

#### 5.3 Faculty members' participation with other universities under MoUs (Ongoing only)

Dr. Jeyakumar Kandasamy: IIT (BHU)-Max Planck institute for colloids and interfaces

## **5.4 Research Publications** (From 1st April 2018 to 31st March 2019)

S. No.	Papers Published/ Presented	No.
1	Papers Published in Refereed National Journals	Nil
2	Papers Published in Refereed International Journals	126
3	Papers Presented in National Conferences	09
4	Papers Presented in International Conferences	08

## 5.4 (1) Refereed National Journal (From 1st April 2018 to 31st March 2019) Nil

## **5.4 (2) Refereed International Journals** (From 1st April 2018 to 31st March 2019)

- 1. Helical Cobalt Borophosphates to Master Durable Overall Water Splitting, P. W. Menezes, **A. Indra,** I. Zaharieva, C. Walter, S. Loos, S. Hoffmann, R. Schlögl, H. Dau, M. Driess ., *Energy Environ. Sci.* 2019, *12*, 988-999. Impact factor: 33.250, Citation: 6
- 2. Metal Organic Framework Derived Materials: Progress and Prospects for the Energy Conversion and Storage.; **A. Indra,** T. Song, U. Paik, *Adv. Mater.* 2018, 1705146. Impact factor: 25.809, Citation: 14



- 3. Promoting Electrocatalytic Overall Water Splitting with Nanohybrid of Transition Metal Nitride-Oxynitride S. Dutta, **A. Indra,** Y. Feng, H. S. Han, T. Song, *Appl. Catal. B: Environ.* 2019, *241*, 521 527. Imapact Factor: 33.25, Citation: 10
- 4. An Intriguing Pea-Like Nanostructure of Cobalt Phosphide on Molybdenum Carbide Incorporated Nitrogen-Doped Carbon Nanosheets for Efficient Electrochemical Water Splitting.
- 5. S. Dutta, A. Indra, H. S. Han, T Song, ChemSusChem 2018, 11, 3956-3964. Impact factor: 7.411, Citation: 4
- 6. Electrochemical Energy Conversion and Storage with Zeolitic Imidazolate Framework Derived Materials: A Perspective S. Dutta, Z. Liu, H. Han, **A. Indra,**\* T. Song\* *ChemElectroChem* 2018, 8, 3571-3583. Impact factor:3.975, Citation: 0
- 7. Photocatalytic and Photosensitized Water-Splitting: A Plea for Well-Defined and Commonly Accepted Protocol: **A. Indra,** P. W. Menezes, M. Driess, *Comptes Rendus Chimie* 2018, *21*, 909-915. Impact factor: 1.877, Citation: 0
- 8. Romoting electro catalytic overall water splitting with Nano hybrid of transition metal nitride-oxynitride S. Dutta, A. **Indra**, Y. Feng, H. S. Han, T. Song, Appl. Catal. B, 2019, 241, 521-527., Impact factor: 11.698, Citation: 4
- 9. Metal organic framework derived materials: Progress and prospects for the energy conversion and storage **A. Indra,** T. Song, U. Paik, Adv. Mater. 2018, 1705146. Impact factor: 21.950, Citation: 14
- 10. An Intriguing Pea-Like Nanostructure of Cobalt Phosphide on Molybdenum Carbide Incorporated Nitrogen-Doped Carbon Nanosheets for Efficient Electrochemical Water Splitting S. Dutta, **A. Indra,** H. S. Han, T. Song Chem Sus Chem, 2018, 11, 3956-3964 Impact factor: 7.411, Citation: 1
- 11. Boosting electrochemical water oxidation with metal hydroxide carbonate templated Prussian blue analogues **A. Indra,** U. Paik, T. Song, *Angew. Chem. Int. Ed.* 2018, *57*, 1241-1245 (Cover page). Impact factor: 12.102, Citation: 21.
- 12. Mixed valency in ligand-bridged diruthenium frameworks: divergences and perspectives A. S. Hazari, **A. Indra**, \* G. K. Lahiri\* *RSC Adv.* 2018, *8*, 28895-28908 (Invited paper). Impact factor: 2.936, Citation: 0
- 13. A. Indra, U. Paik, T. Song, Angew. Chem. Int. Ed. 2018, 57, 1241-1245 (Cover page).
- 14. A. Indra, T. Song, U. Paik, Adv. Mater. 2018, 1705146.
- 15. Gupta, S.; Baranwal, S.; Chaudhary, P.; **Kandasamy J.\*** Copper-promoted dehydrogenative cross-coupling reaction of dialkyl phosphites with sulfoximines, *Org. Chem. Front.*, 2019, (In press). DOI: 10.1039/C9QO00469F.
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- 83. Ankush mishra, **Sundaram Singh**, MA Quraishi, Microwave Induced Stereos Elective Synthesis of O Vinyl Oximes using Acetylenic Esters as Efficient Michael Acceptors, Chemistry select, 32, 9464-9468, Impact factor: 1.50, Citation:1.
- 84. Somaiah Gajaghanti, Savita Kumari, Dhirendra kumar,Bharat kumar allam, Vandana Srivastava, **Sundaram Singh,** An Efficient, Green, and Solventfree Multi-Component Synthesis of Benzimidazolo/Benzothiazolo Quinazolinone Derivatives Using Sc (OTf) 3 Catalyst Under Controlled Microwave Irradiation, Journal of Heterocyclic Chemistry, 55, 2578-2584, Impact factor: 1.50, Citation:1.
- 85. Savita kumari, Dhirendra kumar, Somaiah Gajaganti, Vandana Srivastava, and **Sundaram Singh**, Sc(OTf) 3 catalysed multicomponent synthesis of chromeno[2,3- d ]pyrimidinetriones under solventfree condition, Synthetic communication, 49, 431-443, Impact factor: 1.15, Citation:1.
- 86. Dhirendra Kumar, Savita Kumari, Somaiah Gajaganti, Vandana Srivastava and **Sundaram Singh**, Et 3 N-Promoted Cascade Sp 3 CH Bond Functionalization of Methyl Arene with Active Methylene Compounds Under Solvent-Free Condition, chemistry select, 4, 2225-2228, Impact factor: 1.50, Citation:0.
- 87. Ankush Mishra, **Sundaram Singh**, M A Quraishi, Vandana Srivastava, Catalyst-Free Expeditious Green Synthesisof Quinoxaline, Oxazine, Thiazine, and Dioxin Derivatives in Water under Ultrasound Irradiation, Organic Preparations and Procedures International, 51, 345-356, Impact factor: 1.50, Citation:0.



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- 90. Ankush Mishra, Swati Chauhan, Pratibha Verma, **Sundaram Singh**, Vandana Srivastava, TBHP? Initiated Transamidation of econdary Amides via C–N Bond Activation: A Metal?Free Approach, Asian Journal of Organic Chemistry, 8, 853-857, Impact factor: 2.50, Citation:0.
- 91. Ankush Mishra, Swati Chauhan, Pratibha Verma, **Sundaram Singh**, Prof. Vandana Srivastava, TBHP? Initiated Transamidation of Secondary Amides via C–N Bond Activation: A Metal? Free Approach, Asian Journal of Organic Chemistry, 8, 853-857, Impact factor: 2.50, Citation:0.
- 92. Ankush mishra, **Sundaram Singh**, MA Quraishi, Microwave Induced Stereoselective Synthesis of O -Vinyl Oximes using Acetylenic Esters as Efficient Michael Acceptors, Chemistry select, 32, 9464-9468, Impact factor: 1.72, Citation:1.
- 93. Somaiah Gajaghanti, Savita Kumari, Dhirendra Kumar,Bharat Kumar allam, Vandana Srivastava, **Sundaram Singh**, An Efficient, Green, and Solventfree Multi-component Synthesis of Benzimidazolo/Benzothiazolo Quinazolinone Derivatives Using Sc (OTf) 3 Catalyst Under Controlled Microwave Irradiation, Journal of Heterocyclic Chemistry, 55, 2578-2584, Impact factor: 1.15, Citation:1.
- 94. Savita kumari, Dhirendra kumar, Somaiah Gajaganti, Vandana Srivastava, and **Sundaram Singh**, Sc(OTf) 3 catalysed multicomponent synthesis of chromeno[2,3- d ]pyrimidinetriones under solvent-free condition, Synthetic communication, 49, 431-443, Impact factor: 1.15, Citation:1.
- 1. 96. Dhirendra Kumar, Savita Kumari, Somaiah Gajaganti, Vandana Srivastava, and **Sundaram Singh**, Et 3 N-Promoted Cascade Sp 3 CH Bond Functionalization of Methyl Arene with Active Methylene Compounds Under Solvent-Free Condition, chemistry select, 4, 2225-2228, Impact factor: 1.72, Citation:1
- 2. 97. Ankush mishra, **Sundaram Singh**, M A Quraishi, Vandana Srivastava, Catalyst-Free Expeditious Green SynthsisofQuinoxaline, Oxazine, Thiazine, and DioxinDerivatives in Water under Ultrasound Irradiation, Organic Preparations and Procedures International, 51, 345-356, Impact factor: 1.50, Citation:0.
- 3. 98. Pratibha Verma, Ankush Mishra, Swati Chauhan, **Sundaram Singh**, Prof. Vandana Srivastava, DABCO Catalyzed Synthesis of Hydroxy Ketones Derived from ??Methyl Ketones and Ninhydrin under Microwave Irradiations, chemistry select, 4, 5394-5397, Impact factor: 1.72, Citation:0.
- 4. 99. Haque, **V. Srivastava**, D. S. Chauhan, H. Lgaz, M.A. Quraishi, Microwave-Induced Synthesis of Chitosan Schiff Bases and Their Application as Novel and Green Corrosion Inhibitors: Experimental and Theoretical Approach, ACSO mega, 3, 0-0, Impact factor: 1.54, Citation:2.
- 5. 100. J. Haque, C. Verma, **V. Srivastava**, M.A. Quraishi, E. E. Ebenso, Experimental and quantum chemical studies of functionalized tetra hydro pyridines as corrosion inhibitors for mild steel in 1Mhydrochloric acid, Results in Physics, 9, 1481-1493, Impact factor: 3.04, Citation:12.
- 6. 101. Ankush Mishra, Chandrabhan Verma, H. Lgazd, **Vandana Srivastava**, M.A. Quraishi, E. E. Ebenso, Synthesis, Characterization and Corrosion Inhibition Studies of Nphenyl-benzamides on the Acidic Corrosion of Mild Steel: Experimental and Computational Studies, Journal of Molecular Liquids, 251, 317-332, Impact factor: 4.56, Citation:27.
- 7. 102. Ankush Mishra, Chandrabhan Verma, H. Lgaz, **Vandana Srivastava**, M. A. Quraishi, Eno E. Ebenso, Synthesis, characterization and corrosion inhibition properties of environmental friendly noble heterocyclic compounds, Journal of Bio- and Tribo Corrosion, 4, 1-20, Impact factor: 1.15, Citation:18.
- 8. 103. Ankush Mishra, Chandrabhan Verma, Swati Chauhan, M. A. Quraishi, Eno E. Ebenso, Synthesis,



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- 9. 104. J. Haque, C. Verma, **Vandana Srivastava**, M.A. Quraishi, E. E. Ebenso, Experimental and quantum chemical studies of functionalized tetra hydro pyridines as corrosion inhibitors for mild steel in 1M hydrochloric acid, Results in Physics, 9, 0-0, Impact factor: 3.04, Citation: 11.
- 10. 105. K.R. Ansari, S. D.S. Chauhan, Md. Salman, D. Nalini, **Vandana Srivastava** and M.A. Quraishi, Macrocyclic compounds as green corrosion inhibitors for aluminium: electrochemical, surface and quantum chemical studies, Int. J. Corros. Scale Inhib, 2018, 271-459, Impact factor: 0.00, Citation: 2.
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- 14. 109. M. Yadav, SB Chavan, Reena Singh, F Bux, **YC Sharma**, Experimental study on emissions of algal biodiesel and its blends on a diesel engine Journal of the Taiwan Institute of Chemical Engineers, 96, 160-168, Impact factor: 3.85, Citation:7.
- 15. 110. R Singh, A Kumar, **YC Sharma**, Biodiesel Production from Micro Algal Oil Using Barium Calcium-Zinc Mixed Oxide Base Catalyst: Optimization and Kinetic Studies Energy & Fuels, 33, 1175-1184, Impact factor:3.02, Citation:6.
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- 20. 115. Shalini Sahani, **YC Sharma**, economically viable production of biodiesel using a novel heterogeneous catalyst: Kinetic and thermodynamic investigations Energy Conversion and Management Volume 171, 1 September 2018, 969-983, Impact factor:6.38, Citation:5.
- 21. 116. Reena Singh, A Kumar, **YC Sharma**, Evaluation of Various Lipid Extraction Techniques for Microalgae and Their Effect on Biochemical Components Waste and Biomass Valorization,1, 11-19, Impact factor:2.36, Impact factor:3.
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- 26. 121. **V. Ramanathan**, and all Electrodeposited MnCO3 as a High Performance Electrode Material for Super capacitor, Chemistry Select, 3, 00, Impact factor: 1.51, Citation:08.
- 27. 122. **V. Ramanathan**, and all that glitters is not gold: A non-destructive probing of Thanjavur painting by Raman spectroscopy, Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, 204, 460-463, Impact factor: 2.10, Citation:0.
- 28. 123. V. Ramanathan, and all Disulphide linkage: To get cleaved or not? Bulk and nano copper based SERS of cysteine, Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, 196, 229-232, Impact factor: 2.10, Citation:0.
- 29. 124. Youzhong Dong Siyuan Chen, He Duan, Long Zhao, Yanming Zhao, **Asha Gupta**, Quan Kuang, Qinghua Fan, Xinxuan Zeng, Huangzhong Yu Electrochemical performance and Li+ insertion/extraction mechanism of carbon-coated cerium metavanadate as a novel anode for lithium-ion batteries Journal of Power Sources, 413, 250-258, Impact factor: 6.95, Citation:5
- 30. 125. **Asha Gupta**, Preetam Singh, Rajiv Prakash, SrFeO3-? A New High Robust Pseudo Capacitance Electrode in Aqueous ElectrolyteEnergy and Environmental Science, under review, 1-2, Impact factor: 33.25, Citation:0.
- 31. 126. Vaishali Soni, Vishal Kushwaha, **Asha Gupta**, Preetam Singh Synthesis, Structure and Photocatalytic activity of nano-Ti1-xMxO2-? (M=Pd, Pt, Ag, Mn, Fe, Co, Ni, Cu). Applied Catalysis: B, under review, 1-2, Impact factor: 14.22, Citation:0.
- **5.4 (3) Proceedings of National Conferences** (From 1st April 2018 to 31st March 2019)
- 1. Verma, D.K.; Kumar, Bharat; Kavita; **Rastogi, R.B., (Oral);** Nanoparticles in Base Lube; (**ANA-2018**), 21-23, 2018, December, MNNIT, Allahabad.
- 2. Verma, D.K.; Kumar, Bharat; Rastogi, R.B., (Poster); Tribological studies of Zero SAPS Schiff base Additives
   Synthesis of zinc oxide decorated nanocomposite of reduced graphene oxide and its use as energy efficient
   lubricant additive in paraffin oil.; NSETCS 2018., Banaras Hindu University, Varanasi, November 17-18, 2018.
- 3. Ankush Mishra, **Vandana Srivastava**, Michael Addition Products of N-Hydroxysuccinimide Moiety to Acetylenic Esters: Synthesis and Stereochemistry, National Symposium on Emerging Trends in Chemical Sciences (NSETCS-2018), Department of Chemistry, BHU, Varanasi India, 2018, 00.
- 4. Swati Chahuan, **Vandana Srivastava**, tert-Butyl Nitrite Induced Radical Dimerization Primary Thioamides a Selenoamides at Room Temperature, National Symposium on Emerging Trends in Chemical Sciences (NSETCS-2018), Department of Chemistry, BHU, 2018, 00.
- 5. Pratibha Verma and **Vandana Srivastava**, Glutathione an Efficient and Homogeneous Bio-Catalyst for the Synthesis of 1,2Disubstituted Benzimidazole Derivatives under Aqueous Medium, National Symposium on Emerging Trends in Chemical Sciences (NSETCS-2018), Department of Chemistry, BHU, Varanasi India, 2018.
- 6. Ankush Mishra and **Vandana Srivastava**, Microwave Induced Stereoselective Synthesis of O-Vinyl Oximes using Dialkyl Acetylenic Ester as Efficient Michael Acceptor, OMSRI conference, IIT, Roorkee, 2019, 24-24.
- 7. Swati Chauhan, Vandana Srivastava, tert-Butyl Nitrite Induced Radical Dimerization of Primary Thioamides



- and Selenoamides at Room Temperature, OMSRI conference, IIT Roorkee, 2019, 25-25.
- 8. P Joshi and **V Srivastava**, Biomolecule Chitosan as a green corrosion inhibitor for mild steel in 1 M sulphamic acid., SRC Conference, IIT Kanpur, 2019, 0-0.
- **9. Vandana Srivastava,** CeCl3.7H2O Catalyzed Secondary Amide Transamidation via Selective N-C Bond Cleavage under Ultrasonic Irradiation, World Congress on Chemistry, Dubai, UAE, 2019, 0-0.
- **5.4 (4) Proceedings of International Conferences** (From 1st April 2018 to 31st March 2019)
- 1. Kalkhanday, Kalyani; Singh, Gurmeet; Verma, D.K.; and **Rastogi, R.B.**, **(Oral)**; Friction and Wear Reducing Behavior of Calcium-doped Zinc Oxide (Zn<sub>0.92</sub>Ca<sub>0.08</sub>O) based 6<sup>th</sup> International Conference on Recent Advances in Composite Materials **(ICRACM-2019)**, 25-28, February, 2019. Department of Mechanical Engineering, IIT(BHU) Varanasi.
- Verma, D.K.; Kumar, Bharat; Kavita; Rastogi, R.B., (Oral), Vanadium doped zinc oxide nanoparticle as antiwear lubricant additive" National conference on Advance Nanomaterials and their Applications. TRIBOINDIA-2018), 13<sup>th</sup> -15<sup>th</sup> December, VJTI, Mumbai, India.
- 3. Verma, D.K.; Kumar, Bharat; Kavita; **Rastogi, R.B.**, **(Oral),** Tribological behaviour of copper doped Titania nanoparticles". **TRIBOINDIA-2018)**, 13<sup>th</sup> -15<sup>th</sup> December, VJTI, Mumbai, India.
- **4. K. D. Mandal**, Dielectric and electrical properties of zinc doped titanium oxide (TiO2) synthesized by semiwer route, SPIE Commercial + Scientific Sensing and Imaging, Baltimore USA, 2019, 1-8.
- 5. Manish Verma, **K. D. Mandal**, Distorted perovskites for high voltage dielectric capacitors, SPIE Defense + Commercial Sensing, Baltimore, Maryland, United States, 2019, 1-12.
- 6. Savita Kumari, **Sundaram Singh**, Vandana Srivastava, An Efficient, Eco-friendly and Sc(OTf)3 Catalyzed One-Pot Multi- Component Reaction of Bartituric Acid, 1, 3– Diketones and Aldehydes under Solventfree Condition: A Green Approach for the Synthesis of Structurally Diverse N- Heterocyclic Compounds, International conference on Advanced Materials, Energy and Environmental Sustainability,14-15 Dec 2018, UPES Dehradun, 2018, 0-0.
- 7. Sundaram Singh, An Efficient and Sustainable Synthesis of Substituted Spirooxindoles via Monoclinic Nano Zirconia Catalyzed Multicomponent Reaction of Isatin Derivatives with Ethyl cyanoacetae and 1, 3- Dicarbonyl Compounds in a Ball Mill, 25th ISCB-2019, CDRI Lucknow, 2019, 00.
- 8. Savita Kumari, **Sundaram Singh,** A New Avenue to the Synthesis of Chromeno [2,3-d] pyrimidine-trione Derivatives Catalysed by Lemon Juice: Methyl Arenes as Sustainable Surrogates of Aryl Aldehydes, CDRI, Lucknow, 2019, 00.
- 5.5 Brief Details of 5 Articles from the Department/School with maximum no. of Citations in last 5 years Nil
- **5.6 Distinguished Visitors** (From 1<sup>st</sup> April 2018 to 31<sup>st</sup> March 2019)

S. No.	Name of the visitor & Designation	Date of Visit	Purpose of Visit

#### 6. Other activities

- **6.1 International collaboration/achievements by the Department/School** (From 1<sup>st</sup> April 2018 to 31<sup>st</sup> March 2019)
- <u>3-D printing Technology: Design and development of microneedle based trans-dermal Sensors/Biosensors</u> Under Vajra Faculty scheme, SERB: Vajra Fellow: Professor Roger J Narayan, University of North Carolina, USA Progress Update: <a href="https://doi.org/10.3390/s19051028">https://doi.org/10.3390/s19051028</a>; Indian Patent 201811041978, Indian Patent 201811044930
- **6.2 Indian Faculty visits in the Department/School/School** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Prof. Tapan Gupta	Colloquium	17.12.2018 & Department of Chemistry, IIT(BHU)



S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
2	Dr. Nimai Mishra	Colloquium	22.02.2019 & Department of Chemistry, IIT(BHU)
3	Prof. Tapas Kar	Colloquium	29.03.2019 & Department of Chemistry, IIT(BHU)
4	<b>Dr.</b> Gnanamani Elumalai	Colloquium	22.12.2018 & Department of Chemistry, IIT(BHU)

## **6.3 Foreign Faculty Visits in the Department/School/School** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Prof. Pedro Alexandrino Fernandes	Colloquium	29.01.2019 & Department of Chemistry, IIT(BHU)
2	Prof. Maria Ramos	Colloquium	09.02.2019 & Department of Chemistry, IIT(BHU)
3	Dr. N. B. Singh	Colloquium	18.03.2019 & Department of Chemistry, IIT(BHU)

# **6.4 Foreign Students Visits in the Department/School/School** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue

## 7. Any other Information

## 1. Management & Institutional Development Element

## (a) Central Level

S. No.	Name of Faculty Member	Element	Description
1	Prof. D. Tiwary	Contributed to the development of new curriculum for M.Sc. Chemistry	Syllabus for the Reaction Kinetics was made
2	Prof. K. D. Mandal	Opening of New M. Sc. Course	<ul><li>1.Prepared syllabus of Physical Chemistry</li><li>2.Prepared syllabus of Physical Chemistry Practical's</li><li>3.Practical set up for M.Sc. fabricated</li></ul>
3	Prof. Y. C. Sharma	Convener, DPGC	Take care of PG, PhD studies at the Department
		Member, DUGC, 2018	UG related students responsibilities
		Departmental Space Committee	Departmental space related issues
		Member, Departmental Books/Journals committee	Issues related to recommend the books, journals for the department
		Departmental Summer training. placement., industrial tour committee	Exploring and suggesting the training, placement, tour to the students of the Department
		Member, DUGC, 2019	Helping department regarding UG students
		Member, Departmental Finance & Budget Committee	Participating in the financial, budget activities of Departmental purchase
4	Prof. V. Srivastava	Placement officer In-charge of the Department	Resolving all the matter related to placement of the students.
5			
6	Dr. I. Sinha	Course convener	CHI 411 Molecular Simulations
		Course convener	CHI 211 Classical Thermodynamics
		Member	DUGC, DFAC
		Advisor to PhD students	Faculty advisor to PhD students
7	Dr. Sundaram Singh	DUGC Convener	All matters of UG level were discussed and solved.



S. No.	Name of Faculty Member	Element	Description
8	Dr. Jeyakumar	Member in DUGC, DPGC, Space committee, MSC course preparation	Member in DUGC, DPGC, Space committee, MSC course preparation
9	Dr. A. Indra	M. Sc. syllabus	M. Sc. syllabus for the new course
10	Dr. Asha Gupta	Member of Department Post Graduate Committee	Year 2018-2019 Year 2019-2020
		Member of Department Finance and Purchase Committee	Year 2018-2019 Year 2019-2020
11	Dr. V. Ramanathan	DPGC	Member
		Faculty Meeting	Secretary
		Purchase Committee	Member cum secretary
		Space Committee	Member
		Condemnation Committee	Member
		DPGC	Member

# (b) Institute Level

S. No.	Name of Faculty Member	Element	Description	
1	Prof. V. Srivastava	Professor In-charge of NMR instrument of CIFC	Taking care of NMR instrument	
2	Prof. Y. C.	Member, Senate	Attending senate for various discussions and decisions	
	Sharma	RPEC member of students of other departments	Suggesting and examining performance of students	
3	Dr. I. Sinha	Chief Editor	Institute Newsletter IIT(BHU) Connect	
		Chairperson	Annual Report Committee	
		Member	Press and Publicity Committee, Estate & Quarter Allotment committee, CIF purchase committee, CIF stock verification committee	
		Dean's Nominee	Department of Ceramic Engineering School of Materials Science and Technology	
4	Dr. Jeyakumar	Institute Core Course Committee	Institute Core Course Committee	
5	Dr. V.	Institute Lecture Series	Convener	
	Ramanathan	Faculty Feedback Committee	Member	
		Centenary Celebration Committee	Member. Entrusted with writing a brief history of the institute. Accomplished!	
		Student Counselling Service	Member	
		Senate	member	
		TLC	member	
		LEAP Organization Committee	Member	
		CoW Purchase Committee	Director's Nominee	



# (c) National Level

S. No.	Name of Faculty Member	Element	Description
1	Prof. D. Tiwary	Visited UPSC, New Delhi	Participated in confidential meeting for preparation of question paper during Sept. 5-6, 2018
		Visited UPSC, New Delhi	Participated in confidential meeting for preparation of question paper during Feb. 4-6, 2019
2	Prof. Y. C. Sharma	Selection committee Member, PMRF	Selection committee member, PMRF, 2018
		Selection committee member, BRICS Young Scientist conclave	Responsible of selection of young scientists for BRICS young scientists conclave 2018
		Selection committee member	Selection committee member for recruitment of faculty members at NIT Patna, 2018
3	Dr. A. Indra	JEE question setting and workshop	JEE question setting and workshop
4	Dr. I. Sinha	Question setter	JEE Mains, NTA
5	Dr. Jeyakumar	JEE-Question setting	JEE-Question setting
6	Dr. V. Ramanathan	JEE Question Paper	Confidential assignment of preparing JEE mains QP
		Proceedings of Indian National Science Academy	Guest Editor

# 2. Other Academic Activities

# 1. Membership of Professional Societies

S. No.	Name of Faculty Member	Name of Society/ Body	Status of Membership: Life/ Annual
1	Prof. D. Tiwary	Indian Association of Nuclear Chemists & Allied Scientists (IANCASS)	Life
		Indian Society for Engineering and Technical Education-ISETE	life
		Indian Society of Analytical Sciences (ISAS)	Life
2	Prof. R. B. Rastogi	Tribology Society of India	life
		Indian Society of Analytical Sciences	life
3	Prof. Y. C. Sharma	Indian Association of Nuclear Chemists and Allied Scientists	Life Member
		Indian Association of Environment	Life Member
4	Prof. K. D. Mandal	Royal Society of Chemistry	Annual
5	Dr. I. Sinha	Materials Research Society of India	life
		Indian Science Congress Association	life
6	Dr. Jeyakumar	Americal Chemical Society	Annual
		ACCTI	Life
7	Dr. V. Ramanathan	INYAS	Member
8	Dr. Asha Gupta	Member of ESSI- Member of Energy Science Society of India, Pondicherry-605014. http://www.essi.org.in/	Life



# 21. Department of Mathematical Sciences

**Year of Establishment:** 1985

**Head of the Department:** Prof. Tanmoy Som (w.e.f. 04.11.2018)

#### **Brief Introduction of the Department:**

Department of Mathematical Sciences began its journey in the year 1968 as a section to assist engineering departments of the institute which, in the true sense, pioneered engineering education in the nation. It soon acquired the status of a full-fledged department in 1985. The department caters to the needs of the undergraduate as well as post-graduate students of the Institute. It runs a five years' Integrated Dual Degree program in Mathematics & Computing since 2005. This is one of the most sought courses offered by the institute. The top jobs in terms of the annual package by reputed MNCs are offered to the students for this course which indicates the popularity and usefulness of the course for the industrial growth in general and software industry, in particular, under present circumstances.

The department aims to emphasize research in analysis, algebra, topology, mathematical modeling, and other applied areas of mathematics. Be it functional analysis, algebra, numerical optimization, harmonic analysis, fracture mechanics, solid mechanics, fluid dynamics, heat and mass transfer, biomathematics, digital image processing, graph theory, parallel computing, queuing theory and many more fields of applied nature, the department's contribution is enormous in terms of numerous research papers published in reputed international journals over the past few decades. Computing is the glamour of the department. It annexes several dimensions in terms of new and growing areas of research and further facilitates the simulation of mathematical models constructed for interdisciplinary areas.

#### Major areas of Research

Functional Analysis, Fuzzy & Soft Set Theory, Soft Computing, Fuzzy Topology, Heat and Mass Transfer, Mathematical Modelling, Nonlinear Waves, Nonlinear Dynamics, Pseudo-Differential Operators, Wavelet Analysis and Distribution Theory, Fractional Calculus, Numerical analysis, Parallel Computing, Theoretical & Numerical Optimization, Harmonic analysis, Differential geometry, Mathematical modeling on Solid Mechanics, Fracture Mechanics, Coupled thermomechanics, Bio-Transport Processes, Biomechanics, Free Boundary Problems, Fluid dynamics, Digital Image Processing, Graph Theory and Network Sciences, Queueing theory.

#### Area of the Department (in square meters):

- 1- New Building = 1080 Sq-meter
- 2- Old Building = 585 Sq-meter

#### Infrastructure

S. No.	Particulars	
1	No. of Classrooms	04
2	No. of Lecture Halls	02
3	No. of Laboratory	02
4	No. of Computers available for students in the Department/School/ School	80

## Unique Achievement / Preposition of the Department/School

The department has major goal to become a Centre of Excellence in teaching, learning and quality oriented research in Mathematical Sciences so that it can contribute to the development of the nation and take the department to a greater height and make it recognized globally through fundamental research work in mathematics.

#### Major achievement of the departmentincludes

- Commencement of Integrated five year post graduate program since 2005.
- Many IDD students are offered top jobs with the highest packages in the institute by MNCs.



- Many Ph.D. alumni have served/been serving organizations/Institutes of National Importance.
- Department was awarded the Special Assistance Program (SAP) in 2010 by UGC.
- Two faculties have been elected Fellow of Royal Astronomical Society, London.
- Some IMD alumni have gone to prestigious universities in the US for higher studies.
- One alumni of the Department has received FNA, FNASc.
- More than 300 Ph. D.'s are produced by the department.
- Department has published more that 360 research papers in reputed national/international journals in the last five years.

#### **Academic Programmes offered**

**New Courses Introduced** (From 1st April 2018 to 31st March 2019)

S. No.	Course Code	Course name				
1	MA-711	Advances in Rings and Modules	09			
2	MA-721	urier Analysis				
3	MA-722	ctional Analysis, Pseudo Differential Operators and Differential Equations in Abstract Spaces				
4	MA-723	ed Point theory				
5	MA-724	on-commutative harmonic Analysis				
6	MA-725	Wavelet Analysis				
7	MA-731	Riemannian Geometry				
8	MA-741	Advanced Alegbraic Graph Theory				
9	MA-751	Singular Purturbation Methods				
10	MA-752	Selected Topics of Partial Differential Equations				
11	MA-753	Selected Topics in Numerical Analysis				

#### **Students on Roll** (From 1st April 2018 to 31st March 2019)

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1.	Dual Degree	23	22	22	22	21
2.	Ph. D (Under Institute Fellowship)	19	3	5		
3.	Ph. D (Under Project Fellowship)	1		1		
4.	Ph. D (Under External Fellowship)	24	20	12		
5.	Ph. D (Part Time)	1	1			

## Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/ Workshop	Date & Venue	Financial Assistance From
INDI	A				
1	Kunal Verma	18121021	Annual Foundation School-1	December 2-29, 2018, Bhaskaracharya Pratisthana, Pune	National Center for Mathematics



S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/ Workshop	Date & Venue	Financial Assistance From
2	Rahul Kr Chaturvedi	17121002	Exploring some applications of mathematical sciences	19-01-2019 to 20-01-2019, Banaras Hindu University, India	Institute
3	Shobhit Kumar Srivastava	17121019	Exploring some applications of mathematical sciences	19-01-2019 to 20-01-2019,Banaras Hindu University	Institute
4	Pooja Gupta	16121501	Exploring some applications of Mathematical Sciences	19-01-2019 to 20-01-2019, Banaras Hindu University, India	Institute
5	Jesmina Pervin	18121018	Continuing Education Program on "Advances in Graph Theory with applications to Network Sciences"	August 6-11, 2018, IIT(BHU) Varanasi	CSIR-JRF Contingency Fund
			Participated one day workshop program on "Latex for Beginners"	6th October 2018, IIT(BHU), Varanasi	NA
			Participated two days workshop program on "Differential Equation,Bifurcation and Chaos with Numerical Simulation in MAtlab"	October 27-28, 2018, IIT(BHU), Varanasi	NA
6	Manpal Singh	18121022	Differential Equation, Bifurcation and Chaos with Numerical Simulation in MATLAB	October 27-28, BHU, Varanasi	
7	Swati Yadav	16121007	QIP short term Course on Computational Methods on Integral and differential Equations	December 10-16, 2018, IIT (BHU), Varanasi	Institute
			ICECNS-2018: International Conference on Engineering, Computers and Natural Sciences	October 19-21, 2018, Vivanta by TAJ, Panjim, Goa	Institute
8	Prashant Kumar Pandey	17121018	QIP short term Course on Computational Methods on Integral and differential Equations	December 10-16, 2018, IIT (BHU), Varanasi	Institute
			Annual Foundation School - 3	July 2-28, 2018, KSoM, Kozhikode, Kerala	Institute
9	Sandeep Kumar	18121006	QIP short term course on computational methods on integral and differential equations	December 10-16,2018, IIT BHU Varanasi	Institute
10	Siddharth Singh	18121003	CA-CD Workshop	December, 10-22 2018, IIT Tirupati	NBHM
11	Manushi Gupta	16121002	ICECNS-2018: International Conference on Engineering, Computers and Natural Sciences	October 19-21, 2018, Vivanta by TAJ, Panjim, Goa	Institute
			NCM Workshop on "Continuum Mechanics: Principles and Applications"	November 19-24, 2018, Panjab University, Chandigarh	NA
			QIP short term Course on Computational Methods on Integral and differential Equations	December 10-16, 2018, IIT (BHU), Varanasi	Institute



S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/ Workshop	Date & Venue	Financial Assistance From
12	Harendra Kumar	16121502	ICECNS-2018: International Conference on Engineering, Computers and Natural Sciences	October 19-21, 2018, Vivanta by TAJ, Panjim, Goa	Institute
			NCM Workshop on "Continuum Mechanics: Principles and Applications"	November 19-24, 2018, Panjab University, Chandigarh	NA
13	Om Namha Shivay	16121014	ICECNS-2018: International Conference on Engineering, Computers and Natural Sciences	October 19-21, 2018, Vivanta by TAJ, Panjim, Goa	Institute
14	Anuwedita Singh	16121005	ICECNS-2018: International Conference on Engineering, Computers and Natural Sciences	October 19-21, 2018, Vivanta by TAJ, Panjim, Goa	Institute
			NCM Workshop on "Continuum Mechanics: Principles and Applications"	November 19-24, 2018, Panjab University, Chandigarh	NA
15	Neha Trivedi	18121002	" Workshop on " Differential Equation,Bifurcation and Chaos with Numerical Simulation in MATLAB,	October 27-28, 2018, department of mathematics, Banaras Hindu University	NA
			CEP-Short term course "AGTANS-2018"	IIT(BHU) Dept. of Mathematical Sci.	Institute
16	Sumit	16121012	QIP short term Course on Computational Methods on Integral and differential Equations	December 10-16, 2018, IIT (BHU), Varanasi	Institute
17	Aakansha	18121016	QIP short term Course on Computational Methods on Integral and differential Equations	December 10-16, 2018, IIT (BHU), Varanasi	Institute
18	Joginder Singh	17121005	QIP short term Course on Computational Methods on Integral and differential Equations	December 10-16, 2018, IIT (BHU), Varanasi	Institute
19	Pankhuri Jain	18121023	Continuing Education Program on Deep Learning	December 12-17, 2018, IIT (BHU) Varanasi	Institute
20	Rahul Kumar Maurya	16121001	ICECNS-2018: International Conference on Engineering, Computers and Natural Sciences	October 19-21, 2018, Panjim Goa	Institute
			QIP short term Course on Computational Methods on Integral and differential Equations	December 10-16, 2018, IIT (BHU), Varanasi	Institute
21	Nikhil Srivastava	18121007	QIP short term Course on Computational Methods on Integral and Differential Equations	December 10-16, 2018, IIT (BHU), Varanasi	Institute
22	Aman Singh	18121019	QIP short term Course on Computational Methods on Integral and Differential Equations	December 10-16, 2018, IIT (BHU), Varanasi	



S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/ Workshop	Date & Venue	Financial Assistance From
23	23 Prashant 17121012 Pandey		ICECNS-2018: International Conference on Engineering, Computers and Natural Sciences	October 19-21, 2018, Vivanta by TAJ, Panjim, Goa	Institute
			ICACM-2018: International Conference on Applied and Computational Mathematics	November 23-25, 2018, Department of Mathematics, IIT Kharagpur	NA
			CMIDE-2018: Computational Methods for Integral and Differential Equations	December 10-16, 2018, Department of Mathematical Sciences, IIT (BHU), Varanasi	NA
24	Anup Singh	16121004	ICACM-2018: International Conference on Applied and Computational Mathematics	October 19-21, 2018, Vivanta by TAJ, Panjim, Goa	Institute
ABRO	OAD				
1	Rahul Kr Chaturvedi	17121002	ICCMSO-2019	January 11-13, 2019, AIT Bangkok, Thailand	Institute
2	Prashant Kumar Pandey	17121018	2nd International Conference on Computational Methods, Simulation and Optimization	January 11-13, 2019, Asian Institute of Technology, Bankok, Thailand	Institute
3	Anil Kumar Shukla	16121003	International Conference on Computational Methods, Simulation and Optimization	June 22-24, 2018, Asian Institute of Technology, Bankok, Thailand	Institute
4	Joginder Singh	17121005	7th Conference on Finite Difference Methods: Theory and Applications (FDM: T&A' 2018)	June 11-16, 2018, Lozenetz, Bulgaria	SERB, Department of Science and Technology, Government of India Indian Institute of Technology (BHU), Varanasi, India.
5	Rahul Kumar	16121001	International Workshop on Analysis and PDE	Oct 08-10, 2018, Leibniz University Hannover, Germany	Leibniz University
	Maurya		International Conference on Computational Methods, Simulation and Optimization	Jan 11-13, 2019, Asian Institute of Technology, Bangkok	Institute
6	Vinita Devi	16121013	International Workshop on Analysis and PDE	Oct 08-10, 2018, Leibniz University Hannover, Germany	Leibniz University
7	Abhishek Sharma	16123002	Empirical Methods in Natural Language Processing	October 31 - November 4 in Brussels, Belgium	Institute and Department



S. No.	Name of Student	Roll No.	Conference/Seminar/Symposia/ Workshop	Date & Venue	Financial Assistance From
8	Vaibhav Kumar Dixit	16123018	JuliaCon	August 7-11 in London, UK	NumFOCUS
9	Sachin Kumar	17121021	ICCMSO-2019, International Conference on Computational Methods, Simulation and Optimization	January 11-13, 2019, Asian Institute of Technology, Bankok, Thailand	Institute
10	Prashant Pandey	17121012	ICCMSO-2019, International Conference on Computational Methods, Simulation and Optimization	January 11-13, 2019, Asian Institute of Technology, Bankok, Thailand	Institute

Names of students/scholars who got prizes and awards outside the Institute (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of Prize	Date & Venue	Prize awarded by
1	Pankhuri Jain	18121023	Gold Medal in MCA	22 November, 2018, BHU Varanasi	Raghunath Anant- Mashelkar
2 Akshay Sharma 16123004		Jio Hackathon, Inter-IIT Tech Meet	20 December 2018, IIT Powai(Bombay) Campus	Inter-IIT Tech Meet team	
			SpringField challenge, Techfest	16 December 2018, IIT Powai(Bombay) Campus	Techfest Management Team

Names of scholars/students who won Convocation/Institute Day prizes (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of Prize	Prize awarded by
1	Abhinav Gupta	13123001	IIT (BHU), Varanasi Medal	Dr. G S Reddy

Names of Students/Scholars who went for foreign Internship (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration

### Faculty & their Activity

#### Faculty and their areas of specialisation

S. No.	Name, Qualifications, Employee No.	Date of award of Ph.D. Degree	Major Areas of Specialization (Max. 3 Areas)
PRO	FESSORS		
1	TanmoySom, Ph. D. Emp. No. 18386	1986	Functional Analysis, Fuzzy Set Theory, Soft Computing
2	R Srivastava, Ph.D. Emp. No.13662	1984	Fuzzy Topology
3	L P Singh, Ph.D. Emp. No.17162	1987	Nonlinear Waves in Gasdynamics, Hyperbolic PDEs, Computational Fluid Dynamics
4	S K Pandey, Ph.D., Emp. No. 17315		Bio-Mechanics, Fluid Mechanics
5	S Mukhopadhyay, Ph.D., Emp. No. 17180	1998	Mathematical Modelling on Solid mechanics, Coupled thermomechanics and Non-Fourier heat conduction



S. No.	Name, Qualifications, Employee No.	Date of award of Ph.D. Degree	Major Areas of Specialization (Max. 3 Areas)
6	S Das, Ph.D. Emp. No.18373	1999	Fracture Mechanics, Mathematical Modelling, Nonlinear Dynamics
7	S K Upadhyay, Ph.D. Emp. No 18409	1993	Wavelet Analysis, Distribution Theory, Pseudo-Differential Operator
8	Murali Krishna Vemuri,Emp. No.50167	1997	Harmonic analysis, Differential Geometry.
ASSC	CIATE PROFESSORS		
1	Ashok Ji Gupta, Ph.D. Emp. No17179		Theory of Rings and Modules
2	Rajeev, Ph.D Emp. No. 17745	2009	Mathematical Modelling, Free Boundary Problems
3	Vineet Kumar Singh, Ph.D. Emp. No.19772	2009	Numerical Wavelets Method, Operational Matrix Methods, Signal Processing
4	Rajesh Kumar Pandey, Ph.D.Emp. No.19846	2009	Integral Equations, Wavelets and Image Processing, Fractional Derivatives
ASSI	STANT PROFESSORS		
1	Anuradha Banerjee, Ph.D. Emp. No. 19773	2012	Stochastic Modelling in Queueing Theory
2	Sunil Kumar, Ph.D. Emp. No. 50069	2012	Numerical analysis, Image Processing, Parallel computing
3	Debdas Ghosh, Ph.D Emp. No.50068	2014	Convex Optimization, Numerical Optimization, Optimization under Uncertainty
4	LavanyaSelvaganesh, PhD, Emp. No. 50070	2008	Graph Theory, Network Sciences, Analysis of Complex Networks
INST	ITUTE/EMERITUSPROF	FESSORS	
1	K.N.Rai, Ph.D.	1974	Mathematical Modeling, Bio-heat Transfer
2	Prof. Shri Ram Emeritus Professor	1974	

## Technical and Non-Teaching Staff

Sl. No.	Name, Qualifications	Designation, Employee No.	Date of Appointment in the department
1	Shri. Som Deo Keshari B.Com (Hons), M.Lib.I.Sc.	Junior Assistant	24.05.2017
2	Shri. Anil Kumar Mishra Intermediate, B.A.	Junior Technical Superintendent	19.02.2007
3	Dr. Piush Kumar Singh Ph.D., Mathematics	Senior Tech.	06.08.2008
4	Shri. Amod Kumar Patel B.Tech (Mechanical)	Office Assistant	30.05.2014
5	Pintu Kumar Mahto	MTS	13.04.2018



## **Short-term courses/workshops/seminars/symposia/conferences organised by faculty members** (From 1st April 2018 to 31st March 2019)

S. No.	Cordinator	Title	Period
1.	Prof. Tanmoy Som and Prof. Santwana Mukhopadhyay (co-cordinator)	Continuing Education Program on Deep Learning (CEPDL-2018) (jointly with CSE dept)	Dec 12-17, 2018
2.	Dr. LavanyaSelvaganesh	AICTE Sponsored Short Term Course on "Advances in Graph Theory with Applications to Network Sciences"	August 06-11, 2018
		Continuing Education Program on "Advances in Graph Theory with Applications to Network Sciences"	August 06-11, 2018
3.	Dr. Sunil Kumar, Dr. R. K. Pandey and Dr. V. K. Singh	QIP and CEP STC on Computational Methods for Integral and Differential Equations,	December 10-16, 2018

Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Title	Period and Venue
		Seminars/Symposia/Conferen	ices
1.	Prof. S. K. Pandey	23rd International Conference of International Academy of Physical Sciences (CONIPAS XXIII)	November 16-18, 2018, Nepal Academy of Science and Technology, Kathmandu
		22nd International Conference of International Academy of Physical Sciences in CONIAPS-XII	April 13-15, 2018, Dr. Ram Manohar Lohia Awadh University of Faizabad (Ayodhya), Uttar Pradesh
2.	Dr. Rajeev	International Conference on Applied and Computational Mathematics 2018	November 23-25, 2018, IIT Kharagpur.
3.	Dr. Lavanya Selvaganesh	Faculty development Program on "Teaching- Learning Best Practices",	IIT (BHU), Varanasi. May 14- May 27, 2018
		ACM-India Summer School on "Graph Theory and Graph Algorithms"	PSG College of Technology, Coimbatore, India, May 21- June 8, 2018
	International Conference on Discrete Mathematics and Network Sciences (ICDMANS 2018)		BITS Pilani, Goa Campus, India, July 7 – July 10, 2018.
		International Conference on Graph Theory (ICGTA 2019)	Amrita University, Coimbatore, India, January 4 - 6, 2019
4.	Prof. Santwana Mukhopadhyay	National Seminar on "Recent Trends in Mathematical Sciences (RTMS-2019)	University of Burdwan, West Bengal, February 6-7, 2019.
5.	Dr. Sunil Kumar	8th International Conference on Computational and Mathematical Methods in Science and Engineering	Rota, Cadiz, Spain, July 09 - 13, 2018
6.	Dr. Subir Das	28th International Workshop on Computational Mechanics of Materials (IWCMM 28)	Glasgow, Scotland, September 10-14, 2018



## **Special lectures delivered by faculty members in other institutions** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Topic of Lecture	Institution	Date
1	Prof. Tanmoy Som	Triangular Fuzzy Numbers and Their Properties and Rough Set Theory	NIT Silchar at the International Workshop on Modeling, Simulation and Soft Computing	Aug 10-11, 2018
		Farey Sequence and Continued Fractions	Sarojini Naidu College, Kolkata jointly with CMS, Kolkata at the Seminar on Recent Trends in Mathematics and Its Applications	Jan 11, 2019
2	Prof. L. P. Singh	Perturbation Theory and Asymptotic Expansions	SVNIT Surat	December 6, 2018
		Asymptotic Analysis and Perturbation Theory	Department of Mathematics, Institute of Science, BHU, Varanasi	January 19, 2019
		Modelling and Simulation – General Concepts	Magadh University, Bodh Gaya, Bihar	March 16, 2019
3	Prof. S. K. Pandey	Characteristics governing Dynamics of Whirlwinds	Dr. Ram Manohar LohiaAwadh University of Faizabad (Ayodhya), Uttar Pradesh	April 13- 15,2018
		Bulkley fluids in tubes of variable Kathmandu		November 16-18, 2018
		Role of Mathematics in Development of Society	Chhattisgarh Council of Science and Technology, Raipur	December 22, 2018
4.	Dr. Rajeev	A Spectral Collocation approach to a melting problem including variable thermal coefficients	IIT Kharagpur	November 23-25, 2018
5.	Dr. Debdas Ghosh	A fuzzy Geometrical Viewpoint to Solve Fuzzy Multiobjective Optimization Problems	SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu	November 10, 2018
		A Detour of Geometrical and Mathematical Viewpoint of Optimality Conditions	IIT (BHU) Varanasi	December 17, 2018
		Real Analysis through Analytical Geometry	Balurghat College, DakshinDinajpur, West Bengal	October 28-30, 2018
6.	Dr. LavanyaSelvaganesh  Series of 10 lectures on "Spectral Graph Theory and its applications"  Coimbatore, during the ACM-India Summer School on "Graph Theory and Graph Algorithms"India.  Refining Social Network Connectivity via Network Augmentation  Refining Social Network Connectivity via Network Augmentation  BITS Pilani, Goa Campus, India, during "International Conference on Discrete Mathematics and Network Sciences (ICD-MANS 2018)"		May 28- June 1, 2018	
			July 09, 2018.	
		A novel and efficient structur- al descriptor to measure graph similarity	Amrita University, Coimbatore, India during the International Conference on Graph Theory (ICGTA 2019)	January 4, 2019



S. No.	Name of Faculty Member	Topic of Lecture Institution		Date
17.	17. Prof. Santwana Mathematics is Interest enjoyable!		Regional Science Congress-2018 organized by NavodayaVidyalayaSamiti, in the De- partment of Physics, IIT(BHU)	December 6-13, 2018
		,,,,,		December 22,2018
	derivation of domain of influence matical Sci		Exploring some Applications of Mathematical Sciences (ESAMA)-2019, Dept. of Mathematics, Banaras Hindu University	January 19-20,2019
		Mathematical analysis of some recently developed nonclassical heat conduction models	Recent Trends in Mathematical Sciences (RTMS-2019), University of Burdwan, West Bengal	February 6-7, 2019
21.	Dr. Sunil Kumar	A Robust Domain Decomposition Method for Singularly Perturbed Parabolic Systems	18th International Conference on Computational and Mathematical Methods in Science and Engineering, Rota, Cadiz, Spain.	July 09 - 13, 2018
22.	Prof. Subir Das	Semi-infinite crack in an orthotro- pic strip sandwiched between two identical half planes	28th International Workshop on Computational Mechanics of Materials (IWCMM 28) held at Glasgow, Scotland	September 10-14, 2018

## Visits abroad by faculty members (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Country Visited	Date of Leaving India	Date of Returning India	Purpose of Visit	Funding from
1	Dr. Sunil Kumar	Spain	July 09, 2018	July 13,2018	Conference	
2	Dr. Anuradha Banerjee	Germany	May 28, 2018	July 23, 2018	Collaborative research work with Prof. Frank Aurzada at the Department of Mathematics, TU Darmstadt	CPDA (IIT BHU)
3.	Prof. Subir Das	Glasgow, Scotland and London, England	September 10, 2018	September, 15,2018	28th International Workshop on Computational Mechanics of Materials and academic interaction	CPDA (IIT BHU) and local funding
		Malaysia	December 16, 2018	December 23. 2018	Academic visit	University of Malaya

## Books, monographs authored/co-authored (From 1st April 2018 to 31st March 2019)

S. No.	Name of Author/Co- Author	Title	Publisher
1	Vandana Tiwari and T. Som	Fixed Points for (φ, ψ)-Contractions in Menger Probabilistic Metric Spaces	Springer book: Advances in Mathematical Methods and High Performance Computing: Advances in Mechanics and Mathematics, Jan 2019
2	D Ghosh, D Chakraborty	An Introduction to Fuzzy Plane Geometry	Studies in Fuzziness and Soft Computing, Volume No. 381, Springer, 2018



S. No.	Name of Author/Co- Author	Title	Publisher
3	D. Ghosh et al.	4th ICMC 2018	Communications in Computer and Information Science, Volume No. 834, Springer, 2018
4	D Ghosh et al.	Mathematics and ComputingSelected Contributions	Proceedings in Mathematics and Statistics, Volume No. 253, Springer, 2018

## **Editorial boards of journals** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Position (Editor/ member)	Name of Journal	
1	Prof. T. Som	Guest Editor  Member, Editorial Board	i) International J. of Fuzzy Computation and Modelling     ii) Indian Academy of Mathematics	
		Reviewer	i) Neural Computing and Applications ii) Expert System & Applications and few other reputed journals	
2	Prof. L. P. Singh	Reviewer	Many Internationally reputed Journals	
3	Prof. Sanjay Kumar Pandey	Associate Editor	International Journal of Energy and Thermal Fluids	
4	Mukhopadhyay ii) Mathe		i) Computational Methods in Science and Technology ii) Mathematics and Mechanics of Solids iii) International Journal of Thermoelasticity	
		Math-Reviewer	Mathematical Reviews (AMS), USA	
		Reviewer	Several International peer-reviewed reputed Journals like, Applied Mathematical Modelling International Journal of Engg. Scs.  Mathematics and Mechanics of Solids, Applied Mathematics, and Computation Acta Mechanica etc.	
5	Dr. S. Das	Reviewer	Several Internationally reputed Journals	
6	Dr. S. K Upadhyay	dhyay Reviewer many Internationally reputed Journals		
		Assistant Editor	Journal of Progress of Mathematics.	
7	Prof. Sanjay Kumar Pandey	Member, Editorial Board	ISST Journal of Mathematics and Computer Systems, Ghaziabad, INDIA	

## **Research and Consultancy**

## **Sponsored research projects** (Ongoing only)

S. No.	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Coordinator
1	Study and Analysis of Mathematical Models of Moving Boundary Problems	22-Feb-19- 22- Feb-22	A SERB, DST sponsored research project (R&D/ SERB/Math/18- 19/02)	22.44	Dr. Rajeev
2	On Characterizing and Obtaining the Complete Efficient Solution Set of an Interval Optimi- zation Problem under a D-Dominance and a Variable Dominance Structure	Dec 2016 - Nov 2019	SERB, Govern- ment of India	15.02	Dr. Debdas Ghosh



S. No.	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Coordinator
3.	Applications of Spectral Graph Theory in Analyzing the Struc- tural Properties of Large Scale Networks	Since March 2019	SERB India	2.2	Dr. Lavanya- Selvaganesh
4.	Robust Adaptive Mesh Methods for Singularly Perturbed Problems in Ordinary and Partial Differential Equations	2018-2021	SERB	20.95	Dr. Sunil Kumar
5.	Schwarz Waveform Relaxation Methods for Singularly Perturbed Parabolic Problems	2018-2021	SERB	6.6	Dr. Sunil Kumar
6.	Approximation Methods For Problems In Fractional Calculus Of Variations	2019-2022	SERB	21.56	Dr. R. K. Pandey

#### Faculty members' participation with other universities under MoUs (Ongoing only)

Dr. Vineet Singh with Kursk State University, Kursk, Rassia.

IIT (BHU) has signed MoU with this university.

#### **Research Publications** (From 1st April 2018 to 31st March 2019)

S. No.	Papers Published/ Presented	No.
1	Papers Published in Refereed National Journals	
2	Papers Published in Refereed International Journals	70
3	Papers Presented in National Conferences	
4	Papers Presented in International Conferences	10

#### **Refereed International Journals** (From 1st April 2018 to 31st March 2019)

- 1. S. Shreevastava, A.Tiwari, T. Som (2018), Intuitionistic fuzzy neighborhood rough set model for feature selection. International Journal of Fuzzy System Applications (IJFSA), 7(2), 75-84.
- 2. A. Tiwari, S. Shreevastava, T. Som and K. K. Shukla (2018), Tolerance-based intuitionistic fuzzy-rough set approach for attribute reduction. Expert Systems with Applications, 101, 205-212.
- 3. S. Singh, S. Shreevastava, T. Som and P.Jain(2019), Intuitionistic Fuzzy Quantifier and Its Application in Feature Selection. International Journal of Fuzzy Systems, 1-13.
- 4. J.P. Chaudhary, L.P. Singh (2019), Riemann problem and elementary wave interactions in dusty gas, Applied Mathematics and Computation, 342(2019):147-165.
- 5. J.P. Chaudhary, S.D. Ram, L.P. Singh (2018), The plane piston problem with weak gravitational field in a dusty gas, Journal of King Saud University Science. DOI: 10.1016/j.jksus.2018.09.008.
- 6. J. P. Chaudhary, L. P. Singh (2018), Exact Solution of the Weak Shock Wave in Non-ideal Gas, Int. J. Appl. Comput. Math 4: 136-144.
- 7. P.Gupta, L.P. Singh, R. Singh (2019), Riemann problem for non-ideal polytropic magnetogas dynamic flow, International Journal of Non-Linear Mechanics 112: 6–12.
- 8. S. K. Pandey, A. Singh and S. K. Tiwari (2018), Flow of Herschel-Bulkley Fluids in circular cylindrical Tubes Caused by Dilating Peristaltic Waves, Austin Journal of Gastroenterology.
- 9. S. K.Pandey and A.Singh (2018), Unsteady Peristaltic Transport of a Particle–Fluid Suspension: Application to Oesophageal Swallowing, ZeitschriftfürNaturforschung A. DOI: 10.1515/zna-2018-0294.
- 10. S. K.Pandey and A. Singh (2018), Peristaltic transport of Herschel-Bulkley fluids in tubes of variable cross section induced by dilating peristaltic waves: application to sliding hiatus hernia, International Journal of Dynamics



- and Control. DOI: 10.1007/s40435-018-0454-7.
- 11. S. K. Pandey and J. P. Maurya (2018), A Mathematical Model Governing Tornado Dynamics: An Exact Solution of a Generalized Model. DOI: 10.1515/zna-2018-0206.
- 12. S. K. Pandey and J. P.Maurya (2018), Exact solutions for unsteady axisymmetric vortex motions governing atmospheric vortices, Dynamics of Atmospheres and Oceans, 83, 111–12,
- 13. A. Kumar, A. K. Singh, Rajeev (2018), A moving boundary problem with variable specific heat and thermal conductivity. J. King Saud Univ. Sci. DOI: 10.1016/j.jksus.2018.05.028.
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- 69. G.K.Gupta, A.Banerjee (2019), On Finite Buffer Bulk Arrival Bulk Service Queue with Queue Length and Batch Size Dependent Service. International Journal of Applied and Computational Mathematics 5(2) 32.
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#### **Proceedings of International Conferences** (From 1st April 2018 to 31st March 2019)

- 1. V. Tiwari and T Som. (2018.) Fixed point results for  $(\phi,\psi)$ -weak contraction in fuzzy metric spaces, Springer Proceedings Communications in Computer and Information Science (CCIS) 278-285, International Conference on Mathematics and Computing, Springer, Singapore.
- 2. T. Som, A. Choudhury, D. R Sahu, and A. Kumar. (2018), Convergence of generalized Mann type of iterates to common fixed point, Springer Proceedings in Mathematics and Statistics (POMS) 79-86, International Conference on Mathematics and Computing, Springer, Singapore.
- 3. A. K.Tiwari, S. Shreevastava, K. Subbiah, T. Som.(2018), Enhanced Prediction for Piezophilic Protein by Incorporating Reduced Set of Amino Acids Using Fuzzy-Rough Feature Selection Technique Followed by SMOTE, Springer Proceedings in Mathematics and Statistics (POMS), 185-196, International Conference on Mathematics and Computing (pp. 185-196). Springer, Singapore.
- 4. V. Mishra, T. Som, C. Samuel, and S.K. Sharma. (2018), Fuzzy Goal Programming Approach for Resource Allocation in a NGO Operation, (Vinaytosh Mishra, TanmoySom, Cherian Samuel, and SK Sharma) Springer Proceedings of Mathematics and Statistics (POMS) 2018, 373-386. In International Conference on Mathematics and Computing (pp. 373-385). Springer, Singapore.
- 5. S. Chakravorty, D.Ghosh (2018), On Solving Bimatrix Games with Triangular Fuzzy Payoffs, Mathematics and Computing, 253, 441-452.
- 6. D. Chakraborty, S.K. Bhuiya, D. Ghosh (2018), A Fuzzy Random Continuous (Q, r, L) Inventory Model Involving Controllable Backorder Rate and Variable Lead-Time with Imprecise Chance Constraint, Mathematics and Computing, 253, 263-278.
- 7. D.Ghosh, D. Chakraborty (2018), A Study on Fuzzy Triangle and Fuzzy Trigonometric Properties, Mathematics and Computing, 253, 341-359.
- 8. D.Ghosh, R. Raushan. R.G. Somani (2018), A Fuzzy Regression Technique Through Same-Points in Fuzzy Geometry, Mathematics and Computing, 834, 216-224.
- 9. S. Chakravorty, D. Ghosh (2018), Nash Equilibrium Strategy for Non-cooperative Games with Interval Type-2 Fuzzy Payoffs, Fuzzy Systems (FUZZIEEE 2018), IEEE Xplore, 1-8.
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### Brief Details of 5 Articles from the Department/School with maximum no. of Citations in last 5 years

S. No.	Publication Details	No. of citations
1.	Srivastava, M., Ansari, S. P., Agrawal, S. K., Das, S., & Leung, A. Y. T. (2014). Anti-synchronization between identical and non-identical fractional-order chaotic systems using active control method. Nonlinear dynamics, 76(2), 905-914.	73
2.	Agrawal, S. K., & Das, S. (2014). Function projective synchronization between four dimensional chaotic systems with uncertain parameters using modified adaptive control method. Journal of process control, 24(5), 517-530.	39
3.	H Rajput, T Som, S Kar (August 2015), An Automated Vehicle License Plate Recognition System, IEEE Computers 66-71.	26
4.	M Srivastava, SK Agrawal, K Vishal, S Das (2014). Chaos control of fractional order Rabinovich–Fabrikant system and synchronization between chaotic and chaos controlled fractional order Rabinovich–Fabrikant system, Applied Mathematical Modelling 38 (13), 3361-3372.	26
5.	VK Yadav, S Das, BS Bhadauria, AK Singh, M Srivastava (2017). Stability analysis, chaos control of a fractional order chaotic chemical reactor system and its function projective synchronization with parametric uncertainties, Chinese Journal of Physics 55 (3), 594-605	21

## **Distinguished Visitors** (From 1st April 2018 to 31st March 2019)

S. No.	Name of the visitor & Designation	Date of Visit	Purpose of Visit
1	Prof. Andreas M. Hinz DiplMath., Dr.rer.nat.,Dr.rer. nat.habil., Professor at the Department of Mathematics, University of Munich (LMU), Germany.	13-15 July 2018	Academic Visit and gave Popular Lecture on "The Legend of the Tower of Brahma"
2	Prof. Michel Nguiffo Boyom, University of Montpellier, France	Nov 29, 2018	Deliver talk on "Functional Analysis & Differential Geometry"
3.	Professor R. Sahadevan, Ramanujan Institute of Mathematics, Chennai	May 14, 2018	Deliver Lecture on Analytic Methods To Derive Exact Solution To Nonlinear Partial Differential Equations

#### 6. Other activities

## **Indian Faculty visits in the Department** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Professor Kalyan Chakraborty, HRI, Allahabad	Deliver Centenary Lecture	March 3, 2019, Dept of Mathematical Sciences
2	Professor R. Sahadevan, Ramanujan Institute of Mathematics, Chennai	Deliver Lecture on Analytic Methods To Derive Exact Solution To Nonlinear Partial Differential Equations	May 14, 2018
3	Dr. Tarkeshwar Singh, Associate Professor, BITS Goa, India	Academic Discussion	13-15 July 2018
4.	Prof. R. B. Bapat, Professor, ISI Delhi	Invited Speakers at QIP Short Term Course on "Advances in Graph Theory with Applications to Network Sciences"	09-11 August 2018
5.	Prof. K. Somasundaram, Professor, Amrita University, Coimbatore, India	Invited Speakers at QIP Short Term Course on "Advances in Graph Theory with Applications to Network Sciences"	06-11 August 2018



S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
6.	Dr. V. Sunitha, Associate Professor, DhirubhaiAmbani Institute of Informa- tion and Communication Technology, Gandhinagar, India.	Invited Speakers at QIP Short Term Course on "Advances in Graph Theory with Appli- cations to Network Sciences"	06-11 August 2018
7.	Dr. Lalit Kumar Singh, BARC, Mumbai	Deliver a lecture on Mathematical Mod- elling of Reliability Analysis of Software Systems	Nov 2, 2018, Dept of Mathematical Sciences
8.	Prof. S.C.S. Rao, Dept. of Mathematics, IIT Delhi.	QIP and CEP STC on Computational Methods for Integral and Differential Equations	December 10-16, 2018
9.	Dr. Mani Mehra, Dept. of Mathematics, IIT Delhi.	QIP and CEP STC on Computational Methods for Integral and Differential Equations	December 10-16, 2018
10.	Prof. D. Bahuguna, Dept. of Mathematics and Statistics, IIT Kanpur	QIP and CEP STC on Computational Methods for Integral and Differential Equations	December 10-16, 2018
11.	Prof. A.K. Chakrabarti, IISc Bangalore	QIP and CEP STC on Computational Methods for Integral and Differential Equations	December 10-16, 2018
12.	Prof. B.V. Ratish Kumar, Dept. of Mathematics and Statistics, IIT Kanpur	QIP and CEP STC on Computational Methods for Integral and Differential Equations	December 10-16, 2018

#### **Foreign Faculty Visits in the Department** (From 1st April 2018 to 31st March 2019)

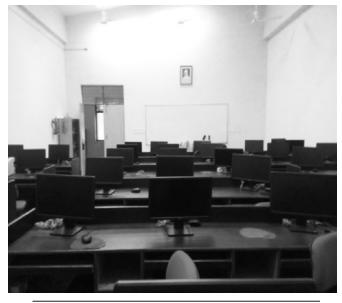
S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue
1	Prof. Andreas M. Hinz DiplMath., Dr.rer.nat.habil., Professor at the Department of Mathematics, University of Munich (LMU), Germany.	Academic Visit and deliver a Popular Lecture on "The Legend of the Tower of Brahma"	13-15 July 2018 Mathematical Sciences Department
2	Prof. Michel Nguiffo Boyom, University of Montpellier, France	Deliver talk on "Functional Analysis & Differential Geometry"	Nov 29, 2018

#### Any other Information

- 1) Department celebrated the "National Mathematics Day" on 22nd December 2018 which is celebrated to honor the birth anniversary of the famous mathematician Sir Srinivasa Ramanujan. Prof. A. K. Tripathi, Dean (Resources & Alumni) was the guest of honour of the event.
- 2) A non- profit student society is formed with the name "Mathematical and Computing Society." The following events were conducted under it:
  - Career Counselling and Interactive Session
  - MathematiQ (Mathematics Quiz)
  - Intra-Department Sports Meet
  - Talk on "Academic Writing"
  - Python Workshop
  - Annual Function in which society launched its first newsletter



## Glimpses of Laboratory/ Equipments in the Department/School





LAB I

LAB 2

### **Departmental Events 2018-19**









# 22. Department of Physics

Year of Establishment : 1985 (Formerly Department of Applied Physics, IT, BHU, Applied Physics

Section 1968)

**Head of the Department** : Dr. Prabhakar Singh (w.e.f. 24.08.2017)

1. Brief Introduction of the Department:

#### 1.1 Introduction

Department of Physics (formerly Department of Applied Physics, IT, BHU / Applied Physics Section, 1968) established in 1985, is a center of excellence for quality research and teaching in Physics & Applied Physics. The evolution of Department of Physics in its present form took over nine decades. Since its inception, physics teaching was both integral and essential part of the technical education to enable young minds having good grinding in physical sciences. Therefore, initially all the three colleges (BENCO, TECHNO & MINMET) had their own faculty members in Physics to do the job. A turning point came in 1968 when BENCO, TECHNO & MINMET were merged under one umbrella of Institute of Technology, Banaras Hindu University (IT-BHU). This then made it meaningful to have all the physics teachers from these three colleges to join hands together to form an Applied Physics Section as a part of newly formed School of Applied Sciences. Finally, we became a Department of Applied Physics of IT-BHU in 1985. At long last, we became a Department of Physics in 2012 soon after the conversion of IT-BHU into IIT (BHU) on 29 June 2012. Faculties of the department have been pursuing cutting edge front line research in various areas and in collaboration with prestigious national and international institutes. The Department currently offers research programmes in the field of Solar Physics & Space Physics, Astrophysics, Cosmology, High Energy Physics, Nuclear & Particle Physics Fibre Optics, Photonics & Optoelectronics, Condensed Matter Physics & Materials physics, Microwave Remote Sensing, Bio-physics and Composite Materials, Energy Studies & Solid State Ionics, Quantum statistical mechanics and dynamics, Quantum entanglement and quantum information theory etc.

#### 1.2 Major areas of Research

The department has a rich heritage and history of scientific research in space physics including theoretical study of the planetary atmosphere and solar magnetic field. In the mid 1970s, the whistler wave at low latitude were recorded for the first time and published in the prestigious "Nature" by the group of our department. (SP)²RG has been making significant contributions to the theory and modeling of solar plasma in optical, ultraviolet, X-ray, gamma-ray, and in the atomic spectroscopy – especially in the field of diagnostics of electron and proton beams and of the plasmas they heat. This group has been making seminal contributions in the areas of 'MHD waves and transients in the solar atmosphere' and also in 'science communication'. Theoretical calculations related to pitch-angle, cross-sections, scattering are also being carried out. Another group is actively working on the origin of the solar magnetic field, its dynamics using magnetohydrodynamics and the mysterious solar cycle using a novel theoretical (dynamo) model. The SP²RG has equipped with VLF-Antenna for upper Earth atmospheric measurements; Advanced Solar Computation and Analyses Laboratory (ASCAL) to analyse the large-scale solar observational data and model its magnetic atmosphere. SP2RG has global collaborations (e.g., UK, Poland, Russia, China, Austria, Spain, USA, Belgium, etc.) as well as participation in international (e.g., Royal Society; Polish National Science Foundation etc.), and national (e.g., 2m- National Large Solar Telescope; Aditya-I) projects.

The department has now several strong theoretical physics groups (Astrophysics & Astronomy, High Energy Physics, Nuclear & Particle Physics etc.) who are actively working on Structures and Dynamics of the Interstellar Medium, Large-scale gas fragmentation and star formation in galaxies, and Gravitational Lensing as an Astrophysical Probe, Cosmology / Cosmic Microwave background - Statistical Isotropy, Component separation, Low energy QCD at high precision, flavour physics, phenomenology of top, Higgs, vector-like fermions and singlet scalar fields, and model building, Nuclear Physics (Gamma Ray Spectroscopy, Nuclear structure model calculations - cranked Nilsson Strutinsky Model, Shell Model calculations).



The Department carries out a wide range of frontier research activities related to magnetism and superconductivity and semiconductors, nanostructures, thin films and nano-materials and is backed by many sophisticated equipment and measurement techniques. Though the main emphasis of these works is on fundamental aspects, many of the results have a potential for application in industries. In the materials science, we study the electronic, physical, mechanical, optical, and chemical properties of materials, most often in relation to their structure, and use this knowledge to understand and optimize their properties and create new, improved materials and devices. Work in Soft Condensed Matter and Bio-physics is also a front-line research area of the department. "Soft" condensed matter research explores areas like adhesion, friction, wetting, the movement of fluids in porous media, Modelling self-assembly and phase separation kinetics in the complex soft materials, understanding recent single molecule force spectroscopy experiments on biopolymers, Polymers under shear flow, etc. Biophysics and nanotechnology group aim is to investigate the interaction between 2D, 1D, and 0D materials with proteins and DNA. The main focus of this group is to develop sustainable technologies using green synthesis method utilizing medicinal plants and biopolymers for biomedical, energy and environmental applications like biosensors, drug delivery, OLED, bioelectronics and other nanotechnology applications using various experimental techniques and computational methods. Another theoretical physics group is also involved in understanding non-equilibrium dynamics of quantum many body systems with long range interaction.

Optics, Photonics and Fiber optics is emerging new field of research in our country. We establish a research lab with essential facilities to pursue the theoretical, experimental and computations researches in the field of Photonics. We are engaged in the theoretical analysis of photonic crystals and quasi photonic crystals composed of graded, dispersive and negative index materials. These works would be useful in study of the photonic crystals having such type of materials for various applications. It will open new window to design several photonic crystal devices like sensors, reflectors, switches etc. Research works on the Optical Instrumentation, Non-Destructive Imaging and testing, Computational Optics and Imaging through random complex media have also been initiated in our department. Such works has variety of practical applications in underwater imaging, bio-medical optics, space applications etc.

Research on remote sensing is also one of the frontline research areas in the Department. In this field, the growth of agricultural crops are monitored, classification of crops and the recognition of shape/size of buried objects are done by scatterometer measurements and satellite image analysis. Such studies are useful in designing of sensors, urban planning, crop classification, crop-yield and soil moisture estimation for agricultural planning.

Moreover, one of the groups is actively engaged in different types of luminescent materials, particularly inorganic nanostructures/phosphors having potential applications in the area of energy harvesting, bio-imaging and for advance lighting applications, etc. Composite material studies are also pursued at the Department and the lab for such studies is in development.

Research in the field of Green Energy and Solid State Ionics is also carried out in this Department. The energy studies explore the various fuel cells, materials, etc. to optimize the renewable energy sources. In the Green Energy area, the work on anode, cathode and electrolyte materials of Solid Oxide Fuel Cells (SOFC) is in focus. Also, preliminary establishment of lab towards the fabrication and characterization for Solar cells has been done. In addition to it, some work on hydrogen energy has also been started. Towards Solid State Ionics, the ion dynamics of the structurally disordered and crystalline materials is being studied. This study is not only restricted to the amorphous materials but also has been extended to the various materials of SOFC. Also, the work has also been started in the field of materials for nano piezo- pyro energy harvesters.

#### 1.3 Area of the Department/School (in square meters): 1844 Square Meters

#### 1.4 Infrastructure

S. No.	Particulars	Number
1	No. of Classrooms	01
2	No. of Lecture Halls	01
3	No. of Laboratory	16
4	No. of Computers available for students in the Department/School/ School	~60



#### 1.5 Unique Achievement / Preposition of the Department/School

Department's vision is to promote new ideas and innovations in physical sciences. Our mission is to offer world class education, research guidance and also leadership in physical sciences. Our aim is to become a high ranking in Physics Department globally in terms of teaching quality, research contributions and academic leadership.

Under new curriculum process (which Institute has started in 2014) Department offers two physics courses at B. Tech-Part-I level as an institute science course and two physics courses to preparatory students. We also offer several electives and open electives under this new flexible project based curriculum. Our 5-year Integrated M. Tech. programme (IMD) in Engineering Physics which started in 2005 has been converted to Integrated Dual Degree (IDD) Programme from 2014 and is running successfully. Main objective of this course is to impart knowledge of various core technical disciplines without compromising on the basic physics and mathematics courses. The course gives an insight to the disciplines of engineering as well as science, and practical working experience through industrial training / summer internship, project / dissertation work to enhance the working skills of the students. Department will start the M.Sc. Programme in Physics from 2019-20 and students will be admitted through JAM.

Students of IMD/IDD (Engineering physics) are awarded with several fellowships to go abroad to pursue higher studies, involved in several project works in both science and technology, present their research works in different workshop/conference/symposia. They also pursue summer internship in industries and reputed institutions/universities in India and abroad. Many of these students are also recruited by reputed national and multinational companies.

The Department offers research programmes in the field of Solar Physics & Space Physics, Fibre Optics, Photonics & Optoelectronics, Condensed Matter Physics & Materials physics, Microwave Remote Sensing, Biophysics and Composite Materials, Energy Studies & Solid State Ionics. About 90 Ph.D. students have received their PhD degree so far from the department. Many of our alumni (Ph.D., IMD) are well placed in reputed Institutes / University in India and abroad.

Department has a strong component to deliver popular science lecture and publish articles in magazines like Scientific American and newspapers.

Faculty members in the Department working in the frontier areas of research have published in International journals of high impact factor (e.g. Nature Comm., JACS, PRL, PRE, Astrophysical Journal, Solar Physics, Astronomy & Astrophysics, MNRAS, J. Mat. Chem., PCCP, SSI, RSC Adv. etc.), published book and authored book chapters.

Department successfully organized several National (RTCMP, NCTP), International workshop / Conferences (DYNAMIC SUN-I, THERMANS-2016, ABSMSNW-2017, ICFNM-2019), GIAN Course Work, and Ishan Vikas Programme of MHRD for school students from North East Students, student's convention 'JIGYASA' (2015, 2016, 2017), Institute Day, etc. in recent years.

Several Indian and Foreign distinguished faculty members visited the Department to deliver seminar, colloquium.

Dr. Anil Bharadwaj, an alumnus of the Department received Shanti Swarup Bhatnagar award in 2007 for outstanding contribution in the field of Earth, Atmosphere, Ocean, and Planetary Sciences. He also received Infosys Science Foundation award-2016 in Physical Sciences category.

Faculty Members & Alumni of the Department have received several fellowships and lifetime memberships of various academic and professional societies like Royal Astronomical Society (FRAS), Astronomical Society of India (ASI), Optical Society of India, International Academy of Physical Sciences (at Allahabad, India), Materials Research Society of India (MRSI), Indian Physics Association (IPA), Indian Thermal Analysis Society (ITAS), Indian society for Materials Chemistry (ISMC) (at BARC, Mumbai), International Astronomical Union (IAU), International Academy of Astronautics (IAA) on Comparative Climatology - Studying Planetary Climate to Understand our Planet, Max-Planck Society fellowship, NASA/NRC Associate, Commonwealth Academic Staff Fellow: Glasgow, Cambridge and Oxford universities (1990-91) etc.



Faculty members have received several awards/honours like e.g. Indira Gandhi Prize for Popularization of Science-2011 (Science Communications) by Indian National Science Academy (INSA), NATIONAL AWARD of 1,00,000/- for Outstanding Efforts in Science and Technology Communication through Books and Magazines for 2005, 2004 Award for Popular Writing on Solar Physics (American Astronomical Society/Solar Physics Division), 'MPAE Gold Pin' Award (1999) by Max-Planck-Institut für Aeronomie (MPAE) Germany in recognition of the outstanding contributions to the SUMER/SoHO science, D.Sc. *Honoris Causa* etc.

The department has enriched with many excellent faculties and faculty strength has increased to 22. Currently, in the department major research activities are going in theoretical as well as in experimental physics. The Department has been granted DST-FIST support and many other projects funded by national and International agencies namely DST, BRNS, DRDO, CSIR etc. Faculty members have several National, International Research collaboration, MOU, VLF-Global-Network Project etc.

#### 2 Academic Programmes offered

#### **2.1 New Courses Introduced** (From 1st April 2018 to 31st March 2019)

S. No.	Course Code	Course name	Course credit
1	PHY 405	Advanced Quantum Field Theory	9
2	EP511	Atmospheric Physics and Environmental Sciences	9
3	PHY532	Optical Characterization Techniques: Basic Principle and Applications	9

#### **2.2 Students on Roll** (From 1st April 2018 to 31st March 2019)

S. No.	Programme	I Year	II Year	III Year	IV Year	V Year & above
1.	B. Tech/B. Pharm					
2.	Dual Degree	20	19	18	21	13
3.	M. Tech/ M. Pharm					
4.	Ph. D (Under Institute Fellowship)	15	17	4	6	5
5.	A. Ph. D (Under Project Fellowship)			3		
	B. Other Funding Agency	6	10	4	3	
6.	Ph. D (Under Sponsored Category)					

## 2.3 Names of students/scholars who attended conferences/workshops/seminars and symposia abroad or in India (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Conference/Seminar/ Symposia/ Workshop	Date & Venue	Financial Assistance From
ÌNDI	ÍA.				
1	Dr. Priyanka A. Jha	15176002	National Seminar on Ferroelectric and Dielectric 2018	14-16 Dec. 2018, GGV, Bilaspur	CSIR
2	Dr. Pardeep K. Jha	16176001	National Seminar on Ferroelectric and Dielectric 2018	14-16 Dec. 2018, GGV, Bilaspur	Self
3	Prince Kr. Gupta	13171001	CPMPS Conference	15-18 Sept. 2018, BHU	Self
4	Arkadeb Pal	14171002	63 <sup>rd</sup> DAE SSPS 2018, BARC	18-22 Dec. 2018, Hisar	IIT (BHU)
5	Arkadeb Pal	14171002	ICFNM-2019	22-25 Feb. 2019, IIT(BHU)	Self
6	Vani Pawar	14171003	Materials & Technology for energy conservation and Storage 2018	26-29 Sep. 2018, BARC, Mumbai	IIT (BHU)
7	Vani Pawar	14171003	First Indian material conclave and 30 <sup>th</sup> annual general meeting of MRSI	12-15 Feb. 2019, IISC Bengaluru	IIT (BHU)



S. No.	Name of Student	Roll No.	Conference/Seminar/ Symposia/ Workshop	Date & Venue	Financial Assistance From
8	Vani Pawar	14171003	ICFNM-2019	22-25 Feb. 2019, IIT(BHU)	Self
9	Ajeet Kumar Vishwakarma	14171006	2019 URSI Asia Pacific Radio Science Conference	09-15 March 2019, India Habitat Centre, New Delhi	IIT(BHU)
10	Dibyajyoti Mohanta	15171004	Odissa		STGS, IIT (BHU)
11	Dibyajyoti Mohanta			Self	
12	Pavan Kumar Vishwakarna	15171006	The Metre Wavelength Sky - II	18-22 March 2019, NCRA- TIFR, Pune	IIT (BHU)
13	Prajyoti Singh	15171007	ICFNM-2019	22-25 Feb. 2019, IIT(BHU)	Self
14	Ruchi Bala	15171008	ISPRS TC - V Mid Term Symposium	20-23 Nov. 2018, IIRS (ISRO) Dehradun	IIT(BHU)
15	Ruchi Bala	15171008	2019 URSI Asia Pacific Radio Science Conference	9-15 March 2019, India Habitat Centre, New Delhi India	IIT(BHU)
16	Ritika Solanki	15171009	XXXVII Meeting of Astronomical Society of India	18 - 22 Feb. 2019, Christ (Deemed to be University), Bengaluru	IIT (BHU) and Christ University Bengaluru
17	Vijay Pratap Yadav	15171010	ISPRS TC -V Mid Term Symposium	20-23 Nov. 2018, IIRS (ISRO) Dehradun	IIT(BHU)
18	Vijay Pratap Yadav	15171010	2019 URSI Asia Pacific Radio Science Conference	09-15 March 2019, India Habitat Centre, New Delhi India	IIT(BHU)
19	Devyani Shukla	15171013	ISFM-2018	13-15 April 2018 Hotel Shivalik View Chandigarh	IIT BHU
20	Devyani Shukla	15171013	3rd ICSM 2018	09-14 Dec. 2018, MNIT Jaipur, India	IIT BHU
21	Devyani Shukla	15171013	ICFNM-2019	22-25 Feb. 2019, IIT(BHU)	Self
22	Yamini	16171002	XXXVII Meeting of Astronomical Society of India	18 - 22 Feb. 2019, Christ (Deemed to be University), Bengaluru	RESPOND-ISRO Project, IIT (BHU), Christ Univ., Bengaluru
23	Sudheer Kumar Mishra	16171003	XXXVII Meeting of Astronomical Society of India	18 - 22 Feb. 2019, Christ (Deemed to be University), Bengaluru	IIT (BHU) and Christ University Bengaluru
24	Ajay Shankar Bangwal	16171004	First Indian material conclave and 30 <sup>th</sup> annual general meeting of MRSI	12-15 Feb. 2019, IISC Bengaluru	STGS
25	Ajay Shankar Bangwal	16171004	ICFNM-2019	22-25 Feb. 2019, IIT(BHU)	Self



S. No.	Name of Student	Roll No.	Conference/Seminar/ Symposia/ Workshop	Date & Venue	Financial Assistance From
26	Manish Kumar	16171005	National Seminar on Ferroelectric and Dielectric 2018	14-16 Dec. 2018, GGV, Bilaspur	Self
27	Manish Kumar	16171005	First Indian material conclave and 30 <sup>th</sup> annual general meeting of MRSI	12-15 Feb. 2019, IISC Bengaluru	STGS
28	Manish Kumar	16171005	ICFNM-2019	22-25 Feb. 2019, IIT(BHU)	Self
29	Vandna Tomar	16171006	National Seminar on Ferroelectric and Dielectric 2018	14-16 Dec. 2018, GGV, Bilaspur	Self
30	Vandna Tomar	16171006	National Symposium on Applied spectroscopy 2019	19-20 Feb. 2019, U.P. college, Varanasi	Self
31	Vandna Tomar	16171006	ICFNM-2019	22-25 Feb. 2019, IIT(BHU)	Self
32	Pragati Singh	16171007	National Symposium on Applied spectroscopy 2019	19-20 Feb. 2019, U.P. college, Varanasi	Self
33	Pragati Singh	16171007	ICFNM-2019	22-25 Feb. 2019, IIT(BHU)	Self
34	Mahima Singh	16171009	MRSI AGM 2019	12-15 Feb. 2019, IISc Bangalore	IIT( BHU)
35	Mahima Singh	16171009	ICFNM-2019	22-25 Feb. 2019, IIT(BHU)	Self
36	Jais Kumar	16171010	Recent Developments in Cosmology	6-8 April 2018, Department of Physics/DST-CIMS, BHU, Varanasi	Self
37	Jais Kumar	16171010	Frontiers in 21 cm cosmology (Workshop)	10-18 Dec. 2018, Kodaikalan, Taamilnadu	IIT (BHU) and UGC-JRF (Contingency grant)
38	Jais Kumar	16171010	International school titled "Cosmology – The Next Decade"	03-25 Jan. 2019, ICTS- TIFR, Bengaluru	ICTS- TIFR
39	Jais Kumar	16171010	The Metre Wavelength Sky - II	18-22March 2019, NCRA- TIFR, Pune	IIT (BHU)
40	Kanchan Yadav	16171502	3rd ICSM 2018	09-14 Dec. 2018, MNIT Jaipur, India	IIT (BHU)
41	Kanchan Yadav	16171502	ICFNM-2019	22-25 Feb. 2019, IIT(BHU)	Self
42	Urvashi	17171001	The Metre Wavelength Sky - II	18-22 March 2019, NCRA- TIFR, Pune	IIT (BHU)
43	Urvashi	17171001	Frontiers in 21 cm cosmology (Workshop)	10-18 Dec. 2018, Kodaikalan, Taamilnadu	IIT (BHU)
44	Debarati Pal	17171003	ICFNM-2019	22-25 Feb. 2019, IIT(BHU)	Self
45	Debarati Pal	17171003	ICAM- International Conference	6-7 March 2019 JMI, New Delhi	IIT (BHU)
46	Debarati Pal	17171003	WSSTMS- Winter School	25-31Oct. 2018; SNBNCBS, Kolkata	Self
47	Mohd Alam	17171004	MRSI AGM 2019	12-15 Feb. 2019, IISc Bangalore	IIT (BHU)
48	Mohd Alam	17171004	ICFNM-2019	22-25 Feb. 2019, IIT(BHU)	Self



S. No.	Name of Student	Roll No.	Conference/Seminar/ Symposia/ Workshop	Date & Venue	Financial Assistance From
49	Prashant Kumar Pandey	17171005	Energy Efficiency of Solar PV Systems	3-7 Dec. 2018, CSIR- National Physical Laboratory, New Delhi, India.	IIT(BHU)
50	KHYATI ANAND	17171008	XVIII School on Neutrons as Probes of Condensed Matter (NPCM- XVIII 2018)	28 Oct. – 1 Nov. 2018 BARC, Mumbai	BARC, Mumbai
51	KHYATI ANAND	17171008	National Conference on Physics and Chemistry of Materials-2018 (NCPCM-2018)	27-28 Dec. 2018, Indore, India	IIT (BHU)
52	Yadav Suraj Amarbahadur	17171010	ISPRS TC - V Mid Term Symposium	20-23 Nov. 2018, IIRS (ISRO) Dehradun	IIT(BHU)
53	SEEMA KUMARI	17171011	63 <sup>rd</sup> DAE Solid State Physics Symposium (DAE-SSPS 2018)	18-22 Dec. 2019, Guru Jambheshwar University of Science & Technology, Hisar, Haryana	IIT (BHU)
54	Md Bayazeed Alam	17171013	ICFNM-2019	22-25 Feb. 2019, IIT(BHU)	Self
55	Manisha Chauhan	17171014	First Indian material conclave and 30th annual general meeting of MRSI	12-15 Feb. 2019, IISC Bengaluru	IIT (BHU)
56	Manisha Chauhan	17171014	ICFNM-2019	22-25 Feb. 2019, IIT(BHU)	Self
57	Jyoti Sharma	17171016	ISPRS TC- V Mid term symposium 2018	20 - 23 Nov. 2018, IIRS (ISRO), Dehradun	IIT (BHU)
58	Meera nandkumar	17171018	The Metre Wavelength Sky - II	18-22 March 2019, NCRA- TIFR, Pune	NCRA and IIT (BHU)
59	Vaibhav Chauhan	17171022	ICFNM-2019	22-25 Feb. 2019, IIT(BHU)	IIT (BHU)
60	Harshita Trivedi	17171503	ICFNM-2019	22-25 Feb. 2019, IIT(BHU)	Self
61	Harshita Trivedi	17171503	LaTex Workshop	6 Oct. 2018, Department of Electrical Engineering IIT (BHU),	Self
62	Manish Kumar Singh	18171002	National Conference on Atomic ,Molecular and Optical Physics	25-28 March , IIT Kanpur	Self
63	Ravi Pratap	18171009	ICFNM-2019	22-25 Feb. 2019, IIT(BHU)	Self
64	Soumyadeep Das	14173012	The Metre Wavelength Sky II	18-22 March 2019, NCRA- TIFR, Pune	Self
65	Subhaya Bose	14173013	ICFNM-2019	22-25 Feb. 2019, IIT(BHU)	Self
ABR	OAD				
1					



## **2.4** Names of students/scholars who got prizes and awards outside the Institute (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of Prize	Date & Venue	Prize awarded by
1	Vani Pawar	14171003	Best Promising Material Award	26-29 Sep. 2018, BARC, Mumbai	Materials & Technology for energy conservation and Storage 2018
2.	Vani Pawar	14171003	2 <sup>nd</sup> Prize for Oral Presentation	22-25 Feb, 2019, IIT (BHU)	International Conference on Functional Nanomaterials, 2019
3.	Kanchan Yadav	16171502	Best Presentation Award	09-14 December 2018, MNIT Jaipur, India	3rd ICSM 2018
4	Kanchan Yadav	16171502	Molecular systems Design & Engineering Poster Prize	09-14 December 2018, MNIT Jaipur, India	Royal Society of Chemistry
5	Abhinav Kumar Singh	14173001	Prime Minister's Research Fellowship (He is one of the four selected candidates under this scheme offered by MHRD, India)	19 <sup>th</sup> December 2018	MHRD

## **2.5** Names of scholars/students who won Convocation/Institute Day prizes (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of Prize	Prize awarded by
1	Manuj Kumar	13173008	IIT(BHU) Medal for standing first in Engineering	IIT (BHU)
	Singh		Physics	

#### **2.6 Names of Students/Scholars who went for foreign Internship** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Student	Roll No.	Name of the Organization	Place of Internship	Country	Duration
1	Shyam Harimohan Menon	14173011	University of Tubingen	Tubingen	Germany	May 21, 2018 to August 4, 2018
2	Gautam Kamalakar Naik	15173007	College of Staten Island, CUNY	New York	USA	9 weeks

#### 3 Faculty & their Activity

#### 3.1 Faculty and their areas of specialisation

S. No.	Name, Qualification, Employee No.	Date of Award of PhD Degree	Major Areas of Specialization (Max. 3 Areas)
PROI	FESSORS		
1	Prof. Debaprasad Giri, Ph.D., 17048	January 1997	Statistical Physics; Soft Condensed Matter Physics; Computational Bio-Physics
2	Prof. Prabhakar Singh, M.Tech., Ph.D., 18366	16 <sup>th</sup> June 2005	Condensed matter physics Materials Science and Technology
3	Prof. Sandip Chatterjee, Ph.D., 18478	May 1997	Topological Insulators, Multiferroic Materials, Magnetism.



S. No.	Name, Qualification, Employee No.	Date of Award of PhD Degree	Major Areas of Specialization (Max. 3 Areas)
4	Prof. Rajendra Prasad, Ph.D., 17276	1998	Remote Sensing, Satellite image analysis, crop growth variables and soil moisture retrieval algorithms development for their monitoring
ASSO	CIATE PROFESSORS		
1	Dr Anita Mohan PhD, 17041	1996	Physics and Diagnostics of Solar, EUV and X-Ray Emission Processes; Synthesis of composites; Tribology
2	Dr. Praveen Chandra Pandey, Ph.D., 18359	2001	Fiber Optics & Photonic Crystal Fibers, PBG and Metamaterials, Photonic materials.
3	Dr. (Mrs.) Shail Upadhyay, Ph.D., 18536	March 2000	Experimental Condensed Matter; Electro ceramic
4	Dr. Abhishek Kr. Srivastava, Ph.D., 19771	2006	Solar Physics
5	Dr. Rakesh Kumar Singh, Ph.D., 50222	8 <sup>th</sup> August 2009	Optics: Experiment, Theory & Computation
ASSIS	STANT PROFESSORS		
1	Dr. Sunil Kumar Mishra, Ph.D., 50020	2 <sup>nd</sup> June 2012	Quantum Infomation, Quantum Spins systems, Frustrated Magnets
2	Dr. Avanish Singh Parmar, Ph.D., 50021	7 <sup>th</sup> August 2009	Biophysics, Nanotechnology, Hybrid Materials
3	Dr. Saurabh Tripathi, Ph.D., 50028	2012	Structural Phase Transitions in ferroics, Short and long range ordering in functional materials, Experimental Condensed Matter & Materials Science
4	Dr. Swapnil Patil, Ph.D., 50029	30 <sup>th</sup> July 2010	Experimental Condensed Matter Physics; ARPES investigations of the electronic structure of materials
5	Shradha Mishra, Ph.D, 50033	February 2009	Condensed matter theory, soft matter and statistical physics
6	Dr. Prasun Dutta, Ph.D., 50036	2011	Physics of Interstellar Medium Radio Astronomy Observations and Interpretations, Statistical astrophysics and cosmology
7	Dr. Rajeev Singh, Ph.D., 50170	21st December 2013	Quantum Mechanics, Quantum Computers, Scientific Computation
8	Dr. Somnath Nag, Ph.D., 50173	20 <sup>th</sup> July 2014	Nuclear Physics (Gamma Ray Spectroscopy, Nuclear structure model calculations - cranked Nilsson Strutinsky Model, Shell Model calculations )
9	Sunil Kumar Singh, Ph.D, 50182	28 <sup>th</sup> September 2011	Spectroscopy Lasers Nanophotonics
10	Gauhar Abbas, Ph.D., 50199	14 <sup>th</sup> December 2012	Theoretical High Energy Physics
11	Awaneesh Kumar Singh, Ph.D.; 50213	11 <sup>th</sup> October 2011	Soft Matter Physics, Statistical Physics, Physical Chemistry
12	Dr. Bidya Binay Karak, 50217	August 2013	Solar Physics; Magnetohydrodynamics (MHD) and its application in Sun and other stars; Astrophysical Fluids, Turbulence, and Convection; Dynamo Theory, Sunspot and Solar Cycle, Chaotic behaviours of Astrophysical Objects



S. No.	Name, Qualification, Employee No.	Date of Award of PhD Degree	Major Areas of Specialization (Max. 3 Areas)
13	Dr. Pavan Kumar Aluri, Ph.D., 50219	5 <sup>th</sup> June 2013	Cosmology - Cosmic Microwave Background - Statistical isotropy
Instit	ute Professors		
1	Prof. Bhola Nath Dwivedi, Ph.D., FAC- IP04	1978	Physics and Diagnostics of Solar EUV and X-ray Emission Processes; MHD Waves and Oscillations in the Solar Atmosphere; Science Communication
2	Prof. Onkar Nath Singh, Ph.D., 13665	1974	Spectroscopy, Fiber optics, Planetary and Space Science.
Disti	nguished Professors		
Emer	itus Professors		
1	Prof. R. P. Singhal, Ph.D., 13664	1971	Nuclear & Atomic Physics, Planetary and Space Sciences, Space Weather.
Gues	t Faculty		
Visiting Faculty			
1	Dr. Arvind Kumar Tripathi, FAC-VF-17	2000	Planetary & Space Sciences, Planetary Space Weather

## 3.2 Technical and Non-Teaching Staff

Sl. No.	Name, Qualifications	Designation, Employee No.	Date of Appointment in the department
1	Anil Kumar Srivastava, B. Com. (Hons)	Section Officer (Retired)	06.06.2007
2	Rahul Kant Chaudhary, M. Tech.	Jr. Assistant	13.05.2017
3	Awadhesh Kumar Srivastava, B.Com & B. Lib	Skilled Clerical Staff	10.06.2016
4	Vikash Singh, B.Sc.	Skilled Staff	21.12.2010
5	Ramji Ram, High School & Agricultural Diploma	Technical Superintendent	30.05.1987
6	Mahavir, High School Science	Technical Superintendent (Retired)	29.09.1988
7	Manjul Tiwari, B.Sc. & Diploma in Applied Videography	Technical Superintendent	15.12.2008
8	Bhanu Pratap Prasad, Intermediate Science	Technical Superintendent	19.11.1990
9	Sujeet Kumar Bose, BA & Diploma in Electrical Engineering	Jr. Technical Superintendent	22.02.2007
10	Pankaj Kumar Asthana, B.Sc.	Senior Technician	06.08.2008
11	Upendra Prasad, M.Sc.& M.Ed.	Senior Technician	16.08.2008
12	Kumar Vikram, Intermediate Commerce & DCA+Tally	Senior Technician	27.08.2004
13	Uma Shankar Pandey, Intermediate	Multi Tasking Staff	16.12.2016
14	Anil Pal, BA & ITI Diploma	Multi Tasking Staff	05.05.2017



## 3.3 Short-term courses/workshops/seminars/symposia/conferences organised by faculty members (From 1st April 2018 to 31st March 2019)

S. No.	Cordinator	Title	Period
1	Prof. Debaprasad Giri	One day Science Workshop "Hands-on Science and Mathematics" for School students and teachers from rural areas of Varanasi which was conducted by Manish Jain, CLI, IIT, Gandhinagar	2 <sup>nd</sup> May 2018
2	Dr. Praveen Chandra Pandey & Dr. Abhishek Kumar Srivastava	Regional Science Congress 2018, JNV Samiti Lucknow	6 – 11 December 2018
3	Dr. Sunil Kumar Mishra	Conference on Quantum information and Many body Theory 2019	1 - 3 March 2019
4	Dr. Avanish Singh Parmar	International Conference on Functional Nanomaterials (ICFNM-2019)	22 - 25 February 2019

## 3.4 Short-term courses/workshops/seminars/symposia/conferences/training programmes attended by faculty members in academic institutions and public sector undertakings (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Title	Period and Venue
Semi	nars/Symposia/Cont	ferences	
1	Debaprasad Giri	Puri Polymer conference	12-14 December 2018, PURI, ODISSA
2	Sandip Chatterjee	DAE-Solid State Physics Symposium	18-22 December 2018, HISAR, Hariyana
3	Sandip Chatterjee	Recent Trends in Materials Science and Spectroscopy (RTMS2019)"	2-3 March 2019, AMU, Aligarh
4	Dr. Avanish Singh Parmar	3rd ICSM 2018	09-14 December 2018, MNIT Jaipur, India
5	Saurabh Tripathi	International Symposium on Material Design & 14th USPEX Workshop	24-26 June 2018, Nankai University, Tianjin, China.
6	Saurabh Tripathi	Environmental Hazards and Its Management	8 <sup>th</sup> December 2018, Ambedkar Nagar
7	Saurabh Tripathi	STC on Materials Characterization for Engineers	24-29 December 2018, SMST IIT(BHU), Varanasi
8	Saurabh Tripathi	International Conference on Functional Nano Materials	25-28 February 2019
9	Dr. Swapnil Patil	National Conference on Electronic Structure (NCES 2018)	17-19 December 2018, SRM Institute of Science and Technology, Kattankulathur, Chennai
10	Prasun Dutta	Frontiers of 21 cm cosmology	10-18 December 2018
11	Prasun Dutta	Structure and Dynamics of the Interstellar Medium, National Centre for Radio Astrophysics	18 March 2019, TIFR
12	Dr. Somnath Nag	DAE Symposium on Nuclear Physics 2018,	10-14 December 2018, BARC/TIFR Mumbai
13	Gauhar Abbas	FPCP 2018 IIT Hyderabad	14-18 July 2018, Hyderabad



S. No.	Name of Faculty Member	Title	Period and Venue
14	Dr. Awaneesh Kumar Singh	Designer Soft Matter 2018; (Poster Presentation), Nanyang Technological University, Singapore.	6-8 June 2018, Singapore
15	Dr. Awaneesh Kumar Singh	3 <sup>rd</sup> International Conference on Soft Materials 2018; (Oral Presentation), Malviya National Institute of Technology, Jaipur, India.	9-14 December 2018, Jaipur
16	Dr. Pavan Kumar Aluri	Cosmology - The Next Decade (Workshop)	22-25 January 2019, ICTS-TIFR, Bangalore,
	Meetings		

## 3.5 Special lectures delivered by faculty members in other institutions (From 1st April 2018 to 31st March 2019)

S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
1	Prof. Debaprasad Giri	Polymer under solvent gradient	"Puri Polymer Conference" organized by Institute of Physics, Bhubaneswar	12-14 December 2018
2	Prof. Prabhakar Singh	Anode Materials for SOFC	IENI-CNR, Genova	27 <sup>th</sup> May to 9 <sup>th</sup> June 2018
3	Prof. Prabhakar Singh	Electrolyte Materials for SOFC : A Transformation from High to Low Temperature Operation	Department of Physics, Institute of Polytechnic and Engineering, Torino, Italy	27 <sup>th</sup> May to 9 <sup>th</sup> June 2018
4	Prof. Prabhakar Singh	A series of lectures	School of Physics, Shri Mata Vaishno Devi University, Jammu	September 2018 to August 2020
5	Prof. Prabhakar Singh	Effect of synthesis routes on the enhancement in conductivity of cathode material PrBaCo <sub>2</sub> O <sub>6-δ</sub> : SSR vs ACR	Hilton Daytona Beach Oceanfront Resort Daytona Beach, FL United States	27 <sup>th</sup> January 2019 to 1 <sup>st</sup> February 2019
6	Prof. Prabhakar Singh	Dynamics of Charge Particles in materials	Department of Physics, BHU, Varanasi	9 <sup>th</sup> March 2019
7	Prof. Prabhakar Singh	Registers and Counters	U.P. College, Varanasi	27 <sup>th</sup> March 2019
8	Dr Anita Mohan	Mysteries of the Sun: Our Own Star	IIIT Allahabad	11 <sup>th</sup> February 2019
9	Dr. A.K. Srivastava	Recent Advances on Understanding Various Energy Sources of Localized Solar Chromosphere and Corona	Astrophysics Resarch Centre, School of Mathematics and Physics, Queen's University, Belfast, UK	13 <sup>th</sup> December 2018
10	Dr. A.K. Srivastava	Some Novel Candidates for the Heating of The Localized Solar Corona	Armagh Observatory, UK	19 <sup>th</sup> December 2018
11	Dr. A.K. Srivastava	On the Discovery of New Energy Sources in the Sun's Atmosphere	APSLS-2019, Kumaun University	14 -16 March 2019
12	Dr. Rakesh Kumar Singh	Coherence waves interference to overcome phase recovery problem: in optical, crystallography and X ray imaging	Indian Institute of Technology Kanpur	20 <sup>th</sup> September 2018



S. No.	Name of faculty Member	Topic of Lecture	Institution	Date
13	Dr. Rakesh Kumar Singh	Un-conventional Imaging using correlation Optics	IISER – Pune	24 -27 December 2018
14	Dr. Rakesh Kumar Singh	Holographic imaging with a single pixel detector	Jaypee, Noida	14 -16 February 2019
15	Dr. Rakesh Kumar Singh	Stokes Holography: A new approach to see the unseen	NISER- Bhubaneswar	29 -30 March 2019
16	Dr. Avanish Singh Parmar	Application of Carbon Quantum Dots in Health, Energy and Environment	MANIT, Jaipur	09 -14 December 2018
17	Dr. Saurabh Tripathi	Eco-friendly Materials	Gramarshi Pandit Ram Kumar Pandey Gramoday Ashram Degree Collage, Saya, Ambedkar Nagar, Uttar Pradesh, India	06 <sup>th</sup> December 2018
18	Dr. Swapnil Patil	Magneto-transport and ARPES studies of few doped topological insulators	SRM Institute of Science and Technology, Kattankulathur, Chennai	17 <sup>th</sup> December, 2018
19	Dr. Somnath Nag	Tutor for DST SERB school on Nuclear Astrophysics	SINP Kolkata	11 <sup>th</sup> February 2019 to 02 <sup>nd</sup> March 2019
20	Dr. Sunil Kumar Singh	Photon conversion using coherent and incoherent light sources for strategic applications	Institute of Infrastructure Technology Research and Management Ahmedabad	05 <sup>th</sup> October 2018
21	Dr. Sunil Kumar Singh	Infrared to infrared photon upconversion through photostimulated luminescence	Motilal Nehru National Institute of Technology (MNNIT) Allahabad	23 <sup>rd</sup> December 2018
22	Dr. Gauhar Abbas	Fermionic mass hierarchy	CTP, Jamia Milia Islamia New Delhi	24 <sup>th</sup> December 2018

## **3.6 Visits abroad by faculty members** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Country Visited	Date of Leaving india	Date of Returning India	Purpose of Visit	Funding from
1	Prof. Prabhakar Singh	Italy	25 <sup>th</sup> May 2018	10 <sup>th</sup> June 2018	STM	CNR-IENI, Italy
2	Prof. Prabhakar Singh	USA	25 <sup>th</sup> Jan. 2019	03 <sup>rd</sup> Feb. 2019	ICACC_2019	CPDA
3	Dr. Abhishek K. Srivastava	USA	30 <sup>th</sup> April 2018	13 <sup>th</sup> May 2018	Research Collaboration	Indo-US Project
4	Dr. Abhishek K. Srivastava	Poland	4 <sup>th</sup> June 2018	16 <sup>th</sup> June 2018	Research Collaboration	UMCS, Lublin, Poland
5	Dr. Abhishek K. Srivastava	UK	9 <sup>th</sup> Dec. 2018	22 <sup>nd</sup> Dec. 2018	Research Collaboration	UKIERI
6	Dr. Sunil K. Mishra	Germany	17 <sup>th</sup> June 2018	18 <sup>th</sup> July 2018	Collaborative work	Germany
7	Dr. Saurabh Tripathi	China	23 <sup>rd</sup> June 2018	27 <sup>th</sup> June 2018	Workshop	CPDA and the the host
8	Dr. Awaneesh Kumar Singh	Singapore	5 <sup>th</sup> June 2018	9 <sup>th</sup> June 2018	Conference	CPDA
9	Dr. Bidya Binay Karak	Ethiopia	21st June 2018	25 <sup>th</sup> June 2018	Examiner of PhD thesis	Ethiopia



#### **3.7 Honours and awards** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Details of Award
1	Dr. Bidya Binay Karak	Ramanujan Fellowship from SERB/DST, total fellowship value 38 lacks.

#### 3.8 Fellowships of academic and professional societies (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Details of Fellowship
1		

#### **3.9 Books, monographs authored/co-authored** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Author/Co- Author	Title	Publisher

#### **3.10** Editorial boards of journals (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Position (Editor/ member)	Name of Journal
1	Dr. Abhishek K. Srivastava	Editor	Journal of Astrophysics and Astronomy

#### 4 Design and Development Activities

#### **4.1 New facilities added** (From 1st April 2018 to 31st March 2019)

S. No.	Details (Infrastructure, Equipments, etc.)	Value (in Lakhs of Rupees)
1	High Performance computer rack server (Qty. 02)	6.98
2	High performance computing cluster (6 Node), Rack & two computers with Linux OS	22.36
3	Computer Workstation	3.43
4	Geiger Muller Counter Circuit	0.89
5	Rheometer, Anton Paar	14.82
6	Polarizing Optical microscope	6.00
7	CCD Spectrometer	10.00
8	Laser (980 nm)	1.00
9	Furnaces	0.70
10	Pyrometer (Keithley 6517B)	7.48
11	Solar Simulator	7.03
12	Solartron Impedance Analyzer	~ 20.00
13	3 compute nodes for HPC facility of the Department (under DST-FIST programme)	~10.00

#### **4.2 Patents filed** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Title of Patent

#### 5 Research and Consultancy

#### 5.1 Sponsored Research Project (Ongoing only)

S. No.	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co-ordinator



S. No.	Title	Period	Funding Agency	Amount (in lakhs of Rs.)	Co-ordinator
1	ISRO-PLANEX project On "Study of Magnetospheric wave particle interaction, Aurora, Airglow, and conductivities on planets and their satellites.	2016-2019	ISRO	38.03	Prof. R. P. Singhal (Co-PI), Prof. O. N. Singh (Co-PI) & Prof. D. Giri (PI)
2	Investigations of Glass-ceramics for capacitive energy storage applications	2018-2021	CSIR	26.47	Prof. Prabhakar Singh
3	Investigations of new lead free perovskite materials for solar cells	2019-2022	DST SERB	38.09	Prof. Prabhakar Singh
4	Inference of Solar Variability across Scales: Connecting the Disparate Scales of Magnetism throughout the Solar Atmosphere	2017-2019	IUSSTF (Indo-US)	41.45	Dr. A.K. Srivastava (India); Prof. SW. McIntosh (USA)
5	The Sun under the Microscope - An Integrated Research Activity to Maximise the Science Return from a New Generation of Missions to Study the Sun	2018-2020	UKIERI (Indo-UK)	19.28	Dr. A.K. Srivastava (India); Prof. M. Mathioudakis (UK)
6	Generation and Analysis of light source with un-conventional correlation structure	28 <sup>th</sup> June 2018- 15 <sup>th</sup> June 2019	SERB	36.55	Dr. Rakesh Kumar Singh
7	Magnetization dynamics of antiferromagnetic nanoparticles arranged on geometrically frustrated arrays	2013-2019	DST	35.00	Dr. Sunil Kumar Mishra
8	Protein folding, unfolding and aggregation	2016-21	DST-SERB via Ramanujan Fellowship	38.00	Dr. Avanish Singh Parmar
9	Electronic structure evolution across quantum critical points in ${\rm Li}({\rm Ti}_{1-x}{\rm V}_x)_2{\rm O}_4$ and $({\rm Li}_{1-x}{\rm Zn}_x){\rm V}_2{\rm O}_4$	15 <sup>th</sup> March 2018-14 <sup>th</sup> March 2021	DST-SERB	55.00	Dr. Swapnil Patil
10	Thermalization and Non-Equilibrium Dynamics in Quantum Systems	2016-21	DST-SERB via Ramanujan Fellowship	38.00	Dr. Rajeev Singh
11	Modeling self-assembly and phase separation kinetics in the complex soft materials	25 <sup>th</sup> Oct 2018 to 24 <sup>th</sup> Oct. 2021	DST-SERB via ECRA	46.54	Dr. Awaneesh Kumar Singh

## 5.2 Industrial Consultancy Projects (Ongoing only)

S. No.	Name of Faculty Member	Title	Industry	Amount (in lakhs of Rs.)

## 5.3 Faculty member's participation with other universities under MoUs (Ongoing only)

## **5.4 Research Publications** (From 1st April 2018 to 31st March 2019)

S. No.	Papers Published/ Presented	No.
1	Papers Published in Refereed National Journals	1

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S. No.	Papers Published/ Presented	No.
2	Papers Published in Refereed International Journals	50
3	Papers Presented in National Conferences	3
4	Papers Presented in International Conferences	8

#### **5.5 Refereed International Journals** (From 1st April 2018 to 31st March 2019)

- 1. Manish Kumar, Vani Pawar, Priyanka A. Jha, S.K. Gupta, A. S. K. Sinha, Pardeep K. Jha and Prabhakar Singh (2019) Thermo-optical correlation for room temperature synthesis: cold sintered lead halides, J. Mater. Sci.: Mater. Electron. 30: 6071-6081 ISSN: 1573-482X.
- 2. Vani Pawar, Manish Kumar, Priyanka A. Jha, S.K. Gupta, Pardeep K. Jha and Prabhakar Singh (2019) Cs/MAPbI3 composite formation and its influence on optical properties, Journal of Alloys and Compounds 783: 935- 942 ISSN: 0925-8388.
- 3. Rishikesh Yadav, Vijay Kumar, Vipul Saxena, Prabhakar Singh, Vinay Kumar Singh (2019) Two-step synthesis of reduced graphene oxide with columnar-shaped ZnO composites and their photocatalytic performance with natural dye, J Aust Ceram Soc, https://doi.org/10.1007/s41779-018-00298-z ISSN: 2510-1560.
- 4. Saurabh Singh, Prabhakar Singh, Massimo Viviani, Sabrina Presto (2018) Dy doped SrTiO3: a promising anodic material in Solid Oxide Fuel Cells, Int J Hydrogen Energy, 43:19242-19249 ISSN: 0360-3199.
- 5. Dhananjay Kumar, B.P. Singh, Monika Srivastava, Prabhakar Singh, Anchal Srivastava and S.K. Srivastava (2018) Structural and photoluminescence properties of thermally stable Eu3+activated CaWO4 nanophosphor via Li+incorporation, J. Luminiscence 203: 507-514 ISSN: 0022-2313.
- Madhvi Swami, Onkar Nath Verma, Vandna Tomar, Manish Kumar, Kamal K Srivastav, Vasant Sathe, Priyanka A. Jha and Prabhakar Singh (2018) Correlation between piezoelectric and magnetic properties of Fe and Sm cosubstituted potassium niobate piezoelectric ceramics, Phys. Chem. Chem. Phys. 20: 18800-18810 ISSN: 1463-9076.
- 7. Vani Pawar, Pardeep K. Jha, S. K. Panda, Priyanka A.Jha and Prabhakar Singh (2018) Band-gap engineering in ZnO thin films: A combined experimental and theoretical study, Physical Review Applied 9: 054001 ISSN: 2331-7019.
- 8. Brijmohan Prajapati, Somnath Roy, Subhash Sharma, Amish G. Joshi, S. Chatterjee, and Anup K. Ghosh (2019) Bandgap Engineering and Signature of Ferromagnetism in Ti1xMnxO2 Diluted Magnetic Semiconductor Nanoparticles: A Valence Band Study, Phys. Status Solidi B, 1800262
- 9. Arkadeb Pal, Surajit Ghosh, Shiv Kumar, Eike F. Schwierb, Masahiro Sawada, Kenya Shimada, Mukul Gupta, D.M. Phase, A.K. Ghosh, Sandip Chatterjee (2019) Electronic structure by X-ray absorption spectroscopy and observation of field induced unusually slow spin relaxation from magnetic properties in pyrochlore Eu2–xFexTi2O7, J. Magn. Magn. Mater. 476, 7.
- 10. Gopal Sankar Kenath, Rekha Mahadevu, Anand Sharma, Vinod K. Gangwar, Sandip Chaterjee, Anshu Pandey, and Bhola N. Pal (2018) Shell Thickness-Dependent Tunable Threshold Voltage Single Quantum Dot Rectification Diode, J. Phys. Chem. C, 122, 3176–3181.
- 11. Arkadeb Pal, Abhishek Singh, A.K. Ghosh, Sandip Chatterjee (2018) High temperature spin-freezing transition in pyrochlore Eu2Ti2O7: A new observation from ac susceptibility, J. Magn. Magn. Mater 462.
- 12. S. Roy, Amish G. Joshi, S.Chatterjee and Anup K. Ghosh (2018) Local symmetry breaking in SnO2 nanocrystals with cobalt doping and its effect on optical properties:, Nanoscale 10, 10664.
- 13. Abhishek Singh, A. K. Ghosh and Sandip Chatterjee (2018) Antiferromagnetic Ordering at Room Temperature in Co-Doped Sb<sub>2</sub>Te<sub>2</sub> Topological Insulators, J. Supercond. and Novel Mater. 32, 299.
- 14. P. Kumar, R. Prasad, A. Choudhary, D. K. Gupta, V. N. Mishra, A. K. Vishwakarma, A. K. Singh & P. K. Srivastava (2018), Comprehensive evaluation of soil moisture retrieval models under different crop cover types



- using C-band synthetic aperture radar data, Geocarto International, DOI: 10.1080/10106049.2018.1464601
- 15. V.N. Mishra, R. Prasad, P.K. Rai, A. K. Vishwakarma, A. Arora, (2018). Performance evaluation of textural features in improving land use/land cover classification accuracy of heterogeneous landscape using multi-sensor remote sensing data, *Earth Science Informatics*, DOI:10.1007/s12145-018-0369-z
- 16. A. K. Vishwakarma, R. Prasad (2019). Bistatic specular scattering measurements for the estimation of rice crop growth variables using fuzzy inference system at X-, C-, and L-bands. *Geocarto International*, <a href="https://doi.org/10.1080/10106049.2019.1576777">https://doi.org/10.1080/10106049.2019.1576777</a>
- 17. A. Mishra, Dhananjay Pradhan, C.K. Behera, S. Mohan and A. Mohan (2018) Effect of pre-hot corrosion on erosion behavior of high chromium ferritic steel for heat exchangers, ASME Journal of Tribology, DOI:10.1115/1.4042391.
- 18. A. Mishra, C. K. Behera, S. Mohan, and A. Mohan (2018) Erosive Wear of 446SS Ferritic Steel: a potential material for heat exchangers application. Materials Research Express 5, no. 10.
- 19. A. Mishra, Dhananjay Pradhan, C.K. Behera, S. Mohan and A. Mohan (2019) Modeling and optimization of parameters for high-temperature solid particle erosion of the AISI 446SS using RSM and ANN, Materials Research Express, Volume 6 (2), 026513.
- 20. BK Singh, PC Pandey (2018), Tunable temperature-dependent THz photonic bandgaps and localization mode engineering in 1D periodic and quasi-periodic structures with graded-index materials and InSb, Applied optics 57 (28), 8171-8181.
- 21. P Kumar, AK Yadav, D Bhattacharyya, SN Jha, PC Pandey (2018), Lithium ion assisted luminescence and ferromagnetism in europium doped zinc oxide, Materials Chemistry and Physics 214, 306-319.
- 22. P Kumar, AK Yadav, AG Joshi, D Bhattacharyya, SN Jha, PC Pandey (2018), Influence of Li co-doping on structural property of sol-gel derived terbium doped zinc oxide nanoparticles, Materials Characterization 142, 593-601.
- 23. Upendra Kumar, Shail Upadhyay (2018) Studies on dielectric and electrical properties of Ruddlesden-Popper oxide Sr2SnO4, Materials Letters 227,100–103.
- 24. Nandini Jaiswal, Khgesh Tanwar, Rathod Suman, Devendra Kumar, Shail Upadhyay and Om Parkash (2019) A brief review on ceria based solid electrolytes for solid oxide fuel cells, Journal of Alloys and Compounds 781, 984-1005.
- 25. P. Kayshap, K. Murawski, A.K. Srivastava, B.N. Dwivedi (2018) Rotating Network Jets as Observed by IRIS, Astronomy & Astrophysics 616, A99.
- 26. P. Kayshap, K. Murawski, A.K. Srivastava, Z.E. Musielak, B.N. Dwivedi (2018) Vertical Propagation of Acoustic Waves in the Solar Inter-Network as Observed by IRIS, Monthly Notices of the Royal Astronomical Society, 479, 5512-5521.
- 27. L Suo, HQ Zhang, D.P. Choudhary, A.K. Srivastava, B.N. Dwivedi (2018) Super Penumbral Chromospheric Flare, Research in Astronomy & Astrophysics 18 No. 10, 130.
- 28. A.K. Srivastava, S.W. McIntosh, N. Arge, D. Banerjee, E. Cliver, M. Dikpati, B.N. Dwivedi, M. Guhathakurta, B.B. Karak, R.J. Leamon, P. Martens, S.K. Matthew, A. Munoz-Zaramillo, D. Nandi, A. Norton, L. Upton, S. Chatterjee, R. Mzumder, K. Yamini, R. Yadav (2018) The Extended Solar Cycle: Muddying the Waters of Solar/Stellar Dynamo Modeling or Providing Crucial Observational Constraints? Frontiers in Astronomy & Space Science 5, 38.
- 29. A.K. Srivastava, K. Murawski, B. Kuzma, D.P. Wojcik, T.V. Zaqarashvi, M. Stangalini, Z.E. Musielak, J.G. Doyle, P. Kayshap, B.N. Dwivedi (2018) Confined pseudo-shocks as an energy source for the active solar corona, Nature Astronomy, 2, 951-956.
- 30. R. Solanki, A.K. Srivastava, B.N. Dwivedi (2018), Study of two-stage coronal jet associated with a C1.4 class solar



- flare, Astrophysics & Space Science 363, 233, 12.
- 31. E. G. Kupriyanova, L.K. Kashapova, T.V. Doorsselaere, P. Chowdhury, A.K. Srivastava, Y.J. Moon (2019) Quasi-periodic pulsations in a solar flare with an unusual phase shift, Monthly Notices of the Royal Astronomical Society 883, 5499.
- 32. M. Dikpati, S.W. McIntosh, S. Chatterjee, D. Banerjee, A.K. Srivastava (2019) Triggering The Birth of New Cycle's Sunspots by Solar Tsunami, 2019, Nature Sci. Rep. 9, 2035.
- 33. Y.K. Rao, A.K. Srivastava, P. Kayshap, K. Wilhelm, B.N. Dwivedi (2019) Plasma Flows in Cool Loops, The Astrophysical Journal 874, 56.
- 34. S.K. Mishra, A.K. Srivastava (2019) The Evolution of Magnetic Rayleigh-Taylor Unstable Plumes and Hybrid KH-RT Instability into A Loop-like Eruptive Prominence, The Astrophysical Journal 874, 57.
- 35. S. Chatterjee, D. Banerjee, S.W. McIntosh, R.J. Leamon, M. Dikpati, A.K. Srivastava, L. Bertello (2019) Signature of Extended Solar Cycles as Detected from Ca II K Synoptic Maps of Kodaikanal and Mount Wilson Observatory, The Astrophysical Journal Letters 874, L4.
- 36. R. V. Vinu, K. Kim, A. S. Somkuwar, Y. K. Park, R. K. Singh (2019) Imaging through scattering medium using digital holography, Opt. Commun. 439.218-223.
- 37. S. Mishra, S. K. Gautam, D. N. Naik, Z. Chen, J. Pu, R. K. Singh (2019) Tailoring and analysis of vectorial coherence, J. Opt. 20,125605.
- 38. Gautam Kamalakar Naik, Rajeev Singh, and Sunil Kumar Mishra (2019) Controlled generation of genuine multipartite entanglement in Floquet Ising spin models, Phys. Rev. A 99, 032321
- 39. Satya Prakash Yadav, Kanchan Yadav, Jayeeta Lahiri, <u>Avanish Parmar</u> (2019) Ferroelectric liquid crystal nanocomposites: recent development and future perspective. Liquid Crystals Review, 6 (2), 143–169.
- 40. S. Bharadwaj, S. Pal, S. Choudhuri and P. Dutta (2019) A Tapered Gridded Estimator (TGE) for the Multi-Frequency Angular Power Spectrum (MAPS) and the Cosmological HI 21-cm Power Spectrum Monthly Notices of the Royal Astronomical Society, Volume 483, Issue 4, 11 March 2019, Pages 5694–5700.
- 41. Pritha Dolai, Aditi Simha and Shradha Mishra (2018), Phase separation in binary mixtures of active and passive particles, Soft Matter, 14 6137.
- 42. Rakesh Das, Manoranjan Kumar and Shradha Mishra (2018), Polar flock in the presence of random quenched rotators, Phys. Rev. E (R), 98, 060602.
- 43. S. Choudhuri, P. Dutta and S. Bharadwaj (2019) An Image-based Tapered Gridded Estimator (ITGE) for the angular power spectrum, Monthly Notices of the Royal Astronomical Society 483, Issue 3, Pages 3910-3918
- 44. P. Dutta, M. Nandakumar (2019) Estimating statistics of sky brightness using radio interferometric observations Research in Astronomy and Astrophysics Vol. 19 No. 4, 60
- 45. A K Choudhary, S K Singh, A Dwivedi, A Bahadur, S B Rai (2018) Enhanced upconversion emission of Er3+/Yb3+ and Er3+/Yb3+/Zn2+ doped calcium aluminate for use in optical thermometry and laser induced optical heating. Methods and Applications in Fluorescence 6: 035014
- 46. Gauhar Abbas, Diganta Das, Monalisa Patra (2018) Loop induced H-> WZ decays in the aligned two-Higgs-doublet model. Phys. Rev. D98, no.11, 115013. 2470-0010.
- 47. Gauhar Abbas (2019) A low scale left-right symmetric mirror model, Mod. Phys. Lett. A33, 1950119. ISSN: 0217-7323
- 48. B. B. Karak, S. Mandal, & D. Banerjee (2018) Double-peaks of the solar cycle: *An explanation from a dynamo model*, The Astrophysical Journal, 866, 17.
- 49. B.B. Karak & M. Miesch (2018) *Recovery from Maunder-like Grand Minima in a Babcock–Leighton Solar Dynamo Model*, The Astrophysical Journal, 860, L26 (2018).



- 50. K. Wilhelm, B.N. Dwivedi (2019) Gravitational redshift and the vacuum index of refraction, Astrophysics & Space Science 364, 26, 7 pp.
- **5.6 Refereed National Journals** (From 1st April 2018 to 31st March 2019)
- 1. A. K. Vishwakarma, R. Prasad, D.K. Gupta, P. Kumar, V.N. Mishra (2018). Ground based bistatic scatterometer measurement for the estimation of growth variables of ladyfinger crop at X-band. Journal of the Indian Society of Remote Sensing. Volume 46, Issue 6, pp 973–980
- **5.7 Proceedings of International Conferences** (From 1st April 2018 to 31st March 2019)
- 1. VP Yadav, R Prasad, R Bala, AK Vishwakarma, SA Yadav 2018. Estimation of biophysical parameters of wheat crop through modified water cloud model using satellite data. ISPRS Ann. Photogramm. Remote Sens. Spatial Inf. Sci. IV-5:239-244.
- 2. R Bala, R Prasad, VP Yadav, J Sharma, 2018, A comparative study of land surface temperature with different indices on heterogeneous land cover using landsat 8 data, Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XLII-5, 389-394, https://doi.org/10.5194/isprs-archives-XLII-5-389-2018.
- 3. J Sharma, R Prasad, VN Mishra, VP Yadav, R Bala, 2018, Land use and land cover classification of multispectral landsat-8 satellite imagery using discrete wavelet transform, Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XLII-5, 703-706, https://doi.org/10.5194/isprs-archives-XLII-5-703-2018.
- 4. SA Yadav, R Prasad, AK Vishwakarma, VP Yadav, 2018. Random forest regression for the estimation of leaf area index of okra crop using ground based bistatic scatterometer, Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XLII-5, 719-725, https://doi.org/10.5194/isprs-archives-XLII-5-719-2018.
- 5. BK Singh, PC Pandey, V Rastogi, 2018, Tunability of temperature dependent THz photonic band gaps in 1-D photonic crystals composed of graded index materials and semiconductor InSb, AIP Conference Proceedings 1953 (1), 060038.
- 6. Sajad Ali, S. Rajbanshi, Prithwijita Ray, Abhijit Bisoi, Somnath Nag, S. Saha, J. Sethi, T. Trivedi, T. Bhattacharjee, S. Bhattacharyya, S. Chattopadhyay, G. Gangopadhyay, G. Mukherjee, R. Palit, R. Raut, M. Saha Sarkar, A. K. Singh, A. Goswami, 2018) Deexcitation of three particle three hole structure in \$^{142}\$Eu, Proc. Of the DAE Symp. On Nucl. Phys. 63, pg 210.
- 7. Somnath Nag, Anwesha Basu, I. Ragnarsson, A. K. Singh (2018) Alignment gain through shape-coexistence in \$^{123}Xe, Proc. Of the DAE Symp. On Nucl. Phys. 63, pg 272.
- 8. A. Basu, A.K. Singh, S. Nag, G.B. Hagemann, G. Sletten, B. Herskind, T. Døssing, I. Ragnarsson, H. Hübel, A. Bürger, S. Chmel, A.N. Wilson, J. Rogers, M.P. Carpenter, R.V.F Janssens, T.L. Khoo, F.G. Kondev, T. Lauritsen, S. Zhu, A. Korichi, P. Fallon, B.M. Nyakó, J. Timár (2018), Exploring the Highly-deformed Band Structures in \$^{123}\$ Xe, Shapes and Symmetries in Nuclei: from Experiment to Theory, 10.
- **5.8 Proceedings of National Conferences** (From 1st April 2018 to 31st March 2019)
- 1. Dhruvil S Hapani, Pragati Singh, Pardeep K Jha, Prabhakar Singh "A comparative electrical conductivity behaviour of BaTiO3 and CaTiO3 ceramics." AIP conference Proceeding 2009, 020010 (2018), National Conference on Advanced Materials and Nanotechnology (AMN-2018) March 15-17, 2018, India organized by Department of Physics and Materials Science & Engineering Jaypee Institute of Information Technology, Noida.
- 2. Vani Pawar, Manish Kumar, P. K. Dubey, Prabhakar Singh "Formation of TiO2 nano-rods by hydrothermal synthesis method", AIP conference Proceeding 2009, 020020 (2018), National Conference on Advanced Materials and Nanotechnology (AMN-2018) March 15-17, 2018, India organized by Department of Physics and Materials Science & Engineering, Jaypee Institute of Information Technology, Noida.
- 3. Vandna Tomar, Priyanka A. Jha, Prabhakar Singh, "Effect of processing conditions on the piezoelectric constant and Curie temperature of Ba0.7Sr0.3TiO3 piezoelectric ceramics", AIP Conference Proceeding 2009, 020009 (2018), National Conference on Advanced Materials and Nanotechnology (AMN-2018) March 15-17, 2018,



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#### 5.9 Brief Details of 5 Articles from the Department/School with maximum no. of Citations in last 5 years

- 1. A Review on Structure of Glasses by Raman Spectroscopy, A. K. Yadav, **Prabhakar Singh,** RSC Adv5 (2015) 67583. [I.F.-3.84] (Citations:157)
- 2. SK Singh, Red and near infrared persistent luminescence nano-probes for bioimaging and targeting applications, RSC Advances 4, (2014) 58674-58698 **Citations: 99**
- 3. Enhanced up-conversion and temperature-sensing behaviour of Er³+ and Yb³+ co-doped Y₂Ti₂O₂ by incorporation of Li⁺ ions, B.P. Singh, A.K. Parchur, R.S. Ningthoujam, P.V. Ramakrishna, S. Singh, **Prabhakar Singh,** S.B. Rai, R. Maalej, Physical Chemistry Chemical Physics 16 (2014) (41), 22665-22676. [I.F.-4.493] (Citations:88)
- 4. Enhanced photoluminescence in CaMoO<sub>4</sub>:Eu<sup>3+</sup> by Gd<sup>3+</sup> co-doping, B. P. Singh, A. K. Parchur, R. S. Ningthoujam, A. A. Ansari, P. Singh and S.B. Rai, Dalton Transactions, 43 (12) (2014) 4779-4789. [I.F.-4.197] (Citations:70)
- 5. Structural and up-conversion properties of Er³+ and Yb³+ co-doped Y₂Ti₂O٫ phosphors, B. P. Singh, A.K. Parchur, R.K. Singh, A.A. Ansari, **P. Singh** and S. B. Rai, Physical Chemistry Chemical Physics, 15 (2013) 3480. [I.F.-4.493] (Citations:56)

#### 5.10 Distinguished Visitors

S. No.	Name of the Visitor & Designation	Date of Visit	Purpose of Visit
1	Professor Jayanta K. Bhattacharjee Distinguished emeritus fellow at Indian Association for cultivation of science, Kolkata India.	11-15 March 2019	To give a series of Lectures to students and researchers on "Dynamic renormalisation group and its applications"
2	Dr. D.D. Sarma, Professor	22-25 February 2019	Conference
3	Dr. Keiji Numata, Professor	22-25 February 2019	Conference
4	Dr. Lissy K. Krishnan, Professor	22-25 February 2019	Conference

#### 6. Other Activities

#### **6.1 International collaboration/achievements by the Department/School** (From 1st April 2018 to 31st March 2019)

- 1. KAIST South Korea, Huaqiao University, Xiamen China
- 2. Professor Mihalis Mathioudakis, Astrophysics Resarch Centre, School of Mathematics and Physics, Queen's University, Belfast, UK in the frameowork of UKIERI.
- 3. Prof. S.-W. McIntosh, Director, High Altitude Observatory, NCAR, Boulder, Colarado, USA in the frame-work of IUSSTF (Indo-US) Joint R&D Networked Center (IUSSTF-JC-011/2016).
- 4. Prof. Bart De Pontieu and Dr. Sanjeev K. Tiwari, LMSAL, Palo Alto, USA.

#### **6.2 Indian Faculty visited in the Department/School** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue	

#### **6.2 Foreign Faculty Visits in the Department/School** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue	
1	Dr. Sanjiv K.Tiwari, LMSAL, USA	Collaborative Research	29-30 January 2019	

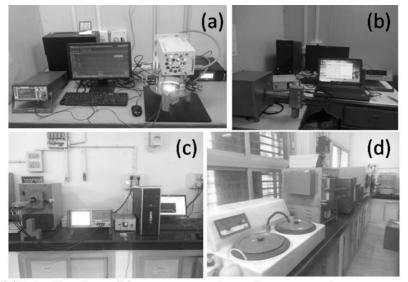
#### **6.3 Foreign Students Visits in the Department/School** (From 1st April 2018 to 31st March 2019)

S. No.	Name of Faculty Member	Purpose of Visit	Date and Venue	



## Any other Information:

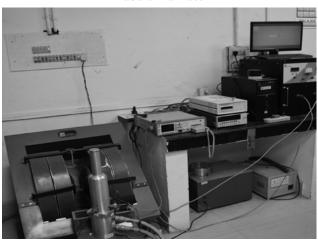
## Glimpses of Laboratory/ Equipments in the Department/School.



(a) Solar Simulator, (b) pyrometer and transference number measurement system (c) LCR meter and (d) high temperature furnaces in Green energy Physics and Solid State Ionics Lab



Tubular Furnace



Closed cycle cryocooler with high field magnet



Rheometer



# 23. Centre for Computing and Information Services (CCIS)

Year of Establishment: April, 2017

**Head of the Centre:** Prof. Rajeev Srivastava (w.e.f. 01 August 2017)

#### **Background:**

Centre for Computing and Information Services inaugurated on 6<sup>th</sup> April 2017 has been established as a central facility to provide 24x7 digital backbone to the Computing, Web, Email and Network services of the institute. Centre for Computing and Information Services offers high-end computational servers, high availability web servers, network services and provides a robust platform for various academic and research importunities of the institute. Licensed software, email services and in-house software development for the institute needs are also managed by the Centre. CCIS is one of the growing unit and projects are in early stage for developing it into a facility centre poised horizontally to meet the crescent demand of computerization and software solution required for scientific and research infrastructure of the institute.

#### **Services Offered:**

#### 1. Computing:

#### Service -

Management of the user login and authentication to all the compute nodes. Running multiple software and their license servers. We have licenses of following software running on our servers:

Matlab, Mathematica, Ansys Multiphysics, Statistica, Origin Lab, CST- Studio, Gaussian, Chem Office, MedeA VASP, CASA XPS, Simula Abacus etc. User can login to the compute nodes and run their application using available purchased licensed software or open source software.

#### Hardware -

Three Compute Servers are available for providing the computing facility to all the students and faculty members of the Institute. Server are having following configuration:

- 1x Dell R-930 Server: Populated with 4x18 core of Intel Xeon E7-8870 v3 @ 2.10 GHz processor with 45MB L3 Cache, 256GB DDR4 RAM, 8 x 1.2TB 15K hot plug SAS, 01 NVIDIA Tesla P4 GPU
- 3xDell R-730 Server: Populated with 2x10 core of Intel® Xeon® processor E5- 2660v3 @ 2.60 GHz with 25MB L3 Cache, 2U Form factor, 128 GB DDR4 RAM, 3 X 600GB 15K hot plug SAS, 01 NVIDIA Tesla K 40C
- 1xDell R-540 Server: 2 X Intel® Xeon® Silver 4114 2.2G, 10C/20T, 9.6GT/s, 96GB RAM, 3 X 600GB 10K RPM SAS 12Gbps HDD
- 1xDell R-440 Server: 2 X Intel® Xeon® Gold 6132 2.6G,14C/28T,10.4GT/s, 12 X 16GB RAM, 3 X 600GB 10K RPM SAS 12Gbps HDD
- GPU Computer Server: Populated with 2 x Intel Xeon E5-2609 v4 (8 Cores, 20M Cache, 1.70 GHz), 128GB DDR4 RAM, 8 Nos. NVIDIA GeForce GTX-1080Ti 11GB GDDR5x, 3584 CUDA cores.

#### 2. Storage:

#### Service -

Providing space for the storage requirement for running scientific and research applications of the faculty and students. It is integrated with webservers to provide space for Institute website and other portals, network Servers/ Switches over NAS, being managed by CCIS.

#### Hardware:

• **Dell SC4020 Storage with FS8600 NAS:** Two controllers running in an active-active mode with automatic failover to each other in case of one controller failure with 20 TB on SAS 10K RPM drives and 100 TB on



NL-SAS drives with 105 TB raw capacity (Approx. 70TB usable considering the RAID overhead).

#### 3. Web Services

#### Services:

Two primary web servers are running in High Availability for hosting our Institute website. These servers are configured with RHEL Operating System. Institute's website is built in-house and it has replaced several small websites running earlier on different domain and servers making it a truly one website of IIT(BHU). It incorporates all the departments, school, units, offices and covers all the activities governed by the institute placing a uniform structure throughout. In addition, it has decentralized access for website content modification and individual login for all the faculties to maintain their profile.

In the session 2018-19, two more web servers has been installed and configured with Centos and Windows Server Operating Systems.

#### Hardware:

- 2xDell R-730 Server: Populated with 2x10 core of Intel® Xeon® processor E5- 2660v3 @ 2.60 GHz with 25MB L3 Cache, 2U Form factor, 128 GB DDR4 RAM, 3 X 600GB 15K hot plug SAS
- 2xDell R-440 Server: 2 X Intel® Xeon® Silver 4114 2.2G, 10C/20T, 9.6GT/s, 96GB RAM, 3 X 600GB 10K hot plug SAS

#### 4. Email Services

Facilitating with email services to the all faculty members, students and staff of the institute using G Suite for Higher Academic Institution. Services includes email services, classroom, unlimited google drive space etc. The entire users are allocated in various groups as per their department, section, offices, and designation, restricting them access over individual groups for sending emails.

#### People at CCIS:

S. No.	Name	Designation
1	Prof. Rajeev Srivastava	Professor & Head CSE Dept. and CCIS
2	Mr. Roshan Singh	System Analyst
3	Mr. Mahesh Pandey	System Analyst
4	Mr. Ritesh Singh	Junior Assistant

#### **Conclusion:**

As per the available statistics, the students, faculty members and other research staff of the Institute are heavily using the software facilities hosted on the servers. After establishment of the unit, further, an extended server area has been created for hosting more servers. More compute nodes and webservers has been added this year to enhance the compute and hosting facilities at CCIS. We are continuously in process of enhancing the services available at CCIS to meet the compute and web hosting facilities available at CCIS.



## 24. Library

#### Year of Establishment: 1978

#### 1. Introduction

The Indian Institute of Technology (Banaras Hindu University), Varanasi library system consists of the Main Library, and five departmental libraries, which collectively support teaching, research and extension programs of the institute. All students, faculty members, and employees of the institute are entitled to make use of the library facilities on taking library membership. The library, besides having an excellent print collection of over 1,39,871 volumes of books, journals, theses, reports, standards, pamphlets, it also provides access to over 8,000 electronic journals and more than 2000 of electronic books and databases in science, engineering, and technology.

#### 2.Library Hours

## Weekdays:

08:00 AM to 11.00 PM including Saturday and Sunday

Government Holidays: 09:30 AM to 6:00 PM

#### 3. Acquisition Unit

Collection building is one of the important functions of the library that supports the academic and research work of the students, faculty, staff, and other users. Library collection comprising of books, journals, theses, reports, standards, pamphlets and other reading material in science, engineering, technology, humanities, social sciences, and management is considered one of the best in the country and is its greatest asset. The total collection of the library as on March 2019 stands as follows:

Sl No	Category	Number
1	Books (Reference and General)	90,537
2	Text Book Bank	22,446
3	ST/SC Book Bank	8,740
4	Bound Volume of periodicals	17,738
5	Theses	552
6	Dissertation	561
7	Compact Disc	1200

For purchasing of books Rs. 12,74,775 were utilized, and 419 volumes were added during this financial year. This year, Rs. 85,909 has been deposited against the loss of 50 books and Rs .44,166 against the overdue charges. The library administration motivated retired faculty and passed out students to donate books to the library. As a result, this year, the library received 269 references and Text Books costing Rs. 1,61,468.

#### 4. Periodical Section

Periodical Section procures and maintains print and online journals for the academic need of the Institute. In this financial year, Rs. 6,75,92,278 has been utilised for the subscription and renewal of online/print journals, standards, and databases. The following journals, databases, and Standards, are accessible.

#### Database

- Journal Citation Reports (JCR)
- InCites
- ➤ MathSciNet
- SciFinder Scholar

- Scopus
- Springer Materials
- ➤ Web of Science



#### **Standards**

- > ACI MCP
- ➤ Indian Standards(BIS)

#### **E-Books**

- > ASM Handbook Online
- ➤ Wiley Online

- ► IEC
- ➤ ASTM Standards

## > Royal Society of Chemistry

#### **E-Journals**

The Main Library provides web-based access to more than 15,000 full- text journals and 07 databases 24x7 on the institute-wide network as follows:

Name of Publisher/Journal	Remarks
ACM Digital Library	ACM journals (42+), conference proceedings, magazines, newsletters, and multimedia titles.
Actapress	International Journal of Power and Energy Systems
American Concrete Institute	Materials, Structural, Concrete International & Symposium Volume ACI MCP, Materials Journals, ACI Structural Journal, ACI Concrete International, ACI Symposium Volumes
American Chemical Society	49 journals with Legacy Archive for Universities.
American Institute of Physics	It provides access to 19 full-text journals in the area of physics  Backfiles access: 1997+
American Mathematical Society	The AMS journals package includes 15 online journals published by AMS including 6 open access journals.  Backfiles Access: 1999 onwards
American Physical Society	The current collection includes access to 13 leading peer-reviewed research journals.  Backfile Access: All
American Scientific Publishers	Advance Science, Engineering and Medicine
American Society of Civil Engineers (ASCE)	It publishes 33 journals, contains over 1, 70,000 bibliographic records of everything ASCE has published since 1970.
American Society of Mechanical Engineers (ASME)	ASME collection provide access to 29 journals including a complete package for ASME journals + AMR.
Bentham Science	Bentham Life science collection 59 titles.
De Gruyter	1.International Journal of Nonlinear Sciences and Numerical Simulation 2. Functional calculus and Applied Analysis
Emerald Engineering Collection	59 Journals of Engineering collection.  Backfiles Access: 1994 Onwards
Foundry Trade Journal	Foundry Trade Journal
IEEE - IEEE/IET Electronic Library (IEL)	The IEEE Xplore digital library provides access if more than 467 journals, 72 magazines, more than 8000 conference proceedings and stamdards.
IET	IET Journals offers a range of over 30 research titles, 3 letters journals and a gold open access mega journal (Including Conferences)  Backfiles Access: 10 years back files
Inderscience	International Journal of Exergy     International Journal of Nanomanufacturing



Name of Publisher/Journal	Remarks
Indian Geotechnical Society	Indian Geotechnical Journal
Informa Healthcare	1. Drug Development and Industrial Pharmacy 2. Pharmaceutical Biology 3. Expert Opinion on Drug Delivery
Institute of Materials, Minerals and Mining	Advances in Applied Ceramics: Structural, Functional and Bioceramics
IOP	It provides access to 76 full-text journals in the area of physics.  Backfiles Access: 10 years rolling back
Jove	1. Jove Bio-Engineering 2. Jove Engineering
JSTOR	JSTOR Archive provides access to more than 2500 journals and primary content on access fee basis.
Microwave Journals	Microwave Journals
NACE International	Corrosion
NRC Research Press	Canadian Journal of Civil Engineering Back File: 1996 onward
PNAS	Proceedings of the National Academy of Sciences of the United States of America, publishes more than 3200 paper annually.
Nature	Nature
Royal Society of Chemistry	It provides access to RSC Gold 2018 Excluding Archives with 51 full-text journals/magazines/alerting services.  Backfiles Access: 2008
SAGE	Imech collection 17 titles.
ScienceDirect	Nine Subject collections (Access to 1233 titles) Chemical Engineering Chemistry Computer Science Engineering Environmental Science Material Science Mathematics Pharmacology, Toxicology and PharmaceuticsPhysics and Astronomy
Science Online	Only Science Magazine
SIAM	SIAM publishes 17 peer-reviewed journals.  Backfile Access: 1997 onwards
SPIE Digital Library	Journal of Applied Remote Sensing
Springer	Springer: 1700 titles
Springer Nature	Access of 17 titles.
Taylor & Francis	Access of 62 titles.
The Optical Society of America	17 flagship, partnered, and co-published journals; OSA's magazine, Optics & Photonics News; and the conference proceedings from all of OSA's Topical Meetings <b>Backfiles Access: Vol 1. Issue 1</b>
Wiley Online Library_	Access of 144 titles.



#### **Research Support Tools**

- Grammarly (Writing Enhancement Tools)
- > Turnitin (Anti-Plagiarism Software)
- > Endnote (Reference Tool)
- ➤ InCites ( Database to analyze institutional productivity and benchmark your output against peers worldwide)

#### 5. Technical Services Unit:

Even after an acute shortage of staff at the technical section, we decided to switch over to the DDC classification scheme from the existing CC classification scheme. More than 3500 volumes have been classified and catalogued using the classification scheme DDC. We have planned to convert all the books into DDC in due course of time.

#### 6. Circulation Unit:

Main Library is open from 8:00 am to 11.00 pm hrs on all days. The circulation section provides a borrowing facility from 9:30 am to 6:00 pm Monday to Friday. The library membership increased by about 15% to more than 7000, including students, faculty and staff. From this year, the upper limit of borrowing of books for students, faculty and staff have increased by more than 50% and the loan period extends for 180 days for faculty and class one staff and 90 days for other grade staff.

#### 7. Computer-Aided Reference Service Unit:

Until date, we are not able to develop a computer-aided reference service unit. However, an email "libraryservies@ iitbhu.ac.in" dedicated to all types of reference has been created for any type of ready reference services.

## **8 Library Automation**

Most of the library operations are automated. Library provides OPAC and circulation services using the library software "LibSys7". The Web OPAC address is *http://opac-lib.iitbhu.ac.in/opac/* where anyone can search the available list of books. The mobile app "Search" is also active now and can be downloaded on the Android platform from the play store. This mobile app uses your Cellular data to search the library collection. The users are getting a notification through the mail for their check-ins, checkouts, a reminder for overdue of issue books. Now the library is planning to implement the RFID system for library circulation.

#### 9. Initiative for Digital Library

The Library is the part of the Institute Network and has adequate computing infrastructure including 60 computers to cater to the needs of the users. The library home page (<a href="https://www.iitbhu.ac.in/cf/lib">https://www.iitbhu.ac.in/cf/lib</a>) a single window to all its resources and services, serves as a popular interface between users and the library. The library has its Institutional Digital Repository, and the repository is part of the National Digital Library. The Library has also created a separate digital library section which has 48 desktop computers. The Library is fully Wi-Fi enabled.

Remote access facility is also available. The library also provides a single search facility and Document Delivery service through J Gate.

#### 11. Any Other Information/Activities

#### 11. 1. Seminar / Conference/Workshop Organized

### • Workshop on TURNITIN cum user awareness program.

The Main Library IIT(BHU) in association with TURNITIN conducted a Workshop on Anti-plagiarism software "TURNITIN" on, 8th September 2018. A technical resource person from the "Turnitin" conducted the session. The workshop was very fruitful for research scholars, and they interacted and raised their issues with the resource person. More than 200 participants (Research Scholar and Faculty) attended the Workshop.





Librarian's Day Celebration -12th Aug 2018 at Main Library, IIT (BHU).

The Library on 12th August 2018 celebrated Librarians day with the library staff. 12th August is celebrated as Librarian's Day in India, in remembrance of national professor of library science, Dr S R Ranganathan's birthday. The Deputy Librarian and Assistant Librarian highlighted the contributions of Dr Ranganathan towards the development of the library profession in India.



#### **Exhibition of Hindi Books During Hindi Pakhwara**

The Main Library exhibited Hindi book from 4<sup>th</sup> to 15<sup>th</sup> September 2018 to celebrate the Hindi Pakhwara. During the exhibition period, students and faculty visited the exhibition area and appreciated the initiative of the library.





 Wiley Author Workshop: Structuring your manuscript to impress SCI journal editors and responding to reviewer comments.

The Main Library IIT(BHU) in association with John Wiley & Sons, Inc. conducted an "Author Workshop: Structuring your manuscript to impress SCI journal editors and responding to reviewer comments" on, 24th October 2018. A technical resource person (Dr Yateendra Joshi) from the John Wiley & Sons, Inc conducted the session. The workshop was very fruitful for research scholars and PG students; they interacted and raised their issues with the resource person. More than 200 participants attended the Workshop.



#### 11.2 Conference, refresher course attended/ article published/Book chapter contribution by Staff.

- Chakraborty.K, A. (2018) "Technical Library of Civil Aviation Industries, Requirements and Overview", International Conference on Exploring the Horizons of Library and Information Science: From Libraries to Knowledge Hub, DRTC, Indian Statistical Institute, Bangalore, ISBN. 978-93-5311-726-9, 7-9 August 2018.
- Upadhyay, N. Chakraborty, K. Upadhyay, S. (2019) "Awareness, Attitude and Perception of Anti-plagiarism Software Among the Faculty and Research Scholars: A case study of Indian Institute of Technology (Banaras Hindu University), Varanasi" International Conference on "Changing Landscape of Science & Technology Libraries (*CLSTL* 2019)" IIT Gandhinagar, 28<sup>th</sup> Feb 2<sup>nd</sup> March -2019. (Poster presentation)

### 11.3 Conference/ workshop attended

- Mr Kanu Chakrabarti, the Assistant Librarian, attended the International Conference on Exploring the Horizons of Library and Information Science: From Libraries to Knowledge Hub, DRTC, Indian Statistical Institute, Bangalore, 7-9 August 2018.
- Dr Navin Upadhyay, Deputy Librarian, attended the International Conference, "Changing Landscape of Science & Technology Libraries (CLSTL 2019)" IIT Gandhinagar, 28th Feb – 2nd March -2019
- Dr Navin Upadhyay, Deputy Librarian participated and attended in the Elsevier eBook Forum 2018 (South Asia) at Sri Lanka 22 & 23 May 2018.

#### 11.4 Lecture/Talk Delivered as an Expert/Resource Person/Chaired Session

- Dr Navin Upadhyay, Deputy Librarian, delivered a lecture as a resource person for the Faculty Induction Program (FIP) under the aegis of Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) Scheme, organized by TLC, IIT (BHU) from January 28 February 26, 2019.
- Delivered lecture on Changing Role of the Library in the ICT at Department of Library & Information Science, Vinoba Bhave University, Hazaribagh, Jharkhand on 2nd June 2018

#### 11.3 Infrastructure/facility developed during the year

The first floor of the library building is fully functional with the seating capacity of 500 students. The reading halls are well furnished and every table has a power extension so that the students can charge their laptops. The Library building is fully Wi-Fi enabled. There is also a separate room for faculty to use the rich library resources. The periodical Section and the digital library section is benefiting the students to enhance their knowledge. After renovation of the ground floor Book stacks have been properly arranged and a separate section "Collaborative learning Space cum Discussion Room" have been created. Separate space for Property counter has been created outside the library with approx 500 bag keeping facility.



Entrance area



New Arrival section





Periodical Section



Reading hall



Faculty Reading hall



Reading Hall 1



e-Library



Collaboration/Disscussion Space



Collaboration/Disscussion Space



Stack area



## 25. Student Life

#### Students' Activities and Achievements

The Institute nurtures technical, social, cultural, and sporting activities pursued by the Students' Gymkhana through different councils, Students' Parliament and other student groups. Besides games and sports, the artistic and creative talents of students are encouraged through various activities like dramatics, debates, music, visual arts, etc. and clubs like Radio, Audio, Photography, Automobile, Aero-Modeling, Cine and Computer Club. Students Gymkhana successfully organized its annual techno-management festival Technex, cultural festival Kashi Yatra & games event Spardha. Apart from these, students of IIT(BHU) participated in various IIT meet and brought laurels to the Institute.

#### (i) Cultural Activities

IIT Roorkee hosted the third 'Inter IIT Cultural Meet' in December 2018, with many IITs participating in this cultural extravaganza. The IIT BHU Contingent bagged the fifth position in the Overall Championship and stood first in Stage Play and English poetry competition along with being the Overall Dramatics Winner among all IIT teams. The 7th edition of the IIT(BHU) Model United Nations (MUN) conference was organized in September 2019. The United Nations Information Centre officially recognizes this conference for India and Bhutan. Delegates from across the nation deliberated to solve real-world diplomatic relations and the foreign policy issues of the different countries.

The disciplines of music, literature, and arts came together in the three-day-long cultural festivals of IIT(BHU), Kashiyatra 2019. There was a multi-fold increase in participation this year. All seven clubs of the Council organized and participated in a wide variety of events.

#### (ii) Games and Sports Activities

The Games and Sports Council of our institute participated in various tournaments in the past year and bagged a total of 37 medals in the external tournaments comprising of Inter IIT Sports Meet 2018 held at IIT Guwahati where we secured an overall 8th rank, Sportstech IIT Delhi 2019, Sangram IIT Roorkee 2019 and Spree BITS Goa 2019. For the very first time, Para events were also organised in the Inter IIT Sports Meet and our contingent won 2 medals in the para powerlifting event. The works of a new Sports Indoor Complex in Rajputana ground and installation of new lights in Handball and Kho-Kho courts are expected to be completed soon. The 2019 edition of Spardha partnered with UNICEF to spread awareness for social causes which was presided by guests like Mandeep Jangra.

#### (iii) Activities by Science and Technology Council:

Council initiated and undertook various projects to provide innovative solutions to real-world problems. These include TrashCash, Q-Lock, Tesla Coil, Asteroid Mining which is a theoretical project which provides an innovative and economic mechanism for extraction of metals on asteroids in space and many others. A contingent was also sent to participate in the 7th Inter IIT Tech-Meet held in IIT Bombay in which we bagged an overall 5th position among 23 participating IIT's returning with 2 silver and 4 bronze medals.

The council also organised the 80th edition of Technex'19 the techno-management festival of IIT BHU. About 1000+ participants from 150 institutions from all over India took part in 40+ events. Events range from Startup Battle, Robonex, Supernova Riqueza, Pahal, Extreme Engineering, Byte the Bits, Ascension relating to various club activities of the council. This edition of Technex also organised Think Talks by various eminent personalities like RS Sodhi, Ajit Balakrishnan and also a video conference by Garrett Brown.

#### (iv) Activities by The Film & Media Council:

FMC has taken many initiatives for the upcoming sessions which include the development of Media Club's official website which is a work under progress, launch of a new podcast series (candid video interviews of college personalities), New article series which comprises of Distinguished Alumni, What's up this summer, Tastes of India, Placement Diaries to make students aware about the general difficulties faced in placement exams and interviews and Video series of Centenary Celebrations for interaction between alumni and students. In 2018 Inter IIT Cult



Meet held at IIT Kanpur the contingent won the 3rd, 4th and 5th positions respectively in offline, online short film making competitions and screenwriting competitions respectively. Also the Photography club performed well in Inter IIT and bagged 2nd price for Online photography competition, 3rd price for Online photostory and bagging 2nd position in overall photography.

The council also organised FMC Weekend which had events of varying artforms encompassing the domains of Photography, Film-making, Animation, Design, Outreach and Media also including Photowalk through the streets of Varanasi with Ganesh Vanare and session with Binal Shah with students exploring the world of animation and VFX. Other notable guests being Sejal Bhatt: the comedian and Amitabha Singh.

#### (v) Social Service:

The institute believes that an abiding social and human engagement is the hallmark of its student body. Students are involved in social service with underprivileged sections of society through Kashi Utkarsh where they conduct science experiments, art and craft activities in regular curriculum along with Navodaya classes. The educational awareness club Sahyog celebrated Daan Utsav in first week of October in campus as well as the children of construction workers where they organised many sub-events such as Rally in Tikri village on educational awareness, Nukkad natak in Tikri village etc. also resulting in establishment of a library. Social Projects Club participated in Social Innovation Challenge held at IIT Delhi gave technological solution for blind and came second in the event and also worked kn projects like Bio-Dry cell which provides a technological solution for addressing the waste management and power generation from the waste in a green and compatible manner. The Health and Hygiene Club conducted a medicine collection drive in the campus and the volunteers visited Nasirpur, Patia and Kakkarmatta bastis and educated the women residing over there about menstruation and healthy habits alongwith working on trying to provide them with quality sanitary napkins at affordable prices.

#### (vi) E-cell

E-Cell is a platform for the promotion of entrepreneurship among the students of IIT BHU. With a Vision of "Help will be given to those who see it" we are helping and creating a Startup Ecosystem, building relations for promotion of Startups and Entrepreneurship at IIT BHU. E-Cell organized several B Plan Competitions, Workshops, hackathons and Interactive sessions from High-end speakers and entrepreneurs. It also ran a startup 101 course where curated online lectures on design thinking, compliance, etc needed for setting up a company were provided. This year Cell is hosting the E-Summit'20 the annual Entrepreneurial festival to celebrate entrepreneurship along with the aid of our Alumni Fraternity.

#### (vii) SAIC

The collaborative and symbiotic linkage between IIT (BHU) Varanasi and its Alumni, SAIC was established in 2015, with a vision to develop a vibrant community, creating opportunities for benefit of the commonweal. Standing by its motto: Connect, Engage, Celebrate, SAIC has grown multi-fold and remains dedicated to the goal of knitting together the fabric of the IIT BHU Fraternity.SAIC has organised 1500+ Alumni visits, 800 mentorships, 15+ reunions and various off campus student Alumni interactions. The Centenary Celebrations, Global Alumni Meet 2019 and Global Alumni Meet in USA, was carried out by SAIC which cemented foreign connections and significantly improved the worldwide image of IIT BHU. These two historic meets became the biggest on-ground platforms for knitting together the fabric of IIT BHU Fraternity. The one of its kind Alumni Visiting Faculty Program, has brought the Alumni Community closer wherein full-credit courses are taught by Alumni as part of curriculum. Apart from various services and intiatives for Alumni, SAIC successfully launched its website for convenience and easy accessbility. The cell leaps forward and is significantly improving interaction three-fold, among the institute, student and Alumni.



# 26. Scholarship

## **DATA FOR ANNUAL REPORT-2018**

## -IN ENGLISH-

List of Ph.D. Scholars/M.Tech./M.Pharm./IDD/IMD who are receiving Teaching Assistantship/Stipend for the Session 2018-19 as per record available in Scholarship Section (Approx.)

	Session 2018-19 as per record available in Scholarship Section (Approx.)							
Sl. No.	Name of Departments/Schools	JRF @Rs. 25,000/- p.m.	SRF @Rs. 28,000/- p.m.	M.TechI	M.TechII	IDD		
1.	Mining Engineering	21	11	27	18	5		
2.	Ceramic Engineering	27	8	13	11	8		
3.	Civil Engineering	29	27	58	34	17		
4.	Bio-Chemical Engineering	7	13	8	9	8		
5.	Humanistic Studies	3	6	-	-	-		
6.	Electronics Engineering	25	8	31	37	-		
7.	Mechanical Engineering	46	16	33	42	18		
8.	Physics	23	17	-	-	10		
9.	Mathematical Sciences	27	12	-	-	12		
10.	Electrical Engineering	25	7	40	44	23		
11.	Materials Science & Technology	13	4	17	11	9		
12.	Chemical Engineering	29	17	45	43	-		
13.	Bio-Medical Engineering	11	11	8	7	9		
14.	Metallurgical Engineering	26	16	35	19	12		
15.	Pharmaceutical Engineering & Technology	18	17	39	33	5		
16.	Chemistry	25	18	-	-	8		
17.	Computer Science & Technology	29	23	-	-	15		
	Total	384	231	354	308	159		



## -IN ENGLISH-

List of B.Tech who are receiving Scholarship for the Session 2018-19 as per record available in Scholarship Section (Approx.) SI. Name of Scholarship 2017-18 2015-16 2016-17 2018-19 Total No. **Batch for** Batch for Batch for Batch for Students 2019-20 2019-20 2019-20 2019-20 197 197 1. Merit-cum-Means Scholarship SC 2. 6 Central Sector Scholarship Top ST 4 4 Class Student IPA Ramabhai Foundation 3. 3 Scholarship BENCO-64 Scholarship 4. 1 1 1 4 2 8 4 5. N.C. Jain Scholarship 6 20 76 Batch Scholarship 1 1 1 3 6. 7. Jag Mohan and Manju Bansal 4 4 8 Scholarship Kasi 1981 Alumni Foundation 8. 12 17 29 Scholarship 9. Bihar Scholarship 40 40 149 10. U.P. Scholarship 149 11. MMVY Scholarship, M.P 60 60 National Scholarship (Bihar, SC, 207 12. 207 ST, Minority etc.) Rajasthan Scholarship 13. 28 28 E-kalyan Scholarship, Jharkhand 14. 1 1 15. E-Pass Scholarship, Himachal 2 2 Pradesh 16. PMSSS Scholarship, J&K 4 4 17. UGC Ishaan Uday Scholarship 2 2 for NER CM Fellowship Yojna 18. 4 4 (Jharkhand) 19. ONGC Scholarship 2 2 20. EIL Scholarship 4 2 6 21. Samsung Star Scholarship 10 9 24 43 22. NHFDC Scholarship 10 8 18 NTSS-National Talent Search 23. 4 1 5 11 Scheme **OPJEMS Scholarship** 24. 3 3 6 12 Miscellaneous Scholarship 25 25. 25 **Total** 233 32 78 542 888



## 27. Student Placements

### Introduction:

**About Placement Week:** 

#### DETAILS OF PLACEMENT

Starting Date Of Placements	01st December, 2018
Total No. Of Companies Visited For Placements	186
Total Job Offers Made	995
Students Receiving 2 Offers	108
Students Receiving More Than 2 Offers	20
Students Receiving More Than 3 Offers	3
Pre Placement Offers	150
Highest Placement Package Offered	152.00 LPA
Lowest Placement Package Offered	3.50 LPA
Average Package For Eligible Students	11.49 LPA

# **Total Eligible Students for Placements:**

Name of Department/ School	B. Tech	IDD	IMD	M. Tech	M. Pharm.	Ph. D
Ceramic Engg.	40	10	-	6	-	6
Chemical Engg.	106	-	-	36	-	8
Civil Engg.	72	17	-	34	-	1
Computer Engg.	64	19	-	-	-	2
Electrical Engg.	84	25	-	24	-	15
Electronics Engg.	90	-	-	25	-	9
Mechanical Engg.	103	22	-	30	-	5
Metallurgical Engg.	56	19	-	12	-	3
Mining Engg.	80	7	-	16	-	1
Pharmaceutics	28	8	-	-	31	6
Biochemical Engg.	-	11	-	9	-	5
Biomedical Engg.	-	10	-	6	-	4
SMST	-	10	-	10	-	7
Chemistry	-	-	11	-	-	3
Mathematics	-	-	22	-	-	2
Physics	-	-	7	-	-	5
TOTAL	723	158	40	208	31	82

**Total Eligible Students =** 1242



## Details of the number of students placed during 2018-19:

Name of Department/ School	B. Tech	IDD	IMD	M. Tech	M. Pharm.	Ph. D
Ceramic Engg.	36	7	-	1	-	-
Chemical Engg.	84	-	-	19	-	-
Civil Engg.	43	13	-	6	-	-
Computer Engg.	63	18	-	-	-	-
Electrical Engg.	72	24	-	11	-	-
Electronics Engg.	87	-	-	17	-	1
Mechanical Engg.	84	20	-	12	-	-
Metallurgical Engg.	45	14	-	1	-	-
Mining Engg.	65	4	-	1	-	-
Pharmaceutics	20	4	-	-	15	-
Biochemical Engg.	-	4	-	-	-	-
Biomedical Engg.	-	6	-	2	-	2
SMST	-	6	-	-	-	-
Chemistry	-	-	7	-	-	-
Mathematics	-	-	22	-	-	-
Physics	-	-	5	-	-	1
TOTAL	599	120	34	70	15	4

Total No. of Students Placed in the year 2018-19 =



# 28. International and Alumni Relations

- 1. **Introduction :** The Resource & Alumni office of the Institute works for the functions as delineated by the Director of the Institute (Vide letter No. IIT (BHU)/2014-15/504/L Dated 9<sup>th</sup> September 2014 and Subsequent modification. The following works/functions are carried out as
- I. Planning, Allocation and Monitoring of existing infrastructure and reorganization.
- II. (a). Alumni Processes and Functions [through Student Alumni Interaction Cell (SAIC)]
- III. (b).Gandhi Technology Alumni Centre-Guest Houses Including GRTA. (Through Coordinator, GTAC).
- IV. Local and Regional (Varanasi) Alumni Interaction.
- V. Seeking and Raising Endowments.
- VI. Newer Dimensions.
- VII. Green Cell (through Chair Green Committee).
- VIII. An IRO (International Relation Office): The Committee will work towards establishing congenial and intimate relation of the Institute with National, International Universities and other Research and Academic Organizations, aiding the contraction of Memorandums of Understanding with them
- 2. <u>Vision</u>: The institute aspires to be a harbinger of modern interdisciplinary technological advancement in the country and at a forefront of imparting quality education by use of innovative pedagogy culminating traditional with contemporary methods. The institute also envisions building best in class infrastructure that not just attracts outstanding faculty, staff and students but also help institute to create an atmosphere for developing technologically astute professionals with a strong entrepreneurial spirit.
- 1. Pursuance of Value Based Excellence in Science & Technology Education and Research.
- 2. To serve Humanity through enlightened and morally sound human capital.
- 3. To contribute to the development of the nation by solving the problems of the nation and society at large.
- 3. <u>Mission</u>: IIT(BHU) is committed to imparting quality education using modern teaching methods and by designing curriculum that is abreast with latest technological advancements in the industry. The institute continually pursues to solve complex societal problem and to support the nation in its march towards technological advancement. The institute is steadfast and resolute in creating an environment aimed at learning and development of students, faculty and staff alike. The institute continues to produce innovative research papers regularly published in leading world-renowned journals and magazines. IIT (BHU) is also forging new alliances with other institutions and is engaged in inter disciplinary technology advancement to solve key society and national problems. Broadly, IIT (BHU)'s mission is:-
- 1. To groom the next generation of thought leaders.
- 2. To impart high quality of research & innovation oriented education to enable students to solve challenging grand problems of the future.
- 3. To conduct innovative, fundamental and interdisciplinary research geared towards solving the societal problems while aligning with regional, national and international priorities.
- 4. To regularly interact and engage with Industry, Professionals, R&D establishments, Alumni and the Society to meet National and Regional needs as may be identified by Government of India, and concerned State Governments.
- 5. To collaborate and interact with Institutions of higher learning at Global and National Levels for enriching the Academic and R&D processes, activities and functionalities.



#### 4. Objectives:

- 1. To produce highly motivated and confident graduates for serving the nation and humanity.
- 2. Continuous engagement of Industry, Professionals, R&D establishments, Alumni and the Society.
- 3. Collaboration and interaction with Institutions of higher learning at Global and National Levels for enriching the academic and R&D processes, activities and functionalities.
- 4. Working for National and Regional needs as may be identified by Government of India, and concerned State Governments.

#### 5. Events

#### **Centenary Celebration:**

When the nation was striving towards independence, the legendary – Bharat Ratna Pt. Madan Mohan Malaviya had envisioned a future for India and founded the premier centre of multidisciplinary education- the Banaras Hindu University in the land of Lord Shiva. During the years, 1919-1924, the university started various engineering departments (earlier known as BENCO, MINMET and TECHNO), which were later integrated during 1969-1971 into Institute of Technology (IT-BHU). In 2012, it was converted into Indian Institute of Technology, Banaras

Hindu University, Varanasi with the vision of imparting world class engineering education, research and innovation.

Our proud institution commemorates its glorious journey of 100 Golden years of Engineering Education at Banaras Hindu University. Several events have been planned and some of them have already been well executed as part of the Centenary Celebrations during the year(s) 2018-2020. One of the biggest of those events was our Centenary Institute day (Basant Panchami 10th Feb,2019) and Global Alumni Meet (9th Feb - 12th Feb, 2019).

Global Alumni Meet 2019 was a one of its kind event which marked its presence over the world through the widespread alumni community of IIT (BHU). The success of Global Alumni Meet was not as much in its magnitude, Media presence or Sponsor Recognition as was in the number of families it reconnected. The objective with which the Centenary Celebrations began was evident in the joyful faces when families met, got nostalgic, relieved their memories and felt rejuvenated.

Global Alumni Meet 2019 was an impressive 4-day event which commenced from 8th Feb to 12th Feb 2019. Organized by the Student Alumni Interaction Cell, GAM 2019 had the accomplished goal of expanding the Alumni Community and establishing stronger bonds between the institute and its alumni. The Grand Meet began with Institute and Varanasi City visits for Alumni who had reached campus a day prior to the inauguration ceremony.

The inauguration ceremony saw various alumni, students and faculty in the audience. The dais had Hon'ble Chief Minister Of Uttar Pradesh SHRI YOGI ADITYANATH JI as the Chief Guest. The day went ahead with workshops by AWS-INTEL and Open House exhibition by Science and Technology Council. A busy day with Welcome Alumni address, Introduction of Clubs, Cells, etc, and then a cultural night, the perfect way call it a day.

Day 2 began with a splendid BASANT PANCHAMI JHAKI which saw participation from the alumni community, student fraternity and faculty of the institute. A march past till Malaviya Bhavan, it refreshed memories and in words of many alumni "brought the old days back." After a heavy lunch, everyone attended the Golden Jubilee Celebration of 1969 Batch. The first day of knowledge conclaves, panel discussion was indeed beneficial for the institute and the students. The NEXT100 sessions were very interactive and gave conclusions for shaping the next 100 years of the institute. Alumni Giving back session was successfully executed. The day set with a SPICAMAY cultural night to entertain the audience.

Day 3 was important with regards to vision of alumni and institute for the next 100 years. The day saw the celebration of past 100 years of engineering marvel and nation building with Awards of various categories being given. The Chief Guest for the Awards Ceremony was

Hon'ble Minister Shri Manoj Sinha ji who is also an alumnus of Civil 1979 Batch. After the Valedictory, Department Visits, Knowledge Conclave, Panel Discussion on the Next100 Start ups of IIT (BHU), it was time for the Vote of Thanks. The Global Alumni Meet ended with an exuberant Kavi Sammelan and an enthusiastic group of alumni and



students visiting the MAHAKUMBH at PRAYAGRAJ.

The 4 day celebration with a footfall of over 500 people had ended. It was a delight to watch how smiles were accompanied with tears in these 4 days. Apart from some flaws that might have occurred, the student fraternity was praised for its effort and management skills which again exemplified the bright future of IIT(BHU). The intention and task with which this began was well attained when crying faces left the campus only to come back to relive their moments, enjoy their nostalgia and see how swiftly time flew away.

#### Important Highlights of Global Alumni Meet (GAM) 2019:

**Inauguration of PARAM SHIVAY:** As a mark of recognition of Centenary Celebrations of the institute, HON'BLE PRIME MINISTER SHRI NARENDRA MODI inaugurated The SUPECOMPUTER PARAM SHIVAY of 833 teraflop capacity built at the cost of Rs 32.5 crore under the National Super Computing Mission at IIT (BHU), Varanasi.

**POSTAL STAMP:** To commemorate the occasion of 100 Golden Years of IIT(BHU), HON'BLE PRIME MINISTER SHRI NARENDRA MODI inaugurated a postal stamp and postal album which bore a picture of the main building of IIT(BHU).

**BENCO CHIMNEY:** Mr. P Ramachandran, a benevolent alumnus, took the initiative to re-erect the BENCO chimney as a mark of restoration of pride and heritage of 100 year history of IIT(BHU). The chimney will be formally inaugurated shortly.

#### SOME NEW INITIATIVES AND DONATIONS AFTER GAM 2019:

- 1) Shalini and Ajay Sharma Foundation started this an initiative which will support the students of Pharmaceutical Engineering and Technology and Applied Sciences through monetary funds. This scholarship will be awarded to two deserving students every year—one from the Department of Pharmaceutical Engineering and Technology and the other from applied sciences, Department of Pharmaceutical Engineering and Technology. The scholarship will be provided in the form of monetary funds to support students for core-research internships, to participate in conferences, or for any other academic purpose.
- 2) Donations of Rs.1,00,000 and Rs. 21,000 were made to Shatabdi Kosh by Shri Ramesh Srivastava and Shri Jai Narayan respectively.
- 3) Donation of Rs. 6,84,820 for Jag Mohan and Manju Bansal Scholarship by IIT(BHU) Global Alumni Association and of Rs. 5,00,000 by Shri Ramesh P Singh and Alka Singh for Late Dr. R. N. Singh and Mrs. Uma Singh Medal.
- 4) Donation of Rs. 3,50,000 by Shri Mumbai Patidar Samaj for KAF-1981 Scholarship.
- 5) Donation of Rs. 37,00,000/- and Rs. 2,50,000/- by Benares Alumni Association and Shri Nitin Malhotra ji respectively for Research Activities in IIT(BHU).
- 6) Donation of Rs. 1,00,000 for Best Masters (M Tech./ MS) thesis Award in Power System by Prof. Suresh Chandra Srivastava.

#### Other Reunions: NA

- **6. Distinguished Alumnus Awards:** Awarded by the Organizing Committee , of the Global Alumni Meet, involving functionaries of Alumni Association , on the occasion of Centenary Celebration.
- 7. Other Activities: 8th International Conference on Human Values in Higher Education (ICHVHE-2019), on the theme "Character Building through Universal Human Values" were also organized during the period, in which delegates from attend the Conference.

#### 8. Lecture Series:

Sl. No.	Date	Speaker	Topic
1	28th September 2018	Prof. Pankaj Chandra (Vice-Chancellor of Ahmedabad University, former director of IIM Bangalore)	



Sl. No.	Date	Speaker	Торіс
2	October 11, 2018	Dr. Sudhir Mishra Director General (BrahMos), DRDO, Ministry of Defence and CEO&MD, BrahMos Aerospace	India's journey in the missile program
3	November 12, 2018	Prof. Gautam Desiraju, Professor in Solid State and Structural Chemistry, IISc Bangalore	The alchemy of India's contribution to chemistry
4	January 14, 2019	Mr. Sanjay Sethi CEO ShopClues	Envisioning Entrepreneurial Ecosystem in Engineering Institutions for next 100 years
5	January 18 and 19	Prof. C. K. Raju a Renowned Mathematician and Theoretical physicist	Teaching Alternative Mathematics: Rajju Ganit and Calculus without Limits
6	February 05, 2019	Prof. Yoginder Chugh Emeritus Professor, Mining and Mineral Resource Engineering, Southern Illinois University, USA	Why Universities in 21st Century Must Engage in Research and Creative Activities"

## 9. Funds received

S. No.	Name of Person/Trust	Amount of Donation	In favour of	Туре	Purpose
1	Kasi Alumni Foundation	Rs. 2,00,000/-	Registrar, IIT (BHU)	Endowment	KAF-1981 Scholarship
2	Shri Gautam Chaklader	Rs. 30,711/-	Registrar, IIT (BHU)	Endowment	KAF-1981 Scholarship
3	Ms Deepali Sehrawat	Rs. 20,00,000/-	Registrar, IIT (BHU)	Endowment	Tower Research Capital Scholarship
4	Prof. Suresh Chandra Srivastava	Rs. 2,20,000/-	Registrar, IIT (BHU)	Endowment	Best Masters (M. Tech/MS) thesis Award in Power System
5	IIT BHU Global Alumni Association of IIT (BHU)	Rs. 6,69,785/-	Registrar, IIT (BHU)	Endowment	Jag Mohan and Manju Bansal Scholarship
6	Shri Ramesh Sharma	Rs. 10,001/-	Registrar, IIT (BHU)	Endowment	N. P. Gandhi Chair
7	IIT BHU Alumni Association of Western India	Rs. 65,000/-	Registrar, IIT (BHU)	Endowment	Shatabdi Kosh
8	IIT BHU Alumni Association of Western India	Rs. 1,40,000/-	Registrar, IIT (BHU)	Endowment	Shatabdi Granthagar
9	Shri Ramesh Srivastava	Rs. 1,00,000/-	Registrar, IIT (BHU)	Endowment	Shatabdi Kosh
10	IIT BHU Global Alumni Association of IIT (BHU)	Rs. 6,84,820/-	Registrar, IIT (BHU)	Endowment	Jag Mohan and Manju Bansal Scholarship
11	Shri Jai Narayan	Rs. 21,000/-	Registrar, IIT (BHU)	Endowment	Shatabdi Kosh
12	Shri Ramesh P Singh & Alka Singh	Rs. 5,00,000/-	Registrar, IIT (BHU)	Endowment	Late Dr. R. N. singh & Mrs Uma Singh Medal
13	Shri Mumbai Patidar Samaj	Rs. 3,50,000/-	Registrar, IIT (BHU)	Endowment	KAF-1981 Scholarship
14	Benares Alumni Association	Rs. 7,00,000/-	Registrar, IIT (BHU)	Endowment	Research Activities in IIT
15	Benares Alumni Association	Rs. 30,00,000/-	Registrar, IIT (BHU)	Endowment	Research Activities in IIT
16	Shri Nitin Malhotra	Rs. 2,50,000/-	Registrar, IIT (BHU)	Endowment	Research Activities in IIT
	Total	Rs. 89,41,317/-			



#### 10. Year- wise funds & Donors

	Total Funds from Alumnus (in lakhs of Rupees)	Total No. Of Donors
2009-10	NA	NA
2010-11	NA	NA
2012-13	NA	NA
2013-14	NA	NA
2014-15	Approximately Rs. 60 Lakhs	1 (IBGAA)
2015-16	Rs. 524.55 Lakhs	10
2016-17	Rs. 122.14826 Lakhs	9
2017-18	Rs. 60,53,644/-	6
2018-19	Rs. 89,41,317/-	16

#### 11. Report of Gandhi Technology Alumni Centre (GTAC), IIT (BHU) for the session:

#### **About**

Gandhi Technology Alumni Centre (GTAC) has been established in 2007 with the help of alumni's of IIT(BHU) for the purpose of providing stay to guests which includes alumni's, employees, students etc. Since then it has been a long journey till now. It has developed a lot from then.

#### **Present Admin:**

Dr. Rajeev Kumar Singh (Coordinator)

#### **Total No. of Rooms:**

There are total 72 rooms in GTAC, which includes 4 suites and 68 rooms. All rooms are air conditioned and have basic facilities like TV, telephone, two beds, table and chairs etc.

#### Canteen:

A canteen is also there to provide breakfast, lunch, dinner, tea, snacks etc. to the staying guest.

#### **Waiting Room:**

A waiting room is also there so that guest can meet someone or wait for the time being. Also it serves purpose of meeting room in required condition.

#### Hall or Conference room:

A large hall is also there for conferences, meeting, seminars etc. for the student or faculty.

## **Programmes & Activities in GTAC:**

- Provided stay to the guest during Centenary Celebrations of the Institute.
- Provides stay to the Alumni's and guest during alumni meet of IIT (BHU) alumni's.
- Provides stay to the participants Of QIP programmes of different departments of IIT (BHU).
- Provides stay to the participants of IIT cultural programmes like Spardha and KashiYatra.
- Provides stay to the participants of programmes like Technex.
- Provides stay to the parents of the students taking admission in IIT(BHU) or parents coming to meet their children.
- Provides stay to the friends and relatives of the IIT's faculty member and non-faculty members.
- Provides stay for the departmental programmes of IIT (BHU).



#### **Development works during session 2018-19:**

- Ground floor rooms were renovated and maintained. Like painting of walls, tiling of floor, maintenance of wardrobes, windows, doors etc. has been done. Bathrooms were renovated too.
- All rooms are now connected to institute local intercom system.
- All the room attendants and canteen were given proper dress to wear during working hour.
- Full renovation work of Suite F20 has been done which includes painting, polishing of furniture's, electrical maintenance etc.
- Renovation of Canteen is on-going which includes tiling, painting, chimneys installation, air ducting etc. to make canteen more clean and hygienic.
- Also there are renovation works of front desk and entry door is on-going which includes installation of automatic sensor door and wooden works on the front desk.
- Card payment method adopted in guest house.

#### 12. Travel Grants Awarded: NA



# - 29. Research and Development

## 29.1. List of Running Sponsored Projects in FY 2018-19

S. No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency	Total Amount sanctioned		
Scho	ol of Biochemical Engineering					
1	Development and evaluation of an innovative poly herbal Bi layer wound dressing material	Dr. Pradeep Srivastava	DRDO	₹ 3,203,200.00		
2	Construction of Cold Inducible Expression System	Dr. Ashish Kumar Singh	DBT	₹ 3,610,300.00		
3	Enhancement of Lipid Content in Microalge Scenedesmus Obliquus Using Genetic Engineering Tool: a step towards biodiesel	Dr. Ashish Kumar Singh	CST	₹ 450,000.00		
4	Screening of novel antibiotics from the metagenome of Himalayan glacial soil	Dr. Ashish Kumar Singh	DRDO	₹ 3,987,500.00		
5	Screening of Novel Psychrophilic alkaline Protace from the metagenoime of Antartic soil	Dr. Ashish Kumar Singh	SERB	₹ 1,904,410.00		
6	Flow and segregation of granular materials out of hoppers and two & three dimensional devices	Dr. Vishal Mishra	CST-UP	₹ 1,044,000.00		
7	Identification of Gene Responsible for Degradation of Poly (Ethylene Terephthalate) in Ideonella sakaiensis	Dr. Ashish Kumar Singh	DBT	₹ 4,043,200.00		
8	Targeted drug delivery of methotrexate/gallic acid- folate conjugated Poly L-Lysine nanoparticles	Dr. Abha Mishra	DBT	₹ 3,461,200.00		
9	Strategies towards generation of functional tissue engineered construct for orthopedicapplications	Prof. Pradeep Srivastava	SPARC (MHRD)	₹ 2,325,950.00		
	Total			₹ 24,029,760.00		
Scho	ol of Biomedical Engineering					
10	Development of Microfluidic tools for neuromuscular synatogenesis and nanotoxicological studies	Dr. Sanjeev Kumar Mahto	DST	₹ 3,500,000.00		
11	Nanoparticles supported self Assembled Conducting Polymer Monolayer Based Platform for Rapid Detection of Monosodium Glutamate in Food Products	Dr. Marshal	DBT	₹ 3,492,000.00		
12	Neem seed based nanocapsules and nanomedicine for targeted drug delivery and cancer therapy	Dr. Pradip Paik	SERB	₹ 4,046,000.00		
13	Funcional-hollow-porous-bipolymer based Nanoformulations and Interventions for treatment of Cancer and prevention of Tuberculosis, concept of nanomedicine with multiple drugs for multiple diseases	Dr. Pradip Paik	DST	₹ 5,218,094.00		
	Total					
Depa	rtment of Ceramic Engineering					
14	Design Development & characterization of porous Ti/SiO2 composite with tailored microstructure fabricated by powder metallurgy using rice husk and sucrose as space holder for orthopaedic applications	Dr. Kalyani Mohanta	DBT	₹ 1,560,000.00		



		Name of Faculty		
S. No.	Title of the Project	(Principal Investigator)	Name of the Funding agency	Total Amount sanctioned
15	Novel Electrode Materials for Reversible alkali –ion (Li+/Na+) capacitors and Pseudocapacitors	Dr. Preetam Singh	SERB	₹ 3,665,245.00
16	Development of glasses as plant nutrients	Prof. Ram Pyare	SERB	₹ 4,205,520.00
17	Development of high Thorough put Processing route for CIGS PV absorber films by spray pyrolysis of Pre- synthesised Nanoparticle Ink	Dr. M.I. Ahmad/ Dr. S. Das	SERB	₹ 4,603,010.00
18	Cold sintered ferroelectric polymer Ceramic Nano composites for Energy Storage	Dr. AkankshaDwivedi	SERB	₹ 5,491,695.00
19	Development of rare earth free ceramic magnet with high energy and curie temperature for motor applications	Dr. Pradip Kr. Roy	SERB	₹ 4,522,100.00
20	Combined effect of dynamic electrical stimulation and surface charge on cellular functionality of electrovector and piezoelectrically toughened bioceramics	Dr. Ashutosh Kr. Dubey	SERB	₹ 4,322,680.00
21	Development of Hgh Alumina(Al2O3) & DOPED High Alumina materials for Ceramic Catridge Applications	Dr. Santanu Das	Yantransh	₹ 60,500.00
22	Seamless synthesis of large-area 2D transition metal di-chlcogenide semiconductors and their applications in next-generation high-performance optoelectronic devices	Dr. Santanu Das/ Dr. BholaNath Pal	SERB, New Delhi	₹ 4,989,600.00
	Total			₹ 33,420,350.00
Depa	rtment of Chemical Engg. & Technology			
23	NOx Removal from Diesel Exhaust by combined NOx storage Reduction and NH3 SCR System	Dr. Sweta	SERB	₹ 2,735,000.00
24	Development & Evaluation of Infrared Nanoparticles for Cellular-wide sensitive E-field Mapping	Dr. Manoj Kumar	DST Nano Mission	₹ 5,152,965.00
25	Pyrolysis of Biomass for the Producation of Bio-oil: Experimental and Computational Study	Dr. J.P. Chakraborty	DST	₹ 2,350,000.00
26	Removal of Benzene, Toluene, Ethylbenzene & Xylene (BTEX) using Adsorption & Bioremediation	Prof. R.S. Singh	SPARC (MHRD)	₹ 5,402,420.00
27	A C	111	CEDD	₹ 2.761 E00.00
	A Stack development of untilized regenerative Proton Exchange Memberance Fuel Cell for Large Scale Production of Ultra Pure Hydrogen Fuel, Oxygen using Solar Energy & uninterrupted Power	Dr. Hiralal Pramanik	SERB	₹ 3,761,500.00
28	Exchange Memberance Fuel Cell for Large Scale Production of Ultra Pure Hydrogen Fuel, Oxygen	Dr. Hiralal Pramanik  Dr. Vijay Maruti Shinde	SERB	₹ 3,229,430.00
28	Exchange Memberance Fuel Cell for Large Scale Production of Ultra Pure Hydrogen Fuel, Oxygen using Solar Energy & uninterrupted Power  Controlled synthesis of MoO3 nanoparticles inside mesoporous materials for oxidative dehydrogenation	Dr. Vijay Maruti		
	Exchange Memberance Fuel Cell for Large Scale Production of Ultra Pure Hydrogen Fuel, Oxygen using Solar Energy & uninterrupted Power  Controlled synthesis of MoO3 nanoparticles inside mesoporous materials for oxidative dehydrogenation of organic moleciles with CO2  Fabrication of low-cost High-through out Flow	Dr. Vijay Maruti Shinde	SERB	₹ 3,229,430.00
29	Exchange Memberance Fuel Cell for Large Scale Production of Ultra Pure Hydrogen Fuel, Oxygen using Solar Energy & uninterrupted Power  Controlled synthesis of MoO3 nanoparticles inside mesoporous materials for oxidative dehydrogenation of organic moleciles with CO2  Fabrication of low-cost High-through out Flow Cytometer using tunable nanolenses.	Dr. Vijay Maruti Shinde	SERB	₹ 3,229,430.00 ₹ 5,209,600.00



S. No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency	Total Amount sanctioned
31	De Novo Synthesis of orthogonally protected uronic acid building blocks: Access to various important oligosaccharides	Dr. Jeyakumar Kandasamy	SERB	₹ 2,800,000.00
32	Photolabile Protected Monosaccharides: Syntehsis and Application to Oligosaccharides Synthesis Using a Continuous flow	Dr. Jeyakumar Kandasamy	Germany	₹ 4,462,460.00
33	Photolabile Protected Monosaccharides: Syntehsis and Application to Oligosaccharides Synthesis Using a Continuous flow	Dr. Jeyakumar Kandasamy	DST, New Delhi	₹ 4,570,400.00
34	Development of portable electrochemical sensor hydrogen peroxide	Prof. P.C.Pandey	BRNS Mumbai	₹ 3,492,750.00
35	Metal hexacyanoferrate modified screen printed electrodes for the removal of radio nuclides	Prof. P.C.Pandey	DRDO	₹ 4,171,680.00
36	Detailed lacture based curriculum development for science subjects as part of Induction Programme in AICTE COLLEGES	Dr. Indrajit Sinha	AICTE	₹ 1,152,000.00
	Total			₹ 25,841,690.00
Depa	artment of Civil Engineering			
37	Propagation & Mitigation model of mixed road traffic noise for planning od mid- sized Indian Cities	Dr. Brind Kumar	MHRD IMPRINT	₹ 37,300,000.00
38	INSPIRE Faculty Award	Dr. Manash Chakraboratory	DST	₹ 3,500,000.00
39	Smart & Integrated Pedestrian System Design	Dr.Ankit Gupta (Co-PI)	MHRD, MoUD, GMR Airport Developers (Ltd), Vikram Solar Pvt. LTd	₹ 933,206.00
40	Active Vibration Control of Smart Composite and Sandwich Structures in hydro-thermal Environment	Dr. Rosalin Sahoo	SERB	₹ 1,908,940.00
41	Development and assessment of asphalt mastic from typical Indian & Austrian filler materials with a new test method	Dr. Nikhil Saboo	DST	₹ 950,000.00
42	Investigation on dynamic response analysis of shallow foundation resting on pond ash deposits	Dr. Supriya Mohanty	SERB- ECRA	₹ 3,614,600.00
43	River-aquifer Exchanges & hydrogeological study for watershed management of Betwa Rain Basin	Dr. Shishir Gaur	DST	₹ 2,451,000.00
	Total			₹ 50,657,746.00
Depa	artment of Computer Engineering			
44	A Robust medical image forensics system for smart healthcare	Dr. Tanima Dutta	SERB	₹ 1,407,870.00
45	Efficient Generation of a Query-Specific Extractive Summary on Multiple Documents – A Distributive Approach	Dr. Ravindranath howdary	SERB	₹ 1,664,000.00
46	Incorporating Intelligence in Email System	Dr. Ruchir Gupta	BRNS	₹ 1,368,000.00
		<del></del>		



S. No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency	Total Amount sanctioned
47	Development of an energy –efficient wireless sensor networks for precision agriculture	Dr. H.P. Gupta	DST	₹ 3,417,130.00
	Total			₹ 7,857,000.00
Depa	rtment of Electrical Engineering			
48	Mix Energy Mix energy Source Electric Vehicle Charging System Design and its Impact on Indian Smart –distribution - grid	Dr. R.K.Singh	DST	₹ 9,449,500.00
49	Design, Development and Performance Analysis of Silicon Carbide Converter for Aerospace Application	Dr. Santosh Kumar Singh, PI	SERB	₹ 2,392,000.00
50	Design,Modeling and simulation of linear induction drive for Propulsion Apploication	Prof. R.K.Srivastava	DRDO	₹ 1,000,000.00
51	Construction of Non-monotonic Lyapunov Function for the Dynamical Systems governed by differential inclusions	Dr. Shyam Kamal	SERB	₹ 660,000.00
52	Design and Development of a smart Energy Grid Architecture with Energy storage	Prof. R.K. Pandey	DST	₹ 21,386,000.00
Total				₹ 34,887,500.00
Depa	artment of Electronics Engineering			
53	Electromagnetic Analysis, Design and simulation of an X-band Gyro-Twystron Amplifier	Dr. M. Thottapan	SERB	₹ 2,910,448.00
54	Design Investigations of High Power MM Wave W Band Gyratron	Prof. P.K. Jain	CARS	₹ 990,000.00
55	Design and development of miniaturized pattern/ frequency reconfigurable MIMO antennas and its performance improvement using artificial electromagnetic material	Dr. Manoj Kumar Meshram	SERB	₹ 4,252,000.00
56	Development of Polymer and Quantum Dots Blended Tandem Solar Cells Using Low Cost Solution Processed Method	Prof. Satyabrata Jit	SERB	₹ 4,486,000.00
57	Physical Layer Security for LTE based Wireless Networks to increase Jamming Margin	Dr. K.V. Srinivas	CRL - BEL	₹ 336,000.00
58	Study, Design and Implementation of Frequency Selective Metasurfaces for Microwave Applications	Dr. Somak Bhattacharyya	SERB-ECRA	₹ 4,670,620.00
	₹ 17,645,068.00			
Depa				
59	Cognitive Linguistic study of perception verbs in Hindi and English: In the context of machine translation	Dr. Swasti Mishra	DST(CSRI)	₹ 1,364,000.00
	Total			₹ 1,364,000.00
Depa	artment of Mathematical Science			
60	Schwarz waveform relaxation methods for singularly Perturbed Parabolic Problems	Dr. Sunil Kumar	SERB	₹ 660,000.00



S. No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency	Total Amount sanctioned
61	RobustAdaptive Mesh Methods for Singularly Perturbed Problems in Ordinary and Partial Differential Equations	Dr. Sunil Kumar	SERB	₹ 2,095,279.00
62	Fractional Calculus approached for Two Dimensional Ground Water Contamination in Unsaturated Porous Media	Dr. Subir Das	BRNS, BARC, Mumbai	₹ 2,295,750.00
63	Study and Analysis of Mathematical Models of Nonlinear Fractional Order Diffusion Equations"	Dr. Subir Das	SERB	₹ 1,692,000.00
64	Numerical methods for integral equations and differential equations by using Wavelets and operational matrix	Dr. Vineet Kumar Singh	SERB, New Delhi	₹ 693,000.00
65	Development of solution methods for Abel's integral equations and generalized Abel's integral equation	Dr.Rajesh Kr. Pandey	DAE, Mumbai	₹ 332,500.00
66	Study and analysis of Mathematical Models of Moving Boundtry Problems	Dr. Rajeev	SERB	₹ 2,244,000.00
67	Applications of Spectral graph theory in analyzing the structural properties of large scale networks	Dr. Lavanya Silveganesh	SERB	₹ 660,000.00
68	On characterizing and Obtaining the Complete Efficient Solution Set of an Interval Optimization Problem under a D-Dominance and a variable Dominance Structure	Dr. DebdasGhosh	SERB, New Delhi	₹ 1,502,500.00
	Total			₹ 12,175,029.00
	extrement of Mechanical Engg.		I	
69	Study of tool wear in diamond turn mechining & micro machining process	Prof. Sandeep Kumar, P.I. Dr. U.S. Rao	BARC, Mumbai	₹ 2,405,800.00
70	Development of Sheet Hydro-forming Process for missile Components	Prof. Santosh Kumar	DRDO	₹ 980,000.00
71	Technology and Fabrication of Tabletop CNC Machine for Micro-Tubular Hydro forming Setup	Prof. Santosh Kumar	BARC	₹ 4,932,000.00
72	Assessment of residual stress upon friction stir welding of steel	Dr. Mohd. Zaheer Khan Yusufzai	SERB	₹ 4,500,000.00
73	Quenching behavior of dry heated ord with nanofluid	Dr. Pradyumna Ghosh	BRNS	₹ 3,356,800.00
74	Design Development and Fabrication of an Incremental Sheet Hydro forming Machine Setup	Dr. Santosh Kumar	SERB	₹ 4,800,000.00
75	Development of a Rubber based sheet Hydro forming setup	Prof. Santosh Kumar	DRDL, CARS Hyderabad	₹ 984,000.00
76	Characterization and validation of Schlieren Technique for Capturing Shock Wave	Dr. Amitesh Kumar	DRDO	₹ 1,784,800.00
77	Design & Development of Combined Cooling and Power Generation system	Dr. S.K. Shukla	CST-UP	₹ 960,000.00
78	Development of an intelligent evaporative cooler for composite climate	Dr. Jahar Sarkar	DST	₹ 892,243.00
79	Photonic radiative cooler for passive sub-ambient cooling	Dr. Jahar Sarkar	IMPRINT-2	₹ 4,833,600.00



S. No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency	Total Amount sanctioned		
80	Development of Ti alloy based composites by mechanical alloying and stirrer casting route for dental applications	Dr. R.K. Gautam	SERB	₹ 5,021,000.00		
	Total			₹ 35,450,243.00		
Depa	Department of Metallurgical Engg.					
81	DST-INSPIRE Fellow	Dr. Bratindranath Mukherjee, P.I.	DST	₹ 3,500,000.00		
82	Development of nickel free nitrogen austenitic stainless steel for biomedical applications	Dr G.S. Mahobia/ Dr. Kausik Chattopadhyay/ Prof. Vakil Singh	Min. of Steel, GoI	₹ 28,444,800.00		
83	Development and structural characterization of Bi2-xMx3+(y-3)/2 coating for protection against coolant & sensors	Dr. JoysuryaBasu	UGC DAE-CSR	NA		
84	Development of Electropulsing Facility for Synthesis of Bulk Nanostructured Materials	Dr. Rampada Manna Prof. G.V.S. Sastry/ Prof. R.K. Pandey/ Prof. S.N. Ojha	B.R.N.S.	₹ 2,648,400.00		
85	In situ electron microscopy at atomic scale for understanding nucleation growth and interfaces of omega phase	Dr. JoysuryaBasu	SERB	₹ 6,584,600.00		
86	Optimization of recovery of valuable metals from waste printed circuit boards (WPCBs) through modified hydrometallurgical route	K.K.Singh	UGC	₹ 1,016,400.00		
87	Studies on Improvements in Stiffness of Aluminum Alloy Fibres	Dr. Rampada Manna/ Dr. K. Chattopadhyay	D.R.D.O.,CARS, Jodhpur	₹ 4,011,040.00		
	Total			₹ 46,205,240.00		
Depa	rtment of Mining Engg.					
88	Meter Scale Granite block Smectic clay barriers experiment and associated TMH modeling for Indian Pit mode reference geological Disposal System	Dr. A.K. Verma	BRNS	₹ 3,088,900.00		
89	INSPIRE Faculty Award	Dr. A.K. Verma	DST-INSPIRE	₹ 3,500,000.00		
90	Landslide stability analysis in subzero environment around Kinnaur district of Himachal Pradesh, India	Dr. A.K. Verma	DST	₹ 4,973,200.00		
	Total			₹ 11,562,100.00		
	artment of Pharmaceutical Engg. & Tech		1			
91	Development & evaluation of nanocarrier for enhanced anti-microbai activity of anacrdic acid against human and plant pathogens	Dr. Sanjay Singh	DST	₹ 5,866,996.00		
92	Experimental Evaluation of Geroprotective Activity of Some Compounds	Dr. Sairam Krishnamurthy	Natreon	₹ 2,206,800.00		
93	Evaluation of some compounds in experimental Alzherimer Disease	Dr. Sairam Krishnamurthy	Natreon	₹ 2,940,000.00		
94	Pharmacological Effect of novel formulation in experimental allergic encephalomyelitis rodent model	Dr. Sairam Krishnamurthy	DISTO	₹ 504,000.00		



S. No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency	Total Amount sanctioned
95	Pharmacology of Natural drugs in obesity and eating disorders	Dr. Sairam Krishnamurthy	Natreon	₹ 2,654,600.00
96	Dissecting brain reward circuitry and CNS comorbidities in chronic neuropathic pain	Dr. Vinod Tiwari	SERB-ECRA	₹ 4,909,520.00
97	Phytochemical and pharmacological evaluations of bioactivity guided fractions of medicinal plants of Tripura	Dr. A.N. Sahu	DBT	₹ 2,655,200.00
	Total		1	₹ 21,737,116.00
Depa	rtment of Physics			
98	DST/INSPIRE Faculty Award (IFA-12-PH-21)	Dr. S.K. Singh	DST	₹ 3,500,000.00
99	IFA-12-Ph-22 DST/INSPIRE FACULTY Award/2012 INPIRE FACULTY AWARD	Shri Sunil Kumar Mishra	DST	₹ 3,500,000.00
100	A Systematic Study on the Correlation Between Structural, Magnetic and Properties of Multiferroric Cd1-xAxV2O4 and Bi (Mn1-xAx)o3 [A=Fe,Co,Ni]	Dr. SandipChatterjee	BRNS-DAE	₹ 1,928,500.00
101	Study of Magnetospheric Wave-Particle interaction, Aurora, Airglow and Conductivities on Planets and their Satellites	Dr. D. Giri/ R.P. Singhal/ O.N. Singh	ISRO	₹ 3,803,000.00
102	Development of SrTiO3 based Anode Materials for Intermediate Temperature Solid Oxide Fuel Cells	Dr. Prabhakar Singh/ Prof. A.S.K. Sinha	BRNS	₹ 2,974,400.00
103	MHD Waves in the Solar Atmosphere and Refined Magneto-seismology	Dr. Abhishek Kr. Srivastava/ Dr. Anita Mohan	ISRO	₹ 2,423,000.00
104	Observations and Modeling of solar transients & space weather candidates	Dr. Abhishek Kr. Srivastava	SERB	₹ 1,776,000.00
105	Investigation of Glass - Ceramic for Capacitive Energy Storage Applications	Prof .Prabhakar Singh	CSIR	NA
106	Electronic Structure evolution across quantum critical point in Li(Ti1-xVx)2O4 Li1-x Znx)V2O4	Dr. Swapnil Patil	SERB	₹ 5,500,000.00
107	Collection of self-propelled particles in inhomogeneous environment : numerical & analytical Studies	Dr. Shradha Mishra	SERB	₹ 2,459,600.00
108	The sun under the microscope – An integrated research activity to maximize the science return from a new generation of missions to study the sun	Abhishek srivastav	UGC	₹ 1,928,180.00
109	Modeling self assembly and phase seperation kinetics in the complex soft materials	Dr. Awaneesh Kumar Singh	SERB	₹ 4,654,375.00
110	Ramanujan Fellowship	Dr. Bidya Binay Karak	SERB	₹ 3,800,000.00
111	Generation and analysis of light source with unconventional correlation structure	Dr. Rakesh Kumar Singh	SERB	₹ 899,061.00
112	Investigations of new lead free perovskite materials for solar cells	Prof. Prabhakar Singh	SERB	₹ 3,809,391.00



S. No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency	Total Amount sanctioned		
113	DST-INSPIRE Faculty Award (IFA-13 PH 54) understanding structure and dynamics of the Interstelar medium	Dr. PrasunDuttta	DST, New Delhi	₹ 3,500,000.00		
	Total					
Scho	ol of Materials Science & Technology					
114	J.C. Bose Fellowship	Prof. Dhananjay Pandey	SERB	₹ 6,800,000.00		
115	Mott transistors based Neuromorphic memory device	Dr. Shrawan Kumar Mishra	DST	₹ 10,098,200.00		
116	Development of low voltage, low power, colloidal quantum dot light-emitting transistors for next generation display technology	Dr. Bhola Nath Pal	SERB	₹ 5,552,323.00		
117	Co2 Capture in Carbon nanocomposites	Dr. Ashish Kumar Mishra	DST	₹ 3,500,000.00		
118	Design & investigation of thermal conducting two dimensional heterostructures	Dr. Ashish Kumar Mishra	SERB	₹ 5,480,840.00		
119	Ramanujan Fellow	Dr. Sanjay Singh	SERB	₹ 3,500,000.00		
120	Elastocaloric effect measurement setup to study caloric effect in shape memory alloys	Dr. Sanjay Singh	UGC- DAE	₹ 719,640.00		
121	Minimizing hysteresis in magnetic shape memory Heusler slloys for reversible magnetocaloric effect	Dr. Sanjay Singh	SERB	₹ 4,839,838.00		
122	Neutron Diffraction Studies on Nanoparticles of Cobalt Chromite by A/B Site Mixing	Dr. Chandana Rath	UGC- DAE CSR	₹ 450,000.00		
123	Understanding the mechanism of action through cell biology and upgradation of herbal drug in solution and biodegradable patch for the treatment of diabetic foot ulcer	Prof. Pralay Maiti	BIRAC	₹ 2,860,000.00		
124	Radionuclide sensing platform based on functionalized polymer having nanochannels using accelerator	Prof. Pralay Maiti	BRNS - DAE	₹ 3,416,000.00		
125	Polymeric Nanobiohybrids for Tissue Engineering and Drug Delivery	Prof. Pralay Maiti	SERB	₹ 2,311,000.00		
126	Development of low cost sodium ion battery: Fabrication and application of NASICON based electrodes	Prof. Rajiv Prakash	DST	₹ 8,289,600.00		
127	Low cost ammonia gas sensor based on Polymer/ Polymer Nanocomposite device formed by Novel floating film transfer FTM technique	Prof. Rajiv Prakash	IMPRINT-2	₹ 3,569,376.00		
128	Harnessing the synergy of low band gap organic semiconductors and highly facile floating film transfer method for low cost efficient organic electronic devices	Prof. Rajiv Prakash	SPARC (MHRD)	₹ 4,488,000.00		
	Total		·	₹ 65,874,817.00		



## List of Running Sponsored/Newly Sanctioned Projects in FY 2018-19

S. No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency	Total Amount sanctioned	Total amount Demanded During Project Submission	FY of the Project Submitted		
Scho	School of Biochemical Engineering							
1	Development and evaluation of an innovative poly herbal Bi layer wound dressing material	Dr. Pradeep Srivastava	DRDO	₹ 3,203,200.00	NA	NA		
2	Construction of Cold Inducible Expression System	Dr. Ashish Kumar Singh	DBT	₹ 3,610,300.00	₹ 4,135,425.00	2016-17		
3	Enhancement of Lipid Content in Microalge Scenedesmus Obliquus Using Genetic Engineering Tool: a step towards biodiesel	Dr. Ashish Kumar Singh	CST	₹ 450,000.00	₹ 1,080,000.00	2016-17		
4	Screening of novel antibiotics from the metagenome of Himalayan glacial soil	Dr. Ashish Kumar Singh	DRDO	₹ 3,987,500.00	NA	Transferred		
5	Screening of Novel Psychrophilic alkaline Protace from the metagenoime of Antartic soil	Dr. Ashish Kumar Singh	SERB	₹ 1,904,410.00	₹ 3,000,000.00	2017-18		
6	Flow and segregation of granular materials out of hoppers and two & three dimensional devices	Dr. Vishal Mishra	CST-UP	₹ 1,044,000.00	₹ 1,080,000.00	2017-18		
7	Identification of Gene Responsible for Degradation of Poly (Ethylene Terephthalate) in Ideonella sakaiensis	Dr. Ashish Kumar Singh	DBT	₹ 4,043,200.00	₹ 4,827,840.00	2017-18		
8	Targeted drug delivery of methotrexate/gallic acid- folate conjugated Poly L-Lysine nanoparticles	Dr. Abha Mishra	DBT	₹ 3,461,200.00	₹ 3,822,240.00	2017-18		
9	Strategies towards generation of functional tissue engineered construct for orthopedicapplications	Prof. Pradeep Srivastava	SPARC (MHRD)	₹ 2,325,950.00	₹ 4,720,000.00	2018-19		
	Tot	₹ 24,029,760.00						
	ol of Biomedical Engineering							
10	Development of Microfluidic tools for neuromuscular synatogenesis and nanotoxicological studies	Dr. Sanjeev Kumar Mahto	DST	₹ 3,500,000.00	₹ 12,687,442.00	2014-15		



S. No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency	Total Amount sanctioned	Total amount Demanded During Project Submission	FY of the Project Submitted
11	Nanoparticles supported self Assembled Conducting Polymer Monolayer Based Platform for Rapid Detection of Monosodium Glutamate in Food Products	Dr. Marshal	DBT	₹ 3,492,000.00	₹ 4,884,000.00	2015-16
12	Neem seed based nanocapsules and nanomedicine for targeted drug delivery and cancer therapy	Dr. Pradip Paik	SERB	₹ 4,046,000.00	₹ 5,982,480.00	2016-17
13	Funcional-hollow- porous-bipolymer based Nanoformulations and Interventions for treatment of Cancer and prevention of Tuberculosis, concept of nanomedicine with multiple drugs for multiple diseases	Dr. Pradip Paik	DST	₹ 5,218,094.00	NA	Transferred
	Total		₹ 16,256,094.00			
Depa	artment of Ceramic Engineering					
14	Design Development & characterization of porous Ti/SiO2 composite with tailored microstructure fabricated by powder metallurgy using rice husk and sucrose as space holder for orthopaedic applications	Dr. Kalyani Mohanta	DBT	₹ 1,560,000.00	NA	Transferred
15	Novel Electrode Materials for Reversible alkali –ion (Li+/Na+) capacitors and Pseudocapacitors	Dr. Preetam Singh	SERB	₹ 3,665,245.00	₹ 18,200,448.00	2016-17
16	Development of glasses as plant nutrients	Prof. Ram Pyare	SERB	₹ 4,205,520.00	₹ 8,554,000.00	2016-17
17	Development of high Thorough put Processing route for CIGS PV absorber films by spray pyrolysis of Pre-synthesised Nanoparticle Ink	Dr. M.I. Ahmad/ Dr. S. Das	SERB	₹ 4,603,010.00	₹ 4,966,000.00	2016-17
18	Cold sintered ferroelectric polymer Ceramic Nano composites for Energy Storage	Dr. Akanksha Dwivedi	SERB	₹ 5,491,695.00	₹ 4,908,000.00	2016-17



S. No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency	Total Amount sanctioned	Total amount Demanded During Project Submission	FY of the Project Submitted
19	Development of rare earth free ceramic magnet with high energy and curie temperature for motor applications	Dr. Pradip Kr. Roy	SERB	₹ 4,522,100.00	₹ 4,900,100.00	2016-17
20	Combined effect of dynamic electrical stimulation and surface charge on cellular functionality of electrovector and piezoelectrically toughened bioceramics	Dr. Ashutosh Kr. Dubey	SERB	₹ 4,322,680.00	₹ 4,908,000.00	2016-17
21	Development of Hgh Alumina(Al2O3) & DOPED High Alumina materials for Ceramic Catridge Applications	Dr. Santanu Das	Yantransh	₹ 60,500.00	₹ 68,750.00	2018-19
22	Seamless synthesis of large- area 2D transition metal di- chlcogenide semiconductors and their applications in next-generation high- performance optoelectronic devices	Dr. Santanu Das/ Dr. BholaNath Pal	SERB, New Delhi	₹ 4,989,600.00	₹ 5,480,000.00	2016-17
	•	Total	•	₹ 33,420,350.00		
Depa	rtment of Chemical Engg. & Te	chnology				
23	NOx Removal from Diesel Exhaust by combined NOx storage Reduction and NH3 SCR System	Dr. Sweta	SERB	₹ 2,735,000.00	₹ 2,664,000.00	2014-15
24	Development & Evaluation of Infrared Nanoparticles for Cellular-wide sensitive E-field Mapping	Dr. Manoj Kumar	DST Nano Mission	₹ 5,152,965.00	₹ 5,033,000.00	Transferred from THAPAR University
25	Pyrolysis of Biomass for the Producation of Bio- oil: Experimental and Computational Study	Dr. J.P. Chakraborty	DST	₹ 2,350,000.00	₹ 3,180,000.00	Transferred from RGIPT, Rae Bareli
26	Removal of Benzene, Toluene, Ethylbenzene & Xylene (BTEX) using Adsorption & Bioremediation	Prof. R.S. Singh	SPARC (MHRD)	₹ 5,402,420.00	₹ 7,400,000.00	2018-19



S. No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency	Total Amount sanctioned	Total amount Demanded During Project Submission	FY of the Project Submitted
27	A Stack development of untilized regenerative Proton Exchange Memberance Fuel Cell for Large Scale Production of Ultra Pure Hydrogen Fuel, Oxygen using Solar Energy & uninterrupted Power	Dr. Hiralal Pramanik	SERB	₹ 3,761,500.00	₹ 6,149,675.00	2018-19
28	Controlled synthesis of MoO3 nanoparticles inside mesoporous materials for oxidative dehydrogenation of organic moleciles with CO2	Dr. Vijay Maruti Shinde	SERB	₹ 3,229,430.00	₹ 3,600,000.00	2018-19
29	Fabrication of low-cost High- through out Flow Cytometer using tunable nanolenses.	DrAnkurVerma	DST, New Delhi	₹ 5,209,600.00	₹ 5,000,000.00	2015-16
		otal	₹ 27,840,915.00			
	rtment of Chemistry	I	T			
30	Evaluation and Optimisation of Biodiesel Production from Microalgae	Prof. Yogesh Chandra Sharma	DST	₹ 5,192,400.00	₹ 4,329,600.00	2013-14
31	De Novo Synthesis of orthogonally protected uronic acid building blocks: Access to various important oligosaccharides	Dr. Jeyakumar Kandasamy	SERB	₹ 2,800,000.00	₹ 2,600,000.00	2014-15
32	Photolabile Protected Monosaccharides: Syntehsis and Application to Oligosaccharides Synthesis Using a Continuous flow	Dr. Jeyakumar Kandasamy	Germany	₹ 4,462,460.00	₹ 4,570,000.00	2015-16
33	Photolabile Protected Monosaccharides: Syntehsis and Application to Oligosaccharides Synthesis Using a Continuous flow	Dr. Jeyakumar Kandasamy	DST, New Delhi	₹ 4,570,400.00	₹ 4,570,000.00	2015-16
34	Development of portable electrochemical sensor hydrogen peroxide	Prof. P.C. Pandey	BRNS Mumbai	₹ 3,492,750.00	₹ 3,450,000.00	2016-17
35	Metal hexacyanoferrate modified screen printed electrodes for the removal of radio nuclides	Prof. P.C.Pandey	DRDO	₹ 4,171,680.00	₹ 5,156,900.00	2017-18



S. No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency	Total Amount sanctioned	Total amount Demanded During Project Submission	FY of the Project Submitted
36	Detailed lacture based curriculum development for science subjects as part of Induction Programme in AICTE COLLEGES	Dr. Indrajit Sinha	AICTE	₹ 1,152,000.00	₹ 1,152,000.00	2017-18
		Total		₹ 25,841,690.00		
Depa	rtment of Civil Engineering					
37	Propagation & Mitigation model of mixed road traffic noise for planning od mid- sized Indian Cities	Dr. Brind Kumar	MHRD IMPRINT	₹ 37,300,000.00	₹ 37,353,000.00	NA
38	INSPIRE Faculty Award Dr. Manash Chakraborate		DST	₹ 3,500,000.00	NA	sanctioned on 12.12.2017
39	Smart & Integrated Pedestrian System Design	Dr.Ankit Gupta (Co- PI)	MHRD, MoUD, GMR Airport Developers (Ltd), Vikram Solar Pvt. LTd	₹ 933,206.00	NA	Sanctioned on 18.12.2016
40	Active Vibration Control of Smart Composite and Sandwich Structures in hydro-thermal Environment	Dr. Rosalin Sahoo	SERB	₹ 1,908,940.00	₹ 1,897,200.00	2016-17
41	Development and assessment of asphalt mastic from typical Indian & Austrian filler materials with a new test method	Dr. Nikhil Saboo	DST	₹ 950,000.00	₹ 1,140,000.00	2017-18
42	Investigation on dynamic response analysis of shallow foundation resting on pond ash deposits	Dr. Supriya Mohanty	SERB- ECRA	₹ 3,614,600.00	₹ 2,622,000.00	2015-16
43	River-aquifer Exchanges & hydrogeological study for watershed management of Betwa Rain Basin	Dr. Shishir Gaur	DST	₹ 2,451,000.00	₹ 2,668,800.00	2017-18
	То	tal		₹ 50,657,746.00		
Depa	rtment of Computer Engineerin	ng				
44	A Robust medical image forensics system for smart healthcare	Dr. Tanima Dutta	SERB	₹ 1,407,870.00	₹ 3,240,000.00	2017-18



S. No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency	Total Amount sanctioned	Total amount Demanded During Project Submission	FY of the Project Submitted
45	Efficient Generation of a Query-Specific Extractive Summary on Multiple Documents – A Distributive Approach	Dr. Ravindranath Chowdary	SERB	₹ 1,664,000.00	₹ 2,040,000.00	2014-15
46	Incorporating Intelligence in Email System	Dr. Ruchir Gupta	BRNS	₹ 1,368,000.00	₹ 1,200,000.00	2017-18
47	Development of an energy –efficient wireless sensor networks for precision agriculture	Dr. H.P. Gupta	DST	₹ 3,417,130.00	₹ 5,000,000.00	2015-16
	T-4-1		₹ 7,857,000.00			
Depa	Total rtment of Electrical Engineerin	σ		1		
48	Mix Energy Mix energy Source Electric Vehicle Charging System Design and its Impact on Indian Smart –distribution - grid	Dr. R.K.Singh	DST	₹ 9,449,500.00	₹ 18,250,000.00	2017-18
49	Design, Development and Performance Analysis of Silicon Carbide Converter for Aerospace Application	Dr. Santosh Kumar Singh, PI	SERB	₹ 2,392,000.00	₹ 4,047,180.00	2011-12
50	Design,Modeling and simulation of linear induction drive for Propulsion Apploication	Prof. R.K.Srivastava	DRDO	₹ 1,000,000.00	₹ 1,000,000.00	2017-18
51	Construction of Non- monotonic Lyapunov Function for the Dynamical Systems governed by differential inclusions	Dr. Shyam Kamal	SERB	₹ 660,000.00	₹ 660,000.00	2018-19
52	Design and Development of a smart Energy Grid Architecture with Energy storage	Prof. R.K. Pandey	DST	₹ 21,386,000.00	₹ 74,416,000.00	NA
		Total		₹ 34,887,500.00		
	rtment of Electronics Engineer	<del> </del>	ann r			
53	Electromagnetic Analysis, Design and simulation of an X-band Gyro-Twystron Amplifier	Dr. M. Thottapan	SERB	₹ 2,910,448.00	₹ 2,300,000.00	2014-15
54	Design Investigations of High Power MM Wave W Band Gyratron	Prof. P.K. Jain	CARS	₹ 990,000.00	₹ 990,000.00	2015-16



S. No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency	Total Amount sanctioned	Total amount Demanded During Project Submission	FY of the Project Submitted
55	Design and development of miniaturized pattern/ frequency reconfigurable MIMO antennas and its performance improvement using artificial electromagnetic material	Dr. Manoj Kumar Meshram	SERB	₹ 4,252,000.00	₹ 5,999,520.00	2016-17
56	Development of Polymer and Quantum Dots Blended Tandem Solar Cells Using Low Cost Solution Processed Method	Prof. Satyabrata Jit	SERB	₹ 4,486,000.00	₹ 5,848,000.00	2015-16
57	Physical Layer Security for LTE based Wireless Networks to increase Jamming Margin	Dr. K.V. Srinivas	CRL - BEL	₹ 336,000.00	₹ 3,360,000.00	2016-17
58	Study, Design and Implementation of Frequency Selective Metasurfaces for Microwave Applications	Dr. Somak Bhattacharyya	SERB-ECRA	₹ 4,670,620.00	₹ 5,500,000.00	2017-18
	Tot	tal		₹ 17,645,068.00		
Depa	rtment of Humanities					
59	Cognitive Linguistic study of perception verbs in Hindi and English: In the context of machine translation	Dr. Swasti Mishra	DST(CSRI)	₹ 1,364,000.00	NA	2014-15
	То	tal		₹ 1,364,000.00		
Depa	rtment of Mathematical Science	e				
60	Schwarz waveform relaxation methods for singularly Perturbed Parabolic Problems	Dr. Sunil Kumar	SERB	₹ 660,000.00	₹ 660,000.00	2017-18
61	RobustAdaptive Mesh Methods for Singularly Perturbed Problems in Ordinary and Partial Differential Equations	Dr. Sunil Kumar	SERB	₹ 2,095,279.00	NA	2016-17
62	Fractional Calculus approached for Two Dimensional Ground Water Contamination in Unsaturated Porous Media	Dr. Subir Das	BRNS, BARC, Mumbai	₹ 2,295,750.00	₹ 1,820,000.00	2012-13



S. No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency	Total Amount sanctioned	Total amount Demanded During Project Submission	FY of the Project Submitted
63	Study and Analysis of Mathematical Models of Nonlinear Fractional Order Diffusion Equations"	Dr. Subir Das	SERB	₹ 1,692,000.00	₹ 1,782,000.00	2012-13
64	Numerical methods for integral equations and differential equations by using Wavelets and operational matrix	Dr. Vineet Kumar Singh	SERB, New Delhi	₹ 693,000.00	₹ 1,891,000.00	2015-16
65	Development of solution methods for Abel's integral equations and generalized Abel's integral equation	Dr.Rajesh Kr. Pandey	DAE, Mumbai	₹ 332,500.00	₹ 2,133,840.00	2015-16
66	Study and analysis of Mathematical Models of Moving Boundtry Problems	Dr. Rajeev	SERB	₹ 2,244,000.00	₹ 2,323,750.00	2018-19
67	Applications of Spectral graph theory in analyzing the structural properties of large scale networks	Dr. Lavanya Silveganesh	SERB	₹ 660,000.00	₹ 660,000.00	2017-18
68	On characterizing and Obtaining the Complete Efficient Solution Set of an Interval Optimization Problem under a D-Dominance and a variable Dominance Structure	Dr. DebdasGhosh	SERB, New Delhi	₹ 1,502,500.00	₹ 2,595,400.00	2016-17
	To	tal		₹ 12,175,029.00		
Depa	rtment of Mechanical Engg.					
69	Study of tool wear in diamond turn mechining & micro machining process	Prof. Sandeep Kumar, P.I. Dr. U.S. Rao	BARC, Mumbai	₹ 2,405,800.00	₹ 2,405,800.00	Sanctioned on Feb, 2012
70	Development of Sheet Hydro-forming Process for missile Components	Prof. Santosh Kumar	DRDO	₹ 980,000.00	NA	2012-13
71	Technology and Fabrication of Tabletop CNC Machine for Micro-Tubular Hydro forming Setup	Prof. Santosh Kumar	BARC	₹ 4,932,000.00	NA	Sanctioned on 17.03.2014
72	Assessment of residual stress upon friction stir welding of steel  Dr. Mohd Zaheer Kl Yusufzai		SERB	₹ 4,500,000.00	₹ 4,624,800.00	2013-14
73	Quenching behavior of dry heated ord with nanofluid	Dr. Pradyumna Ghosh	BRNS	₹ 3,356,800.00	₹ 3,026,000.00	2012-13



S. No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency	Total Amount sanctioned	Total amount Demanded During Project Submission	FY of the Project Submitted
74	Design Development and Fabrication of an Incremental Sheet Hydro forming Machine Setup	Dr. Santosh Kumar	SERB	₹ 4,800,000.00	₹ 8,940,000.00	2014-15
75	Development of a Rubber based sheet Hydro forming setup	Prof. Santosh Kumar	DRDL, CARS Hyderabad	₹ 984,000.00	NA	Sanctioned on 01.11.2015
76	Characterization and validation of Schlieren Technique for Capturing Shock Wave	Dr. Amitesh Kumar	DRDO	₹ 1,784,800.00		2016-17
77	Design & Development of Combined Cooling and Power Generation system	Dr. S.K. Shukla	CST-UP	₹ 960,000.00	₹ 1,092,000.00	2017-18
78	Development of an intelligent evaporative cooler for composite climate	Dr. Jahar Sarkar	DST	₹ 892,243.00	₹ 720,000.00	2018-19
79	Photonic radiative cooler for passive sub-ambient cooling	Dr. Jahar Sarkar	IMPRINT-2	₹ 4,833,600.00	₹ 4,833,600.00	2018-19
80	Development of Ti alloy based composites by mechanical alloying and stirrer casting route for dental applications	Dr. R.K. Gautam	SERB	₹ 5,021,000.00	₹ 6,250,000.00	2019-19
	То	tal		₹ 35,450,243.00		
	rtment of Metallurgical Engg.		Y			
81	DST-INSPIRE Fellow	Dr. Bratindranath Mukherjee, P.I.	DST	₹ 3,500,000.00	NA	NA
82	Development of nickel free nitrogen austenitic stainless steel for biomedical applications	Dr G.S. Mahobia/ Dr. Kausik Chattopadhyay/ Prof. Vakil Singh	Min. of Steel, GoI	₹ 28,444,800.00	₹ 28,444,800.00	2015-16
83	Development and structural characterization of Bi2- xMx3+(y-3)/2 coating for protection against coolant & sensors	Dr. JoysuryaBasu	UGC DAE- CSR	NA	₹ 1,818,000.00	2016-17



S. No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency	Total Amount sanctioned	Total amount Demanded During Project Submission	FY of the Project Submitted
84	Development of Electropulsing Facility for Synthesis of Bulk Nanostructured Materials	Dr. Rampada Manna Prof. G.V.S. Sastry/ Prof. R.K. Pandey/ Prof. S.N. Ojha	B.R.N.S.	₹ 2,648,400.00	₹ 2,498,000.00	2014-15
85	In situ electron microscopy at atomic scale for understanding nucleation growth and interfaces of omega phase	Dr. JoysuryaBasu	SERB	₹ 6,584,600.00	₹ 8,143,000.00	2016-17
86	Optimization of recovery of valuable metals from waste printed circuit boards (WPCBs) through modified hydrometallurgical route	K.K.Singh	UGC	₹ 1,016,400.00	₹ 1,016,400.00	2017-18
87	Studies on Improvements in Stiffness of Aluminum Alloy Fibres	Dr. Rampada Manna/ Dr. K. Chattopadhyay	D.R. D.O., CARS, Jodhpur	₹ 4,011,040.00	NA	NA
	То	tal		₹ 46,205,240.00		
Depa 88	artment of Mining Engg.  Meter Scale Granite block	Dr. A.K. Verma	BRNS	₹ 3,088,900.00	NA	Transferred
00	Smectic clay barriers experiment and associated TMH modeling for Indian Pit mode reference geological Disposal System		Divio	(3,000,700.00	141	Transferred
89	INICDIDE E 14 A 1		ì			
90	INSPIRE Faculty Award	Dr. A.K. Verma	DST-INSPIRE	₹ 3,500,000.00	NA	Transferred
	Landslide stability analysis in subzero environment around Kinnaur district of Himachal Pradesh, India	Dr. A.K. Verma	DST-INSPIRE DST	₹ 3,500,000.00 ₹ 4,973,200.00	NA ₹ 7,257,600.00	Transferred 2016-17
	Landslide stability analysis in subzero environment around Kinnaur district of Himachal Pradesh, India	Dr. A.K. Verma				
	Landslide stability analysis in subzero environment around Kinnaur district of Himachal Pradesh, India	Dr. A.K. Verma otal s. & Tech	DST	₹ 4,973,200.00 ₹ 11,562,100.00	₹ 7,257,600.00	2016-17
Depa	Landslide stability analysis in subzero environment around Kinnaur district of Himachal Pradesh, India	Dr. A.K. Verma		₹ 4,973,200.00		



S. No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency	Total Amount sanctioned	Total amount Demanded During Project Submission	FY of the Project Submitted
93	Evaluation of some compounds in experimental Alzherimer Disease	Dr. Sairam Krishnamurthy	Natreon	₹ 2,940,000.00	₹ 2,940,000.00	2015-16
94	Pharmacological Effect of novel formulation in experimental allergic encephalomyelitis rodent model	Dr. Sairam Krishnamurthy	DISTO	₹ 504,000.00	₹ 504,000.00	2015-16
95	Pharmacology of Natural drugs in obesity and eating disorders	Dr. Sairam Krishnamurthy	Natreon	₹ 2,654,600.00	₹ 2,654,600.00	2018-19
96	Dissecting brain reward circuitry and CNS comorbidities in chronic neuropathic pain	Dr. Vinod Tiwari	SERB-ECRA	₹ 4,909,520.00	₹ 5,620,000.00	2017-18
97	Phytochemical and pharmacological evaluations of bioactivity guided fractions of medicinal plants of Tripura	Dr. A.N. Sahu	DBT	₹ 2,655,200.00	₹ 6,237,600.00	2018-19
		tal	,	₹ 21,737,116.00		<u> </u>
	rtment of Physics	[	T			
98	DST/INSPIRE Faculty Award (IFA-12-PH-21)	Dr. S.K. Singh	DST	₹ 3,500,000.00	₹ 9,500,000.00	NA
99	IFA-12-Ph-22 DST/INSPIRE FACULTY Award/2012 INPIRE FACULTY AWARD	Shri Sunil Kumar Mishra	DST	₹ 3,500,000.00	₹ 9,500,000.00	NA
100	A Systematic Study on the Correlation Between Structural, Magnetic and Properties of Multiferroric Cd1-xAxV2O4 and Bi (Mn1- xAx)03 [A=Fe,Co,Ni]	Dr. Sandip Chatterjee	BRNS-DAE	₹ 1,928,500.00	₹ 3,500,000.00	2012-13
101	Study of Magnetospheric Wave-Particle interaction, Aurora, Airglow and Conductivities on Planets and their Satellites	Dr. D. Giri/ R.P. Singhal/ O.N. Singh	ISRO	₹ 3,803,000.00	₹ 3,803,000.00	2015-16
102	Development of SrTiO3 based Anode Materials for Intermediate Temperature Solid Oxide Fuel Cells	Dr. Prabhakar Singh/Prof. A.S.K. Sinha	BRNS	₹ 2,974,400.00	₹ 5,681,460.00	2014-15
103	MHD Waves in the Solar Atmosphere and Refined Magneto-seismology	Dr. Abhishek Kr. Srivastava/ Dr. Anita Mohan	ISRO	₹ 2,423,000.00	₹ 4,908,000.00	2015-16



S. No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency	Total Amount sanctioned	Total amount Demanded During Project Submission	FY of the Project Submitted
104	Observations and Modeling of solar transients & space weather candidates	Dr. Abhishek Kr. Srivastava	SERB	₹ 1,776,000.00	₹ 2,270,000.00	2014-15
105	Investigation of Glass - Ceramic for Capacitive Energy Storage Applications	Prof .Prabhakar Singh	CSIR	NA	₹ 5,040,105.00	2016-17
106	Electronic Structure evolution across quantum critical point in Li(Ti1- xVx)2O4 Li1-x Znx)V2O4	Dr. Swapnil Patil	SERB	₹ 5,500,000.00	₹ 2,315,000.00	2016-17
107	Collection of self-propelled particles in inhomogeneous environment : numerical & analytical Studies	Dr. Shradha Mishra	SERB	₹ 2,459,600.00	₹ 5,171,200.00	2016-17
108	The sun under the microscope – An integrated research activity to maximize the science return from a new generation of missions to study the sun	Abhishek srivastav	UGC	₹ 1,928,180.00	₹ 1,928,000.00	2017-18
109	Modeling self assembly and phase seperation kinetics in the complex soft materials	Dr. Awaneesh Kumar Singh	SERB	₹ 4,654,375.00	NA	Transferred from ICT Mumbai
110	Ramanujan Fellowship	Dr. Bidya Binay Karak	SERB	₹ 3,800,000.00	NA	Transferred from NISERB Odisha
111	Generation and analysis of light source with unconventional correlation structure	Dr. Rakesh Kumar Singh	SERB	₹ 899,061.00	NA	Transferred from IIST Kerala
112	Investigations of new lead free perovskite materials for solar cells	Prof. Prabhakar Singh	SERB	₹ 3,809,391.00	₹ 3,381,830.00	2018-19
113	DST-INSPIRE Faculty Award (IFA-13 PH 54) understanding structure and dynamics of the Interstelar medium	Dr. PrasunDuttta	DST, New Delhi	₹ 3,500,000.00	₹ 3,500,000.00	NA
		tal		₹ 46,455,507.00		
	ol of Materials Science & Techn		Τ			
114	J.C. Bose Fellowship	Prof. Dhananjay Pandey	SERB	₹ 6,800,000.00	NA	Sanctioned in FY 2012- 13



S. No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency	Total Amount sanctioned	Total amount Demanded During Project Submission	FY of the Project Submitted
115	Mott transistors based Neuromorphic memory device	Dr. Shrawan Kumar Mishra	DST	₹ 10,098,200.00	₹ 12,300,000.00	2017-18
116	Development of low voltage, low power, colloidal quantum dot light-emitting transistors for next generation display technology	Dr. Bhola Nath Pal	SERB	₹ 5,552,323.00	₹ 5,000,000.00	2014-15
117	Co2 Capture in Carbon nanocomposites	Dr. Ashish Kumar Mishra	DST	₹ 3,500,000.00	NA	Transferred
118	Design & investigation of thermal conducting two dimensional heterostructures	Dr. Ashish Kumar Mishra	SERB	₹ 5,480,840.00	₹ 5,000,000.00	2017-18
119	Ramanujan Fellow	Dr. Sanjay Singh	SERB	₹ 3,500,000.00	NA	Sanctioned on 18.10.2017
120	Elastocaloric effect measurement setup to study caloric effect in shape memory alloys	Dr. Sanjay Singh	UGC- DAE	₹ 719,640.00	NA	Sanctioned on 31.03.2018
121	Minimizing hysteresis in magnetic shape memory Heusler slloys for reversible magnetocaloric effect	Dr. Sanjay Singh	SERB	₹ 4,839,838.00	₹ 8,242,932.00	2017-18
122	Neutron Diffraction Studies on Nanoparticles of Cobalt Chromite by A/B Site Mixing	Dr. Chandana Rath	UGC- DAE CSR	₹ 450,000.00	₹ 1,122,000.00	2014-15
123	Understanding the mechanism of action through cell biology and upgradation of herbal drug in solution and biodegradable patch for the treatment of diabetic foot ulcer	Prof. Pralay Maiti	BIRAC	₹ 2,860,000.00	₹ 9,400,000.00	2017-18
124	Radionuclide sensing platform based on functionalized polymer having nanochannels using accelerator	Prof. Pralay Maiti	BRNS - DAE	₹ 3,416,000.00	₹ 3,610,000.00	2016-17
125	Polymeric Nanobiohybrids for Tissue Engineering and Drug Delivery	Prof. Pralay Maiti	SERB	₹ 2,311,000.00	₹ 9,486,000.00	2015-16



S. No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency	Total Amount sanctioned	Total amount Demanded During Project Submission	FY of the Project Submitted
126	Development of low cost sodium ion battery: Fabrication and application of NASICON based electrodes	Prof. Rajiv Prakash	DST	₹ 8,289,600.00	₹ 14,884,800.00	2017-18
127	Low cost ammonia gas sensor based on Polymer/ Polymer Nanocomposite device formed by Novel floating film transfer FTM technique	Prof. Rajiv Prakash	IMPRINT-2	₹ 3,569,376.00	₹ 5,060,000.00	2018-19
128	Harnessing the synergy of low band gap organic semiconductors and highly facile floating film transfer method for low cost efficient organic electronic devices	Prof. Rajiv Prakash	SPARC (MHRD)	₹ 4,488,000.00	₹ 4,488,000.00	2018-19
				₹ 65,874,817.00		



## **Consultancy Projects 2018-19**

Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
1	Dr. P.R. Maiti and other faculty members	Upper Project Manager, UPRNN Ltd., Construction of 18 Court Building Sarpatala Gyanpur, Ravidas nagar, Bhadohi	Cube, Cement, Steel & bricks, sand	141,600.00	Rupees One Lakh FourtyOne Thousand Six Hundred Only
2		Executive Engineer, Kanhar Construction Division-3, Pipari Sonebhadra		53,690.00	Rupees FiftyThree Thousand Six Hundred Ninety Only
3	Dr. P.R. Maiti and other faculty members	Upper Project Manager, UPRNN Ltd., Construction of 18 Court Building Sarpatala Gyanpur, Ravidas nagar, Bhadohi	Cube, Cement, Steel & bricks, sand	141,600.00	Rupees One Lakh FourtyOne Thousand Six Hundred Only
4	Prof. V. Kumar	Assistant Engineer, BHU Project Sub Division-4, CPWD, Varanasi (M/s Kamaladitya Construction Pvt. Ltd.) Upper Project Manager, UPRNN Limited, Indina Institute of Information Technology Unit, C.G. City, Lucknow	Inspection, verification of materials quality reports, workmanship check and report preparation of New Building of Khadi Evam gramodyog Board aas part of Third Party Quality Inspection	82,128.00	Rupees EightyTwo Thousand One Hundred TwentyEight Only
5	Prof. P.B. Ramudu & other Faculty Members, Prof. V. Kumar	Unit Incharge, Unit-13, UPRNN Limited, Plot No4, Sector-7, Gomti Nagar Extension, Lucknow M/s Bridge & Root Co. (India) Ltd. C/o Sr. Manager (FQA), NTPC Tanda, Vinyutnagar, Ambedkar Nagar	Soil Investigation, Inspection, verification of materials quality reports, workmanship check and report preparation of Residential/Un-residential buildings of State Disaster Response force (SDRF) Noomagar, Bhadarasa, Bijnaur, Lucknow as part of Third Party Quality Inspection	76,700.00	Rupees SeventySix Thousand Seven Hundred Only
6	Dr. P.R. Maiti and other faculty members of Structural Engg. Section, Prof. V. Kumar	Executive Engineer, BHU Project Division-1, CPWD, Behind of Central Office, BHU Varanasi Executive Engineer/ Office Nagar Panchyat Gangapur, Varanasi (M/s Dharmendra & Brother)	Paver block	41,300.00	Rupees FourtyOne Thousand Three Hundred Only
7	Dr. P.R. Maiti & other faculty members	Assistant Engieer, BHU Project Division-3, CPWD, Varanasi (M/s Anil Enterprises)	Cement, Steel	35,640.00	Rupees ThirtyFive Thousand Six Hundred Fourty Only
8	Dr. Ankit Gupta	Sh. Manoj Chittranshi, DGM/ Project, Rail Vikas Nigam Limited, Old Kaveri School Complex Western Township DLW, Varanasi (Gannon Dunkerly & Co. Ltd.)	Railway Track Ballast	11,880.00	Rupees Eleven Thousand Eight Hundred Eighty Only
9	Dr. Ankit Gupta	Sh. Manoj Chittranshi, DGM/ Project, Rail Vikas Nigam Limited, Old Kaveri School Complex Western Township DLW, Varanasi (Gannon Dunkerly & Co. Ltd.)	Railway Track Ballast	11,880.00	Rupees Eleven Thousand Eight Hundred Eighty Only
10		General Manager (Civil Constructin department) NTPC Ltd., Lara Super Thermal Power Projet, Raigarh		8,024.00	Rupees Eight Thousand TwentyFour Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
11	Dr. P.R. Maiti & other faculty members	Executive Engineer, Construction Division, UP Jal Nigam, Sonebhadra M/s BBJ Concrete India C-17, UPSIDC Industrial Area Ramnagar, Phase- II, Chandauli	Steel, Stone grit, sand, cement, Paver block	96,760.00	Rupees NinetySix Thousand Seven Hundred Sixty Only
12	Dr. P.R. Maiti & other faculty members	Project Manager/Team Leader M/s Intercontinental Consultants and Technocrates Pvt. Ltd. C/o Harender Kumar Singh S/o Late Satyanarayan Singh Thakur Chunnu Singh Path, New Diliya (Lalu colony), Ward No. - 21, Rohtas (Bihar)	Mix Design	29,700.00	Rupees TwentyNine Thousand Seven Hundred Only
13	Prof. Rajesh Kumar, Prof. V. Kumar, Dr. P.R. Maiti & other faculty members	Executive Engineer Construction Division, UP Jal Nigam, Sonebhadra Executive Engineer, BHU Project Division-1, CPWD, Behind Central Office, BHU, Varanasi	Vetting of Structural design and drawing of super Speciality Block, IMS, BHU, Varanasi, Steel, Stone grit, sand, Cement	1,871,480.00	Rupees Eighteen Lakh SeventyOne Thousand Four Hundred Eighty Only
14	Dr. P.R. Maiti & other faculty members, Prof. V. Kumar	M/s H.G. Infra Engineering Ltd., III floor, Sheel Mohan Plaza, A-1, Tilak Marg-C-Scheme, Jaipur Dr. G.M., Project Implementation Unit, Bihar State Building Corporation Ltd., BSBCCL, Hospital Road, Shastri Nagar, Patna	Steel Plate, Vetting of structural design and drawing of Superstruture, substructure and foundation of IOCL Bridge at 0+160.732 (i) Superstructure (20.4m c/c of expension Precast RCC I-Girder) (ii) substructure of foundation (open foundation)	144,550.00	Rupees One Lakh FourtyFour Thousand Five Hundred Fifty Only
15	Dr. P.R. Maiti & other faculty members, Dr. Medha jha	ADEN/HQ/MGS East Central Railway, Mughalsarai Division (M/s Shri Shiv Kmar Singh, Mughalsarai) M/s Jai Prakash Associates Ltd., 3/42, Bahar, Cluster- 3, Sahara Estate, Gorakhpur	Paver block, Petrography Test & Alkali Reactivity Test by petrography method of Rock	16,700.00	Rupees Sixteen Thousand Seven Hundred Only
16	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	Superintending Engineer, University Works Department, BHU (M/s Singh Building Materials & Hardware point)	Cement, Bricks	15,930.00	Rupees Fifteen Thousand Nine Hundred Thirty Only
17	Dr. P.R. Maiti & other faculty members	Superintending Engineer, University Works Department, BHU (M/s Singh Building Materials & Hardware point) Assistant Engineer, BHU Project Subdivision-1, CPWD, Varanasi (M/s Balaji Constrution)	Steel, Cube	46,020.00	Rupees FourtySix Thousand Twenty Only
18	Dr. P.R. Maiti & other faculty members	EE, Nagar Nigam, Varanasi (M/s Badi Singh) EE, Nagar Nigam, Varanasi (M/s Anil Kr. & Brothers)	paver block	11,800.00	Rupees Eleven Thousand Eight Hundred Only
19	Dr. P.R. Maiti & other faculty members	M/s Jai Prakash Associates Limited, 3/42, Bahar, Cluster-3 Sahara Estate, Gorakhpur Mr. Phanindra Rai (EE) (M/s Chandra Shakar Singh) Nirman Khand, UP Jal Nigam, Sonebhadra	Rock Materials	55,920.00	Rupees FiftyFive Thousand Nine Hundred Twenty Only
20	Dr. Ankit Gupta	Mr. Hemant Pawagi, AGM (FQA), NTPC Ltd., North Katanpara, NKSTPP, Tandwa, Jharkhand Sh. H.H.P. Srivastava, AGM (FQA), NTPC, Rihand, Sonebhadra	WBM Material	105,020.00	Rupees One Lakh Five Thousand Twenty Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
21	Dr. Ankit Gupta	Superintending Engineer, University works department, BHU	Soil Investigation	36,580.00	Rupees ThirtySix Thousand Five Hundred Eighty Only
22	Dr. Ankit Gupta	Sh. Manoj Chittranshi, DGM/ Project, Rail Vikas Nigam Limited, Old Kaveri School Complex Western Township DLW, Varanasi,	Railway Track Ballast	11,880.00	Rupees Eleven Thousand Eight Hundred Eighty Only
23	Dr. Brind Kumar	EE, Provincial Division, PWD, Sonebhadra	JMF for BM and BC for repair and renewal of Rajgarh- Shahganj Marg, 1 to 3 Km, 7 to 10500 and 13 to 20 Km field density of subgrade for C/o hockey astro turf at BHU	141,600.00	Rupees One Lakh FourtyOne Thousand Six Hundred Only
24	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	Assistant Engineer, BHU Project Sub Division-3, CPWD, Varanasi (M/s Anil Enterprises)	Steel	72,360.00	Rupees SeventyTwo Thousand Three Hundred Sixty Only
25	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	Assistant Engineer, BHU Project Sub Division-3, CPWD, Varanasi (M/s Anil Enterprises)	Steel, Cement	37,800.00	Rupees ThirtySeven Thousand Eight Hundred Only
26	Prof. Sasankasekhar Mandal, Dr. P.R. Maiti & other faculty members fo structural engg. Section	Assistnat Engineer, BHU Project Divison-2, CPWD, Varanasi M/s O.P. Gupta Contractors Pvt. Ltd., B-29, Nirbhaya Nagar, Agra	Vetting of Structural design and drawing of 3 nos OHT 3500 Kl at Indore, Cement	168,480.00	Rupees One Lakh SixtyEight Thousand Four Hundred Eighty Only
27	Dr. Brind Kumar	M/s Syncotts International Shop NO. 19B, 2 Floor, shoping Plaza, Hain Kasana Road, Gautam Buddha Nagar, UP	Vetting of Mix design as per MoRTH, Vth Revision	17,700.00	Rupees Seventeen Thousand Seven Hundred Only
28	Dr. Brind Kumar	M/s Syncotts International Shop NO. 19B, 2 Floor, shoping Plaza, Hain Kasana Road, Gautam Buddha Nagar, UP M/s Krishna Construction, 95 Golden Avenue III, Rorkee Road, Meerut (Executive Engineer, PD, PWD, Sonebhadra)	Quality assurance of interstate connectivity road from chopan to MP boarder at Bharhari GSB, WMM, BDM and BC JMF for widening and strengthening of Babhani-Pokhra-Aandih Marg under interstate Connectivity GSB, WMM, DBM and BC	165,200.00	Rupees One Lakh SixtyFive Thousand Two Hundred Only
29	Dr. Brind Kumar	EE, PD, PWD, Sonebhadra (M/s Krishna Construction, 95, Golden Avenue- III, Roorkee Road, Meerut EE, PWD, Construction Division, Sonebhadra	Vetting of JMF for DBM and WMM for Chahania-Mahuji-Jamania road under CRF JMF for widening and strengthening of Lalganj Halia-Adawan-Manigaraha Marh under interstate connectivity GSB and WMM	283,200.00	Rupees Two Lakh EightyThree Thousand Two Hundred Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
30	Dr. Brind Kumar	EE, PWD, Construction Division, Sonebhadra EE, Provincial Division, PWD, Mirzapur (M/s Mahakaleshwar Infratech Pvt. Ltd., N-31 A, Shiyara, Lucknow	Vetting of JMF of BM and BC Vetting of field density calculations Determination of mix proportion, Cu and Cc of blanketing materials for Obra ECR project	188,800.00	Rupees One Lakh EightyEight Thousand Eight Hundred Only
31	Dr. Brind Kumar	EE, Provincial Division, PWD, Mirzapur (M/s Mahakaleshwar Infraterch Pvt. Ltd., N-31 A, shiyara, Lucknow Geotech Technical Associates Pvt. Ltd., No- 7, Mahamanapuri, ITI Road, BHU, Varanasi	Vetting of JMF of BM and BC Vetting of field density calculations	141,600.00	Rupees One Lakh FourtyOne Thousand Six Hundred Only
32	Dr. Brind Kumar	Geotech Technical, Associates Pvt. Ltd., No- 7, Mahamanapuri, ITI Road, BHU, Varanasi (M/s Syncotts International, Shop NO-19B, 2 Floor, Gautam Bhddh Nagar, UP)	Vetting of field density calculations of WMM and GSB	47,200.00	Rupees FourtySeven Thousand Two Hundred Only
33	Dr. Brind Kumar	Mr. B.C. Khandual (QA/QC), GDCL, Obra Gannon Dunkerlys Co. Ltd, Obra, ECR Project EE., Construction Division, PWD, Sonebhadra	Determination of mix proportion, Cu and Cc of blanketing material for Obra ECR project	177,000.00	Rupees One Lakh SeventySeven Thousand Only
34	Dr. Brind Kumar	EE., Construction Division, PWD, Sonebhadra EE., CD-2 PWD, Mirzapur, Shri Rajeev Bankata Jt. Development Commissioner, Vindhyachal Mandal, Mirzapur	JMF for widening and strengthening of Babhani- Pokhra-Aandih Marg under interstate connectivity, Km 0 to 15.43 GSB, WMM, DBM and BC	156,940.00	Rupees One Lakh FiftySix Thousand Nine Hundred Fourty Only
35	Dr. Ankit Gupta, Dr. Brind Kumar	EE., CD-2 PWD, Mirzapur, Shri Rajeev Bankata Jt. Development Commissioner, Vindhyachal Mandal, Mirzapur Sr. Pradip, Manager Product Development, Bitchem Asphalt Technologies Ltd., 3 floor, Anil Plaza, GS Road, Guwahati	Bitumen Emulsion Sample Testing of DBM, Gr-1 and DBM, Gr-2 Samples as per MoRTH	182,900.00	Rupees One Lakh EightyTwo Thousand Nine Hundred Only
36	Prof. P.B. Ramudu & other Faculty Members	M/s BIPL C/o Sr. Manager (FQA), NTPC Vindhyachal, Singrauli M/s KEPL C/o Sr. Manager (Civil), NTPC Tanda Vidyut Nagar, Ambedkarnagar, UP	Soil Investigation	201,780.00	Rupees Two Lakh One Thousand Seven Hundred Eighty Only
37	Prof. P.B. Ramudu & other Faculty Members, Dr. Brind Kumar	M/s KEPL C/o Sr. Manager (Civil), NTPC Tanda Vidyut Nagar, Ambedkarnagar, UP M/s Pawan Construciton, Dipak Kundu, Sr. Manager (FQA), NTPC, Singrauli	Soil Investigation Testing of M-35 grade concrete core samples	20,060.00	Rupees Twenty Thousand Sixty Only
38	Dr. Ankit Gupta, Dr. Brind Kumar	M/s Pawan Construciton, Dipak Kundu, Sr. Manager (FQA), NTPC, Singrauli XEN/CON/ Chopan, E.C. Railway, Office of Dy. Chief Engineer/Con. EC Railway, Chopan M/s S.T. Construction Pvt. Ltd., D-17, 1 floor, Sector-20, Gautam Buddha Nagar, UP	Cu and Cc of Blanketting Material	29,500.00	Rupees TwentyNine Thousand Five Hundred Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
39	Dr. Ankit Gupta	Adhishashi Abhiyanta, Pranity Khand, PWD, Varanasi Sh. Vijay Lal Sagar, JE (Civil) Food Storage Department, Varanasi	Concrete Core	177,000.00	Rupees One Lakh SeventySeven Thousand Only
40	Dr. Ankit Gupta, Dr. P.R. Maiti & other faculty members	Sh. Vijay Lal Sagar, JE (Civil) Food Storage Department, Varanasi Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Devinder Singh)	Concrete Core, Steel	74,340.00	Rupees SeventyFour Thousand Three Hundred Fourty Only
41	Dr. P.R. Maiti & other faculty members	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Devinder Singh)	Cube, Cement	19,470.00	Rupees Nineteen Thousand Four Hundred Seventy Only
42	Dr. P.R. Maiti & other faculty members	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Devinder Singh)	Cement, Steel	81,420.00	Rupees EightyOne Thousand Four Hundred Twenty Only
43	Dr. P.R. Maiti & other faculty members	G.M., M/s Megha Engineering & Infrastructure Ltd, S-2, Technical Indl, Estate Balanagar, Hyderabad	Cube, Steel, Cement, bricks	62,540.00	Rupees SixtyTwo Thousand Five Hundred Fourty Only
44	Dr. P.R. Maiti & other faculty members	Resident Construction Manager, M/s TATA Project Ltd., C/o Govt. Allopathic Medical College Project (Old spinning hill campus) Shahganj Road, Siddhiqpur, Jaumpur Authorozed Signatory, Jaihind Project Ltd., BKPL, Allahabad	Bricks	19,428.00	Rupees Nineteen Thousand Four Hundred TwentyEight Only
45	Dr. P.R. Maiti & other faculty members, Prof. V. Kumar	M/s Anahita Hospitality LLP, C/o G.D. Ocenka school, Sector-B Shushant Colf City, Lucknow Assistant Engineer, BHU Project Division-2, CPWD, Varanasi (M/s Gupta Construcrion Pvt. Ltd.)	Cube, Vetting of structural design and drawing of Project "The Centrum club" at Sector-C, Pocket-7, Sushant Golf High- tech Township, Lucknow	438,480.00	Rupees Four Lakh ThirtyEight Thousand Four Hundred Eighty Only
46	Dr. P.R. Maiti & other faculty members	Assistant Engineer, BHU Project Division-2, CPWD, Varanasi (M/s Gupta Construction Pvt. Ltd. ) Sr. Manager (FQA), Kanti Bijlee Utpadan Nigam Ltd., Muzaffarpur, Thermal Power Station, Muzaffarpur	Bricks	8,690.00	Rupees Eight Thousand Six Hundred Ninety Only
47	Prof. P.B. Ramudu & other Faculty Members	M/s KEPL, C/o Sr. Manager (FQA), Kanti Thermal, Muzaffarpur Sr. Manager (FQA), Kanti Bijlee Utpadan Nigam Ltd., Muzaffarpur, thermal power staton, Muzaffarpur	Soil Investigation	394,592.00	Rupees Three Lakh NinetyFour Thousand Five Hundred NinetyTwo Only
48	Prof. P.B. Ramudu & other Faculty Members	M/s KEI Industries Ltd, S 15/26, Ashapur Moiya Sarnath, Dirghayu Hospital, Varanasi	Cube	12,960.00	Rupees Twelve Thousand Nine Hundred Sixty Only
49	Dr. P.R. Maiti & other faculty members	A.E., BHU Project Subdivisin-3, CPWD, Varanasi (M/s Winner Const. Pvt. Ltd.)	Cement, Cube	121,776.00	Rupees One Lakh TwentyOne Thousand Seven Hundred SeventySix Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
50	300000000000000000000000000000000000000	Project Manager, U.P. Awas Evam Vikash Parishad Construction Unit, Varanasi Bhelupur, Varanasi		56,050.00	Rupees FiftySix Thousand Fifty Only
51		Unit Incharge, UPRNNL Court Regidential Area, Ravindra Nagar, Kushinagar		318,600.00	Rupees Three Lakh Eighteen Thousand Six Hundred Only
52		Unit Incharge, UPRNNL Court Regidential Area, Ravindra Nagar, Kushinagar		106,200.00	Rupees One Lakh Six Thousand Two Hundred Only
53		Supreintending Engineer, Irrigation work Department, Varanasi		1,003,000.00	Rupees Ten Lakh Three Thousand Only
54	Prof. V. Kumar, Dr. P.R. Maiti & other faculty members of structural Engg.	M/s Vineet Kumar Singh, Allopur, Amarpatti, Varanasi M/s APS Hydro Pvt. Ltd., FC- 108, Tagore Garden, New Delhi M/s Manoj Chittranshi, DGM/ Project, Rail Vikas Nigam Ltd., Old kaveri School Complex, Western Township, DLW, Varanasi (M/s Gannon Dunkerliey & Co. Ltd.)	Vetting of design and drawing of foundation P1 & P6 of Ring Road for Raribareli City on easternn side NH-24B (Phase 1) in the state of UP, Cube	96,210.00	Rupees NinetySix Thousand Two Hundred Ten Only
55	Dr. Ankit Gupta	Sh. Manus Chittranshi, DGM/ Project, Rail Vikash Nigam Ltd. Old Kaveri school complex, Western Township, DLW (M/s Gannon Dunkerley & Co. Ltd., Gagziabad) Mr. Abhishek Verma, Manager (FQA), NTPC, Singrauli (M/s Vijay Construction)	Bitumen Sample VG-10 & VG-30	51,960.00	Rupees FiftyOne Thousand Nine Hundred Sixty Only
56		AXEN/Con/Chopan Office of the Dy. Chief Engineer/Con. East Central Railway, Chopan (M/s Gannon Dunkley & Co. Ltd.) Assistant Engineer (FQA) BHEL/ PSER, NKP, STPP site, BHEL site office, Tandwa, North Karanpura STPP site (M/s SIL)		33,496.00	Rupees ThirtyThree Thousand Four Hundred NinetySix Only
57	Prof. Arun Prasad	Authorized signatory, MAMB woollens Pvt. Ltd., Jamunipur (M/s Manbwoollen lens Pvt. Ltd.) M/s Freedon Expressway Pvt. Ltd., 4 floor, Universal Trade Tower, Sector-49, Sohna Road, Haryana	Proof checking of structural design of ROB on GZB-MB Section at Rly Km. 100/13-14 on NH-235 at Ch. 31+632 near Hapur Section	244,496.00	Rupees Two Lakh FourtyFour Thousand Four Hundred NinetySix Only
58	Prof. Arun Prasad, Dr. P.R. Maiti and other faculty members of structural engg. Section	M/s GEPDEC Infrastructre Ltd., Tower B, B-9/A Green Boulevard, Sector-62, Noida Assistant Engineer, Duda/Nagar Nigam District Urban Development Authority, 106 Vikas Bhawan, Varanasi	Verification of design calculation and drawing of LCLM open foundation, Paver block	76,700.00	Rupees SeventySix Thousand Seven Hundred Only
59	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	M/s Resident Construction Manager, Tata Proejct Ltd., C/o. Govt. Allopathic Medical College Project (Old spinning Mill Campus)	Steel	49,680.00	Rupees FourtyNine Thousand Six Hundred Eighty Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
60	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	AEN/CON, Office of the Dy. Chief Engineer/ Con, East C. Railway Renukoot (M/s Gannon Dunkley & Co. Ltd.)	Steel	140,420.00	Rupees One Lakh Fourty Thousand Four Hundred Twenty Only
61	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	Joint Developmnet Commission, Vindhayachal circle, Mirzapur Assistant Engineer BHU Project Division-2, CPWD, Varanasi (M/s Mohanty Electrical Bhagwanpur, BHU, Lanka, Varanasi	Steel	14,620.00	Rupees Fourteen Thousand Six Hundred Twenty Only
62	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	Superintending Engineer, University Works Department, Banaras Hindu University (M/s Singh Building Materials Hardware Paint)	Cube	7,080.00	Rupees Seven Thousand Eighty Only
63	Dr. Ankit Gupta	Mr. Deepak Kardy, Sr. Manager (FQA NTPC-Vindhayachal, Singrauli (M/s Vijay Construction Vindhyanagar) Assistant Engineer Duda Manager Nigam District Urban Development Authority lab Vikash Bhawan, Varanasi	Bitumen Emulsion Sample	28,320.00	Rupees TwentyEight Thousand Three Hundred Twenty Only
64	Dr. P.R. Maiti and other facutly members of structural engg. Section	Executive Engineer, Nagar Nigam, Varanasi M/s Prem Bio Agency, Jaunpur Project Manager office of the central Mangarer Ganga Pollution Control Unit UP Jal Nigam, Allahabad (M/s Passavart Energy & Environment, darbhauga Colony ACD	Cube, Bricks, CA & Sand	21,240.00	Rupees TwentyOne Thousand Two Hundred Fourty Only
65	Dr. P.R. Maiti and other facutly members of structural engg. Section	Project Manager office of the central Mangarer Ganga Pollution Control Unit UP Jal Nigam, Allahabad (M/s Passavart Energy & Environment, darbhauga Colony ACD	Cube	1,770.00	Rupees One Thousand Seven Hundred Seventy Only
66	Prof. V. Kumar	Project Manager, UP Awas Evam Vikas Parishad Construction Unit Varanasi Office shopping complex 2nd floor Jawahar Nagar, Bhelupur	Inspection, stability check and report preparation of Govt. Industrial Training Institute at District Sonebhadra	59,000.00	Rupees FiftyNine Thousand Only
67	Prof. V. Kumar	Upper Project Manager, UPRNN Ltd., Jhanshi 1 Paramedical Campus Knapur Road, Jhansi AGM Civil NTPC Ltd., Unhcahar Assistant Raebareli M/s Power Tech Project Limited	Inspection, verification of materials quality reports, workmanship check and report preparation of Para Medical College, Jhansi as part of Third Party Quality Inspection	93,928.00	Rupees NinetyThree Thousand Nine Hundred TwentyEight Only
68	Prof. P.B. Ramudu & other Faculty Members	AGM (FES/FAQ) NTPC Ltd., North Karanpura super Thermal Power Site Thadwa, Jharkhand M/s Simple M/s Dilip Buidcon Uaraha Infra Ltd., Bhojpur, Najori Chauraha, Alapur Ambedkar Nagar	Soil Investigation	65,568.00	Rupees SixtyFive Thousand Five Hundred SixtyEight Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
69		M/s Bridge & Root (Indra Limited Kankria intre 5 floor 2/1 Russel stauf Kolkata C/o Sr. Manager NTPC Ltd., Thanda Vidyut Nagar, Ambedkar Nagar		11,328.00	Rupees Eleven Thousand Three Hundred TwentyEight Only
70	Prof. Rajesh Kumar, Prof. V. Kumar	Unit Incharge (E) UPRNN Ltd., Amit Unit Civil Court Building Allahabad Project Manager, UPRNN Ltd., Amit Unit New Collactor Campus civil line Ambedkara nagar	Inspection, verification of materials quality reports, workmanship check and report preparation for Up-gradation of Modular O.T. Work at Medical College, Allahabad as part of Third Party Quality Inspection Inspection, verification of materials quality reports, workmanship check and report preparation of Govt. Allopathic Medical College, Jaunpur	413,000.00	Rupees Four Lakh Thirteen Thousand Only
71	Prof. V. Kumar, Dr. P.R. Maiti & other faculty members of structural Engg.	Project Manager, UPRNN Ltd., Amit Unit New Collactor Campus civil line Ambedkara nagar	Vetting of structural design and drawing of toilet blocks at District Judiciary Azamgarh	61,360.00	Rupees SixtyOne Thousand Three Hundred Sixty Only
72	Prof. Rajesh Kumar, Prof. V. Kumar	Project Manager, UPRNN Ltd., Azamgarh Unit New Collectorate Campus Civil Lines, Ambedkar Nagar Upper Project Manger, UPRNN Ltd., Engineering College Unit Rajkiya Allopathic Medical College Saddorpur Tanda Road, Ambedkar nagar	Inspection, verification of materials quality reports, workmanship check and report preparation of Rajkiya Allopathic Medical College, Ambedkarnagar (Civil and Electric Work ) Inspection, Verification of materials quality reports, workmanship check and report preparation of Govt. Doon Medical College, Chakrapanpur, Azamgarh	210,200.00	Rupees Two Lakh Ten Thousand Two Hundred Only
73	Dr. P.R. Maiti & other faculty members of structural engg. Section	Upeer Project Manager, UPRNN Ltd., construction is court Building Sarnath Gyanpur Ravidas Nagar, Bhadohi Upeer Project Manager, UPRNN Ltd., Construction of court Building Saprtha Gyanpur, Ravidas Manager, Bhadohi	Cube, Sand, Stone Grit, bricks, steel, cement	132,750.00	Rupees One Lakh ThirtyTwo Thousand Seven Hundred Fifty Only
74		Upper Project Manager, UPRNN Ltd., Construction of 18 Court Building Sarpatha Gyanpur Sant Ravidas Nagar, Bhadohi		141,600.00	Rupees One Lakh FourtyOne Thousand Six Hundred Only
75	Dr. P.R. Maiti & other faculty members of structural engg. Section	M/s KEI Industries Ltd, S 15/26, Ashapur Moiya Sarnath, Dirghayu Hospital, Varanasi	Cube	17,820.00	Rupees Seventeen Thousand Eight Hundred Twenty Only
76	Dr. P.R. Maiti & other faculty members of structural engg. Section	M/s KEI Industries Ltd, S 15/26, Ashapur Moiya Sarnath, Dirghayu Hospital, Varanasi	Cube, CA 20 mm	40,500.00	Rupees Fourty Thousand Five Hundred Only



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77	Dr. P.R. Maiti & other faculty members of structural engg. Section	M/s KEI Industries Ltd, S 15/26, Ashapur Moiya Sarnath, Dirghayu Hospital, Varanasi	Bricks, Cube	27,540.00	Rupees TwentySeven Thousand Five Hundred Fourty Only
78	Dr. P.R. Maiti & other faculty members of structural engg. Section	M/s KEI Industries Ltd, S 15/26, Ashapur Moiya Sarnath, Dirghayu Hospital, Varanasi	Cube	29,160.00	Rupees TwentyNine Thousand One Hundred Sixty Only
79	Dr. P.R. Maiti & other faculty members of structural engg. Section	M/s KEI Industries Ltd, S 15/26, Ashapur Moiya Sarnath, Dirghayu Hospital, Varanasi	Cube	24,300.00	Rupees TwentyFour Thousand Three Hundred Only
80	Dr. P.R. Maiti & other faculty members of structural engg. Section	M/s KEI Industries Ltd, S 15/26, Ashapur Moiya Sarnath, Dirghayu Hospital, Varanasi	Cube, Bricks	14,580.00	Rupees Fourteen Thousand Five Hundred Eighty Only
81	Dr. P.R. Maiti & other faculty members of Structural Engg.	M/s KEI Industries Ltd, S 15/26, Ashapur Moiya Sarnath, Dirghayu Hospital, Varanasi	Agreegate 20 mm & Sand	24,300.00	Rupees TwentyFour Thousand Three Hundred Only
82		M/s KEI Industries Ltd, S 15/26, Ashapur Moiya Sarnath, Dirghayu Hospital, Varanasi		16,200.00	Rupees Sixteen Thousand Two Hundred Only
83	Dr. P.R. Maiti & other faculty members of Structural Engg.	Executive Engineer/Con/11/ HJP/Office of the Dy. CE/ CON/111 Hajpur Central Railway, Hazipur (M/s Lord Vishnu Construction Pvt. Ltd.) Dy. Manager, Technical RMC, Dymix (India) a division of Prism Cement Ltd. C/o Dousan Power System India Pvt. Ltd. Obra Thremal Power Extension Project	Mix Design	130,000.00	Rupees One Lakh Thirty Thousand Only
84	Dr. Ankit Gupta, Prof. V.Kumar	Executive Engineer, Electricity Civil transmission corporation Ltd., Vidyut Colony, Govind Nagar, Kanpur Kanthi Bijlee, Utpadan Nigam Ltd., Muzzfarpur Tharmal power Station, Muzzafarpur (M/s Kanpur Enterprises Pvt. Ltd.)	Course Aggregate, Structural Design and Drwing of Well Foundations on Ganga River of 220 K.V. Unnao - Phoolbagh (Kanpur) Transmission Line	423,620.00	Rupees Four Lakh TwentyThree Thousand Six Hundred Twenty Only
85	Dr. Ankit Gupta	Mr. U.S. Prasad, Chief Manager/ Civil/QC, NCL, HQ, Singrauli	Bitumen & APP Membranes	93,220.00	Rupees NinetyThree Thousand Two Hundred Twenty Only
86		Prism Heritage Project Limited, 32A Tribuwan Complex, Friends Colony, Mathura Road, New Delhi (M/s Arctic Refregration Pvt. Ltd.) Shop No- 4, Near ITI College, Chhitransi sector-63, Noida		11,328.00	Rupees Eleven Thousand Three Hundred TwentyEight Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
87	Dr. P.R. Maiti & other faculty members of Structural Engg.	Project Manager, Awas Evam Vikas Parishad Constrution Unit, Varanasi Office Cum Shopping Complex, 2 Floor, Jawahar Nagar, Bhelupur, Varanasi Sr. Manager (FQA) Kanti Bijlee Utpadan Nagar Ltd., P.D. Kanti Thermal, Muzaffarpur (M/s The Indira Pvt. Ltd.)	Cube	37,170.00	Rupees ThirtySeven Thousand One Hundred Seventy Only
88	Dr. P.R. Maiti & other faculty members of Structural Engg.	Sr. Manager (FQA), Kanti Bijlee Utpadan Nagar Ltd., Kanti tharmal, Muzaffarpur (M/s Indira Pvt. Ltd.) Project Manager, M/s AFCONS Infrastructure Ltd., Construction Multimodel IWT, Terminal Varanasi, Ramnagar	Cement, Cube	37,020.00	Rupees ThirtySeven Thousand Twenty Only
89	Prof. V. Kumar, Dr. P.R. Maiti & other faculty members of structural Engg.	Upper Project Manager, UPRNN Ltd., Lohiya Hospital Unit, Vibhuti Khand, Gomti Nagar, Lucknow Project Manager, Construction & Design service Unit 37, UP Jal Nigam, House No 57/1, Gayapatti Kala, Jaunpur	Inspection, Verification of materials quality reports, workmanship check and report preparation of construction work in Main Office of Jail at Dr. Sampoornanand training Quality Inspection, Paver block	76,700.00	Rupees SeventySix Thousand Seven Hundred Only
90	Dr. P.R. Maiti & other faculty members of Structural Engg.	M/s KEI Industries Ltd, SA 15/2 B, Ashapur Moiya Sarnath, Dirghayu Hospital, Varanasi	Cube	9,720.00	Rupees Nine Thousand Seven Hundred Twenty Only
91	Dr. P.R. Maiti & other faculty members of Structural Engg.	M/s KEI Industries Ltd, SA 15/2 B, Ashapur Moiya Sarnath, Dirghayu Hospital, Varanasi	Cube	9,720.00	Rupees Nine Thousand Seven Hundred Twenty Only
92	Dr. P.R. Maiti & other faculty members of Structural Engg.	M/s KEI Industries Ltd, SA 15/2 B, Ashapur Moiya Sarnath, Dirghayu Hospital, Varanasi	Paver block, Cube	7,020.00	Rupees Seven Thousand Twenty Only
93	Dr. P.R. Maiti & other faculty members of Structural Engg.	M/s KEI Industries Ltd, SA 15/2 B, Ashapur Moiya Sarnath, Dirghayu Hospital, Varanasi	Cube	11,340.00	Rupees Eleven Thousand Three Hundred Fourty Only
94	Dr. P.R. Maiti & other faculty members of Structural Engg.	M/s KEI Industries Ltd, SA 15/2 B, Ashapur Moiya Sarnath, Dirghayu Hospital, Varanasi	Cube	12,960.00	Rupees Twelve Thousand Nine Hundred Sixty Only
95	Dr. P.R. Maiti & other faculty members of Structural Engg.	Assistant Engineer, BHU Project Subdivision-3, CPWD, Varanasi (M/s Anil Enterprises)	Steel, Bricks	47,520.00	Rupees FourtySeven Thousand Five Hundred Twenty Only
96	Dr. P.R. Maiti & other faculty members of Structural Engg.	Assistant Engineer, BHU Project Subdivision-3, CPWD, Varanasi (M/s Anil Enterprises)	Steel, Cement	57,240.00	Rupees FiftySeven Thousand Two Hundred Fourty Only
97	Dr. P.R. Maiti & other faculty members of Structural Engg.	Assistant Engineer, BHU Project Subdivision-3, CPWD, Varanasi (M/s Anil Enterprises)	Cement	12,960.00	Rupees Twelve Thousand Nine Hundred Sixty Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
98	Dr. P.R. Maiti & other faculty members of Structural Engg.	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Anil Enterprises)	Steel, Cement	25,920.00	Rupees TwentyFive Thousand Nine Hundred Twenty Only
99	Dr. P.R. Maiti & other faculty members of Structural Engg.	Assistant Engineer, BHU Project Division-2, CPWD, Varanasi (M/s Anil Enterprises) Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Anil Enterprises)	Cube, Cement	10,320.00	Rupees Ten Thousand Three Hundred Twenty Only
100	Dr. P.R. Maiti & other faculty members of Structural Engg.	Assistant Engineer, BHU Project Subdivision-1, CPWD, Varanasi (M/s S.M. Saquib) Chief Manager (Civil)/QC, NCL, Singrauli	Steel, Flush Door, Panel Door & Gabion Boxes	635,430.00	Rupees Six Lakh ThirtyFive Thousand Four Hundred Thirty Only
101	Prof. V. Kumar	Adhishashi Abhiyanta, Prantiya Khand, PWD, Varanasi M/s Patel Infrastructure Ltd., Patel House beside Prakarti Resort, Chhani Road, Chhani, Vadodara	Vetting of structural design and drawing of following structure for widening to two/ four lane with paved shoulders from Km. 0.000 to Km. 54.370 (Maharashtra Boarder to Bidar) section of NH-50 in the state of Karnataka on EPC Mode	1,832,400.00	Rupees Eighteen Lakh ThirtyTwo Thousand Four Hundred Only
102	Dr. Ankit Gupta, Prof. V.Kumar	M/s Patel Infrastructure Ltd., Patel House, Beside PrakartiResort Road, Chhani Road, Channi, Vadodara Mr. Shiv Prasad, Assistant Engineer, UP Awas and Vikash Parishad, Nirman Khand - 34, Jawahar Nagar, Bhelupur, Varanasi	Bituminous Mix BM & SDBC Sample, Vetting of structural design and drawing of following structures for construction of 4 lane road on NH-12 (Near NH-52) from 299.00 to 346.540 (Design chainage from 9.860 to 58.740) (Darah-Jhalawa-teendhar section) in the state of Rajasthan under NHDP Phase -III (Length 48.880Km) Package-II (i) Superstructure (ii) Superstructure and substructure of ROB including Non-Railway portion (iii) Major Bridge: Pier & abutment (iv) Grade Separated structure: Abutment & Pier (v) Flyover: Pier & Abutment (vi) Vehicular Uderpasses (VUP): Abutment	1,618,860.00	Rupees Sixteen Lakh Eighteen Thousand Eight Hundred Sixty Only
103	Dr. Ankit Gupta, Dr. P.R. Maiti & other faculty members	G.M. Project, Hindalco Industires Ltd., Renukoot, Sonebhadra M/s Jai Prakash Associales Limited, Varanasi Gorakhpur Road Project (NH-29), Base Camp Rampur, Dhanauli Near Doharighat, Mau	Rock Sample, Mix Design, steel	146,340.00	Rupees One Lakh FourtySix Thousand Three Hundred Fourty Only
104	Dr. P.R. Maiti & other faculty members of Structural Engg., Dr. P.Bala Ramudu	M/s Subhash Infra Engineer Pvt. Ltd., C/o The DGM (D&M, Civil) NTPC Unchahar, Raebareli Road, UP Executive Officer, Nagar Palika Parishad, Ramnagar, Varanasi (Shri Rakesh Singh)	Paver block	82,580.00	Rupees EightyTwo Thousand Five Hundred Eighty Only



	Name of				
Sl. No.	faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
105	Prof. V. Kumar	Vice President M/s JITF Water Infrastructure Ltd., ACR Residency, Plot No. 126, Near Nikunj, Sikandara, Agra	Vetting of structure design and drawing of Steel Truss Bridge of Agra Water Supply Project, Package No. 7 in District Agra	59,000.00	Rupees FiftyNine Thousand Only
106	Dr. P.R. Maiti & other faculty members of Structural Engg., Dr. P.Bala Ramudu	AGM (F&A) Meja Urga Nigam (P) Ltd., 5 floor, sangam Palace, Civil Lines, Allahabad (M/s Simplex Infrastructure Ltd.) M/s Simplex Infrastructure Ltd., C/o AGM (F&A) Meja Urja Nigam Ltd., Meja TPP, 5 floor Sangam Palace, Civil Lines, Allahabad	Mix Design	436,320.00	Rupees Four Lakh ThirtySix Thousand Three Hundred Twenty Only
107	Dr. P.R. Maiti & other faculty members of Structural Engg.	Assistant Engineer, BHU Project Subdivision-3, PWD, Varanasi (M/s Anil Enterprises)	Steel	61,560.00	Rupees SixtyOne Thousand Five Hundred Sixty Only
108	Dr. P.R. Maiti & other faculty members of Structural Engg.	Assistant Engineer, BHU Project Subdivision-3, CPWD, Varanasi (M/s Anil Enterprises)	Cube, Steel	37,800.00	Rupees ThirtySeven Thousand Eight Hundred Only
109	Dr. P.R. Maiti & other faculty members of Structural Engg.	Assistant Engineer, BHU Project Subdivision-3, CPWD, Varanasi (M/s Anil Enterprises)	Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
110	Dr. P.R. Maiti & other faculty members of Structural Engg.	Assistant Engineer, BHU Project Subdivision-3, CPWD, Varanasi (M/s Anil Enterprises)	Steel, Cube	28,080.00	Rupees TwentyEight Thousand Eighty Only
111	Dr. P.R. Maiti & other faculty members of Structural Engg.	Assistant Engineer, BHU Project Subdivision-3, CPWD, Varanasi (M/s Anil Enterprises)	Cement	12,960.00	Rupees Twelve Thousand Nine Hundred Sixty Only
112	Dr. P.R. Maiti & other faculty members of Structural Engg.	Superintending Engineer, UWD, BHU, Varanasi (M/s Onkar Industries) E.E., Kanahar Construction Division-1, Pipari Sonebhadra	Paver block, Cube	18,880.00	Rupees Eighteen Thousand Eight Hundred Eighty Only
113	Dr. P.R. Maiti & other faculty members of Structural Engg.	Assistant Engineer, BHU Project Subdivision-1, CPWD, Varanasi (M/s Gayatri Electrical Works)	Bricks, Granite Stoner	18,650.00	Rupees Eighteen Thousand Six Hundred Fifty Only
114	Prof. Rajesh Kumar	M/s Dilip Buildcon Ltd., Room/Flat NoPlat-Nos 619KH, Medinipur	Vetting of Structural design and drawing of four lanning with paved shoulders of NH-6 from Cichra to Kharagpur Km. 185.150 to Km. 134.400 incliding rehabilitation of existing four lane from Km. 134.400 to Km. 129.600 in the state of West Bengal under EPC Mode: (i) rOB at 58+125 (5x36 +3x24+ 3x30+ 1x14.75+1 x21. 72+1x21.92)= 480.00 (ii) ROB at 64+ 115 (1x 14.255+ 1x37.280+1x 22.080)=73.615	486,000.00	Rupees Four Lakh EightySix Thousand Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
115	Dr. P.R. Maiti & other faculty members of structural engg.	Sr. Manager (FQA-Civil), NTPC Tanda, Vidyut Nagar, Ambedkar Nagar	Steel	120,360.00	Rupees One Lakh Twenty Thousand Three Hundred Sixty Only
116	Dr. Ankit Gupta	M/s Jaiprakash Associate Ltd., Varanasi Gorakhpur Road Project (NH-29), Base Camp, Rampur, Near, Dohrigahat, Mau Mr. M.P. Singh, Project Manager, HIll/BSB-ALD/DL Project Varanasi UP (M/s Gannon Dunkerley & Co. Ltd.)	Rock Sample	54,770.00	Rupees FiftyFour Thousand Seven Hundred Seventy Only
117	Dr. Ankit Gupta, Dr. P.R. Maiti & other faculty members of Structural Engg.	Mr. Nisheeth Kumar Singh, JV, GMR Infrastructure Ltd., Banglore EE, Kanhar Construction Division-2, Pipari	Railway Track Ballast, Cube	16,520.00	Rupees Sixteen Thousand Five Hundred Twenty Only
118	Dr. Ankit Gupta, Dr. P.R. Maiti & other faculty members of Structural Engg.	Mr. Nisheeth Kumar Singh, JV, GMR Infrastructure Ltd., Banglore EE, Kanhar Construction Division-2, Pipari	Cube	7,080.00	Rupees Seven Thousand Eighty Only
119	Dr. Ankit Gupta, Dr. P.R. Maiti & other faculty members of Structural Engg.	E.E., UP Rajya Nirman Shahakari Sangh Ltd., Varanasi Assistant Engineer, BHU Sub division-1, CPWD, Varanasi (M/s Balaji Construction)	Bricks, Aggregate Sand, Cement	18,960.00	Rupees Eighteen Thousand Nine Hundred Sixty Only
120	Dr. Ankit Gupta, Dr. P.R. Maiti & other faculty members of Structural Engg.	Assistant Engineer, BHU Project Division-2, CPWD, Varanasi (M/s Kamaladitya Construction Pvt. Ltd.)	Steel	21,600.00	Rupees Twenty One Thousand Six Hundred Only
121	Dr. Ankit Gupta, Dr. P.R. Maiti & other faculty members of Structural Engg.	Assistant Engineer, BHU Project Division-2, CPWD, Varanasi (M/s Kamaladitya Construction Pvt. Ltd.)	Mix Design, Steel	78,840.00	Rupees Seventy Eight Thousand Eight Hundred Fourty Only
122	Dr. Ankit Gupta, Dr. P.R. Maiti & other faculty members of Structural Engg.	Assistant Engineer, BHU Project Division-2, CPWD, Varanasi (M/s Kamaladitya Construction Pvt. Ltd.)	Steel	15,120.00	Rupees Fifteen Thousand One Hundred Twenty Only
123	Prof. Arun Prasad	M/s Freedom Point Expressory Pvt. Ltd., 4 floor Universal Trade Tower, Sector-49, Sohna Road, Haryana M/s Setr Infra consulting Pvt. Ltd., B-98, 2 floor, Ashoka Enclave 11, Sector-37, Faridabad	Proof checking of structural design of ROB on GZB-MB Section at Rly Km. 100/13-14 on NH-235 at Ch. 31+632 near Hapur Section Vetting of structural design and drawing of following Bridge at Kanaonl, Ghaziabad (i) Bridge over Hindon Cut Canal (2-Span) (ii) Box Bridge over Parllel Hindon Cut Canal	295,000.00	Rupees Two Lakh NinetyFive Thousand Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
124	Prof. Arun Prasad, Dr. Pabitra Ranjan Maiti	HES Infra Pvt. Ltd., 39, B.N. Reddy Colony, Banjara Hills, Hydrabad Associate Vice President M/s NEPC Shivram crossing, Ahemdabad, Gujrat	Site visit and report preparation on foundation study for the proposed construction of Head Sluice at Chainage , Vetting of design and drawing of Ground floor & first floor prestressed concrete beams (Gravity loads only)	164,000.00	Rupees One Lakh SixtyFour Thousand Only
125	Prof. Krishna Kant Pathak	G.M. Civil Jhunjhunwala Hospital, Faizabad EE., Provincial Division, PWD, Chandauli	Vetting of structural design and drawing of Jhunjhunwala Hospital, Faizabad Structural design of small bridge at Bahoria Nala Chandauli	322,400.00	Rupees Three Lakh TwentyTwo Thousand Four Hundred Only
126	Dr. Ankit Gupta	Mr. Piyush Pathak, IRSE, ADEN/ NR/BSB Assistant Divisional Engg., N. Railway, Lucknow, Varanasi	Railway Track Ballast	25,960.00	Rupees TwentyFive Thousand Nine Hundred Sixty Only
127	Dr. P.R. Maiti	AE, Varanasi Project Subdivision-3, CPWD, Varanasi (M/s Immediate Construction compnay pvt. Ltd.)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only
128	Prof. Devendra Mohan	AE, Varanasi Project Subdivision-3, CPWD, Varanasi (M/s Immediate Construction compnay pvt. Ltd.)	Testing of Water sample	11,328.00	Rupees Eleven Thousand Three Hundred TwentyEight Only
129	Dr. P.R. Maiti	AE, Varanasi Project Subdivision-3, CPWD, Varanasi (M/s Immediate Construction compnay pvt. Ltd.)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only
130	Dr. P.R. Maiti	AE, Varanasi Project Subdivision-3, CPWD, Varanasi (M/s Immediate Construction compnay pvt. Ltd.)	Steel Testing	22,420.00	Rupees TwentyTwo Thousand Four Hundred Twenty Only
131	Dr. P.R. Maiti	AE, Varanasi Project Subdivision-3, CPWD, Varanasi (M/s Immediate Construction compnay pvt. Ltd.)	Cube Testing	10,620.00	Rupees Ten Thousand Six Hundred Twenty Only
132	Dr. P.R. Maiti	AGM, M/s Hindustan prefab Limited Jangpura, New Delhi (M/s Universal Contractors and Engineeres pvt. Ltd., Greater noida)	Testing of Physical properties of cement/Cube Testing	59,000.00	Rupees FiftyNine Thousand Only
133	Dr. P.R. Maiti	AGM, M/s Hindustan prefab Limited Jangpura, New Delhi (M/s Universal Contractors and Engineeres pvt. Ltd., Greater noida)	Testing of Cement	10,620.00	Rupees Ten Thousand Six Hundred Twenty Only
134	Dr. P.R. Maiti	AGM, M/s Hindustan prefab Limited Jangpura, New Delhi (M/s Universal Contractors and Engineeres pvt. Ltd., Greater noida)	Steel Testing	21,240.00	Rupees TwentyOne Thousand Two Hundred Fourty Only
135	Prof. Devendra Mohan	AGM, M/s Hindustan prefab Limited Jangpura, New Delhi (M/s Universal Contractors and Engineeres pvt. Ltd., Greater noida)	Testing of Water sample	27,258.00	Rupees TwentySeven Thousand Two Hundred FiftyEight Only
136	Dr. P.R. Maiti	AE, BHU Projet Division-2, CPWD, Varanasi (M/s Gupta Construction Pvt. Ltd.)	Steel Testing	33,040.00	Rupees ThirtyThree Thousand Fourty Only



Sl. No.	Name of faculty (Chief	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
137	Consultant)  Dr. P.B. Ramudu	M/s Ashish Enterprises Parichha, Jhansi C/o The Ex. Engieer, thermal power Station, UPRVUNL Obra, Sonebhadra	Soil Investigation	76,110.00	Rupees SeventySix Thousand One Hundred Ten Only
138	Dr. P.R. Maiti	DGM, Project Implementation Unit Bihar State building Construction, Corporation Limited, BSBCCL, Hospital road Shastri nagar, Patna (M/s Shiva Fab. Cons.)	Steel Plate Tensile Strength	11,800.00	Rupees Eleven Thousand Eight Hundred Only
139	Dr. P.R. Maiti	DGM, Project Implementation Unit Bihar State building Construction, Corporation Limited, BSBCCL, Hospital road Shastri nagar, Patna (M/s Shiva Fab. Cons.)	Testing of Tensile Strength yield stress and percentage erongation	11,800.00	Rupees Eleven Thousand Eight Hundred Only
140	Dr. P.R. Maiti	Superintending Engineer, UWD, BHU (M/s Shiv Prakash Yadav)	Testing of Bricks	8,850.00	Rupees Eight Thousand Eight Hundred Fifty Only
141	Dr. P.R. Maiti	Superintending Engineer, UWD, BHU (M/s Shiv Prakash Yadav)	Cube Testing	7,080.00	Rupees Seven Thousand Eighty Only
142	Prof. Rajesh Kumar	EE, Searcity Division, UP Jal Nigam, Mirzapur	Site Visit , Problem Analysis and Expertopinion	70,800.00	Rupees Seventy Thousand Eight Hundred Only
143	Dr. P.R. Maiti	EE, Nagar Palika Parishad, Ramnagar, Varanasi (M/s Raghuvanshi Constrution)	Interlocking Bricks	5,900.00	Rupees Five Thousand Nine Hundred Only
144	Dr. Rajesh Kumar	GM, Administartion, M/s Sparsh Engineering, Company (p) Limited, Opp. 504, Midland Apartment (West)Anantpur, Near over bridge, Doranda, Ranchi, Jharkhand	Vetting of structural design and drawing fo ROB	162,000.00	Rupees One Lakh SixtyTwo Thousand Only
145	Dr. Rajesh Kumar	GM, Administartion, M/s Sparsh Engineering, Company (p) Limited, Opp. 504, Midland Apartment (West)Anantpur, Near over bridge, Doranda, Ranchi, Jharkhand	Vetting of structural design and drawing fo ROB	64,800.00	Rupees SixtyFour Thousand Eight Hundred Only
146	Prof. V. Kumar	M/s Harbel Singh & Sons, H-18, Jangpura Extension, New Delhi	Vetting of Structural Design and drawing of RCC Box	88,500.00	Rupees EightyEight Thousand Five Hundred Only
147	Dr. P.R. Maiti	EE, BHU Project Division-1, CPWD, Varanasi (M/s Varun Gupta & Co. )	Concrete Mix Design	32,450.00	Rupees ThirtyTwo Thousand Four Hundred Fifty Only
148	Dr. Ankit Gupta	Mr. Arman Sharma, Junior Engineer (Civil), FCI, Chandari, Kanpur	Testing & Consultancy of Job mix and design calculation	82,600.00	Rupees EightyTwo Thousand Six Hundred Only
149	Prof. V. Kumar	EE, Central University, rajsthan Project Division, CPWD, Bandar Sindari Kishangarh, Ajmer, Rajsthan	Structural desing and drawing of C/o of OBC hostel building of CUR	584,100.00	Rupees Five Lakh EightyFour Thousand One Hundred Only
150	Dr. P.R. Maiti	Staff Officer (C) Krishnashila Projet (Civil) NCL, Bina, Sonebhadra (M/s Ram Kripal Singh Constrution Pvt. Ltd.)	Concrete Mix Design	32,450.00	Rupees ThirtyTwo Thousand Four Hundred Fifty Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
151	Dr. P.R. Maiti	AE, BHU Project Sudivision-3, CPWD, Varanasi (M/s Anil Enterprises)	Wood Moisture Content and identification of wood	12,960.00	Rupees Twelve Thousand Nine Hundred Sixty Only
152	Dr. P.R. Maiti	AE, BHU Project Sudivision-3, CPWD, Varanasi (M/s Anil Enterprises)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
153		Mr. Shri Raj EE, Provincial Division, PWd, Firozabad	Proof checking and Vetting of Pavement Design	236,000.00	Rupees Two Lakh ThirtySix Thousand Only
154	Dr. P.R. Maiti	M/s Macawber beekay Private Limited, Beekay House C-450, Sec 10, Noida	Concrete Mix Design	32,450.00	Rupees ThirtyTwo Thousand Four Hundred Fifty Only
155	Prof. Rajesh Kumar	AVP-Technical M/s Dilip Buildcon Limited, Bermo Road, Jainamore, Bokaro, Jharkhand	Vetting of structural design and drawing	206,500.00	Rupees Two Lakh Six Thousand Five Hundred Only
156	Prof. V. Kumar	Director, Geotech Technical Associates Pvt. Ltd., No7, Mahamanapuri, ITI, Road, BHU, Varanasi	Vetting of structural design and drawing of ROB	88,500.00	Rupees EightyEight Thousand Five Hundred Only
157	Prof. V. Kumar	Project Manager, UPRNN Ltd., Azamgarh Unit, New collectorate, Campus Civil Lines, Azamgarh	Inspection Verification of Materials quality report	59,000.00	Rupees FiftyNine Thousand Only
158	Prof. V. Kumar	Project Manager, UPRNN Ltd., Azamgarh Unit, New collectorate, Campus Civil Lines, Azamgarh	Inspection Verification of Materials quality report	59,000.00	Rupees FiftyNine Thousand Only
159	Prof. V. Kumar	Project Manager, UPRNN Ltd., Azamgarh Unit, New collectorate, Campus Civil Lines, Azamgarh	Inspection Verification of Materials quality report	59,000.00	Rupees FiftyNine Thousand Only
160	Prof. V. Kumar	Project Manager, UPRNN Ltd., Azamgarh Unit, New collectorate, Campus Civil Lines, Azamgarh	Inspection Verification of Materials quality report	59,000.00	Rupees FiftyNine Thousand Only
161	Prof. V. Kumar	Project Manager, UPRNN Ltd., Azamgarh Unit, New collectorate, Campus Civil Lines, Azamgarh	Inspection Verification of Materials quality report	59,000.00	Rupees FiftyNine Thousand Only
162	Prof. V. Kumar	Project Manager, UPRNN Ltd., Azamgarh Unit, New collectorate, Campus Civil Lines, Azamgarh	Inspection Verification of Materials quality report	59,000.00	Rupees FiftyNine Thousand Only
163	Prof. V. Kumar	Project Manager, UPRNN Ltd., Azamgarh Unit, New collectorate, Campus Civil Lines, Azamgarh	Inspection Verification of Materials quality report	59,000.00	Rupees FiftyNine Thousand Only
164	Prof. V. Kumar	M/s Varanasi STP Projects Pvt. Ltd., 50 MLD Sewage Treatment Plant , UP Jal Nigam compound Shantipuram Road, Ramna, Varanasi	Vetting of Structural design & drawing	1,242,000.00	Rupees Twelve Lakh FourtyTwo Thousand Only
165	Dr. P.R. Maiti	Project Manager State Bridge, Corporation Ltd., Bridge Construction Unit, House No. 783, Paras Palace tyubel Colony Chauraha hydil road, Jaunpur	Steel Testing	5,900.00	Rupees Five Thousand Nine Hundred Only
166	Dr. P.R. Maiti	M/s Prakahs Enterprises, Shahpur Sema Jananaganj, Azamgarh	Interlocking Bricks	5,900.00	Rupees Five Thousand Nine Hundred Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
167	Dr. P.R. Maiti	EE,/Con/II/HJP/Office of the Dy. CE/Con/II/Hajipur, East Central Railway, hazipur (M/s Lord Vishnu Construction Pvt. Ltd.)	Concrete Mix Design	32,450.00	Rupees ThirtyTwo Thousand Four Hundred Fifty Only
168	Dr. P.R. Maiti	M/s Suman engineerring, Works, III- 9, Jwabonukhi Colony, shaktinagar, Sonebhadra	Steel Testing	55,460.00	Rupees FiftyFive Thousand Four Hundred Sixty Only
169	Dr. P.R. Maiti	AE, BHU Project Subdivision-2, CPWD, Varanasi (M/s Devinder Singh)	Steel Testing	21,240.00	Rupees TwentyOne Thousand Two Hundred Fourty Only
170	Dr. P.R. Maiti	AE, BHU Project Subdivision-2, CPWD, Varanasi (M/s Devinder Singh)	Testing of Cement	28,320.00	Rupees TwentyEight Thousand Three Hundred Twenty Only
171	Dr. P.R. Maiti	AE, BHU Project Subdivision-2, CPWD, Varanasi (M/s Devinder Singh)	Testing of Cement	10,620.00	Rupees Ten Thousand Six Hundred Twenty Only
172	Dr. P.R. Maiti & other faculty members of Structural Engg.	Assistant Engineer, BHU Project Division, CPWD, Vanarasi (M/s Kamaladiya Construction Pvt. Ltd.)	Cement	19,440.00	Rupees Nineteen Thousand Four Hundred Fourty Only
173	Dr. P.R. Maiti & other faculty members of Structural Engg.	Assistant Engineer, BHU Project Division-2, CPWD, Vanarasi (M/s Kamaladiya Construction Pvt. Ltd.)	Cement	25,920.00	Rupees TwentyFive Thousand Nine Hundred Twenty Only
174	Dr. P.R. Maiti & other faculty members of Structural Engg.	Assistant Engineer, BHU Project Division-2, CPWD, Vanarasi (M/s Kamaladiya Construction Pvt. Ltd.)	Bricks, Steel	17,820.00	Rupees Seventeen Thousand Eight Hundred Twenty Only
175	Dr. P.R. Maiti & other faculty members of Structural Engg.	Assistant Engineer, BHU Project Division-2, CPWD, Vanarasi (M/s Kamaladiya Construction Pvt. Ltd.)	Steel	19,440.00	Rupees Nineteen Thousand Four Hundred Fourty Only
176	Dr. P.R. Maiti & other faculty members of Structural Engg.	Assistant Engineer, BHU Project Division-2, CPWD, Vanarasi (M/s Kamaladiya Construction Pvt. Ltd.)	Steel, Cement	27,000.00	Rupees TwentySeven Thousand Only
177	Dr. P.R. Maiti & other faculty members of Structural Engg.	Assistant Engineer, BHU Project Division-2, CPWD, Vanarasi (M/s Kamaladiya Construction Pvt. Ltd.)	Cement	13,960.00	Rupees Thirteen Thousand Nine Hundred Sixty Only
178	Dr. P.R. Maiti & other faculty members of Structural Engg.	Assistant Engineer, BHU Project Division-2, CPWD, Vanarasi (M/s Kamaladiya Construction Pvt. Ltd.)	Steel, Cement	35,640.00	Rupees ThirtyFive Thousand Six Hundred Fourty Only
179	Dr. P.R. Maiti & other faculty members of Structural Engg.	Assistant Engineer, BHU Project Division-2, CPWD, Vanarasi (M/s Kamaladiya Construction Pvt. Ltd.)	Steel, Cement	28,080.00	Rupees TwentyEight Thousand Eighty Only
180	Dr. P.R. Maiti & other faculty members of Structural Engg.	Assistant Engineer, BHU project Subdivision-4, CPWD, Varanasi (M/s Kamaladitya Construction Pvt. Ltd.)	Steel, Cement	45,360.00	Rupees FourtyFive Thousand Three Hundred Sixty Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
181	Dr. P.R. Maiti & other faculty members of Structural Engg.	Assistant Engineer, BHU project Subdivision-4, CPWD, Varanasi (M/s Kamaladitya Construction Pvt. Ltd.) AGM (FQA), Vrja Nigam (P) Limited, Allahabad (A Joint Venture of NTPC Ltd. & UPRVN Limited)	Steel	37,368.00	Rupees ThirtySeven Thousand Three Hundred SixtyEight Only
182		M/s Jaiprakash Associates Limited, 3/42, Bahar, Cluster-3, Sahara Estate, Gorakhpur		22,600.00	Rupees TwentyTwo Thousand Six Hundred Only
183	Dr. P.R. Maiti & other faculty members of Structural Engg.	M/s Suman Engg. Works H.QB 4 H.S.C.L., Colony Anpara, Sonebhadra M/s Suman Engg. Works III-9, Jawalamukhi Colony, shaktinagar, Sonbehadra	Mix Design	76,228.00	Rupees SeventySix Thousand Two Hundred TwentyEight Only
184	Prof. Rajesh Kumar	Project Manager, UPRNN Ltd, Bhadohi Unit, House No. 02, Vivekanand Nagar Colony, Lohamandi, Maldahiya, Varanasi	Vetting of Structural design and drawing of New Stadium at Ghazipur	118,000.00	Rupees One Lakh Eighteen Thousand Only
185	Dr. Ankit Gupta, Dr. P.R. Maiti & other faculty members of Structural Engg.	EE., Chandraprabha Prakhand, Chandauli Mr. Amarnath Saroj, Assistant Engineer, BIDA- Bhadohi	Core Cutting and Site and Testing of Core, Cement	115,080.00	Rupees One Lakh Fifteen Thousand Eighty Only
186	Prof. V. Kumar, Dr. P.R. Maiti & other faculty members of structural Engg.	Assistant Engineer, BHU Proejct Subdivision-1, CPWD, Varanasi (M/s Gayatri Electrical Works) Project Manager, Construction & Design Services, U.P. Jal Nigam, Near Line Club Garden Dutta Mandir Road, Nasik Road, Nasik	Vetting of structural design and drawing of Additional class rooms at Kendriya Vidyalaya, ISP Nasik (M.S.), Granite Stone	73,160.00	Rupees SeventyThree Thousand One Hundred Sixty Only
187	Prof. Krishna Kant Pathak	Mothers Pride Infrastructure Pvt. Ltd., M-4/22 Vinay Khand, Gomti Nagar, Lucknow	Vetting of Structural drawing of Academic Block/Admin Block A of the Government Medical College Basti Plinth area 21250 sq. m.	914,600.00	Rupees Nine Lakh Fourteen Thousand Six Hundred Only
188	Dr. P.R. Maiti & other faculty members of Structural Engg.	Project Manager, UP Awas Evam Vikas Parishad, Construction Unit, Varanasi Shopping Complex, 2 floor, Jawahar Nagar, Bhelupur, Varanasi	Steel	14,750.00	Rupees Fourteen Thousand Seven Hundred Fifty Only
189		EE., Kanhar Construction Division-3, Pipari, Sonebhadra		53,690.00	Rupees FiftyThree Thousand Six Hundred Ninety Only
190	Dr. Ankit Gupta	Adhishashi Abhiyanta, Nagar Nigam, Varanasi (M/s Kamal Narayan Singh	Bituminous Mix SDBC & Paver Block Sample	17,700.00	Rupees Seventeen Thousand Seven Hundred Only
191		Adhishashi Abhiyanta, Prantiya Khand, Lok Nirman Vibhag, Aligarh, UP EE., Provincial Division, PWD, Bharaich		649,000.00	Rupees Six Lakh FourtyNine Thousand Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
192	Prof. V. Kumar	Chief Project Manager, Allahabad (West), Dedicated Frieght Corridor Cororation of India Ltd., Old GM Office Building, N.C. Railway, Valmiki Chauraha, Nawab Yusuf Road, Allahabad Project Manager, M/s EMS Infracon Private Ltd., S 410/6 A- 6/8 Shree Kant Nagar Colony, M.A. Road, Chaukaghat, Varanasi	Vetting of following Major and Minor Budget (i) Major Bridge NO. 566 (1x18.3m) (ii) Major Bridge No. 664 (5x6x3m) (iii) Major Bridge No. 721(2x7x5.45m) (iv) Major Bridge No. 743 & 743 A( 2x7x5.45 m + 1x5.5x3.7m) (iv) Minor Bridge 1x1.2x1.2m (v) Minor Bridge 1x1.2x1.5m (vi) Minor Bridge 1x2x2.5m (vii) Minor Bridge 1x7.5x4.5m (viii) Minor Bridge 2x4x4m (ix) Minor Bridge 1x5.5x3.7m (x) Minor Bridge 2x6x4.4m	1,068,400.00	Rupees Ten Lakh SixtyEight Thousand Four Hundred Only
193	Prof. V. Kumar	AGM, NBCC (India) Ltd., Plot No. D-59/143, A-48 sant Raghuvar Nagar, Sigra, Varanasi (M/s Syncott International Shop No. 19 B, 11 floor, Shopping Plaza, Kasam Road, Gautam Buddh Nagar, UP	Vetting of structural design and drawing of following under project code 1949 "(Construction of Hockey Astro Turf at BHU unde Urban Sports Infrastructure Scheme of the Ministry of Youth Affairs and Sport (I) Water Storage tank (II) Water recharge tank	29,500.00	Rupees TwentyNine Thousand Five Hundred Only
194	Prof. V. Kumar	EE., Provincial Division, PWD, Chandauli	Vetting of Structure design and drawing of EVM Storage Buildig at Chandauli	750.00	Rupees Seven Hundred Fifty Only
195	Dr. P.R. Maiti and other faculty members of Structural Engg. Section	Superintending Engineer, UWD, BHU (M/s Shiv Prakash Yadav)	Cube, Steel	28,320.00	Rupees TwentyEight Thousand Three Hundred Twenty Only
196	Dr. Ankit Gupta	Assistant Divisional Engineer, Northern Railway, Varanasi (M/s Parmanand Advani, 8-A, Sindhu Nagar, Bareily)	Testing of Track ballast	12,980.00	Rupees Twelve Thousand Nine Hundred Eighty Only
197	Dr. P.R. Maiti	EE, BHU Project Division-1, PWD, Varanasi (M/s Naresh Kumar gupta & Company)	Concrete Mix Design	32,450.00	Rupees ThirtyTwo Thousand Four Hundred Fifty Only
198	Dr. P.R. Maiti	Superintending Engineer, UWD, BHU (M/s Jai Bajrang Enterprises)	Testing of Bricks	8,850.00	Rupees Eight Thousand Eight Hundred Fifty Only
199	Dr. P.R. Maiti	Superintending Engineer, UWD, BHU (M/s Jai Bajrang Enterprises)	Cube Testing	3,540.00	Rupees Three Thousand Five Hundred Fourty Only
200	Dr. P.R. Maiti	M/s Foundation Engineers, 12, Galany-1, New Patliputra Colony, Patna (Local Ward Aliganj Mughalsarai, Chandauli)	Concrete Mix Design	32,450.00	Rupees ThirtyTwo Thousand Four Hundred Fifty Only
201	Dr. P.R. Maiti	Assistant Manager, Operation, Bharat Petorleum Corporation Ltd., Mughalsarai Installation, Saresar, Alampur, Mughalsarai, Chandauli	Fine Aggregate & Interlocking Bricks	14,160.00	Rupees Fourteen Thousand One Hundred Sixty Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
202	Dr. P.R. Maiti	Executive Engineer, Kanhar Nahar Project Division-4, Bhadohi, Sonebhadra	Cube Testing	3,540.00	Rupees Three Thousand Five Hundred Fourty Only
203	Prof. Devendra Mohan	General Manager, Office of the G.M. Nigahi Project NCL, Singaruli, MP	Ground Water Sample testing	31,860.00	Rupees ThirtyOne Thousand Eight Hundred Sixty Only
204	Dr. P.R. Maiti	Assistant Engineer, BHU Project Division-2, CPWD, Varanasi (M/s Mohanty Electrical, Bhagwanpur, BHU, Lanka, Varanasi)	Steel Testing	21,240.00	Rupees TwentyOne Thousand Two Hundred Fourty Only
205	Dr. P.R. Maiti	M/s Abhilasha enterprises, D-32, Industrial Awas, Rampur	Coare Aggregate 20 mm & 10mm, Fine Aggregate (Sand0, Concrete Mix Design)	90,860.00	Rupees Ninety Thousand Eight Hundred Sixty Only
206	Dr. P.R. Maiti	Unit Incharge, UPRNN Ltd., 300 Bedded Mandaliya Chikitsalaya, Darshan Nagar, Faizabad	Vetrified and Glozed Tiles Testing	21,240.00	Rupees TwentyOne Thousand Two Hundred Fourty Only
207	Dr. P.R. Maiti	Senor section Engineer (Works), Northern Railway, Varanasi	Cube Testing	1,770.00	Rupees One Thousand Seven Hundred Seventy Only
208	Dr. P.R. Maiti	M/s Varanasi STP Projects Private Limited, 6th Floor, Plot No. 19, Film City, Sector 16A, Gautam Buddh Nagar, Noida	Concrete Mix Design	64,900.00	Rupees SixtyFour Thousand Nine Hundred Only
209	Dr. P. Bala Ramudu	C/o The Superintending Engineer, PWD, BHU, Varanasi	1 Borehole upto depth 17 m. or refusal whichever is earlier	85,447.00	Rupees EightyFive Thousand Four Hundred FourtySeven Only
210	Dr. Ankit Gupta	Mr. S.K. Dalal, Team Leader, NSV International, Inc., Iind Floor, Plot no55, Raghuvanshi Rajendra puri Colony, Shivpur	Testing of Concrete Core, Calculation Charges of Concrete Cube	35,400.00	Rupees ThirtyFive Thousand Four Hundred Only
211	Dr. P.R. Maiti	Assistant Engineer, Varanasi Project Subdivision-3, CPWD, Varanasi (M/s Immediate Construction Company Pvt. Ltd.)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only
212	Dr. P.R. Maiti	AE, Varanasi Project Subdivision-3, CPWD, Varanasi (M/s Immediate Construction compnay pvt. Ltd.)	Steel Testing	33,040.00	Rupees ThirtyThree Thousand Fourty Only
213	Dr. P.R. Maiti	AE, Varanasi Project Subdivision-3, CPWD, Varanasi (M/s Immediate Construction compnay pvt. Ltd.)	Steel Testing	21,240.00	Rupees TwentyOne Thousand Two Hundred Fourty Only
214	Dr. P.R. Maiti	AE, Varanasi Project Subdivision-3, CPWD, Varanasi (M/s Immediate Construction compnay pvt. Ltd.)	Cube Testing	10,620.00	Rupees Ten Thousand Six Hundred Twenty Only
215	Dr. P.R. Maiti	AE, Varanasi Project Subdivision-3, CPWD, Varanasi (M/s Immediate Construction compnay pvt. Ltd.)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
216	Dr. P.R. Maiti	AE, Varanasi Project Subdivision-3, CPWD, Varanasi (M/s Immediate Construction compnay pvt. Ltd.)	Steel Testing	34,220.00	Rupees ThirtyFour Thousand Two Hundred Twenty Only
217	Dr. P.R. Maiti	AE, Varanasi Project Subdivision-3, CPWD, Varanasi (M/s Immediate Construction compnay pvt. Ltd.)	Steel Testing	48,970.00	Rupees FourtyEight Thousand Nine Hundred Seventy Only
218	Dr. P.R. Maiti	AE, BHU Project Subdivision-2, CPWD, Varanasi (M/s Devinder Singh)	Testing Granitte stone, Testing of Bricks	11,210.00	Rupees Eleven Thousand Two Hundred Ten Only
219	Dr. P.R. Maiti, Prof. D. Mohan	AE, BHU Project Subdivision-2, CPWD, Varanasi (M/s Devinder Singh)	Water absorption testing of Kota stone, Testing of Water Sample	13,688.00	Rupees Thirteen Thousand Six Hundred EightyEight Only
220	Dr. P.R. Maiti	AE, BHU Project Subdivision-2, CPWD, Varanasi (M/s Devinder Singh) Assistant Manager (Civil), RITES Limited, CPWD office, Allahabad, 5th Floor Sangam Place, Civil Lines, Allahabad (M/s MG Constractor pvt. ltd.)	Steel Testing, concrete Mix Design	55,460.00	Rupees FiftyFive Thousand Four Hundred Sixty Only
221	Dr. P.R. Maiti	AE, BHU Project Subdivision-2, CPWD, Varanasi (M/s Kashyapi Infrastructure Pvt. Ltd.)	Steel Testing, Cement	56,160.00	Rupees FiftySix Thousand One Hundred Sixty Only
222	Dr. P.R. Maiti	AE, BHU Project Subdivision-2, CPWD, Varanasi (M/s Kashyapi Infrastructure Pvt. Ltd.)	Testing of Cement	19,440.00	Rupees Nineteen Thousand Four Hundred Fourty Only
223	Prof. V. Kumar	M/s HG Infra Engineering Ltd., III floor Sheel Mohar Plaza A-1, Tilak marg, C-Scheme Jaipur	Vetting of structural gerised design and drawing of Bridge of IOCL	108,000.00	Rupees One Lakh Eight Thousand Only
224	Prof. V. Kumar	Addl. Project Manager, UPRNN Limited, High Court Unit-1, Horible high Court Construction Place Campus, Vibhuti Khand, Gomti nagar, Lucknow	Inspection, Verification of materials quality report	141,600.00	Rupees One Lakh FourtyOne Thousand Six Hundred Only
225	Dr. P.B. Ramudu	C/o The Ex. Engineer, thermal power station, UPRVUNL obra Sonebhadra, UP (M/s Ashish Enterprises Parlehha Jhansi)	Soil Investigation	23,600.00	Rupees TwentyThree Thousand Six Hundred Only
226	Dr. P.R. Maiti	M/s Builtech India & Co., 2009, Section-16A, Vasundhara, Ghazibad	Concrete Mix Design	32,450.00	Rupees ThirtyTwo Thousand Four Hundred Fifty Only
227	Dr. P.R. Maiti	Executive Engineer Civil Engineer Division "B" Thermal Power Station UPRVN Ltd., Obra Sonebhadra (M/s Ashish Enterprises)	Sine analysis & other	5,310.00	Rupees Five Thousand Three Hundred Ten Only
228	Dr. P.R. Maiti	Joint Development Commission Vindhyachal Division, Mirzapur (PM UPRNN Ltd, Bhadohi) Assistant Engineer, BHU Project Subdivision-1, CPWD, Varanasi (M/s S.M. Saquib)	Testing of Bricks	14,750.00	Rupees Fourteen Thousand Seven Hundred Fifty Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
229	Dr. P.R. Maiti	Assistant Engineer, BHU Project Sub division-1, CPWD, Varanasi (M/s S.M. Saquib)	Testing of Cement	8,850.00	Rupees Eight Thousand Eight Hundred Fifty Only
230	Dr. Ankit Gupta	Mr. Hemant Pawagi, AGM (FQA), NTPC Ltd., North Katanpara, NKSTPP, Tandwa, Jharkhand	Testing Aggregate	14,750.00	Rupees Fourteen Thousand Seven Hundred Fifty Only
231	Dr. Ankit Gupta	Mr. M.P. Singh, Project Manager, Hill/BSB-ALD/DL Project Varanasi (M/s Gannon Drunkenly & Co. Ltd. Ghaziabad)	Testing of Track Ballast	11,880.00	Rupees Eleven Thousand Eight Hundred Eighty Only
232	Dr. P.R. Maiti	Executive Engineer, Nagar Nigam, Varanasi (M/s Rajesh Kumar Giri) M/s Krishna Builders Pvt. Ltd., Ramnagar Industrial Area	Interlocking bricks, Cube Testing	7,670.00	Rupees Seven Thousand Six Hundred Seventy Only
233	Dr. P.R. Maiti, Prof. D. Mohan	M/s Krishan Builders Pvt. Ltd., Ramnagar Industrial Area Parag Dairy, Varanasi Manager (FQA) BHEL/PSER/NKP, STPP Site Karanpura STPS site (M/s BIL)	Cube Testing, Water Testing	13,098.00	Rupees Thirteen Thousand NinetyEight Only
234	Dr. V. Kumar	Project Manager, UPRNN Limited, Azamgarh Unit New Collectrate Campus Civil/Line Azamgarh	Inspection, Verification of Materials quality report, GAMC, Jaunpur	59,000.00	Rupees FiftyNine Thousand Only
235	Dr. P.R. Maiti, Dr. Ankit Gupta	Assistnat Engineer, BHU Project Subdivision-1, CPWD, Varanasi (M/s Balaji Construction) Mr. G.S. Verma Adhishashi Abhiyanta, Prantiya Khand, PWD, Bareily	Cube Testing, Proof Changing of vetting of Pavement Design	357,540.00	Rupees Three Lakh FiftySeven Thousand Five Hundred Fourty Only
236	Dr. Ankit Gupta	Mr. Anil Kumar Adhshashi Abhiyanta, Nirman Khand Public works Department, Mainpuri	Pavement Design	177,000.00	Rupees One Lakh SeventySeven Thousand Only
237	Dr. Ankit Gupta	Mr. S.K. Verma, Adhishashi Abhiyanta, Prantiya Khand, Public Works Department, Mathura	Pavement Design	486,000.00	Rupees Four Lakh EightySix Thousand Only
238	Dr. Ankit Gupta	Mr. Arving Kumar Adhishashi Abhiyanta, Prantiya Khand, Public work Department, Mainpuri	Proof Checking &Vetting of Pavement Deptt.	236,000.00	Rupees Two Lakh ThirtySix Thousand Only
239	Dr. Ankit Gupta	Mr. Dipak Kundu, Sr. Manager (FQA), FQA, NTPC Vindhyachal, Vindhyanagar, Singrauli (M/s Rana Pratap Singh)	Testing of bitumen & Aggregate	67,260.00	Rupees SixtySeven Thousand Two Hundred Sixty Only
240	Dr. Ankit Gupta	Mr. Dipak Kundu, Sr. Manager (FQA), FQA, NTPC Vindhyachal, Vindhyanagar, Singrauli (M/s Rana Pratap Singh)	Testing of bitumen & Aggregate	67,260.00	Rupees SixtySeven Thousand Two Hundred Sixty Only
241	Dr. V. Kumar	Assistant Engineer, Bhadohi Industrial Development Authority beeda Bhavan, Aurai Road, Bhadohi	Inspection, Verification of Materials & quality report & third party quality inspection	54,000.00	Rupees FiftyFour Thousand Only
242	Dr. V. Kumar	Project Manager. Unit 21 'A' UPRNN Ltd., Secratarite campus Vidhansabha Marg, Lucknow	Inspection, Verification of Material quality report & third party inspection	69,600.00	Rupees SixtyNine Thousand Six Hundred Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
243	Dr. P.R. Maiti	Mr. Varanasi STP Project Private Limited, 6th Floor Plot No. 19 Film City, sector 16A Gautam Buddh Nagar, Noida (M/s Comt Construction Pvt. Ltd.)	Steel Testing	48,380.00	Rupees FourtyEight Thousand Three Hundred Eighty Only
244	Dr. P.R. Maiti	Mr. Varanasi STP Project Private Limited, 6th Floor Plot No. 19 Film City, sector 16A Gautam Buddh Nagar, Noida (M/s Comt Construction Pvt. Ltd.)	Concrete Mix Design	64,900.00	Rupees SixtyFour Thousand Nine Hundred Only
245	Dr. Ankit Gupta	Mr. R.P.S. Tomar Adhishashi Abhiyanta, Nirman Khand-2, Public Works Department, Agra	Pavement Design	885,000.00	Rupees Eight Lakh EightyFive Thousand Only
246	Dr. S. Mohanti	M/s SS Engineering and Construction, Jharkhand C/o Assistant Divisional Engineer East Central Railway, Bihar	Soil Investigation	20,650.00	Rupees Twenty Thousand Six Hundred Fifty Only
247	Dr. V. Kumar	Project Manager, UP State Bridge Corporation Ltd., Bridge Construction Unit Ghazipur, Near Nai Sadak Pontoon Bridge, Saidpur, Ghazipur	Vetting of Structural Design and Drawing	405,000.00	Rupees Four Lakh Five Thousand Only
248	Dr. V. Kumar	EE, BHU Project Division-2, CPWD, Behind Central office, Varanasi	Inspection, Verification of Materials reports	118,000.00	Rupees One Lakh Eighteen Thousand Only
249	Dr. P. R. Maiti	AGM, Airport Authority of India Ltd. C/o Airport Director, Lal Bahadur Shashtri Insternational Airport, Varanasi (M/s Enkebee Infratech India Pvt. Ltd.)	Steel Testing	25,960.00	Rupees TwentyFive Thousand Nine Hundred Sixty Only
250	Dr. D. Mohan	AGM, Engg. (C) AAI, LBSI, Airport Varanasi C/o Airport Director, Lal Bahadur Shashtri Airport, Varanasi (Enkebee Infratech India pvt. Ltd. 7, Aswini Dutt Road, Kolkata)	Testing of Water Sample & Suitability report	11,328.00	Rupees Eleven Thousand Three Hundred TwentyEight Only
251	Dr. P.R. Maiti	AE, BHU Project Division-2, CPWD, Varanasi (M/s Gupta Construction Pvt. Ltd.)	Steel Testing	28,620.00	Rupees TwentyEight Thousand Six Hundred Twenty Only
252	Dr. P.R. Maiti	AE, BHU Project Division-2, CPWD, Varanasi (M/s Gupta Construction Pvt. Ltd.)	Testing of Cement	12,960.00	Rupees Twelve Thousand Nine Hundred Sixty Only
253	Dr. Ankit Gupta	Mr. Naresh Kumar, Adhishashi Abhiyanta, Nirman Khand, PWD, Agra	Design of pavement	174,000.00	Rupees One Lakh SeventyFour Thousand Only
254	Dr. P.R. Maiti	Project Manager, UPRNN Ltd., Bhadohi Unit, House No 2, Vivekanand Nagar, Colony Lohamandi, Maldahiya, Varanasi	Testing of Bricks	19,470.00	Rupees Nineteen Thousand Four Hundred Seventy Only
255	Dr. kesheo Prasad	GM, M/s Megha Engineering & Infrastructgure Ltd., S-2, Techno Cart Indl. Estate, Balanagar, Hyderabad Site office: WSP, Varanasi	Physical, Density & Impact test	35,400.00	Rupees ThirtyFive Thousand Four Hundred Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
256	Dr. V. Kumar	Project Manager, UPRNN Ltd., Bhadohi Unit, House No 2, Vivekanand Nagar, Colony Lohamandi, Maldahiya, Varanasi	Vetting of Structural Design and drawing	88,500.00	Rupees EightyEight Thousand Five Hundred Only
257	Dr. P.R. Maiti	GM, M/s Megha Engineering & Infrastructgure Ltd., S-2, Techno Cart Indl. Estate, Balanagar, Hyderabad Site office: WSP, Varanasi	Cube Testing	3,540.00	Rupees Three Thousand Five Hundred Fourty Only
258	Dr. P.R. Maiti	GM, M/s Megha Engineering & Infrastructgure Ltd., S-2, Techno Cart Indl. Estate, Balanagar, Hyderabad Site office: WSP, Varanasi	Steel Testing	60,180.00	Rupees Sixty Thousand One Hundred Eighty Only
259	Dr. Ankit Gupta	Adhishashi Abhiyanta, Prantiya Khand, PWD, Gajipur	DBM Sample, Density	354,000.00	Rupees Three Lakh FiftyFour Thousand Only
260	Dr. P.R. Maiti	AE, BHU Project Subdivision-1, CPWD, Varanasi (M/s Gyatri Electrical Works)	Cube, Cement Testing	15,930.00	Rupees Fifteen Thousand Nine Hundred Thirty Only
261	Dr. P.R. Maiti	EE., Construction Division-1, PWD, Allahabad M Senior Project Manager, M/s BSC & C, 'JV' PSC & C 'JV' DFCC Project, Ward no. 4, dayal nagar, Saiyadraja Chandauli, UP	Vetting of Structural design & drawing	111,380.00	Rupees One Lakh Eleven Thousand Three Hundred Eighty Only
262	Dr. P.R. Maiti, Prof. V. Kumar	EE, Construction Division, UP jal Nigam, UP Jal Nigam, Sonebhadra M/s Maraindas Construction Pvt. Ltd., Mauja Repura, Ater, Bhind	Concrete Mix Design	103,250.00	Rupees One Lakh Three Thousand Two Hundred Fifty Only
263	Dr. P.R. Maiti	Project Manager, Construction and design services, UP jal Nigam, Unit-24, Badi Patiya, Bajardiha Shri Chandrika Singh Maurya, Lalanpur, Maharajganj, Ghazipur	Testing of Bricks	37,170.00	Rupees ThirtySeven Thousand One Hundred Seventy Only
264	Dr. Ankit Gupta	Mr. Anil Yadav, AGM HRIDAY, Plot No. D-59/143, A-48 Sant Raghuvar Nagar Sigra, Varanasi (M/s Sanik Construction Company)	Testing of SDBC sample	35,400.00	Rupees ThirtyFive Thousand Four Hundred Only
265	Dr. P.R. Maiti	Addl. GM (Engg) M/s Hindustan Project Ltd. Jangpura New Delhi, (M/s Universial Contractors and Engineers Pvt. Ltd., Greater Noida)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only
266	Dr. P.R. Maiti	Addl. GM (Engg) M/s Hindustan Project Ltd. Jangpura New Delhi, (M/s Universial Contractors and Engineers Pvt. Ltd., Greater Noida)	Testing of Cement, Steel, AA Block & Wall & floor tiles	105,020.00	Rupees One Lakh Five Thousand Twenty Only
267	Dr. P.R. Maiti	Addl. GM (Engg) M/s Hindustan Project Ltd. Jangpura New Delhi, (M/s Universial Contractors and Engineers Pvt. Ltd., Greater Noida)	Testing of Cement & Cube	8,850.00	Rupees Eight Thousand Eight Hundred Fifty Only
268	Dr. P.R. Maiti	Addl. GM (Engg) M/s Hindustan Project Ltd. Jangpura New Delhi, (M/s Universial Contractors and Engineers Pvt. Ltd., Greater Noida)	Testing of Cement & Steel	38,350.00	Rupees ThirtyEight Thousand Three Hundred Fifty Only



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269	Dr. P. Bala Ramudu	M/s Vijay Developers Pvt. Ltd., C/o Heritage Institute of Medical Sciences Bhadwar Varanasi	Soil Investigation	3,540.00	Rupees Three Thousand Five Hundred Fourty Only
270	Dr. Ankit Gupta	Mr. Naresh Kumar, Adhishashi Abhiyanta, nirman Khand-1, PWD, Agra	Pavement Design	348,000.00	Rupees Three Lakh FourtyEight Thousand Only
271	Dr. Ankit Gupta	Mr. SB Singh, Project Director, NHAI PIU S-8/108, F-4, DIG colony, Maqbool Alam Road, Varanasi	Testing of Pond Ash, Calculation of Volume, Correction error	106,200.00	Rupees One Lakh Six Thousand Two Hundred Only
272	Dr. P.R. Maiti	Dy. Manager (Civil) 3x800 MW, PVUNL STTP, BHEL patratu Site Dartu Vidut Utpadan Limited, Jharkhand (M/s Kanwar Enterprises Pvt. Ltd.)	Testing of Cement, Aggregate & Concrete Mix Design	153,400.00	Rupees One Lakh FiftyThree Thousand Four Hundred Only
273	Dr. D. Mohan	M/s Kanwar Enterprises Pvt. Ltd. C/o Dy. Manager (Civil), 3x800 MW, PVUNL STTP, BHEL Patratu Site	Testing of water sample & Admixture	23,128.00	Rupees TwentyThree Thousand One Hundred TwentyEight Only
274	Dr. P.R. Maiti	Executive Engineer, Construction Division, UP Jal Nigam, Ballia	Concrete Mix Design, M25 & M30	129,800.00	Rupees One Lakh TwentyNine Thousand Eight Hundred Only
275	Dr. P.R. Maiti	Project Consultant, UP Awas Evam Vikash Parishad Construction Unit-Varanasi office cum shopping complex 2nd floor Jawahar Nagar Bhelupur, varanasi	Testing of Bricks	5,900.00	Rupees Five Thousand Nine Hundred Only
276	Dr. P.R. Maiti	Sr. Manager (Civil), NTPC Limited, Firoz Ghandhi Unchahar Power Project RaiBareli (M/s Trivedi Enterprises)	Fine Aggregate	1,770.00	Rupees One Thousand Seven Hundred Seventy Only
277	Dr. P.R. Maiti	Sr. Manager (Civil), NTPC Limited, Firoz Ghandhi Unchahar Power Project RaiBareli (M/s Baba Builders)	Fine & Coarse Aggregate	10,620.00	Rupees Ten Thousand Six Hundred Twenty Only
278	Dr. P.R. Maiti	Ms CP/RITES, B38/3, B-2, Maharaja Nagar Colony, Mahmoorganj, Varanasi (M/s Garg Builders)	Tactile Tiles	10,620.00	Rupees Ten Thousand Six Hundred Twenty Only
279	Dr. Ankit Gupta	Adhishashi Abhiyanta, Provincial Division, PWD Ghazipur	Testing of WMM sample	12,390.00	Rupees Twelve Thousand Three Hundred Ninety Only
280	Dr. Ankit Gupta	Adhishashi Abhiyanta, Provincial Division, PWD Ghazipur	Testing of WMM sample	12,390.00	Rupees Twelve Thousand Three Hundred Ninety Only
281	Dr. P.B. Ramudu	M/s Subash Infra Engineers Pvt. Ltd., C/o AGM (FQA), Meja Thermal Power Project MUNPL Kohdar, Meja, Allahabad	Soil Investigation for Filter Criteria	169,560.00	Rupees One Lakh SixtyNine Thousand Five Hundred Sixty Only



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282	Dr. P.R. Maiti	Sr. Manager (FQA), Kanti Bijlee Utpadan Nigam Limited, Kanti Thermal Muzaffarpur, (M/s Kanwar Enterprises Pvt. Ltd.)	Coarse & Fine Aggregate & Concrete Mix Design	123,310.00	Rupees One Lakh TwentyThree Thousand Three Hundred Ten Only
283	Dr. P.R. Maiti	Sr. Manager (Civil) NTPC Limited, FerozGhandhi, Unchahar Power Project Raibareily (M/s NGT Nirman Pvt. Ltd.)	Fine & Coarse Aggregate	10,620.00	Rupees Ten Thousand Six Hundred Twenty Only
284	Dr. P.R. Maiti	Project Manager M/s Raj Construction Atair Majhganwa, Gorakhpur	Cube Testing	5,310.00	Rupees Five Thousand Three Hundred Ten Only
285	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Gupta Construction Pvt. Ltd.)	Cube Testing	9,720.00	Rupees Nine Thousand Seven Hundred Twenty Only
286	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Gupta Construction Pvt. Ltd.)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
287	Dr. P.R. Maiti	Executive Engineer, Nagar Nigam, Varanasi (M/s SPP Infrastructure Pvt. Ltd.)	Stone, Cement, coarse sand testing	10,620.00	Rupees Ten Thousand Six Hundred Twenty Only
288	Dr. Ankit Gupta	Executive Engineer, Nagar Nigam, Varanasi (M/s S&P Infrastructures Pvt. Ltd.)	Testing fo Bouldem stone	5,900.00	Rupees Five Thousand Nine Hundred Only
289	Dr. Ankit Gupta	M/s Jai Prakash Assoicate Ltd., Varanasi- Gorakhpur Road Project (NH-29) 3/42 Bahar Cluster 3 Sahara State Gorakhpur	Testing of stone sample	27,140.00	Rupees TwentySeven Thousand One Hundred Fourty Only
290	Dr. D. Mohan	AGM (FES/FQA) NTPC Ltd North Karaspura super Thermal power Project (3x660MW) Tandwa, Chatra Jharkhand (M/s Simplex Infrastructure Ltd.)	Testing of Admixture sample (4nos)	43,200.00	Rupees FourtyThree Thousand Two Hundred Only
291	Dr. Ankit Gupta	Project Manager, Hill/BSB-ALD/ DL Project, Varanasi (M/s Gannon Drunkenly & Co. Ltd.)	Testing of Track Ballast	11,880.00	Rupees Eleven Thousand Eight Hundred Eighty Only
292	Dr. D. Mohan	M/s bridge & roof Co. (India) Ltd. Rankria Centre 5th floor, 2/1 Russel Street Kolkata-71 (C/o Sr. Manager (FQA-Civil) NTPC Ltd. Tanda Vidut Nagar Ambedkar Nagar)	Testing of Water Sample	11,328.00	Rupees Eleven Thousand Three Hundred TwentyEight Only
293	Dr. P.R. Maiti	Assistant Executive Engineer, BHU Subdivision-5, CPWD, Varanasi (M/s Eastern Construction Company)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
294	Dr. P.R. Maiti	Assistant Executive Engineer, BHU Subdivision-5, CPWD, Varanasi (M/s Eastern Construction Company)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
295	Dr. P.R. Maiti	Assistant Executive Engineer, BHU Subdivision-5, CPWD, Varanasi (M/s Eastern Construction Company)	Testing of Bricks	8,100.00	Rupees Eight Thousand One Hundred Only



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296	Dr. P.R. Maiti	Assistant Executive Engineer, BHU Subdivision-5, CPWD, Varanasi (M/s Eastern Construction Company)	Testing of Floor & Wall Tiles	87,480.00	Rupees EightySeven Thousand Four Hundred Eighty Only
297	Dr. P.R. Maiti	Assistant Executive Engineer, BHU Subdivision-5, CPWD, Varanasi (M/s Eastern Construction Company)	Testing of Gravite Stone	10,800.00	Rupees Ten Thousand Eight Hundred Only
298	Dr. P.R. Maiti	Assistant Executive Engineer, BHU Subdivision-5, CPWD, Varanasi (M/s Eastern Construction Company)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
299	Dr. P.R. Maiti	Assistant Executive Engineer, BHU Subdivision-5, CPWD, Varanasi (M/s Eastern Construction Company)	Testing of Cube	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
300	Dr. P.R. Maiti	Assistant Executive Engineer, BHU Subdivision-5, CPWD, Varanasi (M/s Eastern Construction Company)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
301	Dr. P.R. Maiti	Assistant Executive Engineer, BHU Subdivision-5, CPWD, Varanasi (M/s Eastern Construction Company)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
302	Dr. P.R. Maiti	Assistant Executive Engineer, BHU Subdivision-5, CPWD, Varanasi (M/s Eastern Construction Company)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
303	Dr. P.R. Maiti	Assistant Executive Engineer, BHU Subdivision-5, CPWD, Varanasi (M/s Eastern Construction Company)	Steel Testing	41,040.00	Rupees FourtyOne Thousand Fourty Only
304	Dr. P.R. Maiti	Assistant Executive Engineer, BHU Subdivision-5, CPWD, Varanasi (M/s Eastern Construction Company)	Testing of Cement	12,960.00	Rupees Twelve Thousand Nine Hundred Sixty Only
305	Dr. P.R. Maiti	Assistant Executive Engineer, BHU Subdivision-5, CPWD, Varanasi (M/s Eastern Construction Company)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
306	Dr. P.R. Maiti	Assistant Executive Engineer, BHU Subdivision-5, CPWD, Varanasi (M/s Eastern Construction Company)	Steel testing	21,600.00	Rupees TwentyOne Thousand Six Hundred Only
307	Dr. P.R. Maiti	Assistant Executive Engineer, BHU Subdivision-5, CPWD, Varanasi (M/s Eastern Construction Company)	Steel Testing	9,720.00	Rupees Nine Thousand Seven Hundred Twenty Only
308	Dr. P.R. Maiti	Assistant Executive Engineer, BHU Subdivision-5, CPWD, Varanasi (M/s Eastern Construction Company)	Testing of Cement	12,960.00	Rupees Twelve Thousand Nine Hundred Sixty Only



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309	Dr. P.R. Maiti	Assistant Executive Engineer, BHU Subdivision-2, CPWD, Varanasi (M/s Eastern Construction Company)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
310	Dr. P.R. Maiti	Assistant Executive Engineer, BHU Subdivision-2, CPWD, Varanasi (M/s Eastern Construction Company)	Testing of Granite Stone	12,960.00	Rupees Twelve Thousand Nine Hundred Sixty Only
311	Dr. P.R. Maiti	Assistant Engineer, BHU Subdivision-2, CPWD, Varanasi (M/s Eastern construction Company)	Cube Testing	3,240.00	Rupees Three Thousand Two Hundred Fourty Only
312	Dr. P.R. Maiti	Assistant Engineer, BHU Subdivision-2, CPWD, Varanasi (M/s Eastern construction Company)	Testing of Floor & Wall Tiles	48,600.00	Rupees FourtyEight Thousand Six Hundred Only
313	Prof. K.K. Pathak	Mothers Pride Infrastructure Pvt. Ltd., M-4/22 Vinay Khand, Gomti Nagar, Lucknow	Vetting of structural drawing of 34 nos. of Type IV duarters in MMMTU Gorakhpur	66,970.00	Rupees SixtySix Thousand Nine Hundred Seventy Only
314	Prof. K.K. Pathak	Mothers Pride Infrastructure Pvt. Ltd., M-4/22 Vinay Khand, Gomti Nagar, Lucknow	Vetting of structural Drawing fo 79 bed constructon at second floor on 100 bed dispensary in nehru Hospital of BRD Medical college Gorakhpur	27,610.00	Rupees TwentySeven Thousand Six Hundred Ten Only
315	Prof. K.K. Pathak	Mothers Pride Infrastructure Pvt. Ltd., M-4/22 Vinay Khand, Gomti Nagar, Lucknow	Vetting of structural Drawing of OPD registration building, Amrit Pharmacy, Conteen, Gents and Ledies toilets of BRD Medical College, Gorakhpur	22,124.00	Rupees TwentyTwo Thousand One Hundred TwentyFour Only
316	Prof. K.K. Pathak	Mothers Pride Infrastructure Pvt. Ltd., M-4/22 Vinay Khand, Gomti Nagar, Lucknow	Vetting of structural drawign of Academic Block of the state University, Allahabad	333,560.00	Rupees Three Lakh ThirtyThree Thousand Five Hundred Sixty Only
317	Prof. K.K. Pathak	E.E., Provincial Division PWD, Babraich	Site visit and technical recommendation for strengthening of approach road for Ekabara Ghat Bridge over Sarayu river in Babraich District	295,000.00	Rupees Two Lakh NinetyFive Thousand Only
318	Prof. K.K. Pathak	JITF water Infrastructure Ltd., House of Ashok Kumar Gupta, Jhansi Khajurabo road, Tigila, Niwari Behind Dhanusdhari Restaurant, Ward No 07, Tikamgarh	Vetting of the Hydraulic design & Drawing of "Niwadi Multi Village water supply scheme", Tikamgarh	54,000.00	Rupees FiftyFour Thousand Only
319	Prof. K.K. Pathak	Project Manager M/s EMS Infracon Pvt. Ltd., C-88, RDC, Raj nagar, Gabizabad, UP	Vetting of Hydraulic design and drawing of Pahari Sewerage network Zone-IVA (South) Namami ganga	583,200.00	Rupees Five Lakh EightyThree Thousand Two Hundred Only
320	Dr. K.K. Pandey	Ventech Engineers, 117/A/45, LGF Envirad Complex, Sharda Nagar, Kanpur (M/s Enviro Infra Engineers Pvt. Ltd.)	Vetting of Hydraulic design and drawing of Pipe line and 12.50 mld STP	70,800.00	Rupees Seventy Thousand Eight Hundred Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
321	Dr. Ankit Gupta	R.K. Aima Team Leader DFCCIL Project, SMEC India Pvt. Ltd. Choredaundi (for CPM DFCCIL Swarna Complex, Iind floor, Susuwahi, Varanasi	Testing of Track Ballast	11,880.00	Rupees Eleven Thousand Eight Hundred Eighty Only
322	Dr. P.R. Maiti	M/s Pratibha Serice Station 701, Nagra Ballia	Interlocking Bricks (Paver Block)	5,900.00	Rupees Five Thousand Nine Hundred Only
323	Dr. P.R. Maiti	M/s NCC Ansal API, Sector C-2/183 Shusant Golf city Near St. Joseph International School, Lucknow C/o GM (Engg. Civil) Choudhary Charan Singh International Airport, Lucknow	Concrete Mix Design	271,400.00	Rupees Two Lakh SeventyOne Thousand Four Hundred Only
324	Dr. Ankit Gupta	Adhishashi Abhiyanta Prantiya Khand, PWD, Varanasi	Work for Job mix, Jobmix formula calculation	212,400.00	Rupees Two Lakh Twelve Thousand Four Hundred Only
325	Dr. Ankit Gupta	Adhishashi Abhiyanta Prantiya Khand, PWD, Varanasi	Testing work for Job Mix, Job Mix formula calculation	82,600.00	Rupees EightyTwo Thousand Six Hundred Only
326	Dr. Ankit Gupta	Adhishashi Abhiyanta Prantiya Khand, PWD, Varanasi	Job mix for BC & Job mix formula calculation	212,400.00	Rupees Two Lakh Twelve Thousand Four Hundred Only
327	Dr. Ankit Gupta	Adhishashi Abhiyanta Prantiya Khand, PWD, Varanasi	Testing of Job Mix & consultancy for Job mix formula calculation	212,400.00	Rupees Two Lakh Twelve Thousand Four Hundred Only
328	Dr. P.B. Ramudu	M/s Vijay Developers Pvt. Ltd., C/o Heritage Institute of Medical Sciences Bhadwar Varanasi	Light Compaction Test	7,080.00	Rupees Seven Thousand Eighty Only
329	Dr. D. Mohan	Sr. Manager (FQA) Krante Bijlee Utpadan Nigam Limited, Muzaffarpur Thermal Power station Kanti Thermal, Muzaffarpur (M/s Kanwar Enterprises Pvt. Ltd.)	Testing of water sample & Admixture	23,128.00	Rupees TwentyThree Thousand One Hundred TwentyEight Only
330	Dr. P.B. Ramudu	M/s KEPL C/o Sr. Manager (FQA) Kante Thermal Muzaffarpur	Soil Investigation charges	335,120.00	Rupees Three Lakh ThirtyFive Thousand One Hundred Twenty Only
331	Dr. P.B. Ramudu	M/s KEPL C/o Sr. Manager (FQA) Kante Thermal Muzaffarpur	Soil Test	25,370.00	Rupees TwentyFive Thousand Three Hundred Seventy Only
332	Dr. P.R. Maiti	Upper Project Manager, UPRNN Ltd., Construction of 18 Court building Sarpataha Gyanpur, Bhadohi	Cube, Coarse Sand, Stone, Steel, Cement & Brick testing	59,000.00	Rupees FiftyNine Thousand Only
333	Dr. P.R. Maiti	Upper Project Manager, UPRNN Ltd., Construction of 18 Court building Sarpataha Gyanpur, Bhadohi	Coarse Sand, Stone, Cement & Bricks	24,780.00	Rupees TwentyFour Thousand Seven Hundred Eighty Only
334	Dr. P.R. Maiti	Upper Project Manager, UPRNN Ltd., Construction of 18 Court building Sarpataha Gyanpur, Bhadohi	Cube, Coarse Sand, Stone, Steel, Cement & Brick testing	87,320.00	Rupees EightySeven Thousand Three Hundred Twenty Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
335	Dr. P.R. Maiti	Upper Project Manager, UPRNN Ltd., Construction of 18 Court building Sarpataha Gyanpur, Bhadohi	Cube, Coarse Sand, Stone, Steel, Cement & Brick testing	59,000.00	Rupees FiftyNine Thousand Only
336	Dr. P.R. Maiti	Upper Project Manager, UPRNN Ltd., Construction of 18 Court building Sarpataha Gyanpur, Bhadohi	Cube, Coarse Sand, Stone, Steel, Cement & Brick	59,000.00	Rupees FiftyNine Thousand Only
337	Dr. P.R. Maiti	Upper Project Manager, UPRNN Ltd., Construction of 18 Court building Sarpataha Gyanpur, Bhadohi	Cube, Coarse Sand, Stone, Steel & Cement	53,690.00	Rupees FiftyThree Thousand Six Hundred Ninety Only
338	Dr. P.R. Maiti	Upper Project Manager, UPRNN Ltd., Construction of 18 Court building Sarpataha Gyanpur, Bhadohi	Cube, Coarse Sand, Stone, Cement & Bricks	59,000.00	Rupees FiftyNine Thousand Only
339	Dr. P.R. Maiti	Sr. Manager (FQA), NTPC Vindhyachal, Vindhyanagar, Singrauli (M/s Snanker Brothers)	Steel Testing	32,450.00	Rupees ThirtyTwo Thousand Four Hundred Fifty Only
340	Dr. V. Kumar	M/s Timarpur Okhla Waste Management Company Pvt. Ltd., Old NCMC Compost Plant Treatment Plant (Gate No. 1) Matura Road, New Delhi	Vetting of structural design	81,000.00	Rupees EightyOne Thousand Only
341	Dr. P.B. Ramudu	M/s KNIL c/o Manager (FQA) Nabinagar Power Generating Co. Pvt. Ltd., NSTPP (3x600MW) 1st floor Vidut Bhawan bailg Road, Patna Bihar	Soil testing of felter criteria	54,280.00	Rupees FiftyFour Thousand Two Hundred Eighty Only
342	Dr. Ankit Gupta	Mr. A.P. Sinha AGM/Civil/IRCON/ NSTPP Nabinagar Supter Thermal Power Project NPGC Ltd. Ankoraha, Aurangabad	Testing of Blanketting & Track Ballast	30,680.00	Rupees Thirty Thousand Six Hundred Eighty Only
343	Dr. Ankit Gupta	Mr. A.P. Sinha AGM/Civil/IRCON/ NSTPP Nabinagar Supter Thermal Power Project NPGC Ltd. Ankoraha, Aurangabad (M/s Gannon Dunkerley & Co. Ltd, New Delhi)	Cu & cc of Blanketing Materials	5,900.00	Rupees Five Thousand Nine Hundred Only
344	Dr. V. Kumar	Director Raitani Engineering works Pvt. Ltd., 15 Dobson Lane Hawrah	Vetting of structural Design	194,700.00	Rupees One Lakh NinetyFour Thousand Seven Hundred Only
345	Dr. P.R. maiti	M/s Shiva Constrution karimuddinpur Mohammadabad, Ghazipur	Cube Testing	23,010.00	Rupees TwentyThree Thousand Ten Only
346	Dr. D. Mohan	AGM (FQA) Pvt. Ltd., North Karanpura Super Thermal Power Project (3x600 MW) Tandwa, Chara, Jharkhand (M/s Simplex Infrastructure Ltd.)	Testing of Admixture Sample SIKA	10,800.00	Rupees Ten Thousand Eight Hundred Only
347	Dr. S.B. Diwedi	M/s Balaji Developers, Flat No. 402 Sudhanil Apartment, Near New CISF Building, New Pattiputra Colony, Patna (M/s JGM/Civil, IRCON, International Limited, Patna)	Petrography Alkali Reactivity test	32,400.00	Rupees ThirtyTwo Thousand Four Hundred Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
348	Dr. D. Mohan	M/s Balaji Developers, Flat No. 402 Sudhanil Apartment, Near New CISF Building, New Pattiputra Colony, Patna (M/s JGM/Civil, IRCON, International Limited, Patna)	Testing of Water Sample	10,368.00	Rupees Ten Thousand Three Hundred SixtyEight Only
349	Dr. V. Kumar	Project Head, SOMA enterprise Limited, KM 821.400 LHS Oppo. Gramin Sadhan Petral Bunk Near Choupal Sagar (ITC) Mall Ganj Khwaja, Choundalli	Vetting of structural Design & Drawing of RoB	88,500.00	Rupees EightyEight Thousand Five Hundred Only
350	Dr. Ankit Gupta	Adhishashi Abhiyanta Construction Division-1, PWD, Gazipur	Testing of PCT Seal Coat sample	39,197.00	Rupees ThirtyNine Thousand One Hundred NinetySeven Only
351	Dr. P.R. Maiti	M/s Sai Enterprises N 13/209 Sarai Surjan Brij Enclave, Sunderpur, Varanasi	Cube Testing	15,930.00	Rupees Fifteen Thousand Nine Hundred Thirty Only
352	Dr. V. Kumar	G.M. (Allahabad Region) UPRNN Limited, Allahabad Region Allahabad, Q/5 Tagore Town, Allahabad	Inspection verification of Material, quality report etc.	236,000.00	Rupees Two Lakh ThirtySix Thousand Only
353	Dr. R. Sahoo	M?s Krishna Builspace Pvt. Ltd., RamNagar Industrial Area, Prag Dairy, Varanasi	Testig of Bricks	8,850.00	Rupees Eight Thousand Eight Hundred Fifty Only
354	Dr. P.R. Maiti	M/s Balajee Developers Flat No. 402, Sudhanil Appt. Near New CISF Building, New Pattipura Colony, Patna (M/s JGM/Civil Ircon International Limited, Patna)	Concrete Mix Design, Coarse Aggregate Steel etc.	213,750.00	Rupees Two Lakh Thirteen Thousand Seven Hundred Fifty Only
355	Dr. P.R. Maiti	Project Manager, M/s AFCON Infrastructure Limited Construction of Multimodal IWT Terminal, Varanasi C/o Inland Water Ways Authority of India IWT Terminal Ralhupur, Ram Nagar, Varanasi	Cube testing	1,620.00	Rupees One Thousand Six Hundred Twenty Only
356	Dr. P.R. Maiti	M/s Varanasi STP Project Private Limited 1st Floor Plot no. 19, film City, Sector-16A, Gautam Budha Nagar, Noida (M/s Comt Construction Pvt. Ltd.)	Cube testing	3,540.00	Rupees Three Thousand Five Hundred Fourty Only
357	Dr. V. Kumar	M/s Patel Infra Structure Ltd., Patel House Beside Parkrate Resot Chhani Road, Chhani, Vadodara	Vetting of structural Design & Drawing	147,500.00	Rupees One Lakh FourtySeven Thousand Five Hundred Only
358	Dr. K.K. Pathak	G.M. Civil Jhunjhunwala Hospital, Faizabad	Vetting of Structural Design & Drawing	86,400.00	Rupees EightySix Thousand Four Hundred Only
359	Dr. Rajesh Kumar	Branch Manager, National Co- oprative Consumers fedration of India Ltd., A-4, H-Road, MahaNagar Extension Lucknow	Vetting of Structural Design & Drawing	82,600.00	Rupees EightyTwo Thousand Six Hundred Only



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360	Dr. Rajesh Kumar	Branch Manager, National Co- oprative Consumers fedration of India Ltd., A-4, H-Road, MahaNagar Extension Lucknow	Vetting of Structural Design & Drawing of 33/11 KV	47,200.00	Rupees FourtySeven Thousand Two Hundred Only
361	Dr. Ankit Gupta	Mr. Anil Yadav, AGM, HRIDAY, Plot NO. D-59/143 A-48 Sant Raghuvar Nagar, Sigra, Varanasi (M/s Sainik Construction Co.)	Testing of B.M. Sample	11,800.00	Rupees Eleven Thousand Eight Hundred Only
362	Dr. P.R. Maiti	AGM/IRCON & PH/NSTPP M/s Ircon International Limited Nabinagar Super Thermal Power Project NPGC Ltd. Near Shivanagar Gate, Nabinagar Road, Ankoraha Rly. Station, Aurangabad (Bihar) (M/s Dalco Infrastructure Project Ltd.)		123,310.00	Rupees One Lakh TwentyThree Thousand Three Hundred Ten Only
363	Dr. P.R. Maiti	Project Manager U.P. Jal Nigam Ganga Pollution Prevention Division Bhagwanpur, Varanasi	Concrete Mix Design	35,990.00	Rupees ThirtyFive Thousand Nine Hundred Ninety Only
364	Dr. P.R. Maiti	Project Manager (IV) Office of General Manager Ganga Pollution Central Unit U.P. Jal Nigam, Allahabad (M/s Passavant Energy & Environment 13/108/3 Darbhanga Colony, Allahabad)	Testing of Bricks & Sand	17,700.00	Rupees Seventeen Thousand Seven Hundred Only
365	Dr. Ankit Gupta	Sh. Md. Lugman Khan Project Engineer (IV) U.P. Jal Nigam Allahabad UP (M/s Passavant Energy Environment 13/108/3 Darbhanga Colony, Allahabad)	Testing of Store Grit	102,070.00	Rupees One Lakh Two Thousand Seventy Only
366	Dr. S. Dwivedi	M/s Jai Prakash Associates Limited, 3/42, Bihar Cluster-3 Sahara State Gorakhpur	Test & Alkali	11,800.00	Rupees Eleven Thousand Eight Hundred Only
367	Dr. V. Kumar	HOD quality department sasan Power Ltd. Gram, Siddhi Khurd, Tiyara, Waidham, Signgrauli	Third part Inspection and report preparation	162,000.00	Rupees One Lakh SixtyTwo Thousand Only
368	Dr. Ankit Gupte	Mr. HHP Srivastava Addl. General Manager (FQA) NTPC/RIHAND, Rihand Nagar, Sonebhadra	Testing of bitumin as per IS-73	27,140.00	Rupees TwentySeven Thousand One Hundred Fourty Only
369	Dr. D. Mohan	M/s Macaber Beekay Pvt. Ltd., Beekay house, c-450, sector-10, Noida	Testing of Water Sample	11,328.00	Rupees Eleven Thousand Three Hundred TwentyEight Only
370	Dr. P.B. Ramudu	Project Manager, WAPCOS Ltd. PVNL Project Ghazipur UP (M/s S.P. Sinha Construction Pvt. Ltd. At- Mednipur, ghazipur)	Testing of Water Sample	11,328.00	Rupees Eleven Thousand Three Hundred TwentyEight Only
371	Dr. P.R. Maiti	M/s Maeawber Beekay Private Limited, Beekay House, C-450, Sector-10, Noida M/s Sr. Manager (FQA) NTPC Ltd. Kanti Bijlee Utpadan Nigam Ltd., Muzaffarpur	Coarse Aggregate & Fine Aggregate	58,410.00	Rupees FiftyEight Thousand Four Hundred Ten Only



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372	Dr. P.R. Maiti	Assistant Engneer BHU Project Division-2, CPWD, Varanasi (M/s Varun Gupta & Co., A 64/3 DDA flate Saket, New Delhi	Concrete Mix Design	58,410.00	Rupees FiftyEight Thousand Four Hundred Ten Only
373	Dr. P.R. Maiti	M/s Amit Construction Company 320/264 Colonelganj, Allahabad	Cube Testing	42,480.00	Rupees FourtyTwo Thousand Four Hundred Eighty Only
374	Dr. P.R. Maiti	Dy. Chief Engineer/Con/SGRL East Cencral Railway, Singrauli (M/s Gannon Dunkerly & Co. Ltd.)	Coarse Aggregate , Fine, Aggregate, Cement Testing & Concrete Mix Design	113,280.00	Rupees One Lakh Thirteen Thousand Two Hundred Eighty Only
375	Dr. V. Kumar	M/s Ventech Engineers 117/Q/45 L.G.F. Envirad Complex Sharda Nagar, Kanpur	Vetting of Structural Design & drawing of STP	177,000.00	Rupees One Lakh SeventySeven Thousand Only
376	Dr. P.R. Maiti	Assistant Engineer BHU Project subdivision-2, CPWD, Varanasi (M/s Jyoti Enterprises)	Concrete Mix Design	64,900.00	Rupees SixtyFour Thousand Nine Hundred Only
377	Dr. R. Sahoo	M/s J.S. Mining & Construction 14/364 Ram Mandir Colony, Obra Sonebhadra, UP	Fly Ash Bricks	5,900.00	Rupees Five Thousand Nine Hundred Only
378	Dr. R. Sahoo	Panl Park/QC G.M. M/s Doosan Power Systems India Pvt. Ltd. DPSI site office obra C extension Thermal Power Station, UPRVU Nigam Ltd., Obra Sonebhadra (M/s J. S. Mining & Constructions 14/364 Ram Mandir Colony, Obra Sonebhadra	Coarse Aggregate	59,000.00	Rupees FiftyNine Thousand Only
379	Dr. R. Sahoo	Kichul Park/QC G.M./ M/s Doosan Power System India Ltd., DPSI Site Office Obra C Extension T.P.S, UPRVU Nigam Ltd., Obra, Sonebhadra (M/s J.S. Mining & Construction 14/364 Ram Mandir Colony, Obra, Sonebhadra)	Petrography & Alkali test	23,600.00	Rupees TwentyThree Thousand Six Hundred Only
380	Dr. R. Sahoo	Manager (TLC) power Grid Corporation of India Ltd., C-27/210A Kailgarh House Jagatganj (Hindustan Time Campus, Varanasi) (M/s Kalpataru Power Trans Mission Limited)	Coarse & Fine Aggregate	79,650.00	Rupees SeventyNine Thousand Six Hundred Fifty Only
381	Dr. Arun Prasad	M/s Freedom Point Expressway Ovt. Ltd., 4th floor universal Trade Tower Sector-49, Sohra Road, Gurugram Haryana	Proof Checking of structural Design	59,000.00	Rupees FiftyNine Thousand Only
382	Dr. P.R. Maiti	M/s Shiva Construction 6/45D Vipul Khand, Gomti Nagar, Lucknow	Cube Testing	44,250.00	Rupees FourtyFour Thousand Two Hundred Fifty Only
383	Dr. P.R. Maiti	Executive Engineer Construction Division, UP Jal Nigam, Ballia	Coarse Aggregate, Sand, Steel & Cement testing	59,000.00	Rupees FiftyNine Thousand Only
384	Dr. P.R. Maiti	Sr. Section Engineer (Works) Railway Electification (M/s Sinha Infratech Pvt. Ltd., Sonebhadra)	Steel Testing	23,010.00	Rupees TwentyThree Thousand Ten Only



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385	Dr. V. Kumar	AVP Technical M/s Dilip Buildcon Limited, Matheri Adda, Hissar Road, Ambala City, Haryana	Vetting of Design & Drawing	70,800.00	Rupees Seventy Thousand Eight Hundred Only
386	Dr. P.R. Maiti	General Manager, M?s Megha Engineering & Infrastructure Ltd., S-2 technocrat Indl. Estate Balanagar, hyderabad, Site Office WSP, Varanasi	Cement Testing	7,080.00	Rupees Seven Thousand Eighty Only
387	Dr. P.R. Maiti	General Manager, M/s Megha Engineering & Infrastructure Ltd., S-2 technocrat Indl. Estate Balanagar, hyderabad, Site Office WSP, Varanasi	Cube testing	1,770.00	Rupees One Thousand Seven Hundred Seventy Only
388	Dr. D. Mohan	DGM (Civil) NTPC Ltd. Unchahar Raibarali (M/s Power Mech Projectgs Ltd.)	Testing of Water Sample	11,328.00	Rupees Eleven Thousand Three Hundred TwentyEight Only
389	Dr. A. Mudgal	Mr. Mitilesh Kumar Adhishasi Abhiyanta, Construction Division, PWD, Chandauli	Testing of Subgrade CBR	42,480.00	Rupees FourtyTwo Thousand Four Hundred Eighty Only
390	Dr. P.R. Maiti	Project Manager, Office of the General Manager Ganga Pollution Central Board, UP Jal Nigam, Allahabad (M/s Sharma Construction Company)	Testig of Cement, Bricks, Coarse Sand & Stone	35,400.00	Rupees ThirtyFive Thousand Four Hundred Only
391	Dr. P.R. Maiti	Executive Engineer, Upkar Construction Division-1, Pipari, Sonebhadra	Cube Testing	1,770.00	Rupees One Thousand Seven Hundred Seventy Only
392	Dr. P.R. Maiti	M/s Prism Johnson Ltd. RMC (India) Division C/o Doosan Power System India Pvt. Ltd., Obra "C" 2 x 60 MW, Thermal Power Extension Project UPRVNL Obra, Sonebhadra	Concrete Mix Design of Cement	361,800.00	Rupees Three Lakh SixtyOne Thousand Eight Hundred Only
393	Dr. V. Kumar	Upper Project Manager UPRNN Ltd. Kaushmi Unit Camp Office Lal Bahadur Shastri Homiopathic Medical College & Hospital Campus, Fafamau, Allahabad	Inspection, Verification of Material quality report etc.	81,000.00	Rupees EightyOne Thousand Only
394	Dr. V. Kumar	Upper Project Manager, UPRNNN Ltd., Chakganjariya, City sultampus Road, Lucknow	Inspection Verification of Material quality report etc.	64,800.00	Rupees SixtyFour Thousand Eight Hundred Only
395	Dr. V. Kumar	Executive Engineer provincial Division PWD, Allahabad	Vetting of structural Design and drawing	147,500.00	Rupees One Lakh FourtySeven Thousand Five Hundred Only
396	Dr. P.R. Maiti	AM/CP/Rites B 38/3, B-2, Maharaja Nagar Colony, Mahmoorganj, Varanasi (M/s Garg Builders)	Tactile Tiles	10,620.00	Rupees Ten Thousand Six Hundred Twenty Only
397	Dr. P.R. Maiti	M/s NIP Housing credit & Development Ltd., 201, Mahalaxmi Apartment, Mahmoorganj, Varanasi	Cube Testing	1,770.00	Rupees One Thousand Seven Hundred Seventy Only



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398	Dr. P.B. Ramudu	M/s KNIL C/o The Engineer (TS/FQA) Bhartiya Rail Bijlee Company Ltd., Project NTPP, Aurangabad, Bihar	Soil Testing	21,240.00	Rupees TwentyOne Thousand Two Hundred Fourty Only
399	Dr. P.B. Ramudu	Executive Engineer/Con/HJP Office of the Dy. CE/Con/II/Hajipur, East Central Railway, Hazipur (M/s Adayraj Developers Pvt. Ltd.)	Concrete Mix Design M30, Pipe Work	32,450.00	Rupees ThirtyTwo Thousand Four Hundred Fifty Only
400	Dr. P.B. Ramudu	M/s The DGM (O & M - Civil) NTPC Ltd., Unchahar, Raibareli	Soil Investigation	119,340.00	Rupees One Lakh Nineteen Thousand Three Hundred Fourty Only
401	Dr. P.R. Maiti	Executive Engineer, Nagar Nigam, Varanasi	Interlocking Brics (Pavor block)	5,900.00	Rupees Five Thousand Nine Hundred Only
402	Dr. D. Mohan	AM/Civil Rites Limited, Regional Project Office, Lucknow 13-KM, Milestone, NH-24, Lucknow, Sitapur Road, Lucknow (M/s Kalpatru Power Transmission)	Testing of Water Sample	11,328.00	Rupees Eleven Thousand Three Hundred TwentyEight Only
403	Dr. P.R. Maiti	Project Manager, UPRNN Ltd., Bhadohi Unit, House No 2, Vivekanand Nagar, Colony Lohamandi, Maldahiya, Varanasi	Testing of Bricks, Aggrigate Sand, Cement etc.	24,780.00	Rupees TwentyFour Thousand Seven Hundred Eighty Only
404	Dr. P.R. Maiti	AM/Civil Rites Limited, Regional Project Office, Lucknow 13-KM, Milestone, NH-24, Lucknow, Sitapur Road, Lucknow (M/s Kalpatru Power Transmission Ltd.)	Steel Testing	38,880.00	Rupees ThirtyEight Thousand Eight Hundred Eighty Only
405	Dr. V. Kumar	GM/DFCCIL/ALD(W) Dedicated Freight Coridor Corporation of India Ltd., Old GM office Building, N.C. Railway, Nawab yusuf Road, Allahabad	Vetting of Structural Design	94,500.00	Rupees NinetyFour Thousand Five Hundred Only
406	Dr. D. Mohan	Manager (CCD) NTPC, NKSTPP, North Karampura Super Thermal Power Project (3 x 660 MW) Tandwa, Chatra, Jharkhand (M/s SIL)	Testing of Water Sample	10,368.00	Rupees Ten Thousand Three Hundred SixtyEight Only
407	Dr. D. Mohan	Manager (FQA) BHEL/PSER UKP STPP Site BHEL Site office Trandwa North Karampura STPS Site (M/s SIL)	Testing of Water Sample	10,368.00	Rupees Ten Thousand Three Hundred SixtyEight Only
408	Dr. P.R. Maiti	Assistant Executive Engineer, BHU Project Division-2, CPWD, Varanasi (M/s Mahanti Electircals)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only
409	Dr. P.R. Maiti	Assistant Executive Engineer, BHU Project Division-2, CPWD, Varanasi (M/s Mahanti Electircals)	Testing of Bricks	8,850.00	Rupees Eight Thousand Eight Hundred Fifty Only
410	Dr. Ankit Gupta	Mr. Tara Chandra Dohare, Adhishashi, Abhiyanta Prantiya Khand, PWD, Agra	Pavement Design	177,000.00	Rupees One Lakh SeventySeven Thousand Only



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411	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Eastern Construction Company)	Steel Testing	8,100.00	Rupees Eight Thousand One Hundred Only
412	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Eastern Construction Company)	Testing of Cement	12,960.00	Rupees Twelve Thousand Nine Hundred Sixty Only
413	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Eastern Construction Company)	Cube testing	9,720.00	Rupees Nine Thousand Seven Hundred Twenty Only
414	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Eastern Construction Company)	Steel Testing	10,800.00	Rupees Ten Thousand Eight Hundred Only
415	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Eastern Construction Company)	Steel Testing	10,800.00	Rupees Ten Thousand Eight Hundred Only
416	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Eastern Construction Company)	Testing of Cement	12,960.00	Rupees Twelve Thousand Nine Hundred Sixty Only
417	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Eastern Construction Company)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
418	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Eastern Construction Company)	Steel Testing	9,720.00	Rupees Nine Thousand Seven Hundred Twenty Only
419	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Eastern Construction Company)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
420	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Eastern Construction Company)	Steel Testing	39,960.00	Rupees ThirtyNine Thousand Nine Hundred Sixty Only
421	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Eastern Construction Company)	Steel Testing	9,720.00	Rupees Nine Thousand Seven Hundred Twenty Only
422	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Eastern Construction Company)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
423	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Eastern Construction Company)	Steel Testing	21,600.00	Rupees TwentyOne Thousand Six Hundred Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
424	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Eastern Construction Company)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
425	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Eastern Construction Company)	Steel Testing	56,160.00	Rupees FiftySix Thousand One Hundred Sixty Only
426	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Eastern Construction Company)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
427	Dr. P.R. Maiti	M/s Adeeba Construction, Deep Nagar, Robertsganj, Sonebhadra	Coarse Sand, Stone Grit Testing of Cement, Steel Testing	20,060.00	Rupees Twenty Thousand Sixty Only
428	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Eastern Construction Company)	Steel Testing	9,720.00	Rupees Nine Thousand Seven Hundred Twenty Only
429	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Kamalditya Construction Pvt. Ltd.)	Testing of Cement	19,440.00	Rupees Nineteen Thousand Four Hundred Fourty Only
430	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Kamalditya Construction Pvt. Ltd.)	Testing of Cement	12,960.00	Rupees Twelve Thousand Nine Hundred Sixty Only
431	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Kamalditya Construction Pvt. Ltd.)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
432	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Kamalditya Construction Pvt. Ltd.)	Steel Testing	9,720.00	Rupees Nine Thousand Seven Hundred Twenty Only
433	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Kamalditya Construction Pvt. Ltd.)	Steel Testing	9,720.00	Rupees Nine Thousand Seven Hundred Twenty Only
434	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Kamalditya Construction Pvt. Ltd.)	Testing of Cement	19,440.00	Rupees Nineteen Thousand Four Hundred Fourty Only
435	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Kamalditya Construction Pvt. Ltd.)	Steel Testing	5,400.00	Rupees Five Thousand Four Hundred Only
436	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Kamalditya Construction Pvt. Ltd.)	Testing of Cement	12,960.00	Rupees Twelve Thousand Nine Hundred Sixty Only
437	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Kamalditya Construction Pvt. Ltd.)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
438	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Kamalditya Construction Pvt. Ltd.)	Testing of Cement	12,960.00	Rupees Twelve Thousand Nine Hundred Sixty Only
439	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Kamalditya Construction Pvt. Ltd.)	Steel Testing	22,140.00	Rupees TwentyTwo Thousand One Hundred Fourty Only
440	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision-2, CPWD, Varanasi (M/s Kamalditya Construction Pvt. Ltd.)	Steel Testing	7,020.00	Rupees Seven Thousand Twenty Only
441	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision, CPWD, Varanasi (M/s Kamalditya Construction Pvt. Ltd.)	Cube Testing	3,240.00	Rupees Three Thousand Two Hundred Fourty Only
442	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision, CPWD, Varanasi (M/s Kamalditya Construction Pvt. Ltd.)	Steel Testing	7,020.00	Rupees Seven Thousand Twenty Only
443	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision, CPWD, Varanasi (M/s Kamalditya Construction Pvt. Ltd.)	Testing of Cement	12,960.00	Rupees Twelve Thousand Nine Hundred Sixty Only
444	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision, CPWD, Varanasi (M/s Kamalditya Construction Pvt. Ltd.)	Testing of Cement	19,440.00	Rupees Nineteen Thousand Four Hundred Fourty Only
445	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision, CPWD, Varanasi (M/s Kamalditya Construction Pvt. Ltd.)	Testing of Cement	12,960.00	Rupees Twelve Thousand Nine Hundred Sixty Only
446	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision, CPWD, Varanasi (M/s Kamalditya Construction Pvt. Ltd.)	Testing of Cement	19,440.00	Rupees Nineteen Thousand Four Hundred Fourty Only
447	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision, CPWD, Varanasi (M/s Kamalditya Construction Pvt. Ltd.)	Testing of Cement	12,960.00	Rupees Twelve Thousand Nine Hundred Sixty Only
448	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision, CPWD, Varanasi (M/s Kamalditya Construction Pvt. Ltd.)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
449	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision, CPWD, Varanasi (M/s Kamalditya Construction Pvt. Ltd.)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
450	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision, CPWD, Varanasi (M/s Kamalditya Construction Pvt. Ltd.)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
451	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision, CPWD, Varanasi (M/s Kamalditya Construction Pvt. Ltd.)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
452	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision, CPWD, Varanasi (M/s Kamalditya Construction Pvt. Ltd.)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
453	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision, CPWD, Varanasi (M/s Kamalditya Construction Pvt. Ltd.)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
454	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision, CPWD, Varanasi (M/s Kamalditya Construction Pvt. Ltd.)	Testing of Cement	12,960.00	Rupees Twelve Thousand Nine Hundred Sixty Only
455	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision, CPWD, Varanasi (M/s Kamalditya Construction Pvt. Ltd.)	Testing of Cement	12,960.00	Rupees Twelve Thousand Nine Hundred Sixty Only
456	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision, CPWD, Varanasi (M/s Kamalditya Construction Pvt. Ltd.)	Testing of Cement	12,960.00	Rupees Twelve Thousand Nine Hundred Sixty Only
457	Dr. P.R. Maiti	Assistant Engineer, BHU Project Subdivision, CPWD, Varanasi (M/s Kamalditya Construction Pvt. Ltd.)	Steel Testing	9,720.00	Rupees Nine Thousand Seven Hundred Twenty Only
458	Dr. P.R. Maiti	DGM Accorent Sriram EPC Ltd., C/ o3 Vinay Kunj Appartment Sigra, Varanasi C/o Project Manager UP Jal Nigam, Construction Unit Deenapur, Varanasi	Cube Testing	7,080.00	Rupees Seven Thousand Eighty Only
459	Dr. P.B. Ramudu	Dilip Buildcon Limited, Bhojpur, Neory Ambedkar nagar, UP	Soil Investigation & fly Ash	87,480.00	Rupees EightySeven Thousand Four Hundred Eighty Only
460	Dr. S.B. Diwedi	Dilip Builcon Limited, Bojpur, Alapur, Ambedkar Nagar	Petrography & Alakali Test	21,600.00	Rupees TwentyOne Thousand Six Hundred Only
461	Dr. P.R. Maiti	Project Manager Construction Design & Services UP Jal Nigam-24, N/40 P-1, Sant Gopal nagar, Badi Patiya, Bajardiha, Varanasi	Interlocking Bricks	5,900.00	Rupees Five Thousand Nine Hundred Only
462	Dr. D. Mohan	AGM (HRIDAY) Varanasi NBCC (India0 Ltd., Plot NO. d-59/143, A-48 sant Raghuvar Nagar Sigra Varanais (M/s J.M. Enviro Technology Pvt. Ltd.)	Testing of water sample	50,976.00	Rupees Fifty Thousand Nine Hundred SeventySix Only
463	Dr. V. Kumar	Executive Engineer Obra "C" Civil Construction Division-IV, UPRVUN Ltd. Obra, Sonebhadra	Vetting of structural Design and drawign	47,200.00	Rupees FourtySeven Thousand Two Hundred Only
464	Dr. P.B. Ramudu	M/s KNIL C/o Rosa Power Supply Co. Ltd., Shahjahanpur	Testing of Pond Ash	16,520.00	Rupees Sixteen Thousand Five Hundred Twenty Only
465	Dr. P.R.Maiti	Chief Co-ordinator M/s VEM India pvt. Ltd., 202 2nd floor Beside Gopal Complex Kutcheri Road, West Circle Ramchi, Jharkhnad	Concrete Mix Design	32,450.00	Rupees ThirtyTwo Thousand Four Hundred Fifty Only
466	Dr. P.R.Maiti	Assistant Engineer, Nagar Nigam/ Duda District Urban, Development Authority 106, Vikash Bhawan, Varanasi (M/s Gautam & Co.)	Interlocking Bricks	5,900.00	Rupees Five Thousand Nine Hundred Only
467	Dr. P.R.Maiti	M/s Krishna Build Space Pvt. Ltd., Ram Nagar Industrial Area, Parag Dairy Varanasi	Cube Testing	8,850.00	Rupees Eight Thousand Eight Hundred Fifty Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
468	Dr. Rajesh Kumar	AGM (Engineering) Northern Region-III Regional Head Quarter, PGCIL 12, Rana pratap Marg, Lucknow	Inspection & Report Preparation of Building	129,600.00	Rupees One Lakh TwentyNine Thousand Six Hundred Only
469	Dr. P.R. Maiti	Project Manager M/s Raj Construction Atair Majhganwa, Gorakhpur	Cube Testing	8,850.00	Rupees Eight Thousand Eight Hundred Fifty Only
470	Dr. P.R. Maiti	Project Manager M/s Raj Construction Atair Majhganwa, Gorakhpur	Cube Testing	8,850.00	Rupees Eight Thousand Eight Hundred Fifty Only
471	Dr. P.R. Maiti	PNC Infratech C Tower, 3/22-D, Civil Lines Bypass Road-2, Agra	Cylinder Testing	16,520.00	Rupees Sixteen Thousand Five Hundred Twenty Only
472	Dr. P.R. Maiti	Senior Project Manager, M/s BSC- &C: JV DFCC Project Dindyal Nagar Saiyadaraja Chandawali	Steel Testing & Bend Test up	239,760.00	Rupees Two Lakh ThirtyNine Thousand Seven Hundred Sixty Only
473	Dr. P.R. Maiti	M/s Narain Das Construction Pvt. Ltd., 14/441, Vinodpur Power House Road, Kaithar, Bihar	Concrete Mix Design	35,400.00	Rupees ThirtyFive Thousand Four Hundred Only
474	Dr. P.R. Maiti	Executive Engineer Road Construction Department Road Division Chapara (M/s Balwant Const. Pvt. Ltd. Sarai Jaldaha Kaimur, Bihar)	Concrete Mix Design	32,450.00	Rupees ThirtyTwo Thousand Four Hundred Fifty Only
475	Dr. P.R. Maiti	Executive Engineer Road Construction Department Road Division Chapara (M/s Balwant Const. Pvt. Ltd. Sarai Jaldaha Kaimur, Bihar)	Concrete Mix Design	32,450.00	Rupees ThirtyTwo Thousand Four Hundred Fifty Only
476	Dr. Rajesh Kumar	Executive Engineer Construction Division, UP Jal Nigam, Ballia	Vetting of structural Design & Drawing	708,000.00	Rupees Seven Lakh Eight Thousand Only
477	Dr. K.K. Pandey	Executive Engineer Construction Division, UP Jal Nigam, Ballia	Vetting of hydraulic Design	118,000.00	Rupees One Lakh Eighteen Thousand Only
478	Dr. V. Kumar	Executive Engineer (Civil) Electircity Civil Transmission Division-II, UP Power Transmission Corporation Ltd., 3rd Floor Paresion Bhawan SLDC Campus, near Mantry Awas, Vibhuti Khand-2, Gomati nagar, Lucknow	Structural Design & Drawing of Wall Foundation	162,000.00	Rupees One Lakh SixtyTwo Thousand Only
479	Dr. V. Kumar	Upper Project Manager, UPRNN Ltd. Machinary & Structural Centre D-6 & D-7, Naini, Allahabad	Inspection Verification of Material quality report etc.	70,800.00	Rupees Seventy Thousand Eight Hundred Only
480	Dr. K.K. Pathak	Manager (FQA) NTPC/Navinagar power Generating Company Pvt. Ltd., Nabinagar Super Thermal power Project (3x 600 MW), Aurangabad, Bihar (M/s Mc Nally Bharat Engineering Company Limited)	Coarse & Fine Aggregate & Concrete Mix Design	78,300.00	Rupees SeventyEight Thousand Three Hundred Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
481	Dr. R. Sahoo	Addl. GM (Engg) M/s Hindustan Project Ltd. Jangpura New Delhi, (M/s Universial Contractors and Engineers Pvt. Ltd.)	ACC Blocks, Cube Testing	19,470.00	Rupees Nineteen Thousand Four Hundred Seventy Only
482	Dr. P.R. Maiti	Addl. GM (Engg) M/s Hindustan Project Ltd. Jangpura New Delhi, (M/s Universial Contractors and Engineers Pvt. Ltd., Grater Noida)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only
483	Dr. P.R. Maiti	Addl. GM (Engg) M/s Hindustan Project Ltd. Jangpura New Delhi, (M/s Universial Contractors and Engineers Pvt. Ltd., Grater Noida)	Testing of Cement & Steel	46,020.00	Rupees FourtySix Thousand Twenty Only
484	Dr. P.R. Maiti	AGM (M/s Hindustan Prefab Limited Jangpura, New Delhi) (M/s Universal Constractors & Engineers Pvt. Ltd., Greator Noida)	Testing of Cement, Steel & Cube	64,310.00	Rupees SixtyFour Thousand Three Hundred Ten Only
485	Dr. P.R. Maiti	AGM, M/s Hindustan prefab Limited Jangpura, New Delhi (M/s Universal Contractors and Engineeres pvt. Ltd., Greater noida)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only
486	Dr. P.R. Maiti	Assistant Engineer BHU Project Sub division-3, CPWD, Varanasi (M/s Winner Construction Pvt. Ltd.)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only
487	Dr. P.R. Maiti	Assistant Engineer BHU Project Sub division-3, CPWD, Varanasi (M/s Winner Construction Pvt. Ltd.)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only
488	Dr. P.R. Maiti	Assistant Engineer BHU Project Sub division-3, CPWD, Varanasi (M/s Winner Construction Pvt. Ltd.)	Testing of Cement	14,160.00	Rupees Fourteen Thousand One Hundred Sixty Only
489	Dr. P.R. Maiti	Assistant Engineer BHU Project Sub division-3, CPWD, Varanasi (M/s Winner Construction Pvt. Ltd.)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only
490	Dr. P.R. Maiti	Assistant Engineer BHU Project Sub division-3, CPWD, Varanasi (M/s Winner Construction Pvt. Ltd.)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only
491	Dr. P.R. Maiti	Assistant Engineer BHU Project Sub division-3, CPWD, Varanasi (M/s Winner Construction Pvt. Ltd.)	Testing of Cement	14,160.00	Rupees Fourteen Thousand One Hundred Sixty Only
492	Dr. P.R. Maiti	Assistant Engineer BHU Project Sub division-3, CPWD, Varanasi (M/s Winner Construction Pvt. Ltd.)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only
493	Dr. P.R. Maiti	Assistant Engineer BHU Project Sub division-3, CPWD, Varanasi (M/s Winner Construction Pvt. Ltd.)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only
494	Dr. P.R. Maiti	Assistant Engineer BHU Project Sub division-3, CPWD, Varanasi (M/s Winner Construction Pvt. Ltd.)	Testing of Cement	14,160.00	Rupees Fourteen Thousand One Hundred Sixty Only
495	Dr. P.R. Maiti	Assistant Engineer BHU Project Sub division-3, CPWD, Varanasi (M/s Winner Construction Pvt. Ltd.)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only
496	Dr. P.R. Maiti	Assistant Engineer BHU Project Sub division-3, CPWD, Varanasi (M/s Winner Construction Pvt. Ltd.)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only



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497	Dr. P.R. Maiti	Assistant Engineer BHU Project Sub division-3, CPWD, Varanasi (M/s Winner Construction Pvt. Ltd.)	Testing of Cement	14,160.00	Rupees Fourteen Thousand One Hundred Sixty Only
498	Dr. R. Sahoo	Assistant Engineer BHU Project Sub division-3, CPWD, Varanasi (M/s Winner Construction Pvt. Ltd.)	Testing of Cement	14,160.00	Rupees Fourteen Thousand One Hundred Sixty Only
499	Dr. P.R. Maiti	Assistant Engineer BHU Project Sub division-3, CPWD, Varanasi (M/s Winner Construction Pvt. Ltd.)	Testing of Cement	14,160.00	Rupees Fourteen Thousand One Hundred Sixty Only
500	Dr. R. Sahoo	Assistant Engineer BHU Project Sub division-3, CPWD, Varanasi (M/s Winner Construction Pvt. Ltd.)	Testing of Cement	14,160.00	Rupees Fourteen Thousand One Hundred Sixty Only
501	Dr. R. Sahoo	Assistant Engineer BHU Project Sub division-3, CPWD, Varanasi (M/s Winner Construction Pvt. Ltd.)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only
502	Dr. P.R. Maiti	Assistant Engineer BHU Project Sub division-3, CPWD, Varanasi (M/s Winner Construction Pvt. Ltd.)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only
503	Dr. P.R. Maiti	Assistant Engineer BHU Project Sub division-3, CPWD, Varanasi (M/s Winner Construction Pvt. Ltd.)	Testing of Cement	14,160.00	Rupees Fourteen Thousand One Hundred Sixty Only
504	Dr. P.R. Maiti	Assistant Engineer BHU Project Sub division-3, CPWD, Varanasi (M/s Winner Construction Pvt. Ltd.)	Testing of Cement	35,400.00	Rupees ThirtyFive Thousand Four Hundred Only
505	Dr. P.R. Maiti	Assistant Engineer BHU Project Sub division-3, CPWD, Varanasi (M/s Winner Construction Pvt. Ltd.)	Testing of Cement	14,160.00	Rupees Fourteen Thousand One Hundred Sixty Only
506	Dr. Ankit Gupta	Adhishashi Abhiyanta, Nagar Nigam, Varanasi (M/s Brijkaya Construction)	Testing of Bituminous	11,800.00	Rupees Eleven Thousand Eight Hundred Only
507	Dr. Ankit Gupta	Adhishashi Abhiyanta Prantiya Khand, PWD, Ghazipur	Testing of bitumen Content	51,920.00	Rupees FiftyOne Thousand Nine Hundred Twenty Only
508	Prof. D. Mohan	UP Jal Nigam, Office Executive Engineer, Construction Block, UP Jal Nigam, Ballia, UP	Testing of Drinking Water	2,832.00	Rupees Two Thousand Eight Hundred ThirtyTwo Only
509	Dr. P.R. maiti	Project Manager UPRNN Ltd., Bhadohi Unit, House No02, Vivekanand Nagar Colony, Lohamandi, Maldahia, Varanasi	Concrete Mix Design M-2 O grade	32,450.00	Rupees ThirtyTwo Thousand Four Hundred Fifty Only
510	Dr. K.K. Pathak	Project Manager, UPRNN Ltd., Bhadohi Unit, Lohamandi Maldahiya, Varanasi	Cube Testing, Coarse Sand, Steel, Cement, Bricks & Steme grit testing	74,930.00	Rupees SeventyFour Thousand Nine Hundred Thirty Only
511	Dr. P.R. Maiti	KEI Industries Limited, SA 15/2B, Ashapur, Mohia, Sarnath Near Dirghayu Hospital, Varanasi	Cube Testing	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
512	Dr. P.R. Maiti	Superintending Engineer, UWD, BHU (M/s Haroo Mall)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
513	Dr. P.R. Maiti	Superintending Engineer, UWD, BHU (M/s Haroo Mall)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only
514	Dr. V. Kumar	Project Manager, UPRNN Ltd., Bhadohi Unit, Lohamandi Maldahiya, Varanasi	Inspection & Verification at Materials of Expo Mart, Bhadohi	59,000.00	Rupees FiftyNine Thousand Only
515	Dr. V. Kumar	Project Manager, UPRNN Ltd., Bhadohi Unit, Lohamandi Maldahiya, Varanasi	Inspection & Verification	59,000.00	Rupees FiftyNine Thousand Only
516	Dr. V. Kumar	M/s Girrajji Stone Crusher (P) Ltd. Near Vikram Motor, Lashkar, Gwalior	Vetting of Design & Drawing	108,000.00	Rupees One Lakh Eight Thousand Only
517	Dr. P.R. Maiti	Project Manager UP State Bridge Corporation Ltd. S-2-18, Varuna Bihar Colony, Sikraul, Varanasi	Steel testing, Cube & Cement testing	52,380.00	Rupees FiftyTwo Thousand Three Hundred Eighty Only
518	Prof. Rajesh Kumar	Project head M/s Dilip buildcon- Varahu Infra Limited (JV), Plot No 5, Chuna Bhatti, Kolor Road, Bhopal	Vetting of Design	106,200.00	Rupees One Lakh Six Thousand Two Hundred Only
519	Dr. V. Kumar	Manager/Civil 13-KM, Milestone NH-24, Lucknow, Sitapur Road, Lucknow	Vettinf of Structural Design	141,600.00	Rupees One Lakh FourtyOne Thousand Six Hundred Only
520	Dr. V. Kumar	Executive Director, M/s Richa Industries Limited, Plot No29, DLF Indrustrial Area, Phase-II, Faridabad	Vettinf of Structural Design	86,400.00	Rupees EightySix Thousand Four Hundred Only
521	Dr. V. Kumar	Executive Engineer Ajmer Central Division, CPWD, Kachahari Road, Ajmer	Vettinf of Structural Design	531,000.00	Rupees Five Lakh ThirtyOne Thousand Only
522	Dr. D. Mohan	Manager-Quality BHEL (PSER) North Karanpura STPP, NTPC Tandwa (Chotra)	Testing of water & Suitability of water as per IS: 456	11,328.00	Rupees Eleven Thousand Three Hundred TwentyEight Only
523	Dr. P.R. Maiti	Assistant Engineer BHU Project Division-2, CPWD, Varanasi (M/s Gupta Construction Pvt. Ltd.)	Steel Testing	28,080.00	Rupees TwentyEight Thousand Eighty Only
524	Dr. P.R. Maiti	Assistant Engineer BHU Project Division-2, CPWD, Varanasi (M/s Gupta Construction Pvt. Ltd.)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
525	Dr. P.R. Maiti	Assistant Engineer BHU Project Division-2, CPWD, Varanasi (M/s Gupta Construction Pvt. Ltd.)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
526	Dr. P.R. Maiti	Executive Engineer, BHU Project Division-1, CPWD, Varanasi (M/s Winner Construction Pvt. Ltd.)	Concrete Mix Design	64,900.00	Rupees SixtyFour Thousand Nine Hundred Only
527	Dr. P.R. Maiti	Executive Engineer, BHU Project Division-1, CPWD, Varanasi (M/s Winner Construction Pvt. Ltd.)	Concrete Mix Design	64,900.00	Rupees SixtyFour Thousand Nine Hundred Only
528	Dr. V. Kumar	M/s Structural Design Lab, 214/21, Akhtar Mahzil, Pyare Lal Road, Chowk, Lucknow	Vettinf of Structural Design	35,990.00	Rupees ThirtyFive Thousand Nine Hundred Ninety Only



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529	Dr. P.R.Maiti	Assistant Executive Engineer, BHU Project Subdivision-1, CPWD, Varanasi (M/s S.M. Saqvib)	Testing of Bricks	8,850.00	Rupees Eight Thousand Eight Hundred Fifty Only
530	Dr. P.R.Maiti	Assistant Executive Engineer, BHU Project Subdivision-1, CPWD, Varanasi (M/s S.M. Saqvib)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only
531	Dr. Ankit Gupta	Adhishashi Abhiyanta Nagar Nigam, Varanasi (M/s Brijkaya Construction)	Testing of Bituminous	11,800.00	Rupees Eleven Thousand Eight Hundred Only
532	Dr. P.R. Maiti	Dy. Project Manager, UP State Bridge Corporation Ltd., BCU-3, SC/5 Above UCO Bank, Tagore town, Allahabad	Cube testing, Coarse Sand, Stone Grit, Steel & Cement Testing	77,290.00	Rupees SeventySeven Thousand Two Hundred Ninety Only
533	Prof. Arun Prasad	The Manager/Civil/RITES Ltd., Reginal Project Office Lucknow, NH- 24, Lucknow-Sitapur, Lucknow	Site Visit & Suitable remedial measure(s)	354,000.00	Rupees Three Lakh FiftyFour Thousand Only
534	Dr. D. Mohan	DGM (Civil) NTPC Ltd. Unchahar Raibarali	Testing of Water & Report on suitability	11,328.00	Rupees Eleven Thousand Three Hundred TwentyEight Only
535	Dr. P.R.Maiti	Sr. Manager RUHPCL, n floor, North square Shastri Nagar, Sigra, Varanasi	Testing of Zinc Coating sheet	16,520.00	Rupees Sixteen Thousand Five Hundred Twenty Only
536	Dr. P.R.Maiti	Sr. Manager RUHPCL, n floor, North square Shastri Nagar, Sigra, Varanasi	Testing of Zinc Coating sheet	8,260.00	Rupees Eight Thousand Two Hundred Sixty Only
537	Dr. P.B. Ramudu	M/s Team Leader DFCCL Project Chandauli SMEC India pvt. Ltd., in Assciation With C/o CBSE-CC	Soil Investigation	21,060.00	Rupees TwentyOne Thousand Sixty Only
538	Dr. P.R. Maiti	Assistant Executive Engineer, BHU Project subdivision-4 CPWD, Varanasi (M/s Naresh Gupta & Company pvt. Ltd.)	Testing of Cement	14,160.00	Rupees Fourteen Thousand One Hundred Sixty Only
539	Dr. P.R. Maiti	Assistant Executive Engineer, BHU Project subdivision-4 CPWD, Varanasi (M/s Naresh Gupta & Company pvt. Ltd.)	Steel Testing	23,010.00	Rupees TwentyThree Thousand Ten Only
540	Dr. P.R. Maiti	M/s Gannon durkerly & Co. Ltd., A-129, Lohia Nagar, Ghaziabad	Concrete Mix Design	237,600.00	Rupees Two Lakh ThirtySeven Thousand Six Hundred Only
541	Dr. P.R. Maiti	Assistant Executive Engineer, BHU Project Subdivision CPWD, Varanasi (M/s Naresh Kumar Gupta & company Pvt. Ltd.)	Cube Testing	5,310.00	Rupees Five Thousand Three Hundred Ten Only
542	Dr. P.R. Maiti	Assistant Executive Engineer, BHU Project Subdivision-4, CPWD, Varanasi (M/s Naresh Kumar Gupta & Company Pvt. Ltd.)	Coarse Aggregate 20 mm	3,450.00	Rupees Three Thousand Four Hundred Fifty Only
543	Dr. P.R. Maiti	Assistant Executive Engineer, BHU Project Subdivision-4, CPWD, Varanasi (M/s Naresh Kumar Gupta & Company Pvt. Ltd.)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
544	Dr. P.R. Maiti	Assistant Executive Engineer, BHU Project Subdivision-4, CPWD, Varanasi (M/s Naresh Kumar Gupta & Company Pvt. Ltd.)	Testing of Bricks	7,080.00	Rupees Seven Thousand Eighty Only
545	Dr. P.R. Maiti	Assistant Executive Engineer, BHU Project Subdivision-4, CPWD, Varanasi (M/s Naresh Kumar Gupta & Company Pvt. Ltd.)	Testing of Cement	14,160.00	Rupees Fourteen Thousand One Hundred Sixty Only
546	Dr. P.R. Maiti	Assistant Executive Engineer, BHU Project Subdivision-5, CPWD, Varanasi (M/s Naresh Kumar Gupta & Company Pvt. Ltd.)	Steel Testing	33,040.00	Rupees ThirtyThree Thousand Fourty Only
547	Dr. P.R. Maiti	Assistant Executive Engineer, BHU Project Subdivision-4, CPWD, Varanasi (M/s Naresh Kumar Gupta & Company Pvt. Ltd.)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only
548	Dr. P.R. Maiti	M/s Anand Enterprises SA-2O/16K, Paigambarpur, Varanasi	Cube Testing	1,770.00	Rupees One Thousand Seven Hundred Seventy Only
549	Dr. V. Kumar	Executive Engineer, PWD, Flyouer Project Division, F-31, Frent of Gate no. 6, Jawahar Lal Nehres Stedium, New Delhi	Cube Testing	413,000.00	Rupees Four Lakh Thirteen Thousand Only
550	Dr. P.R. Maiti	Asstt. Manager (Civil) 5 Floor, Sangam Palace, Civil Lines, Allahabad	Concrete Mix Design M-45	38,940.00	Rupees ThirtyEight Thousand Nine Hundred Fourty Only
551	Dr. Ankit Gupta	Project Manager, Hill/BSB-ALD/ DL Project, Varanasi (M/s Gannon Drunkenly & Co. Ltd.)	Testing of Track Ballast	11,880.00	Rupees Eleven Thousand Eight Hundred Eighty Only
552	Dr. P.R. Maiti	Assistant Engineer, BHU Project Division-2, CPWD, Varanasi (M/s Kashyapi Infrastruture Pvt. Ltd.)	Testing of Cement	25,920.00	Rupees TwentyFive Thousand Nine Hundred Twenty Only
553	Dr. P.R. Maiti	Assistant Engineer, BHU Project Division-2, CPWD, Varanasi (M/s Kashyapi Infrastruture Pvt. Ltd.)	Testing of Cement	25,920.00	Rupees TwentyFive Thousand Nine Hundred Twenty Only
554	Dr. P.R. Maiti	Assistant Engineer, BHU Project Division-2, CPWD, Varanasi (M/s Kashyapi Infrastruture Pvt. Ltd.)	Testing of Cement	25,920.00	Rupees TwentyFive Thousand Nine Hundred Twenty Only
555	Dr. P.R. Maiti	Assistant Engineer, BHU Project Division-2, CPWD, Varanasi (M/s Kashyapi Infrastruture Pvt. Ltd.)	Testing of Cement	25,920.00	Rupees TwentyFive Thousand Nine Hundred Twenty Only
556	Dr. P.R. Maiti	Assistant Engineer, BHU Project Division-2, CPWD, Varanasi (M/s Kashyapi Infrastruture Pvt. Ltd.)	Testing of Cement	25,920.00	Rupees TwentyFive Thousand Nine Hundred Twenty Only
557	Dr. P.R. Maiti	Assistant Engineer, BHU Project Division-2, CPWD, Varanasi (M/s Kashyapi Infrastruture Pvt. Ltd.)	Testing of Cement	41,040.00	Rupees FourtyOne Thousand Fourty Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
558	Dr. P.R. Maiti	Assistant Engineer, BHU Project Division-2, CPWD, Varanasi (M/s Kashyapi Infrastruture Pvt. Ltd.)	Steel Testing	49,680.00	Rupees FourtyNine Thousand Six Hundred Eighty Only
559	Dr. P.R. Maiti	Assistant Engineer, BHU Project Division-2, CPWD, Varanasi (M/s Kashyapi Infrastruture Pvt. Ltd.)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only
560	Dr. P.R. Maiti	Assistant Engineer, BHU Project Division-1, CPWD, Varanasi (M/s Kashyapi Infrastruture Pvt. Ltd.)	Cube Testing	21,060.00	Rupees TwentyOne Thousand Sixty Only
561	Dr. P.R. Maiti	ADEN/HQ/MGS East Central Railway, Mughalsarai (M/s Shiv Kumar Singh)	Cube Testing	1,770.00	Rupees One Thousand Seven Hundred Seventy Only
562	Dr. V. Kumar	Upper Project Manager UPRNN Ltd., Rajkeya Alopathic Medical College Campus Naraini Road Banda	Inspection, Verification of Material quality report etc.	82,600.00	Rupees EightyTwo Thousand Six Hundred Only
563	Dr. S. Mandal	M/s O.P. Gupta Contractors Pvt. Ltd., B-29, Nirbhay Nagar, Agra	Vetting of structural Design & Drawing	35,400.00	Rupees ThirtyFive Thousand Four Hundred Only
564	Dr. P.R. Maiti	M/s Varanasi STP Project Private Ltd., 6 floor Plot No19 film City sector-16 A (M/s Cont Construction Pvt. Ltd.)	Testing of Steel & Cement	55,460.00	Rupees FiftyFive Thousand Four Hundred Sixty Only
565	Dr. P.R. Maiti	M/s Varanasi STP Project Private Ltd., 6 floor Plot No19 film City sector-16 A (M/s Cont Construction Pvt. Ltd.)	Cube Testing	7,080.00	Rupees Seven Thousand Eighty Only
566	Dr. P.R. Maiti	Assistant Engineer, Amethi Project Division, CPWD, Amethi	Testing of Flush Door Shutter	10,620.00	Rupees Ten Thousand Six Hundred Twenty Only
567	Dr. P.R. Maiti	Assistant Engineer, Amethi Project Division, CPWD, Amethi (M/s The Krisna Construction Co.)	Wood Testing	7,080.00	Rupees Seven Thousand Eighty Only
568	Dr. V. Kumar	Unit Incharge UPRNN Ltd., Unit-16 (Behind Aryan Hostel) Park road, Lucknow	Inspection, Verification of Material & Report etc.	64,800.00	Rupees SixtyFour Thousand Eight Hundred Only
569	Dr. P.R. Maiti	Dy CPM/Engg/DOS Dedicated Freight Coridor Corporation of India Ltd., Swarna Complet 2nd floor susuwahi, varanasi (M/s Wood hill Rahee (JV))	Steel Testing	16,520.00	Rupees Sixteen Thousand Five Hundred Twenty Only
570	Dr. V. Kumar	Chief Project manager M/s GHV India Private EKK Infra Pvt. Ltd. (JV) Site Office (Old Andaman Timber Industries) Chonadam, Kunduchira Road Kannur, Kerla	Vetgting of Structural Design & Drawing	324,500.00	Rupees Three Lakh TwentyFour Thousand Five Hundred Only
571	Dr. P.R. Maiti	Executive Engineer Civil Maintenance Division Thermal Power Station UPRVN Ltd. Obra- Sonebhadra (m/s Ashish Enterprises)	Concrete Mix Design	64,900.00	Rupees SixtyFour Thousand Nine Hundred Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
572	Dr. R. Sahoo	M/s JSP Project Pvt. Ltd., Flat No5, Iind floor III B-2, Nehru Nagar, Ghaziabad	Testing of Steel	39,530.00	Rupees ThirtyNine Thousand Five Hundred Thirty Only
573	Dr. P.R. Maiti	Assistant Engineer, BHU Project subdivision-1, CPWD, Varanasi (M/s Gupta Construction Pvt. Ltd.)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
574	Dr. P.R. Maiti	Assistant Engineer, BHU Project subdivision-1, CPWD, Varanasi (M/s Gupta Construction Pvt. Ltd.)	Steel Testing	44,280.00	Rupees FourtyFour Thousand Two Hundred Eighty Only
575	Dr. P.R. Maiti	Assistant Engineer, BHU Project subdivision-1, CPWD, Varanasi (M/s Gupta Construction Pvt. Ltd.)	Concrete Mix Design	59,400.00	Rupees FiftyNine Thousand Four Hundred Only
576	Dr. P.R. Maiti	Assistant Engineer, BHU Project subdivision-2, CPWD, Varanasi (M/s Gupta Construction Pvt. Ltd.)	Steel Testing	15,120.00	Rupees Fifteen Thousand One Hundred Twenty Only
577	Dr. V. Kumar	COO and Director Design (M/s JKM Infra Project Limited, A-28, Sector-9, Noida)	Vetting of Structural Design & Drawing of PSC Girder	270,000.00	Rupees Two Lakh Seventy Thousand Only
578	Dr. P.R. Maiti	Executive Engineer Nagar Palika Parishad Varanasi (M/s Rakesh Singh)	Interlocking Bricks	5,900.00	Rupees Five Thousand Nine Hundred Only
579	Dr. V. Kumar	Executive Engineer BHU Project subdivision-2, CPWD Behind Central Office Varanasi	Vetting of structural Design & Drawing	2,088,000.00	Rupees Twenty Lakh EightyEight Thousand Only
580	Dr. P.R. Maiti	Residential Construction Manager M/s Tata Project Ltd. C/o Govt. Allopathic Medical College Project, Shahganj Road, Siddiqpur,Jaunpur	Steel Testing	7,020.00	Rupees Seven Thousand Twenty Only
581	Dr. P.R. Maiti	Residential Construction Manager M/s Tata Project Ltd. C/o Govt. Allopathic Medical College Project, Shahganj Road, Siddiqpur,Jaunpur	Steel Testing	7,020.00	Rupees Seven Thousand Twenty Only
582	Dr. P.R. Maiti	Residential Construction Manager M/s Tata Project Ltd. C/o Govt. Allopathic Medical College Project, Shahganj Road, Siddiqpur,Jaunpur	Steel Testing	7,020.00	Rupees Seven Thousand Twenty Only
583	Dr. P.R. Maiti	Residential Construction Manager M/s Tata Project Ltd. C/o Govt. Allopathic Medical College Project, Shahganj Road, Siddiqpur,Jaunpur	Steel Testing	8,100.00	Rupees Eight Thousand One Hundred Only
584	Dr. P.R. Maiti	Residential Construction Manager M/s Tata Project Ltd. C/o Govt. Allopathic Medical College Project, Shahganj Road, Siddiqpur,Jaunpur	Cube Testing	3,240.00	Rupees Three Thousand Two Hundred Fourty Only
585	Dr. P.R. Maiti	Assistant Executive Engineer BHU Project Subdivision-5, CPWD, Varanasi (M/s Eastern Cons. Company)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
586	Dr. K.K. Pathak	Assistant Engineer BHU Project Subdivision-1, CPWD, Varanasi (M/s Eastern Construction Company)	Concrete Mix Desigh	59,400.00	Rupees FiftyNine Thousand Four Hundred Only
587	Dr. K.K. Pathak	Assistant Engineer BHU Project Subdivision-2, CPWD, Varanasi (M/s Eastern Construction Company)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
588	Dr. K.K. Pathak	Assistant Engineer BHU Project Subdivision-5, CPWD, Varanasi (M/s Eastern Construction Company)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
589	Dr. P.R. Maiti	Assistant Engineer BHU Project Subdivision-5, CPWD, Varanasi (M/s Eastern Construction Company)	Wood Testing	25,920.00	Rupees TwentyFive Thousand Nine Hundred Twenty Only
590	Dr. Ankit Gupta	Col. R.K. Aima (R&D) Team Leader DFCCIL Project Chandauli, SEMC India Pvt. Ltd. In association with RODIC Consult Pvt. Ltd., Chandauli	Testing of Track Balast	11,880.00	Rupees Eleven Thousand Eight Hundred Eighty Only
591	Dr. Ankit Gupta	Col. R.K. Aima (R&D) Team Leader DFCCIL Project Chandauli, SEMC India Pvt. Ltd. In association with RODIC Consult Pvt. Ltd., Chandauli	Testing of Track Balast	11,880.00	Rupees Eleven Thousand Eight Hundred Eighty Only
592	Dr. Ankit Gupta	Karyapalak Engineer, Ni-Balia	Testing of Track Balast	12,980.00	Rupees Twelve Thousand Nine Hundred Eighty Only
593	Dr. P.R. Maiti	Assistant Engineer BHU Project division-2, CPWD, Varanasi (M/s Kashyapi Infrastructure Pvt. Ltd.)	Steel Testing	45,360.00	Rupees FourtyFive Thousand Three Hundred Sixty Only
594	Dr. P.R. Maiti	Assistant Engineer BHU Project division-2, CPWD, Varanasi (M/s Kashyapi Infrastructure Pvt. Ltd.)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
595	Dr. P.R. Maiti	Assistant Engineer BHU Project division-2, CPWD, Varanasi (M/s Kashyapi Infrastructure Pvt. Ltd.)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
596	Dr. P.R. Maiti	Assistant Engineer BHU Project division-2, CPWD, Varanasi (M/s Kashyapi Infrastructure Pvt. Ltd.)	Testing of Cement	19,440.00	Rupees Nineteen Thousand Four Hundred Fourty Only
597	Dr. R. Sahoo	Assistant Engineer BHU Project division-2, CPWD, Varanasi (M/s Kashyapi Infrastructure Pvt. Ltd.)	Steel Testing	36,720.00	Rupees ThirtySix Thousand Seven Hundred Twenty Only
598	Dr. R. Sahoo	Assistant Engineer BHU Project division-2, CPWD, Varanasi (M/s Kashyapi Infrastructure Pvt. Ltd.)	Testing of Cement	12,960.00	Rupees Twelve Thousand Nine Hundred Sixty Only
599	Dr. P.R. Maiti	Assistant Engineer BHU Project Subdivision-2, CPWD, Varanasi (M/s kamladity construction pvt. Ltd.)	Steel Testing	10,800.00	Rupees Ten Thousand Eight Hundred Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
600	Dr. P.R. Maiti	Assistant Engineer BHU Project Subdivision-2, CPWD, Varanasi (M/s kamladity construction pvt. Ltd.)	Steel Testing	10,800.00	Rupees Ten Thousand Eight Hundred Only
601	Dr. P.R. Maiti	Assistant Engineer BHU Project Division, CPWD, Varanasi (M/s kamladity construction pvt. Ltd.)	Cube Testing	37,260.00	Rupees ThirtySeven Thousand Two Hundred Sixty Only
602	Dr. P.R. Maiti	Assistant Engineer BHU Project Division, CPWD, Varanasi (M/s kamladity construction pvt. Ltd.)	Steel Testing	10,800.00	Rupees Ten Thousand Eight Hundred Only
603	Prof. K.K. Pathak	M/s Megha Engineer & Infra Structure Ltd., S-2, Technocrat Indl. Estate Balanagar, Hyderebad Site Office, WSP, Varanasi	Cube Testing	3,540.00	Rupees Three Thousand Five Hundred Fourty Only
604	Prof. V. Kumar	Project Manager UPRNN Ltd., Bhadohi Unit, House No02, Vivekanand Nagar Colony, Lohamandi, Maldahia, Varanasi	Vetting of Structure design	118,000.00	Rupees One Lakh Eighteen Thousand Only
605	Prof. V. Kumar	Project Manager UPRNN Ltd., Bhadohi Unit, House No02, Vivekanand Nagar Colony, Lohamandi, Maldahia, Varanasi	Vetting of Structure design	29,500.00	Rupees TwentyNine Thousand Five Hundred Only
606	Prof. V. Kumar	M/s Gannon durkerly & Co. Ltd., A-129, Lohia Nagar, Ghaziabad	Vetting of Structure design	1,100,350.00	Rupees Eleven Lakh Three Hundred Fifty Only
607	Dr. P.R. Maiti	M/s Technical Construction Company, 40-A, New Mandi, Muzaffarpur	Cube Testing, Steel Testing, Ston Grit & Coarse Sand	38,940.00	Rupees ThirtyEight Thousand Nine Hundred Fourty Only
608	Dr. P.R. Maiti	Assistant Engineer, BHU Project Division-2, CPWD, Varanasi (M/s Kashyapi Infrastruture Pvt. Ltd.)	Testing of Bricks	16,200.00	Rupees Sixteen Thousand Two Hundred Only
609	Dr. P.R. Maiti	Assistant Engineer, BHU Project Division-2, CPWD, Varanasi (M/s Kashyapi Infrastruture Pvt. Ltd.)	Cube Testing	21,060.00	Rupees TwentyOne Thousand Sixty Only
610	Prof. V. Kumar	Project Manager UPRNN Ltd., Ballia Unit, Collectorate Campus, Near Treasury, Ballia	Third Party Quality Inspection	54,000.00	Rupees FiftyFour Thousand Only
611	Prof. V. Kumar	Project Manager UPRNN Ltd., Ballia Unit, Collectorate Campus, Near Treasury, Ballia	Third Party Quality Inspection	54,000.00	Rupees FiftyFour Thousand Only
612	Dr. P.R. Maiti	Executive Engineer, Nagar Palika Parishad, Ramnagar, Varanasi (M/s S.K. Construction)	Testing of Interlocking Bricks	5,900.00	Rupees Five Thousand Nine Hundred Only
613	Prof. V.Kumar	Addl. Project manager Unit-3, UPRNN Ltd. Govt. Doon Medical College Campus, Dehradun	Inspection, Verification of Material quality report	82,600.00	Rupees EightyTwo Thousand Six Hundred Only
614	Dr. Ankit Gupta	Adhishashi Abhiyanta, Nagar Nigam, Varanasi (M/s Hind Associates, Varanasi)	Testing of Bituminous Sampk	23,600.00	Rupees TwentyThree Thousand Six Hundred Only
615	Prof. V. Kumar	Project Manager, Gomti Pollution Control Unit-3 (V/Y) UP Jal Nigam, 22 Japling road, Lucknow (M/s Acme Pumps & Power Projects Ltd.)	Vetting of Design & Drawing	29,500.00	Rupees TwentyNine Thousand Five Hundred Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
616	Prof. K.K. Pathak	Project Manager M/s JPG Engineers Pvt. Ltd. 722, 7 Floor Wave Silver Tower, Sector 18, Noida	Cube Testing	1,770.00	Rupees One Thousand Seven Hundred Seventy Only
617	Dr. P.R. Maiti	Deputy Controller M/s Shulabh International Social Service organisation, Flat No102, MN- B-38/47, Vasundhara Appartment, Tulsipur, Varanasi	Testing of Bricks, Coarse Aggregate & Sand Coarse	14,750.00	Rupees Fourteen Thousand Seven Hundred Fifty Only
618	Prof. D. Mohan	DGM (Civil), NTPC Tanda, Uidyut Nagar, Ambedkar Nagar	Testing of Water Sample & Report on subitability at water	11,328.00	Rupees Eleven Thousand Three Hundred TwentyEight Only
619	Dr. P.R. Maiti	Project Manager M/s Raj Construction Atair Majhganwa, Gorakhpur	Cube Testing	3,540.00	Rupees Three Thousand Five Hundred Fourty Only
620	Dr. P.R. Maiti	M/s Varanasi STP Project Private Limited, 6 floor, Flat no. 19, filmcity Sector-16A, Gautam Buddh nagar, Noida (M/s Comt Construction Pvt. Ltd.)	Cube Testing	24,780.00	Rupees TwentyFour Thousand Seven Hundred Eighty Only
621	Prof. Prabhat Kr. Singh	Municipal commissioner Nagar Nigam, Agra	Vetting of DPR for solid waste managerment	295,000.00	Rupees Two Lakh NinetyFive Thousand Only
622	Prof. K.K. Pathak	Mother's Pride Infrastructure Pvt. Ltd., Work-Consultancy	Issurance of vetted structural drawing for consturction of foot over bridge for Ramayan Circuit at Ayoudhya	236,000.00	Rupees Two Lakh ThirtySix Thousand Only
623	Dr. K.K. Pandey	Executive Engineer Construction Division, UP Jal Nigam, Ballia	Vetting of hydraulic design and drawing of 19.6 MLD STP at ballia	118,000.00	Rupees One Lakh Eighteen Thousand Only
624	Dr. K.K. Pandey	Project manager EMS Infracon pvt. Ltd. C-88, RDC, Raj Nagar, Ghaziabad work	Vetting of hydraulic design and drawing of saidpur sewerage network zone-III & IV A (North)	348,100.00	Rupees Three Lakh FourtyEight Thousand One Hundred Only
625	Dr. Ankint Gupta	Mr. Prabhakar Sharma, Adhishashi Abhiyanta Nirman Khand-1, PWD, Bareily (UUP) Work	Proof checking and vetting of paverment design	118,000.00	Rupees One Lakh Eighteen Thousand Only
626	Dr. Ankint Gupta	Adhishashi Abhiyanta, Nirman Khand-1, PWD, Mathura (UP) Work	Design of Paverment Design as per New design (Use of stabilized WMM) with IIT Pave Software for 1 road section	177,000.00	Rupees One Lakh SeventySeven Thousand Only
627	Dr. Ankint Gupta	Cement concrete layer above DLC to strengthen DLC layer as per reduirement	Calculation for strength and thickness design of cement concrete layer above DLC to strengthen DLC layer as per reduirement	23,600.00	Rupees TwentyThree Thousand Six Hundred Only
628	Shri Suresh Kumar	Unit Incharge, Raibarelli Unit, UPRNN Ltd., Jila Karagar Parisar Raibarelli	Construction work of 100 bed maternity hospital in district Raibarelli	118,000.00	Rupees One Lakh Eighteen Thousand Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
629	Shri Suresh Kumar	Geotech Technical, Associates Pvt. Ltd., 7, Mahamanapuri ITI Road, BHU, Varanasi	Vetting of soil investigation report of construction of Type-I residential building at Sri Shiv Prasad Gupta residential hospital, Kabirchaura, Varanasi	11,800.00	Rupees Eleven Thousand Eight Hundred Only
630	Shri Suresh Kumar	mi eq[; bath0@fu0@vkbZ0@okjk.klh iwokZsRrj jsyos] ygjrkjk] okjk.klh	Site Visit, Inspection of site conditions from Km 203/6- 204/o in between varanasi city & varanasi Report Preparation based on feasibility of channelization of flowing sewer line	88,500.00	Rupees EightyEight Thousand Five Hundred Only
631	Shri Suresh Kumar	Abhilasha Enterprises, construction and Builders, D-32, Industrial Area, Rampur (UP)	Vitting of Pile test report for Multipurpose Tourist Shelter, Digamber Akhara, Ayodhya, Faizabad	59,000.00	Rupees FiftyNine Thousand Only
632	Shri Suresh Kumar	vij ifj;kstuk izcU/kd fodkl Hkou ifjlj] fHkUMk] JkoLrh	fuekZ.kf/ku ftyk dkjkxkj] tuij& okjk.klh	116,000.00	Rupees One Lakh Sixteen Thousand Only
633	Shri Suresh Kumar	vij ifj;kstuk izcU/kd fodkl Hkou ifjlj] fHkUMk] JkoLrh	fuekZ.kf/ku 10 dksVZ Hkou] JkoLrh	116,000.00	Rupees One Lakh Sixteen Thousand Only
634	Shri Suresh Kumar	Unit Incharge UPRNN Ltd., Rajkiya Allopathic Medical College, Ganja- Faizabad	100 'kS;~;k efgyk eSVjfuVh foax] fl)kFkZuxj	108,000.00	Rupees One Lakh Eight Thousand Only
635	Shri Suresh Kumar	Unit Incharge Basti Unit, UPRNN Ltd., Desides Commissioner Awas, Circuit House, Basti	ftyk dkjkxkj] lacdchj uxj	108,000.00	Rupees One Lakh Eight Thousand Only
636	Shri Suresh Kumar	Unit Incharge Basti Unit, UPRNN Ltd., Desides Commissioner Awas, Circuit House, Basti	100 csM eSVjfuVh foax] lardchj uxj	108,000.00	Rupees One Lakh Eight Thousand Only
637	Shri Suresh Kumar	Unit Incharge, Unit-13, Plot No- 4, Sector-7, gomtinagar, Ext. Lucknow	Third Party soil inspection of Pursaini, Mohanlalganj	118,000.00	Rupees One Lakh Eighteen Thousand Only
638	Shri Suresh Kumar	Unit Incharge, Unit-13, Plot No- 4, Sector-7, gomtinagar, Ext. Lucknow	Third Party soil inspection of Nurnagar Madasa, Bijnour, Lucknow	118,000.00	Rupees One Lakh Eighteen Thousand Only
639	Dr. Suresh Kumar	Geotech Technical, Associates Pvt. Ltd., 7, Mahamanapuri ITI Road, BHU, Varanasi	Vetting of soil investigation report of construction site of guest house at ranipur, rajmo at mohammdabad, Azamgarh	35,400.00	Rupees ThirtyFive Thousand Four Hundred Only
640	Dr. Suresh Kumar	Geotech Technical, Associates Pvt. Ltd., 7, Mahamanapuri ITI Road, BHU, Varanasi	Vetting of soil investigation report of construction site of ATC tower and building at No frill airport at Azamgarh	35,400.00	Rupees ThirtyFive Thousand Four Hundred Only
641	Prof. K.K. Pathak	Mother's Pride Infrastructure Pvt. Ltd., M-4/22 Vinay Khand, Gomti Nagar, Lucknow	Vetting of structural Drawing of Admin Block, Hostel and miscellaneous building of the state University, Allahabad	387,360.00	Rupees Three Lakh EightySeven Thousand Three Hundred Sixty Only
642	Dr. Suresh Kumar, Prof. K.K. Pathak	Unit Incharge Raibarelli Unit, UPRNN Ltd. Jila Karagar Parisar, Raibarelli	fuekZ.kf/ku 18 U;k;ky; d{k] tuin jk;cjsyh	116,000.00	Rupees One Lakh Sixteen Thousand Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
643	Dr. Suresh Kumar, Prof. K.K. Pathak	Unit Incharge Raibarelli Unit, UPRNN Ltd. Jila Karagar Parisar, Raibarelli	fuekZ.kf/ku lSfud Ldwy dkSNkj] tuin vesBh] lkbV foftV] LVMh vkWQ ,oh,yscy fjiksVZ	118,000.00	Rupees One Lakh Eighteen Thousand Only
644		Head, Alumina Retinery Hindalco Industries Pvt. Ltd., Renukoot		270,000.00	Rupees Two Lakh Seventy Thousand Only
645	Dr. Brind Kumar	NRRDA, New Delhi	Being Honorarium receivd from The Director (Technical) Natioanal Rural roads Development	388,563.00	Rupees Three Lakh EightyEight Thousand Five Hundred SixtyThree Only
646	Dr. Brind Kumar	M/s A.K. Construction Company, Bhadiwa, P.OAmba, Varanasi, EE, Provincial division, PWD, Chandauli	Vetting of JMF for DBM Grading -2 and WMM for Chahaniya-Dhanapur-Mahuli- Jamania Road under CRF	47,200.00	Rupees FourtySeven Thousand Two Hundred Only
647	Dr. Ankit Gupta	Project Manager, Hill/BSB-ALD/ DL Project, Varanasi (M/s Gannon Drunkenly & Co. Ltd.)	Testing of Track Ballast	11,880.00	Rupees Eleven Thousand Eight Hundred Eighty Only
648	Dr. P.R. Maiti	Assistant Engineer BHU Project Division-1, CPWD, Varanasi (M/s Gupta Construction pvt. Ltd.)	Concrete Mix Design	59,400.00	Rupees FiftyNine Thousand Four Hundred Only
649	Dr. P.R. Maiti	Assistant Engineer BHU Project Division-1, CPWD, Varanasi (M/s Balaji Construction)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only
650	Dr. P.R. Maiti	Assistant Engineer BHU Project Division-2, CPWD, Varanasi (M/s Gaytri Electrical Works)	Concrete Mix Design	64,900.00	Rupees SixtyFour Thousand Nine Hundred Only
651	Dr. P.R. Maiti	Assistant Engineer BHU Project Division-2, CPWD, Varanasi (M/s Gaytri Electrical Works)	Concrete Mix Design	64,900.00	Rupees SixtyFour Thousand Nine Hundred Only
652	Dr. Rajesh Kumar	Dy. Chief Engineer Construction North Central Railway Agra	Vetting of Structural Design	47,200.00	Rupees FourtySeven Thousand Two Hundred Only
653	Dr. V. Kumar	Upper Project Manager, Unit- 15, UPRNN Ltd., Institute of Engineering & Technology Sitapur Road, Lucknow	Inspection, Verification of Materials quality report etc.	70,800.00	Rupees Seventy Thousand Eight Hundred Only
654	Dr. M. Jha	M/s Jai Prakash Associate Limited, 3/42 Bahar, Cluster-3 Sahara Estate Gorakhpur	Alkate Reactivity test	11,800.00	Rupees Eleven Thousand Eight Hundred Only
655	Dr. V. Kumar & Dr. K.K. Pandey	Project Manager M/s EMS Infracon Private Limited, C-88, EDC Raj Nagar, Ghaziabad	Vetting of structural 7 Hydraulic Design	324,000.00	Rupees Three Lakh TwentyFour Thousand Only
656	Dr. V. Kumar	Dy Chief Project Manager Mughalsarai, Dedicated Freight Corridor Corporation of India Ltd., Swarna Complex 2nd floor Susuwahi, Varanasi	Vetting of Design & Drawing	108,000.00	Rupees One Lakh Eight Thousand Only
657	Er. Ramesh Singh	Manager Quality North Karampur, Site BHEL/PSER (M/s Bygging India Ltd.)	Testing of Water sample	11,328.00	Rupees Eleven Thousand Three Hundred TwentyEight Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
658		Project Manager, J. M. Enviro Technologies Pvt. Ltd. U-55-56 Senior Citizon Society Plot No- 4, Kashra Road Greater Noida	Testing of Water sample	14,868.00	Rupees Fourteen Thousand Eight Hundred SixtyEight Only
659	Dr. P.R. Maiti	Executive Engineer, Varanasi Development Authority Varanasi (M/s Akhilesh Infrastructure Pvt. Ltd.)	Cube Testing	7,670.00	Rupees Seven Thousand Six Hundred Seventy Only
660	Dr. S. Mandal	M/s OP Guta Constractors Pvt. Ltd., B-29, Nirbhay Nagar, Agra	Vetting of structural design & drawing of OHT indore	226,800.00	Rupees Two Lakh TwentySix Thousand Eight Hundred Only
661	Dr. P.R. Maiti	Manager (Civil/FQA) NTPC Ltd., Pakari Barwadih, Chatti-Bariatu & Keredari Coal Minig Project, Hazaribag (M/s Triveni Sainik Mining Pvt. Ltd.)	Coarse Aggregate	47,520.00	Rupees FourtySeven Thousand Five Hundred Twenty Only
662	Dr. P.R. Maiti	Manager (Civil/FQA) NTPC Ltd., Pakari Barwadih, Chatti-Bariatu & Keredari Coal Minig Project, Hazaribag (M/s Triveni Sainik Mining Pvt. Ltd.)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
663	Dr. P.R. Maiti	Manager (Civil/FQA) NTPC Ltd., Pakari Barwadih, Chatti-Bariatu & Keredari Coal Minig Project, Hazaribag (M/s TSMPL)	Testing of Cement	6,480.00	Rupees Six Thousand Four Hundred Eighty Only
664	Dr. P.R. Maiti	Sr. Section Engineer (Works) Railway Electrification Renucoat (M/s EMC-BCPL-SUBIR Joint Benture)	Concrete Mix Design	35,400.00	Rupees ThirtyFive Thousand Four Hundred Only
665	Dr. P.R. Maiti	Sr. Section Engineer (Works) Railway Electrification Renucoat (M/s EMC-BCPL-SUBIR Joint Benture)	Steel Testing	24,190.00	Rupees TwentyFour Thousand One Hundred Ninety Only
666	Dr. V. Kumar	M/s Narain Das Construction Pvt. Ltd., 14/441, Vinodpur Power House Road, Kaithar, Bihar	Vetting of structural Design	59,000.00	Rupees FiftyNine Thousand Only
667	Dr. P.R. Maiti	Project Manager, UPRNN Ltd., Bhadohi Unit- House No02, Vivekanand Nagar Colony, Lohamandi, Varanasi	Testing of Bricks, Cube, Coarse Aggregate & Sand	16,520.00	Rupees Sixteen Thousand Five Hundred Twenty Only
668	Dr. V. Kumar	M/s Anil Enterprises C 19/15-A-2- 1-B-A Badshah Bag Colony, Sigra, Vranasi	Vetting of structural Design & Drawing	20,650.00	Rupees Twenty Thousand Six Hundred Fifty Only
669	Dr. P.R. Maiti	M/s Ganga Sagar singgh, s-24/6, a-K-40, Hans Nagar Colony, Taktakpur, Varanasi	Concrete Mix Design	64,900.00	Rupees SixtyFour Thousand Nine Hundred Only
670	Dr. P.R. Maiti	M/s Ganga Sagar singgh, s-24/6, a-K-40, Hans Nagar Colony, Taktakpur, Varanasi	Concrete Mix Design	64,900.00	Rupees SixtyFour Thousand Nine Hundred Only
671	Dr. P.R. Maiti	Manager (TLC) power Grid Corporation of India Ltd., C-27/210A Kailgarh House Jagatganj (Hindustan Time Campus, Varanasi) (M/s Kalpataru Power Trans Mission Limited)	Cement of Testing	14,160.00	Rupees Fourteen Thousand One Hundred Sixty Only



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672	Dr. P.R. Maiti	Manager (TLC) power Grid Corporation of India Ltd., C-27/210A Kailgarh House Jagatganj (Hindustan Time Campus, Varanasi) (M/s Kalpataru Power Trans Mission Limited)	Steel Testing	55,460.00	Rupees FiftyFive Thousand Four Hundred Sixty Only
673	Dr. V.Kumar	M/s JSP Project Pvt. Ltd., Flat No5, Iind floor III B-2, Nehru Nagar, Ghaziabad	Vetting of Structural Design & Drawing of Bridge	162,000.00	Rupees One Lakh SixtyTwo Thousand Only
674	Dr. P.R. Maiti	Assistant Engineer, BHU, Project Division-2, CPWD, Varanasi (M/s R.K. The Alluminium People)	Concrete Mix Design	64,900.00	Rupees SixtyFour Thousand Nine Hundred Only
675	Dr. P.R. Maiti	Supreintending Engineer, UWD, BHU, (M/s R.K. The Alluminium People)	Testing of Bricks	8,850.00	Rupees Eight Thousand Eight Hundred Fifty Only
676	Dr. P.R. Maiti	Supreintending Engineer, UWD, BHU, (M/s R.K. The Alluminium People)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only
677	Dr. P.R. Maiti	Supreintending Engineer, UWD, BHU, (M/s R.K. The Alluminium People)	Cube Testing	3,540.00	Rupees Three Thousand Five Hundred Fourty Only
678	Dr. P.R. Maiti	Supreintending Engineer, UWD, BHU, (M/s R.K. The Alluminium People)	Testing of Bricks	8,850.00	Rupees Eight Thousand Eight Hundred Fifty Only
679	Dr. P.R. Maiti	Assistant Engineer BHU Project Sub division-2 CPWD, Varanasi (M/s R.K. The Alluminium People)	Concrete Mix Design	64,900.00	Rupees SixtyFour Thousand Nine Hundred Only
680	Dr. P.R. Maiti	Assistant Engineer BHU Project Sub division-2 CPWD, Varanasi (M/s R.K. The Alluminium People)	Steel Testing	54,280.00	Rupees FiftyFour Thousand Two Hundred Eighty Only
681	Dr. P.R. Maiti	Assistant Engineer BHU Project Sub division-2 CPWD, Varanasi (M/s R.K. The Alluminium People)	Testing of Cement	14,160.00	Rupees Fourteen Thousand One Hundred Sixty Only
682	Dr. P.R. Maiti	Assistant Engineer BHU Project Sub division-2 CPWD, Varanasi (M/s R.K. The Alluminium People)	Testing of Cement	14,160.00	Rupees Fourteen Thousand One Hundred Sixty Only
683	Dr. P.R. Maiti	Assistant Engineer BHU Project Sub division-2 CPWD, Varanasi (M/s R.K. The Alluminium People)	Steel Testing	61,950.00	Rupees SixtyOne Thousand Nine Hundred Fifty Only
684	Dr. P.R. Maiti	Assistant Engineer BHU Project Sub division-2 CPWD, Varanasi (M/s R.K. The Alluminium People)	Testing of Bricks	8,850.00	Rupees Eight Thousand Eight Hundred Fifty Only
685	Dr. P.R. Maiti	Assistant Engineer BHU Project Sub division-2 CPWD, Varanasi (M/s R.K. The Alluminium People)	Testing of Cement	21,240.00	Rupees TwentyOne Thousand Two Hundred Fourty Only
686	Dr. P.R. Maiti	Assistant Engineer BHU Project Sub division-2 CPWD, Varanasi (M/s R.K. The Alluminium People)	Testing of Bricks	8,850.00	Rupees Eight Thousand Eight Hundred Fifty Only
687	Dr. P.R. Maiti	Assistant Engineer BHU Project Sub division-2 CPWD, Varanasi (M/s R.K. The Alluminium People)	Testing of Bricks	8,850.00	Rupees Eight Thousand Eight Hundred Fifty Only



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688	Dr. P.R. Maiti	M/s Shiva Construction Karimmudinpur, Mohammadabad, Ghazipur	Cube Testing	19,470.00	Rupees Nineteen Thousand Four Hundred Seventy Only
689	Dr. P.R. Maiti	M/s Shiva Construction Karimmudinpur, Mohammadabad, Ghazipur	Cube Testing	8,850.00	Rupees Eight Thousand Eight Hundred Fifty Only
690	Dr. P.R. Maiti	M/s Shiva Construction Karimmudinpur, Mohammadabad, Ghazipur	Cube Testing	14,160.00	Rupees Fourteen Thousand One Hundred Sixty Only
691	Dr. P.R. Maiti	M/s Shiva Construction Karimmudinpur, Mohammadabad, Ghazipur	Cube Testing	12,390.00	Rupees Twelve Thousand Three Hundred Ninety Only
692	Dr. P.R. Maiti	M/s Shiva Construction Karimmudinpur, Mohammadabad, Ghazipur	Cube Testing	10,620.00	Rupees Ten Thousand Six Hundred Twenty Only
693	Dr. P.R. Maiti	NTPC Ltd., Pakri Barwadih, Chatti- Baraita & Kakedari Coal Mining Project Pugmil Road, Hazaribag (M/s TSMPL)	Coarse & fine Agreggate & Concrete Mix Design	63,180.00	Rupees SixtyThree Thousand One Hundred Eighty Only
694	Dr. D. Mohan	PB, CB & KD Coal Mining Projects, Pakari Barwadih Chatti- Bareatu & Veredare Coal Mining Projects Pugmi/road, Hazaribag (M/s TSMPL)	Testing of Water & Admixture Sample	21,168.00	Rupees TwentyOne Thousand One Hundred SixtyEight Only
695	Dr. P.R. Maiti	DGM Account Sriram EPC Ltd., C/03 Vinay Kunj Apartment Sigra, Varanasi C/o Project Manager, UP jal Nigam Construction Unit, Deenapur, Varanasi	Cube Testing	7,080.00	Rupees Seven Thousand Eighty Only
696	Dr. K.K. Pathak	Assistant Engineer BHU Project division-2, CPWD, Varanasi (M/s Kashyapi Infrastructure Pvt. Ltd.)	Cube Testing	21,060.00	Rupees TwentyOne Thousand Sixty Only
697	Dr. P.R. Maiti	Dy. Chief Engineer/Con east Central Railway singrauli (M/s RSR-PBS (JV))	Coarse Aggregate, Fine Aggregate & Mix Design	187,620.00	Rupees One Lakh EightySeven Thousand Six Hundred Twenty Only
698	Dr. P.R. Maiti	G.M. M/s Megha Engg. & Infrastructure Ltd., S-2 Technocrat Indl. Estate Balanagar Hyderabad. Site Office WSP, Varanasi	Cube Testing	1,770.00	Rupees One Thousand Seven Hundred Seventy Only
699	Dr. P.R. Maiti	G.M. M/s Megha Engg. & Infrastructure Ltd., S-2 Technocrat Indl. Estate Balanagar Hyderabad. Site Office WSP, Varanasi	Steel, Coars Sand, Coarse Aggregate, Bricks & Cement Testing	79,650.00	Rupees SeventyNine Thousand Six Hundred Fifty Only
700	Dr. P.R. Maiti	Assistant Engineer BHU Project Division-2, CPWD, Varanasi (M/s Anand Enterprises)	Cube Testing	5,310.00	Rupees Five Thousand Three Hundred Ten Only
701	Dr. P.R. Maiti	Assistant Engineer BHU Project Division-2, CPWD, Varanasi (M/s Anand Enterprises)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only



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702	Dr. P.R. Maiti	Assistant Engineer BHU Project Division-2, CPWD, Varanasi (M/s Anand Enterprises)	Testing of flush door shutter	10,620.00	Rupees Ten Thousand Six Hundred Twenty Only
703	Dr. Rajesh Kumar	Design Director M/s Gayatri Project Ltd. NH-55 Attack-Angul Road Project Plot No. 118-139 Kanteikalia, Gobindopur Dhenkanal Disha	Vetting of structural Design & Drawing of RoB	236,000.00	Rupees Two Lakh ThirtySix Thousand Only
704	Dr. V. Kumar	M/s Prosava Private Limited, D14/15 FF Independent floor Ardee City Gurugram, Hayana	Vetting of structural Design & Drawing	29,500.00	Rupees TwentyNine Thousand Five Hundred Only
705	Dr. Rajesh Kumar	AVP-Technical M/s Dilip Buildcon Ltd., Karim beharah Keshriganj, Hasimpur Work Area NH-26C, Bahraich Construction Road, U.P.	Vetting of structural Design & Drawing of RoB	206,500.00	Rupees Two Lakh Six Thousand Five Hundred Only
706	Dr. P.R. Maiti	M/s Kare & Tarkunde Infrastructure pvt. Ltd. Comp. Office Sone river bridge Project Chanchikala-Kone- Nothatwar Rihand Road Sonebhadra	Testing of Cement Aggregate & Steel	106,790.00	Rupees One Lakh Six Thousand Seven Hundred Ninety Only
707	Dr. D. Mohan	M/s Kare & Tarkunde Infrastructure pvt. Ltd. Comp. Office Sone river bridge Project Chanchikala-Kone- Nothatwar Rihand Road Sonebhadra	Testing of water sample & Admixture	23,128.00	Rupees TwentyThree Thousand One Hundred TwentyEight Only
708	Dr. P.R. Maiti	Project Manager UPRNN Ltd., Bhadohi Unit, House No02, Vivekanand Nagar Colony, Lohamandi, Maldahia, Varanasi	Testing of Bricks, aggregate & Coarse Sand	17,700.00	Rupees Seventeen Thousand Seven Hundred Only
709	Dr. P.R. Maiti	Manager (TLC) power Grid Corporation of India Ltd., C-27/210A Kailgarh House Jagatganj (Hindustan Time Campus, Varanasi) (M/s Kalpataru Power Trans Mission Limited)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only
710	Dr. P.R. Maiti	Manager (TLC) power Grid Corporation of India Ltd., C-27/210A Kailgarh House Jagatganj (Hindustan Time Campus, Varanasi) (M/s Kalpataru Power Trans Mission Limited)	Coarse Aggregate Testing	61,360.00	Rupees SixtyOne Thousand Three Hundred Sixty Only
711	Dr. Rajesh Kumar	M/s Anil Enterprises, Balaji Mohalla, Pasra Ballia	Vetting of Structural Design & Drawing	32,400.00	Rupees ThirtyTwo Thousand Four Hundred Only
712	Dr. P.R. Maiti	Assistant Engineer, Nagar Nigam/ Duda, District Urban Development Authority 106 Vikash Bhawan, Varanasi (M/s Shiphar Enterprises, Samneghat, Varanasi)	Interlocking Bricks	5,900.00	Rupees Five Thousand Nine Hundred Only
713	Dr. P.R. Maiti	Project Consultant Construction & Design Services Unit-37, UP Jal Nigam 57/1, Gangapatti, Kala T.B. Hospital Road, Jaunpur	Testing of Bricks, Stone, Cement, Coarse Sand etc.	28,910.00	Rupees TwentyEight Thousand Nine Hundred Ten Only
714	Dr. P.B. Ramudu	M/s KNIL of Addl GM (FQA) Nabinagar power Generating Co. Pvt. Ltd., NSTPP (3x600 MW) NTPC Ltd., Nabi Nagar, Aurangabad	Soil Investigation & Bentoivite Test	21,240.00	Rupees TwentyOne Thousand Two Hundred Fourty Only



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715	Dr. P.B. Ramudu	M/s KNIL C/o Posa Power Supply Co. Ltd., shahjahanpur, UP	Soil Testing	27,730.00	Rupees TwentySeven Thousand Seven Hundred Thirty Only
716	Dr. P.R. Maiti	Chief Engineer (Civil)/ IC QC Northern Coal Field Ltd., Singrauli, MP	Masquto Proof Shutter & Flush door Shutter	24,780.00	Rupees TwentyFour Thousand Seven Hundred Eighty Only
717	Dr. V. Kumar	M/s Girrajji Stone Crusher (P) Ltd. Near Vikram Motor, Lashkar, Gwalior	Vetting of Design & Drawing of Launching Methodology	216,000.00	Rupees Two Lakh Sixteen Thousand Only
718	Dr. V. Kumar	Project Manager UPRNN Limited, Azmgarh Unit- New, Collectrates Campus, Civil Lines, Azamgarh	Structural Design & Drawing of Terminal building	354,000.00	Rupees Three Lakh FiftyFour Thousand Only
719	Dr. P.R. Maiti	Executive Officer Nagar Palika Parishad Ramnagar, Varanasi (M/s Tiwari Construction)	Interlocking Bricks	5,900.00	Rupees Five Thousand Nine Hundred Only
720	Dr. P.R. Maiti	Deupty Project Manager MGS/ ALD (E) DFCCIL 1 Floor Old G.M. Office Building N.C. Railway Valmiki chauraha Navab Yusuf Road, Allahabad (M/s Janta Associate & Co. Limited)	Testing of Cement, Sand, Coarse Aggregate & Steel Testing	76,700.00	Rupees SeventySix Thousand Seven Hundred Only
721	Dr. V. Kumar	M/s Girrajji Stone Crusher (P) Ltd. Near Vikram Motor, Lashkar, Gwalior	Vetting of Structural design & drawing of pier & pier cap	40,500.00	Rupees Fourty Thousand Five Hundred Only
722	Dr. V. Kumar	Unit Incharge UPRNN Ltd., Unit-16 (Behind Aryan Hostel) Park road, Lucknow	Inspection verification of Matirials quality report	64,800.00	Rupees SixtyFour Thousand Eight Hundred Only
723	Dr. V. Kumar	M/s G & G Infratech Pvt. Ltd., R-52, First Floor, Shakarpur Vikash Marg Near Metro Pillar No-44, New Delhi	Vetting of Structural Design & drawing of extension of sick line she of with R.Cc. Foundation	58,410.00	Rupees FiftyEight Thousand Four Hundred Ten Only
724	Dr. V. Kumar	M/s JSP Project Pvt. Ltd., flat No -5 2 floor III B-2 Nehru Nagar, Ghaziabd	Vetting of Structural Design & Drawing of 2x30m steel bridge	189,000.00	Rupees One Lakh EightyNine Thousand Only
725	Dr. V. Kumar	M/s onion Engineers C/o Executive Engineer amethi Project Division, CPWD, Triwedi, Amethi	Vetting of structural Design & Drawing of Srceen Chamber	53,100.00	Rupees FiftyThree Thousand One Hundred Only
726	Dr. Ankit Gupta	Anmol Assocate Corporate Office, Flat No. 1102 Tower No7 Parshvnath Planet Vibhuti Khand, Gomti Nagar, Lucknow	Testing of Job Mix for BC-II	82,600.00	Rupees EightyTwo Thousand Six Hundred Only
727	Dr. Ankit Gupta	Anmol Assocate Corporate Office, Flat No. 1102 Tower No7 Parshvnath Planet Vibhuti Khand, Gomti Nagar, Lucknow	Job Mix for BC-I & BDM-II	165,200.00	Rupees One Lakh SixtyFive Thousand Two Hundred Only
728	Dr. Ankit Gupta	Mr. Dipak Kundu Sr. Manager (FQA), FQA, NTPC Vindhyachal, Vindhyanagar, singrauli MP (M/s Rana Pratap singh)	Testing of Bitumen	84,960.00	Rupees EightyFour Thousand Nine Hundred Sixty Only
729	Dr. Ankit Gupta	Mr. Dipak Kundu Sr. Manager (FQA), FQA, NTPC Vindhyachal, Vindhyanagar, singrauli MP (M/s Rana Pratap singh)	Testing of Bitumen	63,720.00	Rupees SixtyThree Thousand Seven Hundred Twenty Only



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730	Dr. Ankit Gupta	Adhishashi abhiyanta Nagar Nigam, Varanasi (M/s Santosh Steel Works)	Testing of Bitumen	23,600.00	Rupees TwentyThree Thousand Six Hundred Only
731	Dr. Ankit Gupta	Mr. U.S. Prasad, Chief Manager/ Civil/QC, NCL, HQ, Singrauli	Testing of APP Membrane	73,160.00	Rupees SeventyThree Thousand One Hundred Sixty Only
732	Dr. Ankit Gupta	Asstt. Divisional Manager Northern Railway Varanasi (M/s Parmanand Adwani-8A-Sindhu Nagar Bareilly)	Testing of Track Ballast	12,980.00	Rupees Twelve Thousand Nine Hundred Eighty Only
733	Dr. Ankit Gupta	Asstt. Divisional Manager Northern Railway Varanasi (M/s Parmanand Adwani-8A-Sindhu Nagar Bareilly)	Testing of Track Ballast	12,980.00	Rupees Twelve Thousand Nine Hundred Eighty Only
734	Dr. P.R. Maiti	M/s Shiva Construction Karimuddinpur, Mohmaddabad, Ghazipur	Cube Testing	15,930.00	Rupees Fifteen Thousand Nine Hundred Thirty Only
735	Dr. P.R. Maiti	M/s Shiva Construction Karimuddinpur, Mohmaddabad, Ghazipur	Cube Testing	10,620.00	Rupees Ten Thousand Six Hundred Twenty Only
736	Dr. P.R. Maiti	M/s Shiva Construction Karimuddinpur, Mohmaddabad, Ghazipur	Cube Testing	8,850.00	Rupees Eight Thousand Eight Hundred Fifty Only
737	Dr. P.R. Maiti	M/s Shiva Construction Karimuddinpur, Mohmaddabad, Ghazipur	Cube Testing	7,080.00	Rupees Seven Thousand Eighty Only
738	Dr. P.R. Maiti	M/s Shiva Construction Karimuddinpur, Mohmaddabad, Ghazipur	Cube Testing	7,080.00	Rupees Seven Thousand Eighty Only
739	Dr. P.R. Maiti	Executive Engineer, Nagar Palika Parishad, Ramnagar, Varanasi (M/s Jitendra Pratap Singh)	Interlocking Bricks	5,900.00	Rupees Five Thousand Nine Hundred Only
740	Dr. Rajesh Kumar	Director M/s Jeet Home Solution Pvt. Ltd., Jeeta Rivera, Semra, Ramnagar Padao Road, Varanasi	Vetting of Structural Design & Drawing of Group Housing	354,000.00	Rupees Three Lakh FiftyFour Thousand Only
741	Dr. P.R. Maiti	Upper Project Manager, UPRNN Ltd., sonebhadra Unit Constgruction of 18 Court Building Sarpatha Gyanpur, SRN Bhadohi	Concrte Mix Design	32,450.00	Rupees ThirtyTwo Thousand Four Hundred Fifty Only
742	Dr. P.R. Maiti	G.M. (M/s Megha Engineering & Infrastructure Ltd. S-2, Technocrat Indl, Estate Balanagar Hyderabad. Site Office - WSP Varanasi	Cube Testing	1,770.00	Rupees One Thousand Seven Hundred Seventy Only
743	Dr. P.R. Maiti	G.M. (M/s Megha Engineering & Infrastructure Ltd. S-2, Technocrat Indl, Estate Balanagar Hyderabad. Site Office - WSP Varanasi	Coarse Sand & coarse Aggregate 10 mm & 20 mm	12,390.00	Rupees Twelve Thousand Three Hundred Ninety Only
744	Dr. Ankit gupta	M/s J.P. Associate Ltd., Varanasi- gorakhpur Road Project NH-29 Base Camp Rampur Dhnordi Near Doharighat Mau	Deleterious Content of Soil	110,160.00	Rupees One Lakh Ten Thousand One Hundred Sixty Only



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745	Dr. P.R. Maiti	Executive Engineer Nagar Nigam Varanasi (M/s Pratap Enterprises)	Interlocking Bricks (Paver Block)	5,900.00	Rupees Five Thousand Nine Hundred Only
746	Dr. P.R. Maiti	M/s Pratibha Station Service, 701, Nagar-Belthara Road Marge, Nagara Ballia	Interlocking Bricks (Paver Block)	5,900.00	Rupees Five Thousand Nine Hundred Only
747	Dr. P.R. Maiti	Project Manager M/s Afcon Construction of Multimodal IWT Terminal at Varanasi C/o Inland Water Ways Authority of India IWT Terminal, Ralhupur, Ramnagar, Varanasi	Cube Testing	1,620.00	Rupees One Thousand Six Hundred Twenty Only
748	Dr. D. Mohan	J.P. Associate Ltd., Varanasi Gorakhpur Road Project (NH-29) Base Camp Rampur, Dhanouli, Near Doharighat, Mau	Testing of Water Sample	22,656.00	Rupees TwentyTwo Thousand Six Hundred FiftySix Only
749	Dr. P.R. Maiti	Assistant Engineer, BHU Project Division-2, CPWD, Varanasi (M/s Kashyapi Infrastruture Pvt. Ltd.)	Wood Testing	17,280.00	Rupees Seventeen Thousand Two Hundred Eighty Only
750	Dr. P.R. Maiti	Project Manager Construction & Design Service unit-37 UP Jal Nigam 57/1 Ganpati Kala, T.B. Hospital Road, Jaunpur	Testing of Bricks, Cement	28,910.00	Rupees TwentyEight Thousand Nine Hundred Ten Only
751	Dr. P.R. Maiti	M/s Techno Electric & Engineering Co. Pvt. Ltd., C/o Sr. Manager (FQA Civil) NTPC India	Steel Testing	5,900.00	Rupees Five Thousand Nine Hundred Only
752	Dr. P.R. Maiti	Executive Engineer, Kanhar Nahar Project Division-4, Pipari, Sonebhadra	Cube Testing	3,540.00	Rupees Three Thousand Five Hundred Fourty Only
753	Dr. P.R. Maiti	Executive Engineer, Nagar Nigam, Varanasi (M/s Gautam & Company)	Interlocking Bricks	5,900.00	Rupees Five Thousand Nine Hundred Only
754	Dr. P.R. Maiti	Executive Officer, Nagar palika Parishad Ramnagar, Varanasi (M/s Shri Sanjay Sonkar)	Interlocking Bricks	5,900.00	Rupees Five Thousand Nine Hundred Only
755	Dr. P.R. Maiti	Executive Engineer, UP State Construction & Infrastructure, Development Corporation Ltd., S 8/108 Prashantpuri DI.G. Colony, Varanasi	Testing of Bricks	5,900.00	Rupees Five Thousand Nine Hundred Only
756	Dr. P.R. Maiti	Executive Engineer, UP State Construction & Infrastructure, Development Corporation Ltd., S 8/108 Prashantpuri DI.G. Colony, Varanasi	Testing of Bricks	11,800.00	Rupees Eleven Thousand Eight Hundred Only
757	Dr. K.K. Pathak	Archoman Consultant Pvt. Ltd., C-28C, Sector-8, Noida	Proof checking of structural Design of Bhagan stal at Ayodhya	177,000.00	Rupees One Lakh SeventySeven Thousand Only
758	Dr. Ankit Gupta	Mr. Rahesh Malik DGM, FQA NTPC SSTPS, shaktinagar, Sonebhadra (M/s Vijay Construction)	Testing of steel Ballast	22,420.00	Rupees TwentyTwo Thousand Four Hundred Twenty Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
759	Dr. P.R. Maiti	Project Manager MGS/ALD (EV DPCCIL) Dedicated Frieght Coridor Corporation of India Ltd., Allahabad East, 1 floor old GM Building NC railway Valmiki chauraha Nawab Yusuf Road, Allahabad (M/s Janta Associate & Co. Limited)	Testing of Bricks	17,700.00	Rupees Seventeen Thousand Seven Hundred Only
760	Dr. P.R. Maiti	Executive Engineer, Construction Division, UP Jal Nigam, Ballia	Hammer Test & Report Preperation	118,000.00	Rupees One Lakh Eighteen Thousand Only
761	Dr. V. Kumar	M/s Technical Construction Company, 40-A, New Mandi, Muzaffarpur	Structural Design & Drawing of wall foundation at A Location of LILO of 132 KV Chila Najbabad Transmission Line at Ganga	708,000.00	Rupees Seven Lakh Eight Thousand Only
762	Dr. P.R. Maiti	Assistant Manager/C Regional Project Office Lucknow 13-KM Milstone, NH-24 Lucknow, Sitapur Road, Lucknow (M/s Hari Construction & Associate Pvt. Ltd.)	Concrete Mix Design	221,840.00	Rupees Two Lakh TwentyOne Thousand Eight Hundred Fourty Only
763	Dr. Ankit Gupta	Project Manager Hill/BSB-ALD/ DL Project Varanasi (M/s Gannon drunkerly & Co. Ltd.)	Testing of Track Ballast	11,880.00	Rupees Eleven Thousand Eight Hundred Eighty Only
764	Dr. Ankit Gupta	Project Manager Hill/BSB-ALD/ DL Project Varanasi (M/s Gannon drunkerly & Co. Ltd.)	Testing of Track Ballast	11,880.00	Rupees Eleven Thousand Eight Hundred Eighty Only
765	Dr. Ankit Gupta	Mr. Rajeev Kumar, Executive Engineer, Obra 'C' Civil constructin Division-IV, UPRVUN Ltd. Obra, Sonebhadra (M/s Devi Enterprises)	Testing of Soil for Subgrode	12,890.00	Rupees Twelve Thousand Eight Hundred Ninety Only
766	Dr. V. Kumar	Director, M/s Geotech Technical Assoicate Pvt.ltd. No. 7, Mahamanapuri, ITI road, BHU, Varanais	Vetting of structural Design & Drawing of Box culvert	41,300.00	Rupees FourtyOne Thousand Three Hundred Only
767	Dr. V. Kumar	Project Manager, UPRNN Ltd., Bhadohi Unit House No- 2, vivekanand Nagar Colony, Lohamandi, Maldhiya, Varanasi	Inspection, Verification on of Materials & quality report	59,000.00	Rupees FiftyNine Thousand Only
768	Dr. Ankit Gupta	Mr. Rajeev Kumar, Executive Engineer, Obra 'C' Civil constructin Division-IV, UPRVUN Ltd. Obra, Sonebhadra (M/s Devi Enterprises)	Testing of WBM Material	48,970.00	Rupees FourtyEight Thousand Nine Hundred Seventy Only
769	Dr. P.P. Ramudu	Assistant Manager/C RITES Ltd/Nabinagar TPP Nabinagar, Aurangabad, Bihar	Soil Testing of Blanketing Material	23,010.00	Rupees TwentyThree Thousand Ten Only
770	Dr. D. Mohan	Assistant Manager/C RITES Ltd/Nabinagar TPP Nabinagar, Aurangabad, Bihar (M/s Hari Construction Associate Pvt. Ltd.)	Testing of Water sample	11,328.00	Rupees Eleven Thousand Three Hundred TwentyEight Only
771	Dr. P.R. Maiti	Project Manager, M/s Raj Construction Atair Majhganwa, Gorakhpur	ACC Blocks	15,930.00	Rupees Fifteen Thousand Nine Hundred Thirty Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
772	Dr. P.R. Maiti	Project Manager, M/s Raj Construction Atair Majhganwa, Gorakhpur	Cube Testing	3,540.00	Rupees Three Thousand Five Hundred Fourty Only
773	Dr. P.R. Maiti	Assistant Engineer BHU Project division-2, CPWD, Varanasi (M/s Gayatri Electrical Works)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only
774	Dr. P.R. Maiti	Assistant Engineer BHU Project division-2, CPWD, Varanasi (M/s Gayatri Electrical Works)	Testing of Bricks	8,850.00	Rupees Eight Thousand Eight Hundred Fifty Only
775	Dr. P.R. Maiti	Assistant Engineer BHU Project division-2, CPWD, Varanasi (M/s Gayatri Electrical Works)	Steel Testing	39,530.00	Rupees ThirtyNine Thousand Five Hundred Thirty Only
776	Dr. P.R. Maiti	Deupty Project Manager MGS/ ALD (E) DFCCIL 1 Floor Old G.M. Office Building N.C. Railway Valmiki chauraha Navab Yusuf Road, Allahabad (M/s Janta Associate & Co. Limited)	Concrete Mix Design	64,900.00	Rupees SixtyFour Thousand Nine Hundred Only
777	Dr. D. Mohan	Paharpur cooling Towers Ltd., Obra, c/o doosan Power system India Pvt. Ltd. Obra "C" 2x660MW, Thermal Power Extension project, U.P.	Testing of water sample	11,328.00	Rupees Eleven Thousand Three Hundred TwentyEight Only
778	Dr. D. Mohan	Rosa power supplying company limited (Admin Block) Hardor Road Rausar Kothi sadar, Shahjahanpur, UP	Testing of soil sample	8,024.00	Rupees Eight Thousand TwentyFour Only
779	Dr. D. Mohan	Dy. Project Manager, MGS/ALD (E)/DFCCIL Allahabad (East) 1 floor old GM office Building N.C. Railway, Valmiki Chauraha Nawab Yusuf road, Allahabad (M/s Janta Associates & Co. Ltd.)	Testing of water sample	11,328.00	Rupees Eleven Thousand Three Hundred TwentyEight Only
780	Dr. P.B. Ramudu	M/s Vijay Developers Pvt. Ltd., C/o Heritage Institute of Medical Sciences Bhadwar Varanasi	Light Compaction Test	10,620.00	Rupees Ten Thousand Six Hundred Twenty Only
781	Dr. V.Kumar	Upper Project Manager, UPRNN Ltd, construction of 18 court Building sarpathar Gyanpur, SRN, Bhadhohi	Inspection, verification of Materials quality reports	118,000.00	Rupees One Lakh Eighteen Thousand Only
782	Dr. P.R. Maiti	Executive officer, Nagar Palika Parishad, Ramnagar, Varanasi (M/s Tiwari Construction)	Interlocking Bricks	5,900.00	Rupees Five Thousand Nine Hundred Only
783	Dr. Medha Jha	Dy. Manager (Civil) 3x800 MW, PVUNL STTP, BHEL patratu Site Dartu Vidut Utpadan Limited, Jharkhand (M/s Kanwar Enterprises Pvt. Ltd.)	Petrography Alkali Reactivity test	23,600.00	Rupees TwentyThree Thousand Six Hundred Only
784	Dr. P.K.S. Dikshit	V.V. Technocrates 7/57 Civil Lines, Bhotia Parao Haldwani Nainital	Vetting of Hydrological Analysis	88,500.00	Rupees EightyEight Thousand Five Hundred Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
785	Dr. K.K. Pathak	Mothers Pride Infrastructure Pvt. Ltd., M-4/22 Vinay Khand, Gomti Nagar, Lucknow	Vetting of structural Design Govt. Medical College, Firozabad	269,000.00	Rupees Two Lakh SixtyNine Thousand Only
786	Dr. Ankit Gupta	Adhishashi Abhiyanta Prantiya Khand PWD, Varanasi	Testing of Jobmix for BC & Jobmix formula calculatin for BC	283,300.00	Rupees Two Lakh EightyThree Thousand Three Hundred Only
787	Dr. K.K. Pathak	Assistant Exeutive Engineer, BHU Project Subdivision-5, UWD, Varanasi (M/s Varun Gupta & Co.)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only
788	Dr. K.K. Pathak	Assistant Exeutive Engineer, BHU Project Subdivision-5, UWD, Varanasi (M/s Varun Gupta & Co.)	Steel Testing	31,860.00	Rupees ThirtyOne Thousand Eight Hundred Sixty Only
789	Dr. K.K. Pathak	Assistant Exeutive Engineer, BHU Project Subdivision-5, UWD, Varanasi (M/s Varun Gupta & Co.)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only
790	Dr. K.K. Pathak	Assistant Exeutive Engineer, BHU Project Subdivision-5, UWD, Varanasi (M/s Varun Gupta & Co.)	Steel Testing	40,710.00	Rupees Fourty Thousand Seven Hundred Ten Only
791	Dr. K.K. Pathak	Assistant Exeutive Engineer, BHU Project Subdivision-5, UWD, Varanasi (M/s Varun Gupta & Co.)	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only
792	Dr. P.R. Maiti	Manager (TLC) power Grid Corporation of India Ltd., C-27/210A Kailgarh House Jagatganj (Hindustan Time Campus, Varanasi) (M/s Kalpataru Power Trans Mission Limited)	Testing of Cement	14,160.00	Rupees Fourteen Thousand One Hundred Sixty Only
793	Dr. P.R.Maiti	Manager (TLC) power Grid Corporation of India Ltd., C-27/210A Kailgarh House Jagatganj (Hindustan Time Campus, Varanasi) (M/s Kalpataru Power Trans Mission Limited)	Steel Testing	54,280.00	Rupees FiftyFour Thousand Two Hundred Eighty Only
794	Dr. P.R.Maiti	AGM (FQA) Nabinagar power Generatry co. Pvt.Ltd. Nainagar Super Tharmal Power Project Aurangabad Bihar (M/s Saligram Singh Jharkhand)	Coarse Aggregate 20mm & 10mm	85,550.00	Rupees EightyFive Thousand Five Hundred Fifty Only
795	Dr. P.R.Maiti	AGM (FQA) Nabinagar power Generatry co. Pvt.Ltd. Nainagar Super Tharmal Power Project Aurangabad Bihar (M/s Saligram Singh Jharkhand)	Coarse Aggregate 20mm & 10mm	85,550.00	Rupees EightyFive Thousand Five Hundred Fifty Only
796	Prof Rajesh Kumar	M/s Construction Zone Vivek Khand Gomti Nagar Lucknow	Vetting of structural Design & Drawing	40,120.00	Rupees Fourty Thousand One Hundred Twenty Only
797	Dr. P.R.Maiti	M/s S V Enviro Labs & Consultants IDMC Parag Dairy, Varanasi	Cube Testing	1,770.00	Rupees One Thousand Seven Hundred Seventy Only
798	Dr. P.R.Maiti	Assistant Engineer, BHU Project Subdivision-1, CPWD, Varanasi (M/s Anil Enterprises)	Concrete Mix Design	59,400.00	Rupees FiftyNine Thousand Four Hundred Only



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799	Prof Rajesh Kumar	Director, Tulsiani Construction & Developer Pvt. Ltd. 37 Elgin Road (Opposite Hotel Azay International) Civil Lines, Allahabad (M/s Param Jyoti Construction & Trade)	Vetting of structural Design & Drawing of official Building	324,000.00	Rupees Three Lakh TwentyFour Thousand Only
800	Prof Rajesh Kumar	Managing Director, M/s PNG Plang & Structural Consultant Pvt. Ltd., 316 RG Local Shopping Complex oppo Plot No. 39 (Oppo. Rohmi Delhi)	Vetting of structural Design & Drawing of null foundation	47,200.00	Rupees FourtySeven Thousand Two Hundred Only
801	Dr R Sahoo	M/s PNC Infrastructure Limited, Varanasi _Gorakhpur Road, Kaithi, Varanasi	Testing of Cement	7,080.00	Rupees Seven Thousand Eighty Only
802	Dr P.R.Maiti	M/s PNC Infrastructure Limited, Varanasi _Gorakhpur Road, Kaithi, Varanasi	Steel Testing	5,900.00	Rupees Five Thousand Nine Hundred Only
803	Dr. P. R . Maiti	M/s PNC Infrastructure Limited, Varanasi _Gorakhpur Road, Kaithi, Varanasi	Coarse Aggregate 20 mm & 10 mm	23,600.00	Rupees TwentyThree Thousand Six Hundred Only
804	Dr S Mandal	M/s O.P. Gupta Contractors Pvt. Ltd., B-29, Nirbhay Nagar, Agra (M/s Ramky Infrastructure Ltd.)	Vetting of structural Design & Drawing of OHTS	61,800.00	Rupees SixtyOne Thousand Eight Hundred Only
805	DR P R Maiti	Project Manager, M/s Shapoorji Pallonji & Company Private Limited GPCPL-BEL Memaura ZG Project Lucknow	Concrete Mix Design	65,880.00	Rupees SixtyFive Thousand Eight Hundred Eighty Only
806	Meedha Jha	M/s Simplex Infrastructure Limited, NTPC Ltd., North Karnpur, Super Thermal Power, Project, Tandwa, Chatra (Jharkhand)	Alkali Reacting Test	11,800.00	Rupees Eleven Thousand Eight Hundred Only
807	Dr Ankit Gupta	M/s Shiv Kumar Jaiswal, 80 Rajendra Nagar, Lucknow	Testing of Track Ballast	12,980.00	Rupees Twelve Thousand Nine Hundred Eighty Only
808	Dr Ankit Gupta	M/s Premanand Adwani, 8A Sindhu Nagar, Bareilly, UP	Testing of Track Ballast	12,980.00	Rupees Twelve Thousand Nine Hundred Eighty Only
809	DR P R Maiti	Assistant General Manager, Bihar State Building Construction Corporation Ltd., Rohtas Kaimur Bihar (M/s Shiva Fab Cons.)	Cube Testing	8,850.00	Rupees Eight Thousand Eight Hundred Fifty Only
810	DR P R Maiti	Assistant General Manager, Bihar State Building Construction Corporation Ltd., Rohtas Kaimur Bihar (M/s Shiva Fab Cons.)	Cube Testing	8,850.00	Rupees Eight Thousand Eight Hundred Fifty Only
811	Dr. V. Kumar	Project Manager, UPRNN Ltd., Bhadohi Unit, House No 2, Vivekanand Nagar, Colony Lohamandi, Maldahiya, Varanasi	Vetting of Pile Foundation for Train boundary wall of central Jail Varansi	59,000.00	Rupees FiftyNine Thousand Only
812	Dr. P.R. Maiti	Assistant Engineer, BHU Proejct Subdivision-1, CPWD, Varanasi (M/s Kashyapi Infrastructure Pvt. Ltd.)	Concrete Mix Design	59,400.00	Rupees FiftyNine Thousand Four Hundred Only



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813	Prof. V. Kumar	M/s Singh & Co. Mahrauli Bhullanpur, Varanasi C/o Executive Engineer, Electricity Civil Division, PVVNL Vidyut Nagar Hydel Colony Varanasi	Consultancy	218,300.00	Rupees Two Lakh Eighteen Thousand Three Hundred Only
814	Dr. P.B. Ramudu	M/s Simplex Infrastructure Ltd. C/o The AGM NTPC Ltd., North Karanpura TPP, Tandwa, Chatra, Jharkhand	Soil Investigation charges	38,880.00	Rupees ThirtyEight Thousand Eight Hundred Eighty Only
815	Dr. P.B. Ramudu	M/s Ashish Construction Ghorawal Sonebhadra C/o The SSE/W/ QC Northern Railway Churk Sonebhadra, UP	Grain Size Analysis & Heavy Conpaction Test (Soil)	18,880.00	Rupees Eighteen Thousand Eight Hundred Eighty Only
816	Prof. V. Kumar	AKS-HCIL (JV) 2/101, Vivekanand Gomti Nagar, Lucknow	Vetting of rivised structural Design & Drawing of well P-13	59,000.00	Rupees FiftyNine Thousand Only
817	Prof. V. Kumar	M/s Girrajji Stone Crusher (P) Ltd. Near Vikram Motor, Lashkar, Gwalior	Vetting of Design & Drawing of Launchng methodology of cons Span	129,600.00	Rupees One Lakh TwentyNine Thousand Six Hundred Only
818	Prof. Rajesh Kumar	M/s Radha Krishna & Associates D 63/1/11 Govind Nagar beside Radha Market Mahmoorganj, Varanasi	Vetting of Structural Design & Drawing of Group Housing	283,200.00	Rupees Two Lakh EightyThree Thousand Two Hundred Only
819	Dr. P.R. Maiti	Director, M/s Chitragupt Industries (P) Ltd., Saramu, Muftiganj, Jaunpur	Interlocking Bricks (Paver Block)	5,900.00	Rupees Five Thousand Nine Hundred Only
820	Dr. P.R. Maiti	Dy. CPM/Engg/II/DFCCIL/ MGS, Dedicated Freight Corridor Corporation of India ltd., Swarna Complex 2nd Floor, Susuwahi Lanka, Varanasi (M/s REW & JCL (JV) Guwahati)	Concrte Mix Design	64,800.00	Rupees SixtyFour Thousand Eight Hundred Only
821	Dr. PKS Dixshit	M/s. V.V. technocrats 2/57 civil lines Bhotia Parao Haldwani, Nainital	Vetting of Hydrologincal Analysis data & design of abutment	236,000.00	Rupees Two Lakh ThirtySix Thousand Only
822	Dr. PKS Dixshit	M/s. V.V. technocrats 2/57 civil lines Bhotia Parao Haldwani, Nainital	Vetting of Hydrologincal Analysis data & design of abutment of various span bridge	59,000.00	Rupees FiftyNine Thousand Only
823	Dr. P.R. Maiti	Executive Engineer Varanasi Development Authority Varanasi (M/s Pratap Enterprises)	Cube Testing	3,540.00	Rupees Three Thousand Five Hundred Fourty Only
824	Dr. P.R. Maiti	Superintending Engineering University Work Department BHU Varanasi (M/s Babu Lal Verma)	Cube Testing	3,540.00	Rupees Three Thousand Five Hundred Fourty Only
825	Dr. P.R. Maiti	Superintending Engineering University Work Department BHU Varanasi (M/s Babu Lal Verma)	Testing of Bricks	8,850.00	Rupees Eight Thousand Eight Hundred Fifty Only
826	Dr. D. Mohan	Manager, Quality North karanpura site BELL/PSER (M/s Bygging Indian Ltd.)	Testing of Water Sample	11,328.00	Rupees Eleven Thousand Three Hundred TwentyEight Only



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827	Dr. P.R. Maiti	Project Manager UPRNN Ltd., Azamgarh Unit New Collectorate Campus Civil Lines Azamgarah	Testing of cement, Coarse sand, cube, bricks & steel testing	71,390.00	Rupees SeventyOne Thousand Three Hundred Ninety Only
828	Dr. P.R. Maiti	Project Manager UPRNN Ltd., Azamgarh Unit New Collectorate Campus Civil Lines Azamgarah	Concrete mix design	68,440.00	Rupees SixtyEight Thousand Four Hundred Fourty Only
829	Dr. P.R. Maiti	Assistant Engieer, VPD III, CPWD, BHU, Varanasi (M/s Immediate Construction Company Pvt. Ltd.)	Concrete mix design	64,900.00	Rupees SixtyFour Thousand Nine Hundred Only
830	Dr. P.R. Maiti	Director, M/s Saurabh Paly pipes pvt. Ltd. 43, Lajpat nagar, Maldahiya, Varanasi	Steel Testing	33,040.00	Rupees ThirtyThree Thousand Fourty Only
831	Prof. K.K. Pathak	GMR Infrastructure Ltd. Sarvey No. 1469 garmau Jhansi, UP	Proof checking of RCC twin cell	45,759.00	Rupees FourtyFive Thousand Seven Hundred FiftyNine Only
832	Prof. K.K. Pathak	GMR Infrastructure Ltd. Sarvey No. 1469 garmau Jhansi, UP	Proof checking of RCC twin cell Box structure NO. 117911 of IX 6m	45,759.00	Rupees FourtyFive Thousand Seven Hundred FiftyNine Only
833	Prof. P.R. Maiti	Executive officer Nagar Palika Parishad, Ramnagar, Varanasi (M/s Sri Ashok Kumar Singh)	Interlocking Bricks	5,900.00	Rupees Five Thousand Nine Hundred Only
834	Prof. Rajesh Kumar	M/s Anil Enterprises bajaj Mohalla Rosra ballia	Vetting of Structural Design & Drawing of substation 120 MWP Solar Plant	11,880.00	Rupees Eleven Thousand Eight Hundred Eighty Only
835	Dr. P.B. Ramudu	M/s Power project limited, C/o DGM (CCD) Prject -CCD NTPC- FGUPP Unchahar Raibareli	Soil Investigation & Bentoivite Test	25,370.00	Rupees TwentyFive Thousand Three Hundred Seventy Only
836	Dr. Ankit Gupta	Mr. Ajit Kumar Sr. Manager (FQA) Kanti Thermal Muzaffarpur (M/s GSCO Infrastructure Pvt. Ltd.)	Testing of Aggregate & Stone Boulder	54,280.00	Rupees FiftyFour Thousand Two Hundred Eighty Only
837	Dr. P.R. Maiti	Executive office Nagar panchyat Gangapur, Varanasi (m/s Kishan ji Construction)	Interlocking bricks	5,900.00	Rupees Five Thousand Nine Hundred Only
838	Dr. P.R. Maiti	AGM (FQA/Saftey) Kanti vijlee utpadan Nigam Ltd., Muzaffarpur, Thermal Power Station Kanti Thermal Muzaffarpur	Testing of Cement	14,160.00	Rupees Fourteen Thousand One Hundred Sixty Only
839	Prof. V.Kumar	Executive Engineer BHU Project Division-1, CPWD, behind Central office BHU, Varanasi	Inspection, verification of materials quality reports	58,000.00	Rupees FiftyEight Thousand Only
840	Dr. P.R. Maiti	Resident Construction Manager, M/s TATA Project Ltd., C/o Govt. Allopathic Medical College Project (Old spinning hill campus) Shahganj Road, Siddhiqpur, Jaunpur	Testing of Bricks	8,100.00	Rupees Eight Thousand One Hundred Only



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841	Prof. S.K. Sharma, Dr. N. Kishore, Prof. A.K. Jain	M/s UPEIDA (UP)		76,000.00	Rupees SeventySix Thousand Only
842	Prof. A. Jamal, Prof. S.K. Sharma	M/s Adani Power Maharashtra Ltd., Plot No165, IST Bunglow, Ground floor Amartamanor, Opp. Axis Bank Civil Line, Nagpur, Maharastra	Grading of Coal	42,480.00	Rupees FourtyTwo Thousand Four Hundred Eighty Only
843	Prof. A. Jamal, Prof. S.K. Sharma	The AGM (Chem.) NTPC, Sipat, Bislapur	Grading of Coal	91,260.00	Rupees NinetyOne Thousand Two Hundred Sixty Only
844	Dr. G.S.P. Singh, Prof. S.K. Sharma, Dr. T. Verma, Dr. N. Kishore	The General Manager, Korba Area, South Eastern Coalfields Limited, Korba Colliery, Korba (C.G.)		1,950,000.00	Rupees Nineteen Lakh Fifty Thousand Only
845	Prof. B.K. Srivastava	General Manager (R&D), Singareni Collieries Company Limited, Registered Office, Bhadrachalam Road, Railway Station, Bhadradri Kothagudem Dist., Telangana		295,000.00	Rupees Two Lakh NinetyFive Thousand Only
846	Prof. S.K. Sharma, Dr. G.S.P. Singh, Dr. T. Verma, Dr. N. Kishore			253,334.00	Rupees Two Lakh FiftyThree Thousand Three Hundred ThirtyFour Only
847	Dr. G.S.P. Singh, Prof. S.K. Sharma, Dr. T. Verma, Dr. N. Kishore	M/s SECL Kusmanda, C.G.		253,600.00	Rupees Two Lakh FiftyThree Thousand Six Hundred Only
848	Prof. A. Jamal, Prof. S.K. Sharma	M/s ECL, Rajmahal Area, Jharkhand	Grading of Coal	322,636.00	Rupees Three Lakh TwentyTwo Thousand Six Hundred ThirtySix Only
849	Prof. A. Jamal, Prof. S.K. Sharma	M/s Dev Priya Products Pvt. Ltd., Meerut	Grading of Coal	5,310.00	Rupees Five Thousand Three Hundred Ten Only
850	Prof. A. Jamal, Prof. S.K. Sharma	M/s Dev Priya Products Pvt. Ltd., Meerut	Grading of Coal	7,670.00	Rupees Seven Thousand Six Hundred Seventy Only
851	Prof. B.K. Srivastava, Dr. Rajesh Rai	M/s Ambuja Cement Ltd., Raigargh, CG		944,000.00	Rupees Nine Lakh FourtyFour Thousand Only
852	Prof. B.K. Srivastava, Dr. Rajesh Rai	M/s ECL, Rajmahal Area, Jharkhand		1,298,000.00	Rupees Twelve Lakh NinetyEight Thousand Only
853	Prof. S.K. Sharma, Dr. G.S.P. Singh, Dr. T. Verma, Dr. N. Kishore	M/s SECL, Dipka Area, Korba, C.G.		253,333.00	Rupees Two Lakh FiftyThree Thousand Three Hundred ThirtyThree Only
854	Prof. B.K. Srivastava, Dr. Rajesh Rai	M/s WCL, Nagpur	Dump slope stability	295,000.00	Rupees Two Lakh NinetyFive Thousand Only



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855	Prof. A. Jamal, Prof. S.K. Sharma	M/s KR Pulp & Papers Limited	Coal grade analysis	10,620.00	Rupees Ten Thousand Six Hundred Twenty Only
856	Prof. Sanjay Kumar Sharma, Dr. G.S.P. Singh, Dr. T. Verma, Dr. N. Kishore, Dr. P. Bala Ramudu	M/S NCL, Singrauli	Study of Slope stability	457,697.00	Rupees Four Lakh FiftySeven Thousand Six Hundred NinetySeven Only
857	Prof. B.K. Srivastava, Prof. P. Rai, Dr. Rajesh Rai, Dr. S. K. Palei, Dr. Ashok Jaiswal, Dr. Suresh Kr. Sharma	M/s Ambuja Cement Limited, Rajasthan	Slope Stability and Blasting	1,416,000.00	Rupees Fourteen Lakh Sixteen Thousand Only
858	Prof. B.K. Srivastava, Dr. Rajesh Rai	M/s Jai Prakash Power Ventures Limited, Singrauli	Slope Stability and Blasting	944,000.00	Rupees Nine Lakh FourtyFour Thousand Only
859	Prof. Sanjay Kumar Sharma	M/s Singh & Associates, New Delhi		600,000.00	Rupees Six Lakh Only
860	Prof. A.Jamal, Prof. S.K. Sharma	M/s Jindal Power limited, Raigarh	Coal grade analysis	30,680.00	Rupees Thirty Thousand Six Hundred Eighty Only
861	Prof. B.K. Shrivastava, Dr. Rajesh Rai, Dr. Ashok Jaiswal	M/s Indigo Infra projects Pvt. Ltd., New Delhi	Design and vetting of shoring at Westin Hote.,Jaipur	165,200.00	Rupees One Lakh SixtyFive Thousand Two Hundred Only
862	Dr. G.S.P. Singh, Prof. S.K. Sharma, Dr. T. Verma, Dr. N. Kishore	M/s MCL Odisha	Study at Hirakhand Bundia Mine, Drient Area, NCL	1,150,500.00	Rupees Eleven Lakh Fifty Thousand Five Hundred Only
863	Prof. Sanjay Kumar Sharma	M/s Singh & Associates, New Delhi	Arbitration Matter	681,000.00	Rupees Six Lakh EightyOne Thousand Only
864	Prof. S.K.Sharma, Dr. G.SP. Singh, Dr. T. Verma, Dr. N. Kishore	M/s SECL, Raigarh	backtilling in Jaunpali, Opencost Pepari, SECL, Raigarh, Area	569,350.00	Rupees Five Lakh SixtyNine Thousand Three Hundred Fifty Only
865	Prof. A. Jamal, Prof. S.K. Sharma	M/s NCL, Amlorhri, Singrauli, M.P.	GCV analysis of Coal Sample	53,460.00	Rupees FiftyThree Thousand Four Hundred Sixty Only
866	Prof. B.K. Shrivastava, Dr. Ashok Jaiswal	M/s SECL, Churcha	Scientific study for design of Mining method support plan strata corbal and monitoring of IIT LNCN Panel East Block of Churcha Mine, R.O	1,726,904.00	Rupees Seventeen Lakh TwentySix Thousand Nine Hundred Four Only
867	Prof. B.K. Shrivastava	M/s SCCL, Singarenie	Subsidence Prediction for Kondapuram CM Project	383,500.00	Rupees Three Lakh EightyThree Thousand Five Hundred Only



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Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
868	Prof. A. Jamal, Prof. S.K. Sharma	M/s NCL Krishnashila Project, Sonebhadra	Proximate and GCV analysis cost of Coal Sample	207,090.00	Rupees Two Lakh Seven Thousand Ninety Only
869	Prof. A.Jamal, Prof. S.K. Sharma	M/s SECL, Chirimiri Avea, C.G.	Coal grade analysis	23,600.00	Rupees TwentyThree Thousand Six Hundred Only
870	Prof. A.Jamal, Prof. S.K. Sharma	M/s Mishra Coal Traders & SP Coal Traders, Varanasi	Coal grade analysis	10,620.00	Rupees Ten Thousand Six Hundred Twenty Only
871	Prof. Sanjay Kr. Sharma, Dr. Amit Kr. Verma, Dr. Nawal Kishore	M/s Mahadeva Enclaves Pvt. Ltd.	Ground libration test	325,000.00	Rupees Three Lakh TwentyFive Thousand Only
872	Prof. Sanjay Kr. Sharma, Dr. Amit Kr. Verma, Dr. Nawal Kishore	M/s Sainik Foods Pvt. Ltd., Bihar	Ground libration test	325,000.00	Rupees Three Lakh TwentyFive Thousand Only
873	Prof. Sanjay Kr. Sharma, Dr. G.S.P Singh, Dr. T. Verma, Dr. N. Kishore	M/s SECL, Chirimiri, CG	Scientific study for preparation of strata control and monitors plans in chirimiri area	330,400.00	Rupees Three Lakh Thirty Thousand Four Hundred Only
874	Prof. Sanjay Kr. Sharma, Dr. Amit kr. Verma	M/s JMS Mining Pvt. Ltd., Kolkata	testign of Rock & Coal samples of Bangwa, U/G coal mine, SECL	63,750.00	Rupees SixtyThree Thousand Seven Hundred Fifty Only
875	Prof. Aarif Jamal, Prof. S.K. Sharma	M/s NCL, Bina Project, Sonebhadra	analysis of coal grade	143,260.00	Rupees One Lakh FourtyThree Thousand Two Hundred Sixty Only
876	Prof. S.K. Sharma, Dr. G.S.P. Singh, Dr. T. Verma, Dr. N. Kishore	M/s SECL, Baherabandh, UG Mine, Hasdeo Area	Scientific Study for preparation of strata control and monitoring plasa	364,500.00	Rupees Three Lakh SixtyFour Thousand Five Hundred Only
877	Prof. S.K. Sharma, Dr. G.S.P. Singh, Dr. T. Verma, Dr. N. Kishore	M/s SECL, Chattisgarh	Scientific Study for preparation of strata control and monitoring plasa for Jhiria UG Mine of Hasdeo Area, SECL	364,500.00	Rupees Three Lakh SixtyFour Thousand Five Hundred Only
878	Prof. Aarif Jamal, Prof. S.K. Sharma	M/s NCL, Kakri Project, Sonebhadra, UP	Coal grade analysis	84,370.00	Rupees EightyFour Thousand Three Hundred Seventy Only
879	Prof. Aarif Jamal, Prof. S.K. Sharma	M/s SECL, Bilaspur	Coal grade analysis	3,750,630.00	Rupees ThirtySeven Lakh Fifty Thousand Six Hundred Thirty Only
880	Prof. Aarif Jamal, Prof. S.K. Sharma	M/s Mishra Coal Tgraders, Varanasi	Coal Analysis	5,310.00	Rupees Five Thousand Three Hundred Ten Only
881	Prof. Aarif Jamal, Prof. S.K. Sharma	M/s KSM Mahanadi Power Company Ltd., Chattisgarh	Coal Analysis	94,400.00	Rupees NinetyFour Thousand Four Hundred Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
882	Prof. B.K. Shrivastava, Dr. Rajesh Rai, Dr. Ashok Jaiswal	M/s Indigo Infra projects Pvt. Ltd., New Delhi	Slope Stability, Shoring, Soil nailing	129,800.00	Rupees One Lakh TwentyNine Thousand Eight Hundred Only
883	Dr. A.K. Verma, Prof. S.K. Sharma, Prof. T.N. Singh	M/s Topworth urja & metals Ltd., nagpur	Scientific study of method of working & design of dump etc.	66,080.00	Rupees SixtySix Thousand Eighty Only
884	Dr. A.K. Verma, Prof. S.K. Sharma, Prof. T.N. Singh	M/s S.M. Consultants, Odisha	Test of rock sample for Geeotechnical investigation at bridges tunnels and others	280,000.00	Rupees Two Lakh Eighty Thousand Only
885	Prof. S.K. Sharma, Dr. G.S.P. Singh, Dr. T. Verma, Dr. N. Kishore	M/s SECL, Bartunga Hill Mine, Chirimiri, Chattisgarh	Scientific study for preparation of strata control and monitoring plan of Bartunga Hill Mine	330,400.00	Rupees Three Lakh Thirty Thousand Four Hundred Only
886	Prof. S.K. Sharma, Dr. G.S.P. Singh, Dr. T. Verma, Dr. N. Kishore	M/s CESC Ltd., Kolkata	Sarisatolli coal mine, Scientific study in compliane of CMR 2017	920,400.00	Rupees Nine Lakh Twenty Thousand Four Hundred Only
887	Prof. B.K. Shrivastava, Dr. Ashok Jaiswal	M/s SCCL, Singareni, telengana	Scientific study for monitoring	638,000.00	Rupees Six Lakh ThirtyEight Thousand Only
888	Dr. Nawal Kishore	M/s SECL, Raigarh	Scientific study for preparation report of Chhal ocm, Baroud ocm Bijari ocm	1,982,400.00	Rupees Nineteen Lakh EightyTwo Thousand Four Hundred Only
889	Dr. G.S.P. Singh	M/s Adani Enterprises Ltd. Gurgaon, Haryana	Scientific slope stability study of Parsa East and Kanta Basan Open cast coal mine	610,650.00	Rupees Six Lakh Ten Thousand Six Hundred Fifty Only
890	Dr. G.S.P. Singh	M/s SECL, Hasdco Area, Bilaspur (C.G.)	Scientific study for preparation and formulation of SCAMP of Bijuri Mine	364,500.00	Rupees Three Lakh SixtyFour Thousand Five Hundred Only
891	Prof. B.K. Shrivastava	M/s SCCL, Singareni, telengana	Prediction of subsidence and strain values of shauthikhani Mine	413,000.00	Rupees Four Lakh Thirteen Thousand Only
892	Dr. A.K. Verma	M/s Ultratech Cement Ltd., Neemuch (M.P.)	Slope stability of Dumps at vikram limestone mine	170,000.00	Rupees One Lakh Seventy Thousand Only
893	Prof. S.K. Sharma	M/s SECL, Dipka, Korba (C.G.)	Scientific study on blasting pattern in OB lench of Dipka expansion project of Dipka Area, SECL	215,350.00	Rupees Two Lakh Fifteen Thousand Three Hundred Fifty Only
894	Dr. A.K. Verma	M/s GEO constech Pvt. Ltd., New Delhi	Methodology of vetting of Bridge-37	80,000.00	Rupees Eighty Thousand Only
895	Prof. A. Jamal	M/s NCL, Dudhichua Project, Sonebhadra	Proximate and GCV analysis cost of Coal Sample	330,480.00	Rupees Three Lakh Thirty Thousand Four Hundred Eighty Only
896	Dr. G.S.P. Singh	M/s CESC Ltd., Kolkata	Scientific investigation of dump slope in stability in five affected	1,176,460.00	Rupees Eleven Lakh SeventySix Thousand Four Hundred Sixty Only



Sl. No.	Name of faculty (Chief	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
897	Consultant) Dr. A.K. Verma, Prof. S.K. Sharma	M/s S.M. Consultants bhubaneswar, Odisha	Petrography test of Rock sample for geotechnical investigation in the state of Uttarakhand	303,156.00	Rupees Three Lakh Three Thousand One Hundred FiftySix Only
898	Prof. B.K. Shrivastava, Dr. Rajesh Rai	M/s WCL, Nagpur	Bench & dump slope stability at Gondegam Inder, Kanpur, Singheri OCP of WCL	1,139,830.00	Rupees Eleven Lakh ThirtyNine Thousand Eight Hundred Thirty Only
899	Dr. A.K. Verma, Prof. S.K. Sharma	M/s Mahadeve Enclaves Pvt. Ltd., Rajauli, Bihar	Testing of rock	8,000.00	Rupees Eight Thousand Only
900	Dr. A.K. Verma, Prof. S.K. Sharma and Dr. C.S. Singh	M/s R D Konsultants, New Delhi	Design Consultant for UG project for Bharat Electronic Ltd.	59,000.00	Rupees FiftyNine Thousand Only
901	Prof. S. Gupta, Prof. S.K. Sharma, Dr. T. Verma, Dr. S.K. Palei, Mr. A.K. jain	M/s ECL, Jhamjra, Burdwan	Scientific study on vibration studies of various machinary operating at Jhanjra Project colliery	636,000.00	Rupees Six Lakh ThirtySix Thousand Only
902	Prof. S.K. Sharma, Dr. C.S. Singh	M/s Hindalco Industries Ltd., Renukoot, Sonebhadra, UP	Testing of Rock specimen	34,020.00	Rupees ThirtyFour Thousand Twenty Only
903	Prof. B.K. Shrivastava, Dr. Rajesh Rai	M/s WCL, Nagpur	Scientific study the issue of bench & dump slope stability at Bhanegaon OCM Nagpur are WCL	205,000.00	Rupees Two Lakh Five Thousand Only
904	Prof. B.K. Shrivastava	M/s SCCL, Singareni, Telangana	Prediction of subsidence and strain values of shanthikhani mine	413,000.00	Rupees Four Lakh Thirteen Thousand Only
905	Prof. B.K. Shrivastava, Dr. Rajesh Rai	M/s NTPC, Raigarh	Slope Stability	278,400.00	Rupees Two Lakh SeventyEight Thousand Four Hundred Only
906	Prof. B.K. Shrivastava, Dr. C.S. Singh	M/s Simplex Infrastructure Ltd., South Sikkim	Check of Bond strength	134,662.00	Rupees One Lakh ThirtyFour Thousand Six Hundred SixtyTwo Only
907	Prof. S.K. Sharma, Dr. A.K. Verma and Dr. C.S. Singh	M/s JMS Mining Pvt. Ltd., Kolkata	Coal & Rock Testing	236,206.00	Rupees Two Lakh ThirtySix Thousand Two Hundred Six Only
908	Dr. A.K. Verma, Prof. S.K. Sharma, Prof. T.N. Singh	M/s Border Road Organisation	Slope protection measures on Road powari Pooh and Pooh Kaurik	200,000.00	Rupees Two Lakh Only
909	Prof. B.K. Shrivastava, Dr. Rajesh Rai	M/s Sasan Power Ltd., Navi Mumbai, Maharastra	Slope stability of mine slope	708,000.00	Rupees Seven Lakh Eight Thousand Only
910	Prof. B.K. Shrivastava, Dr. Rajesh Rai and Dr. Ashok Jaiswal	M/s Indigo Infra projects Pvt. Ltd., New Delhi	Design of storing system by soldier piling and concrete piles at Niyat, Medicity	165,200.00	Rupees One Lakh SixtyFive Thousand Two Hundred Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
911	Dr. A.K. Verma and Prof. S.K. Sharma	M/s S.N. Consultants, Odisha	Geotechnical investigation at bridges tunnels in Uttarakhand	60,200.00	Rupees Sixty Thousand Two Hundred Only
912	Dr. A.K. Verma and Prof. S.K. Sharma	M/s Pioneer Foundation Engineers Pvt. Ltd., thane, Maharashtra	Geotechnical Investigation	25,000.00	Rupees TwentyFive Thousand Only
913	Prof. P.K. Mishra	CPCB, Parivesh Bhawan Road, Arjun Nagar, Delhi	СРСВ	2,187,403.00	Rupees TwentyOne Lakh EightySeven Thousand Four Hundred Three Only
914	Prof. P.K. Mishra	CPCB, Parivesh Bhawan Road, Arjun Nagar, Delhi	СРСВ	3,519,501.00	Rupees ThirtyFive Lakh Nineteen Thousand Five Hundred One Only
915	Prof. A.S.K. Sinha	Ms. Priya Shukla, M. Tech., II year School of Biochemical Engg., IIT(BHU)	Element Analysis	590.00	Rupees Five Hundred Ninety Only
916		Arpit Shrivastava, Ph.D., CFST, I Ag. Sce., BHU		950.00	Rupees Nine Hundred Fifty Only
917	Prof. A.S.K. Sinha	Satyam Shrivastava, Mechanical Engg., IIT(BHU)	Element Analysis	2,322.00	Rupees Two Thousand Three Hundred TwentyTwo Only
918	Dr. Hiralal Pramanik	P.K. Awasthi, Naini, Allahabad	Coal Testing	6,195.00	Rupees Six Thousand One Hundred NinetyFive Only
919	Prof. B.N. Rai	HRIM Nobel Foundation Vivekanand Gali, Narayanpur, Mirzapur	Water Testing	2,360.00	Rupees Two Thousand Three Hundred Sixty Only
920	Prof. M.K. Mandal	Sai Construction Ltd.	Chemical Testing	2,834.00	Rupees Two Thousand Eight Hundred ThirtyFour Only
921	Prof. A.S.K. Sinha	Bhargwi Mishra, C/o Dr. V.N. Mishra, Deptt. Of Meurology, IMS, BHU	Element Analysis	6,018.00	Rupees Six Thousand Eighteen Only
922	Prof. A.S.K. Sinha	Dr. Aarif Jamal, Deptt. Of Mining Engg., IIT(BHU)	Element Analysis	38,940.00	Rupees ThirtyEight Thousand Nine Hundred Fourty Only
923	Prof. A.S.K. Sinha	Dr. Aarif Jamal, Deptt. Of Mining Engg., IIT(BHU)	Element Analysis	38,940.00	Rupees ThirtyEight Thousand Nine Hundred Fourty Only
924	Prof. A.S.K. Sinha	Mr. Durgesh Jaiswal, Research Scholar, IESD, BHU	Element Analysis	1,475.00	Rupees One Thousand Four Hundred SeventyFive Only
925		Mr. Chandra Shekhar, Deptt. Of Ayurveda, IMS, BHU		590.00	Rupees Five Hundred Ninety Only
926	Prof. A.S.K. Sinha	Prof. Rajiv Prakash, SMST, IIT(BHU)	Element Analysis	47,200.00	Rupees FourtySeven Thousand Two Hundred Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
927	Dr. Vijay Laxmi Yadav	Executive Engg., Kanhar Construction, Division-3, Pipari, Sonebhadra	Chemical Testing	87,910.00	Rupees EightySeven Thousand Nine Hundred Ten Only
928	Prof. B.N. Rai	Anil Traders, Aqua Division Ramnagar, Chandauli	Water Testing	1,180.00	Rupees One Thousand One Hundred Eighty Only
929	Prof. A.S.K. Sinha	Ankit Kr. Singh, Deptt. Of Botany, Institute of Science, BHU	Element Analysis	738.00	Rupees Seven Hundred ThirtyEight Only
930	Prof. B.N. Rai	Mr. A.K. Singh, Incharge, IWSS, NCL	Water Testing	20,060.00	Rupees Twenty Thousand Sixty Only
931	Prof. A.S.K. Sinha	Mr. Durgesh Kumar Jaiswal, Research Scholar, IESD-BHU	Element Analysis	4,425.00	Rupees Four Thousand Four Hundred TwentyFive Only
932	Dr. Vijay Laxmi Yadav	Mr. Upendra Kumar, UL, UP, Sarnath, Varanasi	Chemical Testing	27,258.00	Rupees TwentySeven Thousand Two Hundred FiftyEight Only
933	Prof. A.S.K. Sinha	Shubhangi Shukla, Research Scholar, Chemistry, IIT(BHU)	Element Analysis	4,101.00	Rupees Four Thousand One Hundred One Only
934	Dr. Vijay Laxmi Yadav	AFCON Infrastructure Ltd., Ramnagar, Varanasi	Chemical Testing	5,310.00	Rupees Five Thousand Three Hundred Ten Only
935	Prof. A.S.K. Sinha	Mr. Vikash Kumar Singh C/o Prof. S.H. Hasan, Deptt. Of Chemistry, IIT(BHU)	Element Analysis	1,180.00	Rupees One Thousand One Hundred Eighty Only
936	Prof. A.S.K. Sinha	Mr. Subhash Chandra C/o Prof. S.H. Hasan, Deptt. Fo Chemistry, IIT(BHU)	Element Analysis	1,239.00	Rupees One Thousand Two Hundred ThirtyNine Only
937	Prof. A.S.K. Sinha	Ms. Shwarnima Singh, Deptt. Of Chemistry, IIT(BHU)	Element Analysis	1,062.00	Rupees One Thousand SixtyTwo Only
938	Prof. A.S.K. Sinha	Ms. Urwashi Gupta, Deptt. Of Metallurgical Engg., IIT(BHU)	Element Analysis	3,540.00	Rupees Three Thousand Five Hundred Fourty Only
939	Prof. M.K. Mandal	ADENN, Railway, Varanasi	Water Testing	708.00	Rupees Seven Hundred Eight Only
940	Dr. Hiralal Pramanik	Mr. P.K. Awasthi, E.Engineer, Naini, Allahabad	Coal Testing	6,195.00	Rupees Six Thousand One Hundred NinetyFive Only
941	Prof. M.K. Mandal	M/s Vijay Krishna, India Pvt. Ltd.	Chemical Testing	708.00	Rupees Seven Hundred Eight Only
942	Prof. B.N. Rai	Mr. A.K. Singh, Incharge, IWSS, NCL	Water Testing	20,060.00	Rupees Twenty Thousand Sixty Only
943	Prof. B.N. Rai, Prof. A.S.K. Sinha	General Manager, Bina Project, Sonebhadra	Water Testing, Element Analysis	69,856.00	Rupees SixtyNine Thousand Eight Hundred FiftySix Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
944		General Manager, Bina Project, Sonebhadra		4,484.00	Rupees Four Thousand Four Hundred EightyFour Only
945	Prof. M.K. Mandal	Mr. Dhiraj Singh, Nutrilious Glacier Enterprises, Chandmari, Varanasi	Chemcial Testing	708.00	Rupees Seven Hundred Eight Only
946		M/s Neman Carpets & Dyeing Divison, Mirzapur		5,500.00	Rupees Five Thousand Five Hundred Only
947		Mr. Rakesh Jatolia, Operation Head, MCIIE, IIT(BHU)		7,080.00	Rupees Seven Thousand Eighty Only
948		Mr. JuhiNag Finance & Account, MCIIE, IIT(BHU)		4,956.00	Rupees Four Thousand Nine Hundred FiftySix Only
949	Prof. A.S.K. Sinha	Dr. Poushpi Dwivedi, NPDF, Deptt. Of Chemistry, IIT(BHU)	Element Analysis	1,770.00	Rupees One Thousand Seven Hundred Seventy Only
950	Dr. Vijay Laxmi Yadav	Dr. Monika (JR-2), Deptt. Of Prasuti Tantra, Ayurveda, IMS, BHU	Chemical Testing	5,428.00	Rupees Five Thousand Four Hundred TwentyEight Only
951		Prof. R.B. Rastogi, Deptt. Of Chemistry, IIT(BHU)		1,240.00	Rupees One Thousand Two Hundred Fourty Only
952	Prof. B.N. Rai	Mr. Lokesh Gupta, Virat Infracon Pvt. Ltd.	Water Testing	18,880.00	Rupees Eighteen Thousand Eight Hundred Eighty Only
953	Prof. A.S.K. Sinha	M/s Sangita Dey, PI, Deptt. Of IESD, BHU	Element Analysis	26,196.00	Rupees TwentySix Thousand One Hundred NinetySix Only
954	Prof. P.K. Mishra	Mr. Vijay Prakash Pandey, Lohiya Corp. Ltd., Chaubeypur, Kanpur	Testing of Water	90,860.00	Rupees Ninety Thousand Eight Hundred Sixty Only
955	Prof. B.N. Rai	Mr. A.K. Singh, Incharge, IWSS, Shaktinagar	Testing of Water	20,060.00	Rupees Twenty Thousand Sixty Only
956	Prof. M.K. Mandal	Mr. Piyush Pathak, IRSE, ADEN/ NB/BSB, Varanasi	Chemical Testing	708.00	Rupees Seven Hundred Eight Only
957	Dr. Hiralal Pramanik	Mr. P.K. Awasthi, E.Engineer, Naini, Allahabad	Testing of Water	6,195.00	Rupees Six Thousand One Hundred NinetyFive Only
958	Prof.	Ms. Kanchan Yadav, Deptt. Of Physics, IIT(BHU), Varanasi	Testing of Water	600.00	Rupees Six Hundred Only
959	Prof. A.S.K. Sinha	M/s Horanbh Chemical, Lanka, Varanasi	Testing of Water, Element Analysis	4,012.00	Rupees Four Thousand Twelve Only
960	Prof. B.N. Rai	Mr. A.K. Singh, Incharge, IWSS, Shaktinagar	Testing of Water	20,060.00	Rupees Twenty Thousand Sixty Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
961		Ms. Neelima Varshney, PhD, 3rd Year, School of Biochemical Engg., IIT(BHU)	Testing of Water	200.00	Rupees Two Hundred Only
962	Prof. V.L. Yadav	M/s S.P. Singla Constructors Pvt. Ltd., Gazipur	Testing of Water, Chemical Testing	1,770.00	Rupees One Thousand Seven Hundred Seventy Only
963	Prof. A.S.K. Sinha	Prof. D. N. Pande, Faculty of Ayurveda, IMS, BHU	Chemical, Element Analysis	4,000.00	Rupees Four Thousand Only
964	Prof. P.K. Mishra	M/s Aruna Green Ventures Pvt. Ltd	Testing of Water	32,400.00	Rupees ThirtyTwo Thousand Four Hundred Only
965	Prof. A.S.K. Sinha	Mr. Ashish Kumar Vishwakarma, PhD. Scholar, Deptt. Of Mining, IIT(BHU), Varanasi	Testing of Water, Element Analysis	4,400.00	Rupees Four Thousand Four Hundred Only
966	Prof. B.N. Rai and Prof. A.S.K. Sinha	Dy. General Manager Kakri Area, NCL, Sonebhadra	Testing of Water, Element Analysis	190,688.00	Rupees One Lakh Ninety Thousand Six Hundred EightyEight Only
967	Prof. B.N. Rai	Mr. A.K. Singh, Incharge, IWSS, Shaktinagar	Testing of Water	20,060.00	Rupees Twenty Thousand Sixty Only
968	Prof. B.N. Rai	Administrative Office, SMS, Khushipur, Bachhaon, Varanasi	Testing of Water	3,540.00	Rupees Three Thousand Five Hundred Fourty Only
969	Prof. A.S.K. Sinha	Ms. Shubhangi Shukla, Deptt. Of Chemistry, IIT(BHU)	Testing of Water, Element Analysis	3,000.00	Rupees Three Thousand Only
970	Prof. A.S.K. Sinha	Mr. Jiyaul Haque, Deptt. Of Chemistry, IIT(BHU)	Testing of Water, Element Analysis	1,100.00	Rupees One Thousand One Hundred Only
971	Prof. M.K. Mandal	Sai Construction, Gazipur	Chemical Testing	708.00	Rupees Seven Hundred Eight Only
972	Prof. P.K. Mishra	U.S. Rao, Deptt. Of Mechanical Engg. & Tech., IIT(BHU)		500.00	Rupees Five Hundred Only
973	Dr. Hiralal Pramanik	Mr. P.K. Awasthi, E.Engineer, Naini, Allahabad	Coal Testing	6,195.00	Rupees Six Thousand One Hundred NinetyFive Only
974	Prof. B.N. Rai	Mr. A.K. Singh, Incharge IWSS, Shaktinagar	Water Testing	20,060.00	Rupees Twenty Thousand Sixty Only
975	Prof. P.K. Mishra	M/s Shobha Woollens Pvt. Ltd.		6,490.00	Rupees Six Thousand Four Hundred Ninety Only
976	Prof. M.K. Mandal	Sai Construction, Gazipur	Chemical Testing	708.00	Rupees Seven Hundred Eight Only
977	Prof. A.S.K. Sinha	Prof. Gautam Cha Banerjee, Deptt. Of Civil Engg., IIT(BHU)	Element Analysis	9,200.00	Rupees Nine Thousand Two Hundred Only
978	Prof. P.K. Mishra	M/s Lohia Corp Pvt. Ltd.	Chemical Testing	141,600.00	Rupees One Lakh FourtyOne Thousand Six Hundred Only



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979	Prof. P.K. Mishra	Dr. Chandra Shekhoor, Ph.D Scholar, Deptt. Of Rasa Shostra, IMS, BHU		590.00	Rupees Five Hundred Ninety Only
980	Prof. A.S.K. Sinha	Mr. Anup Kr. Sharma, Deptt. Of Chemistry, IIT(BHU)	Element Analysis	375.00	Rupees Three Hundred SeventyFive Only
981	Prof. A.S.K. Sinha	Mr. Pradeep Kumar Yadav, Deptt. Of Chemistry, IIT(BHU)	Element Analysis	1,000.00	Rupees One Thousand Only
982	Prof. A.S.K. Sinha	Mr. Subhash Chandra, Deptt. Of Chemistry, IIT(BHU)	Element Analysis	1,050.00	Rupees One Thousand Fifty Only
983	Prof. A.S.K. Sinha	Mr. Deepak Kumar, Deptt. Of Botany, BHU	Element Analysis	3,700.00	Rupees Three Thousand Seven Hundred Only
984	Prof. B.N. Rai	M/s Gopal Builders & Developers Pvt. Ltd.		11,800.00	Rupees Eleven Thousand Eight Hundred Only
985	Prof. B.N. Rai	M/s Heritage Institute of Medical Sc.		5,310.00	Rupees Five Thousand Three Hundred Ten Only
986	Dr. Hiralal Pramanik	Mr. P.K. Awasthi, E.Engineer, Naini, Allahabad	Cole Testing	4,130.00	Rupees Four Thousand One Hundred Thirty Only
987	Prof. A.S.K. Sinha	Ms. Gitanjali Pradhan, Deptt. Of Chemistry, IIT(BHU)	XPS analysis, Element Analysis	1,050.00	Rupees One Thousand Fifty Only
988	Prof. P.K. Mishra	M/s Neman Carpets & Dyeing Divison, Mirzapur	ETP Water Testing	6,490.00	Rupees Six Thousand Four Hundred Ninety Only
989	Prof. M.K. Mandal	ADEN/NR/BSB	Chemical Testing	708.00	Rupees Seven Hundred Eight Only
990	Prof. B.N. Rai	Mr. RNS Yadav, Project Manager, HIMS, Bhadwar	Water Testing	31,860.00	Rupees ThirtyOne Thousand Eight Hundred Sixty Only
991	Prof. A.S.K. Sinha	Prof. Y.C. Sharma, Deptt. Of Chemistry, IIT(BHU)	BET Analysis, Element Analysis	1,500.00	Rupees One Thousand Five Hundred Only
992	Prof. A.S.K. Sinha	Mr. Ranjeeth R., Deptt. Of Ceramic Engg., IIT(BHU)	XPS analysis, Element Analysis	2,250.00	Rupees Two Thousand Two Hundred Fifty Only
993	Prof. P.K. Mishra	UPPCB, Lucknow	Water Testing	254,880.00	Rupees Two Lakh FiftyFour Thousand Eight Hundred Eighty Only
994	Prof. P.K. Mishra	CPCB, Delhi	Water Testing	6,687,201.00	Rupees SixtySix Lakh EightySeven Thousand Two Hundred One Only
995	Prof. B.N. Rai	Mr. A.K. Singh, Incharge IWSS, Shaktinagar	Water Testing	20,060.00	Rupees Twenty Thousand Sixty Only
996	Prof. A.S.K. Sinha	Dr. Poushpi Dwivedi, PI Deptt. Of Chemistry, IIT(BHU)	BET Analysis, Element Analysis	750.00	Rupees Seven Hundred Fifty Only



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997	Prof. A.S.K. Sinha	Prof. Y.C. Sharma, Deptt. Of Chemistry, IIT	BET Analysis, Element Analysis	1,500.00	Rupees One Thousand Five Hundred Only
998	Prof. A.S.K. Sinha	Prof. Y.C. Sharma, Deptt. Of Chemistry, IIT	XPS analysis, Element Analysis	3,075.00	Rupees Three Thousand SeventyFive Only
999	Prof. A.S.K. Sinha	Ms. Shaili Pal, Deptt. Of Chemistry, IIT	XPS analysis, Element Analysis	1,325.00	Rupees One Thousand Three Hundred TwentyFive Only
1000	Prof. A.S.K. Sinha	Ms. Jyoti Kuntail, Deptt. Of Chemistry, IIT	XPS analysis, Element Analysis	850.00	Rupees Eight Hundred Fifty Only
1001	Prof. A.S.K. Sinha	Mr. Arun Kumar De, Deptt. Of Chemistry, IIT	XPS analysis, Element Analysis	1,000.00	Rupees One Thousand Only
1002	Prof. P.K. Mishra	Dr. U. Srinivas Rao, Deptt. Of Mechanical Engg., IIT(BHU)	Contact angle	250.00	Rupees Two Hundred Fifty Only
1003	Prof. A.S.K. Sinha	Ms. Shalini sahani, Deptt. Of Chemistry, IIT(BHU)	BET, XPS Analysis, Element Analysis	2,600.00	Rupees Two Thousand Six Hundred Only
1004	Prof. A.S.K. Sinha	Dr. Vishal Mishra, Deptt. Of Biochem. IIT(BHU)	CHN Analysis, Element Analysis	750.00	Rupees Seven Hundred Fifty Only
1005	Prof. A.S.K. Sinha	Dr. K.D. Mandal, Deptt. Of Chemistry, IIT	TGA Analysis, Element Analysis	1,000.00	Rupees One Thousand Only
1006	Prof. A.S.K. Sinha	Mr. Gyanendra Tripathi, C/o Dr. Vishal Mishra, Deptt. Of Biochem., IIT(BHU)	CHNS Analysis, Element Analysis	1,125.00	Rupees One Thousand One Hundred TwentyFive Only
1007	Prof. A.S.K. Sinha	Ms. Jyoti Singh, C/o Dr. Vishal Mishra, Deptt. Of Biochem. IIT(BHU)	CHNSO Analysis, Element Analysis	375.00	Rupees Three Hundred SeventyFive Only
1008	Prof. A.S.K. Sinha	Mr. Vipur Kumar Yadav, C/o Dr. Vishal Mishra, Deptt. Of Biochem., IIT(BHU)	CHN Analysis, Element Analysis	1,125.00	Rupees One Thousand One Hundred TwentyFive Only
1009	Prof. A.S.K. Sinha	Dr. Vishal Mishra, Deptt. Of Biochem. IIT(BHU)	CHN Analysis, Element Analysis	750.00	Rupees Seven Hundred Fifty Only
1010	Prof. A.S.K. Sinha	Dr. S.P. Tiwari, Deptt. Of Mechanical Engg., IIT(BHU)	DTA Analysis, Element Analysis	1,000.00	Rupees One Thousand Only
1011	Prof. P.K. Mishra	AKI India Limited, 415/4, Kundan Road, Akrompur, Unnao	Water Testing	162,000.00	Rupees One Lakh SixtyTwo Thousand Only
1012	Prof. A.S.K. Sinha	Dr. Indrajit Sinha, Deptt. Of Chemistry, IIT(BHU)	XPS analysis, Element Analysis	2,525.00	Rupees Two Thousand Five Hundred TwentyFive Only
1013	Prof. A.S.K. Sinha	Ranjeeth R., Deptt. Of Ceramic Engg., IIT(BHU)	TGS & BET Analysis, Element Analysis	2,500.00	Rupees Two Thousand Five Hundred Only
1014	Prof. A.S.K. Sinha	Dr. Md. Imteyaz Ahmad, Deptt. Of Ceramic Engg., IIT(BHU)	XPS analysis, Element Analysis	1,700.00	Rupees One Thousand Seven Hundred Only
1015	Prof. P.K. Mishra	Dr. Meghanshu Vashista, Deptt. Of Mechanical Engg., IIT(BHU)		500.00	Rupees Five Hundred Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
1016	Dr. Hiralal Pramanik	Mr. P.K. Awasthi, E.Engineer, Naini, Allahabad	Cole Testing	6,195.00	Rupees Six Thousand One Hundred NinetyFive Only
1017	Prof. A.S.K. Sinha	Mr. Ravi Shanker Patel, Deptt. Of Geology, IIT(BHU)	Silica Test, Element Analysis	3,250.00	Rupees Three Thousand Two Hundred Fifty Only
1018	Prof. A.S.K. Sinha	Dr. Namrata Joshi, Deptt. Of Rasa Shastra, IMS, BHU	Testing of Research Charge, Element Analysis	4,500.00	Rupees Four Thousand Five Hundred Only
1019	Prof. A.S.K. Sinha	Dr. Preetam Singh, Deptt. Of Ceramic Engg., IIT(BHU)	XPS analysis, Element Analysis	625.00	Rupees Six Hundred TwentyFive Only
1020	Prof. A.S.K. Sinha	Mr. Arup Kumar De, Deptt. Of Chemistry, IIT(BHU)	XPS analysis, Element Analysis	2,200.00	Rupees Two Thousand Two Hundred Only
1021	Prof. B.N. Rai	Mr. A.K. Singh, Incharge, IWSS, NCL, Sonebhadara	Chemical Testing of water	20,060.00	Rupees Twenty Thousand Sixty Only
1022	Prof. P.K. Mishra	Manager, Shobha Woollens Pvt. Ltd., Bhadohi, UP	Mr. Testing of ETP System Chemical Testing	59,000.00	Rupees FiftyNine Thousand Only
1023	Prof. P.K. Mishra	Mr. Anupum Kujur, Deptt. Of Botany, BHU	Analysis of Zetapotential	472.00	Rupees Four Hundred SeventyTwo Only
1024	Prof. V.L. Y	JR-2, Deptt. Of Prasuti Tanta, Faculty of Ayurveda, IMS, BHU	Medicine Analysis, Chemical Testing	13,100.00	Rupees Thirteen Thousand One Hundred Only
1025	Prof. A.S.K. Sinha	Mr. Om Prakash, Deptt. Of Materials Science Technology, IIT(BHU)	ICP Analysis, Element Analysis	1,250.00	Rupees One Thousand Two Hundred Fifty Only
1026	Prof. A.S.K. Sinha	Dr. Preetam Singh, Deptt. Of Ceramic Engg., IIT(BHU)	CHNS Analysis, Element Analysis	750.00	Rupees Seven Hundred Fifty Only
1027	Prof. A.S.K. Sinha	Dr. Vishal Mishra, Deptt. Of Biochem. IIT(BHU)	ICP Analysis, Element Analysis	9,750.00	Rupees Nine Thousand Seven Hundred Fifty Only
1028	Prof. A.S.K. Sinha	Dr. Poushpi Dwivedi, Deptt. Of Chmistry, IIT(BHU)	ICP Analysis	800.00	Rupees Eight Hundred Only
1029	Prof. M.K. Mandal	M/s ADEN/NR/BSB, Varanasi	Chemical Testing	1,416.00	Rupees One Thousand Four Hundred Sixteen Only
1030	Prof. A.S.K. Sinha	Ms. Bhargani Mishra, IMS, BHU, Varanasi	Flement Test	7,000.00	Rupees Seven Thousand Only
1031	Prof. A.S.K. Sinha	Mr. Devendra Kumar, Deptt. Of Chemistry, BHU	XPS analysis	425.00	Rupees Four Hundred TwentyFive Only
1032	Prof. A.S.K. Sinha	Ms. Shaili Pal, Deptt. Of Chemistry, IIT	XPS analysis	1,425.00	Rupees One Thousand Four Hundred TwentyFive Only
1033	Prof. P.K. Mishra	Dr.P. Ghosh, Deptt. Of Mechanical Engg., IIT BHU	Zeta Analysis	950.00	Rupees Nine Hundred Fifty Only
1034	Prof. P.K. Mishra	Prof. Neeraj Sharma, Deptt. Of Biomedical Engg., IIT(BHU)	Contact Angle	200.00	Rupees Two Hundred Only



Sl.	Name of		Titl CO It C : .		Amount received (in
No.	faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	words)
1035	Dr. C.K. Behra	M/s AFCONs Infrastructure Ltd., Ramnagar, Varaansi	Chemical Testing	82,080.00	Rupees EightyTwo Thousand Eighty Only
1036	Prof. N.C. Santhi Srinivas & Dr. Chattopadhyay	M/s Gannon Dunkerley & Co. Ltd., Ghaziabad	Chemical and Physical Testing	64,800.00	Rupees SixtyFour Thousand Eight Hundred Only
1037	Prof. N.C. Santhi Srinivas & Dr. Chattopadhyay	M/s S.P. Singla Construction pvt. Ltd., Ghaziabad	Chemical and Physical Testing	273,760.00	Rupees Two Lakh SeventyThree Thousand Seven Hundred Sixty Only
1038		M/s Techno Electric and Engg. Co. Ltd., Kolkata	Chemical and Physical Testing	56,640.00	Rupees FiftySix Thousand Six Hundred Fourty Only
1039	Prof. N.C. Santhi Srinivas & Dr. Chattopadhyay	M/s Swastik Magnolia LLP, Lanka, Varanasi	Chemical and Physical Testing	10,620.00	Rupees Ten Thousand Six Hundred Twenty Only
1040	Prof. N.C. Santhi Srinivas & Dr. Chattopadhyay	M/s Gannon Dunkerley & Co. Ltd., New Delhi	Chemical and Physical Testing	413,000.00	Rupees Four Lakh Thirteen Thousand Only
1041	Prof. N.C. Santhi Srinivas & Dr. Chattopadhyay	M/s Northern Coalfield Limited, Singrauli	Chemical and Physical Testing	247,800.00	Rupees Two Lakh FourtySeven Thousand Eight Hundred Only
1042		M/s G. Venkata Sarath Kumar, NIT Trichy	TEM Analysis	36,000.00	Rupees ThirtySix Thousand Only
1043	Prof. N.C. Santhi Srinivas & Dr. Chattopadhyay	The Assistant Engineer, CPWD, Varanasi	Physical Testing	9,440.00	Rupees Nine Thousand Four Hundred Fourty Only
1044	Prof. N.C. Santhi Srinivas & Dr. Chattopadhyay	M/s Powergrid Corporation of India Ltd.	Chemical Physical Testing	81,000.00	Rupees EightyOne Thousand Only
1045	Prof. N.C. Santhi Srinivas & Dr. Chattopadhyay	M/s Powergrid Corporation of India Ltd.	Physical and Chemical Testing	55,080.00	Rupees Fifty Five Thousand Eighty Only
1046	Prof. N.C. Santhi Srinivas & Dr. Chattopadhyay	M/s Powergrid Corporation of India Ltd.	Physical and Chemical Testing	48,600.00	Rupees FourtyEight Thousand Six Hundred Only
1047	Prof. N.C. Santhi Srinivas & Dr. Chattopadhyay, Dr. C.K. Behera	Sri Section Engg. / Works Northern East Railway, Manduadih, Varanasi	Physical and Chemical Testing	50,268.00	Rupees Fifty Thousand Two Hundred Sixty Eight Only
1048	Dr. C.K. Behra	M/s Techno Electric & Engineering Co. Ltd., Kolkata	Chemical Testing	4,720.00	Rupees Four Thousand Seven Hundred Twenty Only
1049	Dr. C.K. Behra	Dr. S.P. Tewari, Mechanical Engg., II T(BHU) M/s Hindustan Prefab Ltd., ESIC, Varanasi M/s Janta Associates & Co. Ltd., Lucknow	Chemical Testing	25,960.00	Rupees Twenty Five Thousand Nine Hundred Sixty Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
1050	Dr. C.K. Behra	M/s Bihar State Building Construction Corp. Ltd., Patna	Chemical Testing	103,840.00	Rupees One Lakh Three Thousand Eight Hundred Fourty Only
1051	Prof. N.C. Santhi Srinivas & Dr. Chattopadhyay	M/s Northern Coalfield Limited, Singrauli	Physical Testing	44,604.00	Rupees FourtyFour Thousand Six Hundred Four Only
1052	Prof. R.K. Srivastava	Proclaim Insurance Surveyos & Loss Assessors Pvt. Ltd, D-21, 2 floor, Corporate Park Sector-21, Dwarka, New Delhi	Analyzing the cause of damage to 15 MW Generator at Shah Sponge & Power	42,120.00	Rupees FourtyTwo Thousand One Hundred Twenty Only
1053	Dr. Rajeev Kumar Singh	Additional Proejct Manager UPRNN Ltd. Electircal Unit-3, Plat-4 Shahid Path, Gomti Nagar, Lucknow	Inspection of following electrical work at academic block of Dr. Ram Manohar Lohia Institute of Medical Sciences, Lucknow	270,000.00	Rupees Two Lakh Seventy Thousand Only
1054	Dr. Rajeev Kumar Singh	Akshay Chechani Xiaomi Technology India Pvt. Ltd., Banglor	Consultancy work and a technical research report on "Whether power bank are static converters or electric accumulators	270,000.00	Rupees Two Lakh Seventy Thousand Only
1055	Prof. R.Mahanty	Additional Proejct Manager Electircal Unit, Lucknow UPRNN Ltd., Indira Ghandhi Pratisthan Gomti Nagar, Lucknow	Electrical Inspection of Rajkiya Medical College, Charkrapanpur, Azamgarh	59,000.00	Rupees FiftyNine Thousand Only
1056		Varanasi STP Project Pvt. Ltd. 50 MLD Sewage treatment Plant UP Jal Nigam Compound, Shantipuram Colony Road, Ramana, Varanasi		330,480.00	Rupees Three Lakh Thirty Thousand Four Hundred Eighty Only
1057	J.C. Pandey	Project Manager, Jaj Construction, Varanasi	Calibration of Insulation Tester	4,720.00	Rupees Four Thousand Seven Hundred Twenty Only
1058		Project Manager, EMS Infracom Pvt. Ltd., C-88, RDC, Raj Nagar, Ghaziabad		118,000.00	Rupees One Lakh Eighteen Thousand Only
1059	J.C. Pandey	DGM (C) , HPL M/s Hindustan Prefab Limited Jangpura, new Delhi	Samples of Following materials for testing: 1.5 mm2, 2.5 mm2, 4.0 mm2, 10.00 mm2, 16.00 mm2 PVC insultated copper conductor (FRLS) polycab make is code 694 and 20 mm dia, 25 mm dia PVC regid conduit (AKG Make)	49,560.00	Rupees FourtyNine Thousand Five Hundred Sixty Only
1060	Dr. Devendra Singh, Dr. R.K. Mishra	NCCF National Cooperative Consumers federation Ltd. Lucknow	Vetting of HT/LT cable, transformeer and VCB and RMU	302,400.00	Rupees Three Lakh Two Thousand Four Hundred Only
1061	Prof. R.Mahanty	Project Manager, UP rajkiya Nirman Nigam Ltd., Gomti Nagar, Lucknow	Quality inspection of the Electrical works of Dr. Ram Manohar Lohia State Administration Management Academy	91,800.00	Rupees NinetyOne Thousand Eight Hundred Only
1062	Prof. Ram Pyare	Bsix Consulting and Technology Services Ltd.	Scoping study to manager the silt in the Kosi River of Bihar	225,000.00	Rupees Two Lakh TwentyFive Thousand Only



Sl. No.	Name of faculty (Chief Consultant)	Client Organization	Title of Consultancy of project	Amount	Amount received (in words)
1063	Dr. Preetam Singh	Dr. Preetam Singh, Ceramic Engg., IIT(BHU)		864,000.00	Rupees Eight Lakh SixtyFour Thousand Only
1064	Prof. S.K. Panda	M/s Hindustan Prefab Limited, Jangpura, New Delhi		38,350.00	Rupees ThirtyEight Thousand Three Hundred Fifty Only
1065	Prof. S.P. Tewari	M/s Hindustan Prefab Limited, Jangpura, New Delhi		2,360.00	Rupees Two Thousand Three Hundred Sixty Only
1066	Dr. Vinod Tiwari	M/s Sanat Products Ltd.	Herbal formulation (Tinosporo Cordifollia & Carica Papaya Extracts)	24,665.00	Rupees TwentyFour Thousand Six Hundred SixtyFive Only
1067	Dr. Vinod Tiwari	M/s Sanat Products Ltd.	Herbal formulation (Tinosporo Cordifollia & Carica Papaya Extracts)	49,330.00	Rupees FourtyNine Thousand Three Hundred Thirty Only
1068	Dr. Vinod Tiwari	M/s Sanat Products Ltd.	Herbal formulation (Tinosporo Cordifollia & Carica Papaya Extracts)	24,665.00	Rupees TwentyFour Thousand Six Hundred Sixty Five Only
1069	Dr. Vinod Tiwari	M/s Sanat Products Ltd.	Herbal formulation (Tinosporo Cordifollia & Carica Papaya Extracts)	19,732.00	Rupees Nineteen Thousand Seven Hundred ThirtyTwo Only
1070	Dr. Vinod Tiwari	M/s Natreon Inc., Rishi Tech Park, Premises, Action Area 1D, New Town Kolkata	Herbal formulation (Tinosporo Cordifollia & Carica Papaya Extracts)	54,000.00	
1071	Prof. Sairam K.	M/s Natreon Inc.		54,000.00	Rupees FiftyFour Thousand Only
1072	Prof. P. Maiti	Manager/Simplex Apex Store M/s simplex Apex Encon Rammam Hydro Electric Project Stage-III, Radha Bhawan Jorthana South Sikkim	Testing of PVC Water Stop	118,000.00	Rupees One Lakh Eighteen Thousand Only
1073	Prof. P. Maiti	Manager/Simplex Apex Store M/s simplex Apex Encon Rammam Hydro Electric Project Stage-III, Radha Bhawan Jorthana South Sikkim	Testing of PVC Water Stop	59,000.00	Rupees FiftyNine Thousand Only
				116,899,811.00	



# List of National Collaboration of IIT (BHU)

Sl. No.	Particulars	Year
1	CSIR-AMPRI, New Delhi	19.09.2018
2	National Institute of Technology, Patna	09.10.2018
3	Indian Institute of Information Technology, Pune	14.11.2018
4	Northern Coalfield Limited, Singrauli, M.P.	24.11.2018
5	Indian Energy Exchange Limited, New Delhi	01.12.2018
6	IIT Gandhinagar for Center for Creative Learning	05.12.2018
7	Patient Safety and Access Initiative (PSAI) of India Foundation	02.01.2019
8	National Institute of Pharmaceutical Education and Research, Hyderabad (NIPER-H)	06.02.2019
9	School of Biochemical Engg., IIT(BHU) and Innovative Machinery Agro India Pvt. Ltd., 446 Knowledge Park 3, Greater Noida, Gautam Buddha Nagar, UP	09.02.2019
10	Uttar Pradesh Expressways Industrial Development Authority (UPEIDA)	15.02.2019
11	Indian Institute of Technology, New Delhi (UBA)	06.03.2019
12	Indian Institute of Technology Kanpur, Kanpur	06.03.2019
13	CSIR-Centreal Glass and Ceramic Research Institute (CGCRI), Kolkata	29.03.2019

# List of National Collaboration of IIT (BHU)

Sl. No.	Particulars	Year
1	Amazon Internet Services Private Limited	19.06.2018
2	Bilateral Proposal with Russian Science Foundation (RSF) and Belarusian Road Research Institute	29.08.2018
3	Institute of Physiology, National Academy of Science of Belarus	29.08.2018
4	University of Udayana (UNUD), Indonesia	04.09.2018
5	Univesiti Malaysia Pahang, Malaysia	01.10.2018
6	University of Chicago Trust, Chicago	10.10.2018
7	Penn State Executive Programs Smeal College of Business, Pennsylvania State University, US Leadership for Academicians Program	07.12.2018
8	Kursk State University, Russia	10.12.2018
9	Ecole National Superieure Des Mines De Saint-Etienne (Mines ST-Etienne), France	11.12.2018
10	Tallinn University of Technology, Estonia	28.02.2019
11	South Asia Institute (SAI), Ruprecht-Karls-Universitat Heidelberg, Germany	08.03.2019
12	Institute of Cultural Studies of East and South Asia, Julius-Maximilians Universitat Wurzburg, Germany	08.03.2019
13	Universidad Politecnica De Madrid	29.03.2019



# New Sponsored Projects Sanctioned in FY 2018-19

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S. No.	Title of the Project	Duration	Name of the Funding agency	Total Project Cost	Name of Faculty (Principal Investigator)
1	Pharmacology of Natural drugs in obesity and eating disorders	2 years	Natreon	2654600.00	Dr. Sairam Krishnamurthy
2	Development of anticorrosive paints	1 Year	Harind chemicals & Pharmaceuticals Pvt. LTd	120000.00	Prof. Pralay Maiti
3	Study, Design and Implementation of Frequency Selective Metasurfaces for Microwave Applications	3 years	SERB-ECRA	4670620.00	Dr. Somak Bhattacharyya
4	Radionuclide sensing platform based on functionalized polymer having nanochannels using accelerator	3 years	BRNS - DAE	3416000.00	Prof. Pralay Maiti
5	Mott transistors based Neuromorphic memory device	3 years	DST	10098200.00	Dr. Shrawan Kumar Mishra
6	Minimizing hysteresis in magnetic shape memory Heusler slloys for reversible magnetocaloric effect	3 years	SERB	4839838.00	Dr. Sanjay Singh
7	Investigation on dynamic response analysis of shallow foundation resting on pond ash deposits	3 years	SERB- ECRA	3614600.00	Dr. Supriya Mohanty
8	Phytochemical and pharmacological evaluations of bioactivity guided fractions of medicinal plants of Tripura	3 years	DBT	2655200.00	Dr. A.N. Sahu
9	Development of an intelligent evaporative cooler for composite climate	2 years	DST	892243.00	Dr. Jahar Sarkar
10	Targeted drug delivery of methotrexate/ gallic acid- folate conjugated Poly L-Lysine nanoparticles	3 years	Biochemical	3461200.00	Dr. Abha Mishra
11	National Initiative for Leadership Development in the Higher Educational Institutions	1 Year	MHRD	30000000.00	Prof. Rajiv Prakash
12	Low cost ammonia gas sensor based on polymer/polymer nanocomposite device formed by novel floating film transfer (FTM) technique	2 years	IMPRINT- SERB	3569376.00	Prof. Rajiv Prakash
13	Development and assessment of asphalt mastic from typical Indian and Austrian filler materials with a new test method	2 years	DST	950000.00	Dr. Nikhil Saboo
14	Development of Ti alloy based composites by mechanical alloying and stirrer casting route for dental applications	3 YEARS	SERB	5021000.00	Dr. Rakesh kumar Gautam
15	River Aquifer exchanges & hydrogeological study for watershed management of betwa river basin	2 years	NRDMS	2451000.00	Dr. Shishir Gaur
16	Photonic radative cooler for passive sub- ambient cooling	3 years	SERB- IMPRINT	4188800.00	Dr. Jahar Sarkar



S. No.	Title of the Project	Duration	Name of the Funding agency	Total Project Cost	Name of Faculty (Principal Investigator)
17	Table Top Sem	One time grant	Advanced Materials Pvt. LTd	1731500.00	Prof. Rajiv Prakash
18	Design and development of Micro Seismic based technique for monitoring and prediction of slope failure in Pandoh, Himachal Pradesh, India	3 years	SERB	4977040.00	Dr. A.K. Verma
19	Whole body Vibration Exposure on HEMM Operators in Surface Coal Mines – An Assessment of Various Contributing Factors	3 years	SERB	4003762.00	Dr. S.K. Palei
20	National Geotechnical Conclave on "Development of Early warning system (EAWS) for Landslide Hazard Mitigation on 21-22 March, 2019	One time grant	DST	550000.00	Dr. A.K. Verma
21	Aging studies and estimation of thermal properties of Liner Materials	2 years	DRDO	15685030.00	Prof. Pralay Maiti
22	Nanoscale interfacial magnetic skyrmions and its applications in memory devices	3 years	DST	10350520.00	Dr. Shrawan Kumar Mishra
23	Collection of self-propelled particles in inhomogeneous environment : numerical & analytical Studies	03 Yrs	SERB	2459600.00	Dr. Shradha Mishra
24	Design Development & characterization of porous Ti/SiO2 composite with tailored microstructure fabricated by powder metallurgy using rice husk and sucrose as space holder for orthopaedic applications	1.5 Yrs	DBT	1560000.00	Dr. KalyaniMohanta
25	In situ electron microscopy at atomic scale for understanding nucleation growth and interfaces of omega phase	3 Yrs	SERB	6584600.00	Dr. JoysuryaBasu
26	Optimization of recovery of valuable metals from waste printed circuit boards (WPCBs) through modified hydrometallurgical route	2 Yrs	UGC	1016400.00	K.K.Singh
27	The sun under the microscope – An integrated research activity to maximize the science return from a new generation of missions to study the sun	2 Yrs	UGC	1928180.00	Abhishek srivastav
28	Schwarz waveform relaxation methods for singularly Perturbed Parabolic Problems	03 Years	SERB	660000.00	Dr. Sunil Kumar
29	Novel Electrode Materials for Reversible alkali –ion (Li+/Na+) capacitors and Pseudocapacitors	3 Yrs	SERB	3665245.00	Dr. Preetam Singh
30	Mix Energy Mix energy Source Electric Vehicle Charging System Design and its Impact on Indian Smart –distribution - grid	3 Yrs	DST	9449500.00	Dr. R.K.Singh



S. No.	Title of the Project	Duration	Name of the Funding agency	Total Project Cost	Name of Faculty (Principal Investigator)
31	Detailed lacture based curriculum development for science subjects as part of Induction Programme in AICTE COLLEGES	2 YRS	AICTE	1152000.00	Dr. Indrajit Sinha
32	A Robust medical image forensics system for smart healthcare	02 Yrs	SERB	1407870.00	Dr. Tanima Dutta
33	Development of glasses as plant nutrients	03 Yrs	SERB	4205520.00	Prof. Ram Pyare (PI) Dr. RK Chaturvedi (CoPI), Dr. Preetam Singh(CoPI)
34	Modeling self assembly and phase seperation kinetics in the complex soft materials	03 Yrs	SERB	4654375.00	Dr. Awaneesh Kumar Singh
35	Ramanujan Fellowship	05 Yrs	SERB	3800000.00	Dr. Bidya Binay Karak
36	Design Modelling and simulation of linear Induction Drive for Propulsion Applications	02 Yrs	CARS, DRDO	1000000.00	Prof. R.K.Srivastava
37	Generation and analysis of light source with unconventional structure	06 Months at IIT BHU	SERB	899061.00	Dr. Rakesh Kumar Singh
38	Metal hexacyanoferrate modified screen printed electrodes for the removal of radio nuclides	03 Yrs	DRDO	4171680.00	Prof. P.C. Pandey(PI), Prof. Y.C.Sharma (CoPI)
39	Study and analysis of Mathematical Models of Moving Boundtry Problems	03 Yrs	SERB	2244000.00	Dr. Rajeev
40	A Stack development of untilized regenerative Proton Exchange Memberance Fuel Cell for Large Scale Production of Ultra Pure Hydrogen Fuel, Oxygen using Solar Energy & uninterrupted Power	03 Yrs	SERB	3761500.00	Dr. Hiralal Pramanik
41	Development of Hgh Alumina(Al2O3) & DOPED High Alumina materials for Ceramic Catridge Applications	06months	Yantransh Auto Pvt. Ltd	60500.00	Dr. Santanu Das
42	Investigations of new lead free perovskite materials for solar cells	03 Yrs	SERB	3809391.00	Prof. Prabhakar Singh
43	Applications of Spectral graph theory in analyzing the structural properties of large scale networks	03 Yrs	SERB	660000.00	Dr. Lavanya Silveganeshan
44	Controlled synthesis of MoO3 nanoparticles inside mesoporous materials for oxidative dehydrogenation of organic moleciles with CO2	03 Yrs	SERB	3229430.00	Dr. Vijay Maruti Shinde
45	Construction of Non-monotonic Lyapunov Function for the Dynamical Systems governed by differential inclusions	03Yrs	SERB	660000.00	Dr. Shyam Kamal



# **30. Institute Works Department**

Ever since its inception in the year 2014, Institute Works Department (IWD) in IIT(BHU) shoulders the onus of major/minor repairs, maintenance, retrofitting, renovation and development of infrastructure along with proper operation and sustenance of existing utility lines. The upkeep and functioning of water distribution system, sewerage network, electrical overhead/underground cable lines, distribution sub-stations (DSSs), power sub-stations (PSSs) and SCADA system also pertain to the prime responsibility of IWD.

In addition to repair and maintenance of the hostels, guest house, faculty apartments/quarters and academic buildings, road side development and maintenance of the pavements/bituminous roads are duly undertaken by IWD. Depending upon the extent and quantum of work, IWD floats online tenders to award work-contracts to various vendors/contractors to execute maintenance/development related works of IIT(BHU) under compliance of GFR and standard practices of Civil/Electrical Engineering.

#### Major works in progress by CPWD during the period from April' 2018 to March' 2019:-

Sl. No.	Name of work	AA&ES amount (Rs. in Crores)
1.	Construction of Girls Hostel (G+6) along with boundary wall etc. at IIT(BHU), Varanasi	56.30
2.	Vertical extension of $2^{nd}$ and $3^{rd}$ floor (LHS & RHS wings) of School of Materials Science and Technology (SMST) building at IIT(BHU) , Varanasi	3.02
3.	Construction of Teaching Learning Centre (G+1) building at IIT(BHU), Varanasi	5.72
4.	Renovation and up-gradation of ground floor of existing Library building and other allied construction works etc. at IIT (BHU) , Varanasi	2.98
	Total	68.02

#### Major works completed by CPWD during the period from April' 2018 to March' 2019:-

Sl. No.	Name of work	AA&ES amount (Rs. in Crores)
1.	Construction of faculty apartment (G+5) of 1st block building at IIT (BHU), Varanasi	18.77
2.	Construction of faculty apartment (G+5) of 2 <sup>nd</sup> block building at IIT (BHU), Varanasi	17.57
3.	Construction of Lift and CC road including SITC of 13 passenger lift in NCC building for Humanistic Department at IIT(BHU) , Varanasi	0.61
4.	Construction of chain link fencing & C.C. road in 33KV GIS & DS (A) around SCADA building at IIT (BHU), Varanasi	0.47
	Total	37.42

#### List of works completed/carried out by IWD during the period from April' 2018 to March' 2019:-

Sl. No.	Name of work	Total expenditure amount (Rs. in Lakhs)
1.	Establishment of Department of Architecture Planning & Design at IIT(BHU) , Varanasi	35.00
2.	Restoration of Chimni and beautification works etc. behind NCC building at IIT(BHU) , Varanasi	4.00
3.	Renovation of Supercomputer building at IIT(BHU) , Varanasi	6.00
4.	Construction of Supercomputer sub-station at IIT(BHU) , Varanasi	120.00
5.	Construction of Laboratory for IRMA behind Ceramic Engineering at IIT(BHU) , Varanasi	40.00
6.	Roadside development at Limbdi crossing and in front of Administrative building at IIT(BHU) , Varanasi	35.00
	Total	240.00



# Major civil works completed by IWD during the period from April' 2018 to March' 2019:-

No.	Name of work	Total work order amount (Rs.)
1.	Repair to patch plaster scraping, distempering and painting works of common place area, soil badminton court 01no. Basketball court 01no.and construction of ramp in Vishwesharaiya Hostel IIT (BHU)	439908.00
2.	Removing & re-fixing old aluminium partition and new aluminium partition work tile flooring false ceiling and painting work of laboratory in Department of Mechanical Engineering IIY(BHU)	482408.03
3.	Providing and Fixing of wardrobes of size 9' X 7' at guest house in GTAC, IIT(BHU)	478500.00
4.	Repair and maintenance of pathway with paver block from Gymkhana main gate to Gymkhana building IIT(BHU), Varanasi	432008.00
5.	Re-construction of store room (Mess Side) after demolishing old roof slab including tiles flooring, putty and distempering work of Morvi Hostel, IIT(BHU)	473650.98
6.	Changing of old asbestos sheet to G.I profile sheet and providing & laying of PCC for cemented paver blocks at Limbdi Crossing, IIT(BHU)	458178.47
7.	Bathroom renovation (for mess workers) & mess renovation (kitchen) and soil badminton courts 02 nos. in Vishwakarma Hostel, IIT(BHU), Varanasi	459267.13
8.	Supply, erecting and fixing precast concrete reinforced bench with back rest, IIT(BHU)	425000.00
9.	P/F aluminium partition, false ceiling and painting work of CNC laboratory Main Workshop, IIT (BHU)	422246.66
10.	Making platform with granite top and stainless steel hollow tube frame in room no. 15, Department of Physics, IIT (BHU)	451116.19
11.	Making platform with granite top and stainless steel hollow tube frame in room no. 17 and Computer Room, Department of Physics, IIT (BHU)	419647.21
12.	Making platform with granite top and stainless steel hollow tube frame in Lab. (Dr. Parmar-A and Dr. Swapnil and Room No. 9, 10, 11 and 12), Department of Physics, IIT (BHU)	467829.36
13.	Repair to patch plaster, scraping, exterior (only verandah & passage), distempering and painting works of common place area and all room & fixing of railing at first floor in Limbdi Hostel, IIT (BHU), Varanasi.	2369837.00
14.	Repair to patch plaster, scraping, exterior (only verandah & passage), distempering and painting works of common place area & all room in S.C. DE Hostel, IIT(BHU), Varanasi.	1280416.00
15.	Providing and laying vitrified floor tiles in mess hall and kitchen area of Vishwesharaiya Hostel, IIT(BHU), Varanasi.	1090549.00
16.	Construction of soil based badminton court (02 nos.), Extension of cycle stand with paver block flooring & Removing W/W by scraping, P/A of Oil bound distemper, enamel painting of all rooms & Mess area in Morvi Hostel, IIT (BHU), Varanasi.	1199404.00
17.	Repair to patch plaster, removing of OBD by scraping, P/A of cement based putty and distempering with oil bound distemper of all rooms and common place (varandah, staircase & toilets) of Aryabhatta Hostel-I, IIT(BHU), Varanasi.	711193.00
18.	Renovation of toilets (6 nos.), Re- construction of sewer line of mess area, construction of soil based badminton court (02 nos.) & painting with OBD, Enamel of all rooms & common place area in C.V. Raman Hostel, IIT(BHU), Varanasi.	2087347.00
19.	Construction of building Extension for laboratory in Department of Ceramic Engineering, IIT(BHU), Varanasi	3400151.00
20.	Construction of working platform with granite & kota stone flooring, and Distempering work of Geotechnical Engg. Lab in Department of Civil Engineering, IIT(BHU), Varanasi.	1047162.00



Sl. No.	Name of work	Total work order amount (Rs.)
21.	Construction of cycle stand and reconstruction of sewer line in Vishwakarma Hostel, IIT(BHU), Varanasi.	999725.00
22.	Construction of transformer & panel room for Super Computer Establishment, IIT(BHU), Varanasi	1988425.00
23.	P/F aluminium partition work of production lab at first floor in Department of Mechanical Engineering, IIT(BHU), Varanasi	770885.00
24.	Water proofing treatment (Brick koba) and repairing of patch plaster, Finishing walls with Acrylic Smooth exterior (outer wall) in Department of Chemical, IIT(BHU), Varanasi.	4406072.00
25.	Providing & fixing vitrified floor tile, wall panelling, modification of teaching dias and painting work of (G-13) Deptt. of Chemistry, wall panelling & painting work of (G-1, G-2 & G-3) Deptt. of Civil, (G-4, G-5 & G-6), Deptt. of Mechanical and (G-10) Deptt. of Electrical, IIT(BHU), Varanasi	1015060.00
26.	Providing and fixing of wall panelling back, left & right side in 10 nos. class rooms (3 in ground, 3 first, 3 second & 1 in third floor) & one big class room of ground floor (left & right side only) at LT-3 behind Department of Physics, IIT(BHU), Varanasi.	2533086.00
27.	Renovation work of 11 faculty office room in the Department of Physics, IIT(BHU), Varanasi.	662136.00
28.	Renovation of toilets (nos. 2,3,6,7 & 12), construction of mess toilet, sewer line, mosquito net in all bathroom & mess area & rounding of tree in Vishwesharaiya Hostel, IIT (BHU), Varanasi.	2758108.00
29.	Water proofing work of existing old roof in Vivekanand Hostel and Mess area of Vishwesharaiya Hostel, IIT(BHU), Varanasi	1412460.00
30.	Water proofing work of existing old roof in Limbdi and Rajputana Hostel, IIT(BHU), Varanasi.	2402694.00
31.	Water proofing treatment (Brick koba) of roof and repairing of patch plaster, Finishing walls with Acrylic Smooth exterior (outer wall) in Department of Pharmaceutics & Technology Engineering, IIT(BHU), Varanasi.	3877872.00
32.	Water proofing treatment of roof in Electrical Engineering, Rampur Hall IIT(BHU), Varanasi.	1083558.00
33.	Construction of washing place area with G.I. Profile sheet and M.S. hollow section, flooring with kota stone slab of S.N. Bose Hostel (West Side), IIT(BHU), Varanasi	2045696.00
34.	Bathroom renovation (4 nos.) and barbed wire fencing in Vivekanand Hostel, IIT(BHU), Varanasi.	693767.00
35.	Construction of non-elevated paver block pathway from Indian Institute of Technology crossing to School of Materials Science and Technology crossing, IIT(BHU), Varanasi.	2488209.00
36.	Providing and fixing of aluminium frame window with mosquito net in Ground floor, Vishwesharaiya Hostel, IIT(BHU), Varanasi.	1503498.00
37.	Providing and fixing aluminium partition, false ceiling, R.C.C. platform with granite and painting work in Phytomedicine Research lab at (first floor), Department of Pharmaceutics & Technology Engineering, IIT(BHU).	509653.00
38.	Providing and fixing aluminium partition, false ceiling and painting work in Room No. 65 & 66 at (first floor), Department of Pharmaceutics & Technology Engineering, IIT(BHU), Varanasi.	744736.00
39.	Construction of 01 no. soil badminton court, making cemented area between old and new GSMC, mess water drainage, toilet and bathroom for canteen, bathroom maintenance and boundary wiring fencing in Gandhi Smriti Mahila Chhatravas (extension), IIT(BHU), Varanasi	810920.00
40.	Bathroom renovation south side first floor, north side ground floor and middle side of mesh & hostel ground floor and store room beside water tank (on the sky roof) in Limbdi Hostel, IIT(BHU), Varanasi.	1487880.00



## Major electrical works completed by IWD during the period from April' 2018 to March' 2019:-

Sl. No.	Name of work	Total work order amount (Rs.)
1.	Electrical work in the 60 rooms on First floor of SC De Hostel , IIT(BHU)	489218.00
2.	Electrical work in the 60 rooms on ground floor of SC De Hostel, IIT(BHU)	485079.00
3.	Electrical work in summer maintenance of Morvi, CV Raman, Aryabhatta-A,B & Aryabhatta-C & D Hostel	498770.00
4.	Electrical works in the 94 rooms of Ground floor in Limbdi Hostel, IIT(BHU)	495654.00
5.	Electrical work in Summer maintenance of S.N. Bose Ramanujam, Vishwasaraiya Hostel, Rajputana Hostel, IIT(BHU)	498570.00
6.	Electrical work in the 94 rooms on First floor in Limbdi Hostel, IIT(BHU)	483816.00
7.	Electrical work in summer maintenance of Vivekanand, Vishwakarma, GSMC New & Saluja-1 & 2 Hostels, IIT(BHU)	494375.00
8.	Area Lighting work of the badminton Volleyball court inside outside of the Limbdi Hoste, CV Raman, Morvi, Rajputana, SC De, Vivekanand & Aryabhatta- A, B & CD, IIT(BHU)	464588.00
9.	Supply & installation of air condition and electrical work in Faculty chambers and Seminar hall in Department of chemistry , IIT(BHU)	454878.00
10.	Repair & maintenance of existing AC and supply & installation of new Air Conditioner in GTAC, IIT(BHU), Varanasi	497730.00
11.	Electrical work in the Black Smithy Shop, IDC Lab and newly constructed bathroom of main workshop IIT(BHU), Varanasi	484392.00
12.	Electrical work in new lab near old gas house in Department of Ceramic Engineering IIT(BHU)	445559.00
13.	Lighting work of Volleyball court at Rajputana Ground, IIT(BHU)	492980.00
14.	Electrical work and illumination of newly constructed canteen Limbdi Hostel	438932.00
15.	Electrical work in the Vishwakarma Hostel, Rajputana Hostel, SC de Hostel, IIT(BHU)	412030.00
16.	Electrical work in the Vishwakarma Hostel, Dhanrajgiri Hostel, Aryabhatta-II, CV Raman Vishwasaraiya, GSMC & SC De Hostel, IIT(BHU)	455310.00
17.	Laying of LT Power Cables in the premises of IIT(BHU)	494414.00
18.	Supply and installation of retrofitting of cubical L/T Power ACB panel board to feed Power Supply in the new Girls Hostel, IIT (BHU)	443580.00
19.	Illumination Work from Link Road No. 3 to SCADA Building, IIT (BHU)	401600.00
20.	Supply of LT PVC Cable for Power Improvement Project, IIT(BHU), Varanasi.	3174212.00
21.	Supply & Installation of 125 KVA Silent DG Set for backup Supply in the Computer Unit of the IIT (BHU), Varanasi	834817.00
22.	Street lighting work from IIT Main Library to GSMC Crossing, IIT(BHU), Varanasi.	865393.00
23.	Street lighting work from Swantrata Bhawan Square to Vishwakarma Hostel Square, IIT(BHU), Varansai.	853641.00
24.	Supply, Installation, Testing & Commissioning (SITC) of 11/0.433 kV, 1 MVA Indoor Distribution Sub-Station in IIT (BHU), Varanasi.	8051117.00





Photograph 1: Part of the under construction girls hostel (G+6)



Photograph 2: Rear side view of newly constructed faculty apartments (G+5)





Photograph 3: Road side view of newly constructed faculty apartments (G+5)



Photograph 4: New extension of School of Materials Science and Technology





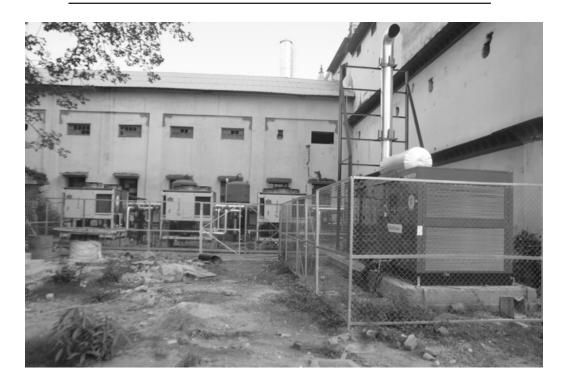
Photograph 5: Newly established Department of Architecture, Planning and Design



Photograph 6: Refabricated Chimney and beautification works etc. behind Supercomputer building (Preserving Heritage)



Photograph 7: Front view of newly constructed Supercomputer sub-station



Photograph 8: Side view of newly constructed Supercomputer sub-station





Photograph 9: Establishment of Supercomputer "Param Shivay" (inside Supercomputing building)



Photograph 10: A view of Supercomputing building's corridor



# 31. Main Workshop

#### Introduction

The vision of the founder of Banaras Hindu University, Pt. Madan Mohan Malviya ji, regarding the engineering education in this university can be seen in his own Wordings as stated below.

"To advance and diffuse such scientific, technical and professional knowledge combined with necessary practical training as is best calculated to help in promoting in digenous industries and indeveloping the material resources of the country."

It is with this idea that Malviya ji went for a full scale Workshop in this engineering college, which was christened as Banaras Engineering College (BENCO). This workshop was used to produce every engineering item that was used in construction of producing machine tools – such as, Lathe and other product like electric fans, etc. This unit was providing technical assistance to Martin Burn Electricity Co. and also Diesel Locomotive Works for the maintenance and fabrication of their several items. It may kindly be noted that for a long time, this unit was a part of teaching department, i.e., the Mechanical Engineering Department. To make good use of the resources, both in terms of machines and manpower with the unit, it was providing technical and on the job technical training to less privileged section of the society. This was making extra manpower available to the University for producing useful products and taking various kinds of maintenance work, thereby saving enormous amount of money of the University. For example, the whole fleet of University vehicles was maintained by this workshop.

#### Activities (IIT-Main Workshop 2018 – 2019)

The Main Workshop of the Indian Institute of Technology (BHU) is offering the following services to the Institute/University/Outsiders.

#### At Institute Level

- 1. Training to B.Tech. Pt-I students of all branches and B.Tech. Pt-II Mech. Engg. Students to expose them to various manufacturing practice and processes.
- 2. Providing facilities for fabrication involved in project work to all the engineering students.
- 3. Helping students by way of fabricating the models and equipments for research.
- 4. Helping students by way of fabricating the models for Institutional Tech. Fest & Department fest like: Technex, Comet.etc.
- 5. Helping students in shaping the product that come out of their creative & innovativethinking.

#### **At The Institute Level**

- 1. Inspecting the furniture supplied to the differenthostels of IIT (BHU).
- 2. Providing technical and support services in purchase and maintenance of the University vehicles of alltypes.
- 3. Providing facilities and also the technical know-how for development of industrial and innovative products.

#### **To Outsiders**

- 1. Training to the students of other engineering colleges.
- 2. Providing processing and production facilities tooutsiders.
- 3. Providing Summer Training to the undergraduates of different Engineering College.

#### At the National Level

1. Organized National Seminar on "Technological Advancement in Man-made Appliaces of Rural Area" (TAMAR) on 04-06 January, 2019.



# Core team of the Main Workshop

- 1. Prof. V.K. Srivastava (Prof.Incharge)
- 2. Dr. Sankara Rao L. (Sr. TechnicalOfficer)
- 3. Shri Basudeb Rajak (Sr. TechnicalOfficer)
- 4. Dr. S.K. Mandal (Sr. Technical Officer)

## **DATA OF STAFF DETAILS (SHOPWISE)**

Sl. No.	Emp. No.	Name of Employee	Designation	Shop/Lab.
1.	50090	Sri Ravi Kumar Sonkar	Junior Asstt.	Office
2.	18668	Sri G.K. Shukla	Senior Technician	Office
3.	19274	Sri Gopal Rana	Senior Technician	Office
4.	18017	Sri Satya Prakash	Sr. Technical Supdt.	C.N.C Auto
5.	19266	Sri Bed Prakash Singh	Technical Supdt.	C.N.C Auto
6.	18669	Sri Arvind Kumar Singh	Technical Supdt.	C.N.C
7.	18676	Sri Ashwani Kumar Tiwari	Senior Technician	C.N.C
8.	13628	Sri Shree Kumar	Technical Supdt.	Carpentry
9.	13632	Sri Jagdish Prasad	Junior Technical Supdt.	Carpentry
10.	13633	Sri Vikrama Prasad	Junior Technical Supdt.	Carpentry
11.	18675	Sri Jagdish	Senior Technician	Carpentry
12.	11561	Sri Bhola Nath	Technical Supdt.	Black Smithy
13.	18664	Sri Brijesh Kumar Singh	Senior Technician	Black Smithy
14.	18646	Sri Gopal Kumar Kharwar	Senior Technician	Black Smithy
15.	19268	Sri Ravi Shankar Singh	Technical Supdt.	IDC
16.	18070	Sri Chandra Bhushan	Junior Technical Supdt.	IDC
17.	18607	Sri Karun Vishwakarma	Senior Technician	IDC
18.	13636	Sri Lallan Prasad	Junior Technical Supdt.	IDC
19.	18670	Sri Kunwar Bahadur	Senior Technician	IDC
20.	18671	Sri Dheelep Kumar B.	Senior Technician	IDC
21.	18667	Sri Banarasi Rao	Senior Technician	IDC
22.	13630	Sri R.K. Sharma	Junior Technical Supdt.	Fitting
23.	18665	Sri Bipin Kumar Rai	Senior Technician	Fitting
24.	18032	Sri Sunil Kumar	Senior Technician	Fitting
25.	16534	Sri Ram Bhaju Prasad	Junior Technical Supdt	Foundry
26.	13631	Sri Lal Prakash Singh	Junior Technical Supdt.	Foundry
27.	18606	Sri Rajendra P. Vishwakarma	Senior Technician	Foundry
28.	13626	Sri Mahendra Kumar	Technical Supdt.	Foundry
29.	13623	Sri L.B. Singh	Sr. Technical Supdt.	Sheet Metal
30.	13619	Sri Munna Lal	Sr.Technical Supdt.	Sheet Metal
31.	18031	Sri Lakhmi Chand	Sr.Technical Supdt.	Sheet Metal
32.	19267	Sri Chandra Mohan Singh	Technical Supdt.	Machine Shop
33.	18603	Sri Vijay Kumar Singh S/o Sri R.P.Singh	Senior Technician	Machine Shop



Sl. No.	Emp. No.	Name of Employee	Designation	Shop/Lab.
34.	18605	Sri Ajay Kumar Yadav	Senior Technician	Machine Shop
35.	18602	Sri Ravindra Kumar	Senior Technician	Machine Shop
36.	18044	Sri Santosh Kr. Maurya	Jr. Technical Supdt.	Machine Shop
37.	18672	Sri Vinay Kumar Singh	Senior Technician	Machine Shop
38.	18052	Sri Dilip Kumar Sharma	Jr. Technical Supdt.	Welding
39.	18040	Sri Vijay Kumar Singh S/o Sri Ram Alam Singh	Jr. Technical Supdt.	Welding
40.	18666	Sri Billu Guria	Senior Technician	Welding
41.	18051	Sri Vijay Kumar S/o Sri Sohan	Jr. Technical Supdt.	Auto
42.	18663	Sri Jitendra Kumar	Senior Technician	Auto
43.	13634	Sri T.B. Singh	Junior Technical Supdt.	Electroplating
44.	18604	Sri Anil Kumar Vishwakarma	Senior Technician	Electroplating

## Any other information:

### **Library Facilities**

85 Nos. of Video CDs related to Power Hand Tools, Welding, CNC, Foundry, Carpentry, Mechanical Engineering manufacturing techniques & Safety are available in Workshop for instruction to the students of B. Tech during workshop practice classes.



# 32. Malaviya Centre for Innovation, Incubation & Entrepreneurship (MCIIE)



# Indian Institute of Technology (BHU) Varanasi

- Registered since 2008, as not for profit society under society registration act 1860
- Governed through its own Governing body
- Office Bearers (As on date)
  - President: Prof. P. K. Jain, Director, IIT (BHU)
  - Secretary: Prof. P.K. Mishra
  - Treasurer: Dr. Pradeep Srivastava

#### **Partners**

- NSTEDB, Department of Science & Technology, Govt. of India, New Delhi
- DSIR, Govt. of India, New Delhi
- TIFAC, New Delhi
- Ministry of MSME, Govt. of India
- EDII, Ahmedabad
- Northern Coalfields Limited

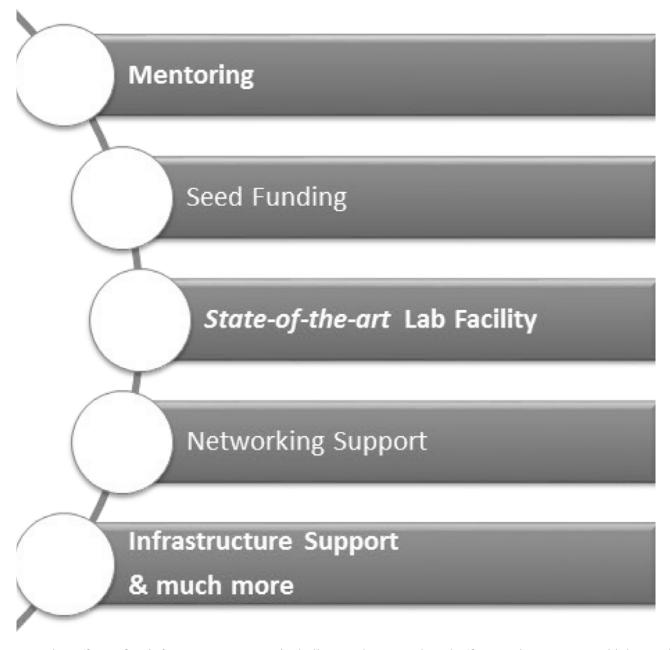




#### **About**

The Malaviya Centre for Innovation and Incubation (MCIIE) at IIT (BHU) Varanasi is functional since 2011. The MCIIE aims to promote Techno-Entrepreneurship and enterprise creation. One of our key interventions is to provide *Business Incubation* to technology start-ups.

We nurture potential ideas through an ambit of support services and requisite infrastructure support and help them grow from idea to flourishing businesses. The support services offered to incubate have been depicted as under:



MCIIE also offers office infrastructure support including work space, shared office services, access to high speed internet, access to its laboratory and specialized equipment and value added services like mentoring, seed support, access to finance, technical assistance and networking support.



#### **Objectives**

- MCIIEatIITBHUaimstoachievethefollowing:
- New Venture Creation through providing incubation and host of other support in the are as of Information and Communication Technology (ICT), Biotechnology, Food Technology, Agriculture and allied sectors.
- Technology commercialization, targeted at providing a muchneeded platform for speedy commercialization of technologies developed in the academic and R&D institutions toreachtheend users.
- Interfacing and Networking between academic, R&D institutions, industries and financial institutions.
- Value Addition through its services provided to its incubatesas well as to the existing technology dominated SMEs, MCIIE aimat value addition.
- Creatingvalueaddedjobs&services,
- Fosteringtheentrepreneurialspirit.

#### For Whom?

The admission to MCIIE is open to a spiring *start-ups* in the areas of, Information and Communication Technology (ICT), Biotechnology, Food Technology, Agriculture and allied sectors, promotedby:

- Student sand alumni of IIT(BHU).
- Faculty members (present or former) of IIT(BHU)
- R&D partners (sponsors of R&D and consultancy projects),

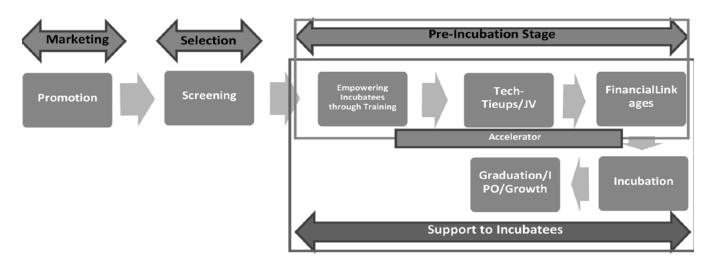
#### How to get incubated:

MCIIE designed and also implemented a new process for selection of Startup-preneurs.

#### New Process for Incubatees selection/Screening:

- 1. Promotion School, Engineering Colleges of Purvanchal region
- 2. Screening Psychometric Testing, Presentation, Interview, Counselling to rejected applications
- **3.** Training & Empowering Incubatees Business Training, Administrative training, Setting up a small enterprise (rules, procedures, formalities), Business opportunity identification (screening, firming-up), Market assessment, Entrepreneurial competencies (strengthening soft skills), Business plan preparation, Essentials of managing a small enterprise, Inputs on how to implement a project
- **4.** Counselling / Technology Tie-up & JV Counselling, Consultancy, Coaching, Mentor identification, Tie up for grey areas, Finalizing their business ideas, Developing their own business plans, The process of project implementation, Technology tie-ups, Business partnerships (Joint Venture collaborations, Seeking necessary licenses and completing legal documentation including IPR services
- **5. Financial Linkages** Linking with Financial Institutions, Govt. funds and grants, appropriate financial linkages is identified based on project requirements and entrepreneur investment capability, Need based advice and support is provided by the financial counsellor, "Venture Capital Fund for Selected Incubatee".
- **6. Incubation** Prototyping, Business and Technology Consultancy, Marketing, Promotion, Essential linkages are facilitated with institutions dealing with infrastructure operators, Guidance and support on issues related to procurement, installation and commissioning,
- 7. Graduation/Growth/Exit Access to information and data / Developing growth business plans, Business Counseling, Co-entrepreneurship & Angels Program, Technology upgrading: Raw materials sourcing, sourcing of technology, Quality management & upgrading to ensure adherence to international markets, Legal support, networking, networking with Gov. Organization (both Financial & Non-Financial Institutions) Business Counsellor and Financial Counsellor closely monitor the project implementation process





#### **Incubation Status**

#### Present and Graduate Incubates at TBI, IIT (BHU)

Sl. No.	Company Name	Founder	Date of Agreement	ICT/Non ICT
1	M/s iMinBit TechIndia Pvt. Ltd.	Mr. Naveen Kumar	8.1.15	Non-ICT
2	M/s Agati HealthCare Pvt.	Dr. Mamta Sharma	16-08-14	Non-ICT
3	M/s Ysiid Solutions Pvt. Ltd.	Mr. Niraj Kr. Srivastava	10.8.16	ICT
4	M/s Rosehub Edutainment Private LTD	Mr. Sagar Das	15.3.16	ICT
5	M/s Matrade Pvt. Ltd.	Mr. Amit Kumar & Sujit Kumar	9.5.17	Non-ICT
6	M/s Innovative Tracks Pvt. Ltd.	Mr. Harshit Pandey	22.11.16	ICT
7	M/s TechMachienery and More	Mr. Gaurav Kedia	23.6.16	ICT
8	M/s Clean Electric Pvt. Ltd.	Mr. Akash Gupta	24.12.16	Non-ICT
9	M/s Smurlikanti Technologies PVT. Ltd.	Mr. Shantanu Sinha	12.10.17	ICT
10	M/s Garden on Concrete	Mr. Avishek Kumar	1.11.17	Non-ICT
11	M/s freshnic Agribusiness Pvt. Ltd.	Mr. Hemant Kumar	17.7.18	Non-ICT
12	M/s Reservefree Pvt. Ltd.	Mr. Ishu Darshan	12.12.18	Non-ICT
13	M/s Ringel Web Pvt. Ltd.	Mr. Harshit Bhatt	17.7.18	Non-ICT
14	M/s Abhiprerana ATE World Tak	Mr. Ayush Keshri	15.10.18	Non-ICT
15	M/s Cobra online Services Pvt. Ltd.	Mr. Mrityunjay Singh	17.7.18	ICT
16	M/s HXRX Automation Pvt. Ltd.	Mr. Krishna Upendra Pandey	24.4.19	ICT
17	M/s Shoppingkart24 online Services Pvt. LTd.	Mr. Prateek Singh	17.7.18	ICT
18	M/s Green Technology/Energy,Manufacturing	Mr. Nirankar Yadav	20.11.18	Pre-Incubation
19	M/s Experience Zone Pvt. Ltd.	Mr. Akhouri Anand Kumar	8.8.18	Non-ICT
20	M/s AvakarEnvirosource Pvt. Ltd.	Mr. Pankaj Kumar	27.10.18	ICT
21	M/s Hostad Services Pvt. Ltd.	Mr. Shivam Gupta	7.3.17	ICT
22	M/s. Pepfuels Technologies Pvt. Ltd.	Mr. Tikendra Yadav	Feb-19	Non-ICT
23	Egosmart Vehicle Pvt. Ltd.	Mr. Vikram Jogi	Jun-19	ICT



Gr	Graduated Companies of MCIIE						
1.	E T Media Labs http://etlabs.in/  Annual Turnover - 4 Crore Job created - 27 nos.	RaghavKansal [B Tech, IIT (BHU), Civil Engg.; 2011]	Digital Marketing Solutions	Various services offered by the company includes online media buying, social media marketing, search engine marketing, mobile marketing, e-commerce solutions, mobile applications and corporate blogging among others.			
2.	Sigrid Education Services Private Ltd http://www.sigrideducation.com/ Annual Turnover – 4.6 Crore Job created-55 nos.	Akash Kasaundhan Chem. Engg., 2011, IIT (BHU)	India Intelligence Test content co-creation Platform "Sigrid Notes".	Launched an App for its Sigrid notes.  Since 2013 successfully organizing India Intelligence Test based on Prof. Howard Gardner's theory of Multiple Intelligences and partnered with Dainik Jagran.			
3.	ArteyeSoftwares <a href="http://www.eteach.co.in/">http://www.eteach.co.in/</a> Annual Turnover - 3.5 Crore Job created-18 nos.	Ajit Maheshwari [B Tech, IIT (BHU), Ce- ramic Engg.; 2008]	A technology plat- form for co-creation of multi-media educational content in an intuitive, easy and costeffective manner	Merged with DesignomediaPvt. Ltd. Has office at Nagpur. Currently we have running with two platforms in the market. The best selling product is on windows platform and then on Android platform. Getting ready for iOS platform for next session.			
4.	BridgedotsTechser- vicesPvt. Ltd. http://www.bridge- dots.com/  Annual Turnover - 26 Lakhs Job created - 6 nos.	Nikhar Jain [B Tech, IIT (BHU), Chemical Engg.; 2009] TanmayPandya [B Tech, IIT (BHU), Chemical Engg.; 2009] AbhishekPoddar [B Tech, IIT (BHU), Chemical Engg.; 2008]	Technology development related to Cleantech, Polymers and Advanced Materials	• Currently providing end-to-end technology development services by Developing novel processes to fulfil technical needs, improving existing processes, Enhancing the properties of existing product etc.			
5	Brisil Technologies Pvt. Ltd. http://www.brisil. com/  Annual Turnover - 1.5 Crore Job created - 15 nos.	TanmayPandya [B Tech, IIT (BHU), Chemical Engg.; 2009]	Brisil is addressing the problem of rice husk ash utilization.	Currently Brisil supplies silica for all major applications including tires, rubber, toothpaste, paints, plastics etc. Brisil produces industry-specific silica for all major applications.  Recently Tie-up with Innovative Tyres & Tubes Pvt. Ltd. (Public Listed Company)  Rs. 1 Crore sanctioned by SIDBI  Rs.5.0 Crore approved by Technology  Development Board  Rs. 5.0 Crore loan approved by State Bank of India			



#### **Recognition by MSME**

MCIIE at IIT (BHU) Varanasi hasbeen recognized by MSME, Govt. of India, for implementation of the scheme "Supportfor Entrepreneurial and Managerial Development of SMEs through Incubator".

#### Further, following four incubatees of MCIIE sanctioned for grant under the above said scheme:

Sr. No.	Applicant	Title of the technology/ innovation	
1	Suresh Shukla	iNetClean – Adult Content Filter	
2	Naveen Kumar	Reverse Osmosis Potable Water System with Improved Yield	
3	Abhijeet	Synthesis of Water Born Adhesives (e.g. polymers / co-polymers)	
4	Abhishek Poddar	Extraction of Highly Dispersible Silica fro Rice husk ash	
5	Ambrish Nigam	Online digital library for school going students and preparing for competitive entrance exams at the level of schools	
6	Osho Siddhant	Development of an exclusive E-Comm platform for handicrafts and other handmade goods	

#### Workshops/Events/Interaction:

#### April-2018

Summer School Workshop at Kasturba Mahila Vidyapeeth Inter College, Sevapuri along with a 3 days residential workshop at MClIE lIT (BHU).

#### 18-May-2018



MCIIE - IIT (BHU) announces collaboration with CISCO and NASSCOM Foundation to setup 'Cisco thing Qbator'



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#### July-2018

workshop-cum-Training program on 'Biogas Technology Development, Implementation and Substrate Analysis' during July 2-13, 2018 at Malviya Center for Innovation, Incubation & Entrepreneurship, IIT BHU



#### 16-July-2018

A workshop on Air Pollution and it's health impacts in association with Centre for Environment and Energy Development.



#### 6 & 7-Aug-2018

MCIIE IIT(BHU) in association with Wadhwani Foundation NEN started Entrepreneurship Programme at Technology Business Incubator MCIIE IIT BHU. Orientation day for Wadhwani Foundation Basic Entrepreneurship Course Technology Business Incubator MCIIE IIT BHU.





# LEARN BY DOING ENTREPRENEURSHIP EDUCATION

— Discover the entrepreneur within —



LEARN
Knowledge, tools and
skills to make you
entrepreneurial



PRACTICE
Do entrepreneurship
the fun way through
E Cell activities



Start a venture with expert support



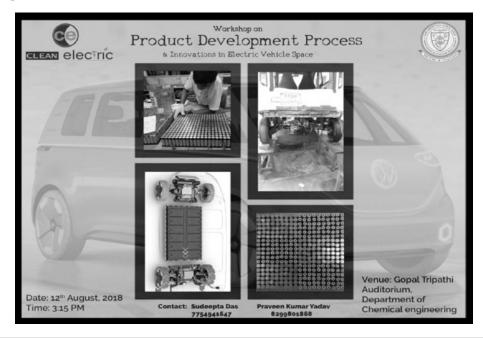
GROW Access mentoring, acceleration and networking

SIGN UP to the WF NEN Entrepreneurship Program. Contact your Entrepreneurship Faculty or E Cell NOW!

Limited seats! Please contact Paritosh Tripathi at: tbi.mcile@itbhu.ac.in or visit our Office soon.

#### 18-Aug-2018

Workshop on Product Development Process & Innovations in Electric Vehicle Space by Team <u>CleanElectric</u> of MCIIE, IIT(BHU) at Prof Gopal Tripathi Auditorium.





#### 27-Aug-2018

Sensitization Workshop for Students of Rajshree School of Management and Technology <u>RSMT, Varanasi</u> at MCIIE, IIT(BHU).



#### 26-Oct-2018

A workshop at CISCO thingQbator, IIT (BHU) has been conducted using GitHub Learning Lab platform. Students learnt starting the modules from scratch, ie. learning basic concepts of git & GitHub and advanced concepts like solving a merge conflict. they made students aware about the different GitHub programs that can help them in their journey towards being a developer.





#### 26-Oct-2018

A Discussion on Startups with Students of Kashi Institute of Technology during their EAC.

The discussion was to make them aware about MCIIE, its startups and the process of commercialization of idea into a product/service, they have also visited thingQbator, IIT (BHU) and explored Arka Dryer and Solar Cooker.





#### 29-Oct-2018

MCIIE, IIT(BHU) organized a one day training program in association with DISHA for students of BHU and IIT(BHU).





#### 1-Nov-2018

MCIIE in association with Li2 Technologies conducted A two day (31st October and 1st November 2018) hands-on workshop on real problem solving through IoT devices at CISCOthingQbator, MCIIE,IIT(BHU)







#### 3-Nov-2018

MCIIE in association with KGSG Bank has conducted a Quiz and extempore wherein, students of IIT(BHU) and entrepreneurs of MCIIE.





#### Dec-2018

Malaviya Centre for Innovation, Incubation and Entrepreneurship (MCIIE) Indian Institute of Technology (Banaras Hindu University) in association with Indian Association for Science Fiction Studies, Bangalore, Karnataka and Indian Science Fiction Writers' Association, Faizabad, Uttar Pradesh is organizing a National Conference on "Technology & Science Fiction" on 15th & 16th December 2018, a first of its kind Conference in our region.







#### 21-Dec-2018

IIT BHU and MCIIE Varanasi organised a startup workshop titled 'How does a Venture Capitalist evaluate a Startup for funding?'





#### 2-Jan-2019

An entrepreneurial workshop on 'Social Entrepreneurship' was organized by MCIIE. Shri <u>HershKumar {renowned</u> social entrepreneur} shared his experiences among the students of IIT (BHU) about the development of unique business and also his journey as a social entrepreneur.





#### 18-Jan-2019

The Indian Institute of Technology (BHU) Varanasi announced the launch of the 'Cisco thingQbator' makerspace at Malaviya Centre for Innovation, Incubation & Entrepreneurship (MCIIE) to drive innovation in the areas of Internet of Things (IoT) and other emerging digital technologies.





23-Jan-2019

 $MCIIE\ conducted\ Mid\ Cohort\ Hackathon\ workshop\ at\ CISCOthingQbator.$ 







15-Feb-2019

MCIIE, IIT(BHU)hosted Ideation round for Cohort 2 at Cisco thing Qbator,.





20-Feb-2019

A Workshop was conducted to launch the Biogas App – an initiative towards "Circular Economy" at IIT (BHU) organized by MCIIE, IIT (BHU) in association with Indian Biogas Association and Burhani Foundation, India.







#### 7-Mar-2019

Two day hands-on workshop on "ADVANCED EMBEDDED DEVICES FOR IoT" hosted by Li2 Technologies at MCIIE, IIT(BHU), organized on 01-02 Mar 2019.







### 33. Central Instrumentation Facility

This year Central Instrument Facility created 3 new facilities X-ray photoelectron spectroscopy (XPS), Inductively coupled plasma mass spectrometry (ICP-MS) and BET surface area measurement facility for advance research for students and faculty members of the institute and other institutions as well as industries. A brief description of these facilities is given below.

**X-ray photoelectron spectroscopy (XPS)** - XPS is a surface-sensitive quantitative spectroscopic technique to measure the elemental composition, chemical state and electronic state of the elements based on X-Ray photoelectron emission on X-ray irradiation.

**Inductively coupled plasma mass spectrometry (ICP-MS)** - ICP-MS spectrometry uses an Inductively coupled plasma to ionize the samples and creates atomic and small polyatomic ions, which are then detected using mass spectroscopy. It is a well known technique to detect metals and non-metals in liquid samples at very low concentrations say ppb to ppt.

**BET surface area measurement** - BET surface area measurement based on physical adsorption of gas molecules on a solid surface and serves as the basis for an important analysis technique for the measurement of the specific surface area of materials.

Apart from above characterization facilities, centre is providing various advance characterization facilities to meet the demand of future research and technological applications. This year several thousand samples were characterize of researchers of IIT (BHU) and outside the institute.

Apart from characterization facilities institute is also providing fabrication techniques like PCB Prototyping and CNC Mill/ Lathe Production with simulator.



### - 34. Financial Accounts -

## INDIAN INSTITUTE OF TECHNOLOGY (BHU), Varanasi INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH 2019

Amount in Rupees

Particulars	Schedule	Current Year	Previous Year	
INCOME				
Academic Receipts	9	49,80,94,663	51,15,26,186	
Grants / Subsidies	10	2,27,37,00,000	2,66,00,00,000	
Income from Investments	11	19,61,02,051	10,95,81,461	
Interest earned	12	2,66,730	39,679	
Other Income	13	25,59,94,346	26,52,01,268	
Prior Period Income	14			
TOTAL		3,22,41,57,790	3,54,63,48,594	
EXPENDITURE				
Staff Payments & Benefits (Establishment exp.)	15	1,48,61,44,465	1,36,16,56,209	
Academic Expenses	16	41,28,01,655	47,61,29,714	
Administrative and General Expenses	17	47,94,85,480	52,46,77,662	
Transportation Expenses	18	11,73,587	3,92,063	
Repairs & Maintenance	19	5,64,49,380	5,64,16,205	
Finance Costs	20	1,35,992	1,68,869	
Depreciation	4	27,67,84,343	23,02,99,006	
TOTAL		2,71,29,74,902	2,64,97,39,728	
Balance being excess of Income				
over Expenditure (A-B)		51,11,82,888	89,66,08,866	
Transfer to/ from Designated				
fund				
Building fund				
Others (specify)				
Balance being Surplus (Deficit)		51,11,82,888	89,66,08,866	
Carried to Capital Fund				

