Annual Report

2015-2016

(April 1, 2015 - March 31, 2016)

Our Vision

" *To contribute to India and the World through excellence in scientific and technical education and research; to serve as a valuable resource for industry and society; and remain a source of pride for all Indians.* "

Contents

Director's Report

IIT Delhi is pleased to release its Annual Report for the year 2015-2016 and I am delighted to share with you the highlights of our major activities, achievements, initiatives and future plans.

At the outset, it is a great pleasure and privilege for me to share that two Indian universities have got place in the top 200 this year in QS Worldwide University Rankings, with IIT Delhi at a global rank of 179 and Asian rank of 42. It is also an honor for IIT Delhi to be ranked No. 1 institution in India in the area of Engineering and Technology (globally ranked 44 in this category based on faculty quality) and No. 2 in the areas of natural sciences and social science & management. Subject wise, IIT Delhi figures out between 51-100 globally in Computer Science & information Systems, Chemical Engineering, Civil & Structural Engineering, Electrical & Electronics Engineering and Mechanical Engineering. Department of Management Studies is in the top 100-150 slot.

IIT Delhi has also been ranked by various other agencies as follows: No. 1 in Outlook's annual ranking amongst India's top 100 Engineering Institutions, No. 1 in the Country in Centre for World University Rankings (CWUR) and No. 341 among the 25,000+ degree granting Institutions of higher education worldwide, No. 1 amongst engineering institution in India by EDU-RAND 2015 rankings, No. 13 as per BRICS QS ranking for the year 2015-16, among top 100 in a world by Round University Ranking (RUR) 2015.

Over the years, quietly but surely, we have built a strong research tradition, which can be seen by the impressive statistics in terms of various research indicators. Specially, we have continuously improved on our credentials in research as evidenced by way of publications and citations and Ph.Ds per faculty. In the last convocation of the Institute, 221 scholars received their Ph.D. degrees. Our target of continuously searching for and significantly increasing the intake of quality candidates into our Ph.D. programmes is on the right course and we have grown to a significant level in this direction over the past few years.

IIT Delhi is committed to provide excellent human resource to meet national needs and global expectations. It is a unique institution and a dream destination for those who wish to be leaders in science, technology and management. IIT Delhi is internationally recognized for delivering excellent education at the undergraduate and postgraduate levels, while endeavoring to become a great research institution.

While excellence has many parameters, setting up of state-of-the-art teaching and research infrastructure does require resources. With the support from the Government of India, industry and the alumni, IIT Delhi has been able to create an excellent infrastructure. While the Government has supported us with generous funding for which we are grateful, our alumni have extended significant support to the institute.

Our faculty is one of the finest in the country and is recognized internationally for their quality of research, teaching and curriculum development. They also contribute greatly for the development of the nation by being associated with a large number of decision making bodies, providing crucial guidance and advice on policy matters and technical issues. Many faculty members received honours/awards and were elected fellows of several professional national/international bodies during the year 2015-16.

During the period, international bibliographic databases have indexed around 1661 research articles published by faculty members and researchers of the institute in international journals including 1328 articles indexed in Scopus and 1022 articles indexed in Web of Science, an international indexing and citation database in Science, Technology and Social Sciences. The faculty members have also presented a similar number of papers in national and international conferences. Besides, they have also published many books and conducted several continuing education programmes.

The Booklet on "Report of the External Peer Review Panel" has been submitted to the IIT Council by the Institute. The same has also been uploaded on the Internal web of the Institute. As per recommendations of the External Peer Review Committee, Vision Document of the Institute for next 10 years is being finalized.

Mechanism to setup Bio-design facility as part of Inter-Institutional Bio-design centre supported by DBT has been completed. The facility is being setup as part of Centre for Bio-medical Engineering. The final proposal has been submitted to DBT. Proposal of MOU for setting up Joint Advanced Technology Centre (JATS) at IIT Delhi jointly with DRDO is under process.

IIT Delhi is the Mentor Institute for setting up of IIT Jammu. Professor-in-charge has been appointed for facilitating the mentoring role in setting up of IIT Jammu. Suitable site has been selected to setup the campus. IIT Jammu will start functioning from the next semester i.e. starting July, 2016. The following committees have recently been set up to facilitate smooth functioning of IIT Jammu: (i) IIT Jammu Monitoring Committee (IIT JMC), (ii) IIT Jammu Curriculum and Research Committee.

A new state of the art lecture theater (LT) Complex is now in operation on the campus. With a total built up area of around 400 thousand sq. ft., it has 2 lecture halls of 500 capacity, 3 with 300 capacity and a large number of smaller class rooms. Up to 4600 students can be accommodated in the complex at any time. It is built by CPWD with a total outlay of about 163 crores. Construction of Engineering Blocks B and C, one more girls and boys hostel, faculty housing and a Science Park are expected to start soon. Construction of block VII is also expected to be taken up in this year.

Efforts have been initiated to make Campus and Offices Smart. A comprehensive report has been prepared and phase wise projects have been identified. A Steering Committee for execution and monitoring of progress has been setup.

A one Petaflop high performance computing (HPC) facility has been setup which is now operational.

The construction of Innovative Education Centre is in full swing at IIT Delhi extension campus at Sonepat, Haryana. Apart from providing a convention centre capable of housing conferences and training programmes, it would also support incubation. It also includes a residential facility for participants, faculty and in-residence young entrepreneurs.

IIT Delhi was assigned the responsibility to host the prestigious India International Science Festival (IISF) 2015, which was held from 4th to 8th December 2015. The event was co-organized by and the Ministry of Science & Technology and Earth Sciences, Govt. of India and Vijnana Bharti along with involvement of Technology Information, Forecasting and Assessment Council (TIFAC).

As per decision of IIT Council, IIT Delhi was identified as the nodal agency for coordinating the activities for Unnat Bharat Abhiyan. It is proposed to have a cluster based approach to make technologies viable and sustainable in rural areas so that various schemes and programs of the Government are made available to the people in rural areas through a single window delivery system. The Institute is also actively participating in various other national missions/initiatives such as Make in India, Swachh Bharat Abhiyan, Rashtriya Avishkar Abhiyan, Global Initiative for Academic Networks (GIAN), Digital India, Smart Villages and Cities.

The Growing visibility of the Institute has been steadily leading to a larger role in partnerships. The Institute has been actively involved in collaborative programmes with national and international organizations/universities to remain at the forefront in scientific and technological development and to share the knowledge for mutual benefits. IIT Delhi has currently 88 operational MoUs/Agreements with Foreign Institutions/Organizations and 63 MoUs/Agreements with Indian Institutions/Organizations.

The Institute provides seed research funding to the new faculty upon joining the Institute to the tune of Rs. 10.00 lakhs. It has been revised now to Rs. 20 Lakhs with additional matching grant of upto Rs. 30 lakhs. During the year, the Institute sanctioned the New Faculty Research Grant of a total of Rs. 246 lakhs to 21 faculty members out of the total funds of Rs. 500 lakhs earmarked for this purpose.

During the year under report, 135 Sponsored Research Projects with a total funding of Rs. 72.10 crores and 360 consultancy jobs with a total value of Rs. 28.69 crores were undertaken. 33 collaborative projects/consultancies with international funding were also undertaken during the period.

Many research activities have taken place at the Institute during the period.

- Applied Mechanics Department has established active research collaboration with AIIMS Delhi for various projects in Orthopaedics (IIT Delhi Ph.D. and M.Tech, AIIMS MS), and Cardiology (Indo-US Grant).

- Department of Biochemical Engineering and Biotechnology has made significant advances in production of therapeutically active proteins in Pichia pastoris through institute funded High impact research project. Through genetic as well as innovative process and control strategies, large quantities (g/L) of Granulocyte colony Stimulating Factor are being produced in P. pastoris, a yeast expression system. Similarly, advances have been made in expression and secretion of Human Serum Albumin, another therapeutically important protein. These are expected to be good candidates for technology transfer. Engineered oxido-reductases have been developed with a capacity to attack a wide range of textile dyes leading to bio-based technologies in the area of effluent treatment.

- Civil Engineering Department has carried out collaborative research work with Industry and several other IITs to develop Limestone Calcined Clay Cement (LC3), Collaborative research projects to develop low cost bricks using waste materials with Development Alternatives (DA), Dynamic nonlinear characteristics of soil pile system – Complete guidelines for the prediction of the stiffness and damping of single and group piles considering effect of soil-pile separation and boundary zone parameters for different eccentric moments of rotating machines, Earthquake Resistant Design of Structures using the "Base Isolation Technology" etc.

- Mechanical Engineering Department is carrying on Research work on Human Body (HB) Modeling and Analysing injuries on HB during crashes using FE for some time which has been strengthened further. Similarly, work on Road Safety, Crash Epidemiology and Analysis has been going on for some time; has been strengthened further.

Interdisciplinary Programme on Robotics worth Rs. 7.92 crore sponsored by BARC/BRNS is going on for more than five years since May 2010, where four faculty members from Mechanical Engineering department along with seven others from Electrical Engineering and Computer Science and Engineering departments are contributing. Three faculty members from Mechanical Engineering Department, two technical staff and few contractual staff members have helped the Rashtrapti Bhavan to make two big old clocks functional in August 2015.

- Centre for Applied Research in Electronics has initiated collaborative research initiative in the area of Algorithmic Framework for MEMS Sensor Fusion with ST Microelectronics USA, a leading sensor design and manufacturing company. Algorithms developed for multi-sensor data fusion based improved underwater navigation solution. Further, algorithms and software for passive surveillance algorithms for Direction Finding and Ranging (DIFAR) sonobuoys have been transferred to Naval Physical Oceanographic Laboratory (NPOL), DRDO. Further, significant research on synthesis of nanostructured metal oxide materials using low cost technologies for gas sensor application has resulted in prototype devices being fabricated and tested for toxic gas detection. Centre for Applied Research in Electronics has also developed an innovative process for realizing on-chip inductor with improved "Q" value for RF ICs. The process involved trench formation in Si substrate.

- Centre for Atmospheric Sciences has developed a numerical model for coastal inundation due to storm surges.

- At the Centre for Biomedical Engineering, new areas of research have been initiated in last one year. These include: Lab-on-a-chip medical diagnostic device; soft biomaterials; Orthodontic device research; Medical imaging and bio-imaging technology and Cancer diagnostics research initiative. The Centre has strengthened cutting-edge research in areas such as tissue engineering, drug delivery, Point of care technology (Lab-on-a-chip, Biosensors), Medical Imaging, Prototyping and Biomaterials (cellular biomarkers).

- Centre for Energy Studies has developed large volume ECR plasma production facility. Along with Institute of Plasma Research, a project worth about Rs. 10 crores for the development of negative ion source for the National Fusion Program for reactor- sized fusion plasmas will be undertaken in near future.

- Instrument Design and Development Centre has developed "Automation Prototype for Kshar Sutra" under a project from AYUSH, CCRAS, Min of Health & Welfare. The Ministry in a review in December 2014 has appreciated development of the Prototype which was successfully demonstrated.

- ASSISTECH lab housed in Amar nath and Shashi Khosla School of Information Technology working on developing affordable technology solutions for mobility and education of visually impaired successfully tested their OnBoard system for boarding of public buses by visually impaired on 25 BEST buses in Mumbai. Further, they have launched a number of text books and primers with tactile diagrams for the visually impaired in collaboration with NCERT.

For the year 2015-16, the actual recurring expenditure Non-Plan & Plan were to the extent of Rs. 33013.18 lakhs and Rs. 4607.81 lakhs respectively and Plan Non-Recurring expenditure was Rs.12304.77 lakhs. The Institute generated about 22.81% of the actual recurring expenditure through internal revenue generation including fees, sponsored research, consultancies and continuing education programmes.

During the year 2015-16, the Institute received Rs. 24200.00 lakhs as Non Plan Grant, Rs. 10294.00 lakhs as Plan Grant (Normal Non-Recurring Expenditure) and Rs. 5207.17 lakhs as Plan Grant (Normal Recurring Expenditure). The income from internal accrual from the fees, interest and sponsored projects was to the extent of Rs. 8581.42 lakhs. Within the financial resources available to the Institute, a number of construction and development activities have been taken up to augment the Institute infrastructure.

46th Annual Convocation was held on October 31, 2015. Dr. Raghuram G. Rajan, the Governor of the Reserve Bank of India was the Chief Guest.

The Institute has made consistent efforts in upgrading its infrastructure to cater to the needs of its expansion plans and for better amenities. Besides planning and building new hostels and additional academic space, the Institute is also engaged in a massive exercise of renovation of old houses, hostels and sports facilities. Some of these initiatives are given below:

- *Solar System of 1MWP:* Solar system of 1MWP capacity was installed and commissioned in the academic area. The solar system has generated more than 12 lacs KWh power till date.

- *LED lighting:* Institute has replaced most of the fluorescent light fittings with energy saving LED lights across the campus.

- *Lecture Hall-cum-Lab Complex:* Lecture Hall cum Lab Complex construction work is completed and classes are being conducted in Lecture Hall Complex. The complex comprises of lecture halls of 2 No. x 500 seater, 3No. X 300 seater and 12 No. x 150 seater capacity and 9 class rooms of 60 seater capacity each. The Lab block of the L.H. Complex shall cater for facilities for Physics lab, Language lab, Graphic lab, Chemistry lab, Applied Mech. Lab, Bio Science lab, Electrical Engineering and Computer lab. The labs of various departments are being shifted and are expected to function from the next semester.

- *Engineering Block 99B and 99C:* The conceptual design for the proposed Engineering Block 99B and 99C was placed before the B&WC and the same was accepted and approved. The two blocks shall be constructed on both sides of L.H. cum Lab Complex. The two blocks shall provide additional area for Labs, Workshops, Faculty rooms etc. The available floor area for Engineering Block 99B shall be 32,000 Sq.mt. and for Engineering Block 99C shall be 26,000 Sq. mt.

- *Development of Rajiv Gandhi Educational Centre Campus at Kundli, Sonipat:* IIT Delhi was allotted 50 Acres of land in Rajiv Gandhi Educational City Kundli Sonipat. Compound wall construction was completed. The concept design and Expenditure Sanction for construction of Innovation Centre for Education has been approved. The Innovation Centre for Education will be having an approximate built up area of 33,500 Sq. mt. in ground & 4 floors and will be used for training of Faculty. The construction work has been assigned to M/s NBCC Ltd. as deposit work. Work is in progress at site and basement and ground floor structural work has been completed as on date.

- *Golden Jubilee G.H. Keshwani Research Centre:* The IITD alumnus Sh. G.H. Keshwani has agreed to donate funds for construction of Golden Jubilee G.H. Keshwani Research Centre at IIT Delhi. Approx. 11,000 Sq.mt. of area shall be constructed for research facilities at ground + 6 floors. The Architect has prepared the submission drawings. Construction will start soon.

- *Clean room for Nano scale Research Facilities (NRF):* The renovation work for creating clean room on the ground and first floors in block VI for Nano scale research facilities (NRF) is completed and is being used by the faculty across the Institute.

- *Science and Innovation Park:* The Institute is planning to set up a Science and Innovation Park to cater to the needs of R&D activities. The concept design and Expenditure Sanction for construction of Science and Innovation Park has been approved. The proposed Science and Innovation Park will be a 2 Basement + Ground + 6 Floors buildings with all state of the art facility for Research and Development Activity in IIT.

IIT Delhi is at the forefront of having active innovation and entrepreneurship programs on the campus. The two in-campus incubators – Technology Business Incubation Unit (TBIU) and Biotechnology Business Incubation Facility (BBIF) which are being operated by Foundation for Innovation and Technology Transfer (FITT) have over a dozen start-up companies resident. Recent graduates like Wrig Nano and Ekam Eco have attracted investment and good market attention. The incubation activities on the campus are leveraging external partnerships of FITT with BIRAC, Pfizer, Ericsson etc. These partnerships are enabling both fund and mentorship support to the start-ups. IIT Delhi has also initiated the deferred placement option for its students to enable them to pursue their entrepreneurial ideas.

Training and Placement is an important activity of the Institute. The T&P Unit is mainly responsible for arranging practical training of the undergraduate students to meet their degree requirement and to provide world class job opportunities to undergraduate and postgraduate students after graduation for suitable jobs in the industry and various private and public sector organizations.

IIT Delhi lays great emphasis on interaction between the alumni and the alma mater and supports the activities of the IIT Delhi Alumni Association. We are proud of our alumni and their achievements. The success of the alumni is one of the most important yardsticks by which we measure our achievements.

The Institute recognizes the outstanding contributions made by the alumni in various areas by conferring the Distinguished Alumni Award each year. This award is the highest honour conferred by the Institute on its alumni to recognize their achievements and outstanding contributions to academics, business, profession and/or public service. In the last Convocation, Distinguished Alumni Awards were conferred on Prof. Ashish Nanda, Prof. Ashutosh Chilkoti, Mr. Jayant Sinha and Dr. Ramesh Hariharan.

The Silver Jubilee Reunion Batch of 1991 was held on 27th & 28th December 2015. Over a hundred alumni from the batch of 1991 attended the event to make it truly memorable. 'Alumni Day' was celebrated on 29th December 2015. The theme was "ENVISIONING THE FUTURE TOGETHER". It was the third Alumni Day Celebration, inviting participation of Alumni of all batches from 1961 to 2015, representing over fifty years of glorious history. Approximately 500 alumni attended the event.

Many delegations from the Industry, Academia and the Government from several countries visited the Institute to explore the possibilities of mutual interaction.

We would like to acknowledge the support received in abundant measure from the Ministry of Human Resource Development, the various sponsoring agencies, the collaborating industries, institutions and alumni.

I personally acknowledge the support and encouragement, I have received from the Chairman and Members of the Board of Governors, and from all my colleagues, and extend my appreciation to the students for their exemplary behavior and their contributions towards enriching the campus life.

Wishing IIT Delhi to reach new heights !

Jai Hind !

Director
Indian Institute of Technology Delhi
Email: director@admin.iitd.ac.in

Our Mission

" • *To generate new knowledge by engaging in cutting-edge research and to promote academic growth by offering state-of-the-art undergraduate, postgraduate and doctoral programmes.*

• *To identify, based on an informed perception of Indian, regional and global needs, areas of specialization upon which the institute can concentrate.*

• *To undertake collaborative projects which offer opportunities for long-term interaction with academia and industry.*

• *To develop human potential to its fullest extent so that intellectually capable and imaginatively gifted leaders can emerge in a range of professions.* **"**

About us

Dreaming big.....
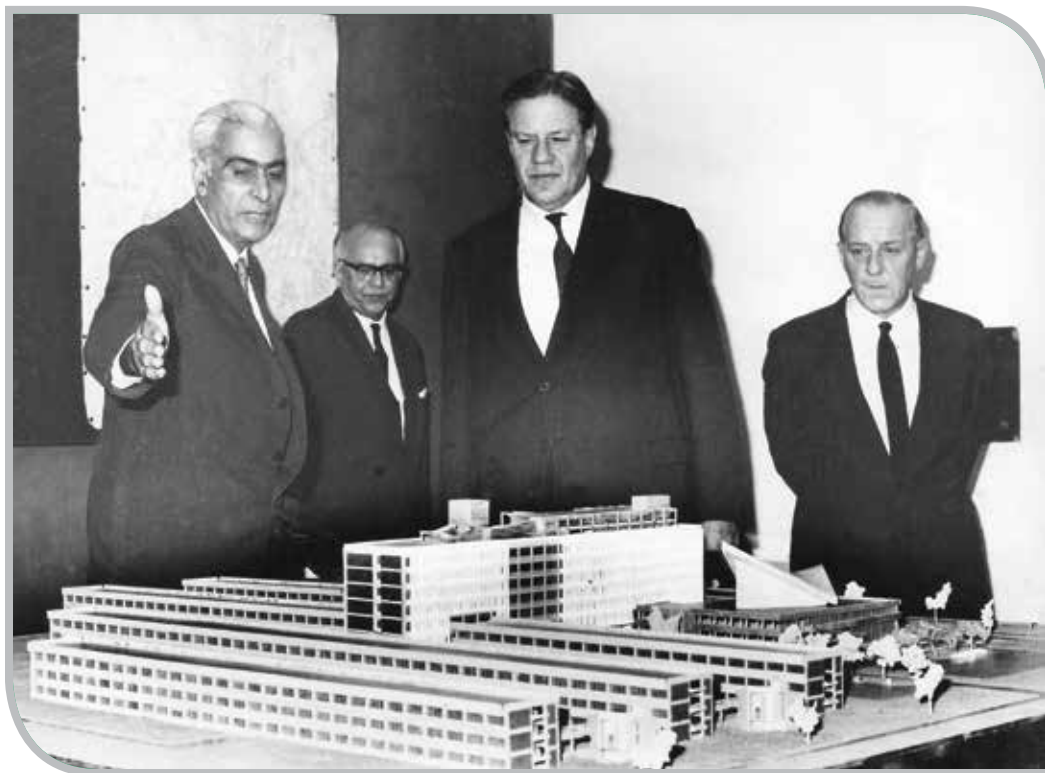
In the formative stages : *Prof. R.N. Dogra, the founding director, IIT Delhi detailing the model of the Institute's building*

HISTORY

The concept of the IITs was first introduced in a report in the year 1945 by Shri. N. M. Sircar, then member of Education on Vicerory's Executive Council. Following his recommendations, the first Indian Institute of Technology was established in the year 1950 in Kharagpur. In his report, Shri Sircar had suggested that such Institutes should also be started in different parts of the country. The Government having accepted these recommendations of the Sircar Committee decided to establish more Institutes of Technology with the assistance of friendly countries who were prepared to help. The first offer of help came from USSR who agreed to collaborate in the establishment of an Institute through UNESCO at Bombay. This was followed by the Institutes of Technology at Madras, Kanpur and Delhi with collaborations with West Germany, USA and UK respectively. Indian Institute of Technology, Guwahati was established in 1995 and the University of Roorkee was converted into an IIT in 2001.

The Institute was later declared an Institute of National Importance under the "Institutes of Technology (Amendment) Act, 1963", re-named as "Indian Institute of Technology Delhi", and accorded the status of a deemed university.

Presently Indian Institute of Technology Delhi is one of the nineteen Institutes of excellence for higher education, research and development in science, engineering and technology and in management in India; the others are at Bhubaneswar, Bombay, Gandhinagar, Guwahati, Hyderabad, Indore, Jodhpur, Kanpur, Kharagpur, Madras, Mandi, Patna, Roorkee, Ropar, BHU (varanasi), Palghat, Tirupati, Dhanbad.

STATUS

Indian Institute of Technology Delhi is an autonomous statutory organisation of the Government of India functioning within the "Institutes of Technology Act, 1961" as amended by the "Institutes of Technology (Amendment) Act, 1963". It is accorded the status of a deemed university with powers to frame its own academic policy, to conduct its own examinations, and to award its own degrees. The fifteen Institutes of Technology are coordinated by an apex body known as IIT Council with the Minister for Human Resource Development of the Government of India as its Chairman.

OBJECTIVES

The objectives of the Institute include :

- Offering instruction in applied sciences, engineering and technology, and management at a level comparable to the very best anywhere in the world;

- Providing leadership in curriculum planning, laboratory development and examination system;

- Developing programmes for faculty development both for its own staff and for teachers of other engineering institutions;

- Developing close collaboration with industry through exchange of personnel and undertaking consultancy projects;

- Developing strong collaboration links with other academic and research institutions in the country and abroad;

- Developing a continuing education programme for employed engineers and making it available both on campus and by distance learning techniques at off campus locations;

- Preparing manpower for the unorganised sector and for self-employment.

CAMPUS

The Institute campus extends over an area of 320 acres. Tastefully laid out with the picturesque landscape and with numerous buildings of various types and, with clean and wide roads, the campus presents a spectacle of harmony in architecture and natural beauty. The campus area has been divided into four functional zones:

- Residential zone for students;

- Residential zone for the faculty and other supporting staff;

- Academic zone for academic buildings and workshops; and

- Cultural-cum-social and recreational zone for students.

IIT Delhi Campus Map

The site being longitudinal in shape, the academic and social-cum- cultural zones have been located mid-way between the two residential zones in order to reduce walking distance. The campus provides several essential amenities for community living like hospital, shopping centre, banks, post office, community centre, staff club, students activities centre, stadium and playing fields etc.

BOARD OF GOVERNORS AND ITS COMMITTEES

IIT Delhi is an autonomous organisation of the Government of India. Responsibility for the general superintendence, direction and control of the affairs of the Institute is vested in the Board of Governors. The Board functions through its standing committees — the Finance Committee, the Buildings & Works Committee and other committees which may be constituted to consider specific issues. The compositions of the Board of Governors during the period from April 1, 2015 to March 31, 2016 is as follows:

BOARD OF GOVERNORS

Vijay P. Bhatkar
Chairman
(19-05-2012 to 17-01-2016)

Kumar Mangalam Birla
Chairman
(18-01-2016 to present)

R.K. Shevgaonkar/P.K. Jain/K. Gupta/K. Thyagarajan	Ashok Misra/Shashi Wadhwa (Ms.)	Sanjeev Sanghi
Punya S. Srivastava (Ms.)	S.K. Sopory	Ashok Gupta/M. Balakrishnan
Akshai Aggarwal	Vijay Thadani	Rakesh Kumar/Sandeep Chatterjee, Secretary

ADMINISTRATION

The Director is the principal academic and executive officer of the Institute and is responsible for the proper administration of the Institute and for the imparting of instruction and maintenance of discipline therein. He is assisted in his day to day work by Deputy Director(s), Registrar, Deans and senior faculty of the Institute. The senior members of the Administration during the period from April 1, 2015 to March 31, 2016 are as follows:

DIRECTOR

R.K. Shevgaonkar	**P.K. Jain**	**K. Gupta**	**K. Thyagarajan**
Director	*Interim Director*	*Officiating Director*	*Officiating Director*
(28-09-2011 to 11-06-2015 AN*)	*(11-06-2015 AN* to 19-06-2015 FN*)*	*(19-06-2015 FN* to 29-01-2016 AN*)*	*(29-01-2016 AN* to 13-04-2016 AN*)*

DEPUTY DIRECTOR (S)

S.N. Singh	**Sushil**	**S.K. Koul**
D. D. (Operations)	*D. D. (Operations)*	*D. D.*
(01-07-2012 to 30-06-2015)	*(01-07-2015 to 30-06-2016)*	*(Strategy & Planning)*

DEANS

Kushal Sen	**K.S. Rao**	**S.K. Gupta**	**Suneet Tuli**	**Anurag Sharma**	**Mukesh Khare**	**Shashi Mathur**
Dean, Faculty	*Dean, Infrastructure*	*Dean, Student Affairs*	*Dean, Research & Development*	*Dean, Academics*	*Dean, AA & IP (01-01-2014 to 31-12-2015)*	*Dean, AA & IP (01-01-2016 to 30-06-2016)*

REGISTRAR

Rakesh Kumar	**Sandeep Chatterjee**
Registrar (26-07-2010 FN* to 24-09-2015 AN*)	*Registrar (24-09-2015 FN* to Present)*

*FN = forenoon; AN=afternoon

BOARD OF EDUCATIONAL AND RESEARCH PLANNING (BERP)

Board of Educational and Research Planning is the chief planning and policy making body of the institute for its teaching and research activities. Head of the Planning unit is the Member - Secretary of BERP. The planning unit prepared ground work for all the matters to be considered by BERP. The recommendations of BERP are forwarded to the Senate for approval. BERP is also responsible for the short and long term educational and research planning of the institute. The composition of the Board of Educational and Research Planning as on March 31, 2016 is as follows:

BOARD OF EDUCATIONAL AND RESEARCH PLANNING

K. Thyagarajan, Chairman	Suneet Tuli, Dean (R&D)	A.K. Singh, Nominee of Senate
S.K. Koul, Dy. Director (S&P)	S.K. Gupta, Dean (Student Affairs)	Satyawati Sharma, Nominee of Senate
Sushil, Dy. Director (Operations)	Shashi Mathur, Dean (AA&IP)	M.P. Gupta, Prof.-in-charge (Plng.)
Anurag Sharma, Dean (Academics)	K.S. Rao, Dean (Infrastructure)	
Kushal Sen, Dean (Faculty)	Suhail Ahmad, Nominee of Senate	

The major academic units of the Institute are the departments, centres and schools. Interdisciplinary research is organized in programmes. The various academic units are listed below. The activities of departments include teaching at all levels and research. The centres focus on interdisciplinary research and some teaching, mostly at the postgraduate level.

Departments	Interdisciplinary Centres	Schools
1. Applied Mechanics	1. Applied Research in Electronics	1. Bharti School of Telecommunication Technology and Management
2. Biochemical Engineering & Biotechnology	2. Atmospheric Sciences	
3. Chemical Engineering	3. Biomedical Engineering	2. Amar Nath and Shashi Khosla School of Information Technology
4. Chemistry	4. Energy Studies	
5. Civil Engineering	5. Industrial Tribology Machine Dynamics & Maintenance	3. Kusuma School of Biological Sciences
6. Computer Science & Engineering	6. Instrument Design & Development Centre	
7. Electrical Engineering	7. Polymer Science & Engineering	
8. Humanities & Social Sciences	8. Rural Development & Technology	
9. Management Studies	9. National Resource Centre for Value Education in Engineering	
10. Mathematics		
11. Mechanical Engineering		
12. Physics		
13. Textile Technology		

IIT Delhi has 13 departments. Each department has its own administration structure with the Head of the Department (HoD) at the top of it. The HoD heads the department for a period of three years after which a new head is appointed. Each department offers a program (at the undergraduate or post-graduate level), some departments such as Mechanical Engineering Department, offer two or more undergraduate level programs and some departments collaborate with each other to offer a joint program. An example of the latter is the M.Tech in Optical Communications program which is offered by the Department of Physics and Department of Electrical Engineering. The DMS (Department of Management Studies), IIT Delhi came into existence in 1993 by an amendment to IIT(D) statutes. The department offers a two year full time MBA programme with focus on Management Systems, a two year full time MBA with focus on Telecommunication Systems Management and a three year part time MBA programme with focus on Technology Management.

An interdisciplinary center differs from a department in the fact that it deals with an overlap of two or more disciplines of engineering or science. Similar to the departments the centers also offer programs though they offer these courses only at the post-graduation level.

Current Degree Programmes

(April 1, 2015 - March 31, 2016)

The Institute offers undergraduate and postgraduate programmes in a number of areas leading to the degrees of B.Tech. / M.Sc. / M.Tech. / M.S.(R) / DIIT / M.Des. / MBA and Ph.D. in Science, Engineering & Technology and Management. The primary objective of these teaching programmes is to offer instruction in applied sciences, engineering and management at a level comparable to the very best anywhere in the world. This is achieved through an undergraduate curriculum which places a strong emphasis on the understanding of fundamental principles rather than specialised knowledge, a postgraduate programme, distinguished by its interdisciplinary approach and emphasis on research.

Pedagogy

Teaching at the Institute incorporates a cohesive, contextual and nurturing environment for learning. The emphasis is on self-motivated learning by using information, experience and practice. The teaching methodology aims at using the inputs from core functional areas to interdisciplinary issues and problem solving. Students undertake classroom and workshop assignments, conduct field observations, make presentations and participate in group discussions and seminars and are encouraged to develop industry linkages.

Evaluation

The academic year consists of two semesters and a summer term. The education system is organised around a credit system which ensures continuous evaluation of student's performance and provides flexibility to choose courses of interest and to progress at an optimum pace suited to student's ability or convenience. Each course is assigned certain number of credits depending upon the class contact hours. A minimum number of credits and CGPA are to be completed satisfactorily in order to qualify for the award of a degree.

The medium of instruction is English.

Curriculum Development

The Senate of the Institute is constantly engaged in reviewing and approving new courses to improve the curriculum. This year several new minor area programs have been designed with a view to offer a second area of specialization. A major Curriculum Review is now underway and likely to come up for discussion in the Senate very soon.

Under a new Academic Welfare Scheme introduced by the Institute this year for weak students, a special student advisor is identified in each department for students who need special help, at the beginning of each semester. Special extra classes are being conducted for such students and the student advisor closely monitors the attendance and performance of these students and also provides support to help improve their performance.

The undergraduate and postgraduate programmes are managed by their respective Boards, as follows:

BOARD OF ACADEMIC PROGRAMMES (BAP)

Prof. Anurag Sharma	Prof. N. Chatterjee	Mr. S. K. Atreya	Mr. Anshul Goel
Prof. K. K. Pant	Dr. Mani Mehra	Dr. Manav Bhatnagar	Mr. Sanket Jain
Dr. Vivek V. Buwa	Prof. T. R. Sreekrishnan	Dr. Parag Singla	Ms. Yoshita Goyal
Prof. Preeti Ranjan Panda	Dr. D. Sundar	Prof. Anurag Singh Rathore	Dr. K. A. Subramanyan
Dr. Vinay Ribeiro	Prof. B. P. Patel	Prof. Sanjeev Jain	Prof. N. Tandon
Prof. A. K. Nema	Dr. V. Haridas	Prof. N. D. Kurur	Dr. J. Jacob
Dr. Kalaga R. Rao	Dr. Milind Wakankar	Prof. Shashi Mathur	Prof. N. Chatterjee
Dr. Nilanjan Sen Roy	Prof. S. S. Yadav	Prof. T. C. Kandpal	Prof. Anshul Kumar
Prof. V. K. Jain	Dr. Vimlesh Pant	Prof. M. R. Ravi	Prof. Arun Kumar
Prof. S. Kohli	Prof. Harpal Singh	Prof. D. Ravi Kumar	Prof. R. K. Varshney
Dr. Sujeet K. Sinha	Prof. T. S. Bhatti	Dr. G. V. Prakash	Prof. (Ms.) Geetam Tewari
Prof. Neeraj Khare	Dr. Monika Agarwal	Mr. Adyant Agrawal	Mr. Alan V. Sinate
Dr. Santanu Ghosh	Prof. Satyawati Sharma	Mr. Vaibhav Anand	Dr. Vivek Raman
Prof. Apurba Das	Prof. A. K. Ghosh	Mr. Vishwaraj Esham	
Dr. Samrat Mukhopadhyay	Dr. Deepk Kumar	Mr. Ayan Debnath	

Current Degree Programmes

- -

Below is the list of courses offered currently.

UNDERGRADUATE STUDIES*

Bachelor of Technology [B.Tech.] Duration : 4 years	Dual Degree Programme [B.Tech. and M.Tech.] Duration : 5 years
Biochemical Engineering & Biotechnology	B.Tech. and M.Tech. in Biochemical Engineering & Biotechnology
Chemical Engineering	
Civil Engineering	
Computer Science & Engineering	B.Tech. and M.Tech. in Chemical Engineering
Electrical Engineering	
Electrical Engineering (Power and Automation)	
Engineering Physics	B.Tech. and M.Tech. in Computer Science & Engineering
Mechanical Engineering	
Mathematics & Computing	
Production and Industrial Engineering	B.Tech. and M.Tech. in Mathematics & Computing
Textile Technology	

* Admission to the first year of the four year B.Tech., 5-year dual degree programmes is made through a Joint Entrance Examination (JEE) which is common for all the Indian Institutes of Technology.

POSTGRADUATE STUDIES & RESEARCH (MASTER)**

M.Sc.	M.Tech.	M.S. (Research)	M.Des.
2 years	2 years	2 years	2 years
1. Chemistry 2. Mathematics 3. Physics	1. Engineering Mechanics 2. Design Engineering 3. Chemical Engineering 4. Molecular Engineering: Chemical Synthesis and Analysis 5. Construction Technology and Management 6. Geotechnical & Geoenvironment Engineering 7. Structural Engineering 8. Water Resources Engineering 9. Construction Engineering and Management 10. Rock Engineering of Underground Structures 11. Environmental Engineering and Management 12. Transportation Engineering 13. Computer Science & Engineering 14. Control and Automation 15. Communications Engineering 16. Power Electronics, Electrical Machines & Drives 17. Computer Technology 18. Integrated Electronics & Circuits 19. Power Systems 20. Computer Applications 21. Thermal Engineering 22. Production Engineering 23. Industrial Engineering 24. Mechanical Design 25. Tele-Communication Technology and Management 26. VLSI Tools and Design 27. Radio Frequency Design & Technology 28. Solid State Materials 29. Applied Optics 30. Atmospheric Oceanic Science Technology 31. Fibre Science & Technology 32. Textile Engineering 33. Energy Studies 34. Energy Studies (Evening Programme) 35. Industrial Tribology & Maintenance Engineering 36. Polymer Science & Technology 37. Opto-Electronics & Optical Communication 38. Instrument Technology	1. Applied Mechanics 2. Bio-chemical Engg. & Bio-technology 3. Chemical Engineering 4. Computer Science & Engineering 5. Electrical Engineering 6. Civil Engineering 7. Mechanical Engineering 8. Telecommunication Technology and Management 9. Biological Sciences 10. Information Technology	1. Industrial Design

contd. ....

POSTGRADUATE STUDIES & RESEARCH (MASTER)**

M.B.A.	M.B.A.	D.I.I.T.
2 years Full Time	3 years Part Time	1½ years
1. Management Systems	1. Technology Management	1. Naval Construction
2. Tele-Communication Systems Management		

**The admission to full- time M. Tech. programmes is made on the basis of performance in the Graduate Aptitude Test in Engineering (GATE) — an All India entrance test–and interview at the Institute. A limited number of students are also admitted on part-time basis from amongst working professionals alongwith the regular full-time students, subject to their satisfying certain academic and experience requirements. The Institute also offers a special M.Tech. programme (evening) in the field of Energy and Environmental Management on a part-time basis catering to the needs of working professionals from R&D organisations, public sector undertakings, government departments and private industries.

DOCTORATE PROGRAMMES

The Institute offers research opportunities for doctoral research in all its Departments / Centres / Schools. Creative and productive enquiry is the basic concept underlying the research work. In order to overcome any deficiency in the breadth of fundamental training or proper foundation for advanced work, special preliminary or pre-doctoral courses are suggested by each department/centre. The award of Ph.D. is in recognition of high achievements, independent research and application of scientific knowledge to the solution of technical and scientific problems. The Institute lays special emphasis on India-centric research activities.

The following Departments / Centres / School of the Institute offer the Doctorate programme:

Departments / Centres / Schools
Applied Mechanics
Biochemical Engineering & Biotechnology
Chemical Engineering
Chemistry
Civil Engineering
Computer Science & Engineering
Electrical Engineering
Humanities & Social Sciences
Management Studies
Mathematics
Mechnical Engineering
Physics
Textile Technology
Applied Research in Electronics
Atmospheric Sciences
Biomedical Engineering
Energy Studies
Industrial Tribology, Machine Dynamics & Maintenance Engineering
Instrument Design & Development
Polymer Science & Engineering
Rural Development & Technology
National Resource Centre for Value Education in Engineering
Amar Nath and Shashi Khosla School of Information Technology
Bharti School of Telecommunication Technology and Management
Kusuma School of Biological Sciences

5. Performance Highlights

Performance Statistics

(April 1, 2015 - March 31, 2016)

According to Centre for World University Ranking (CWUR), IIT Delhi has been ranked in the first position amongst all the engineering colleges in India.

UG Students 44.59%
PG Students 55.49%

Female Students 20.82%
Male Students 80.18%

8536 Total students on roll

3806 UG students on roll

2444 Research Scholars on roll

2286 PG students on roll

1778 Female students

82 Foreign students from 13 countries

221 Scholars received the Ph.D. degree

172 Awards/scholarships/medals given at the Undergraduate and Postgraduate level. In addition, the Institute has a "Loan Scholarship Scheme" which makes it more affordable for the students who take loan from banks.

492 Research Scholar Admissions

23 New faculty members joined the institute this year.

1178 PG Admissions

519 Faculty and Academic Staff

850 UG Admissions

700 Non-academic Staff

2520 Total Admissions

103 Faculty fellows under CEP

Performance Statistics

88
Operational MoUs/Agreements with Foreign Institutions/Organisation

63
MoUs/Agreements Indian Institutions/Organizations

1661
Research articles published by the faculty members and researchers of the institute in international journals

1328
Articles indexed in Scopus, an international indexing service in Science & Technology and Social Sciences

32
Books Published by Faculty

3436
Titles of E-books added under the Text Book and Book Bank

97
New Courses developed by Faculty

42
QIP/CEP courses

75
Major New Equipments installed

135
New Sponsored Research Projects with a total funding of Rs.72.10 crores.

360
Consultancy Jobs with a total value of Rs.28.69 crores.

33
Miscellaneous Projects worth Rs.26.38 crores.

24
Collaborative Projects/Consultancies with international funding

391
Companies visited for Placement

845
Total Job Offers

789
Total Placements

250
Seminars/Conferences/Workshops/Lectures

540
UG Placements

249
PG Placements

Admissions

Academic programmes at IITD cover a wide range of science and engineering disciplines. IITD's Bachelor's programs, which are the most sought after even on global scales, and for which the entry is through the Joint Entrance Examination, intake has steadily increased for the last few years and during the year 2015-2016, 3,806 UG students were on roll. These figures include 421 female students. The enrolment of postgraduate students during the year 2015-2016 was 4,730. These figures include 1,357 female students. There were 82 foreign students from 13 countries pursuing undergraduate and postgraduate education at the Institute during the year 2015-16. In order to make IIT Delhi more international in character and to make better use of international intellectual resources, administration is constantly working towards increasing the strength of international students and faculty in the campus.

The Ministry of Human Resource Development, Government of India, has emphasized the need to increase the admission of foreign nationals under the self-financing scheme. The Institute has taken necessary steps in this regard and we hope to increase the strength of the foreign nationals in the coming years.

On the recommendation of the Board of Postgraduate Studies & Research, the Senate has approved starting of a Ph.D. program under the National Resource Centre for Value Education in Engineering (NRCVEE) in the areas such as: Philosophy of Values, Professional Ethics, and Interaction of Science, Technology and Human Values.

ADMISSION PROCEDURE

Undergraduate

Admission to all Undergraduate Programmes listed before are made through the Joint Entrance Examination (JEE). The eligibility for appearing for JEE is as follows:

• The minimum academic qualification is the final examination of 10+2 system or its equivalent. The candidates belonging to the general category and OBC must secure a minimum of 60% marks in aggregate in their Qualifying Examination. Candidates belonging to SC, ST and PD categories must secure a minimum of 55% marks in aggregate in the Qualifying Examination. If any Board awards only letter grades without providing an equivalent percentage of marks on the grade sheet, the candidate should obtain a certificate from the Board specifying equivalent marks, and submit it at the time of counseling.

Those appearing in 10+2 final or its equivalent examination may also appear in JEE for consideration of Provisional admission. All provisional admissions stand cancelled if proof of having passed the qualifying examination (10+2 or equivalent) is not submitted before September 30th of the year in which admission is sought.

Postgraduate

The admission to full-time M.Tech. programmes is made on the basis of performance in the Graduate Aptitude Test in Engineering (GATE) — an All India entrance test and interview at the Institute. A limited number of students are also admitted on part-time basis from amongst working professionals alongwith the regular full-time students, subject to their satisfying certain academic and experience requirements. The Institute also offers a special M.Tech. programme (evening) in the field of Energy and Environmental Management on a part-time basis catering to the needs of working professionals from R & D organisations, public sector undertakings, government departments and private industries.

Admission to the 2-year M.Des. Programme in Industrial Design is made on the basis of CEED (70% weightage) and test/interview (30% weightage).

All applications are processed by the concerned Department/Centre/School/Programme and shortlisted applicants are called for a written test and/or interview. The date for test/interview is communicated by the Department/Centre/Programme. Selected candidates are given offer letters by the Departments/Centres/Schools after approval of the selection by the Dean, PGS & R. They are required to pay the first installment of fees by a given date, failing which their admission offer stands automatically cancelled. Seats so released are then offered to wait listed candidates.

Graph on the right gives the programme wise details of total number of admissions in 2015-2016.
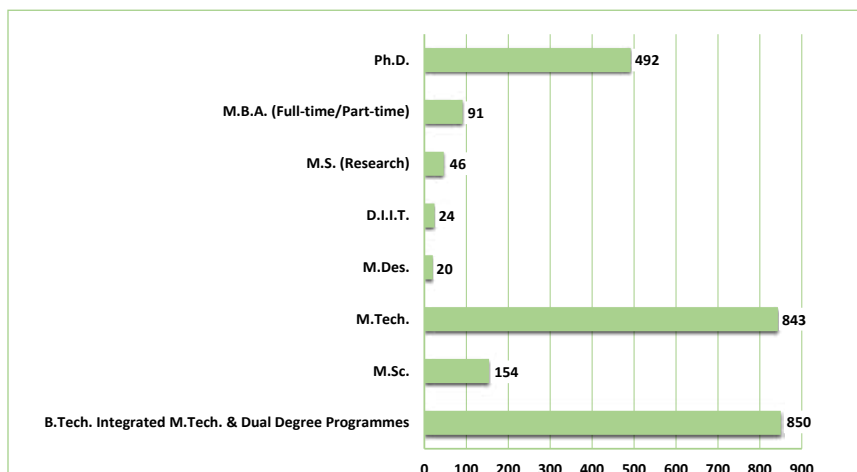
Admissions

COURSES AND ADMISSIONS

Following tables (I, II, III) give the details regarding the admissions in the given period in different courses offered at IIT Delhi. Table IV and V shows the total number of students enrolled in different departments and centres. Category wise distribution of students in different programmes is given in Table VI.

Table I : Break-up of Admissions through Joint Entrance Examination during 2015-2016 according to the Various Disciplines

Discipline	Sanctioned Strength	Actual Admissions
B.Tech. in Biochemical Engineering and Biotechnology (BB1)	45	45
B.Tech. in Chemical Engineering (CH7)	75	75
B.Tech. in Civil Engineering (CE1)	105	104
B.Tech. in Computer Science & Engineering (CS1)	68	68
B.Tech. in Electrical Engineering (EE1)	75	75
B. Tech. in Electrical Engineering (Power and Automation) (EE3)	45	45
B. Tech. in Mathematics & Computer Applications (MT1)	36	37*
B.Tech. in Mechanical Engineering (ME1)	68	68
B.Tech. in Production Engineering (ME2)	67	68*
B.Tech. in Engineering Physics (PH1)	60	61*
B.Tech. in Textile Technology (TT1)	105	102
M.Tech. in Mathematics & Computer Applications (5-year Integrated) (MT6)	20	20
B.Tech. and M.Tech. in Computer Science & Engineering (5-year Dual Degree) (CS5)	22	22
B.Tech. and M.Tech. in Chemical Engg. (5-year Dual Degree) (CH7)	45	45
B.Tech. and M.Tech. in Biochemical Engineering and Biotechnology (5-year dual Degree) (BB5)	15	15

* **(Excess admissions in MT1 (+1), ME2 (+1) and PH1 (+1) are due to the admission of 03 students from preparatory courses.)**

Table II : Students Admitted to First Year of the M.Tech./M.Des./M.S.(R)/D.I.I.T./M.B.A./M.Sc. Programmes as on July 31, 2015 (the last date for late registration in Ist Semester 2015-2016)

Programme	Students with Institute Assistantship	Others (including part-timers)	Total
Master of Technology (M.Tech.)			
Department of Applied Mechanic			
Design Engineering	24	10	34
Engineering Mechanics	28	8	36
Department of Chemical Engineering			
Chemical Engineering	28	8	36
Department of Chemistry			
Molecular Engineering: Chemical Synthesis and Analysis	14	1	15
Department of Civil Engineering			
Geotechnical & Geoenvironmental Engineering	11	9	20
Structural Engineering	18	28	46
Water Resources Engineering	18	8	26
Rock Engineering & Underground Structures	17	4	21
Construction Engineering and Management	15	8	23
Construction Technology and Management	0	30	30
Environmental Engineering and Management	18	8	26
Transportation Engineering	9	10	19

Admissions

Table II, contd.

Department of Computer Science & Engineering			
Computer Science & Engineering	23	16	39
Department of Electrical Engineering			
Integrated Electronics & Circuits	19	5	24
Communications Engineering	16	7	23
Control & Automation	8	6	14
Power Electronics, Electrical Machines & Drives	16	5	21
Computer Technology	22	7	29
Power System	7	9	16
Department of Mechanical Engineering			
Thermal Engineering	20	11	31
Mechanical Design	20	3	23
Production Engineering	22	1	23
Industrial Engineering	10	3	13
Department of Physics			
Applied Optics	4	5	9
Solid State Materials	17	2	19
Department of Textile Technology			
Textile Engineering	13	8	21
Fibre Science & Technology	15	2	17
Centre for Applied Research in Electronics			
Radio Frequency Design and Technology	16	17	33
Centre for Atmospheric Sciences			
Atmospheric-Oceanic Science & Technology	11	4	15
Interdisciplinary Programmes			
Energy Studies	23	6	29
Industrial Tribology & Maintenance Engineering	13	3	16
Instrument Technology	16	1	17
Polymer Science & Technology	19	3	22
Opto-Electronics & Optical Communication	20	3	23
VLSI Design Tools & Technology	0	11	11
Bharti School of Telecommunication Tech. & Mgmt.			
Tele-communication Technology and Management	20	3	23
Total	**570**	**273**	**843**
Master of Design (M.Des.)			
Industrial Design	18	2	20
Master of Science (M.Sc.)			
Chemistry	14	37	51
Mathematics	13	38	51
Physics	14	38	52
Master of Science (Research)			
Mechanical Engineering	2	0	2
Civil Engineering	0	1	1
Amar Nath and Shashi Khosla School of Information Tech.	0	3	3
Bharti School of Telecommunication Technology & Mgmt.	2	1	3
Kusuma School of Biological Sciences	2	2	4

Admissions

Table II, contd.

Computer Science & Engineering	2	5	7
Electrical Engineering	2	16	18
Chemical Engineering	0	1	1
Biochemical Engineering & Biotechnology	6	1	7
Master of Business Administration (MBA)			
Technology Management	0	43	43
Management Systems	0	37	37
Telecommunication Systems Management	0	11	11
D.I.I.T.			
Naval Construction	0	24	24
Total	**645**	**533**	**1178**

Table III : Research Scholars Admitted in both the Semesters of the Session 2015-2016

Department/Centre/School	I Semester			II Semester			Total
	Institute Supported Scholars	Scholars Supported from Other Sources	Other Including Part Timers	Institute Supported Scholars	Scholars Supported from Other Sources	Other Including Part Timers	
Applied Mechanics	2	0	4	1	1	4	12
Biochemical Engg. & Biotech.	0	0	4	7	0	5	16
Chemical Engineering	3	2	8	4	0	3	20
Chemistry	4	6	10	1	3	6	30
Civil Engineering	15	2	15	13	0	5	50
Computer Science & Engineering	1	0	9	1	0	6	17
Electrical Engineering	11	2	51	18	0	18	100
Humanities & Social Sciences	13	1	11	8	0	5	38
Management Studies	4	0	6	4	0	9	23
Mathematics	5	3	1	0	1	2	12
Mechanical Engineering	15	3	7	6	0	5	36
Physics	15	5	12	3	3	4	42
Textile Technology	2	0	5	1	1	1	10
Applied Research in Electronics	1	0	6	1	0	3	11
Atmospheric Sciences	3	1	1	2	0	0	7
Biomedical Engineering	0	0	2	0	0	3	5
Energy Studies	3	0	4	4	0	3	14
Polymer Science & Engineering	5	1	1	0	0	1	8
Rural Development & Technology	2	2	2	4	0	2	12
Industrial Tribology, Machine Dynamics & Maintenance Engineering Centre	2	0	1	0	0	0	3
Instrumentation Design & Development Centre	2	0	0	1	0	1	4
School of Biological Sciences	1	3	4	1	0	2	11
Bharti School of Telecommunication Tech. & Mgmt.	0	0	7	0	0	2	9
Transportation Research & Injury Prevention Programmes	1	0	1	0	0	0	2
Total	**110**	**31**	**172**	**80**	**9**	**90**	**492**

Table IV : Total number of M.Tech./M.S.(R)/M.Sc./D.I.I.T./M.B.A. Students on Rolls as on July 31, 2015 (the last date for late registration in Ist Semester, 2015-2016)

Programme	Institute Supported Students	Students Supported from Other Sources	Total
Master of Technology (M.Tech.)			
Department of Applied Mechanics			
Engineering Mechanics	50	10	60
Design Engineering	50	12	62
Department of Chemical Engineering			
Chemical Engineering	54	11	65
Department of Chemistry			
Molecular Engineering : Chemical Synthesis and Analysis	27	1	28
Department of Civil Engineering			
Geotechnical & Geoenvironment Engineering	15	10	25
Rock Engineering Underground Structures	27	10	37
Structural Engineering	27	50	77
Water Resources Engineering	29	16	45
Environmental Engineering and Management	30	14	44
Construction Engineering and Management	29	16	45
Construction Technology and Management	0	55	55
Transportation Engineering	15	23	38
Department of Computer Science & Engineering			
Computer Science & Engineering	54	22	76
Department of Electrical Engineering			
Integrated Electronics & Circuits	29	8	37
Communications Engineering	32	10	42
Control & Automation	20	7	27
Power Electronics, Electrical Machines & Drives	25	7	32
Computer Technology	44	11	55
Power Systems	16	12	28
Department of Mechanical Engineering			
Thermal Engineering	25	13	38
Mechanical Design	33	6	39
Production Engineering	30	3	33
Industrial Engineering	12	6	18
Department of Physics			
Applied Optics	12	7	19
Solid State Materials	30	3	33
Department of Textile Technology			
Textile Engineering	22	9	31
Fibre Science & Technology	24	2	26

Admissions

Table IV, contd.

Centre for Atmospheric Sciences			
Atmospheric-Oceanic Science & Technology	18	5	23
Centre for Applied Research in Electronics			
Radio Frequency Design and Technology	34	31	65
Interdisciplinary Programmes			
Computer Applications	13	4	17
Energy Studies	48	9	57
Instrument Technology	22	2	24
Industrial Tribology & Maintenance Engineering	21	5	26
Polymer Science & Technology	41	3	44
Opto Electronics & Optical Communication	41	5	46
VLSI Design Tools and Technology	0	29	29
Energy and Environmental Management	0	43	43
Industrial Design	0	42	42
Bharti School of Telecommunication Technology & Management			
Tele-Communication Technology and Management	34	3	37
Total	**1033**	**535**	**1568**
Master of Business Administration			
Management Studies	0	224	224
D.I.I.T.			
Naval Construction	0	44	44
Master of Science			
Chemistry	65	38	103
Mathematics	27	85	112
Physics	24	81	105
Master of Science (Research)			
Applied Mechanics	2	2	4
Bio-Chemical Engineering & Bio-Technology	15	2	17
Chemical Engineering	1	3	4
Computer Science & Engineering	4	9	13
Civil Engineering	2	5	7
Electrical Engineering	7	43	50
Mechanical Engineering	11	3	14
Bharti School of Telecommunication Technology & Management	2	4	6
Kusuma School of Biological Sciences	2	2	4
Amar Nath & Shashi Khosla School of Information Technology	0	11	11
Total	**1195**	**1091**	**2286**

Admissions

Table V : Research Scholars on the Institute Rolls as on July 31, 2015 (the last date for late registration in the Ist semester, 2015-2016)

Department/Centre/School	Institute Scholarships	Others Scholarships	Part-Time Students	Total
Applied Mechanics	32	11	42	85
Biochemical Engineering & Biotechnology	27	21	14	62
Chemical Engineering	43	22	93	158
Chemistry	24	85	49	158
Civil Engineering	74	16	179	269
Computer Science & Engineering	22	17	51	90
Electrical Engineering	96	19	196	311
Humanities & Social Sciences	35	10	55	100
Management Studies	30	13	79	122
Mathematics	18	27	28	73
Mechanical Engineering	71	18	106	195
Physics	72	53	68	193
Textile Technology	23	3	26	52
Centre for Applied Research in Electronics	11	4	31	46
Centre for Atmospheric Sciences	24	12	19	55
Centre for Biomedical Engineering	20	8	34	62
Centre for Energy Studies	47	32	53	132
Centre for Polymer Science & Engineering	20	11	8	39
Centre for Rural Development & Technology	23	7	27	57
National Resource Centre for Value Education in Engg.	0	0	6	6
Transportation Research & Injury Prevention Programme	3	1	7	11
Instrument Design & Development Centre	9	3	12	24
Industrial Tribology, Machine Dynamics & Maintenance Engineering Centre	11	2	11	24
Kusuma School of Biological Sciences	18	32	22	72
Bharti School of Telecommunication Technology & Management	14	2	32	48
Total	**767**	**429**	**1248**	**2444**

Admissions

Table VI : Category and Gender wise distribution of enrolled students in UG and PG courses

Program	General		OBC		SC		ST		PH		Total		Grand Total
	M	F	M	F	M	F	M	F	M	F	M	F	
P.G.	1174	352	385	86	179	45	44	21	-	-	1782	504	2286
Ph.D.	1240	717	233	86	108	46	10	4	-	-	1591	853	2444
Total (a)	2414	1069	618	172	287	91	54	25	-	-	3373	1357	4730
B.Tech. (b)	1652	218	933	74	511	73	260	52	29	4	3385	421	3806
Total (a+b)	4066	1287	1551	246	798	164	314	77	29	4	6758	1778	8536

Academic Performance

(April 1, 2015 - March 31, 2016)

All the IITs follow the credits system of performance evaluation, with proportional weighting of courses based on their importance. The total marks (usually out of 100) form the basis of grades, with a grade value (out of 10) assigned to a range of marks. Sometimes, relative grading is done considering the overall performance of the whole class.

1879 candidates awarded of various degrees of the Institute at the 46th Annual Convocation held in November 2015. Details of the same are given in the following graph and Tables I, II and III.
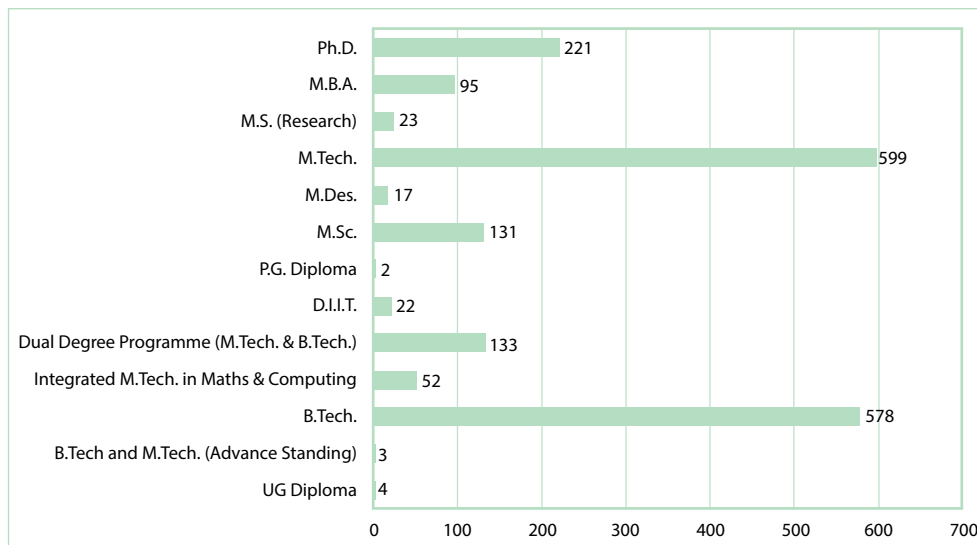

Table I : Number of Undergraduate Students Graduated/Degree Awarded in Convocation 2015

Discipline	No. of Students Passed
5 Year Dual Degree / Integrated	
B.Tech. in Biochemical Engineering & Biotechnology and M.Tech. in Biochemical Engineering & Biotechnology	35
B.Tech. and M. Tech in Chemical Engineering	46
B.Tech. in Computer Science & Engineering and M.Tech. in Computer Science & Engineering	25
B.Tech in Electrical Engineering and M.Tech in Information and communication	27
M.Tech. in Mathematics and Computing	52
B.Tech. Degree	
Civil Engineering	91
Chemical Engineering	70
Computer Science & Engineering	55
Electrical Engineering	63
Electrical Engineering (Power)	30
Machanical Engineering	100
Production and Industrial Engineering	47
Engineering Physics	48
Textile Technology	74
B.Tech and M.Tech. (Advance Standing)	03
Diploma (Undergraduate)	04
Total	**770**
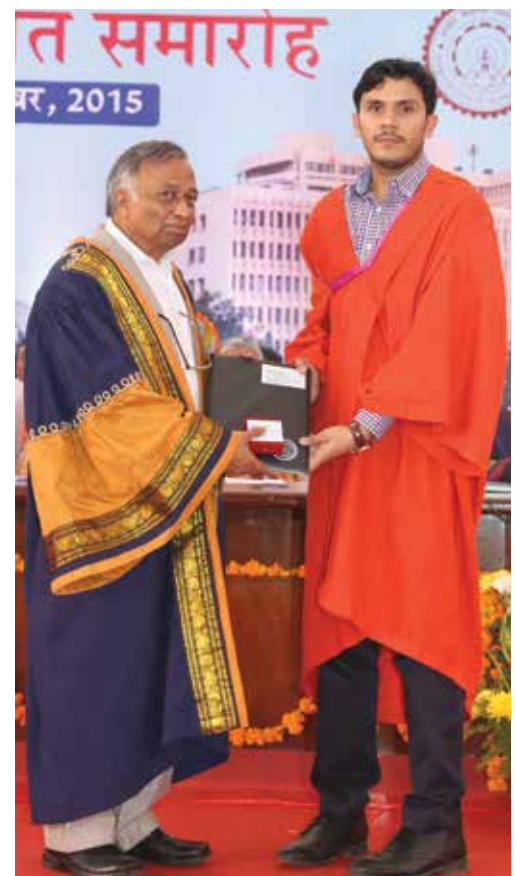
Table II : Number of Students Awarded of Degrees/Diplomas in 2015

Programme		No. of Degrees Awarded
(a)	**Master of Technology**	
	Engineering Mechanics	16
	Design Engineering	20 (+1)*
	Molecular Engineering: Chemical Synthesis & Analysis	15
	Chemical Engineering	22
	Construction Technology & Management	27
	Geotechnical and Geoenvironmental Engineering	11
	Structural Engineering	23
	Water Resources Engineering	13
	Rock Engineering & Underground Structures	12
	Construction Engineering and Management	25
	Environmental Engineering and Management	13
	Transportation Engineering	16
	Computer Science & Engineering	43
	Control and Automation	11
	Communications Engineering	14
	Power Electronics, Electrical Machines & Drives	9
	Computer Technology	14
	Integrated Electronics & Circuits	10
	Power Systems	8
	Computer Applications	12
	Thermal Engineering	10
	Production Engineering	25
	Industrial Engineering	13
	Energy and Environmental Management (Evening)	23
	Atmospheric-Ocean Sciences and Technology	10
	Instrument Technology	10
	Mechanical Design	13
	Applied Optics	7
	Solid State Materials	13
	Fibre Science & Technology	10
	Textile Engineering	14
	Radio Frequency Design and Technology	30
	Energy Studies	17
	Industrial Tribology & Maintenance Engineering	10
	Polymer Science & Technology	19
	Opto-Electronics & Optical Communication	14
	VLSI Design Tools and Technology	10
	Telecommunication Technology and Mangement	17 (+1)*
(b)	**Master of Business Administration**	
	Management Systems (SMF)	51
	Technology Management (SMN)	31
	Telecommunication System Management (SMT)	13
(c)	**D.I.I.T. (2-Year)**	
	Naval Construction	0 (+22)*
(d)	**Master of Science**	132
(e)	**Master of Science Design**	17
(f)	**Master of Science (Research)**	
	Civil Engineering	2
	Chemical Engineering	1
	Biochemical Engineering & Biotechnology	6
	Applied Mechanics	1
	Electrical Engineering	7
	Computer Science and Engineering	2
	Mechanical Engineering	2
	Bharti School of Telecommunication Technology & Management	2
	Total	**866 (+24)***

* (Diplomas Awarded)

Academic Performance

Table III : Number of Ph.D. Degrees Awarded in 2015

Department/Centre/School	No. of Degrees Awarded
Applied Mechanics	7
Biochemical Engineering & Biotechnology	8
Chemical Engineering	12
Chemistry	25
Civil Engineering	9
Computer Science & Engineering	8
Electrical Engineering	14
Humanities & Social Sciences	9
Management Studies	9
Mathematics	6
Mechanical Engineering	23
Physics	21
Textile Technology	10
Centre for Applied Research in Electronics	6
Centre for Biomedical Engineering	4
Centre for Energy Studies	15
Industrial Tribology, Machine Dynamics & Maintenance Engineering Centre	1
Instrument Design & Development Centre	8
Centre for Polymer Science & Engineering	10
Centre for Rural Development & Technology	5
Transportation Res. & Injury Prevention Programme	1
Centre for Atmospheric Sciences	3
Bharti School of Telecommunication Technology and Management (BSZ)	3
Kusuma School of Biological Sciences	4
Total	**221**

Academic Performance

For each semester, the students are graded on a scale of 0 to 10 based on their performance, by taking a weighted average of the grade points from all the courses, with their respective credit points. Each semester evaluation is done independently and then the weighted average over all semesters is used to calculate the cumulative grade point average (known as CGPA or CPI—Cumulative Performance Index). The following table gives the Discipline-wise break-up of CGPA for the two Academic Semesters:

Table IV: Discipline-wise break-up of CGPA for the two Academic Semesters (Undergraduate Courses)
[Academic Session 2014-2015 (2011 Entry Students)]

Discipline	10.00-9.00	8.99-8.00	7.99-7.00	6.99-6.00	5.99-5.00	4.99-4.00	3.99-3.00	2.99-2.00	Less than 2.00	Total
First Semester										
Dual-Degree in Biochemical Engineering & Biotechnology(BB5)*	0	12	8	16	7	1	0	0	0	44
Civil Engineering (CE1)	2	20	35	23	19	9	0	0	0	108
Chemical Engineering (CH1)	5	19	22	12	9	3	0	0	0	70
Dual Degree in Chemical Engg. (CH7)	0	8	14	16	7	3	0	0	0	48
Computer Science & Engineering (CS1)	8	8	19	16	10	3	0	0	0	64
Dual-Degree in Computer Science & Engineering (CS5)	3	11	7	4	5	1	0	0	0	31
Electrical Engineering (EE1)	11	14	25	10	6	1	0	0	0	67
Electrical Engineering (Power) (EE2)	2	9	9	11	2	2	0	0	0	35
Electrical Engineering (EE5)	3	6	7	7	5	0	0	0	0	28
Mechanical Engineering (ME1)	4	35	33	19	12	2	0	0	0	105
Mechanical Engineering (ME2)	2	11	13	11	10	1	0	0	0	48
Mathematics and Computing (MT5)	3	15	7	9	11	1	0	0	4	46
Engineering Physics (PH1)	1	7	15	18	15	1	0	0	0	57
Textile Engineering (TT1)	1	10	31	27	18	4	0	0	0	91
Total	**45**	**185**	**245**	**199**	**136**	**32**	**0**	**0**	**0**	**842**
Second Semester										
Dual-Degree in Biochemical Engineering & Biotechnology (BB5)	0	12	8	16	6	2	0	0	0	44
Civil Engineering (CE1)	2	21	34	22	23	6	0	0	0	108
Chemical Engineering (CH1)	5	17	24	11	10	3	0	0	0	70
Dual-Degree in Chemical Engg. (CH7)	1	7	15	15	8	2	0	0	1	48
Computer Science & Engineering (CS1)	8	10	18	18	7	3	0	0	0	64
Dual-Degree in Computer Science & Engineering (CS5)	3	11	8	4	3	2	0	0	0	31
Electrical Engineering (EE1)	11	14	23	13	5	1	0	0	1	67
Electrical Engineering (EE2)	2	9	10	10	2	2	0	0	0	35
Electrical Engineering (EE5)	3	6	7	7	5	0	0	0	0	28
Mechanical Engineering (ME1)	6	35	31	18	13	2	0	0	0	105
Mechanical Engineering (ME2)	2	11	10	15	9	1	0	0	0	48
Mathematics and Computing (MT5)	3	15	8	9	9	2	0	0	0	46
Engineering Physics (PH1)	1	9	11	19	15	2	0	0	0	57
Textile Engineering (TT1)	1	8	32	29	18	3	0	0	0	91
Total	**48**	**185**	**239**	**206**	**133**	**31**	**0**	**0**	**0**	**842**

Academic Performance

Table V : Academic Performance of 1st year Students of Postgraduate Programmes

Deptartment/Centre/School	Programme	No. of students admitted (2015)	No. of students qualified to continue*
Master of Technology			
Applied Mechanics	Engineering Mechanics	36	22
	Design Engineering	34	20
Chemical Engineering	Chemical Engineering	36	20
Chemistry	Molecular Engineering: Chemical Synthesis and Analysis	15	14
Civil Engineering	Construction Technology and Management	30	29
	Geotechnical & Geoenvironment Engineering	20	13
	Structural Engineering	46	30
	Water Resources Engineering	26	11
	Construction Engineering and Management	23	11
	Rock Engineering of Underground Structures	21	17
	Environmental Engineering and Management	26	21
	Transportation Engineering	19	14
Computer Science & Engineering	Computer Science & Engineering	39	29
Electrical Engineering	Control and Automation	14	10
	Communications Engineering	23	14
	Power Electronics, Electrical Machines & Drives	21	14
	Computer Technology	29	24
	Integrated Electronics & Circuits	24	13
	Power Systems	16	7
Mechanical Engineering	Thermal Engineering	31	19
	Production Engineering	23	17
	Industrial Engineering	13	9
	Mechanical Design	23	15
Physics	Solid State Materials	19	16
	Applied Optics	9	6
Bharti School of Telecomm. Technology and Mgmt.	Telecommunication Technology and Management	23	15
Applied Research in Electronics	Radio Frequency Design & Technology	33	29
Atmospheric Science	Atmospheric Oceanic Science & Technology	15	10
Textile Technology	Fibre Science & Technology	17	17
	Textile Engineering	21	20
Interdisciplinary Programme	Energy Studies	29	21
	Industrial Tribology & Maintenance Engineering	16	12
	Polymer Science & Technology	22	18
	Opto-Electronics & Optical Communication	23	18
	Instrument Technology	17	15
	VLSI Design Tools and Technology	11	10

contd.

Master of Science (Research)			
	Amar Nath & Shashi Khosla School of Information Technology	3	1
	Computer Science & Engineering	7	4
	Chemical Engineering	1	0
	Civil Engineering	1	0
	Bio-chemical Engineering & Bio-technology	7	6
	Bharti School of Telecommunication Tech. & Mgmt.	3	1
	Kusuma School of Biological Sciences	4	2
	Mechanical Engineering	2	1
	Electrical Engineering	18	8
Master of Design			
	Industrial Design	20	20
D.I.I.T. (2 year)			
	Naval Construction	24	24
Master of Science			
	Chemistry	51	51
	Mathematics	51	46
	Physics	52	48
Master of Business Administration			
	Technology Management (SMN)	43	34
	Management Systems (SMF)	37	37
	Telecommunication Systems Management (SMT)	11	9
Total		**1178**	**892**

The remaining students either left the Institute or failed to meet the minimum C.G.P.A. requirements to continue in the next semester.

Internship and Placement

Training & Placement activities are guided by an Institute Level Committee consisting of Faculty members and students. The student committees, i.e. Central Committee at the Institute level as well as Nucleus Committees at departmental level, actively participated in the Training & Placement activities.

As in the past the Training and Placement Unit continued to plan, organise and consolidate the Training and Placement activities for students. It actively interacted with various industrial, technical, management and research organisations in the country. The dual aim of establishing this rapport is to ensure that students are given adequate technical exposure/ industrial training and subsequently get employment in organisations which match their aspirations and objectives.

As in previous years, web based placement services were provided using the internal T&P server this year as well. The students got all information on their desktop PCs / laptops, they applied on-line and could see the progress of their application including the final results. The companies too were issued user name and password for accessing and short-listing CVs and uploading their presentations and files. This considerably reduced the conventional pre-placement talks on the campus.

The analysis of the past training and placement activities was presented to the students to help them decide their future course of action. Constant liaison with industries was maintained throughout the year to ensure student placements across sectors.

This office also organised some pre-placement workshops, panel discussions, practice test series and career counselling talks by distinguished persons from reputed technical, industrial, management and research organisations for the benefit of the students. Some of the Institute alumni who are holding very senior positions in private and public sector organisations were also invited to share their personal experiences with the student community of the Institute. An online interview preparation personality development & career guidance system was also made available to all students of the institute.

Training / Internship

A personal dialogue with top executives of a large number of industries resulted in better understanding of their functional requirements and training activities. This effort also helped the T&P Unit in the effective planning of summer practical training for 2nd and 3rd year B.Tech./Dual degree/Integrated M.Tech. students, besides obtaining a good number of stipends and other facilities such as transport, accommodation, etc.

Table I : 2nd Year Students Summer Training - 2016

Discipline	Seats-Obtained	Stipend	Other Facilities	Abroad
B.Tech/Dual Degree				
Bio-chemical Engineering and Bio-technology / Dual Degree	12	6	2	11
Chemical Engineering / Dual Degree	35	20	6	11
Computer Science & Engineering / Dual Degree	34	30	23	10
Civil Engineering	30	13	5	5
Electrical Engineering / Power	41	40	33	13
Engineering Physics	12	8	7	8
Mechanical Engineering / Industrial & Production Engineering	46	26	13	5
Textile Technology	24	13	5	1
Maths & Computing / Dual Degree	20	17	15	6
Total	**254**	**173**	**109**	**70**

Table II : 3rd Year Students Summer Training - 2016

Discipline	Seats-Obtained	Stipend	Other Facilities	Abroad
B.Tech/Dual Degree				
Bio-chemical Engineering and Bio-technology / Dual Degree	12	6	0	7
Chemical Engineering / Dual Degree	74	13	7	2
Computer Science & Engineering / Dual Degree	91	50	32	6
Civil Engineering	68	13	4	2
Electrical Engineering / Power	89	46	34	4
Engineering Physics	29	8	6	12
Mechanical Engineering / Industrial & Production Engineering	99	32	15	13
Textile Technology	56	12	5	2
Maths & Computing / Dual Degree	37	20	13	1
Total	**555**	**200**	**116**	**49**

Internship and Placement

From this year onwards, training rules as per the new curriculum guidelines were implemented. Detailed instructions to students were also issued prior to the commencement of the training programme. A gist of data regarding the summer practical training seats obtained for 2nd and 3rd year students is given in Table-I and II.

Back-loggers who had not been allotted a summer training seat due to academic back-logs in their 3rd year and hence could not complete this degree requirement as per the old curriculum guidelines were also assigned training seats. A gist of the data for this set is given in Table-III:

Table III : Back-loggers Students Summer Training - 2016

Discipline	Seats-Obtained	Stipend	Other Facilities	Abroad
(a) B.Tech/Dual Degree				
Chemical Engineering / Dual Degree	5	0	0	0
Computer Science & Engineering / Dual Degree	4	3	1	0
Civil Engineering	4	0	0	0
Electrical Engg / Power / Dual Degree	2	1	0	0
Engineering Physics	7	0	0	0
Mechanical Engineering / Industrial & Production Engg.	13	1	0	0
Textile Technology	10	0	0	0
(b) 5-Year Integrated M.Tech. Programme				
Bio-Chemical Engineering & Bio-Tech	3	3	0	3
Math & Computing	7	2	0	0
Total	**55**	**10**	**1**	**3**

Placement

A letter of invitation for Campus Interviews was sent to a large number of public and private sector organisations especially to those which visited the Institute for campus interviews during the last three years. A large number of them gave electronic copies of their job profiles which were made available to the students through the internal web server. This vigorous drive resulted in requisitions being obtained from industries from 391 Companies for 553 profiles with selections on 234 profiles as a result of which 789 students were placed making a total of 845 jobs (some students got multiple jobs). The sector-wise distribution of profiles opened for placement are given in Table IV.

Table IV : Sector -wise distribution of Profiles Opened for Placement

Sector	Profiles Opened	Students Placed
Analytics	25	44
Consulting	50	109
Core (Technical)	112	275
Finance	32	67
Information Technology	164	128
Management	02	00
Others	149	148
Teaching & Research	19	18
Total	**553**	**789**

Ground rules for placement evolved in consultation with the students and faculty members led to a just and equitable distribution of job opportunities amongst the student community.

The discipline wise beak-up of the campus placement position is shown in Table V and VI.

Internship and Placement

Table V : Discipline-wise break-up of On-Campus Placement Position of B.Tech. / Dual degree and 5-year integrated M.Tech. Students during 2015-16

Discipline	No. of Students Registered	No.of Effective Placements*	No. of Students with more than one job**
(a) B.Tech.			
Chemical Engineering	54	49	01
Civil Engineering	59	51	01
Computer Science & Engineering	57	56	11
Electrical Engineering	53	52	03
Electrical Engineering (Power)	28	28	0
Mechanical Engineering	73	66	06
Industrial & Production Engineering	32	29	02
Textile Technology	46	41	01
Physics Engineering	36	33	03
(b) Dual / 5-Year Integrated M. Tech. Programmes			
Mathematics & Computer Appn.	32	32	05
Bio-chemical Engineering & Bio-Technology	26	23	0
Chemical Engineering Dual	36	32	02
Computer Science & Engineering Dual (CO)	25	25	07
Electrical Dual (EI)	21	21	02
Advanced Standing (CSA, CSB, CSC, CEA)	02	02	0
Total	**580**	**540**	**44**

*Others would have obtained jobs via off-campus mode or opted for higher studies in India or Abroad.

**This is because more than one company declared the results on the same day.

Table VI : On-campus Placement Position of M.Tech. Students during 2015-16

Department / Interdisciplinary Programme	No. of Students Registered	No. of Effective Placements*	No. of Students with More than one job**
Applied Mechanics	34	24	0
Atmospheric Oceanic Science	03	0	0
Chemical Engineering	19	08	0
Molecular Engineering / Chemical Synthesis	01	01	0
Civil Engineering	13	11	01
Computer Science & Engineering	30	30	03
Electrical Engineering	58	46	03
Computer Application	13	12	02
Mechanical Engineering	18	16	0
Physics	12	02	0
Textile Technology	18	15	0
Energy Studies	14	05	01
ITMMEC	04	03	0
Opto-Electronics and Optical Communication	11	05	0
Polymer Science & Technology	07	07	0
Instrument Technology	06	05	0
VLSI	11	11	0
CRF (CARE)	08	07	0
Tele Communications	13	13	02
Total	**293**	**221**	**12**

In addition 16 M.Des., 06 M.Sc., and 06 MS Research students also were placed through our campus activities. MBA did their placement separately.

*Others have got placement via off-campus mode. Some would have gone for higher studies or for Civil Services.

**This is because more than one company declared the results on the same day.

Total Jobs = B.Tech. + Dual Degree + M.Tech. + M.Des. + M.Sc. + M.S.(Res.) = 405+135+ 221+16+06+06 = 789

The Institute continues to take particular care of its staff so that they are properly equipped with the skill/knowledge that is required to keep pace with the developments taking place in both administrative and technical spheres. It deputes its technical, secretarial and ministerial staff to various training institutions in and outside Delhi. During the year under report 15 staff members /officers belonging to administrative and technical cadres were deputed/sponsored for training outside the Institute. Details are as follows :

Staff Training Programmes

Table I : Group A Officers Deputed for Various Staff Training Programmes in 2015-2016

S. No.	Name	Title of Training/Programme	Place	Period of Training
1	Dr. Rakesh Kumar	National Workshop on Management of University Administration	Association with Indian Universities in Collaboration with Bharathiar University, Coimbatore (TN)	12/05/2015 to 14/05/2015
2	Sh. Kalyan Kumar Bhattacharjee	Two Session on "E-Governance"	ISTM, New Delhi	15/05/2015
3	Dr. Rakesh Kumar	8th Annual Conventions India Conclave 2015	Greater Noida	07/08/2015 to 9/08/2015
4	i) Sh. Kalyan Kumar Bhattacharjee ii) Md. Shamim iii) Sh. Debranjan Mukherjee	E-Procurement including E-Auction	Goa	18/08/2015 to 20/08/2015
5	i) Sh. Rajneesh Aggarwal ii) Sh. Sukhpal Singh Yadav iii) Sh. Rakesh Singh iv) Sh. Naeem Akhtar v) Sh. Ankit Goyal vi) Sh. Nitin Chandolia	"Accounts & Finance" for Financial Management Research and Resource Society (Regd.) (FMRRS)	Conference hall of Ministry of Home Affairs 2/10/ Jamnagar House, New Delhi	24/8/2015 to 26/08/2015
6	Sh. Kalyan Kumar Bhattacharjee	"E-Procurement Training Program including E-Auction"	Goa	25/08/2015 to 27/08/2015
7	Sh. Atul Vyas	"Management of Internationalization"	Leibniz University Hannover, Germany, the German Academic Exchange Service (DAAD) and the German Rectors' Conference (HRK) Hanover, Germany	21/9/2015 to 29/9/2015
8	i) Sh. Nanak Chand Chauhan ii) Sh. Ramesh Kumar Thareja	Training programme on Reservation in Services for SC/ST/OBC	Institute of Secretariat Training & Management Deptt. of Personnel & Training Administrative Block, JNU Campus (OLD) OI of Palme Marg New Delhi-110067	5/10/2015 to 7/10/2015

Staff Training Programmes

9	Sh. Atul Vyas	Half-day DWIH Symposium	German Embassy, New Delhi	14/10/2015
10	Dr. Sandeep Chatterjee	Annual Convention of the Central Information Commission	CIS	16/10/2015 to 17/10/2015
11	i) Dr. Sandeep Chatterjee ii) Dr. Kalyan Kumar Bhattacharjee	Workshop on "Right to Information for Appellate Authorities"	ISTM, New Delhi	30/11/2015
12	Sh. Pradip Karmakar	Solar Energy	KVIC, MSME	4/03/2015 to 6/03/2016
13	Dr. Sandeep Chatterjee	1. Registrar's Conclave 2. Orientation programme for Registrar's	IIT Bombay	3/2/2016 to 7/2/2016
14	Dr. Kalyan Kumar Bhattacharjee	Two day National workshop for University Officers on "University Governance"	The Casuarina, Indian Habitat Centre, Lodhi Road, New Delhi-110003	30/03/2016

Scholarships, Assistantships and Awards

The Institute believes in the maxim that no deserving student, however weak in financial backing, should be denied the opportunity of education at IIT Delhi. To encourage and to provide financial incentives to meritorious students and assistance to the needy students of the institute, individuals, trusts and organisations have been instituting scholarships, awards, etc. at the Institute. At present, there are 172 awards/scholarships/medals being given at the Undergraduate and Postgraduate level. This is in addition to more than 1840 awards instituted by the Institute directly in the form of merit-cum-means scholarships, cash prizes and freeships.

In addition, the Institute has a "Loan Scholarship Scheme" which makes it more affordable for the students who take loan from banks. Additional Medals, Awards, Fellowships and Scholarships instituted during the previous year include Sadashiv Shankar Gokhale Scholarship, Akshat Gupta Scholarship, Shri Beni Madho Singh Scholarship, Koul Basu Research Award, Prof. P.K. Katti Award, NRCVEE Best Project and Essay Award, Punita and Jayant Sinha Awards and Shri O.P. Bansal Cash Award, etc.

Below is a summary of cash prizes and merit-cum means scholarships offered to B.Tech. students during the session 2015-2016.

Scholarships / Assistantships / Freeships and Awards

Table I : Number of Cash Prizes Merit-cum-Means Scholarships/Freeships offered to B.Tech. Students during the Session 2015-2016

Class	Cash Prizes (SCHII028)	No. of Scholarships Awarded (SCHII035)	Free Mess Services (SCHII036)	Freeships for General & OBC (SCHOI305)	UG TA (SCHII045/SCHII054/ SCHII057/SCHII058)	Sponsored Awards/ Fellowships/ Scholarships*
I - Year	60	184	55	0	0	31
II - Year	102	142	60	8	0	30
III - Year	95	132	48	51	0	26
IV - Year	100	114	47	53	60	17
V - Year	56	3	14	20	202	3
Backlog	0	0	0	0	7	0
Total	**413**	**575**	**224**	**132**	**269**	**107**

Table II : Assistantships to Dual Degree Students during the Session 2015-2016

Course	No. of Assistantships Renewed (SCHII045/SCHII058/SCHII057)	No. of Assistantships Awarded (SCHII045/SCHII058/SCHII057)
Biochemical Engineering & Biotechnology	18	51
Computer Science & Engineering	19	44
Electrical Engineering	11	31
Chemical Engineering	12	38
Mathematics and Computing	15	43
Total	**75**	**207**

Scholarships, Assistantships and Awards

Students pursuing M.Tech./M.Des./M.S.(R) are eligible for institute assistantship at the time of admission. However, for continuation of the assistantship they have to maintain a minimum SGPA (semester grade point average) at the end of every semester. The table below shows the assistantship awarded to 2015 entry students and renewed to the existing students. A total of 595 students were awarded assistantship in 2015-16.

Table III: Assistantships Offered to the Students of M.Tech./M.Des./M.S.(R)/M.Sc. Programmes during the Session 2015-2016.

Programme	No. of Assistantships Renewed	No. of Assistantships Awarded (first year)
Master of Technology (M.Tech.)		
Engineering Mechanics	20	26
Design Engineering	24	24
Chemical Engineering	23	28
Molecular Engineering : Chemical Synthesis & Analysis	11	14
Geotechnical and Geoenvironmental Engineering	3	11
Structural Engineering	8	19
Construction Engineering and Management	13	15
Environmental Engineering and Management	11	18
Rock Engineering and Underground Structures	10	17
Water Resources Engineering	7	18
Transportation Engineering	5	9
Computer Science & Engineering	30	23
Power Electronics, Electrical Machines & Drives	9	16
Communications Engineering	16	16
Control and Automation	12	8
Computer Technology	19	20
Power System	7	6
Integrated Electronics & Circuits	10	19
Thermal Engineering	5	20
Production Engineering	6	21
Industrial Engineering	2	10
Mechanical Design	12	20
Applied Optics	7	4
Solid State Materials	12	17
Textile Engineering	9	13
Fibre Science & Technology	9	15
Atmospheric-Oceanic Science & Technology	6	10
Radio Frequency Design and Technology	19	16

Scholarships, Assistantships and Awards

contd. .....

Energy Studies	20	24
Computer Application	10	0
Industrial Tribology & Maintenance Engineering	8	13
Polymer Science & Technology	21	19
Opto-electronics & Optical Communication	20	16
Instrument Technology	5	16
Telecommunication Technology and Management	14	21
Master of Design		
Industrial Design	19	18
Master of Science (Research)		
Biochemical Engineering & Biotechnology	0	6
Bharti School of Telecommunication Technology & Management	0	1
Amar Nath & Shashi Khosla School of Information Technology	0	0
Computer Science & Engineering	2	2
Civil Engineering	1	0
Electrical Engineering	4	3
Chemical Engineering	1	0
Mechanical Engineering	9	1
Applied Mechanical	2	0
Biological Sciences	9	2
Total	**470**	**595**

List of the merit-cum-means scholarships awarded for M.Sc. is as follows:

Table IV : Merit-cum-means Scholarships Awarded to M.Sc. Students

		2014	**2015**
Chemistry	I Year	14	14
	II Year	14	14
Mathematics	I Year	11	14
	II Year	11	12
Physics	I Year	14	13
	II Year	14	10
Total		**78**	**77**

Twenty one M.Tech. students of the Institute had gone to Germany under the DAAD Scholarship Scheme to do part of their thesis research under the Indo-German collaboration program. The 14th batch of 12 students for this year has been selected and they departed on September 2015.

Scholarships, Assistantships and Awards

STUDENT'S AWARDS/ACHIEVEMENTS

Department of Applied Mechanics

• LT. P.V. Kaushik was awarded Lt. Arpan Banerjee Award (Student achieving maximum CGPA in Masters Programme at Applied Mechanics Department, IIT Delhi) during IIT Convocation 2015.

• LT. Nirmal Raj-IITD Football Team, Gold medal at 'Sport Tech' 2015.

• LT. Harshita Raju - 2nd runner up in IIT Independence Day Run.

• SLT Vipasha Sharma - 1st runner up in IIT Independence Day Run.

• SLT Harleen Kaur - 2nd runner up in inter hostel athletic meet at IIT Delhi.

• LT. Shreejesh N. - Winner Eastern Group Song at Rendezvous-15 at IITD Delhi.

Department of Biochemical Engg. and Biotechnology

• Distinction in Doctoral Research to Dr. Rashi Gupta (Supervisors Dr. Shilpi Sharma and Prof. V.S. Bisaria).

• Rahul Agrawal selected for Newton-Bhabha Ph.D. placement Program (Supervisor Dr. Ritu Kulshreshtha).

Department of Chemical Engineering

• Dual Degree Student Rahul Mishra (2012CH10107) selected for "Boss Award 2015-16".

• Ejaz Ahmad supervised by Dr. M. Ali Haider and Prof. K.K. Pant has received the DAAD binationally supervised Ph.D. research grant by the Government of Germany in 2016.

• Ejaz Ahmad supervised by Dr. M. Ali haider and Prof. K.K. Pant has received Prime Minister Fellowship by the Government of India in 2016.

• Neetu Kumari supervised by Dr. M. Ali Haider and Prof. S. Basu got the First Prize for Poster presented at IIT Delhi Open House-2016, given by the IIT Delhi Alumini Association.

• Uzma Anjum supervised by Dr. M. Ali Haider received the IIChE-NRC Sponsored First Prize for Poster Presentation at IIT Delhi Open House-2016.

• Rohini Singh supervised by Dr. Shalini Gupta received the IIChE-NRC Sponsored Second Prize for Poster Presentation at IIT Delhi Open House-2016.

• Ph.D. Student Prasanta Kalita supervised by Dr. Shalini Gupta won 1st prize for poster presentation at the International BiTerm Conference 2016 held at IIT Delhi.

• Ph.D. Student Prasanta Kalita supervised by Dr. Shalini Gupta won Research Scholar's day Best Presentation award 2016.

• Ph.D. Student Prasanta Kalita along with B.Tech. Student Nitish Goel supervised by Dr. Shalini Gupta won the prestigious GYTI 2016 award entailing Rs. 15 lacs for their technology on endotoxin detection.

• Best Oral Research Paper Presentation in ICPC&SE, April 25-26, 2016, Dubai to Ph.D. student Wondalem M. Golie.

Department of Civil Engineering

• Prof. Amiya Basu Research Award for Ph.D. scholars in Structural Engineering to Surendra Beniwal (2011CEZ8436), 2015-16.

• Best Ph.D. Thesis Award to Dr. Sandip K. Saha By IITD.

• Two Best Poster Awards in International conferences [American Association for Aerosol Research, 32th Annual conference, Portland, Oregon, USA, September 29- October 4, 2013; Assessing the Impact of Aerosol and Changing Climate on Monsoon and Extreme Events Gurgaon India, January 12-15, 2015].

• A. Agarwal, M. Zilske, K. Ramachandra Rao, K. Nagel, An Elegant and Computationally Efficient Approach for Heterogeneous Traffic Modelling using Agent Based Simulation, 4th International Workshop on Agent-based Mobility, Traffic and Transportation Models, Methodologies and Applications (ABMTRANS-'15), 2 to 5 June 2015, London. (Best paper award).

• Best Oral Presentation Award to Naveet Kaur (2011CEZ8272) on Research Scholar Day 10 April 2015.

• Naveet Kaur, DST Inspire Faculty Award, September 2015.

• Bharat Jyoti Award (Glory of India Award) to S.K. Dhawan (2012CEZ8561) conferred on 7th December, 2015.

• A. Kumar, B. Manna, K.S. Rao. IGS-HEICO Biannual Prize for the Best Paper on "Rock Mechanics" Published in the Indian Geotechnical Journal, IGC-2015.(Best paper award).

Department of Computer Science & Engineering

• TCS Fellowship to Prachi Jain.

• Research paper Machine Learned Machines: Adaptive Co-optimization of Caches, Cores, and On-chip Network by Rahul Jain, Preeti Ranjan Panda, and Sreenivas Subramoney, receives Best Interactive Presentation nomination at DATE 2016, Dresden.

• Paper by Sandeep Chandran, Preeti Ranjan Panda, Smruti Ranjan Sarangi, Deepak Chauhan, and Sharad Kumar, titled Extending Trace History Through Tapered Summaries in Post-silicon Validation, received a Best Paper nomination at ASPDAC'16, Macau, 25-28 Jan 2016.

• Neha Sengupta has been awarded the prestigious and highly competitive IBM Ph.D. Fellowship for 2016.

Department of Electrical Engineering

• Distinction in Doctoral Research to Mr. Jeevanand S. (2008EEZ8324) for year 2013.

• Distinction in Doctoral Research to Ms. Prabhmandeep Kaur (2012EEZ8124) for year 2014.

• Amit Garg Memorial Research Award to Mr. Vashisht Bist (2010EEZ7559) for year 2014-15.

• POSOCO Award 2015 to Mr. Chinmay Jain (2012EEZ8126).

• POSOCO Award 2015 to Mr. Shailendra Dwivedi (2013EEP2342).

Scholarships, Assistantships and Awards

- POSOCO Award 2015 to Mr. Mahendra K. Reddy (2013EES2351).
- POSOCO Award 2015 to Mr. Mahendra Bhadu (2012EEZ8291).
- Best paper of the paper: "Power Quality Enhancement of the Distribution System Using Hybrid Filter" in the INDICON 2015 Conference held in Dec. 2015 in Jamia Millia Islamia, New Delhi; Author: Bhim Singh, Ikhlaq Hussain (2012EEZ8371), Ambrish Chandra and Kamal Al-Haddad.
- Best Poster Award, for the paper- "Neuromorphic Hybrid CMOS-RRAM RBM Architecture", at the IEEE Non-Volatile Memory Technology Symposium (NVMTS), held at Beijing, China in October (2015), Authors: Manan Suri, Vivek Parmar, Damien Querlioz and Fabien Alibart.

Department of Humanities and Social Sciences

Ph.D. awarded:

- Ms. Anjali Jain on "Adaptive and Maladaptive Schema: Construction of a Psychological tool".
- Khirod Chandra Moharana on "Mental Illness among the hos in Odisha: an ethnographic study" .
- Prakash Chandra Mondal on "Intentional emotive constructions, linguistic meaning and cognitive structures of emotive expressions".
- Monami Sinha on "Essays on other regarding preferences".
- AninditaMajumdar on "Kinship and relatedness in commercial gestational surrogacy in India".
- Swikar Lama on "Study of alternative dispute resolution systems dealing with domestic violence in Delhi and Darjeeling: a restorative justice perspective.
- Anindita Sahoo on "Passives in same south Asian languages: a comparative investigation".
- Bhavana Kohli on "Intergroup memory bias, social identity, and stereotype".
- Neha Gupta on "India's integration in global value chains: case study of machinery and textile and clothing industries".
- Balram Tyagi on "Productivity and efficiency analysis of Indian Aviation Industry".
- Sanchita Srivastava on "Exploring the experience of stigma in three sexual minorities in India".
- Diptimaye Nayak on "National Park: landscapes of justice or landscapes of dispossession? Evaluating Bhitarkanika National Park".
- Distinction in Doctoral research award to AninditaMajumdar and Prakash Mondal.

Department of Management Studies

- Best Paper Award to Gaurav Rana, Sushil, Title of the paper: Destination Discontinuity for Sustainable Development of a Tourist Destination at AGBA Conference 2015 from 16 to 19 November, 2015.

- Event Name: Frugal Innovators, Position: 1st Prize, College: FMS, Delhi (Rishabh, Monika, Nikita).
- Event Name: International Entrepreneurship Challenge, (Flagship event of E-cell, FMS), Position: 2nd Prize College: FMS, Delhi, (Rishabh, Monika, Nikita).
- Event Name: RPG Blizzard, Position: National Finalists, Organisation: RPG Group (Rishabh, Monika, Nikita).
- Event Name: Analytique 3.0, Position: 2nd , College: IIM Indore, (Rishabh, Monika, Nikita).
- Article Writing Competition "Kathan" 2015, Annual HR, Magazine of IIM Udaipur, Second Position, Merit and Certificate and Cash Prize INR 1000 (Mohit Bhutani, Mahjabeen Mirza Beg).
- Colour Award, Certificate of Merit, Cricket, IIT Delhi (Kiran Lingala).
- Yes Bank Campus Qualifiers, Among Top 3 Teams (Gautam Thakur, Mohit Bhutani, Praveen Rana).
- IIM Kashipur, Position: 3rd, BPCL Marketing Case Study, 2016 (Gautam Thakur, Mohit Bhutani).
- IIM Udaipur, Actually Film Making competition, Position 3rd (Mahjabeen, Mohit, Praveen, Risha, Gautam).
- Article writing in iim shillong competition, Position:3rd, Stuti, Shrirang.
- Abhipraay, VGSOM, IIT Kgp, Runners up, (Shrirang Halwe & Amit Das).
- Digital Marketing and Entrepreneurship at CarpeDiem (Akshay Ganju).
- Imperium : Sans Pareil,Management development Institute, Postion: Finalist (Ishaan Khurana, Varsha Kansal).
- Great Leap Forward – China embraced by IMF", won the article of the month and was published in IIM Shillong's magazine Niveshak 2015 (Mahjabeen Mirza Beg).
- Vice-Captain – Women Table tennis Team (IIT Delhi) (Mahjabeen Mirza Beg).
- Man of the Series, Inter hostel cricket, IIT Delhi (Kiran Lingala).

Department of Mathematics

- Prof. M.M. Chawla Gold Medal and Suyash Chandra Memorial Cash Award to Mr. Amol Mittal (5 year integrated Mathematics and Computing).
- M.C. Puri Memorial Medal and Mrs. Santokh Gill Award to Ms. Soumya Sarkar (2 year Sc. Mathematics).
- Prof. M.M. Chawla Gold Medal to Mr. Raj Kamal (2 year M.Tech. in Computer Applications).

Department of Mechanical

- Several IIT Delhi awards were given to ME students..
- Participated in SAE Car building related competitions.
- participated in ABU-Robocon National Competition in Pune.

Scholarships, Assistantships and Awards

Department of Physics

- Best Oral presentation award in Research Scholar Day in IIT Delhi by Ms. Debalaya Sarker, the student of Dr. Santanu Ghosh & Prof. Pankaj Srivastava.

- Distinction in Doctoral Research Award by IIT Delhi to Dr. Jasleen Lugani, Supervised by Prof. K. Thyagarajan.

- Mr. Naveen Sisodia, Supervised by Dr. P. K. Muduli received IEEE Magnetic society grant to attend and present at the 2016 IEEE magnetic Summer School July 10 - 16, Sendai, Japan.

- Poster Award awarded to research scholar Ms. Khusboo Agarwal in Physics dept. Research Scholar day cum SRC Meeting-2016.

- Distinction in Doctoral Research Award (2013), IIT Delhi: Dhruv P. Singh, Thesis Title: "Sculptured silver thin films by glancing angle deposition: synthesis, wetting behavior and surface enhanced fluorescence study."

- Best Poster Award: "Optimization and Electrical Characterization of Graphene oxide and PEDOT:PSS Films" C.S. Pathak, J.P. Singh and R. Singh; National Conference on Semiconductor Materials and Devices (NCSMD-2016), Indian Institute of Technology Jodhpur, Rajasthan, 4-6 March 2016.

- Best Poster Award: "Preparation of transparent super-hydrophobic surfaces by ZnO nanowires coating and study of their photoinduced reversible wetting properties" Kavita Yadav, B.R. Mehta and J. P. Singh; EMRS-2015 spring meeting and exhibit, Lille, France (May 2015).

- Special Jury Mention Award: "Controlled reversible wettability switching of ZnO nanowires from super-hydrophilic to superhydrophobic states" Kavita Yadav, B.R. Mehta, J.P. Singh; Open House-2015, IIT Delhi.

Department of Textile Technology

- First prize in Student Wisdom Contest to Anasuya Roy, B.S. Butola and M. Joshi in International Conference on Advancements in Polymer Science and Technology (APA 2015) organized by Asian Polymer Association, Oct. 29-31, 2015, Department of Chemistry, Saurashtra University, Rajkot, Gujarat.

- Second Prize in Poster Presentation to Anasuya Roy, B.S. Butola and M. Joshi Poster titled: "Silver-based Antimicrobial HDPE/Clay Nanocomposites: A Potential Replacement for Conventional Plastics" International Conference on Indian Textile Academia (ITA) organized by Department of Textile Technology, Feb. 19-21, 2016, Department of Textile Technology, IIT Delhi, New Delhi.

- Second Prize in Poster Presentation to Anasuya Roy, BS Butola and M. Joshi Poster titled: "Antimicrobial HDPE/Clay Nanocomposites: A Potential Replacement for Conventional Plastics" Open House 2016, organized by IIT Delhi, April 23, 2016, IIT Delhi, New Delhi.

- Best oral presentation to Kamlesh Panwar at Student Award Contest, BITERM 2016, April 15-17, 2016, IIT Delhi, New Delhi, India.

- Best poster presentation to Kamlesh Panwar at Textile Academia 2016, Feb. 17-18, 2016, IIT Delhi, New Delhi, India.

Centre for Applied Research in Electronics

- Ruchi Tiwari and Priyanka Tyagi have been awarded the Distinction in Doctoral Research for the year 2014.

- Priyanka Dwivedi: Best paper award in IEEE INDICON 2015 conference, Jamia Millia Islamia, New Delhi, India.

Centre for Atmospheric Sciences

Japan Prize (for best student paper), 9th International Conference on "Urban Climate" from 20 to 24 July, 2015 at Toulouse, France to Ms. Shweta Bhati (Ph.D. research scholar).

Centre for Biomedical Engineering

- DISA-Design and Innovation Summer Award to UG student's being mentored by Dr. Neetu Singh.

- Dogra Award to Arun Kumar for best Publication in Biomedical Sciences.

Centre for Rural Development and Technology

- Ms. Karnika Prakash received the Best Paper Award (First Prize) for her research paper "Enhancement of frying quality and stability of vegetable oil by incorporating sesame oil" in the International Conference on "Recent Advances in Food Processing and Biotechnology" held at BHU from 5-6 April, 2016. Supervisor: Prof. S.N. Naik.

- Dr. Abhishek Sharma received the Best Paper Award in National Seminar on "Contextual Relevance of ITKs in Plant Protection" held at IARI, Delhi from 28 -29 October, 2015. Supervisor: Prof. Satyawati Sharma.

Bharti School of Telecommunication Technology and Management

- Bharti Merit Award on 25 May, 2015

Amar Nath and Shashi Khosla School of Information Technology

- COMSNETS 2016 best paper in social networking workshop- Sumit Negi, Abhimanyu Jaju, Prof. Santanu Chaudhury.

- Neuro-Endo-trainer developed under the research "Computerized Evaluation and Virtual Simulation of Neuro-Endoscopic Skills and Procedures" was selected for exhibition at Rashtrapati Bhawan in 2015. (Britty Baby, Vinkle Kumar Srivastav, Ramandeep Singh, Ashish Suri, Subhashis Banerjee, Prem K. Kalra, Subodh Kumar, Sanjiva Prasad, Kolin Paul, Sneh Anand).

Kusuma School of Biological Sciences

- Post-Doctoral Fellowship to Dr. Aastha Jain at Karlsruhe Institute of Technology, Germany.

Scholarships, Assistantships and Awards

The students pursuing Ph.D. are also eligible for assistantships. This year 126 students were awarded assistantships. Assistantship to existing students continues provided, they show satisfactory progress. The table below gives a discipline wise break-up of assistantships awaited during the period.

Table V : Institute Assistantships Awarded to Research Scholars during the Session 2015-2016

Department/Centre/School	No. of Assistantships Renewed	No. of Assistantship Awarded (2015 entry)
Applied Mechanics	37	3
Biochemical Engineering & Biotechnology	33	0
Chemical Engineering	58	4
Chemistry	79	4
Civil Engineering	58	17
Computer Science & Engineering	26	0
Electrical Engineering	80	14
Humanities & Social Sciences	28	14
Management Studies	38	4
Mathematics	29	5
Mechanical Engineering	61	18
Physics	89	17
Textile Technology	24	2
Centre for Applied Research in Electronics	14	1
Centre for Atmospheric Sciences	28	4
Centre for Biomedical Engineering	32	0
Centre for Energy Studies	68	2
Industrial Tribology, Machine Dynamics & Maintenance Engineering Centre	11	2
Industrial Design & Development Centre	7	2
Centre for Polymer Science & Engineering	19	6
Centre for Rural Development & Technology	22	2
Kusuma School of Biological Sciences	35	3
Amar Nath and Shashi Khosla School of Information Technology	5	1
Bharti School of Telecommunication Technology & Management	15	0
Transport Res. & Injury Prevention Programme	2	1
Total	**898**	**126**

Infrastructure Development

(April 1, 2015 - March 31, 2016)

PHYSICAL INFRASTRUCTURE

All infrastructure related activities are managed by the Building & Works Committee. The revised Master Plan of IIT Delhi has got its anticipatory approval of South Delhi Municipal Corporation. This approval has enabled IIT Delhi to go ahead with their Projects in hand and upcoming projects.

The Revised Master Plan subsumes the following projects:

- Indoor Sports Complex
- Construction of Institute Activities Centre
- Shopping Complex in East Campus
- Construction of Boys Hostel 'E'
- Construction of New Girls Hostel
- Construction of Additional Faculty Flats in West Campus
- Construction of Sewage Treatment Plant
- Redevelopment of Nalanda Married Scholar Apartments
- Redevelopment of Open Air Theatre
- Construction of Engineering Block 99B & 99C
- Construction of Golden Jubilee G.H. Keshwani Research Centre
- Construction of Science & Innovation Park

ACADEMIC INFRASTRUCTURE

Lecture Hall cum Lab Complex [LHC]

LHC has been inaugurated by the H'ble Union Minister of HRD, Smt. Smriti Irani this year. The complex comprises:

Lecture Hall : 2 x 500 seater

      : 3 x 300 seater

      : 12 x 150 seater

Class Room : 9 x 60 seater

Besides these, Lab Blocks are equipped with Physics Lab, Language Lab, Graphic Lab, Chemistry Lab, Applied Mechanics Lab, Bio Science Lab, Electrical Engineering & Computer Lab.

The LHC has been put to operational for the beneficial use of the said activities.

Construction of Engineering Block 99B & 99C

CPWD has been entrusted for the construction of the Engineering Blocks on Deposit Work basis. Tendering procedure & related formalities have been completed, work stands awarded and execution is about to begin very shortly. The two blocks will be constructed on the either side of the LHC. The blocks shall provide additional area for Labs, Workshops, Faculty rooms etc. The average floor area of 99B & 99C shall be 32,000 sqm & 26,000 sqm respectively.

Construction of Clean Room for Nano Scale Research Facilities [NRF]

The construction has been completed on 15 October 2015. The lab is highly sophisticated, provides state of the art facilities and is now operational.

Construction of Science & Innovation Park

The main purpose of this project is to facilitate state of the art facilities for R&D activities. This building will consist of 2 basements plus Ground Floor and 6 floors. Approval of its plan is expected soon.

Construction of STP

1.5 million litre per day [MLD] capacity STP shall be constructed in West Campus. With a view to collect total sewage of the campus at single point near STP, sewage network piping shall be laid. The project will be started very soon after completion of tendering procedure.

2 MWP Solar Generation Power Plant

1 MWP solar power plant has been put to operational. Already 25 lakh units [KWH] has been generated. Work for additional 1 MWP has been started and will be completed by mid-2017.

Infrastructure Development

Replacement of Led Lighting in Place of Conventional Lights

Presently LED lights are in the vogue. Energy efficient LED lights have been installed in place of conventional lights in most of the places. Only and exclusively LED lights are being installed in new projects. Considerable amount of energy is being saved by introducing LED lights.

Construction of Additional Faculty Flats in West Campus

173 Faculty Flats shall be constructed by National Building Construction Corporation Ltd. [NBCC] in West Campus. Approval of Detailed Plan of the building is expected soon from SDMC.

Development of Rajiv Gandhi Educational Centre at Kondli, Sonepat

In IIT Delhi has been allotted 50 acres of land in parts of 10 acres and 40 acres each at Kondli Sonepat for construction of Extension campus of Indian Institute of Technology Delhi. The construction of Innovation Centre for Education is in full swing and shall complete in March 2018. The centre shall have 33,500 sqm area including ground and 4 floors. The construction work has been entrusted to NBCC Ltd. on deposit work mode.

Installation of RO Water Filtration Plant and Air Conditioners in Hostels

Installation of RO based water filtration plant for supply of drinking water in different floors in Hostels has been started. On the other hand air conditioner machines are being installed in the common rooms in different Hostels. Modernisation of Dining Halls and Messes are in the process.

MAJOR NEW EQUIPMENTS INSTALLED

Department of Biochemical Engg. and Biotechnology

- Gel Doc Unit (Dr. Ritu Kulshreshtha).
- Motorized Upright Fluorescence Microscope (Dr. Preeti Srivastava).
- MaxQ Dual Platform Shaker.

Department of Chemical Engineering

- Eppendorf Fermenter (Prof. Anurag S. Rathore).
- Electrochemical Potentiostat/Galvanostat (Dr. M.A. Haider).
- Mass Spectroscope (Prof. S. Basu).
- Screen Printer (Prof. S. Basu).
- CHNO Analyzer.

Department of Chemistry

- Spares upgradatin of Brucker Microtof-Q-II, Instrument Lab.
- Spares upgradation for D8 Advance System, XRD Lab.
- Spares a Software upgradation of Spectra QFLUROLOG 3, Instrument Lab.

Department of Civil Engineering

- Servo-controlled Actuator (50 kN) Capacity.
- Data Acquisition System.
- Aerosol Emission Monitoring System, Vane Probe Velocity Meter.
- X-Ray Diffraction, Carbonation Chambers, Compression Testing Machines.
- ADV for Velocity Measurement in WRE Laboratory.
- Split Hopkinson Pressure Bar Procured Transportation Engineering Lab:
- Miovision Video Data Acquisition System.
- Marshall Mould Extractor.
- Automatic Marshall Compactor.
- Computers.
- MASw Shear Wave Velocity Field Testing Apparatus.
- Geosynthetics Test equipment/Accessories for Pullout, interface, sliding.

Department of Computer Science & Engineering

- Installed 72TB (raw) storage for Neuroimaging Lab (under Prof. Rahul Garg).

Department of Electrical Engineering

- Mathematica Prepetual Desktop.
- Neurocube Neuromorphic System with neural Network of 24 neo rons.
- License of Source Code for Neurostack FPGA Configuration File.
- Synergy H1 Hybrid Multimode Microplate Reader Model H1M with Accessories.

Infrastructure Development

- Imaging Spectrograph with Single Exit Port Focal Lens.
- Fuel Cell PEM Reactants hydrogen and Air Efficiency.
- Two solar PV Emulators.
- Semiconductor Device Analyzer Mainframe.
- Probe System Triaxial 150 mm.
- Phasor Measurement Unit.
- PCT-100: Process Control Technology (Bytronic Make).
- Servo Motor Model D081 M-12-1320.
- DSO 500 MHz 4GS/S 4no. CH, 10MPTS/CH.
- Actchamp 64‑Active, 64 Channel, Amplifier with Active Electrode, 8 Aux Channels and Brainvision Recorder Software.
- TerraSAS Photovaltic Simulator make of Amtek.
- Pioneer 3AT Item P3T0001 with P3-AT Front Sonar Ring.
- Power Quality Analyzer.
- ACE Kits Advanced Control Education kit Microlab Box.
- CRIO-9082 High Performance Integrated System.
- NVM Characterization System.
- RF Signal Generator.
- DSO High Performance Memory 8M.
- Tektronix make Mixed Domain Oscilloscope.
- Twin Rotor Multiple Input Multiple Output system.
- Sound Insulation Measurement Setup.

Department of Mechanical Engineering

- Eddy Current Dynamometer Model E-50 LC.
- Pressure Scanner Panel.
- Solidworks CAD/CAM Software 100 users.
- Creo CAD/CAM Software.
- Formlabs form 1+SLA 3D Printer.

Department of Physics

- ppLN Waveguide For Quantum Information Application (Dr. Joyee Ghosh).
- Noise Spectroscopy (Dr. Pintu Das).
- Seeback Coefficient Measurement (Prof. B.R. Mehta).
- Photoelectrochemical Workstation (Prof. B.R. Mehta).
- Andor Spectrometer/monochromator (Dr. Amartya Sengupta).

Centre for Applied Research in Electronics

- Four Channel Fiber Ccoupled Laser Source, Thor Labs.
- Dual Channel Low Current Source Measure Unit: Keithley 2636B.

Centre for Atmospheric Sciences

- 72 Tb storage server.

Centre for Biomedical Engineering

- 8x16" UV-Ozone Cleaner, Installed in Lab-on-a-chip & Biosensors Laborator (Dr. Sandeep K. Jha).

Centre for Energy Studies

- RF generator (13.56 MHz, 1 kW), Model No. CESAR1310.

Industrial Tribology Machine Dynamics and Maintenance Engineering Centre

- Pneumatic Conveying Plant With Swirling Device For Bend Erosion Study (designed and developed).

Centre for Polymer Science & Engineering

- Rheometer – 90 Lacs.
- Universal Testing Machine- 24 Lacs.
- Rotarary Evaporator – 6 Lacs.

Centre for Rural Development and Technology

- Fermenter (Prof. S.N. Naik).

Bharti School of Telecommunication Technology and Management

- Mixed Domain Oscilloscope (GHz range).
- High frequency Spectrum Analyzer.
- Casio Make XJ-UT310WN Projector.
- 2G Mobile Communication System base-station kit.

Kusuma School of Biological Sciences

- Protein crystallography facility

EDUCATIONAL TECHNOLOGY SERVICES CENTRE

The Educational Technology Services Centre (ETSC) is actively engaged in promoting the use of Educational Technology in the Institute and also at the national level. Some of its major activities are:

- Design & Development of Instructional Resources in the form of videos and web based material.
- Provision for and maintenance of Audio/Video equipment for classroom teaching.
- Organize training programs for faculty and professionals across the country.
- Video conferencing for faculty selection interviews and meetings.
- E-learning and distance education.
- Undertake sponsored research and consultancy projects.

Services Offered

The Centre has a modern video studio with recording and editing facilities. A studio-classroom with seating capacity of 60 is available for on-line recording of courses. Non linear editing set up and Apple Streaming server are available for post production and video streaming. ETSC takes care of the audio-visual needs of faculty and students. ETSC has procured and installed Sony ANYCAST system in the Video Studio and in two lecture theatres for non liner editing and recording. In addition to equipping the classroom with these facilities, ETSC runs a loan service.

State of the art audio visual facilities has been designed for the new lecture hall complex. The facilities include live video recording of lectures, tablets PCs for projection of the written lectures on the screens, document partly visualizers and microphone and speakers in the classrooms. This complex has become partly operational since July 2015.

A media reference library with multiple viewing cabins has been set up in the Central Library for the use of students and faculty. The Educational Technology Services Centre has a computer laboratory with modern multimedia capabilities and internet connectivity. Computer Aided Instruction/Computer Aided Learning courses/packages are developed in the computer laboratory. Learning materials generated by ETSC are disseminated at nominal price throughout the country and abroad.

The Centre conducts short courses and modular programmed on different aspects of educational technology for teachers from the Institute and from other educational institutions and industry institutions. These courses are designed to sensitize and guide the faculty to optimize their effort and time for classroom and laboratory instruction as well as professional development.

The Centre has the expertise and experience of undertaking national and international level consultancy and sponsored research projects. It has worked with agencies such as the World Bank, AT&T, AICTE, UNESCO, UNDP Commonwealth of learning, the British Council and Addis Ababa University, Ethiopia.

NPTEL Project

The NPTEL project funded by MHRD has been successfully completed. Under this program, all the seven IITs and Indian Institute of Science have worked together to develop web and video based educational material for undergraduates courses initially in five disciplines, viz., Civil Engineering, Computer Science and Engineering, Electrical Engineering, Electronics and Communication Engineering and Mechanical Engineering. The web courses so developed are available through the various servers authorized by NPTEL. Phase II of NPTEL Project has also started where its scope has been further expanded to include more disciplines and advanced/post graduate courses.

Video Conferencing and Outreach

Video Conferencing facilities have been installed in two lecture theatres and in the Conference Room of ETSC. The facility is being used for faculty interviews, meetings and distance education. For connectivity both ISDN and IP based network connection are used. For classes to Addis Ababa University (AAU), two lecture delivery rooms have been equipped with remote teaching facility. A dedicated two-way video link is also provided for live delivery from IIT Delhi to AAU, Ethiopia.

The new lecture rooms as temporary structures have also been equipped with audio/video, projection, distance education and recording facilities. In addition, three Virtual Class rooms are also being equipped under National Knowledge Network (NKN). Live classes are run for IIT-Ropar, IIT-Mandi and Dayal bagh Educational Institute, Agra using NKN.

ETSC is current run by a team of five faculty members. The current core committee of ETSC met on 6.2.2015 it was decided that was current core group may be extended to include the following Faculty members.

1. Dr. Kolin Paul, Computer Science & Engineering Dept.
2. Dr. S. Chatterjee, Electrical Engineering Dept.
3. Dr. S. Balaji, Applied Mechanics Dept.
4. Dr. Amit Gupta, Mechanical Dept.
5. Dr. Shalini Gupta, Chemical Dept.

NATIONAL RESOURCE CENTRE FOR VALUE EDUCATION IN ENGINEERING

The main focus of various activities taken up by NRCVEE is to sensitize the students towards universal human values such as concern for others, compassion, sense of brotherhood, honesty, integrity and the like. This year, NRCVEE offered several 1 credit courses under open category with the help of faculty from within as well as outside IITD. For the first time, NRCVEE hosted a Fulbright-Nehru scholar, Dr. Rimjhim Aggarwal from Arizona State University, USA from July to October 2015. She taught a course on "Role of values in sustainability transitions: A cross-cultural exploration" attended by 28 students from various disciplines with excellent feedback. Equally well-received was a course on "Self Help for Integral Development" by Mr. Varun Vidyarthi of Manavodaya, Lucknow, attended by more than 50 students. The course on "Self-development through Mindfulness" was conducted by Prof. P.L. Dhar (retired professor) in both the semesters of 2015-16, each time about 30 students completing the course with a lot of benefit. Besides, the regular course on Human Values and Technology continued to appeal to the students due to its approach of collective introspection and exploration through intense discussions in the class.

NRCVEE's reach to students and other members of the IITD community has increased manifolds after the initiation of Vivekananda Study Circle (VSC) under the banner of NRCVEE. This year as well, VSC invited several personalities to speak to the students about the spiritual aspects of life and its bearing on our day-to-day choices as well as mental state.

The Professional Ethics and Social Responsibility course was taken forward by enabling the students to do PESR internships with social organizations as well as PESR projects with faculty at IITD. The framework for the final sub-component of PESR, viz., Professional Ethics Case Studies was prepared in consultation with Prof. Kanika Bhal of DMS and former Dean, UG, Prof. Santanu Chaudhury with all preparations to start the course on Oct 1, 2016.

The Centre was given the responsibility to organise the programmes on International Yoga Day 2016. A team of faculty members planned and executed the same with much appreciation from all who participated.

Infrastructure Development

The Centre has also been actively contributing towards the organisation of Gandhi Jayanti as well as Ambedkar Jayanti along with the office of the Dean, SA. This year saw many innovations in these programmes including an on-the-spot painting competition for campus children, preparation of Ambedkar's portrait on the ground using Rangoli colours by students of Fine Arts club, participation of children from campus KV and an interaction session with Ms. Aruna Roy, a renowned social activist. This programme was organised in association with IITD SC/ST employees union.

Two one day workshops on "Mindfulness Meditation" were organised in association with SPIC MACAY, one in each semester. These workshops were very well received. Besides, other meditation programmes were also organised as part of International Yoga Day as well as otherwise.

COMPUTER AND INTERNET SERVICE

The main objectives of the Computer Services Centre are to :

- Provide round the clock computing and networking facilities to serve a user population of more than 10,000 users consisting of undergraduate, postgraduate, research scholars, faculty and staff of the Institute and provide advice on all the aspects of academic computing. The centre also participates in the Academic programmes of some of the departments and centres.

- Implement and maintain system and application software.

- Implement and manage the Institute Network.

- Impart Introductory and advanced instructions to users.

- Work on cutting edge technology and provide Services to users based on new technology.

- Provide support to Institute Computerization efforts.

- Computational labs facility to students for the conduct of UG/PG Lab courses.

- Do in-house development in IT related areas.

Activities undertaken during the year 2015-16

- A new 40 Rack Data Centre on the ground floor has become operational with IP Infrastructure and HPC facility. The Infrastructure Servers have become operational in June, 2015 and HPC facility in October, 2015.

- CSC has created Health Graphs using RRD tools for monitoring the health status of the IITD Network switches, UPS etc. on the campus.

- Developed portal for Alumni Affairs & International Programs (AAIP), new websites of Mechanical Engineering department, Technical Education QIP and IIT Research Academy.

- During the past one year about eight MATLAB workshops have been conducted for the benefit of the Institute students and two Mathematica workshops have been conducted in the Seminar Hall.

- New web site development for IIT Jammu, establishing domain, setting up email system for IIT Jammu students in coordination with NIC.

- Design and Development of websites with common structure for the RTI, ITMMEC and CRDT.

- Design and Development of new systems for faculty, staff, students and suppliers of the Institute.

- Developed Accounts Information System for Suppliers. With the help of this system Suppliers/Contractors of IIT Delhi will be able to view their payments details such as department budget from where payment is made, amount booked, amount paid along the details of sales tax, income tax etc.

- Developed Pensioners system which allows Retired employees to view their payments, pension details and personal messages/circulars link from IIT Delhi.

- Staff Appraisal System for Group A, B, C and D employees and evaluation by reporting and reviewing officers has been developed.

- Designing of template for Staff appraisal system and database structure & E-R diagram.

- Development of working model for entering self-appraisal forms for Group A and B employees and ACR forms for Group C and D employees.

- Creation of Self-appraisal reports for Group A & B employees and ACR reports for Group C & D employees.

- System for Smart Campus designed to take valuable inputs and suggestions from the Institute's faculty, staff and students.

- Voting system for the Senate nominee for BOG for Conference section.

- Developed system to take nominations from faculty members for various Deans and Associate Dean Positions.

- Suggestion Box system for faculty and staff.

- Complaint System for Maintenance unit both web based as well as on Mobile apps.

- Online Budget Request system for all departments.

- Recruitment system developed for Group-A officer and other staff has been tested and is to be implemented.

- Estate House Allotment system developed (testing under progress to be implemented soon).

- Development of course template input (to be implemented soon).

- Setting up of e-kiosk system (testing over to be deployed soon).

- Development and Implementation of RTGS and cash book system for Hostel accounts.

- New PDA system for Accounts starting with block year 2016.

- Total new in house development for academic front end system in PHP/Mysql (after closure of PeopleSoft project).

- Moving of entire Ingres application to virtualized environment .

- Full implementation of cashless facility for pathology test and setting up a system for settlement of bills from vendor in automated way.

- Helped the Ranking cell to provide the information from System in various forms, lot of queries and reports written where ever IIT Delhi participated like QS Ranking, BRICS, NIRF, Outlook etc.

Computing Facilities

The Centre is equipped with 112 HP blade servers out of which 64 Blade Servers are used for Cloud computing with 200 TB of virtualized storage and 48 blade servers with 80 TB of storage for user homes and infrastructure use like email, proxy, web services etc. CSC also has 460 desktop computers and ten Dell workstations for Simulation connected over a switched fast Ethernet. Uninterrupted Power Supply is provided through 2x 80 KVA MGE UPS system and DG set.

High Performance Computing (HPC)

The HPC facility in the Data Centre consists of the following:-

Compute Nodes: 422 (CPU nodes: 238, GPU nodes: 161 & Xeon Phi co-processors:23)

Basic configuration:-

GPU: 2x NVIDIA K40 (12GB, 2880 CUDA cores)

Xeon Phi: 2x Intel Xeon Phi 7120P (16GB, 1.238 GHz, 61 cores)

CPU: 2x E5-2680 v3 2.5GHz/12-Core

RAM: 64 GB

8 CPU, 8 GPU and 4 Xeon Phi nodes have 512 GB RAM each

Storage:- Home space: 500 TB and Scratch space: 1000 TB

In addition there are CUDA based GPU mini-cluster environment of 16 nodes, each with 2x8 core ES-2670 (Sandy bridge) CPU, 64 GB RAM and 2xNvidia K20 GPUs.

Major Facilities/Services

- The email facility is provided to all students, staff and faculty with webmail interfaces Roundcube and Squirrelmail using user and mailing list definitions from the IITD LDAP and Kerberos for user authentication.

- Compute facilities for research and projects are provided through Baadal, the Cloud Computing environment.

- The CSC provides Infrastructure Services through virtualization technology.

- The CSC has Microsoft Volume Licensing EES agreement for the Campus under which Microsoft software such as Windows OS, MS Office etc. are available for use.

- The center has the following third party software packages: Matlab, Mathematica, Abaqus, Ansys, Fluent, Comsol, Labview, etc.

- The center maintains local repositories of several popular open-source and commercial licensed software. The system is fully integrated with IITD LDAP and Kerberos.

- The CSC has configured moodle a public domain course management software, for use by faculty and students for the courses running during the semester.

- IIT Delhi is also a part of eduroam, a global Wifi roaming programme across academic campuses through ERNET India.

- Own Cloud, a file and document sharing utility similar to the popular drop box is also provided for user community. The utility supports storing and sharing of files, images, music and documents, contacts, calendars, tasks etc.

- To facilitate research downloads of huge data files through non-standard ports, download Server: download.iitd. ac.in can be used. Internet access can be accessed on all ports from this system and all access and downloads will be logged.

- Virtual web hosting facility can be used for securely hosting all websites of the form http://xyz.iitd.ernet.in which are not maintained by CSC.

- User web pages is available for the use of faculty and PhD. students for hoisting their web-pages on the server web.iitd.ac.in

- To provide Internet access to the visitors, the faculty and officers have been authorized to   create user account for their visiting faculty/ students.

- To facilitate limited access within IITD, CSC has a separate web server privateweb.iitd.ernet.in where users can have their personal web pages.

- VPN facility is provided to all the faculty of IITD for accessing IITD internal LAN from outside IIT Delhi. This facility has also been extended to the part-time PhD students.

- Network Time Protocol (NTP) servers are synchronized with standard internet time servers with time drift less than a few milliseconds and can be used by all users.

- The new Data Center consists of Cisco UCS B200 M3: Three chassis with 24 blade servers each with 2x12 Cores Intel(R) Xeon(R) CPU E5-2695 v2@2.40GHz ("Ivy Bridge" Generation) and 128 GB RAM. Each blade has five virtual NICs connected to two Fiber interconnects with redundant paths.

- CSC has also commissioned a disaster recovery data centre (DRDC) in the SIT building. The DRDC has been built by IBM can support a total IT load of 60 KW. It has redundant UPS power supplies and precision air conditioners in N+N and N+1 configurations respectively.

- MRTG and RRD Health Graphs have been provided to see the Status Reports of the various System activities/ Services.

- Complaint Registration and Monitoring System (SLA ticketing system) has been provided for resolving user problems regarding Network connectivity and Software issues on their systems.

PC Services

There are five PC Labs in the CSC premises having about 225 Desktop computers under Windows and Linux environment running Windows7/10 and Ubuntu 14.04 LTS. Besides this there are four computing labs in the new Lecture Hall Complex (LHC) having 235 desktop computers running Ubuntu 14.04. Projection facility is also provided for the UG/PG courses of the Institute which are held every semester. The PC Labs in the Center are open round-the-clock for authorized users.

Simulation Lab

The simulation lab is equipped with ten Dell workstations under Windows7 for CAD/CAE/ CUDA and High Performance Computing (HPC).

Network Services

The Institute LAN is a state of the art switched network with Fiber Optics and enhanced CAT5/CAT6 UTP backbone. It consists of more than 9000 network access points spread over the campus using about 265 Cisco switches and about 75 virtual LANs. Network access is provided to every student, faculty, Doctor, Laboratory and rooms in guest houses. Internet connection has been provided through a router, redundant firewall switching modules, and 2x10 Gbps from NKN.

IIT Delhi is connected to the National Knowledge Network (NKN) with 10 Gbps dual connectivity from Power Grid and RailTel. This connectivity provides virtual routing service, Internet Connectivity, and connectivity with other Institutes connected on the NKN backbone.

Internet and Intranet access is provided to faculty/officer homes via ADSL connectivity over internal telephone lines. The academic area, main guest house, faculty guest house, RCA and Hospital are also connected through secure Wi-Fi. An independent network has been provided for administrative functions. Many network services including mail, web, and domain name, anti-virus are being provided over this network.

IITD has upgraded the routers and switches for internet and the core and distribution network and has replaced the existing multimode fiber with single mode fiber. This has made the backbone 10 Gbps ready. Within the next few months Internet access through GPON will be provided for about 1200 residences in the campus using FTTH.

CENTRAL LIBRARY

The IIT Delhi Library System comprises of a Central Library and 18 departmental libraries that collectively support the teaching, research and extension programmes of the Institute. All students, faculty and employees of the Institute are entitled to make use of the Library facilities. The Alumni of the Institute are also entitled to Library services provided they are members of the Institute's Alumni Association. Similarly, industrial establishments can avail the Library services on taking corporate membership of the Library. Library consultation facilities are extended to faculty, students of outside organizations and the wards of IIT faculty and staff on their request. Retired teaching and non-teaching staff members can also avail Library facilities. The Library has over 9500 registered members.

Library Hours

The Library remains open throughout the year except on six days, namely; Republic Day, Independence Day, Dussehra, Diwali, Holi, Mahatma Gandhi's Birthday and any other holiday declared as a special holiday. The book stack area at 1st floor and Ground floor is open from 9:00 AM to 9:00 PM(Weekdays) and 10:00 AM to 6:30 PM(Weekends & Holidays). Reading Area at Ground floor and 2nd Floor is open 24X7.

Library Resources

a. Collection

The Central Library, IIT Delhi has a strong collection pertaining to physical sciences, engineering and technology, biotechnology, computer and information technology, social sciences and management.

As on 31st March 2016, the collection of the Library is as follows:

Books	1,74,217
Journals (Bound Volume)	1,05,765
Theses	4,934
Video Cassettes	1,800
CDs	5,550
Books in Text Book & Book Bank	22,890
Online Electronic Journals (Direct Subscribed+through Eshodh Sindhu)	20,000
Online Databases	8
CD-ROM Databases	2

b. Video Library

The Library is equipped with video viewing facility and has a collection of more than 2,500 CDs and kept in the Computer Application Division of the Central Library for viewing.

c. Reference Collection

The Library maintains a separate reference collection consisting of encyclopedias, dictionaries, handbooks, technical data, almanacs, atlases, bibliographies, etc.

d. Hindi Collection

The Central Library has built up a good collection of books in Hindi. Books in Hindi include books on various subjects

being taught and researched at the Institute as well as books on literature in Hindi. Books in Hindi are prominently kept near the reference area in the Library to promote its usage. To increase the use of Rajbhasha Hindi, Central library offers borrowing facility of one extra Hindi Book to all its members apart from their entitlement.

Electronic Journals and Online Bibliographic Databases

The Institute have access to over 20,000 full-text electronic journals and 8 bibliographic databases from a number of publishers and aggregators through the Direct subscription/ access through INDEST-AICTE Consortium/through eShodh Sindhu. The INDEST-AICTE Web Site (http://paniit.iitd.ac.in/ indest)/eShodh Sindhu Web Site (www.inflibnet.ac.in/ess/) hosts search and browse interface to locate these journals and their URLs. These journals/databases are also accessible online from the publishers' web site. Links to these electronic journals are available through the Library web site as well through the Library Web OPAC. More than 1 lakh bound volumes of journals are available in print form.

a. E-Resources avaialble through the Central Library/ INDEST-AICTE Consortium/ eShodh Sindhu

- AAAS – Science Online & Science Classics
- ABI / Inform Complete
- ACM Digital Library
- ACS Archives
- AIP Journals
- American Mathematical Society Journals
- American Meteorological Society Journals and Archives
- Annual Reviews
- APS Journals
- ASCE Journals
- ASCE Proceedings
- ASME Digital and Archives
- ASME Journals (+ A M R)
- ASTM Standards & Digital Library
- Cambridge University Press - HSS and S&T package
- Capitaline
- EBSCO - Business Source Complete
- EBSCO – World Textiles
- EBSCO Discovery Services
- EBSCO - Textile & Technology Complete
- Electrochemical Society - Digital Library Package
- Elsevier's Science Direct
- Emerald Full-text
- Euromonitor (GMID)

- I.C.E. and their Archives
- IEEE / IEE Library Online (IEL)
- InCites
- Indiastat.com
- INFORMS Current Journals
- INSIGHT
- IoP Science extra and their Archival collection
- ISI Emerging Markets - EMIES
- ISID
- Jgate+JCCC
- JOVE Biology
- JOVE Physics
- JSTOR
- Lecture Notes in Computer Science, Mathematics and Physics (Vol.1/1969-Vol. 476/1996)
- MathSciNet
- Nature
- NOW Journals
- Online Miscellaneous Journals
- Optical Society of America (OSA)
- Oxford Journals (Mathematics, Life Science, Humanities and Social Science)
- Project MUSE Journals
- RSC GoldOnline
- RSC Journals Archive Titles (1841 - 2004)
- Sage - IMECH Collection
- Sage - HSS & Management Journals and their Archives
- Sage – Science and Technology Package
- Science (Current and Archives)
- Scientific American
- Scopus
- SIAM Journals and their Archives
- Springer Link
- Taylor & Francis, Current Core Science & Technology Titles+ Chemistry Backfiles
- Wiley Custom Package
- World Scientific Publication Mathematics
- World Textiles Information Network

b. Electronic Books

The Institute has access to electronic books from the following publishers / aggregators:

- Elsevier Book Series on Chemistry, Business, Management & Economics, Life Sciences and Methods in Enzymology through the Science Direct (http://www.sciencedirect.com)

- Springer's Electronic Books (about 100 e-books) (http://ebooks.springerlink.com)

- Wiley InterScience Electronic Books (about 100 e-books)

- Myilibrary

- E-Text Books (38 books)

Computer and Networking Facilities

The Library has its own sub-LAN, which, in turn, is connected to the Campus LAN. It has over 100 PCs and six servers spread over three floors of the Library.

The Library is a part of fibre optic-based campus-LAN. Of 100 PCs in the Library, 40 Internet-enabled PCs are exclusively devoted for the Library users. As a member of the DELNET, the users can access databases offered by the DELNET. The Library Home Page provides a link to the DELNET database.

a. Computerization of In-house Activities

All in-house activities in the Library including Acquisition, Cataloguing, Circulation and Serials Control are fully computerized using Libsys Software Package. The Online Public Access Catalogue (OPAC) of the Library is operational both on Intranet and Internet. It can be accessed online to search more than 1,75,000 bibliographic records, available in the Library database through a web-based search interface or with a window client of the Libsys on Intranet as well as on Internet. The editing and updation activities are done on regular basis. Besides, the Central Library has two in-house databases for specialized collections. These databases include: Database of Ph.D. theses submitted to the IIT Delhi and Database of research articles by the faculty and researchers of the Institute.

The Library uses bar-code technology for computerized circulation system. Every document in the Library (except reference sources and bound volumes of journals) bear a bar-code tag that facilitates identification of document and the borrower in the circulation process. Similarly, all categories of users have a bar-coded patron cards. The Library has developed in-house facility for bar coding of books and patron cards.

b. RFID Technology in the Library

The Library also has the Radio Frequescy Identification (RFID) based system. It is the best automated library automation system used world wide and is an effective way of managing collections of the library and providing enhanced services to the users having benefits like: self check-out of books, self-check-in (book drop), to control theft, to find misplaced reading material, sorting, inventory accuracy, stock verification procedures, security control, video surveillance, people counter, Smart Card issuance, etc. It is an automatic data capture technology that uses tiny microchips and miniature antennas affixed to documents. RFID plays a vital role in redefining the library processes to make everyone's job easier right from the users to library staff.

Library Services and Facilities

a. Reader's Assistance

The Library provides assistance to its users ranging from location of a book to finding specific information required by a user. A suggestion book is maintained with Incharge, Reader's Services where the users of the Library can suggest measures for improvements in its facilities and services.

b. Circulation of Books and Library Membership

The Library members, according to their borrowing category can borrow stipulated number of books at a time against their bar-coded patron card. During the period under report, about 38,810 volumes were Check-in/out by the members of the Library from general collection.

c. Inter Library Loan (ILL) and Resource Sharing Facility

The Library arranges books and journals from other libraries in Delhi on Inter Library Loan (ILL). Photocopies of research articles are also arranged from other IITs under a resource sharing agreement signed by all IITs. The Library also facilitates Demand based procurement of research publications, photocopies of research articles, etc. from other IITs and institutions in Delhi as well as from other parts of India on reciprocal basis.

d. Database of Ph.D. Theses Submitted to the IIT Delhi

The library has in-house design and developed PhD theses database. Contains approximately 5000 bibliographic records of Ph.D. theses submitted to the IIT Delhi. In the year 1966 the first Ph.D. has awarded after that number of Ph.D. research has been continuously increasing every year till dated. The Database developed and maintained in MySQL Database and programmed using PHP language to facilitate access on the Intranet and Internet.

e. Photocopying Facility

The Library provides photocopying facility within its premises through an external vendor on payment basis.

f. Book Bank Facilities

The Book Bank holds multiple copies of selected textbooks for making them available to the students for the entire period of a semester. During the period under report, approximately 935 students (including SC/ST students) availed the benefit of book bank scheme.

g. Text Books Facilities (Print and Online)

The text books are most useful collection of the library especially for course/syllabus related reading. The section has approximately 10,000 syllabus related text books. The books for this section are purchased generally on the recommendations from different faculty members through the concerned Heads of the Department. The timings for issuing the books from

the Text Book Section are from 2 PM to 5 PM during Monday to Friday and the same are issued for overnight only (for one day). The books of this section may be returned back during 9 AM to 1 PM only. A maximum total of 2 of books are issued from the section at a time. The Central Library also has 35 e-textbooks for undergraduate students and the same are accessible in the campus through library website - http://library.iitd.ac.in/index.php/e-resourc/e-textbooks.

h. Theses Consultation Facilities

Central Library receives all the Ph.D. Theses awarded by IIT Delhi in Hard copy along with their CDs. Print copies of theses are housed in Text Book & Book Bank Section located at the ground floor of the library for consultation purpose only. The abstracts of theses are made available through library Online Public Access Catalog (OPAC) -http://libcat.iitd.ac.in:8080/jopacv11/html/ and also through another interface especially designed for searching the theses at: http://library.iitd.ac.in/thesis.

Web-based Computerized Services from the Library

The Central Library offers the following services to the Institute:

a. Network-based CD ROM Search Services

The Library has complete collection of Indian Standards and ASTM Standards on CD ROM that is available on the Campus network. The resources can be accessed on the Intranet at the URLs given below or through library website at http://library.iitd.ac.in:

- Indian Standards
  http://10.116.2.102/bis/

- ASTM Standards
  http://10.116.2.102/astm/

- IEC Standards
  http://10.116.2.102/iec/

b. Institutional Repository at IIT Delhi (http://eprint.iitd.ac.in/dspace/)

The Eprints @ IIT Delhi has been set-up to host full-text of research publications of faculty and researchers of the IIT Delhi using Dspace, an open source Digital Library software developed by the Massachusetts Institute of Technology. The Dspace supports the Open Archives Initiative's Protocol for Metadata Harvesting (OAI-PMH), an internationally recognized protocol and interoperability standard. The Eprints@IIT Delhi provides a platform for faculty and researchers to deposit, reuse and share their research publications. The repository also has the ability to capture, index, store, disseminate and preserve digital materials created in any part of the Institute. Faculty and researchers can register themselves with the digital repository and submit their pre-prints (pre-refereed version of an article), post-prints (post-refereed final version) and publisher PDFs (if allowed by the publisher). The repository has around 2,100 full-text research articles and 4800 abstract of Ph.D. Theses.

INDEST-AICTE Consortium / eShodh Sindhu Consortium

The "Indian National Digital Library in Engineering Sciences and Technology (INDEST) Consortium" was set-up in 2003 by the Ministry of Human Resource Development (MHRD) on the recommendation of an Expert Group appointed by the Ministry. The IIT Delhi has been designated as the Consortium Headquarters to coordinate its activities. The Consortium enrolls engineering and technological institutions as its members and subscribes to electronic resources for them at discounted rates of subscription and favourable terms and conditions. The Ministry provides funds required for subscription to electronic resources for 65 centrally-funded Government institutions including IITs, IISc Bangalore, NITs, IIITs, IIMs and few other Institutions that are considered as core members of the Consortium. The benefit of consortia-based subscription to electronic resources is not confined to its core members but is also extended to all educational institutions under its open-ended proposition. 94 Govt./Govt.-aided engineering colleges are provided access to selected electronic resources with financial support from the AICTE. The Consortium was re-named as INDEST-AICTE Consortium in December 2005 with the AICTE playing a pivotal role in enrolling its approved engineering colleges and institutions as members of the Consortium for selected e-resources at much lower rates of subscription. Director, IIT Delhi was the Chairman of the National Steering Committee of the INDEST-AICTE Consortium, which formulates guidelines for the Consortium and Prof. B.D. Gupta was National Coordinator, INDEST-AICTE Consortium.

The MHRD, Government of India has formed e-Shodh Sindhu Consortia merging three consortia initiatives, namely UGC-INFONET Digital Library Consortium, NLIST and INDEST-AICTE Consortium. The INFLIBNET Centre, Gandhinagar has been designated as the e-Shodh Sindhu Consortium Headquarters to coordinate its activities. For the year 2016 and onwards the e-Shodh Sindhu provides current as well as archival access to the peer-reviewed journals, bibliographical databases, citation and factual databases in different disciplines from a large number of publishers and aggregators to its member institutions including centrally-funded technical institutions(CFTIs)

MECHANICAL FABRICATION FACILITY (IDDC)

The Mechanical Fabrication Facility was a Central Facility located at IDDC Centre to cater to the entire post graduate mechanical fabrication needs of the institute. However, it is under re-organization and is being clubbed with Central Workshop.

CENTRAL WORKSHOP

Central Workshop is one of the pivoting units of the institute which teaches conceptually "how" a product comes to its present form by way of imparting core manufacturing education to all the first year students of IIT Delhi. It also

provides product manufacturing support to entire institute community in general and undergraduate students in particular. More than 900 undergraduate students in their first year acquire hands-on manufacturing skills in this Central Workshop. The Central workshop not only introduces art and science of manufacturing but also infuses confidence to take up product design and manufacturing activities in future. Central Workshop is also a place where B.Tech students of Mechanical Engineering and B.Tech students of Production & Industrial Engineering acquire training and knowledge in specialized areas of manufacturing like Metal Casting, Metal Forming, Metal Machining, Welding & Joining, Metal Forging Woodworking, CNC programming and 3D Printing, Plastic Product manufacturing etc. M.Tech. students of Production group also use central workshop facilities for their practical classes in various courses as well as for project and research work.

The central workshop is fully equipped with latest power tools, equipments and facilities in all areas of manufacturing technologies. It also caters to the fabrication needs of students doing product design & manufacturing courses, minor projects, B.Tech, project, Masters thesis and Doctoral research. Large numbers of students use this facility to build products and compete at national and international level product building competitions like Formula student car, mini Baja, Robocon etc. The facility can also be used by external agencies for their manufacturing and training needs during the vacation period.

Central workshop has undertaken efforts to reorganize, modernized and prepare it for continuously changing global manufacturing scenario. Efforts are also on to prepare students for a broader view of manufacturing which involves planning and deploying optimum ways to transformation of raw material into goods by integration of people, capital, processes, systems and enterprises to deliver products of value to the society.

IIT HOSPITAL

The institute has a computerized hospital centrally situated in the campus, headed by the Head, Hospital Services. The institute has 9 doctors (Modern Medicine) one Homoeopathic physician and one Dental doctor. The Hospital is also visited by part-time specialists from All India Institute of Medical Sciences in the fields of Orthopedics, ENT, Ophthalmology, and Skin disease, Radio Diagnosis, Psychiatry, Endocrinology, Cardiology and Neurology. It provides facilities for OPD and limited In-patient treatment. The Hospital is well equipped to take care of primary emergencies. It has a Dental unit, well stocked pharmacy (Allopathic and Homoeopathic), a pathology lab, providing facilities for blood, urine, stool and biochemical testing.

The Institute has a medical Insurance scheme (see section 7.18) that provides cashless facility for indoor admissions in panel hospital.

Hospital Statistics 2015-2016	
Patients Attended in OPD	99,073
X-Ray	2,489
Ultra Sound	411
Patients Admitted	319
Physiotherapy	4,253
Surgical Dressing	3,117
Dental Treatment	4,197
Pathology Lab Test	36,137
ECG	1,678

Hospital Facilities

a. OPD facility

Hospital has a large new OPD complex with excellent waiting facilities for patients where, prompt OPD services are provided by doctors. There is also a waiting hall with chairs, a TV, public utilities like drinking water and toilets. Wheel chairs, trolleys and attendants are there to help very sick patients.

b. Dental facility

Dental surgeon carries out procedures like Dental extractions, scaling /cleaning, extractions, fillings, & RCT.

c. Ward/ Indoor facility

Patients are kept for observation and admitted for treatment of medical problems like typhoid, acute gastroenteritis, COPD, bronchial asthma, malaria, Dengue pneumonias etc.

d. Minor OT

Minor surgical procedure like dressing of lacerated wound, suturing of minor lacerations & resuturing, excision of corns and sebaceous cysts are done.

e. Physiotherapy

Physiotherapy services are provided for a wide range of musculoskeletal painful disorders. Modalities available are MWD, SWD, U/S, TENS, IFC laser therapy traction unit, magnolia.

f. Laboratory services

Trained laboratory staff are conducting basic blood urine & stool tests during week days. Services of one NABL accredited laboratory are also available for carrying out specialised tests.

g. Pharmacy

Well equipped pharmacy (Allopathic & Homoeopathic) provides free reliable quality medicines to beneficiaries on doctor's prescription during OPD hours (8 AM to 8PM).

h. Radiology / X-ray facility

X-Ray pleophos-D, 300 MA Siemens available, X-rays done on all working days during OPD hours. Sonoline G-50 U/s machine Siemens ultrasound is available and ultrasounds are done once a week by visiting specialist

i. ECG services

24hours ECG services, including machine report, carried out by tranined staff.

j. Ambulance services

24 hours patient transport vehicle available.

k. Specialist OPD services

Expert specialists from AIIMS from various specialities visit the IIT Hospital in the evening 5.30 -7.30 pm

OTHER CENTRAL FACILITIES

In addition, several other central facilities during the given period located in various Departments and Centres are as mentioned below :

1. Rapid Prototyping: Can automatically construct physical models of Computer- Aided Design (CAD) data.

2. Super Computing Facility for Bio-informatics & Computational Biology.

3. MALDI/MS-MS:- MALDI/MS-MS houses QSTAR XL Pro system. A quadrupole LINAC collision cell is available in the system which follows the first mass filter and is used for efficient MS/MS fragmentation.

4. SEM:- The SEM Central Facility is equipped with following equipments:

- ZEISS EVO Series Scanning Electron Microscope Model EVO 50

- Bruker-AXS Energy Dispersive X-ray System (model Quan Tax 200). Ultra-microtome (Leica EM UC6).

- Polaron Gold/Silver Sputter Coating unit.

5. High Resolution NMR Spectrometer.

6. ESCA/UPS/AES facility:- ESCA/UPS/AES facility installed in 2007 is used for surface characterization.

7. GC- MS System:- GC-MS System perform Qualitative and Quantitative measurement of organic molecules.

8. Glass Blowing Workshop.

HINDI CELL

During the period (01.04.2015 to 31.03.2016) the following important activities were organized by Hindi Cell:

- Prof. Santosh Satya and Dr. Neeraj Kumar Chaurasia predented two paper in an International Hindi Conference held during 3-5 April, 2015, Rutgers University, New Jersey, USA.

- One day Training Workshop on 'IT tools/Software for progressive use of Rajbhasha Hindi' was organized for group 'B', 'C' Staff & Nodal Officers of the Institute, 4 August, 2015.

- One day Workshop on 'Scientific/Technical writing and presentation in hindi' was organized for Research Scholars of the Institute, 31 August, 2015.

- "Hindi Pakhwara" was organized during the 14-30 Sep., 2015 in which many activities were organized.

NEW COURSES PROPOSED/INTRODUCED

During the period, the following new courses have been proposed/developed/initiated :

Department of Biochemical Engg. and Biotechnology

- New course developed by Dr. Z.A. Shaikh and David Graham (Newcastle University)
- BBL749 Cancer Cell Biology by Dr. Ritu Kulshreshtha
- BBL750 Genome engineering by Dr. Preeti Srivastava
- BBL341 Environmental Biotechnology by Dr. Zia Shaikh, T.R. Sreekrishnan, Shilpi Sharma, Preeti Srivastava.

Department of Civil Engineering

- Advanced air pollution laboratory (PG), Environmental Statistics and Experimental Design (PG), Fundamental of aerosol: health and climate (PG), air and noise pollution (UG).
- CVL 861 Analysis and Design of Machine Foundations.
- Durability and Repair of Concrete Structures.
- Simulation Laboratory II.
- CVL811 Numerical and Computer Methods in Geo-mechanics.

Department of Computer Science & Engineering

- Mathematics of Data Science bu Amitabha Bagchi
- "Operating Systems" for NPTEL by Sorav Bansal
- Advanced Functional Brain Imaging by Rahul Garg.

Department of Electrical Engineering

- ELL755 Variable Reluctance Machines
- ELL756 Special Electrical Machines
- ELL764 Electric Vehicles
- ELL765 Smart Grid Technology
- ELL766 Appliance Systems
- ELL767 Mechatronics

Department of Humanities and Social Sciences

- HUV701 Concept of exile (1 credit).
- HUV809 Creative Reading
- HUL374 Nations and Nationalism
- HUL356 Buddhism across time and space
- HUL842 Philosophy of Plato

Department of Management Studies

- MSC894 Seminar
- MSL(733)837 Organization Theory
- MSL705 HRM Systems
- MSL707 Management Accounting
- MSL708 Financial Management
- MSL709 Business Research Methods
- MSL711 Strategic Management
- MSL712 Ethics & Values Based Leadership
- MSL713 Information Systems Management
- MSL717 Business Systems Analysis & Design
- MSL719 Statistics for Management
- MSL720 Macroeconomic Environment of Business
- MSL721 Econometrics
- MSL724 Business Communication
- MSL725 Business Negotiation
- MSL727 Interpersonal Behavior & Team Dynamics
- MSL729 Individual Behavior in Organization
- MSL730 Managing With Power
- MSL731 Developing Self Awareness
- MSL780 Managerial Economics
- MSL804 Procurement Management
- MSL805 Services Operations Management
- MSL806 Mergers & Acquisitions
- MSL807 Selected Topics in Strategic Management
- MSL808 Systems Thinking
- MSL809 Cyber Security: Managing Risks
- MSL810 Advanced Data Mining for Business Decisions
- MSL814 Data Visualization
- MSL821 Strategy Execution Excellence
- MSL834 Managing Diversity at Workplace
- MSL836 International Human Resources Management
- MSL841 Supply Chain Analytics
- MSL842 Supply Chain Modeling
- MSL848 Applied Operations Research
- MSL851 Strategic Alliance
- MSL853 Software Project Management
- MSL854 Big Data Analytics & Data Science
- MSL855 Electronic Commerce
- MSL856 Business Intelligence
- MSL858 Business Process Management with IT
- MSL864 Corporate Communication

New Initiatives

- MSL868 Digital Research Methods
- MSL870 Corporate Governance
- MSL871 Banking and Financial Services
- MSL874 Indian Financial System
- MSL876 Economics of Digital Business
- MSL877 Electronic Government
- MSL878 Electronic Payments
- MSL882 Enterprise Cloud Computing
- MSL883 ICTs, Development and Business
- MSL884 Information System Strategy
- MSL885 Digital Marketing-Analytics & Optimization
- MSL886 IT Consulting & Practice
- MSL887 Mobile Commerce
- MSL888 Data Warehousing for Business Decision
- MSL891 Data Analytics using SPSS
- MSL892 Predictive Analytics
- MSL893 Public Policy Issues in the Information Age
- MSL894 Social Media & Business Practices
- MSL895 Advanced Data Analysis for Management
- MSL896 International Economic Policy
- MST894 Social Sector Attachment

Department of Mechanical Engineering

- Introduction to Microfluidics (PG)
- Electrochemical Management Systems (UG)
- Thermal Management of Electronics (UG)

Department of Physics

- Advanced Numerical and Computational techniques a pre Ph.D. course designed.

Department of Textile Technology

- TXL714 Advanced Materials Characterization Techniques (PG) Developed by: Ashwini K. Agrawal

Centre for Applied Research in Electronics

- CRL727 Introduction to Quantum Electron Devices (3-0-0)
- CRL729 Sensors and Transducers (3-0-0)

Centre for Atmospheric Sciences

- Introduction to Weather, Climate and Air Pollution, Data Analysis, Methods for Atmospheric and Oceanic Sciences by Dr. Somnath Baidya Roy.

Centre for Polymer Science and Engineering

- PTL714 Biodegradeable Polymeric Materials by Prof. S.N. Maiti / Dr. Sampa Saha

Amar Nath and Shashi Khosla School of I.T.

- SIV 889 Special Module in Human Computer Interaction: 1 credit (1-0-0)

Kusuma School of Biological Sciences

- "Genome and healthcare" Credit 3-0-0 by A.K. Patel
- "Biomolecular interactions" Credit 3-0-0 by A.K. Patel

QIP/CEP COURSES

Department of Applied Mechanics

- Advanced Materials Characterization from July 12 to 14, 2015.
- Mid-Career Refresher Course 2015 (MCRC) on Warship & Submarine Design for officers from Indian Navy was conducted at Naval Construction Wing, Dept. of Applied Mechanics in June 2015.
- One Credit Course on "Wind Energy and Wind Farms" by Prof. Zellman Warhaft (Dept. of Mechanical and Aerospace Engineering, Cornell University, New York) from February 8 to March 8, 2016.

Department of Chemical Engineering

- Aseptic Processing for Production of Pharmaceuticals: QbD, PAT, QRM and Validation, CEP Workshop with DSM Sinochem, IIT Delhi, New Delhi, October 2015 by Prof. Anurag S. Rathore.

Department of Civil Engineering

- 5 QIP/CEP Courses Conducted by Dr. Gazala Habib.
- CEP course on Project Management in Construction Industry organized by Dr. J. Uma Maheswari & Prof. K.C. Iyer for NBCC officials between 14 to 18 September, 2015.
- TEQIP short course on Closure / Remediation of Waste Dumps and Contaminated Sites, November 2015.

Department of Computer Science & Engineering

- Summer Internship Program 2015 Duration: 02 months w.e.f. 28 May, 2015 onwards.

Department of Electrical Engineering

- "Power System Optimization: A Journey from Conventional to Meta- Heuristic Techniques" 2015/TEQIP-STC/23 by Dr. A.R. Abhyankar & Dr. B.K. Panigrahi from 5 to 6 June, 2015.
- "Stepping into Next Generation Grids" by Dr. N. Senroy on 4 March, 2015.
- "Big Data and Ontology Workshop" by Prof. S. Chaudhury & Dr. Brejesh Lall on 19 September, 2015.

Department of Humanities and Social Sciences

- QIP workshop on "Advances in Applied Positive Psychology" on 8 May, 2015.
- "How to do Really Things with Words" Workshop with Barbara Cassin (CNRS) on January 29, 2016.
- Summer conference in Economics: Theory meets empirics from 8 to 9 April, 2016.

Department of Management Studies

- Sustainable Operation Management Concept and Model by Dr. S.P. Singh from 4 to 6 June, 2015.

New Initiatives

- Advance Data Analysis of Management (ADAM) by Dr. Seema Sharma, Dr. Jitendra Madan and Dr. Amlendu Dubey from 26 to 28 June, 2015.
- Certificate Program on Branding & Corporate Communications by Dr. Mahim Sagar from 8 to 9 Aug., 2015.
- Financial Management by Prof. S.S. Yadav, Prof. P.K. Jain, Dr. Shveta Singh and Dr. Smita Kashiramka from 17 to 21 August, 2015.
- Certificate Program on Telecom Technology & Management: Current & Emerging Trends by Dr. Mahim Sagar from 20 to 21 August, 2015.
- Business Ethics and Corporate Governance by Prof. Kanika T. Bhal and Dr. Shveta Singh from 26 to 26 November, 2015.
- Advancing Research in Management by Dr. P. Vigneshwara Illavarasan and Dr. Arpan Kar from 3 to 5 December, 2015.
- Strategic Innovation and Flexibility by Dr. Sanjay Dhir from 4 to 6 December, 2015.
- One Week CEP Certificate Programme on Advanced Data Analysis in Management (ADAM) by Dr. Seema Sharma from 23 to 27 November, 2015.
- Advance Data Analysis of Management (ADAM) by Dr. Seema Sharma from 14 to 18 December, 2015.
- TEQIP-II: Decision Making Models in Operation and Supply Chain Management by Dr. S.P. Singh from 15 to 19 Feb., 2016.
- CEP: Decision Making Models in Operation and Supply Chain Management by Dr. S.P. Singh from 15 to 19 Feb., 2016.
- CEP: Advances in Bussiness Analytics by Dr. Vigneswara Illavarasan and Dr. Arpan Kumar Kar from 19 to 22 Mar, 2016.

Department of Mechanical Engineering

- Product Design by Prof. H. Hirani, 2015.

Centre for Applied Research in Electronics

- CEP at INS Valsura, Jamnagar from 28 to 30 Jan, 2016.

Centre for Atmospheric Sciences

- DST, Govt. of India funded SERB School on "Fundamentals of Oceanic Processes and Modeling" from 17 May to 11 June, 2015. Coordinators: Prof. A.D. Rao & Dr. Vimlesh Pant.
- CEP course for Andhra Pradesh Pollution Control Board on "Urban Pollution: Engineering and Strategic Planning to Combat Air Pollution" from 8 February to 12 February 2016. Coordinator: Prof. Manju Mohan, Co-coordinators: Dr. Sagnik Dey, Dr. S.K. Mishra, Dr. Dilip Ganguly, Dr. Sandeep Sahany.

Centre for Biomedical Engineering

- Medical Imaging: Techniques and Clinical Application; organised by: Dr. Amit Mehndiratta & Dr. Anup Singh; TEQIP-II & CEP workshop from 3 to 4 April, 2015; IIT Delhi.
- Workshop on Design of Medical Devices; Organized by Dr. Dinesh Kalyanasundaram & Dr. Sriram Hegde; TEQIP-II & CEP Workshop from 9 to 10 May, 2015; IIT Delhi.

- Workshop on Lasers: Technology and application in engineering and medicine; Organized by Dr. G. Vijaya Prakash, Dr. Dinesh Kalyanasundaram; TEQIP-II & CEP Workshop from 11 to 13 September, 2015; IIT Delhi.
- Medical Imaging: Techniques and Image Processing Workshop; organised by: Dr. Amit Mehndiratta & Dr. Anup Singh; TEQIP-II & CEP workshop from 25 to 27 March 2016; IIT Delhi.

Centre for Energy Studies

- "Recent Trends in Solar Energy Technologies" organised by Prof. G.N. Tiwari from June 16 to 23, 2015 at CES IIT Delhi.

Industrial Tribology Machine Dynamics and Maintenance Engineering Centre

- TEQIP/CEP course on Flyash Management for Thermal Power Plants from 10 to 12 December 2015.

Centre for Rural Development and Technology

- Biogas production, purification and power generation Coordinator: Prof. V.K. Vijay from 18 to 20 May, 2015.
- Soil health and food security by Prof. Satyawati Sharma & Dr. Hariprasad P. from 7 to 11 December, 2015.
- Trends in harnessing food safety and quality: Indian prospective by Prof. S.N. Naik & Dr. J.K. Sahu from 2 to 5 December, 2015.

Bharti School of Telecommunication Technology and Mgmt.

- MIMO Wireless Communications: Fundamentals and Advancements on 6 to 11 July, 2015.
- Telecom Management- Current & Emerging on 20 to 21 August, 2015.
- Information Theory and Channel Capacity on 14 to 19 December, 2015.
- Coding Theory and Advance Information Theory on 21 to 24 December, 2015.

NEW MOUS SIGNED BY THE INSTITUTE

A. Memorandum of Understanding

In order to have close cooperation in the field of Teaching and Research, the Institute has signed MoUs / Agreements with Institutions / organization in India and abroad. Currently there are 88 MoUs with foreign Institutions / Organizations and 63 MoUs with Indian Institutions / organizations. The objectives of these MoUs include exchange of students and faculty, joint research activities and fellowships for training at doctoral and postdoctoral level etc.

During the period under report the Institute has signed the MoUs with the following Institutions / Organizations:

National

1. National Institute of Technology Delhi
2. Delhi Integrated Multi Modal Transit System Ltd. (DIMTS)
3. Food Research and Standardization Laboratories (FRSL)

4. NTPC

International

1. University of Westminister
2. Friendrich-Alexander-Universitat Erlangen-Nurnberg (FAU)
3. Swansea University
4. National Institute of Advanced Industrial Science and Technology (AIST)
5. RWTH Aachen University
6. Michigan State University
7. SKOLTEC (Skolvo Institute of Science and Technology)
8. TOMSK Polytechnic University
9. Universiti Brunei Darussalam
10. KOC University
11. School of Global Studies, University of Gothenburg
12. University of Newcastle (Australia)

B. Institutions of Chairs

The Industry and the alumni of the Institute have extended significant support to the Institute for its academic and research programmes by way of instituting chairs in various fields. As on date, 38 Chairs are functional at the Institute.

C. Scholarships/Medals/Awards/Fellowships

To encourage and to provide financial assistance to needy students of the Institute, individuals, trusts and organizations have been instituting scholarships etc. At present there are 172 awards/scholarships/medal stand instituted at Undergraduate and Postgraduate levels. In addition the Institute has a "Loan Scholarship Scheme" which makes it more affordable for the students in comparison to taking loan from the banks.

During the period under report following scholarships have been instituted:

1. Shapoorji Pallonji Scholarship
2. Prof. J. Nanda Cash Award
3. Bhagirathi Bhashisht Tiwari Award
4. Mira Madan Cash Award
5. Malti Singh and Shri Rishi Raj Singh Memorial scholarship
6. Amar Chand Memorial Scholarship
7. Sarla Devi Duggal Excellence Award
8. C.S. Jha Memorial Excellence Award
9. S.L. Duggal Excellence Award
10. Buti Foundation Scholarship
11. Sabita Karunes Memorial Award

D. New faculty research grant

To encourage the new faculty for developing research facilities in the area of their expertise, during the period under report the Institute allocated a sum of Rs. 213 lakhs.

BOOK PUBLISHED

Department of Applied Mechanics

- Proceeding of INCAM 2015: Mechanics of Solids, Fluid & Materials. Editor: Puneet Mahajan, B.P. Patel, Vikrant Tiwari & Jayant Jain, Narosa Publishing house, ISBN: 978-81-8487-509-6 New Delhi, 2015.

Department of Biochemical Engg. and Biotechnology

2 book chapters published by:

- Dr. Z.A. Shaikh in books published by Elsevier
- S. Sharma, R. Sharma, R. Gupta, V.S. Bisaria (2015) Revisiting action of bioinoculants: their impact on rhizospheric microbial community function. In Microbial Inoculants in Sustainable Agricultural Productivity, Vol. II Functional applications (ed D.P. Singh), Springer.
- S. Mutturi, V. Sahai, S. Sharma, V.S. Bisaria (2015) Strategies for high density cultivation of bio inoculants in submerged culture with special reference to pseudomonads. In Microbial Inoculants in Sustainable Agricultural Productivity, Vol. I Research Perspectives (ed D.P. Singh), Springer.

Department of Chemical Engineering

- Vivek Buwa, Shantanu Roy and Vivek V. Ranade, "Chapter 6. Three-Phase Slurry Reactors" in Önsan, Z. I., & Avci, A.K. (2016). Multiphase Catalytic Reactors: Theory, Design, Manufacturing, and Applications. John Wiley & Sons.
- Preparative Chromatography for Separation of Proteins and Peptides, Ed. By A. Staby, S. Ahuja, and A.S. Rathore, Wiley Interscience, 2016.

Department of Chemistry

- Shivani Chaturvedi, R. Hemamalini and S.K. Khare (2015) Waste treatment in food processing industries. In: Women, Technology and Development, pp 177-195, Narosa Publishing House, India.
- R. Sinha and S.K. Khare, (2015) Interaction between nanoparticles and plants: Increasing evidence of phytotoxicity. In: Bio-Nanoparticles: Biosynthesis and Sustainable Biotechnological Implications, pp 255-272, Wiley Blackwell.
- G.N. Gupta, S.K. Khare, and V. Prakash, (2015) Cold Active Lipase from Psychrophile and their Industrial Application. In: Microbial Biodiversity: A Boon for Agriculture Sustainability, pp 211-224, Biotech Books, India.

Department of Civil Engineering

- Sumedha Chakma: Book Chapter: Alemayehu A.S., Alamirew T., Melesse, A.M., and Chakma S. (2015) "Climate Change Impact on the Hydrology of Weyb River Watershed, Bale Mountainous Area, Ethiopia" Melesse A.M., and Abtew W., (eds.), Landscape Dynamics, Soils and Hydrological Processes in Varied Climates, Springer International Publishing Switzerland Springer Geography, 587-614.

New Initiatives

- Tanusree Chakraborty: Book Chapter: Arundhuti Banerjee, Tanusree Chakraborty, Vasant A. Matsagar, Tushar K. Datta, 2015. Stochastic analysis of offshore wind turbine structures. Modeling and Simulation Techniques in Structural Engineering, Editors: P. Samui, S. Chakraborty, D. Kim. IGI Global, ISSN: 2326-6139, 2015.

Department of Computer Science & Engineering

- Nikolaj Bjørner, Sanjiva Prasad, Laxmi Parida (eds): Distributed Computing and Internet Technology - 12th International Conference, ICDCIT 2016, Bhubaneswar, India, January 15-18, 2016, Proceedings. Lecture Notes in Computer Science 9581, Springer 2016, ISBN 978-3-319-28033-2.

- Architecture Exploration of FPGA Based Accelerators for BioInformatics Applications Authors: B. Sharat Chandra Varma, Kolin Paul, M. Balakrishnan ISBN: 978-981-10-0589-3 (Print) 978-981-10-0591-6 (Online).

Department of Electrical Engineering

- Santanu Chaudhury, Anupama Mallik and Hiranmay Ghosh, "Multimedia Ontology" CRC Press, ISBN: 9781482236347, 2015.

Department of Humanities and Social Sciences

- Rethinking Revolutions by Richa Kumar, Oxford University Press.

- Perspectives on violence and othering in India Edited by R.C. Tripathi and Purnima Singh, Published by Springer.

- 'Public Sphere from Outside the West' by Divya Dwivedi and Sanil V.

- Essays on Distribution, World Systems, Ecology, and Left Politics by V. Upadhyay.

Department of Management Studies

- Singh, Shveta, Jain, P.K., Yadav, Surendra Singh (2016) "Equity Markets in India: Returns, Risk and Price Multiples" published by Springer.

- Seema Sharma '' STATISTICS for Business and Economics" WILEY, ISBN: 978-81-265-5934-3, 2016.

- Sushil, K.T. Bhal and S.P. Singh (Eds.), Managing Flexibility: People, Process, Technology and Business, Springer, 2016.

- Sushil and Gerhard Chroust (Eds.) Systemic Flexibility and Business Agility, Springer, 2015.

- K.M. Mital, P. Vrat and Sushil, Flexible Human Resource Planning: Principles and Applications, New Age International, New Delhi, 2015.

- R.C. Pathak and Sushil (Eds.), India Centric Management, Global Books Organisation, Delhi, 2015.

Department of Mathematics

- Introduction to Probability and Stochastic Processes with Applications, Liliana Blanco Castaneda, Viswanathan Arunachalam, Selvamuthu Dharmaraja, Wiley Asian

Edition is published in Jan. 2016, xxiv+616 PP. ISBN 978-8-126-55914-5.

Department of Mechanical Engineering

- Fundamental of Engineering Tribology with Applications by Harish Hirani, Cambridge Univ. Press, New Delhi (2016).

Central for Biomedical Engineering

- Swati Jain, Sruti Chattopadhyay and Harpal Singh "Hybrid Semi-Synthetic Polyhydroxy Acid Based-Biomaterials" e- Book Chapter 7 (pp 143-179, vol. 37), e-Book entitled: "Frontiers in Biomaterials: Unfolding the Biopolymer Landscape" Edited by Prof. Viness Pillay, Dr. Yahya E. Choonara, and Dr. Pradeep Kumar. 2016. ISBN: 978-1-68108-196-0, ISSN: 2468-0168, DOI: 10.2174/9781681081953116020010.

- Veena Koul, Sirsendue Bhowmick and Thanusha A.V. "Hydrogels for Pharmaceutical applications" in Hand book of Polymers for Pharmaceutical Technologies, Vol. 4 Bioactive and Compatible Synthetic / Hybrid polymers, Wiley publications.

Central for Rural Development and Technology

- Proceedings of National Biogas Convention 2015 "Current and emerging trends in Indian biogas and bio-fertilizer development". Author: Prof. V. K. Vijay.

- Monograph on "Non-edible oil seed cakes: value addition for biofertilizers and biopesticides. Authors: Dr. Abhishek Sharma and Prof. Satyawati Sharma.

Amar Nath and Shashi Khosla School of Information Technology

- Architecture Exploration of FPGA Based Accelerators for BioInformatics Applications by B. Sharat Chandra Varma, Kolin Paul, M. Balakrishnan. ISBN: 978-981-10-0589-3 (Print) 978-981-10-0591-6 (Online).

Kusuma School of Biological Sciences

- C.S. Dey : Book Chapter: Gopal C. Majumder, Sudipta Saha, Kaushik Das, Debjani Nath, Arunima Maiti, Souvik Dey, Debarun Roy, Chinmoy Sankar Dey et al.. Role of Sperm Surface Molecules in Motility Regulation. Mammalian Endocrinology and Male Reproductive Biology, Chapter 8, Edt. S.K. Singh. CRC Press, 197-243.2015, ebook isbn: 978-1-4987-2736-5.

MAJOR RESEARCH INITIATIVES/RESEARCH PROJECTS UNDERTAKEN

Department of Applied Mechanics

- Development of Autonomous Underwater Glider.

- Development of Underwater ROV for Marine Applications.

- Study of Flow Dynamics on Warship Helicopter Decks.

- Exploration of Innovative Concept Designs for Warships & Submarines.

- Brain Mechanics in Neurosurgery.

New Initiatives

Department of Biochemical Engg. and Biotechnology

- A project titled 'Membrane Technology for Clarification of Sugar Cane Juice' was approved for funding by Ministry of Human Resource development (MHRD) under new scheme called 'Uchhatar Avishkar Yojana (UAY)'. The budget approved for funding was Rs 82.53 Lakhs for one year, 50% of the budget will come from MHRD, 25% from DST and 25% from participating private industry. Principal Investigator of the project is Dr. Gopal P. Agarwal.

- DBT-AIST International Laboratory for Advanced Bio-medicine (DAILAB) inaugurated at IIT Delhi on November 04, 2015 by Dr. Renu Swarup, Senior Adviser, Department of Biotechnology (DBT), Government of India, in the presence of Prof. R. Chidambaram, Principal Scientific Advisor to Govt. of India and Chairman, Scientific Advisory Committee to the Cabinet, Govt. of India for which Dr. D. Sundar is the coordinator.

- Dr. Zia Shaikh initiated joint research collaboration with Unilever to work on treatment of emerging contaminants.

- Prof. Saroj Mishra awarded Rs. 8.67 Crore COE grant for Bio- Pharmaceutical Technology by Dept. of Biotechnology (Govt. of India) as co-PI.

Department of Chemical Engineering

- "Continuous processing for production of biotech therapeutics" got sanctioned under Ucchattar Avishkaar Yojana (UAY), 10.0 Crores from Government and further 3.0 Crores from Industry (Prof. A.S. Rathore, Dr. Anupam Shukla, Dr. Manoj C. Ramteke)

- "Center of Excellence of Biopharmaceutical Technology" got sanctioned under the COE Scheme of DBT and 10.0 Crores was awarded (Prof. A.S. Rathore, Dr. Anupam Shukla, Dr. Sudip K. Pattanayek, Dr. Munawar A. Shaik, Dr. M. Ali Haider, Dr. Gaurav Goel)

- "Optimum Current Efficiency for Gold deposition and Gold Recovery from Effluent" got sanctioned under Ucchattar Avishkaar Yojana (UAY), 72 lacs from Government and further 24 lacs from Industry (Prof. S. Basu, Prof. Ratan Mohan, Prof. A.K. Saroha, Dr. Anupam Shukla, Dr. Sudip K. Pattanayek, Dr. Anil Verma, Dr. Manoj C. Ramteke)

- "Multiscale Modeling, Simulation and Optimization for Energy, Advanced Materials and Manufacturing", Joint project between IIT Delhi and University of Erlangen-Nuermberg (FAU Erlangen) Germany awarded under the Indo-German Partnership Program (IGP) by the UGC & DAAD, total funds sanctioned to Indian side are Rs. 2.8 Crores and similar amount to (~ Euro 400,000.00) to the German side for a period of 4 years (2016-2020) (Indian participants: Dr. Vivek V. Buwa (ChE, coordinator), Prof. S. Roy (ChE), Dr. Ajeet Kumar (AM), Prof. D. Ravi Kumar (ME) and Dr. Mani Mehra (Mathematics)).

Department of Chemistry

- Research Publications in High Impact factor journals Nature, 530, 485-489, 2016 Angew chem. (Int. Ed.)-accepted Nature Materials 2016, 15, 32-7.

Department of Civil Engineering

- A.K. Nema - Sustainable cost effective treatment and disposal of effluents from handloom industry (RP03158), Sponsoring Agency: Dev. Commissioner for Handlooms, Ministry of Textile Govt. of India, Project Abstract: The overall goal of the proposed study is to propose sustainable - cost effective technology for treatment and disposal of effluent from the handloom industry. Main objectives of the proposed project are to estimate quantitatively the amount of wastewater generated by the handloom industries; to estimate qualitative characteristics of the wastewater generated by the handloom industries; to arrive at a treatment mechanism and scheme for the effluent generated at three different levels from household level to the cluster level from the handloom industry, Project Cost : 23.16 Lakh, Project Duration: 08 Months (11-02-2016 to 10-10-2016).

- Dhanya C.T. - "Investigation of environmental flow requirements considering water quality constraints", Department of Science and Technology (DST) Under Extra-Mural Research Funding, On-going since July 2015 – As PI., "Morphological Studies of Kosi, Bagmati and Yamuna Rivers", Funded by Central Water Commission, New Delhi, India; Duration: 2 years; Budget: 170 Lakhs; On-going since August 2015 – As Co-PI., "Monitoring & Management of Urban Flooding using a Crowd-sourcing Technique", FLOOD-EVAC: Indo-German Project, Proposal under Co-operation in Civil Security Research between India and Germany, Funded by Department of Science and Technology (DST) under Fast-Track Scheme; Duration: 3 years; Budget: 46.39 Lakhs; On-going since July 2015 (Ongoing) – As Co-PI.

- Dipti Ranjan Sahoo: India-Japan collaborative research on seismic-resistant steel structures.

- Gazala Habib: Developed an Aerosol Emission Monitoring System (AEMS) for combustion sources.

- Shashank Bishnoi: Development of Limestone Calcined Clay Cement (LC3).

- Sumedha Chakma: Design of Bioreactor for Solid Waste Management.

- Tanusree Chakraborty: Material Characterization under Dynamic Loading.

- Abhijit Ganguli: Translation of a Geophysical Subsurface Imaging algorithm to Ultrasonic Imaging of Concrete Media.

Department of Electrical Engineering

- A Low Cost Wild Animal Protection Systems Thr. Animal Presence & Movement Detection Using Wireless Sensor Networks – Design & Development – Elephant Collisions; Prof. Subrat Kar.

New Initiatives

- Development of Optical Sensors and Sensor Systems Real Time Dredge Monitoring of Oil Spills; Dr. Anuj Dhawan.

- Integrated, Portable Systems for Rapid Diagnostics in Limited Resource Settings; Dr. Anuj Dhawan.

- Seizure Detection, Prediction and Evaluation: An Intelligent Model; Dr. Tapan K. Gandhi.

- Nano and Micro Structured Plasmonic Biochips for Enhanced Sensitivity of Surface Plasmon Resonance Imaging; Dr. Anuj Dhawan.

- Special Manpower Development Programme for Chips to System Design (SMDP-C2SD); Prof. B. Bhaumik.

- Investigation of Emerging Non-Volatile Memory Technology for Storage and Computing Applications; Dr. Manan Suri.

Department of Humanities and Social Sciences

- Centre of Excellence in "Science, Technology and Public Policy is being set up after acceptance of proposal by BERP

- DST Project is ongoing.

Department of Management Studies

- Centre of Excellence "Nation Centre of Business Ethics, Corporate Governance and Corporate Social Responsibility".

Department of Mechanical Engineering

- The department has undertaken major research work with the reputed institutions. Some of these are:

- BHEL, Haridwar.

- AIA.

- Ministry of Heavy Industries.

- DRDO.

Department of Physics

- Nanooxide materials: a novel material for nuclear technology (Collboration with BARC, Mumbai, India and University Paris Sud Centre de Sciences Nuclacaires et de Sciences de la Matiare) by Dr. Santanu Ghosh.

- Lead Faculty: DRDO-JATC, Vertical II: Advanced Electromagnatic Devices and THz Technologies by Dr. Amartya Sengupta.

- Member Faculty: DRDO-JATC, Vertical IV: Detection/Sensing of chemical & biological agents by Dr. Amartya Sengupta.

Department of Textile Technology

- Workshop to initiate a new M. Tech Program in "Textile Chemical Processing" on 2 July 2016 with Industry Participants.

Centre for Applied Research in Electronics

- Mm-wave and THZ technology Development proposal submitted under DRDO JTAC.

- High Efficiency Photo-detectors based on Junction less Transistors.

- Multi-sensor data fusion for underwater navigation applications.

Centre for Biomedical Engineering

- Submission of Biodesign Project to DBT for Rs 50 crore from CBME

Centre for Energy Studies

- A major R&D project entitled "Electron Cyclotron Resonance based Large Negative Ion Beam Source (ELNIBS)" with an overall budget of 1009.57 lacs has come into operation with effect from October 30, 2015 in the Plasma Lab of the Centre under an MoU signed between IIT Delhi and IPR, Gandhinagar on November 05, 2014 for the National Fusion Programme of the country (PI: Dr. Ramesh Narayanan, Co-PI: Prof. Ashish Ganguli and Dr. R.D. Tarey).

Centre for Rural Development and Technology

- Prof. V.K. Vijay working on various aspects for draft of National Biogas Mission in India.

- Prof. V.K. Vijay organized plenary session on "Biogas Production and Purification for Power Generation and Vehicular Applications" in 103rd Indian Science Congress held at Mysure on 06th January 2016.

- Development of research cum academic lab "Agro-food processing Lab" at Micromodel complex. Coordinator Prof. S.N. Naik & Dr. J.K. Sahu

- New research project "Development of a multimode continuous drying system for Indian spices" sponsored by Department of Science and Technology. PI: Dr. J.K. Sahu.

- Biopesticide development for the control & management of fungal wilt diseases and root not nematode. PI: Prof. Satyawati Sharma

- Development of value added products of neutraceutically enriched mushroom. PI: Prof. Satyawati Sharma.

Bharti School of Telecommunication Tech. and Mgmt.

- Three new thrust areas have been identified in the school: Green communications, telecom networks, and telecom policy studies. About Rs. 1.5 crores spent was on upgradation of labs and infrastructure in the school in this period. A 2G base-station kit was purchased.

Kusuma School of Biological Sciences

- Several projects funded by DBT, DST, ICMR and Kusuma Trust are ongoing.

Glimpses of various activities during 2015-16

CONVOCATION

Glimpses of various activities during 2015-16
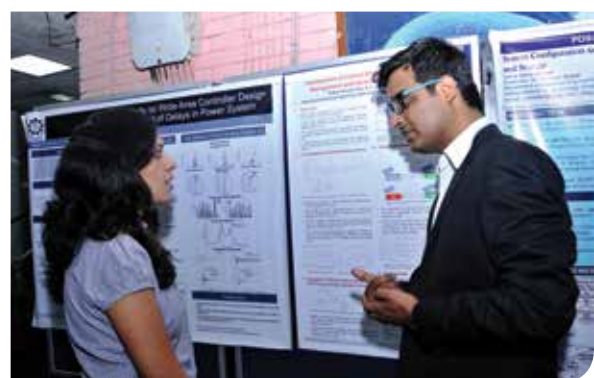
INSTITUTE LECTURES

FOUNDATION DAY

Glimpses of various activities during 2015-16

POSOCO AWARD CEREMONY

Glimpses of various activities during 2015-16

HINDI DIVAS

BHM DAY

Glimpses of various activities during 2015-16
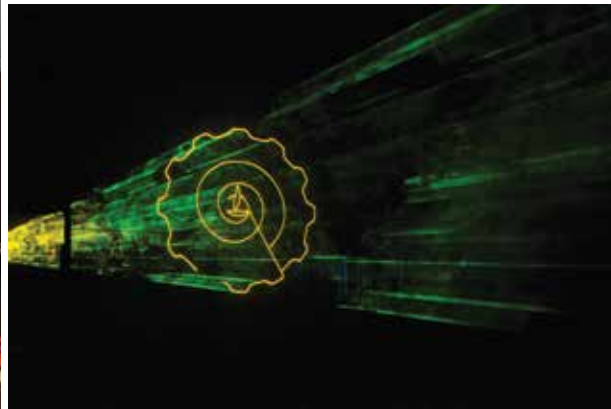
Glimpses of various activities during 2015-16

OPEN HOUSE
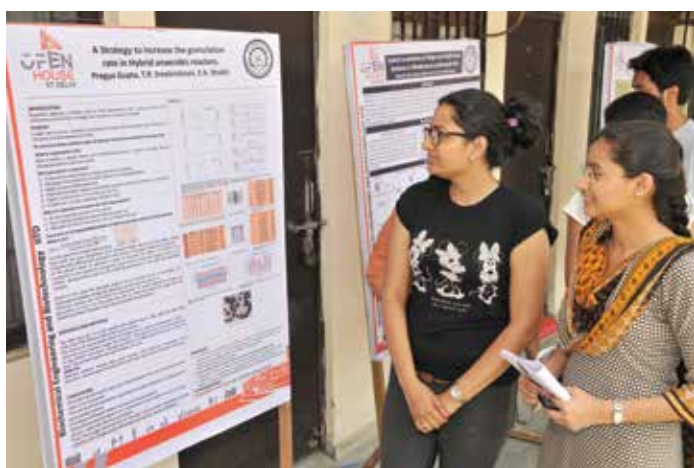
Glimpses of various activities during 2015-16

R E N D E Z V O U S

Glimpses of various activities during 2015-16

STUDENT LIFE IN THE CAMPUS

Mango Festival

Glimpses of various activities during 2015-16

Research at the core!
Lab activities at IIT Delhi

Glimpses of various activities during 2015-16

SPORTS ACTIVITIES IN THE CAMPUS

6. Research & Development

Research Thrust

Atmospheric Sciences, Embedded Systems, Environmental Science & Engineering, Rural Industrialization, Bioinformatics, Nanotechnology, Fibre Optics and Optical Communications, Biotechnology, Bio-catalysis, Smart and Industrial Textiles, Transportation, Photo-thermal energy conversion, Material Science, Photo-acoustic Microscopy, Power Technology, Signal processing, Opto-electronics, Computer Science, Computer Aided Design & Manufacturing, Smart Buildings and Infrastructure, Artificial Intelligence and Robotics

Academic & Sponsored Research

(April 1, 2015 - March 31, 2016)

ACADEMIC RESEARCH

The academic research carried out by the students for the Ph.D. degree, the final semester major project included in the four-year B.Tech. programme, the five-year integrated M.Tech. programmes, and the four-semester M.Tech./M.S.(R)/M.Des. programmes make a significant contribution to the research output.

The principal source of academic research, however, continues to be through Ph.D. research projects. With a total of 2444 students enrolled for a research degree during the year under review, the emphasis on and commitment to academic research is evident. During the two semesters of 2015-2016, 492 candidates were admitted out of which 190 were full-time Institute scholars with the remaining 302 belonging to other categories like sponsored, part-time etc. A total of 221 theses were approved for the award of Ph.D. degree.

IIT Delhi faculty remain engaged in publishing their research results in various journals, Conferences and Seminar proceedings. The number of publication along with citation and h-index for the last 5 years is stated below:

Year	No. of Publications	No. of Citations	h-index
2016	1,201	334	5
2015	1,727	2,611	15
2014	1,740	6,112	25
2013	1,633	8,890	31
2012	1,526	10,289	35

Source : Scopus as on 29th September 2016.

SPONSORED RESEARCH

Along with teaching and academic research leading to doctoral degree, IIT Delhi gives high priority to research and development projects sponsored by outside national and international agencies and user organizations. The Institute has as one of its cardinal guiding principles continuous, and meaningful interaction with the world of science & technology and industry.

INDUSTRIAL RESEARCH AND DEVELOPMENT UNIT (IRD)

The Industrial Research & Development (IRD) Unit Unit has been specifically set up in the Institute to provide specialized administrative and managerial support for the operation of Sponsored Research Projects, Consultancy Jobs and other related R&D activities. Over the years, the institute has set up many modern laboratories and is continuously supporting infrastructure through these projects.

Under the scheme called Summer Undergraduate Research Award (SURA), the students are required to submit the project proposals in association with identified Faculty of a Department/Centre to act as an Administrative Facilitator and a Guide.

IRD Unit plays an important role by providing a one-time grant of upto Rupees One Lakh to new faculty member who joins the Institute. This assistance is being given to the new faculty so that they can initiate new projects, which may subsequently be submitted to various funding agencies.

Assistantships/Fellowships are provided by IRD to the Ph.D. students during their 5th year. IRD provides support in the form of Gap Period Assistantship for both M.Tech./M.S.(R) and Ph.D. students who are drawing their fellowship/assistantship from the projects. These assistantships will be provided to the students once the projects get over and there is no other project to pay their assistantship. M.Tech./M.S.(R) students can be supported for a maximum gap period of six months and Ph.D. students would be supported for a maximum gap period of one year.

Institute has been organizing Open House to exhibit an extensive collection of innovative research and product development projects since last ten consecutive years. The eleventh edition of Open House was held successfully on 18th April, 2015. Open House targets young school kids in NCR region and the footfall is approx. 5000 visitors in a day.

HIGHLIGHTS (2015-16)

Some important highlights about research are:

- 135 Sponsored Research Projects with a total funding of Rs. 72.10 crores and 33 Miscellaneous Projects worth Rs. 26.38 crores were undertaken.

- 360 Consultancy Assignments worth Rs. 28.69 crores were undertaken by IRD Unit. Besides, 79 Technology Development Projects/Contract Research Projects worth Rs. 16.06 crores were undertaken/organized by FITT.

- 33 UG Projects have been selected under the Summer Undergraduate Research Award (SURA) scheme for the year 2016.

- 18 faculty members who joined the Institute during the year received a research grant of Rs. 1 lakh each under the Research Grant for New Faculty (RGNF) scheme of IRD.

- Scholarship is provided by IRD, in exceptional cases, to the Ph.D. scholars after completion of 4 years and until the end of 5th year. IRD spent Rs. 192.00 Lacs (approx.) on these scholarships during the year 2015-16.

The trend in research funding and their number for last five years is shown in Table I and Figure 1 & 2.

Table I : Statistics of Sponsored Research Project

Financial Year	Sponsored Research Projects	
	Numbers	Value in Rs. Lacs
2011-12	123	5,712
2012-13	142	8,863
2013-14	150	6,865
2014-15	164	15,377
2015-16	135	7,210
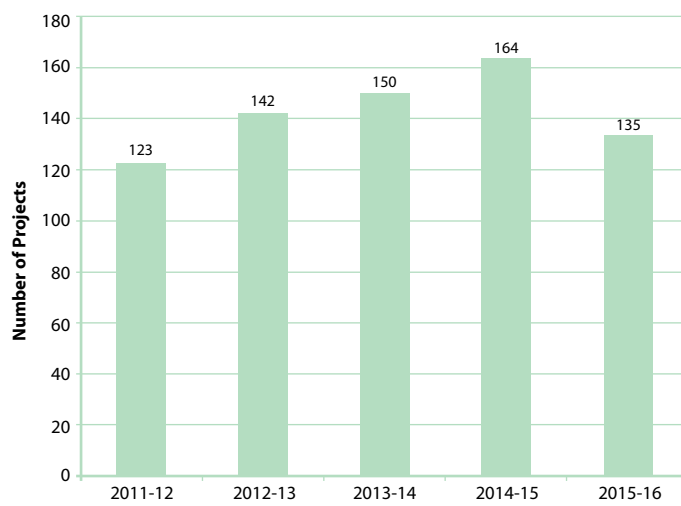
(b) in Numbers

Fig. 1 : Trends in Sponsored Research Projects
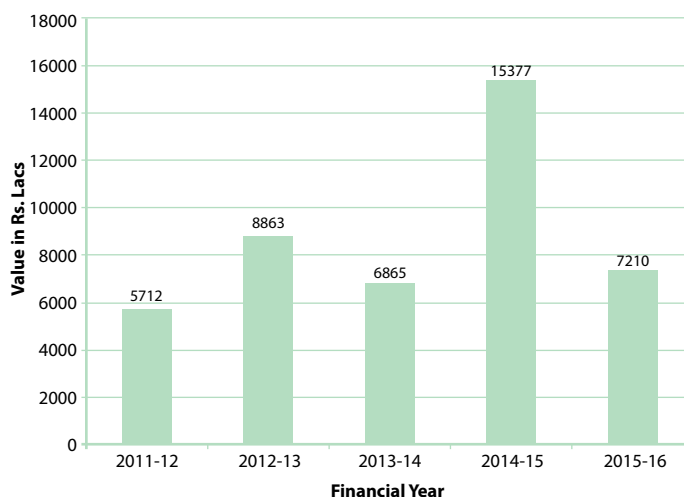
(a) in Value

Fig. 2 : Funding agency-wise Breakup of sponsored research projects undertaken during 2015-16

■ No. of Projects Funded by GOI : 103

■ No. of Projects Funded by GOI in Collaboration with Foreign Agencies/Institutes : 17

■ No. of Projects Funded by Foreign Organisations/Agencies : 7

■ No. of Projects Funded by Private Organisations : 8

Research Projects & Consultancy

INDUSTRIAL RESEARCH AND DEVELOPMENT BOARD (2015-16) - As on 31.3.2016

Chairman	Ex-Officio	
Suneet Tuli	Sushil	Ashwini K. Agrawal
	S. K. Koul	Anil Wali

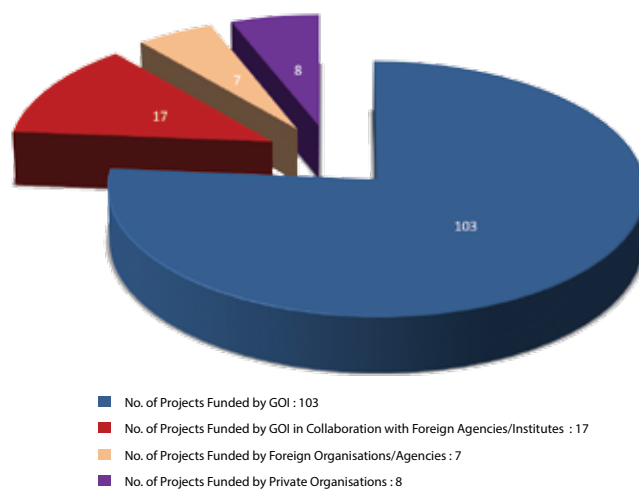| Representatives of Department / Centre	
S. V. Veeravalli, *Deptt. of Applied Mechanics*	Neeraj Khare, *Deptt. of Physics*
Saroj Mishra (Ms.), *Deptt. of Biochemical Engineering & Biotechnology*	B. K. Behera, *Deptt. of Textile Technology*
Sanat Mohanty, *Deptt. of Chemical Engineering*	Ananjan Basu, *Centre for Applied Research in Electronics*
A. J. Elias, *Deptt. of Chemistry*	Sagnik Dey, *Centre for Atmospheric Sciences*
A. K. Jain, *Deptt. of Civil Engineering*	N. Karmakar Gohil (Ms.), *Centre for Biomedical Engineering*
Prem Kalra, *Deptt. of Computer Science & Engineering*	T. S. Bhatti, *Centre for Energy Studies*
Bhim Singh, *Deptt. of Electrical Engineering*	B. K. Satpathy, *Centre for Polymer Science & Engineering*
Purnima Singh (Ms.), *Deptt. of HUSS*	Gufran Sayeed Khan, *Instrument Design & Development Centre*
Mahim Sagar, *Deptt. of Management Studies*	Jayashree Bijwe (Ms.), *Industrial Tribology Machine Dynamic and Maintenance Engineering Centre*
Aparna Mehra (Ms.), *Deptt. of Mathematics*	S. N. Naik, *Centre for Rural Development & Technology*
Anjan Ray, *Deptt. of Mechanical Engineering*	Pragya Jain (Ms.), *Computer Services Centre*

Outside Experts	
Anand Srivastava, *Head, Network Solutions, Alcatel-Lucent, Gurgaon*	Salil Singhal, *Chairman & Managing Director, PI Industries Ltd., Gurgaon*
D. N. Singh, *CTO, Indo-Solar Ltd., Greater Noida*	President, *Ginni Filaments Ltd., Mathura*
G. S. Kapur, *Sr. Research Manager Petrochemical & Polymers, Indian Oil Corporation, Faridabad*	Mukesh Mohania, *Sr. Manager IBM India Research Lab, Delhi*
Ajay Pradhan, *Managing Director, CH2M HILL, Gurgaon*	J. S. Saini, *Petrochemical Marketing Group, GAIL (India) Ltd., New Delhi*

Secretary
V. K. Vashistha

Some of the major projects undertaken during the period are listed below:

Table II : Financial Outlay of Some of the Major Projects during 2015-16 (above 100 Lacs)

Name of the Project	Sponsoring Agency	Financial Outlay in Rs. Lacs
Novel Nano-silver Polymer Composite for Bioactive Technical Textiles and Plastics	Department of Science & Technology	1,197.10
Centre of Excellence for Bio-pharmaceutical Technology	Department of Biotechnology	867.02
Electron Cyclotron Resonance based Large Negative Ion Beam Source (ELNIBS)	Institute for Plasma Research	704.57

contd. .....

To Strengthen the Gear Engineering Research in the Department of Biochemical Engineering & Biotechnology (under Fist Scheme)	Department of Science & Technology	283.00
To Strengthen the Research Facilities in the Department of Applied Mechanics (under FIST Scheme)	Department of Science & Technology	257.00
Special Manpower Development Programme for Chips to System Design (SMDP-C2SD)	Ministry of Communications & Information Technology	150.46
Development of Optical Sensors and Sensor Systems Real Time Dredge Monitoring of Oil Spills	Ministry of Shipping & Transport	149.24
Re-engineering High End Audiometric Devices for Robust and Affordable Audiological Testing (Sound4All)	Indo German Science and Technology Centre	103.50
Integrated, Portable Systems for Rapid Diagnostics in Limited Resource Settings	Department of Biotechnology	100.42
A Low Cost Wild Animal Protection System Through Animal Presence & Movement Detection Using Wireless Sensor Networks - Design & Development of an Integrated Locomotive Driver Warning System for Preventing Elephant Collisions	Research Designs & Standards Organization	100.00

Industrial consultancy is another significant area of activity of the Institute. The nature and extent of the industrial consultancy projects undertaken by the Institute is an index of its credibility with the industry and is symbolic of the relevance of a centre of excellence in the context of nation's socio-economic development. The consultancy jobs undertaken during last five years is shown in Table III.

Table III : Statistics of Consultancy Jobs Undertaken

Financial Year	Consultancy Jobs (IRD)		Technology Development Projects / Contract Research (FITT)		HRD Programmes (FITT)		TOTAL
	No.	Value in Rs. Lacs	No.	Value in Rs. Lacs	No.	Value in Rs. Lacs	Value in Rs. Lacs
2011-12	420	2,110	83	936	50	112	3,158
2012-13	348	1,829	61	898	48	199	2,926
2013-14	430	2,731	72	1,411	41	288	4,430
2014-15	394	2,481	96	1,678	0	0	4,159
2015-16	360	2,869	79	1,606	0	0	4,475

COLLABORATIVE RESEARCH

The Institute is actively involved in collaborative programmes with national and international organizations/universities to remain at the forefront of scientific and technological developments and to share knowledge. A large number of collaborative Research Projects are under operation with Institutes/Organizations of Austria, Australia, Belarus, Brazil, Canada, Denmark, Ethiopia, European Commission, France, Finland, Germany, Holland, Hungary, Ireland, Israel, Italy, Japan, Korea, Kuwait, Netherland, Nepal, Poland, Portugal, Russia, Slovenia, Sweden, Switzerland, Taiwan, UK, USA, etc. Major research activities have also been undertaken in the areas of national importance.

During the year under report, the Institute has undertaken 24 new Collaborative Sponsored Research Projects with International funding.

Research Projects & Consultancy

International sponsored Research Projects undertaken during the year 2015-16

Project No.	Project Title	Sponsoring Agency	Collaborating Institute(s)	Name of Principal Investigator/ Department
RP03022	Inverse Modelling for Source Estimation Based on Renormalization Approach	Indo French Centre for Applied Mathematics	Université d'Évry Val-d'Essonne, France	MAITHILI SHARAN, Centre for Atmospheric Sci.
RP03047	Assessing Value of Agro-Met Advisory Services of India Meteorological Department to Farmers in Haryana	South Asian Network for Development and Environmental Economics, Nepal		UPASNA SHARMA, Deptt. of Humanities & Social Sciences
RP03052	Modelling Plasma Instabilities and Transport in a Hall Thruster	Indo French Centre for Promotion of Advanced Research	Aix-Marseille Université, France	HITENDRA KUMAR MALIK, Dept. of Physics
RP03059	Exploring Compositional Modifications to Improve the Performance of Thin Film Solar Cells Based on Earth-Ebundant Kieserite Absorbers	International Division, Dept. of Science & Technology under Indo-Swiss (DST-SNSF) Programme	Swiss International Science Foundation, Switzerland	BODH RAJ, Deptt. of Physics
RP03056	Laser Assisted Synthesis of Composite Nanostructures for Targeted Applications in Sensing	International Division, Dept. of Science & Technology under India-Belarus Inter Governmental (IU) programme	State Committee on Science & Technology of Belarus	R.K. SONI, Deptt. of Physics
RP03066	Engineering of Droplet Manipulation in Tertiary Junction Microfluidic Channels	Asian Office of Aerospace Research and Development, Japan		SHALINI GUPTA, Deptt. of Chemical
RP03067	Thermo physiological Comfort Characteristics of Protective Clothing made of Natural Fibers Blends	International Division, Dept. of Science & Technology (Indo-Polish Inter Governmental Science & Technology Cooperation Programme)	Institute of Natural Fibers & Medicinal Plants, Poland	APURBA DAS, Deptt. of Textile Technology
RP03070	Photovoltaic (PV) Based Grid Interactive and Off Grid Electricity System	International Division, Dept. of Science & Technology (Indo-Finish Joint Project)	University of Technology Lappeenranta, Finland	SUKUMAR MISHRA, Deptt. of Electrical Engineering
RP03165	Three Dimensional Fabrics for Medical Device Development Utilizing Nanofiber Technologies	International Division, Dept. of Science & Technology (India – Japan joint Project)	Shinshu University, Japan	B.K.BEHERA, Deptt. of Textile Technology
RP03077	Engineering of Woven Fabrics for Ultra Violet Radiation Protection and Mitigation of Skin Cancer	International Division, Dept. of Science & Technology (Under Indo-Slovania Programme of Cooperation)	University of Maribor, Slovania	ABHIJIT MUJUMDAR, Deptt. of Textile Technology

contd. .....

RP03080	Monitoring & Management of Urban Flooding using a Crowd-sourcing Technique	International Division, Dept. of Science & Technology (Under DST–BMBF Programme)	University of Bundeswehr, Germany	A.K. GOSAIN, Deptt. of Civil Engineering
RP03094	Targeting Nucleic acid Binding Proteins (Adaptive Immune System Protein & Transcriptional Regulator protein) of Mycobacterium Tuberculosis for Efficient Drug Development	International Division, Dept. of Science & Technology (Indo-Korean Joint Project)	Seoul National University, Korea	SHASHANK DEEP, Deptt. of Chemistry
RP03096	Conjugates and Analogues of Antiviral Compound uY11	International Division, Dept. of Science & Technology (Under DST-Russian Federation Basic Research Programme)	Ovchinnikov Institute of Bio-organic Chemistry, Russia	NIDHI JAIN, Deptt. of Chemistry
RP03098	The Poverty Mortality Linkage in India: The Role of Social Pensions and Public Health Care for Different Social Groups	Indian Council of Social Science Research (Indo-Swiss Joint Research Programme in Social Science)	University of Lausanne, Switzerland	SOURABH BIKAS PAUL, Deptt. of Humanities & Social Sciences
RP03100	Sustainable Technologies for Distributed Level Application and Energy Support to Rural Development (ITPAR Phase-III)	International Division, Dept. of Science & Technology (India-Trento Programme for Advanced Research)	Fondazione Bruno Kessler, Italy	SANJEEV JAIN, Deptt. of Mechanical Engineering
RP03110	Asymmetric Relation Phrase Embedding's from Diverse Knowledge Sources	Google USA		MAUSAM, Deptt. of Computer Science & Engineering
RP03114	Coherent Multi-document Summarization for Financial News	Bloomberg Inc.		MAUSAM, Deptt. of Computer Science & Engineering
RP03116	Sensing with High Accuracy in Mountainous Regions for Observation of Climate Change (SHAMROCC)	UK India Education Research Initiative (UKIERI)	University of Ulster, Northern Ireland, U.K.	SUBRAT KAR, Deptt. of Electrical Engineering
RP03120	Investigation into the chemistry of admixtures and binders to improve their interaction	Chryso SAS, France		SHASHANK BISHNOI, Deptt. of Civil Engineering
RP03140	Re-engineering High End Audiometric Devices for Robust and Affordable audiological testing (sound4All)	Indo German Science and Technology Centre	Technische Universitat Munchen (Institute for Real Time Computer System), Germany	DINESH KALYANASUNDARAM, Centre for Biomedical Engineering

contd. .....

RP03142	Synthesis, Characterization of lanthanide-based Phosphors as Special Converters in Solar Cells	Global Innovation & Technology Alliance (GITA) (Science & Technology)	National Chiao Tung University, Taiwan	SAMEER SAPRA, Deptt. of Chemistry
RP03152	Research Award on I/O Virtualization (Programming Framework) for OS Functionality	VM Ware Inc., USA		SORAV BANSAL, Deptt. of Computer Science & Engineering
RP03153	Sensor based Security and Emergency Management System for Underground Metro Systems during Disaster Events (SenSE4Metro)	International Division, Dept. of Science & Technology (Cooperation in Civil Security Research)	Federal Ministry of Education, Science, Research and Technology (BMBF, Germany)	TANUSREE CHAKRABORTY, Deptt. of Civil Engineering
RP03173	Indicators of Reliability & Variability of BRTS (INDIRA B)	Indo French Centre for Promotion of Advanced Research	French Institute of Science & Technology for Transport Spatial Planning Development & Networks (IFSTTAR), France	GEETAM TIWARI, Deptt. of Civil Engineering

CONSULTANCY ASSIGNMENTS WITH INTERNATIONAL ORGANISATIONS

The Institute has been undertaking Consultancy Assignments with International Organizations like: Jaiprakash Associates Ltd., Bhutan; Bulk Testing International, France; Total Marketing Services, France; Japan Automobile Research Institute, Japan; U.S. Air Force Research Laboratory (AFRL), Asian Office of Aerospace R&D, Japan; Nippon Steel & Sumitomo Metal Corp., Japan; LG Electronics Inc, Korea; Panchkanya Plast (P) Ltd., Nepal; Royal Norwegian Embassy, Nepal; G.S. Seismic Control System (P) Ltd., Nepal; Common Fund for Commodities, Netherlands; Energy Research Center of Netherlands; FCG Anzdec Limited, New Zealand; Escom Research and Innovation Department, South Africa; Uppasala University, Sweden; National Property Board, Sweden; International Institute of Non-Aligned Studies, Switzerland; McLellan and Partners Ltd, UK; Emerald Group Publishing Limited, UK; Marvel Chemicals Ltd, UK; Aquatech International Corp., USA; Fushi Copperweld Inc., USA; PPG Industries Inc., USA; United Technologies Corp./Pratt & Whitney, USA; McAfee Inc., USA; Safe Water Network, USA; Gulf Coast Technical Service, USA; Corning Inc., USA; Biomorphic VLSI Inc., USA; Institute for the Future, USA; Yardi Systems, USA; Dezaview LLC, USA; Owens Corning Sales, LLC, USA; Ahlstrom Nonwovens LLC, USA; Chapter Apps Incorporated, USA; and Universities/ Institutions abroad.

During the year under report, the Institute has undertaken 9 new Consultancy Jobs with International funding.

International Consultancy Jobs undertaken during the year 2015-16

Project No.	Project Title	Sponsoring Agency	Name of the Consultant Incharge / Department
CW13322	Digitization of Education: An Efficient, Effective and Sustainable Solution for the Future	Chapter Apps Incorporated, USA	SEEMA SHARMA, Deptt. of Management Studies
CW13396	Inspection after Earthquake of Norwegian Embassy Kathmandu	Royal Norwegian Embassy, Nepal	SHASHANK BISHNOI, Deptt. of Civil Engineering
CW13410	Technical Report for Scientific Findings	International Institute of Non- Aligned Studies, Switzerland	SUMER SINGH, Instrumentation Design & Development Centre

Research Projects & Consultancy

contd. .....

CW13442	Editorial Work for Jamr: Phase V & Phase VI	Emerald Group Publishing Limited, United Kingdom	SURENDRA SINGH YADAV, Deptt. of Management Studies
CW13474	Enhancing Technology Innovation and Transfer for Climate-Compatible Development	Energy Research Center of Netherlands	AMBUJ D. SAGAR Deptt. of Humanities & Social Sciences
CW13552	Development of Nano and Micro Oils for Engines and Gears using Nano and Micro PTFE Particles	Total Marketing Services, France	JAYASHREE BIJWE, ITMMEC
CW13571	Professional Competent Guidance on the Retrofitting Analysis and Design using Base Isolation Technology for the Existing Eight Storey Telecommunication Building at Kathmandu in Nepal	G.S. Seismic Control System (P) Ltd., Nepal	VASANT A. MATSAGAR, Deptt. of Civil Engineering
CW13589	Analysis of Present Day Projections and Climate Change Projections of Storm Surges Along the Indian Coast	FCG Anzdec Limited, New Zealand	A.D. RAO, Centre for Atmospheric Sciences
CW13685	Editorial Work for Jamr: Phase VII	Emerald Group Publishing Limited, United Kingdom	SURENDRA SINGH YADAV, Deptt. of Management Studies

OTHER ACTIVITIES

Besides handling Direct Fellowships sponsored by various funding agencies, sponsored Chairs, PAC/Expert Committee Meetings, new faculty grants, PDF Management, DDF/CDF Management, IRD has also undertaken the following activities during 2015-2016:

1. National Biogas Convention on Current and Emerging Trends in Indian Biogas and Bio-fertilizer Development (CETIBBD-2015) under the aegis of Unnat Bharat Abhiyan.
2. Indian National Conference on Applied Mechanics (INCAM).
3. Meeting of Expert Group on Methanol & DME for Research & Development.
4. Brainstorming Workshop on 3D Bio-printing for Re-generative Medicine.
5. Conducting Training Programme and Preparing Teaching Learning Modules for ETIDI, Ethiopia.
6. National Workshop on Designing of Medical Implants and Fixtures.
7. EAG Meeting on Industrial and Analytical Instrumentation and Sensor and Allied Instrumentation.
8. Expert Committee Meeting on Food Processing.
9. Imprint India.
10. Workshop on Advanced Polymeric Materials (Sub project under RP02749).
11. Workshop on Improving Weaving Efficiency and Fabric Quality.
12. Workshop on Nano-Lithography and Nano-Fabrication.
13. PAC meeting - Electrical, Electronics and Computer Engineering.
14. PAC meeting on Civil & Mechanical Engineering.
15. Project Evaluation Committee (PFC) on DST-MoR Projects.
16. Chair Professorships.
17. IBM Faculty Award.
18. INSPIRE Faculty Awards.
19. Sponsored Post-Doctoral Fellowships.
20. Direct Research Associateships.
21. Research Training Fellowship for Developing Country Scientist
22. Vishvesvaraya Ph.D. Scheme for Electronics and IT at IIT Delhi - Part-II (Year 2015).
23. Brainstorming meeting to explore the Possibility of Developing Scientific Research/Demonstration Projects on River Cleaning.
24. Golden Jubilee Year Celebration of IIT Employees Union.
25. Open House.

Foundation for Innovation and Technology Transfer (FITT)

(April 1, 2015 - March 31, 2016)

Foundation for Innovation and Technology Transfer (FITT) has been in operation as an autonomous technology transfer organization since 1992 at (IIT Delhi. The foundation is mandated to be an effective interface with the industry to promote and sustain commercialization of science and technology. For the last twenty three years now, FITT has been in a mission mode to formulate innovative ways to create partnerships and linkages with business and the community to enable knowledge transfer for societal good and economic development. The successful outreach and extensive S&T collaborations at IIT Delhi by the team at FITT have been possible with the active support of academic fraternity.

The expansive roles of FITT include: working with business, fostering technology development, consultancy, collaborative R&D, technology commercialization, development programs, corporate membership etc. These roles are necessitated by the key agenda of the Foundation to showcase and transfer the Institute's "intellectual ware" to industry and also instill industrial relevance in teaching and research at IIT Delhi.

- FITT is a DSIR approved Scientific and Industrial Research Organization (SIRO) by virtue of its charter to implement, inter-alia, industrial R&D projects. During FY 2015-16, 80 technology development/transfer projects worth Rs. 1607.2 lakh have been contracted at FITT.

- FITT manages the Institute's IP and IPRs. During the last financial year 33 cases were approved for filing patents and 4 licensing deals were closed. To augment its outreach and technology commercialization efforts, FITT has entered into MoUs/Agreements with specialist outside agencies. Besides enabling regular industry academia meetings, FITT organized a number of visits by IIT Delhi faculty to industrial units in order to assess their R&D needs so as to initiate industry-relevant R&D programs at the Institute. FITT has also organised several visits by overseas companies and delegations enabling exchange between the visiting delegates and academic community of the institute.

- The "Professional Candidate Registration" program has been adopted towards extending the academic courses at the Institute amongst the targeted segments of industry, research and academic establishments. Through this program, suitably qualified professionals can undertake relevant semester-long course modules here at IIT Delhi and thus enhance their knowledge and skill set. During the academic year 2015-16, 47 candidates participated in this program.

- As an avenue towards techno-entrepreneurship, FITT has enabled the establishment and operation of a thriving Technology Business Incubation Unit (TBIU) and Bio-technology Business Incubation Facility (BBIF) on the campus. TBIU is a flagship institute program designed primarily to promote partnership with new technology entrepreneurs and start-up companies, and also serve as a medium of technology transfer. 8 companies are presently resident at the TBIU and 3 in the BBIF. FITT provides co-share equipment facility to bio-tech start-ups. These companies are working in the technology domains of IT, Biotechnology, Engineering design, Cleantech etc. Out of 51 companies admitted so far in the incubator since its inception in the year 2000, 24 companies have started their upscaling/commercial operation after completing their incubation at the Institute and are reported to be growing at a steady pace. FITT is also collaborating with Wallonia Trade and Investment Agency (AWEX) of Belgium towards internationalization of innovation led technology start-ups in the country.

FITT has been at the forefront in managing several innovation and entrepreneurship programs in the country as a nodal agency in several Government schemes. The Ministry of Micro, Small and Medium Enterprises (MSME), Government of India has extended grants to FITT for promoting and supporting innovation amongst micro and small enterprises leveraging the knowledge resources at IIT Delhi. Seed support in the broad area of ICT is also forthcoming under the Department of Electronic and Information Technology (DietY) program – "Technology Incubation and Development of Entrepreneurs" (TIDE) scheme. FITT is also a beneficiary of the grant assistance of Rs.1.00 cr. from the Technology Development Board (TDB) for

21st AGM of FITT - November 16, 2015

Launch of Pfizer IIT Delhi Innovation and IP program

Start-up Accelerator program organised by TiE in partnership with FITT

Launch of Ericsson Innovation Awards 2016

Award ceremony of POSOCO Power System Award 2016

the specific purpose of providing early stage financial support to start-up units incubated at IIT Delhi's TBIU. FITT has secured the coveted status of a BIG Partner of BIRAC (DBT) towards implementing their Biotechnology Ignition Grant (BIG) scheme in the country. Most recently, FITT has also partnered with Pfizer for the implementation of the Pfizer IIT Delhi Innovation and IP Program, thereby providing support of upto Rs.50 lakhs to healthcare based innovators/start-ups for incubation and Rs. 3 lakhs for IP protection. FITT has also partnered with POSOCO, Ericsson and ICICI for innovation support programs.

FITT has added nearly 8 new corporate members in the FY-2015-16 representing small/medium/large scale industrial and R&D units. Corporate members receive preferential treatment in matters of collaboration with the Institute in addition to information and technical services that FITT provides through the Institute's resources. FITT's gamut of services and activities include:

- Transfer of technology relating to proven R&D outputs.
- Research partnership with industry for technology development and its commercial applications.
- Innovative problem solving consultancy with industry clients.
- Information support service to industry and R&D organizations.
- Specialist development programmes.
- Corporate membership of FITT.
- Facilitate funding for the development of innovative ideas of commercial implications.

Examples of R&D Collaborators:

- BHEL
- Total
- ONGC
- IL&FS
- Safran
- Tata Steel
- Renault Nissan
- Corning Inc
- SADC Switzerland
- Samsung India Ltd
- Pall Corporation

Start-up Successes 2015-2016

Ekam Eco Solutions Pvt. Ltd.

Founded under the guidance of Dr. V.M. Chariar, Ekam Eco Solutions works in the domains of Sustainable Sanitation, Value-added Bamboo Products and Sustainable Livelihoods. Zerodor, Wateress Urinals is a chemical free technology, costs one fifth the cost of competing technologies and has no recurring cost which makes it a much more attractive proposition. Ekam Eco Solutions has taken Waterless Urinal Kiosks and Wastewater Treatment Systems to market. Zerodor Waterless Urinals are now installed across the world by Ekam Eco Solutions P Ltd. The start-ups has exited the TBIU in December 2015, for scale up and operations.

7. Events

Convocation

(April 1, 2015 - March 31, 2016)

DISTINGUISHED ALUMNI AWARD

IIT Delhi lays great emphasis between the alumni and the alma mater and supports the activities of the IIT Delhi Alumni Association (IITDAA). The Institute is proud of its alumni and their achievements. The success of the alumni is one of the most important yardstics by which the Institute measure its achievements in academic / professional fields.

The Institute recognizes the outstanding contributions made by the alumni in various areas by conferring the Distinguished Alumni Award each year. This award is the highest honour conferred by the Institute on its alumni to recognize their achievements and outstanding contributions to academics, teaching & research, corporate business development, profession and / or public service. Sixty six alumni have received the award since its inception in 1992. For this year under report, the prestigious award has been conferred upon the following at the 46th Convocation.

Dr. Ashish Nanda
Distinguished Alumni Award
B.Tech., Electrical Engineering (1981), at present Director, IIM, Ahmedabad, India.

Prof. Ashutosh Chilkoti
Distinguished Alumni Award
B.Tech., Chemical Engineering (1985), at present Department Chair of Biomedical Engineering at Duke University, USA.

Mr. Jayant Sinha
Distinguished Alumni Award
B.Tech., Chemical Engineering (1985), at present Union Minister of State for Finance, Government of India, New Delhi.

Dr. Ramesh Hariharan
Distinguished Alumni Award
B.Tech., Computer Science (1990), at present Chief Technology Officer, Strand Life Sciences, and an Adjunct Professor, Indian Institute of Science, Bangalore, India.

Convocation

Medals and Awards Winners at the 46th Convocation

Following is the list of award winning students at the convocation.

President's Gold Medal	Director's Gold Medal	Perfect Ten Gold Medal	Dr. Shankar Dayal Sharma Gold Medal
Sarang Sunil Nath	Ridhi Kapoor	Adya Pandey	Arun Yadav

Silver Medalists

Deepshikha Dogra — Monu Chandak — Harsh Singhal — Umang Gupta

Avdhesh Meena — Dravyansh Sharma — Rishabh Dudeja — Aayush Goel — Amol Mittal

Praneet Agarwal — Shreyans Jain — Venika Aggarwal — Zeeshan Ahmad

Abhinav Dhupar Memorial Award
Vikas Kumar

Amit Garg Memorial Research Award
Vashist Bist

Prof. A.K. Sinha Cash Prize
Mudumba Sai Rajeswar

Dr. Amrik Singh Medal & Prize
Nikita Awasthi

Lt. Arpan Banerjee Award
Pulavarthi Kaushik

Alok Saxena Memorial Award
Dravyansh Sharma

Buti Foundation Bodh Raj Gold Medal (for best women student)
Adya Pandey

Bimla Jain Medal
Bharti Singhla

Boss Award
Aditya Grover
Sarang Sunil Nath
Paras Garg
Aayushi Jain
Akash Anand
Harshit Gupta and Kumar Akash
Akansh Jain and Gurpreet Kaur
Ankit Saxena

Chand Rani-Banarsi Dass Duggal Memorial Award
Adya Pandey

Mrs. Chander Kanta Nanda Excellence Award
Shashank Kedia
Arushi Jamaiyar

Dogra Medal
Krupen Devendra Kikani

Dogra Gold Medal
Vaibhav Suranaa

Excellence Award for Best Project in HV AC & R (Heating Ventilating, Air-Conditioning & Refrigeration)
Mohan Sai Chirki
Tushar Vyas

FITT Award for Best Industry Relevant Project
Vashist Bisht

Harsha Vardhan Dwarkadas Motiwala Memorial Award
Venika Aggarwal

ICIM Stay Ahead Award
Surbhi Goel

IEEE-PEDES 96 Award
Prashant Surana

Jagat Ram Chopra Award
Jasleen Virdi
Sneha Gupta

Jayant Sinha Award
Pallavi Grover

Dr. Kewal Krishan Baveja Medal
Bharti Singhla

K.S. Prakasa Rao Memorial Award
Mahendra Reddy Kamireddy

K. Vasudevan Award
Venika Aggarwal

Laxmi Bai-Lal Chand Khurana Memorial Award
Amol Mittal

Prof. M.C. Puri Memorial Medal
Soumya Sankar

Prof. M.M. Chawla Gold Medal
Raj Kamal

M.M. Chawla Gold Medal
Amol Mittal

Mudit Sharma Memorial Gold Medal
Shreyans Jain

NBCC Prize of Excellence
Dipti Divakar Kamath

Nayyar Perwez Shahabuddin Medal
Zeeshan Ahmad

Dr. Neeraj Srivastava Prize
Ankit Patel

Prof. O.P. Gupta Medal
Deepak Kumar Sahani

Prof. Pushpa Bajaj Gold Medal
Esha Sharma

Parampujya Baba Sant Nagpalji Gold Medal
Seep Goel

Perfect Ten Gold Medal
Adya Pandey

Punita Kumar - Sinha Award for All Rounder Excellence
Bharti Singhla

Padmashri Man Mohan Suri Project Award
Sasanka Sekhar Sinha

Padmashri Man Mohan Suri Project Award
Divas Gupta and Sandeep Kumar

Mr. & Mrs. Prem Sheel Bhatnagar Memorial Award
Vaibhav Suranaa

Rajiv Bambewale Trust Cash Award
Sarang Sunil Nath

Rajiv Bambewale Cash Prize
Abhishek Bansal
Shubham Agarwal and Mohit Agrawal

Rahul Giri Memorial Gold Medal
Ridhi Kapoor

Rajindra Kumari Malhotra Memorial Prize
Shivansh Aggarwal

Dr. Shankar Dayal Sharma (Former President of India) Gold Medal
Arun Yadav

Suresh Chandra Memorial Award
Nihal Srivastava

Mrs. Santokh Gill Award
Soumya Sankar

Shri S.L. Duggal Excellence Cash Award
Shivansh Aggarwal

Shrimati and Shri H.R. Mittal Cash Award
Mohammad Asif

Suman - Upma Memorial Gold Medal
Nupur Kala

Suresh Chandra Memorial Trust Award
Nikhil Yadav and Vaibhav B. Devmurari
Surbhi Goel
Prateek Gupta

Ujjal Jeewan Charitable Trust Award
Isha Rani Gupta

Conferences / Seminars / Workshops / Lectures

(April 1, 2015 - March 31, 2016)

The departments, centres and schools of the Institute organized many conferences, seminars, workshops, lectures and some major of them are highlighted here under:

Departments/Centres/Schools	Title of the Conference / Seminar / Workshop / Lecture
Applied Mechanics	INCAM 2015 organized by the Deptt. of Applied Mechanics, from 13 to 15 July, 2015.
	Submarine Hydrodynamics Workshop: Prof. D. Sen, Department of Ocean Engineering & Naval Architecture, IIT Kharagpur.
	Paramarine Software Workshop: Submarine Design
	NAPA Software Training: Warship Design
	STAR CD Adapco Training: CFD Workshop
	Dr. Arun Raina, Universitat of Stuttgart, Germany delivered a lecture Computational Mechanics of Soft Matter on 31 March, 2015 in the Department of Applied Mechanics.
	Prof. Zellman Warhaft, Deptt. of Mechanical and Aerospace Engineering, Cornell University, Ithaca, New York) delivered a Lecture on "Intertial Particles in Turbulent Flows with an Emphasis on the Application to Clouds" on 6 April, 2015 in The Department of Applied Mechanics.
	Prof. Robin Wallace, Head, Institute for Energy Systems, School of Engineering, University of Edinburgh, UK delivered a lecture on "Marine Renewable Energy- Global Technology Status and R&D Progress" on 23 February, 2016.
	Prof. Zellman Warhaft (Deptt. of Mechanical and Aerospace Engineering, Cornell University, Ithaca, New York) delivered an Institute lecture on Mixing and Transport in Nature and Engineering Systems: Implications for Global Warming on 24 February, 2016.
Biochemical Engineering and Biotechnology	Neuro-oncology meeting organized on 31 October, 2015 by Dr. Ritu Kulshreshtha.
	DBT Brainstorming meeting to explore Biotechnological Interventions on River Cleaning Program on 14 to 15 January 2016 at Indian Institute of Technology Delhi, New Delhi organized by Prof. Saroj Mishra.
	Indo-German Seminar on Modeling Chemical and Biological (Re) activity (MCBR) with Over 60 participants, including 8 participants from German institutions like University of Heidelberg, University of Dusseldorf and Ludwig Maximilians Univ. by Dr. D. Sundar.
	Two International Workshops were organized by Dr. Z.A. Shaikh.
	Dr. Z.A. Shaikh and Prof. D.W. Graham offered a 1 credit special module course to UG and PG students of IITD.
	Invited Lecture by Dr. Partho Sarothi Ray, Department of Biological Sciences, IISER Kolkata, on "Integration of Signals in Biological Systems: Crosstalk Between microRNAs and RNA-binding Proteins in Inflammation and Cancer", 30 October, 2015, organized by Dr. Ritu Kulshreshtha.
Chemical Engineering	'Catalysis for energy and environment, Dr. Mayank Gupta, Louisiana State University'on 3 November, 2015.
	'Structure and Dynamics of Nanoparticle Polymer Composites, Rahul Mangal, Cornell University' on 7 January, 2016.
	'Design and modeling of photochemical reactors, Prof. Vishnu Pareek, Curtin University' on 15 January, 2016.
	'Towards the search for novel metal and metal alloy catalysts, Dr. Tuhin Khan, UOP India Pvt Ltd' on 4 February, 2016.
	'Tailoring a structure of polymer networks with photo controlled radical polymerization, Dr. Awaneesh Kumar Singh, University of Pittsburgh' on 16 February, 2016.
	'Coil-stretch hysteresis in polymer solutions, Prof. Ravi Jagadeeshan, Monash University' on 18 February, 2016.
	'What's next for MOFs? Prof. Matthew Hill, CSIRO and Monash University" on 7 March, 2016.
	"Increasing global access to medical diagnostic testing using paper-based microfluidics, Dr. Bhushan Toley, University of Washington' on 14 March, 2016.
	'Impinging flows-Rheology, Stability and Heat Transfer, Dr. Ajay Chatterjee' on 16 March, 2016.
	'Controlling and predicting size of nanoemulsions and entrapped microdroplets, Ankur Gupta, MIT' on 18 March, 2016.
Chemistry	Indian International Science Festival-won the Guinness book of world record for science experiment on 7 December, 2015.
	22 research students highlighted their work in the ACS (symposium) meet from 30 September to 1 October, 2015.
	40 students for the Ishan Vikas Awardee from North East of Indian schools visited the all labs of Chemistry Deptt.
	120 students visited the labs of chemistry department from Madras Christian College.
	22 students visited the labs of Chemistry Department from ARSD College of Delhi University.
	Phosphorus-Containing Ligands and their Hyper coordinated Element derivates by Dr. Klaus Jurkschat, Technische Universität, Dortmund, Germany.
	Wet-Chemical Synthesis, Optical Spectroscopy and Applications of Semiconductor Nanostructures by Dr. Andrei Rogatch, Hong Kong.
	Biophyscial Insights into the Ras-Membrane Interactions & Small-Molecule Mediated Modulation of Signaling Pathways by Dr. Shobhna Kapoor, Max-Planck-Institute Molecular Physiology, Germany.

Conferences / Seminars / Workshops / Lectures

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	From Physical Organic to Materials Chemistry: A Small Tour by Dr. Anandarup Goswami, Regional Center of Advanced Technologies and Materials, Faculty of Science Palacky University, Czech Republic.
	Light-Matter Strong Coupling: A Molecular Perspective by Dr. Jino George, University of Strasbourg, France.
	Catalysis of Fundamental electrochemical reactions-Hydrogen Evolution and Oxygen Reduction by Dr. S. Sampath, Deptt. of Inorganic and Physical Chemistry, IIsc Bangalore.
	Transition-Metal Catalysed Cross-Coupling Reactions and Direct Arylations by Dr. Harish Kumar Potukuchi, University of Oxford.
	"NITROGEN FIXATION" by Dr. Sakae Vemura, University of Kyoto, Japan
	Stimuli Responsive Polymer-Based Sensors, Muscles, and Drug Delivery Platforms by Dr. Michael Serpe, Department of Chemistry, University of Alberta, Canada.
	Mag (Net) IC Catalysts and Reagents -Synthesis and Application for the Conversion of Renewable Resources towards Fine Chemical and Drugs by Dr. Oliver Reiser, University of Regensburg.
	How do we understand their structure and Dynamics by Dr. Claudio J. Margulis, The University of Iowa, Iowa City, Usa.
	New Frontiers in High Energy Density Electrochemical Energy Storage by Dr. Jagjit Nanda, Materials Science And Technology Division, Oak Ridge National Laboratory,, Oak Ridge, Usa.
	Recent Advances in C-C Bond-Forming Reactions involving NHC-Organocatalysis by Dr. Vijay Nair, Organic Chemistry Section, National Institute of Interdisciplinary Science and Technology(NIIST) CSIR, India
	Bifunctional Catalysis For Sustainable Chemistry by Dr. Jitendra K. Bera, Deptt. of Chemistry, IIT Kanpur, India.
Civil Engineering	NBCC (K.C. Iyer jointly with Dr. J. Uma Maheswari)
	Geotechnology 2030 - What the Future Beholds, Golden Jubilee Celebrations Geotechnical Group, IIT Delhi on November 6, 2015.
	Workshop on GREEN BUILDINGS: Achieving Sustainability Through Energy Efficiency, Environmental Monitoring and Structural Health Monitoring on 07 November 2015.
	MHRD Ishan Vikas Programme, December 2015.
	Workshop and Brain Storming Session on Geoenvironmental Engineering, November 2015.
Computer Science and Engineering	Automata and logics over infinite alphabets on 2016-03-31, at 501, Bharti Building by Amaldev Manuel, CMI.
	High performance parallel computing software: from basics to exa-scale technology on 2016-03-22 at 404, Bharti building by Dr. Reiji SUDA.
	Some problems in low-level computer vision and 3D multi-view geometry on 2016-03-21 at 501, Bharti Building by Pulak Purakit, ISI Kolkata.
	"Exploiting Symmetries in Statistical (Relational) Models for Efficient Inference" on 2016-03-11 at 501, Bharti Building by Dr. Parag Singla.
	"Similarity of Weighted Tree/Graph Structures and Applications" on 2016-02-25 at SIT Seminar room by Prof Virendra Bhavsar from University of New Brunswick.
	Low Distortion Inter-surface Mapping via Alternating Convex Optimizations on 2016-02-18 at 404, Bharti Building by Manish Mandad.
	Airports and Railways: Facility Location Meets Network Design on 2016-02-10 at 501, Bharti Building by Tobias Moemke, University of Saarlandes.
	On approximating strip packing with a better ratio than 3/2 on 2016-02-10 at 501, Bharti Building by Andreas Wiese, MPI-Informatik.
	"Facility Location in dynamic networks" on 2016-02-09 at SIT Seminar room by Professor Binay Bhattacharya, Simon Fraser University.
	Improving Network Security Through Insurance - A Tale of Cyber-Insurance Markets on 2016-01-29 at SIT Seminar room by Ranjan Pal.
	The complexity of expansion problems on 2016-01-25 at Bharti Building by L. Anand, Princeton.
	From Vision-Realistic Rendering to Vision Correcting Displays on 2016-01-22 at 501, Bharti Building by Professor Brian A. Barsky, Computer Science Division School of Optometry Berkeley Center for New Media Berkeley Institute of Design Arts Research Center University of California, Berkeley.
	Test on 2016-01-21 at Seminar Hall by Test.
	Monitoring Big, Distributed, Streaming Data on 2016-01-19 at SIT Seminar room by Prof. Assaf Schuster.
	Architecting Next-Generation Mobile Platforms on 2016-01-15 at SIT Seminar room by Prof. Chita Das.
	Static and Dynamic Reasoning for SDNs NetPL on 2016-01-13 at CSE Seminar Room Bharti Building 501 by Prof. Shriram Krishnamurthi.
	A Markovian Approach to Modeling Preferences and Assortment Optimization on 8th Jan, 2016 at 501, Bharti Building by Vineet Goyal, Columbia University.
	Mining Communication Motifs in Dynamic Networks on 4th Jan, 2016 at 501, Bharti Building by Sayan Ranu, IIT Madras.
	High performance Graphics Hardware for Ray Tracing on 28 Dec, 2015 at 501, Bharti Building by Erik Brunvand , Associate Professor, Uttah University.
	Capacitated Covering, Scheduling to Minimize Energy and Min Edge Cost Flows - a natural convergence on 22 December, 2015 at 501, Bharti Building by Samir Khuller, University of Maryland.

Conferences / Seminars / Workshops / Lectures

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	Abstract Interpretation of Binaries with Jakstab on Thus, 17 December at 501, Bharti Building by Johannes Kinder from Royal Holloway, University of London.
	Detecting Significant Network Processes on December 14 at 501, Seminar Room, Bharti Building by Ambuj K. Singh from University of California.
	The Energy-Transportation Nexus on 17 December at SIT Committee Room by Shivkumar Kalyanaraman.
	Modeling and constructing cryptography for the cloud on November 23, at 501, Bharti building by Shweta Agrawal, IIT Delhi.
	Evolution, Dynamical Systems and Computation on 1 December at 501, Bharti building by Nisheeth Vishnoi, Associate Professor, EPFL.
	Property-Driven Fence Insertion using Reorder Bounded Model Checking on 26 November at 501, seminar room Bharti building by Dr. Saurabh Joshi, Assistant Professor, IIT Guwahati.
	"Trends, Opportunities and Challenges of Software Development for the Cloud on 13th November, 2015 at 501, Bharti Building by Dr. Philipp Leitner from University of Zurich in Switzerland.
	Peer-to-peer clustering protocols on 18th November at 501, Bharti building by Prof. Po-Shen Loh, Department of Maths, CMU.
	Logic, Co-induction and Infinite Computations on 20th November at SIT Committee Room by Gopal Gupta.
	Cheap approximate localization using FM Radio on 26th October at SIT Seminar Room 001 by Dr. Piyush Kumar from Florida State University.
	The Science of Correct-by-Construction Programming on October 16 at 501, Bharti building by Prof. Om Damani from IIT Bombay.
	Media Exposure through the Funnel: A Model of Multi-Stage Attribution on October 13th, 2015 at SIT, Seminar room by Vibhanshu Abhishek, Assistant Professor at the Heinz College of Carnegie Mellon University.
	On the Maximum Rate of Networked Computation in a Capacitated Network on 6th November, 2015 at Bharti 501 by Pooja Vyavhare, IIT Bombay.
	"An Excursion in Probabilistic Hashing Techniques for Big Data" on 12th October, 2015 at SIT Seminar Room by Dr. Anshumali Shrivastava, Rice University.
	Neural Attention Models for Natural Language Grounding and Generation on Wednesday, 30th September, 2015, at SIT Seminar Room by Research Assistant Professor, Toyota Technological Institute at Chicago.
	Neural Attention Models for Natural Language Grounding and Generation on 30th September, 2015 at SIT Seminar Room by Mohit Bansal, Research Assistant Professor, TTI Chicago..
	Transformational Opportunities for Healthcare enabled by Information Technology on Friday, 7th August 2015, at SIT Seminar Room by Manish Gupta, Vice President at Xerox Corporation and Director of Xerox Research Centre in India.
	Software Architecture Optimization using nature-inspired Swarm Intelligence on August 3 at Bharti 501 by Dr. Carsten Mueller.
	Extreme Classification: A New Paradigm for Ranking & Recommendation on July 31 at SIT Seminar Room by Manik Varma, Microsoft Research.
	Finding the needle in a structured haystack: scalable optimization for rare item detection and applications on April 17th at Bharti 501 by Purushottam Kar, Microsoft Research India.
	Sequential decision making in complex environments on April 10th, at Bharti 501 by Aditya Gopalan, IISc Bangalore.
	Next Gen OS For Everything on April 9th at Bharti 101 by Pankaj Mishra, Director, Samsung R&D Institute.
	2nd Indo-US workshop on "Emerging Accessibility Technologies for the Blind & Visually Impaired" in partnership with Indiana University, USA from 11 to 13 February, 2016.
	Workshop on design and production of perceivable and affordable tactile diagrams from 30 March - 1 April, 2016.
	Luis von Ahn, CMU.
	Milind Tambe, USC.
Electrical Engineering	6th IEEE International Conference on Power Systems, 2016 (ICPS 2016) from 4 to 6 March 2016 by Prof. Bhim Singh.
	International Conference on Telecommunication Technology & Management (ICTTM) – 2015, 11 to 12 April, 2015 by Dr. Brejesh Lall.
	9th IFAC Symposium on Control of Power and Energy Systems (CPES) – 2015, 9 to 11 December, 2015 by Prof. Sukumar Mishra.
	Indo-Dutch Workshop from 10 to 12 December, 2015 by Prof. S. Chaudhury.
	"India-HU Workshop for Sensing & Robotics HiSENS 2015", 12 January, 2016 by Prof. S. Chaudhury.
	Workshop on "Grid Integration Of Renewable Energy Sources" at IIT Delhi from 18 to 19 April, 2015 by Prof. Sukumar Mishra.
	Indo-UK workshop on "Advanced Communication and Control for Prevention of Blackouts", funded by DST, Delhi from 11 to 12 Jan, 2016 by Dr. N. Senroy.
	Seminar on "Combinatorial Design for Distributed Data Storage and Distributed Function Computation", Dr. Aditya Ramamoorthy, ECE, ISU on 7 March, 2016.
	Seminar on "Online Dynamic Robust PCA", Dr. Namrata Vaswani, ECE, ISU on 7 March, 2016.

Conferences / Seminars / Workshops / Lectures

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	Seminar on "Compressive Sensing", Dr. Mayank Bakshi, Chinese University of Hong Kong on 22 February, 2016.
	Lecture on "Feedback and Control in Biological Circuit Design" by Prof. Richard Murray, California Institute of Technology, USA on 14 January, 2016.
	Seminar on "The Laser revolution" by Dr. Amol Chaudhary, University of Sydney on 8 January, 2016
	Lecture on "5G: Enabling Technologies and Standardization Aspects" by Dr. Sergio Beneditto & Dr. Robert Fish on 3 November, 2015.
	Lecture on "Talking Science to the Public" by Dr. Sarita Alhawat on 14 October, 2015.
	Seminar on "Efficient Archival of Versioned Data in Networked Storage Systems" by Dr. Harshan Jagadeesh, Nanyang Technology University, Singapore on 21 October, 2015.
	Seminar on "Terahertz Photonics –Future of Electronics" by Mr. Shashank Pandey, Graduate Student at the University of Utah on 21 September, 2015.
	Lecture on "Portable PMU" on 28 October, 2015 by Mr. Narender Singh Sodha, Fmr. ED., PowerGrid Corpn. of India Ltd.
Humanities and Social Sciences	National workshop titled "Multiple publics: Sites, boundaries, contestations" from 9 to10 October, 2015.
	International Workshop on Roland Barthes: Today, Here. From 10 to11 December, 2015.
	Narrative of Transformation: Language, Conversion and Indian Traditions of 'Autobiography' from December 14 to 15, 2015.
	One day graduate students' conference "Life in the Indian City" on April 18.
	Panel Discussion on "Ismat Chughtai'sLihaaf: Memory, Desire, Afterlife". on February 25, 2016.
	ICSSR sponsored National Seminar on "Being and living in a relational work" on March 22-23, 2016.
	Machine translation quality estimation: lessons from a typical natural language processing (NLP) Task by Anil Kumar Singh on July 14, 2015.
	Merchants of Knowledge: Petty retailers and changing political economy of cultivation in western Maharashtra by Aniket Aga on August 4, 2015.
	Can Animals have history? The story of lions of Gir Forest in the 20th century by Mahesh Rangarajan on September 29, 2015).
	Dependence on free collected goods in rural India: an empirical analysis by Sujoy Chakravarty on October 13, 2015.
	Offensive Expression: The Case of M.F. Husain by Peter. R. Desouza on October 27, 2015.
	"Philosophy and Poetry"by Michael Mcghee on January 11, 2016.
	Practice of Science by Migrant Faculty in India and the United States by Roli Verma on January 12, 2016.
	Science and Reason in the age of Unreason by Parvez Hoodbhoy on January 15, 2016.
	The Geography of Philosophy : Exploring Cultural differences and cultural Universals in important philosophical concepts by Stephen Stich on February 09, 2016.
	Love in the time of revolution: Sexuality and the Making of a Revolutionary Subject in Colonial India by Ania Loomba on February 16, 2016.
	Intelligibility by NirmalangshuMukherji on March 8, 2016.
	Subjects of Modernity by Saurabh Dube on March 15, 2016.
Management Studies	International Conference on Smart Cities on 22-23 Jan 2016, supported by Unnat Bharat Abhiya, European Union & FI media by Prof. M.P. Gupta, Dr. Arpan Kumar Kar and Dr. Vigneswara Illavarasan.
	Seminar on Smart Village Ecosystem supported by Unnat Bharat Abhiya, European Union & FI media by Prof. M.P. Gupta, and Dr. Arpan Kumar Kar.
	'International Workshop on EU-India Research & Innovation Partnership for Efficient and Sustainable Freight Transportation' held on January 7, 2016 by Prof. Ravi Shankar.
	'Big Data Analytics basics and beyond towards Map Reduce problem' (Insights from recent research in Big Data Analytics) held on February 16, 2016 by Prof. Ravi Shankar.
	Topic: "Journey of Tetra Pak : Inception, Evolution & Future ahead" by Mr. Jaideep Gokhale, Marketing Communications Director - Tetra Pak.
	Topic "Driving a healthy organisation through challenging Leadership" by Mr. Sumit Mitra, Managing Director - Central Business Services, British Telecom India.
	Digital Transformation & Code Halos by Mr. Manish Bahl, Senior Director, Cognizant on 24th August, 2015.
	No Ordinary Disruption: Why the four colliding forces of emerging markets, technology, ageing population, economic interconnectedness will force leaders to reset their intuition, most of all in India by Mr. Vipul Tuli, Director, McKinsey & Company on 27th August, 2015.
	Market Analysis: The KPMG Way by Piyush Singhania - Manager, Chitrangna Minocha - Consultant (KPMG Strategy).
	Social Analytics by Mr. Amit Puri, Global Delivery Leader, IBM-Twitter Social Analytics Practice.
	Social Media Analytics - a disruptive phenomenon by Mr. Khalid Raza, IBM.
	Managing innovation and complexity by Mr. Gunjan Bhardwaj, Innoplexus.
	Lean in Service Industry by Mr. Subroto Ghosh, Director – Lean CoE, Global Operations, Barclays.
	Banking, Digitization and Disruption by Mr. Indranil Chakroborty, Director, Business Management, Barclays.
	Growth Opportunities in Private Equity and Venture Capitalists by Mr. Dinesh Tiwari, Managing Director – Multiples Alternate Asset Management.
	Megatrends in Consulting World - Special focus on Digital Trends by Mr. Samiron Ghoshal, Partner, Advisory Services, E&Y.

Conferences / Seminars / Workshops / Lectures

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	People Practices in HR by Ms. Amrita Das, Associate Director -HR, HCL Technologies.
	Community, Product & Customer – the changing world of enterprise business by Mr. Avik Banerjee, Product Manager, Adobe India.
	Start-ups Ecosystem in India by Mr. Deepak Jain, Partner, Bain & Company.
	Entrepreneurship and analyzing the markets by Mr. Ajay Garg, Managing Director – Equirus Capital.
	Trends at Max Life Insurance by Mr. Abhishek Pandey, Corporate VP at Max Life Insurance Co. Ltd.
	Adaptive enterprises will need adaptive talent for changing times by Dharmender Kapoor, COO, Birla Soft.
	Importance of Seller side in the success of e-Commerce marketplace by Mr. Manish Maheshwari, VP & Head of Seller Ecosystem, Flipkart.
	Topic on Supply chain management by Mr Rohit Sharma, Senior Director-Supply Chain, Flipkart.
	Building a Culture of Data Driven Decision Making by Mr. Sanjay Thawakar, Assistant Vice President at Max Life Insurance Co. Ltd, India.
	Data analytics and computation by Anshuman Gupta, Associate Director, CTS.
	Evolution of Healthcare in US and Digitization of Healthcare by Mr. Jay Sultan, Strategy Consultant at Edifecs Technologies Pvt. Ltd.
	Customer servicing priority and its importance by Mr. Vikas Aggarwal, National Head - Customer Servicing, Indiamart Intermesh Limited.
	Leading Large teams effectively by Mr. Balaji Iyengar, Plant Manager and Regional HR, Baddi Plant, P&G Japan Association of new Economy.
	Creating markets and realising the dreams by Mr. Pankaj Dubey, Managing Director and Country Head at Polaris India Pvt. Ltd.
	Best Practices in Business Analysis and Project Management by Mr. Shobhit Kaushik, Manager- Strategy and Change Management at Royal Bank of Scotland.
	Practicing Intrapreneurial initiatives & Talent Development by Mr. Arun Rao, Head HR India, CSC - Computer Sciences Corporation.
	Moitoring and adapting to environment around you by Mr. Prashant Pandey, Country Manager, Right Management India
	Digitization – A Massive Opportunity by Mr. Sanjay Kaul, Managing Director - India and SAARC, Cisco.
	Innovative Landscape by Mr. Amit Bali, Director, Nielsen India.
	"Smart Supply Chains: What Makes Them Really Smart?" by Sandeep Anand, Head-Supply Chain Planning, Bharti Retail, Nitin Godawat, Vice President, A.T. Kearney, Rajesh Kaul, Senior Vice President, Fashion and You, Hemanth D.P., COO, Aerospace Business, Asia Pacific Flying School, Cargo, Free Trade Zone, GMR Hyderabad International Airport Ltd., Sivaprasad Manikkapurath, Operations Director, Region India - ALSTOM T&D India, Alstom, Sumit Sharma, Chief Operation Officer, Lacoste India.
	"Reverse Logistics: An Untapped Revenue Stream" by Surya Kanta Dash, Head of Planing Distribution Logistics (SCM) - Mobile and IT Division, Samsung Electronics India Pvt. Ltd., Amit Bharadwaj, Country Lead, Logistics Operations, HP, Hewlett Packard, Noopur Agarwal, AVP - After Market Services, Supply chain and Reverse Logistics, Genpact, Anil Kumar Sharma, VP - Sourcing Milks, Nestle India, Uttam Kumar Thakur, Director, Supply Chain Management, Snapdeal.
	"Employee Growth in times of Economic Growth" by Alka Gulati, Director-HR & Admin, Hughes Communications India Limited, Adil Nargolwala, Senior GM, HR, WNS Global Services Rakhee Malik, Head HR, Saurabh. Nigam, VP-HR, Snapdeal, Sandeep Kumar, Country Manager- Client Technical Architects, IBM, Namrata Gill Tyagi, VP-HR, Ms. Anushree Singh, HR Leader - Commercial for South Asia region, Avery Dennison.
	"Local Leaders drive Global Success" by Shweta Srivastava, Head of Talent Acquisition – India, Indus Towers Limited, Rajnesh Khosla, Head-HR, LG, Ruchita Sharma, Director HR, Fidelity Worldwide Investment, Sandeep Kumar, Country Manager- Client Technical Architects, IBM, Abhishek Misra, Head HR, India Downstream, Shell, Navneet Prasad, Director– HR, KPMG.
Mathematics	Diophantine approximation and homogeneous dynamics on 26th Feb. 2016 by Dr. Anish Ghosh, School of Mathematics, TIFR Mumbai.
	Uniqueness results by p(x)-extension of Diaz-Saa Inequality on 25th Feb. 2016 by Prof. Jacques Giacomoni, LMAP (UMR CNRS 5142), Universite de Pau, Pau, France
	Local existence of strong solutions of fluid-structure models on 22nd and 27th January 2016 by J.P. Raymond, Université Paul Sabatier Toulouse III & CNRS, Institut de Mathématiques de Toulouse 31062 Toulouse Cedex - France raymond@math.univ-toulouse.fr.
	Computational and optimization methods for quadratic inverse eigenvalue problems arising in mechanical vibration and structural dynamics on 15th January 2016 by Biswa Nath Datta, IEEE Fellow, Distinguished Research Professor, Northern Illinois University, USA. Email: dattab@math.niu.edu.

Conferences / Seminars / Workshops / Lectures

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	Filtering for a Probabilistic Prediction of Credit Ratings on 12th January 2016 by Prof. Paola Tardelli, Department of Industrial and Information Engineering and Economics, University of L'Aquila, Italy.
	Square free values of polynomials, on 17 to 18 November by Dr. Prem Prakash Pandey.
	On some Diophantine equations involving terms of binary recurrence sequences on 22nd September, 2015 by Dr. Shanta Laishram, ISI Delhi.
	What is quantum computationLon 2nd and 9th November 2015 by Prof. K.R. Parthsarathy, ISI Delhi.
	Homogenization and Calculus of Variation, 12 p.m. on 22nd and 27th January, 2016 by Prof. M. Vanninathan, TIFR, Bangalore.
Mechanical Engineering	NIE Workshop organised by Mechanical Engineering Department and Computer Services Centre on April 16, 2015.
	17th ISME Conference on Advances in Mechanical Engineering" at IIT Delhi on 3 to 4 October, 2015.
	Lecture by Dr. Gyana R. Parija from IBM Research Lab., Delhi on 24 April, 2015.
	Lecture by Prof. A Ghosh, Former Director of IIT Kharagpur in March, 2016.
Physics	Physics Research Scholar's Day on 4th May 2016 is organized by Dr. Rahul S. Marathe.
	Department Annual Event: RESONANCE is organized on 24 April 2016 by Dr. Joyee Ghosh.
	Open house 2016 is organized on 23rd April, 2016 by Dr. Brajesh Mani.
	Workshop on "Science and Technology of THz Radiation", IIT Delhi on 21st December, 2015 by Prof. R.K. Varshney.
	Workshop on "Application and Needs of THz Radiation for Defense and Security (WANTED)"– sponsored by MoD, DRDO by Dr. Amartya Sengupta.
	Indo-Norway Workshop by Prof. Anurag Sharma and Prof. Joby Joseph.
	UKIERI Workshop by Prof. Anurag Sharma and Prof. R.K. Varshney.
	Diamond polishing/finishing by Prof. Michael Moseler, University of Freiburg, Germany.
Textile Technology	Textile Academia Conference, 17-18th February 2016, IIT Delhi , Coordinator Prof. B.K. Behera.
	Workshop on Textile Structural Composites, 15th-16th February, 2016, IIT Delhi, Coordinator Prof. B.K. Behera.
	Leadership and Entrepreneurial Skills', From 29.02.2016 to 11.03.2016 for officers of Ethiopian Textile Industries Development Institute, R. Chattopadhyay, Kushal Sen, V.K. Kothari & Abhijit Majumdar.
Applied Research in Electronics	Workshop on RF Measurements (for Cadence Noida). April 2015.
	"Dopant Atom Electronics" by Dr. Arup Samanta (Research Institute of Electronics, Shizuoka University, Japan, April 21, 2016.
	Radiation of Impulse-Like Waveforms with Illustrative Applications Dr. V.V. Giri on 30 June, 2015.
	ANSYS HFSS Workshop Mr. Gaurav Hada on 24 November, 2015.
	Microwave and Millimeter Wave Power Amplifiers: Technology, Applications, Benchmarks, and Future Trends, Dr. James J. Komiak on 8 December, 2015.
	Women in Microwave, Dr. Vesna Radisic on 21 December, 2015.
	Opportunities for Young Entrepreneurs and Recent Developments in M&A, Mr. Vivek Gupta on 11 March, 2016.
Atmospheric Sciences	Seminar by Prof. Shankar Chellam, Dept. of Civil and Environmental Engineering, Department of Chemical and Biomolecular Engineering, University of Houston on the topic "Detailed elemental analysis of airborne particulate matter to apportion local and global dust sources" on 20 July, 2015.
	Seminar by Dr. V. Venugopal, CAOS, IISc Bangalore on the topic "Wet-wetter; Dry-drier Paradigm: The ENSO Footprint" on 24 September, 2015.
	Seminar by Dr. Kiran Alapaty, Chief, Applied Modeling Branch, U.S. Environmental Protection Agency, Research Triangle Park, NC on the topic "Development and Testing of the Multi-Scale Kain-Fritsch Scheme using Regional and Global Models" on 12 October, 2015.
	Seminar by Prof. Henk A. Dijkstra, Department of Physics and Astronomy, Utrecht University, The Netherlands on the topic "Coherent Indo-Pacific Interannual Climate Variability "on 16 December, 2015.
Biomedical Engineering	Special Lecture by Dr. H.S. Ranu, President, American Orthopaedic Biomechanics Research Institute, Atlanta, Georgia, U.S.A. on 12th October, 2015.
	Translating Molecular Bioengineering from the Lab to the Patient on 30th October, 2015 by Prof. Ashutosh Chilkoti, Professor of Biomedical Engineering & Director, Center for Biologically Inspired Materials and Material Systems.
	Special Lecture by Samuel Lawrence, CytoViva, USA on 18th November, 2015.
	Designing Embodied Interfaces for Challenging Environments on 21st December, 2015 by Prof. Markku Turunen, School of Information Sciences, University of Tampere, Finland.
	Integrative Medicine and Practical applications on 19th January 2016 by Dr. Sudhir Bagga, USA.
	Stimuli Responsive Polymer-Based Sensors, Muscles, and Drug Delivery Platforms on 16th Feburary, 2016 by Dr. Michael Serpe, Department of Chemistry, University of Alberta, Canada.

Conferences / Seminars / Workshops / Lectures

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Energy Studies	Mr. Soumen Ghosh, Senior Research Fellow, Institute for Plasma Research, Gandhinagar, Gujarat, delivered a lecture "Localized Heating and Downstream Density Rise in Expanding Helicon Plasma" on September 14, 2015.
	Dr. Nishant Sirse, Research Staff, School of Physical Sciences, Dublin City University, Ireland, delivered a lecture "Experiments and numerical simulations to estimate the accuracy of probe assisted laser photo-detachment for negative ion density and temperature measurements" on November 05, 2015.
	Dr. Subir Biswas, Post Doctoral Fellow, Faculty of Physics, Weizmann Institute of Science, Rehovot 76100, Israel, delivered a lecture "Determination of The Plasma Composition Using Blended Stark-Broadened Emission Lines in A Self-Magnetic Pinch Diode" on December 18, 2015.
	Dr. Reetesh Kumar Gangwar, Post Doctoral Fellow, Département de Physique, Université de Montréal, Québec, Canada H3C 3J7, delivered a lecture "Spectroscopic characterization of large volume plasma systems" on February 18, 2016.
	Dr. Reetesh Kumar Gangwar, Post Doctoral Fellow, Département de Physique, Université de Montréal, Québec, Canada H3C 3J7, delivered a lecture series of 3 lectures and 1 practical session on " Plasma-diagnostic using spectroscopy based techniques" on March 7-9, 2016.
Industrial Tribology Machine Dynamics & Maintenance Engg.	Advances in nano mechanical surface characterization by Mr. G. Favaro, Anton Par, Switzerland.
Polymer Science and Engineering	Prof. Toshiaki Enoki, Tokyo Institute of Technology, Japan, 02 February, 2016.
	Dr. B.K. Satapathy, Coordinator Workshop-I: Processing of Advanced Polymeric Materials from 29th Feb to 1st Mar 2016.
	Dr. J. Jacob, Coordinator Workshop-II: Characterization of Advanced Polymeric Materials from 2 to 3 March, 2016.
Rural Development and Technology	2nd National Biogas Convention 2015: Current and emerging trends in Indian biogas and bio–fertilizer development. 15–17 September, 2015. Coordinator: Prof. V.K. Vijay
	National Training Programme on "Biogas generation, enrichment and power generation technologies for all applications. 3–5 March, 2016. Coordinator: Prof. V.K. Vijay.
	Dr. Hameed Khan, Senior Scientist, National Institute of Health (NIH), USA.
	Dr. Vijay P. Bhatkar, Padma Shri and Padma Busan Awardee.
Bharti School of Telecommunication Technology and Management	Comprehensive sensing seminar on 22 Feb, 2015.
	Spirent Technology Seminar on 25th July, 2015.
	International Conference on Telecommunication and Management (ICTTM) from 10 to 12 April, 2015.
	Workshop on Spectrum Sharing and it's applicability for India on 16th June, 2015.
	Workshop on Spectrum Sharing on 16 June, 2015.
	International Workshop on EMF from 8 to 9 April, 2016.
	Airtel Lecture "The Changing DNA of Mobile data Consumption" on 6 April, 2015 by Shyam Prabhakar.
	Airtel Lecture "Green Spaces: Connecting the next Billion Users to the Broadband Internet" on 17 November, 2015 by Ramachandaran Ramji.
	Talk "Building Devices for the internet of Things" on 11 September, 2015 by Narsimhan Venkatesh.
	Bharti Lecture "ITU and its Activities" on 26 Oct, 2015 by Malcolm Jhonson.
	Bharti Lecture "5G: Enabling Technology and Standardization aspects" on 3 Nov, 2015 by Robert Fish and Serjio Benedetto.
	Bharti Lecture "Lattice Index Coding: An Efficient ARQ Scheme for wireless Broadcasting" on 20 November, 2015 by Emanuele Viterbo.
Amar Nath and Shashi Khosla School of Information Technology	Kick-off meeting of the Indo-Dutch R&D Collaboration at the IIT Delhi, 20th August, 2015.
	Recent Advances in Cryptography, 18th-19th December, 2015 i) Workshop for Consumer Organizations in Quality of Service Regulation and Discussion with Delegates of TRAI on Mobile Internet. 17th June, 2015. ii) 2nd Indo-US workshop on "Emerging Accessibility Technologies for the Blind & Visually Impaired" in partnership with Indiana University, USA. 11th-13th February, 2016. iii) Workshop on design and production of perceivable and affordable tactile diagrams. 30th March - 1st April, 2016.
	Dr. Amy Ashwin Kalia, Research Fellow MIT - "Improving Life with Low Vision: perception - Guided Solutions".
	Dr. Manik Varma, Microsoft Research India: "Topic – Extreme Classification: A New Paradigm for Ranking and Recommendation".
	Dr. Aaditeshwar Seth, SIT - "Information and Communication Technologies for Development (ICTD)".

Interaction With Alumni

- **'Silver Jubilee Reunion Class of 1991' – 27th – 28th December, 2015:** About 120 alumni participated along with their families.

- **'Alumni Day- 29th December, 2015':** The 3rd Alumni Day was celebrated on 29th December 2015 at IIT Delhi. The theme was 'ENVISIONING THE FUTURE TOGETHER'. Batches of Alumni spread over fifty glorious years of history enthusiastically joined the celebration. Approximately 450 alumni attended the event which included a number of activities e.g. panel discussions, felicitation function, cultural program followed by dinner. The event started with the session "Nurturing Responsible Entrepreneurship at IIT Delhi". The audience got a chance to interact with the eminent speakers. IIT Alumni also showcased their startup/Innovation. Out of 25 selected entries best 6 innovators were selected and given prizes. Beside this there were games and entertainment programs for families and children.

- **Seminar on Building India Inc – 4-5 April'2015:** Building India Inc., the annual business summit organized by IITDAA and DMS is a forum to highlight the contributions of Corporate India in the Indian economy and towards making India a developed nation. This business summit is an attempt to bring together the government, corporate and the academia to deliberate on issues and challenges facing the nation and share their experiences and views with the larger audience. Building India Inc. witnesses active participation from top people in the corporate world, faculty from leading institutions and students from top B-schools

- **Open House 2015 – 18th April'2015:** IITDAA contributed awards worth Rs.1 lac for the Open House 2015 which was organized by IIT Delhi on April 18, 2015. This event provided an insight into path-breaking research work by the students as well as showcasing of the numerous advanced facilities and laboratories of IIT Delhi to the general public. This event attracted more than 550 entries received from the students under (UG & PG) categories. Final selection was done through a long process by the eminent jury of IIT Delhi alumni including alumni from abroad. This year the award money has been increased to Rs. 1.25 Lakh.

- **AGM & Annual Get-together 2015 – 25th April, 2015:** Annual General Body meeting of IIT Delhi Alumni Association was held on 25th April, 2015. The AGM was followed by a musical performance by the renowned artist Rabbi Shergill. After the AGM, IITDAA also organised a gala dinner and lucky draw at the Sports Stadium at IITD. Additionally separate events were also organized

for the spouses and children of alumni. IITDAA awarded prizes for The Open House 2015 held on 18th April, 2015 for best project in various categories to Undergraduate and Postgraduate students on 25th April, 2015 at Seminar Hall, IIT Delhi after the AGM by Prof. R.K. Shevgaonkar, Chairman, IITDAA.

- **Participation of IITDAA for UG & PG students Farewell – 12th May, 2015 :** The President, Office Bearers and EC members participated on 6th May & 12th May, 2015 for the UG as well as PG farewell functions respectively wherein initiatives by the alumni for the students were highlighted.

- **Seminar on "Lessons In Leadership and Entrepreneurship" – 16th May, 2015 :** IIT Delhi Alumni Association & IITDAA NCR South Gurgoan Chapter jointly organized a seminar on "Lessons In Leadership and Entrepreneurship" on May 16, 2015, at the Lemon Tree Premier Hotel, Gurgaon.

- **Inauguration IITDAA Reception Office and Puja Ceremony – 28th June, 2015 :** A Puja ceremony was held on 28th June 2015 at the premises of IITDAA for new reception office attended by the EC and Past Presidents. Later a formal inauguration of the reception office was done by Prof. Kshitij Gupta, Officiating Director, & Chairman, IITDAA on 25th July, 2015.

- **Lecture on "Flying Cars & Courier Drones" – 25th July, 2015 :** IIT Delhi Alumni Association organized a lecture by S. Paul Dev, B.Tech., ME, 1976, Head of an R&D Group in US on "Flying Cars & Courier Drones" on 25th July, 2015 at Vishwakarma Bhavan Auditorium, IIT Delhi. It was very well attended by students as well as alumni.

- **Start Ups Conclave & Release of Coffee Table Book "IIT Delhi Through The Lens" – 9th September, 2015 :** The event was held on 9th Sept., 2015 at Seminar Hall, IITD. Hon'ble Dr. Jitendra Singh, Minister of State for Prime Minister Office released the Book and also was Chief Guest for 'Start Ups Conclave'.

- **Speranza - Rendezvous With Alumni 2015 on 12-13 September, 2015:** This event is organized every year during Speranza in IIT Delhi to improve interaction between alumni and students. Students are mentored by alumni with regards to specific sector (Core Industry / Consultancy / Finance / Social & Educational Initiatives / Research / Civil Services / Entrepreneurship). The objective of the event is to help and guide students attending this event by interacting with Alumni. Students could take knowledge and learning by listening to and experiencing the life of the Alumnus, their experience in the field in which a student might be interested in.

Interaction with Alumni

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- **NAGME'2015, Alumni Musical Evening – 26th September, 2015 :** Nagme'2015, an alumni musical evening which was held at seminar hall-IITD on 26th Sept'2015 that had performers from various batches singing evergreen songs, thereby representing singers from every era, right from the 60s to the 21st millennium. The lively evening of music was followed by dinner at Vindyachal hostel with families.

- **India Social Good Summit: 2015 - 28 September, 2015 at IIT Delhi organized by the UN and supported by IITDAA :** There was an opportunity to meet some of India's leading technologists, representatives from government, celebrities and young innovators who deliberated on Technology, Social Good and the Road Ahead for India.

- **A Traditional Dandiya Night - 24th October, 2015 :** This cultural event was organized in collaboration with Dakshin Gujarati Mandal on 24th October, 2015. The Alumni with their families enjoyed the 'Garba' and also got a chance to perform Dandiya.

- **Felicitation of IITD Distinguished Alumni Awardees '2015 – 31st' Oct. 2015 :** The IIT Delhi Alumni Association felicitated the following alumni who have attained high distinction in their respective fields, by being awarded the IIT Delhi Distinguished Alumni Award for the year 2015. Dr. Ashish Nanda, 1981, B.Tech., Electrical, at present Director, Indian Institute of Management, Ahmadabad; Prof. Ashutosh Chilkoti, 1985, B.Tech., Chemical, at present Deptt. of Biomedical Engg., USA; Mr. Jayant Sinha, 1985, B.Tech., Chemical Engineering, at present Minister of State for Finance, Government of India, New Delhi, and Dr. Ramesh Hariharan, 1990, B.Tech., Computer Science, at present Chief Technology Officer, Strand Life Sciences, Adjunct Professor, Indian Institute of Science, Bangalore. The esteemed line-up of guests included Dr. Vijay Bhatkar, Chairman BOG, Dr. Kshitij Gupta, Officiating Director and Dr. Mukesh Khare, Dean AA&IP. The Officiating Director then spoke about the achievements of IIT Delhi. The evening had its share of nostalgia when batch mates of the distinguished awardees shared memories from their time at IIT Delhi.

- **1st Spandan Prof. Ishwar Dayal Memorial lecture on Challenges for the future of humanity – 14th November, 2015 :** This lecture was delivered by Mr. Rajinder Singh at Seminar Hall, IIT Delhi. Mr. Rajinder Singh, Magsaysay awardee, Waterman of India spoke on the challenges for the Future of Humanity. His presentation evolved great interest in the subject by the Audience.

- **IITD Coffee Table Book Received by the Hon'ble Shri Pranab Mukherjee at Rashtrapati Bhavan - 26th November, 2015 :** Dr. Deepak Dogra, V. Sethuraman, M.S. Bawa, Indu Bhaskar, Sanjeev Jain and Dr. R.K. Jalan presented a copy of the Coffee Table Book to Hon'ble President of India, Shri Pranab Mukherjee at Rashtrapati Bhavan on 26th November, 2015. The event was given wide publicity by the news media.

- **Heads Up: Alumni Showcase event :** The IIT Delhi Alumni Association organized a Startup Showcase event on Friday, 27th November, at SAC, IIT Delhi: : The intention was to allow some of the hot start-ups from 2015 to make their pitch to the students, and alumni from recent batches, as a precursor to the formal T&P process.

Many delegations from the Industry, Academia and the Government from several countries visited the Institute to explore the possibilities of mutual interaction. Some of these are highlighted below:

- A 2 member delegation led by Dr. Liudmila N. Larina, Deputy Director of the Institute of International Education and Language Communication from Tomsk Polytechnic University, Russia visited the Institute on April 9th, 2015.

- A 2 member delegation led by Prof. Edward Crawley, President, Skolkovo Institute of Science and Technology (Skoltech), Moscow visited the Institute on April 27th, 2015.

- A 3 member delegation led by Dr. Janaka Ruwanpura, Vice-Provost (International), University of Calgary, Canada visited the Institute on July 14th, 2015.

- A 13 member delegation led by Mrs. Soraya Caro, Director of the Center of Studies of India and the South Asia, University Externado de Columbia visited the Institute on July 14th, 2015.

- A 2 member delegation led by Dr. Sukant Misra, Associate Vice Provost, International Programs and Professor of Agricultural & Applied Economics, Texas Tech. University, United States visited the Institute on October 9th, 2015.

- A 5 member delegation from Fourth Valley Concierge Pvt. Ltd. Led by Mr. Yasujiro Mitake, First Secretary of Embassy of Japan visited the Institute on October 9th, 2015.

- A 2 member delegation led by Dr. Siddiqui, Hon'ble Deputy Minister for Education, Govt. of the Islamic Republic of Iran visited the Institute on October 21st, 2015.

- A 2 member delegation led by H.E. the Ambassador of France visited the Institute on October 29th, 2015 for interaction with Student and Faculty on climate change.

- A 9 member delegation led by Mr. Vipin Gupta from American Council of Education Fellow 2015-16 visited the Institute on November 3rd, 2015 to evolve frameworks for collaborations with IIT Delhi.

- A 9 member delegation of the Parliamentary Committee on Education, Research and Technology Assessment of the German Parliament led by Dr. Simone Raatz visited the Institute on November 17th, 2015 to focus on the German Cooperation with India in the field of Higher Education in particular academic exchange and university cooperation.

- A 9 member delegation led by Mr. Robert-Jan Smits, Director-General of DG Research and Innovation of the European Commission visited the Institute on November 19th, 2015 to learn about IIT Delhi's research and innovation activities and about research expectations from European Commission.

- A high level delegation led by 2 Cabinet Rank Ministers from Govt. of U.K. along with Vice-Chancellors of U.K. Universities visited the Institute on December 9th, 2015.

- A 2 member delegation led by Mr. Jeffrey D. Armstrong, President of California Polytechnic State University visited the Institute on January 11th, 2016.

- A 5 member delegation led by Prof. Alexandra Hughes, Deputy Vice Chancellor, Global Engagement, University of Westminster visited the Institute on January, 15th 2016.

- A 9 member delegation led by Mr. Kamjom Tatiyakavee, Permanent Secretary, Ministry of Education of the Kingdom of Thailand visited the Institute on January 18th, 2016.

- A 2 member delegation led by Prof. Fatima Marinha, Vice Rectorfor Cooperation and Culture from University of Porto, Portugal visited the Institute on January 19th, 2016.

- A 3 member delegation led by Dr. Soon Heung Chang, President of Handong University, Korea visited the Institute on January 28th, 2016 to discuss cooperation in the field of R&D and personnel exchanges.

- A 60 member delegation led by Chief Executive of Hong Kong Hon'ble C.Y. Leung, visited the Institute on February 2nd, 2016.

- A 4 member delegation led by Prof. Joerg Hacker, President, German National Academy of Sciences, Leopoldina visited the Institute on February 5th, 2016 to identify some prospective areas of possible collaboration between IIT Delhi and German Institutes.

- A 3 member delegation led by H.E. Mrs. Roza Otunbayeva-Former President of the Kyrgyz Republic Founder, Roza Otunbayeva Initiative International Foundation visited the Institute on February 11th, 2016 to discuss on education system of India (school meal system, STEM system, governmental and private schools and universities).

- A 3 member delegation led by Mr. Vijay Swarup, Vice President of Research and Development, Exxon Mobil Research and Engineering, Texas visited the Institute on February 17th, 2016 to gain understanding of the types of research conducted in India.

- A 7 member delegation led by Pro-Vice Chancellor for Engagement and Internationalization, Prof. Richard Davies visited the Institute on February 19th, 2016 to discuss on summary of research to date, update from individual research meetings, strategic discussions, opportunities for student exchanges, future of research collaborations between IITD and Newcastle University.

- A 4 member delegation led by Mr. Bogush Vadim, First Deputy Minister, Ministry of Education of the Republic of Belarus visited the Institute on February 25th, 2016.

- A 6 member delegation led by Prof. David Hinks, Dean, College of Textiles, North Carolina State University, United State of America visited the Institute on 9th March, 2016 to explore collaboration in academic and research programmes.

Distinguished Visitors

- A 3 member delegation led by Prof. Koksharov Viktor, Rector, Ural Federal University, Russia visited the Institute on 11th March, 2016 to discuss bilateral cooperation between IIT Delhi and the Ural Federal University, Russia.

- A 4 member delegation led by Ms. Mamonaheng Monoheng, Director for Policy and Strategic Planning from Lesotho visited the Institute on March 30th, 2016.

Dr. Siddiqui, Hon'ble Deputy Minister for Education, Govt. of the Islamic Republic of Iran visited the Institute on October 21st, 2015.

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Chief Executive of Hong Kong Hon'ble C.Y. Leung with 60 member delegation visited the Institute on February 4th, 2016.

Prof. David Hinks, Dean, College of Textiles, North Carolina State University, USA visited the Institute on March 9th, 2016.

Prof. Viktor, Rector, Ural Federal University, Russia visited the Institue on March 11th, 2016.

Distinguished Visitors

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DISTINGUISHED VISITORS VISITED DEPARTMENT/CENTRE/SCHOOL

Department of Applied Mechanics

- Prof. Zellman Warhaft (Deptt. of Mechanical and Aerospace Engineering, Cornell University, Ithaca, New York) visited from 1st to 7th April, 2015 in the Department of Applied Mechanics.
- Rear Admiral S.P. Shrivastav Additional Director General (Directorate Of Naval Design - Submarine Design Group of the Indian Navy) visited on April 9th, 2015 in the Applied Mechanics Department.
- Dr. Sachin Goyal, Assistant Professor, University of California, USA, visited on April 13th, 2015 in the Department of Applied Mechanics.
- Prof. K.R. Sreenivas, Engineering Mechanics, Unit, Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore. Visited on April 24th, 2015 in the Applied Mechanics Department.
- Prof. T.F.V. Francken from the University of Groningen, Netherlands Visited on May 1st, 2015 in the Applied Mechanics Department.
- Prof. Rakesh Kapania, Mitchell Professor of Aerospace Ocean Engineering, Virginia Tech, Blackburg, VA, 24061, Visited on June 19th, 2015. In the Applied Mechanics Department.
- Dr. Yash Agarwal, Ph.D. from U.K. at the University of Surrey, visited on October 6th, 2015 in the Applied Mechanics Department.
- Prof. Zellman Warhaft (Deptt. of Mechanical and Aerospace Engineering, Cornell University, Ithaca, New York) visited the Dept. of Applied Mechanics for a period of 5 weeks starting from Feb. 8th, 2016.
- Rear Admiral A.K. Saxena, Director General (Directorate of Naval Design - Surface Ship Group), Integrated Headquarters, Ministry of Defence (Indian Navy) visited in the Department of Applied Mechanics.
- Rear Admiral A.K. Dutta, Director General (Quality Assurance) Integrated Headquarters, Ministry of Defence (Indian Navy), visited in the Department of Applied Mechanics.
- Commodore M.N. Menon, Principal Director ,Naval Architecture Integrated Headquarters, Ministry of Defence (Indian Navy) visited in the Deptt. of Applied Mechanics.
- Major General G.D. Bakshi, SM, VSM (Retd.), Indian Army visited in the Department of Applied Mechanics.

Department of Biochemical Engineering and Biotechnology

- Prof. R. Chidambaram (Principal Scientific Advisor to Govt. of India and Chairman, SAC to the Cabinet).
- Prof. K. Vijay Raghavan (Secretary, Department of Biotechnology, Govt of India).
- Dr. Renu Swarup (Senior Adviser, Department of Biotechnology, Govt. of India).
- Dr. Noboru Yumoto (Vice President, AIST, Japan).

- Dr. Katsunori Matsuoka (Vice President, AIST, Japan).
- Dr. Yoichi Kamagata (Deputy Director General, AIST, Tsukuba, Japan).
- Dr. Yoshihiro Ohmiya (Director, Biomedical Research Institute, AIST, Tsukuba, Japan).
- Dr. Tomohiro Tamura (Director, Bioproduction Research Institute, AIST, Tsukuba, Japan).
- Dr. Koichi Awazu (Deputy Director, International Affairs, AIST, Tsukuba, Japan).
- Dr. Yoshiaki Onishi (Deputy Director, Biomedical Research Institute, AIST, Tsukuba, Japan).
- Dr. Renu Wadhwa (AIST, Tsukuba, Japan).
- Dr. Motomichi Doi (AIST, Tsukuba, Japan).
- Dr. Sunil Kaul (AIST, Tsukuba, Japan).
- Mr. Kazuhisa Yoshida (First Secretary, Embassy of Japan, New Delhi).
- Prof. Peter Comba (Institute of Inorganic Chemistry, University of Heidelberg, Germany).
- Prof. Holger Gohlke (Institute for Pharmaceutical and Medicinal Chemistry, University of Dusseldorf, Germany).
- Prof. Hendrik Zipse (Department of Chemistry, Ludwig Maximilians University, Munich, Germany).
- Dr. Suboor Bhakt (Deputy Director, Heidelberg Center South Asia).
- Prof. Devesh Kumar (BB Ambedkar University, Lucknow).
- Prof. P.V. Bharatam (NIPER, Mohali).
- Dr. V. Subramanian (Central Leather Research Institute, CSIR-CLRI, Chennai).
- Dr. U. Deva Priyakumar (IIIT, Hyderabad).
- Prof. David Graham (Newcastle University).
- Dr. Russell Davenport (Newcastle University).
- Dr. Nimish Shah (Head, SEAC, Unilever, India) .
- Dr. A. Franco (Unilever, UK), .
- Prof. C. Mota and Prof. J.C. de Araújo (Brazil).
- Prof. U. Ghosh (USA).

Department of Chemical Engineering

- Dr. Suresh K. Bhatia, University of Queensland, Australia.

Department of Civil Engineering

- Prof. Mark Jones, University of New Castle, Australia.
- Prof. Hemanta Hazarika, Japan.
- Mr. Sonam Wangchuk, Founder SECMOL.

Department of Computer Science & Engineering

- Deepak Kapur, U. New Mexico.
- Assaf Schuster, Technion, Israel.
- Sriram Rajamani, Microsoft Research Bangalore.
- Shriram Krishnamurti, Brown University.
- Prof. Boguslaw Marek (OBE), John Paul II Catholic University of Lublin, Poland, Conducted tutorial on Tactile Learning.

Distinguished Visitors

- Brian Barsky, University of California, Berkeley.
- Chita Das, Pennsylvania State University.

Department of Electrical Engineering

- Prof. Jun Wang.
- Prof. Peter Edward, Sutherland (Nov. 24-26, 2015).

Department of Humanities & Social Sciences

- Philippe Roger (CNRS).
- Peter Berger (University of Gronningen).
- Alelxandre Gefen (CNRS).
- Christophe Z Guilmoto ((IRD) Paris, CEPED, Paris, Université Paris Descartes and EHESS.
- Barbara Cassin (CNLRS), Suvir Kaul (University of Winsconsin).
- Ania Loomba (University of Pennsylvania).
- Michael Toolan (University of Birmingham).
- Saurabh Dube (El Colegio de Mexico).
- Geeta Patel (University of Virginia).
- Nirmalangshu Mukherji (National visiting professor ICPR).
- Mahesh Rangarajan (ex-director Nehru Memorial Library).
- Mehr Farooqi (University of Virginia).
- Syeda Hameed (former member planning commission).
- Sohini Ghosh (JamiaMilialslamia).
- Some noted film directors who visited the department: Dr. Mohan Agashe, Rahul Roy, Vivek Gomber, Saba Dewan, Iffat Fatima, Sidharth Srinivasan.

Department of Management Studies

- Mr. Abhishek Mishra, Head HR, India Downstream, Shell India.
- Mr. Adil Nargolwala, Senior GM, HR, WNS Global Services.
- Mr. Amit Bhardwaj, Country Lead, Logistics Operations, HP.
- Mr. Aneesh Chaudhary, Global Analytics Director at Unilever.
- Mr. Ashish Senggur, Senior Director at Ebay.
- Mr. Hemanth DP, COO, Aerospace Business, Asia Pacific Flying School, Cargo, Free Trade Zone, GMR Hyderabad International Airport Ltd.
- Mr. Navneet Prasad, Director HR, KPMG.
- Mr. Nitin Godawat, VP, A T Kearney.
- Mr. Nitin Jain, Director at Fractal Analysis.
- Mr. Pankaj Rai, Global Analytics Director at Dell.
- Mr. Peeyush Bajpai, Director Big Data at Neilsen.
- Mr. Raghvendra Chaturvedi, Head Business Development, Green Dust.
- Mr. Rajnesh Khosla, Head-HR, LG.
- Mr. Samik Roy, Director at Microsoft Dynamics (Applications) Business.
- Mr. Samiran Ghosh, Asia Technology Leader at Dun & Bradstreet.
- Mr. Sandeep Anand, Head-Supply Chain Planning, Bharti Retail.
- Mr. Sandeep Kumar, Country Manager- Client Technical Architects, IBM.
- Mr. Sandeep Kumar, Country Manager- Client Technical Architects, IBM.
- Mr. Sivaprasad Manikkapurath, Operations Director, Region India - ALSTOM T&D India , Alstom.
- Mr. Srinivasan Rengarajan, AVP at Wipro BPS, Wipro Ltd.
- Mr. Suchit Malhotra, VP at Accenture Digital.
- Mr. Sumit Sharma , COO , Lacoste India.
- Mr. Uttam Kumar Thakur, Director, Supply Chain Management, Snapdeal.
- Ms. Alka Gulati, Director-HR & Admin, Hughes Communications India Limited.
- Ms. Anushree Singh, HR Leader - Commercial for South Asia region, Avery Dennison.
- Ms. Namrata Gill Tyagi, VP-HR, Dr Reddy's.
- Ms. Noopur Agarwal, AVP, After Market Services, Supply Chain and Reverse Logistics, Genpact.
- Ms. Rakhee Malik, Head HR, AT Kearney.
- Ms. Ruchita Sharma, Director HR, Fidelity Worldwide Investment.
- Ms. Shweta Srivastava, Head of Talent Acquisition – India, Indus Towers Limited.
- Dr. Ansh Gupta, Marketing Science Manager at Millward Brown India.
- Dr. Sushant Kumar, Head of Social Media and Online Reputation at Snapdeal.

Department of Mathematics

- Dr. Anish Ghosh, School of Mathematics, TIFR Mumbai.
- Prof. Jacques Giacomoni, LMAP (UMR CNRS 5142), Universite de Pau, Pau, France.
- J.-P. Raymond, Université Paul Sabatier Toulouse III & CNRS, Institut de Mathématiques de Toulouse 31062 Toulouse Cedex - France raymond@math.univ-toulouse.fr.
- Biswa Nath Datta, IEEE Fellow, Distinguished Research Professor, Northern Illinois University, USA. Email: dattab@math.niu.edu.
- Dr. Christopher Anand, McMaster University, Canada.
- Prof. Gerald Beer, Emeritus Professor at California State University, Los Angeles.
- Prof. Krishna B. Athreya, Iowa State University, USA.
- Dr. Shanta Laishram, ISI Delhi.
- Dr. Prem Prakash Pandey.
- Prof. Pramod Kanwar, Ohio University.
- Prof. Paola Tardelli, Department of Industrial and Information Engineering and Economics, University of L'Aquila, Italy.

Department of Mechanical Engineering

- Dr. Dana (Keoki) Jackson, Chief Technology Officer, Lockheed Marting Corporate Engg, Technology & Operations (CETO) on 12 May, 2015.

Distinguished Visitors

- Mr. Paris Stavrianidis, Norwood on 22 April, 2015.

Department of Physics

- Prof. Michael Moseler from University of Freiburg, Germany.

Department of Textile Technology

- Dr. Polona Dubrovsky and Dr. Sonja Sterman of University of Maribor, Slovenia, visited the department during 2nd to 10th December, 2016 under Indo-Slovenia bilateral project (PI: Abhijit Majumdar).

Centre for Applied Research in Electronics

- Dr. James J. Komiac, BAE Systems, USA, 8-12-2015.

Centre for Biomedical Engineering

- Ashutosh Chilkoti, Professor of Biomedical Engineering, Director, Center for Biologically Inspired Materials and Material Systems.

Centre for Polymer Science

- Prof. Toshiaki Enoki, Tokyo Institute of Technology, Japan, 2 February, 2016.
- Prof. Dirk Kuckling, University of Paderborn, Germany, 18 April, 2016.

Centre for Rural Development and Technology

- Visit of Shri Piyush Goyal, Hon'ble Minister for Power, Coal, and New & Renewable Energy Ministries on 15th September 2015 for inauguration of 2nd National Biogas Convention 2015 at IIT Delhi.
- Delegation from Bangladesh visited "Biogas Enrichment and Bottling Laboratory" on 18th January 2016.
- C.Y. Leung, CEO Hong Kong along with other members visited "Biogas Enrichment and Bottling Laboratory" on 4th February 2016.
- Prof. Premila Achar of Kennesaw State University, Georgia, USA visited CRDT with her group of 15 students on 13th May, 2015.

Bharti School of Telecommunication Tech. and Mgmt.

- Dr. Ramachandaran Ramji, Microsoft Research.

- Mr. Narsimhan Venkatesh, VP, Redpine Signals.
- Mr. Malcolm Jhonson, Dy. secretary general ITU.
- Prof. Sergio Benedetto, Politecnico di Torino, president IEEE Communication society.
- Prof. Emanuele Viterbo, Monash University, IEEE distinguished lecturer.

Amar Nath and Shashi Khosla School of IT

- Dr. Amy Ashwin Kalia, Research Fellow MIT.
- Dr. Rohan Paul, Research Fellow, MIT.
- Prof. Boguslaw Marek (OBE), John Paul II Catholic University of Lublin, Poland, Conducted tutorial on Tactile Learning.

Kusuma School of Biological Sciences

- Dr. Sachin Kumar, Department of Biosciences and Bioengineering, Indian Institute of Technology Guwahati, Assam 781039, India, "Reverse genetics of Newcastle disease virus: A novel approach of recombinant vaccine development".
- Dr. Srini KAVERI, Director, CNRS Office in India, French Embassy, Service for Science and Technology, Abdul Kalam Road, 110011 New-Delhi – India, ""Antibodies: A fascinating journey over the last century".
- Dr. Himanshu Khandelia, MEMPHYS, Center for BioMembrane Physics, University of Southern Denmark (SDU), Campusvej 55, Odense M 5230, Denmark, "Molecular Simulations of Ion Pumping and the Relationship between Curvature and Electrical Potential in Lipid Bilayers"
- Dr. Teresa Balser, USIEF programme, Fulbright-Nehru Distinguished Chair, University of Florida, Gainesville, FL "Building capacity for a pedagogically advanced and socially responsive college life sciences curriculum".
- Dr. Indraneil banerjee, Novartis Presidential Postdoctoral Fellow, FMI Basel, Switzerland, "Influenza virus capsid disassembly: how a hard nut cracks itself to infect cells by carjacking molecular motors".

8. Faculty

The quality of an academic institution primarily depends on its faculty. Our faculty is one of the finest in the country and is recognized internationally for their quality of research, teaching and curriculum development. They also contribute greatly for the development of the nation by being associated with a large number of decision making bodies, providing crucial guidance and advice on policy matters and technical issues. Many of our faculty members serve on the editorial Boards of reputed journals, peer-review papers for publications, serve on committees for recruitment of professionals, and are on the Boards of many institutions and organizations. 30 new faculty members have joined the Institute this year, which has enhanced our competence in several emerging areas, while bringing new energy into our academic endeavors.

Recruitment of bright faculty is one of our most important missions, since therein lies the future of the Institute. Our Board of Governors (BoG) is seized of this issue, and has played a very positive and constructive role in approving policies, which empower the faculty to deliver their best in both teaching and research. We are continuously trying to reach out to the potential faculty members through a variety of means, including round-the-year search and recruitment and on-line submission and processing of applications.

During the period under report, international bibliographic databases have indexed 1661 research articles published by faculty members and researchers of the institute in international journals including 1328 articles indexed in Scopus and 1022 articles indexed in web sciene, an international indexing service in Science & Technology and Social Sciences. The faculty members have also presented a similar number of papers in national and international conferences. Besides, they have also published many books and conducted several continuing education programs. The Institute supported participation of faculty members to international and national conferences this year. Many more participated with financial support from sponsored projects, and other funding agencies. The Institute provides seed research funding to the new faculty upon joining the Institute to the tune of Rs.10 lakhs (or more when necessary). During the year, 17 Young Faculty Fellowships have been awarded. To encourage the new faculty for developing research facilities in the area of their expertise, the Institute sanctioned the New Faculty Research Grant of a total of Rs.317 lakhs to 27 faculty members during the financial year 2015-2016.

FACULTY AWARDS/RECOGNITIONS

Our distinguished faculty colleagues continue to make a difference to the world of Science, Engineering, Humanities and Management, and continue to earn recognition and awards, which bring glory to the Institute. Many of them have been bestowed with honours/awards and elected as Fellows of several professional national/international bodies during the year 2015-2016. Some of these recognitions are highlighted below:

Department of Biochemical Engg. and Biotechnology

- Prof. Saroj Mishra inducted as an Expert Member on two task forces of Department of Biotechnology (Ministry of Science and Technology, Govt. of India).

- Prof. Saroj Mishra nominatd by DBT as an Expert Member on Inst Bio-safety Comm. of JP Institute of Information Technology, Noida.

- Prof. Saroj Mishra inducted as a member of Advisory Committee of National Institute of Biologicals, Noida, UP.

- Prof. V.S. Bisaria was opted as a Member of Bioprocess and Bioseparation Engineering Division, Asian Federation of Biotechnology.

- Prof. V.S. Bisaria was opted as a member of Editorial Board of the new journal, Bioresources and Bioprocessing, published by Springer.

- Prof. A.K. Srivastava inducted as member of DBT Expert Committee on Human Resource Development.

- Dr. D. Sundar was one of the 4 finalists for the NASI-SCOPUS Young Scientist Award (2014) in Biological Sciences. The criteria for selection was based on research productivity (number of publications), impact (citations), excellence (h-index) and quality.

Department of Chemical Engineering

- Prof. S. Basu appointed Editor of journal titled Global Challenges Energy and Environment, published by Wiley Inc. UK.

- Prof. S. Basu has become Fellow of The National Academy of Sciences, India, 2015.

- Prof. Suddhasatwa Basu has been appointed as Associate Dean of IRD w.e.f. 16 August, 2016.

- Prof. S. Basu, Member of National Committee on 'Grievances of the Chemical Industry in India', Ministry of Chemicals and Fertilizers; 2016-present.

- Prof. S. Basu, In Expert Committee 'National R&D program for Chemical Sector' Ministry of Chemicals and Fertilizers; 2016-present.

- Prof. S. Basu, Member of Lovraj Kumar Memorial Trust (LKMT), New Delhi; 2016- present.

- Prof. Anil. K. Saroha has been appointed as Associate Dean of Student Affairs w.e.f. 16 August, 2016.

- Prof. Shantanu Roy has been appointed as Associate Dean

Faculty Awards / Recognitions

of PG Research w.e.f. 16 August, 2016.

- Prof. Anurag S. Rathore has been appointed as Associate Dean of Corporate Relations w.e.f. 16 August, 2016.

- Prof. K.K. Pant has been selected to continue to hold the Petrotech Chair 2013-2016.

- Prof. K.K. Pant, IIChE, Dr. A.V. Rama Rao Foundations Best Ph.D. Thesis Supervised and Research Award in Chemical Engineering/Technology 2015.

- Prof. K.K. Pant, Dr. S.S. Deshpande Award (2013) for Journal Impact factor for the last three years 2011 to 2013 papers. The total citation is 2755 and h index is 26 and i10 INDEX 45 for all the years. Conferred during 2015 at INDORE.

- Prof. K.K. Pant, Nominated Member of State Level Environment Impact Assessment Authority (SEIAA) (2014-2017) nominated by Ministry of Environment and Forest, Govt. of India.

- Prof. K.K. Pant, Member of Editorial Board of International Journal of Thermodynamics and Catalysis; OMICS Group. (Executive Editor).

- Prof. K.K. Pant, Member of Editorial Board of Journal of Chemistry and Chemical Engineering.

- Prof. K.K. Pant, CHAIRMAN GATE and JAM IIT Delhi for the year 2016.

- Dr. M. Ali Haider received Bioenergy-Awards for Cutting Edge Research (B- ACER) supported by the Department of Biotechnology, Govt. of India, and the Indo-U.S. Science and Technology Forum (IUSSTF).

- Front cover illustration on Green Chemistry, Journal By Royal Society of Chemistry (Impact Factor~8.5) for a critical review authored by Ejaz Ahmad, Md. Imteyaz Alam, Prof. K.K. Pant and Dr. M. Ali Haider.

Department of Chemistry

- Prof. Siddharth Pandey: Chemical Research Society of India (CRSI) Bronze Medal (2016). Fellow of the Royal Society of Chemistry (FRSC) (2015).

- Prof. S.K. Khare: Joint Secretary, Association of Microbiologists of India (AMI) 2015-2016. General Secretary, The Biotech Research Society, India (BRSI) 2015-2016.

- Prof. Ashok Kr. Ganguli, Director, Institute of Nanoscience & Technology, Mohali (Contd. till date).

Department of Civil Engineering

- Dhanya C.T. : Visiting Scholar Fellowship from IIHR-Hydro Science and Engineering, University of Iowa to conduct research on "Predictability of Weather and Climate".

- Dipti Ranjan Sahoo: Outstanding reviewer, Engineering Structures Journal.

- Gazala Habib: Fulbright fellowship for academic excellence.

- K. Chandrashekhar Iyer: Key note address for an International Conference at TKM Engineering College, Kollam, Kerala.

- Shashank Bishnoi: Indian Concrete Institute Young Scientist Award.

- Uma Maheshwari: Received the Best NICMAR Journal Paper Award for the year 2015, for the paper titled "Work Study for Sustainable Construction: A Case Study Approach" published by PawanPandey & J. Uma Maheswari in NICMAR Journal Special Issue titled "Advances in Sustainable Construction Technology & Project Management", 19-30.

Department of Computer Science and Engineering

- Visvesvaraya Young Faculty Research Awards to 4 faculty members: Sorav Bansal, Mausam, Smruti Ranjan Sarangi and Parag Singla.

- Prof. M. Balakrishnan (jointly with Prof. P.V.M. Rao) received national award by DST for OnBoardTM Project as scientist(s) working on Improving Accessibility for the Disabled, The award was given at the National Science Congress by the Hon'ble Prime Minister on 3rd Jan 2016.

- Prof. M. Balakrishnan received National Award by Ministry of Social Justice & Empowerment for the, SmartCaneTM project, as "Best Applied Innovation". The award was given by the Hon'ble Finance Minister on 3rd Dec 2015.

- The SmartCaneTM team received the Manthan Award by DEF (Digital Empowerment Foundation) under e-inclusion and Accessibility Category (given on 2nd Dec 2015).

- The SmartCaneTM team received the NCPEDP-Mphasis Universal Design Award. The award was given by the Hon'ble Minister of Railways on 14 Aug. 2015.

- The startup Gram Vaani founded by Dr Aaditeshwar Seth and incubated at TBIU IIT Delhi, won the Nasscom Social Innovation Award on technologies for development.

- Paper titled "Unfolding-based Partial Order Reduction" on which Dr. Subodh Sharma is a co-author has been awarded the best paper in CONCUR 2015 held in Madrid, Spain, from September 1 to 4, 2015.

- Sorav Bansal is the Technical Program Co-Chair for the ACM Asia-Pacific Workshop on Systems 2016: APSys 2016.

- Sanjiva Prasad, Programme Committee Co-chair, International Conference on Distributed Computing and Internet Technologies ICDCIT 2016.

- Sanjiva Prasad, Programme Committee Co-chair, Indian Conference on Logic and its Applications (ICLA) 2017.

- Mausam was Program Committee co-chair for Conference on Data Sciences (CoDS) 2016.

- Sanjiva Prasad, Keynote Speaker, 7th International Conference on Information and Knowledge Technology (IKT 2015), May 26-28, 2015, Urmia, Iran.

- Sanjiva Prasad, Invited Lectures on "Type Theory and

Programming Languages", Indian School of Logic and Application, Coimbatore, March 21-26, 2016.

- Prof. Amit Kumar appointed "Jaswinder and Tarwinder Chadha" Chair Professor for the period 2016-18.

Department of Electrical Engineering

- Prof. Bhim Singh - JC Bose Fellowship.

Department of Humanities and Social Sciences

- Teaching excellence awards to Dr. Arudra Burra, Dr. Angelie Multani, Dr. Saptarshi Mukherjee, for 2nd Sem. 2014-15.

- Dr. Farhana Ibrahim - Book Reviews Editor, Contributions to Indian Sociology, 2016-2021.

- Prof. R.B. Nair - ICSSR Senior Fellow Jan. 2016-Sept. 2016.

- Dr. Reetika Khera - ICCR Chair for Indian Studies at King's College, London. - 11 Jan. to 5 April, 2016.

- Dr. Sarbeswar Sahoo - Visiting Fellow at University of Muenster, Germany, 15 May to 25 July, 2015.

- Prof. Purnima Singh: President- National Academy of Psychology, (NAOP) India, 12 Dec. 2014 - 2nd Feb. 2016.

- Prof. Purnima Singh: Executive committee member as Regional Representative - South Asia International Association for Cross-Cultural Psychology, (IACCP) 2014-2016.

- Prof. Purnima Singh: Member Editorial Board- International Journal of Psychology (2014-2016).

- Prof. Purnima Singh: Associate Editor- Psychological Studies- 2009-to date.

- Prof. Ravinder Kaur: Member, Editorial Board, Social Forces, January 1, 2014 to December 31, 2017.

Department of Management Studies

- Dr. Amlendu Dubey has been awarded "Prof M.J. Manohar Rao Young Economist Award" for the Year 2014, by The Indian Econometric Society at a function organized at Delhi School of Economics.

- Prof. Ravi Shankar has been recognized as the most productive researches in a study based on DEA analysis published under "Research productivity in management schools of India during 1968- 2015.

- Prof. P.K. Jain, Prof. Kanika T Bhal, Prof. D.K. Banwet and Dr. S.P. Singh ranked as top 10 subject matter experts in different areas of management and Top 5% productive researchers on research paper named "Research productivity in management schools of India during 1968-2015" published in Omega (A+) Journal.

- Distinguished Alumni Award to Prof. P.K. Jain, M.COM Alumni Meet-2015 (Sunday, 4th October 2015) by University of Delhi.

- Best Paper Award to Gaurav Rana, Sushil, Title of the paper: Destination Discontinuity for Sustainable Development of a Tourist Destination at AGBA Conference 2015 (On November 16-19, 2015).

- "IIM Raipur - ET Cases Award" awarded to Prof. Sushil for his co-authored case on "Execution and Performance of Strategic Alliances in Indian Software Industry".

- MINDSHARE Human Rights Awards 2015 to Prof. Sushil.

- "DMS Associate Professor, Dr. P. VIGNESWARA ILAVARASAN, featured in IDRC's newsletter for his research work in improving women's lives with ICTs."

- DMS IIT Delhi: "Education Futurist Award by the Business World- RICOH Education Excellence award."

- DMS IIT Delhi receives the award for the "Best Autonomous Management Institute in North India" at the "National Education Excellence Awards 2016" from Brands Academy.

- QS BRICS University Rankings 2015 - DMS, IIT Delhi ranks 13th in BRICS for business and management studies.

- QS Worldwide University Rankings 2015 - DMS, IIT Delhi ranks between 100-150 in the world for business and management studies.

- QS Asian University Rankings 2015 - DMS, IIT Delhi ranks 38 in Asia for business and management studies.

Department of Mechanical Engineering

- Prof. Harish Hirani (became Director, CMERI, Durgapur)

Department of Physics

- INSA Medal for Young Scientists-2015 in Physics (by Indian National Science Academy, INDIA) and DAE Young Scientist Research Award (YSRA)-2015 by BRNS, India to Dr. R.S. Dhaka.

Department of Textile Technology

- Teaching excellence award of IIT Delhi (2014-2015) have been awarded to Prof. Ashwini Kumar Agrawal, Prof. B.K. Behera and Dr. Abhijit Majumdar.

- Awarded with Young Scientist Start-up Grant from Science and Engineering Research Board (SERB), DST, GoI. Research grant amount: INR. 2844600.00, PI : S Wazed Ali.

- National Award for commercialization of Indigenous technology 2016 instituted by Technology Development Board (TDB), DST, GOI and conferred by the President of India.

Centre for Applied Research in Electronics

- Dr. Samaresh Das: Young Faculty Research Fellowship, DeitY, GOI.

- Atmospheric Sciences

- Appointed Dr. Somnath Baidya Roy as Editor-in-chief of Earth System Dynamics (IF=4.6).

Centre for Biomedical Engineering

- Prof. Sneh Anand received the Shri Om Prakash Bhasin Award 2015 for her contribution to engineering sciences and technology.

Faculty Awards / Recognitions

- Prof. Sneh Anand is elected as the Fellow of American Institute of Medical and Biological Engineering (AIMBE) 2016. She is also awarded by AIMBE the certificate as the India's first women biomedical engineer.

Centre for Energy Studies

- "Guest of Honour" to Prof. S.C. Kaushik at Int. Conf. On "Advances in Power Generation from Renewable Energy Sources" organised by Rajasthan Technical Univ. (RTU), KOTA during June 15-16, 2015.

- Prof. L.M. Das received an award for outstanding Performance in Hydrogen-based Fuel for Vehicles by Association of Renewable Energy Agencies of State (AREAS), Bengaluru on 27.8.2015.

- Best Paper Award Certificate in the ICSEA 2015 at New York during Oct. 11 to 13, 2015 to prof. S.C. Kaushik and directly published in the International Journal of Environment Science and Development in Jan 2016 issue.

Industrial Tribology Machine Dynamics Maintenance Centre

- Prof. Naresh Tandon received Prof S Bhagvantam award for outstanding contribution and leadership provided in the field of Acoustics. Acoustic society of India, October 2015.

- Prof. Naresh Tandon formally inducted as Fellow of INAE in December 2015.

Centre for Polymer Science and Engineering

- Prof. A.K. Ghosh; Teaching Excellence Award of IIT Delhi.

Centre for Rural Development and Technology

- Prof. S.N. Naik has been awarded by the Vice President, Research Investigation and Implementation Committee Award by the Oil Technologists' Association of India (OTAI).

- Prof. Satyawati Sharma, Session Chair, Society of Plant Protection Science, Del at National Symposium on Dynamics of Crop Protection, Delhi, April 2015.

Bharti School of Telecommunication Technology and Management

- Prof. B.K. Panigrahi, Elected Fellow of INAE.

- Dr. Uday K. Khankhoje, Institute award for teaching excellence.

Amar Nath and Shashi Khosla School of Information Technology

- Visvesvaraya Young Faculty Research Awards to 4 faculty members: Sorav Bansal, Mausam, Smruti Ranjan Sarangi and Parag Singla.

- Prof. M. Balakrishnan (jointly with Prof. P.V.M. Rao) received National Award by DST for OnBoardTM Project as scientist(s) working on Improving Accessibility for the Disabled, The award was given at the National Science Congress by the Hon'ble Prime Minister on 3rd Jan 2016.

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- The startup Gram Vaani founded by Dr. Aaditeshwar Seth and incubated at TBIU IIT Delhi, won the Nasscom Social Innovation Award on technologies for development.

Kusuma School of Biological Sciences

- C.S. Dey: Chairman, INSA-International Union of Pharmacology committee.

- C.S. Dey: Chairman, INSA-International Union of Physiology committee.

- C.S. Dey: Task force member, Basic Research in Modern Biology, DBT.

- C.S. Dey: Task force member, Medical Sciences Research Committee, CSIR.

- C.S. Dey: Member, Editorial Board, Scientific Reports, Nature Publishing Group (2013-2015).

- B. Kundu - Member, Screening Committee, Environmental Biotechnology, Twinining project DBT (2015-2017).

- B. Kundu - Member, Task Force, Environmental Biotechnology, Twinining project DBT (2015-2017).

- B. Kundu - Member, Task Force, Bioinformatics, ICMR (2014-2016).

- A. Chugh - Guest Speaker at NSIT Delhi -IP awareness workshop.

- A. Chugh - Guest Speaker at Department of Plant Molecular Biology, University of Delhi South Campus for Introduction to Intellectual Property and commercialization (Two Lectures).

- A. Chugh - Member, advisory committee ICPST - 2016 Department of Ocean Engineering, IIT Madras.

- A. Chugh - Question paper setter and Expert examiner for DST-TIFAC KIRAN IPR scheme.

- A. Chugh - Member, Project Review Committee, DSIR for Zim Laboratories, Nagpur.

- A. Chugh - Member, DBT Task Force on Value added biomass from natural bioresources (2014-2017).

Department of Applied Mechanics

Professor and Head

S.V. Veeravalli, Ph.D.

Professors

Puneet Mahajan, Ph.D.

S. Ahmed, Ph.D.

Anupam Dewan, Ph.D.

Rajesh Prasad, Ph.D.

Sanjeev Sanghi, Ph.D.

S.N. Singh, Ph.D.

Santosh Kapuria, Ph.D.

Associate Professors

Badri Prasad Patel, Ph. D.

Maloy K. Singha, Ph.D.

Assistant Professors

Ajeet Kumar, Ph.D.

M.R. Cholemari, Ph.D.

Jayant Jain, Ph.D.

S. Pradyumna, Ph.D.

Anamika Prasad, Ph.D.

Balaji Srinivasan, Ph.D.

Sawan Suman, Ph.D.

Vikrant Tiwari, Ph.D.

Sitikantha Roy, Ph.D.

Samaresh Das, Ph.D.

Arjun Sharma, Ph.D.

Suresh Neelakantan, Ph.D.

Adjunct Faculty (Naval Construction Wing)

Cdr. R. Vijaya Kumar

Lt. Cdr. Amit Ray

Capt. V.K. Satyam (Officer-in-charge)

Dharam Singh

LT. Cdr. S.K. Rao

Emeritus Fellow

D.K. Sehgal

Department of Biochemical Engineering & Biotechnology

Professor and Head

T.R. Sreekrishnan, Ph.D.

Professors

G.P. Agarwal, Ph.D.

V.S. Bisaria, Ph.D.

P.K. Roychoudhury, Ph.D.

Sunil Nath, Ph.D.

Prashant Mishra, Ph.D.

Saroj Mishra (Ms), Ph.D.

A.K. Srivastava, Ph.D.

Atul Narang, Ph.D.

Associate Professor

D. Sundar, Ph.D.

Shilpi Sharma, Ph.D.

Assistant Professors

Ravi Krishnan Elangovan, Ph.D.

Ashish Misra, Ph.D.

Ritu Kulshreshtha, Ph.D.

Preeti Srivastava, Ph.D.

Shaikh Ziauddin Ahammad

Emeritus Fellow

Subhash Chand, Ph.D.

M.N. Gupta, Ph.D.

Department of Chemical Engineering

Professor and Head

Rajesh Khanna, Ph.D.

Professors

A.N. Bhaskarwar, Ph.D.

S.K. Gupta, Ph.D.

S. Basu, Ph.D.

Ratan Mohan, Ph.D.

K.K. Pant, Ph.D.

Anurag Singh Rathore, Ph.D.

Shantanu Roy, Ph.D.

Anil K. Saroha, Ph.D.

Associate Professors

Vivek V. Buwa, Ph.D.

Shaik Abdul Munawar, Ph.D.

Sudip K. Pattanayek, Ph.D.

Anupam Shukla, Ph.D.

Sreedevi U., Ph.D.

Assistant Professors

Jayati Sarkar, Ph.D.

Shalini Gupta, Ph.D.

Gaurav Goel, Ph.D.

Paresh P. Chokshi, Ph.D.

Jyoti Phirani, Ph.D.

M.A. Haider, Ph.D.

M.K.C. Ramteke, Ph.D.

Divesh Bhatia, Ph.D.

Vikram Singh, Ph.D.

Emritus Fellow

K.D.P. Nigam, Ph.D.

Department of Chemistry

Professor and Head

D.A. Ramanan, Ph.D.

Professors

A.K. Singh, Ph.D.

D.K. Bandyopadhyay, Ph.D.

Anil Jacob Elias, Ph.D.

N.D. Kurur, Ph.D.

Ravi Shankar, Ph.

S.K. Khare

B. Jayaram, Ph.D.

Siddharth Pandey, Ph.D.

Nalin Pant, Ph.D.

N.G. Ramesh, Ph.D.

A.K. Ganguli, Ph.D.

Jai Deo Singh, Ph.D.

Associate Professors

Pramit K. Chowdhury, Ph.D.

Shashank Deep, Ph.D.

V. Haridas, Ph.D.

S. Nagendran, Ph.D.

Sameer Sapra, Ph.D.

Nidhi Jain, Ph.D.

Assistant Professors

G.S. Lahu, Ph.D

Ravi P. Singh

Hemant Kumar Kashyap

P.P. Ingole

Tanmay Dutta

Department of Civil Engineering

Professor and Head

Manoj Datta, Ph.D.

Professors

B.J. Alappat, Ph.D.

B. Bhattacharjee, Ph.D.

Bhagu Ram Chahar, Ph.D.

A.K. Jain, Ph.D.

N.K. Garg, Ph.D.

Ashok Gupta, Ph.D.

V.R. Guntari, Ph.D.

K.C. Iyer, Ph.D.

A.K. Keshari, Ph.D.

Mukesh Khare, Ph.D.

Shashi Mathur, Ph.D.

A.K. Gosain, Ph.D.

Alok Madan, Ph.D.

A.K. Mittal, Ph.D.

A.K. Nema, Ph.D.

K.S. Rao, Ph.D.

Geetam Tewari, Ph.D.

 J.T. Shahu, Ph.D.

Rakesh Khosa, Ph.D.

Associate Professors

R. Ayothiraman, Ph.D.

Suresh Bhalla, Ph.D.

G.S. Benipal, Ph.D.

R.R. Kalaga, Ph.D.

S.K. Deb, Ph.D.

Kumar Neeraj Jha, Ph.D.

Deo Raj Kaushal, Ph.D.

Vasant Matsagar, Ph.D.

Assistant Professors

Supratic Gupta, Ph.D.

Gazala Habib, Ph.D.

J. Uma Maheshwari, Ph.D.

Bappaditya Manna, Ph.D.

Shashank Bishnoi, Ph.D.

Arun Kumar, Ph.D.

Tanusree Chokrabarty, Ph.D.

Dipti Ranjan Sahoo, Ph.D.

Abhijit Ganguli, Ph.D.

Dhanya C.T., Ph.D.

Arvind K. Swamy, Ph.D.

Sumedha Chakma

Emeritus Fellow

K.G. Sharma, Ph.D.

A.K. Nagpal, Ph.D.

Senior Programmer

M. Malikharjuna Rao, M.E.

Department of Computer Science & Engineering

Professor and Head

Saroj Kaushik, Ph.D.

Professors

Amit Kumar, Ph.D.

Anshul Kumar, Ph.D.

S. Arun Kumar Ph.D.

M. Balakrishnan, Ph.D.

S. Banerjee, Ph.D.

Naveen Garg, Ph.D.

S.K. Gupta, Ph.D.

Prem Kumar Kalra, Ph.D.

Huzur Saran, Ph.D.

Preeti Ranjan Panda, Ph.D.

Sanjiva Prasad, Ph.D.

Sandeep Sen, Ph.D.

Pankaj Jalote, Ph.D.

Associate Professors

Amitabh Bagchi, Ph.D.

Subodh Kumar, Ph.D.

Kolin Paul, Ph.D.

Mausam, Ph.D.

Vinay Joseph Ribeiro, Ph.D.

Assistant Professors

Ragesh Jaiswal, Ph.D.

Sorav Bansal, Ph.D.

Smruti R Sarangi, Ph.D.

Maya Ramanath, Ph.D.

Aaditeshwar Seth, Ph.D.

Parag Singla, Ph.D.

Subodh Vishnu Sharma, Ph.D.

Department of Electrical Engineering

Professor and Head

Bhim Singh, Ph.D.

Professors

B. Bhowmik (Ms.), Ph.D.

Ranjan Bose, Ph.D.

G. Bhuvaneswari (Ms.), Ph.D.

S. Chaudhury, Ph.D.

V.K. Jain, Ph.D.

Jayadeva, Ph.D.

S.D. Joshi, Ph.D.

I.N. Kar, Ph.D.

Subrat Kar, Ph.D.

M.J. Kumar, Ph.D.

R.K. Mallik, Ph.D.

Sukumar Mishra, Ph.D.

Shankar Prakriya, Ph.D.

K.R. Rajagopal, Ph.D.

M. Veerachary, Ph.D.

Faculty in Position

Associate Professors
Manav Bhatnagar, Ph.D.
Shouribrata Chatterjee, Ph.D.
Swades K. De, Ph.D.
Brijesh Lal, Ph.D.
Mashuq-un-Nabi, Ph.D.
B.K. Panigrahi, Ph.D.
Sumantra Dutta Roy, Ph.D.
Nilanjan Senroy, Ph.D
Madhusudan Singh
Umesh Kumar, Ph.D.
Abhijit R. Abhyankar, Ph.D.

Assistant Professors
T.P. Gandhi, Ph.D.
Abhishek Dixit, Ph.D.
Jun Bae Seo, Ph.D.
Sumeet Agarwal, Ph.D.
Anand Rup Das, Ph.D.
Shubhendu Bhasin, Ph.D.
Anuj Dhawan, Ph.D.
Amit Kumar Jain, Ph.D.
S. Janardhanan, Ph.D.
Saif Khan Mohammed, Ph.D.
Mukul Sarkar, Ph.D.
Saunak Sen, Ph.D.
Kushal Kumar Shah, Ph.D.
Uday Kiran Khankhoje, Ph.D.
Abhisek Dixit, Ph.D.
Bhaskar Mitra, Ph.D.
S. Srirangarajan, Ph.D.
Manan Suri, Ph.D.
R. Maheshwari, Ph.D.

Emeritus Fellow
Surendra Prasad, Ph.D.
R.K.P. Bhatt, Ph.D.
R.K. Patney, Ph.D.
P.R. Bijwe, Ph.D.
V. Chandra, Ph.D.
Devi Chadha, Ph.D.

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Professor and Head
Ravinder Kaur (Ms), Ph.D.
Professors
Bijoy H. Boruah, Ph.D.
V. Sanil, Ph.D.
R.B. Nair (Ms.), Ph.D.
Ambuj D. Sagar, Ph.D.
Purnima Singh, Ph.D.
C.A. Tomy, Ph.D.
V. Upadhyay, Ph.D.
Associate Professors
Vibha Arora, Ph.D.
Reetika Khera, Ph.D.
Arjun Ghosh, Ph.D.
Angelie Multani, Ph.D.
M. Wakankar, Ph.D.
Bharati Puri, Ph.D.
J.J. Thomas, Ph.D.
Kamlesh Singh, Ph.D.

Farhan Ibrahim, Ph.D.
Simona Sawhney
Pritha Chandra, Ph.D.
Assistant Professors
Ankush Agarwal, Ph.D.
Arudra Venkata Burra, Ph.D.
Divya Dwivedi, Ph.D.
Saptarshi Mukherjee, Ph.D.
Naveen Thayyil Kamaluddin, Ph.D.
Stuti Khanna, Ph.D.
Samar Husain, Ph.D.
Richa Kumar, Ph.D.
Debasis Mondal, Ph.D.
Saurabh Bikas Paul, Ph.D.
Rajakrishnan Rajkumar, Ph.D.
Sarbeswar Sahoo, Ph.D.
Paroma Sanyal, Ph.D.
Upasana Sharma, Ph.D.
Varsha Singh
Manohar Kumar, Ph.D. (PDF)
English Language Instructor
Rajiv Ranjan Mahto, Ph.D.
Anuradha Vashisth, Ph.D.

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Professors
M.P. Gupta, Ph.D.
P.K. Jain, Ph.D.
Ravishankar, Ph.D.
Sudhir K. Jain, Ph.D.
Sushil, Ph.D.
S.S. Yadav, Ph.D.
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Mahim Sagar, Ph.D.
S.P. Singh, Ph.D.
Seema Sharma (Ms.), Ph.D.
P. Vigneswara Ilavarasan, Ph.D.
Shveta Singh, Ph.D.
Assistant Professors
Harish Choudhary, Ph.D.
Jitendra Madan, Ph.D.
A.K. Kar, Ph.D.
Shuchi Sinha (Ms.), Ph.D.
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Sanjay Dhir
A.K. Dube, Ph.D.

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R.K. Sharma, Ph.D.
S.C. Sekhara Rao
A. Tripathi
S. Dharmaraja, Ph.D.
N. Chatterjee, Ph.D.
Subiman Kundu, Ph.D.

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Anima Nagar, Ph.D.
K. Sreenadh, Ph.D.
Mani Mehra, Ph.D.
Assistant Professors
Harish Kumar, Ph.D.
N. Shravan Kumar, Ph.D.
Amit Priyadarshi, Ph.D.
Sivnathan Sampath, Ph.D.
Ritumoni Sarma, Ph.D.
Anuradha Sharma, Ph.D.
V.V.K. Srinivas Kumar, Ph.D
P.V. Viswanathan, Ph.D
Rupam Barman

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J.K. Dutt, Ph.D.
Kshitij Gupta, Ph.D.
Sanjeev Jain, Ph.D.
Sangeeta Kohli, Ph.D
D. Ravi Kumar, Ph.D.
Sudipto Mukherjee, Ph.D.
Sunil Pandey, Ph.D.
P.V. Rao, Ph.D.
P.V. Madhusudhan Rao, Ph.D.
M.R. Ravi, Ph.D.
Anjan Ray, Ph.D.
S.R. Kale, Ph.D.
S.P. Singh, Ph.D.
P.M.V. Subbarao, Ph.D.
Harish Hirani, Ph.D.
Associate Professors
B. Premachandran, Ph.D.
S. Aravindan, Ph.D.
Ashish K. Darpe, Ph.D.
Sudarsan Ghosh, Ph.D.
Sunil Jha, Ph.D.
M.S. Kulkarni, Ph.D.
S.V. Modak, Ph.D.
Pulak Mohan Pandey, Ph.D.
Prabal Talukdar, Ph.D.
R.K Pandey, Ph.D.
Sujit Kumar Sinha, Ph.D.
Assistant Professors
Nomesh B. Bolia, Ph.D.
Subhra Datta, Ph.D.
Amit Gupta, Ph.D.
Naresh Varma Datla, Ph.D.
Jitendra P. Khatait, Ph.D.
K. Hariharan, Ph.D.
Supreet Singh Bahga, Ph.D.
Devendra Kumar Dubey, Ph.D.
Emeritus Fellow
Kiran Seth, Ph.D.

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Siddarth Mahajan
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Arun Kumar, Ph.D.
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Sujeet Chaudhary, Ph.D.
B.D. Gupta, Ph.D.
Joby Joseph, Ph.D.
H.K. Malik, Ph.D.
Neeraj Khare Ph.D.
B.R. Mehta, Ph.D.
Dalip Singh Mehta, Ph.D.
G.B. Reddy, Ph.D.
Anurag Sharma, Ph.D.
M.R. Shenoy, Ph.D.
R.K. Soni, Ph.D.
R.K. Varshney, Ph.D.
Pankaj Srivastava, Ph.D.
P. Senthil Kumaran, Ph.D.
V. Ravishankar, Ph.D.
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Mukesh Chander, Ph.D.
Sankalpa Ghosh, Ph.D
Shantanu Ghosh, Ph.D.
Amrita Mishra (Ms.), Ph.D.
G.V. Prakash, Ph.D.
J.P. Singh, Ph.D.
Rajendra Singh, Ph.D.
Aloka Sinha (Ms.), Ph.D.
A.K. Shukla, Ph.D.
Assistant Professors
Kedar Khare, Ph.D.
Pranaba Kishor, Ph.D.
Amartya Sengupta, Ph.D.
Joyee Ghosh, Ph.D.
Pintu Das, Ph.D.
R. Suresh Marthe, Ph.D.
Sujin B. Babu, Ph.D.
R.S. Dhaka, Ph.D.
S. Bhattacharya, Ph.D.
Sunil Kumar, Ph.D.
Bhaskar Kanseri, Ph.D.
Rohit Narula, Ph.D.
Brajesh Kumar Mani, Ph.D.
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V.D. Vankar, Ph.D.
Vikram Kumar, Ph.D.
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Professor and Head
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Professors
Ashwini K. Agrawal, Ph.D.

Faculty in Position

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R. Chattopadhyay, Ph.D.

Apurba Das, Ph.D.

Bhuvanesh Gupta, Ph.D.

Deepti Gupta (Ms.), Ph.D.

S.M. Ishtiaque, Ph.D.

Manjeet Jassal (Ms.), Ph.D.

Mangla Joshi (Ms.), Ph.D.

Kushal Sen, Ph.D.

R.S. Rangasamy, Ph.D.

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B.S. Butola, Ph.D.

Sourabh Ghosh, Ph.D.

S. Mukhopadhyay, Ph.D.

Abhijit Majumdar, Ph.D.

Amit Rawal, Ph.D.

Assistant Professors

Md. S. Wazid Ali, Ph.D.

Bhanu Nandan, Ph.D.

Rajiv K. Srivastava, Ph.D.

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B.L. Deopura, Ph.D.

Centre for Applied Research in Electronics

Professor and Head

Ananjan Basu, Ph.D.

Professors

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Arun Kumar, Ph.D.

Sudhir Chandra, Ph.D.

S.K. Koul, Ph.D.

B.S. Panwar, Ph.D.

Suneet Tuli, M.Tech.

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Prabhu Babu, Ph.D.

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Vikram Kumar, Ph.D.

Centre for Atmospheric Sciences

Professor and Head

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Professors

Maithili Sharan, Ph.D.

A.D. Rao, Ph.D.

Associate Professors

Krishna Achuta Rao, Ph.D.

H.C. Upadhyay, Ph.D.

Somnath Baidya Roy

Assistant Professor

Sandeep Sahnay, Ph.D.

Sagnik Dey, Ph.D.

Vimlesh Pant, Ph.D.

Saroj Kanta Mishra, Ph.D.

Dilip Ganguly, Ph.D.

Emeritus Fellow

O.P. Sharma, Ph.D.

S.K. Dash, Ph.D.

Senior Scientific Officers-I

P. Agarwal (Ms.), Ph.D.

Centre for Biomedical Engineering

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Veena Koul (Ms.), Ph.D.

Professors

Harpal Singh, Ph.D.

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Anuradha Godavarty (Ms.), Ph.D.

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Neetu Singh, Ph.D.

Anup Singh, Ph.D.

Amit Mehdiratta, Ph.D.

S.M.K. Rahman, M.Tech.

Dinesh Kalyanasundaram, Ph.D.

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Sneh Anand (Ms.), Ph.D.

Computer Services Centre

Professor and Head

Huzur Saran, Ph.D.

Arun Kumar S., Ph.D. (Assoc. Head)

Subhashish Banerjee, Ph.D.

Sr. System Programmers

Pravanjan Kumar Baboo, Ph.D.

Pradeep Kumar Gupta

Sriram Hegde

Pragya Jain (Ms.) Ph.D.

Rajeshwari Raghvan (Ms.)

K. Narayanan

Senior Programmers

Rajesh Bhat, Ph.D.

R.K. Chauhan, M.C.A.

Jaya, M.Tech.

Sunil Kak, M.Tech.

Ram Lal, M.Sc.

Gopal Krishan, M.Sc.

Senior Manager

N.C. Kalra, M.Tech.

Educational Technology Services Centre

Professor & Head

Sanjeev Sanghi, Ph.D.

Centre for Energy Studies

Professor and Head

Viresh Dutta, Ph.D.

Professors

T.S. Bhatti, Ph.D.

A. Ganguly, Ph.D.

T.C. Kandpal, Ph.D.

S.C. Kaushik, Ph.D.

G.N. Tiwari, Ph.D.

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K.A. Subramanian, Ph.D.

R. Uma, Ph.D.

Assistant Professors

Sandeep Kumar Pathak, Ph.D.

K. Vamsi Krishna

Ramesh Narayanan, Ph.D.

Dibakar Rakshit, Ph.D.

Ashu Verma, Ph.D.

Emeritus Fellow

S.C. Mullick, Ph.D.

M.G. Dastidar, Ph.D.

D.K. Sharma, Ph.D.

L.M. Das, Ph.D.

Industrial Tribology, Machine Dynamics & Maintenance Engineering Centre

Professor and Head

Jayashree Bijwe, Ph.D.

Professors

O.P. Gandhi, Ph.D.

Naresh Tandon, Ph.D.

V.K. Agarwal, Ph.D.

Design Engineer

R.K. Rai, M.Tech.

Assistant Professors

Deepak Kumar, Ph.D.

Instrument Design & Development Centre

Chief Design Engineer (SG) and Head

P.V. Madhusudan Rao, Ph.D.

Professors

D.T. Shahani, Ph.D.

Assistant Professors

Jyoti Kumar, Ph.D.

Gurfan Sayeed, Ph.D.

Sumer Singh, Ph.D.

Chief Design Engineers (SG)

S.K. Atreya, D.I.I.T.

Emeritus Fellow

A.L. Vyas, Ph.D.

Chandra Shakher, Ph.D.

Centre for Polymer Science & Engineering

Professor and Head

A.K. Ghosh, Ph.D.

Professors

Veena Choudhary, Ph.D.

Associate Professor

Josemon Jacob, Ph.D.

Bhabani Kumar Satapathy, Ph.D.

Assistant Professor

Sampa Saha, Ph.D.

Leena Nebhani, Ph.D.

Emeritus Fellow

S.N. Maiti, Ph.D.

Centre for Rural Development & Technology

Professor & Head

V.K. Vijay, Ph.D.

Professors

Santosh, Ph.D.

S.N. Naik, Ph.D.

Satyawati Sharma (Ms.), Ph.D.

Associate Professors

V.M. Chariar, Ph.D.

Anushree Malik (Ms.), Ph.D.

Assistant Professors

Hariprasad P., Ph.D.

Emeritus Fellow

Rajendra Prasad, Ph.D.

National Resource Centre for Value Education in Engineering

Professor & Coordinator

Sangeeta Kohli, Ph.D.

Bharti School of Telecommunication Technology and Management

Professor & Coordinator

Ranjan Bose, Ph.D.

Amar Nath and Shashi Khosla School of Information Technology

Professor & Coordinator

Sanjiva Prasad, Ph.D.

School of Biological Sciences

Professor & Co-ordinator

Tapan Kr. Choudhari, Ph.D.

Professors

James Gomes, Ph.D.

C.S. Dey, Ph.D.

Seyed E. Hasnain, Ph.D.

Aditya Mittal, Ph.D.

Associate Professors

Bishwajit Kundu, Ph.D.

Assistant Professors

Manidipa Banerjee, Ph.D.

Archna Chug, Ph.D.

Vivekanandan Perumal, Ph.D.

Ashok Kumar Patel, Ph.D.

Interdisciplinary / Transportation Research and Injury Prevention Programme (TRIPP)

Professor and Co-ordinator

S.R. Kale, Ph.D.

Central Workshop

Professor & Head

Naresh Bhatnagar, Ph.D.

Interdisciplinary Opto-Electronics & Optical Communication Research Programme

Professor and Co-ordinator

M.R. Shenoy, Ph.D.

New Appointments, Retirements etc.

(April 1, 2015 - March 31, 2016)

23 new faculty members have joined the Institute this year. These new additions to our faculty have enhanced our competence in several emerging areas, while bringing new energy into our academic endeavours.

Table I : New Appointments

New Faculty Joined	
Arjun Sharma, Applied Mechanics	Rohit Narula, Physics
Suresh Neelakantan, Applied Mechanics	Brajesh Kumar Mani, Physics
Nitya Nand Gosvami, Applied Mechanics	Prabhu Babu, Applied Research in Electronics
Ashish Misra, Biochemical Engg. & Tech.	Roopa Manjunatha (PDF), Biomedical Engineering
Subodh Vishnu Sharma, Computer Science & Engineering	Sandeep Sahany, Atmospheric Sciences
Abhishek Dixit, Electrical Engineering	Sandeep Kumar Pathak, Energy Studies
Tapan Kumar Gandhi, Electrical Engineering	Debaprasab Sahu (PDF), Energy Studies
Rajiv Ranjan Mehto, Humanities (English Language Instructor)	Raiju V. (PDF), Energy Studies
Anuradha Vashisth, Humanities (English Language Instructor)	Leena Nebhani, Polymer Science and Engineering
Viswanathan Puthan Veedu, Mathematics	Sampa Saha, Polymer Science and Engineering
Sunil Kumar, Physics	Jatindra Kumar, Rural Development & Technology
Bhaskar Kanseri, Physics	

The list of faculty who resigned or retired or expired in the given period is given below (Table : II) :

Table II : Retirements/ Resignations/ Bereavements

Retirements	
Jayshree Santosh (VRS), Computer Service Centre	A. K. Agrawala, IDDC
Sneh Anand, Biomedical Engineering	Devi Chadha, Electrical Engineering
Resigned	
Karun Rawat, Applied Research in Electronics	Arvind Afrawal, Applied Mechanics
Vishal Argodhe, Management Studies	Turbo Majumdar, Electrical Engineering

9. Student Activities

Student Activities

Considerable efforts are made to see that students lead a balanced campus life in harmony with their teachers and fellow students. To ensure that freshers settle down in their new surroundings comfortably, a Freshers' Orientation Programme was organized at the beginning of the academic session.

Counselling Service provides counselling to students on adjustment problems or for the problems arising from financial hardship, and emotional/psychological problems affecting academic pursuits.

Outside the classrooms, facilities for a variety of cocurricular activities, sports, games, student publication etc. are provided for the overall growth and development of students' potentialities and initiative with an emphasis on responsible student leadership.

The pace and mode of student life on the campus is planned and implemented by the following student bodies:

1. Students Affairs Council (SAC) and its five Boards, i.e.,
   (a) Board for Hostel Management (BHM)
   (b) Board for Recreational & Creative Activities (BRCA)
   (c) Board for Sports Activities (BSA)
   (d) Board for Student Publications (BSP)
   (e) Board for Student Welfare (BSW)
2. National Service Scheme (NSS)
3. National Cadet Corps (NCC)
4. Student Counselling Service (SCS)
5. Student-Teacher Interaction Committee (STIC)
6. National Sports Organization (NSO)
7. Departmental Professional Societies.

1. STUDENT AFFAIRS COUNCIL (SAC)

The Students Affairs Council has been quite active. Regular meetings took place between the various representatives of SAC, to ensure that all facts of student issues were discussed. SAC representatives also interacted with student member of senate and other SAC committees to ensure wider participation of students in the affairs of the institute. Many student related issues were discussed. Maintenance problems of hostels and the institute, the no dues process for students, library and computer related issues, as well as safety and security issues were also resolved . Openness in the decision making process of various boards and improvements in the student election process were other matters that were discussed. Another important issue that was raised at SAC was the need for improved student teacher interaction. A student Mentorship Programme to provide consulling of first year students was enhanced. The process of restructring

of Boards and constitution review of the student bodies was also started by SAC. The two standing committees of the SAC, namely the Coordination Committee and the Executive Committee contributed as usual in tackling of various issues referred to them.

a. Board for Hostel Management (BHM)

The Board for Hostel Management is an important Board in the SAC to decide the students issues directly.

There are eleven hostels for boys, six with a capacity in the range of 400-450, two with a capacity of 1000 and the others in the range 300-350 each; two hostels for girls students with a capacity of about 500 each. In addition, there is also very limited accomodation for married students. Each hostel has a House Working Committee which decides the pace and pattern of its life. The Board for Hostel Management, with the Dean of Students as the ex-officio president, coordinates the working of all hostels. The Dean of Students is the head of hostel organization. He is assisted in his administrative responsibilities by the Associate Deans of Hostel Management, Students Welfare, Events and the Assistant Registrar (Student Affairs). The BHM has representation from all the hostel and takes decisions on all problems of common interest. The warden is the administrative head of each hostel. He/She is a faculty member of the Institute. The House Working Committee of each hostel is chaired by the House Master who is a professor of the Institute. The committee consists of the Warden, the House Secretary, the Mess Secretary, the Sports Secretary, the Cultural Secretary, the Maintenance Secretary, and the representatives from all classes.

Right from the beginning of this academic year, hostel maintenance problems were undertaken. A number of meetings with the Dean of Students, wardens, hostel functionaries, Institute Engineer and engineering staff were held. For proper implementation of maintenance schedules, long-term and short-term problems were

identified and engineering staff visits to each hostel for monitoring work. Special efforts were made towards the cleaning of common areas.

Security problems in each hostel were reviewed and detail discussion with the wardens, students and security personnel's was held. CCTV monitoring has been initiated.

Considerable efforts were made for providing accommodation to all students.

Continuing dialogue between the mess staff, student representatives and authorities has resulted in better work environment. Regular meetings with the staff improved their punctuality.

The Wardens / House Masters during 2015-16

Hostel	Warden	House Master
Aravali	Dr. Sudarshan Ghosh	Prof. T.R. Sreekrishnan
Jwalamukhi	Dr. Ravi P. Singh	Prof. S. M. Ishtiaque
Kailash	Dr. (Ms.) Seema Sharma	Prof. (Ms.) Manju Mohan
Karakoram	Dr. Ramteke	Prof. Anurag Sharma
Kumaon	Dr. R. Dhaka	Prof. Ashok Gupta
Nilgiri	Dr. D. Kalayansundram	Prof. Shashi Mathur
Shivalik	Dr. Dipayan Das	Prof. Bhim Singh
Vindhyachal	Dr. Diptiranjan Sahoo	Prof. Viresh Dutta
Himadari	Dr. (Ms.) Upadhayaulu	Prof. (Ms.) Veena Kaul
Satpura	Dr. S. K. Pattanayek	Prof. S. N. Singh
Zanskar	Dr. Saif K. Mohammed	Prof. Kushal Sen
Girnar	Dr. D. Sundar	Prof. R. Chattopadhyaya
Udaigiri	Dr. S. R. Sarangi	Prof. B. R. Mehta
Nalanda	Prof. P. M. V. Subbarao	

This year was devoted to improve the food quality in hostel mess. Regular meetings with Dean of Student, Hostel Representatives and Mess Supervisors were held for the same purpose. Modifications assured for Scheme (MAO) is being implemented for BHM staff.

A BHM dinner was organized during the Student's Week. Each hostel immaculately arranged its counters at a central place. Faculty and students attended with enthusiasm. The cultural programme was a big attraction for the evening. The BHM trophy and BHC trophy was given for their excellent outstanding work.

BHM also arranged the stay and messing for all the delegates of Rendezvous' 2015 and TRYST' 2016 events very successfully.

To simplify the recovery of dues from students, a regular monitoring system has been introduced involving simplified system of payment, by which the students sign a declaration form and the amount is automatically deducted from their bank account, avoiding any personal bank transaction on this account. Use of computers for maintenance of hostel accounts has been in existence from past six years and the staff working in the hostels was encouraged to undergo training in the use of PCs.

Each Hostel was in the forefront in initiating and hosting the celebration on the independence Day and the Republic Day functions at the Institute level.

Hostel Mess Secretaries put in considerable efforts in controlling food wastage and thus were able to keep a check and balance of galloping mess bills. By proper coordination between the students and the wardens, the supply system was improved and new supplies were identified and added.

There were surprise checks by canteen cells for institute canteens. Manopoly of supplies has been reduced by attaching 2-3 suppliers to each hostel.

b. Board for Recreational and Creative Activities (BRCA)

2015-16 saw the return of inter-hostel competitions. BRCA trophy was re-instated for the year 2015-16 and various competitive inter-hostel events have been conducted by BRCA clubs and received increase in participation and audiences. The culmination of the competitive event was celebrated on 6th of March with fireworks and BRCA annual trophies were distributed to the winners. Kumaon bagged the Winner's trophy followed by Shivalik bagging the Runners up Trophy and Girnar bagging the 2nd Runners up Trophy.

BRCA Orientation - The BRCA orientation for the incoming fresher year (UG and PG) was held on 6th August. Each club presented performances to showcase the talent they possess and describe their activities. The orientation was also used as a platform to launch the newly made BRCA website and mobile application.

BRCA website and mobile application - The remodelled BRCA website is a collection of constantly updated club archives, event schedules, BRCA photo gallery online SAC booking

system and integrated Facebook page as well as YouTube Channel. The mobile application provides an easy system of notices through push notifications and also brings in a new feature of public voting for competitive club events to add fairness to the judging.

Rendezvous 2015 – It was the biggest yet in terms of the budget, variety, number and stature of both Indian and International artists that it hosted. It featured over various international artists and hosted Javed Ali, Sunburn and Shankar Ehsaan Loy. We witnessed the footfall of 70000+ from six hundred different colleges in various competitive and informal events showcasing some outstanding performances. The decoration and creativity of our students was highly appreciated by the guests and participants. The innovative concept of RDV village was highly appreciated which had live screening of OAT events while holding fun activities to cater to tastes of different communities in campus.

New Events in BRCA - Almost all the clubs introduced new events this year. Dance club: Fresh Step, Dramatics: Mime Act, Music: Ragnarok: Battle of years, PFC: Stop motion movie making, FAC: Clay modelling, Literary: Open Mic Poetry, Hindi Samiti: Hindi JAM and Parliamentary Debate.

Workshops and Trips - On introduction of new events some workshops were arranged by the club. Dramatics club organised Mime workshop, FAC organised Madhubani painting workshop, PFC organised many workshops on video editing etc. These workshops were either taken by seniors in

the club or semi-professionals free of cost. BRCA clubs also organised trips to various outdoor locations in Delhi to learn and understand art from the experts. FAC organised trip to National Art Gallery, SPIC MACAY organised trip to National Museum, PFC organised photo walks to some heritage sites.

SAC Facilities – The SAC premises was made more secure by installing CCTV cameras and biometric lock system at various locations. This has helped in flexible availability of rooms without any caretaker. Also, the new facility has been created on the SAC roof to help holding of various student functions including farewells, department parties etc.

c. Board for Sports Activities (BSA)

Sports and games are essential components of human resource development and help in promoting good health and spirit of healthy competition, which, in turn, has positive and deep impact on the holistic development of personality of the Youth- a potential source of energy, enthusiasm and inspiration. Sports, being practical way of education, facilitate recreation, foster social harmony, inculcate discipline and dedication in general life. Board for Sports Activities (BSA) had been looking after this important component for the development of sports environment in the campus.

Introduction

- The Board for Sports Activities is a constituent body of the Student Affairs Council. It is responsible for the coordination of the various sports activities in the institute. It ensures that adequate facilities are given to sportspersons and provides a forum for the students and staff to discuss and formulate policy towards the betterment of sports activities in the campus. The BSA consists of the following members

- President, BSA.

- Vice-President, BSA.

- Game/Club Presidents.

- All Institute Team Captains and Vice-Captains.

- All Club Secretaries.

- Sports Officer.

- Sports Secretaries of Student Hostels.

- General Secretary, BSA.

- Deputy General Secretary, BSA.

- Immediate past General Secretary, BSA.

Facilities

A cricket field with four turf wickets, four flood-lit cricket practice pitches, flood-lit hockey and football grounds, three flood-liT volleyball and two basketball courts, eight flood-lit tennis courts (four synthetic and four clay courts), tennis practice wall, three squash courts, one badminton hall, two table tennis halls with synthetic flooring, one weight- lifting hall, Olympic size swimming pool, kid's pool, two multi-gyms,

a floodlighted stadium with 400 meters athletics track, flood-lit jogging track and ancillary arrangements for all the games are available to the students. Construction of new multipurpose hall with facilities for badminton, table tennis and squash courts is under consideration. A team of sports officer, physical training instructors, ground staff and part-time coaches help the students in their pursuit to greater sporting performances.

Activities

The Institute lays considerable emphasis on student's participation in various outdoor and indoor games. The Institute is in constant contact with the local associations in almost all the games to provide outlet to the students for participation in different games outside the campus. In these activities, emphasis is laid on mass participation by the students. The students take part in the Fresher's event for incoming first year students, friendly matches with the local colleges, inter-hostel events, the annual IIT Delhi inter-collegiate event 'Sportech' and the annual inter-IIT sports meet.

Inter Hostel matches were organized in Football, Volleyball, Swimming, Waterpolo, Wt. Lifting, Hockey, Squash, Badminton, Table Tennis, Tennis, Athletics, Basketball and Cricket. Jwalamukhi hostel was declared the winner and Girnar hostel was declared runners up in the men's section. Himadri hostel was declared winner in the women's section.

This year due to heavy rains in Chennai, 51st Inter IIT Sports Meet was cancelled. Keeping in view the hard work put in by the Institute's team, BSA took an initiative by organizing Inter IIT Sportech from 03rd March to 6th March 2016 in which neighboring IITs (Kanpur, BHU, Roorkee, Mandi & Jodhpur) participated in all Inter IIT Sports Events. IIT Kanpur won the General Championship in both Men & Women category and IIT Delhi was Runner- Up in both Men & Women category. Mr. Midhun K., member of IIT Delhi athletics team, won gold medals in long & triple jump and silver medal in high jump.

Those who excel in any sports activities like inter IIT sports meet are awarded various certificates, prizes including IIT Delhi Blazers & Blues, etc. This year, as recognition of the

student's talent in sports and their persistent effort for the development of sports environment, sixteen students were awarded 'Blazers' and twenty seven students were awarded 'Colour' in different games. Mr. Aditya Kotia was awarded 'Outstanding Sportsman of the year' for his outstanding performance in Inter IIT Aquatics meet. Volleyball (women) team was awarded the 'best team of the year'.

Since sports is a part in the curriculum at IITD. National Sports Organization (NSO) activities are organized by the sports unit. Around two hundred fifty undergraduate students register in NSO every year and get specialized training in games and sports as well as physical fitness. Regular classes are conducted for these students by the physical education staff of the Institute for four days a week in each semester. Regular participation in these activities not only improve the general physical fitness level of the students but also helps in developing psychological attributes like leadership qualities, stress management and group dynamics.

d. Board for Student Publications (BSP)

In its non-competitive avatar, BSP has changed significantly this year with new developments in all the three segments of the board – Journalism, Creative and Website. The Journalism Cell was empowered in the new structure while the focus of the Creative Writing Cell shifted from quantity to quality. The work shifted away from hostel and became more institute based with the entire team working for the spirit of the Board.

The Journalism Cell became a reliable source of information for the entire institute with coverage of events spanning all Boards. Institute Lectures and Guest Lectures were given special preference. Apart from covering of events, the team worked collectively on three newsletters over the course of the year. The online journalism faction brought out a number of new initiatives to increase the outreach of the board and to make the board more active.

The Creative Writing and Outreach Cell organized a number of events during the course of the year along with three magazines; a magazine with special focus on the freshers, one technical journals and a creative writing magazine.

The new Media and Web Cell helped with video and photographic coverage of events on camps spread throughout the year. The website was completely revamped to make it more user-friendly.

Some major initiatives that were taken up this year

BSP Orientation

The Board organised and implemented first of its kind BSP orientation for first year students. This was a step taken to eliminate the issue of lack of publicity and participation by first year students

i) Website

The Board completely redesigned the BSP website to push

most relevant content right on the homepage, increasing readability and website usage. The year also saw the creation of the BSP blog - a new blogging platform for IITD students to voice their opinion.

The following is a list of the content available on the website –

- Department wise Open House Coverage
- All magazines and newsletters from previous year
- Reports on all major events and social initiatives at IIT Delhi
- Creative articles and author interviews
- Career Series alumni interviews

ii) Creative

The Creative magazine was redesigned; the literary magazine as a 70 page pocket novel instead of the usual 26 page coloured magazine. A new concept, "Friday night hangover" was introduced wherein we brought out a new, infographic rich IITD specific story every Friday night. To increase the outreach, the Board conducted a first-of-its kind poetry workshop for IITD students. The first ever series of online writing competitions for IIT Delhi students, "Off the Bandwagon" and "EPTS" was initiated to increase student participation.

iii) Video Wing

This year, the Board initiated the Video wing of the BSP by conducting interviews such as those of Dr. Raghuram Rajan, capturing the student SOP's during the recent elections and conducting video interviews of various students.

iv) Journalism

The Board brought out its first coloured campus newsletter in the last year. Career series was a new addition to the Board wherein we contacted IITD seniors and alumni to give advice regarding different job spheres (Finance/Core/Consulting), and research avenues. Inter hostel sports coverage was reported for all sports with photographs with the drafting of articles in the manner of professional sports websites.

v) Literati

The 3-day literary festival saw enthusiastic students coming in from across the city to attend various book discussions, workshops on writing and designing skills, quizzes, stand-up comedy and plethora of other events. There were scheduled talks by famous authors such as Mr. Shashi Tharoor and Mr. Anand Nilakantan. The fest also included planned workshops on creative writing, cartoon making along with quizzes on various themes. A unique competitive Poetry Slam competition for the poetry enthusiasts was organized in collaboration with the Delhi literary circle which saw participation from all over Delhi.

e. Board for Student Welfare (BSW)

The Board for Student Welfare, IIT Delhi is a student body set up with an intention to look after the welfare of the student community. The BSW has always been dedicated towards helping the student community in every aspect of life in IIT Delhi. The board adheres to a principle of making

itself an organisation of the students, for the students, by the students. The constituent bodies of BSW have three permanent committees viz., Finance committee, Public Relationship committee and Mentorship committee.

Financial Committee is responsible to take care of all issues pertaining to financial aid, its payment and its recovery. It assists the deserving and bona fide student in securing summer/winter jobs during vacations as well as part-time jobs. It looks after loans, scholarships and grants which are provided by BSW to the needy and the deserving students.

Public Relationship Committee handles all aspects of the Board related to welfare activities, publicity and grievance-redressal. It is directly responsible to come up with new schemes from time to time in the benefit of the student community.

Mentorship Committee (MRC) monitors the student mentorship committee which intends to help the freshers in IIT to make informed decisions and grow positively when facing the college life for the first time. Every fresher is assigned a mentor and the mentor is evaluated and monitored to see to it that life in IIT for freshers is smooth and constructive.

BSW also runs a student cooperative society (SCOOPS) which runs on a no profit-loss philosophy. Located near Block I, its duty is to provide students access to buy good-quality subsidised stationary items, note books and related services.

BSW organises the very popular, socio-welfare youth fest of IIT Delhi, Speranza. Each year Speranza welcomes huge crowd of students with great enthusiasm and is the first college fest to be organized in a new academic year. From MUN, workshops, talk shows to fun games and competitive events, Speranza has a wide spectrum of events taking place making them few of the most memorable days of IITD life.

Student Teacher Interaction (STIC) is another welfare activity carried on by BSW, to strengthen the student-teacher bond, the foundation pillar of any educational institution.

Student Counselling Service (SCS) under BSW provides a confidential environment where a student can explore and express aspects of one's self that may be painful or uncomfortable. Counsellor helps the students in gaining their own insights, and making and acting on their own choices, thereby enabling them to resolve the issues.

2. NATIONAL SERVICE SCHEME (NSS)

Be the change you wish to see. The motto of NSS IITD, the IIT Delhi chapter of the National Service Scheme is not to force one into social service but to instill the passion and zeal for the same into the students of IITD so as generate spontaneous service for the nation.

We as a team of NSS wish to facilitate the fervour and enthusiasm of the IITD community into a channel so as to reap productive social service which ensures sheer joy and satisfaction for the one who is doing as well as one who is receiving the services.

NSS IITD does its philanthropic work under 5 basic wings or domains, namely Education, Health, Environment, Extracurriculars, Miscellaneous.

Under the **EDUCATION** domain we have projects that aim at spreading the joy of teaching and learning. The pilot projects are the Aarohan project, The Vidya Teaching project, the Munirka Teaching project and the Orphanage project. In the Aarohan Teaching Project we teach underprivileged children of classes 11th, 12th and droppers basic sciences as Chemistry, Math and Physics and help them prepare for exams like JEE-Mains and JEE-Advance. Under the Vidya Teaching Project, a NGO started by wives of professors, we teach students of classes 1-10 through variety of activities like music, dance etc. on weekday basis. In the Munirka Teaching Project , we teach underprivileged children Munirka Basti on weekend basis. We conduct activities like drawing, Toys from Trash, Music Masti and origami sessions. Under the Lakshyam Teaching Project, we focus on all round development of the children. We teach underprivileged children about the importance of education, hygiene, and sustainability. Under flagship of the Orphanage project basic Computer skills, memory building activities, skills, arts and crafts session are conducted regularly. Strong relations are built with the children and amongst themselves and they learn various life building activities.

Under the **EXTRA CURRICULARS** flagship, we have projects Toys from Trash, Music Masti, and Dance Education. In Toys From Trash, we were able to impart scientific principles on the basis of small toys. We targeted audiences from poor background, and these toys were constructed from daily trash items which we reused, making them free of cost. In the near future we are looking to collaborate with other NGO's to make this even grander.

In our work in the **HEALTH** domain we have projects on DNIP (Delhites' National Initiative in Palliative Care), Old age home project, NAB(National Association for Blind) and Blood Donation Camps. In our DNIP Care project we interact with the Cancer patients, talk to them and try to uplift their spirit. Under Blood donation Camps, we have conducted 6 camps over the past year. Also having successfully donated over 1000 units of blood we have raised awareness regarding the same over people from all age groups and programmes.

In our **ENVIRONMENT** domain, we have projects Green Warrior, Tree Plantation drives, Animal Care and Waste Paper Recycling. In our Green Warrior project we have been successful at addressing problems and raising aware related to energy, food and water wastage in campus. We have also done color coding in Blocks catering to reduction in unnecessary energy usage. We have conducted online event SITSI and offline events like Improvidence and have started self dumping in select hostels. In our Tree Plantation drive, we have planted 30 + trees in collaboration with Hindu College and Helpiez NGO. Under Animal Care we organise regular visits to SGACC and have started project related to addressing stray dog problem and their vaccination. In our Waste paper recycling initiative, started with cooperation of IITD administration, we have been successful at collecting 531.3 kg of waste paper.

In Miscellaneous, we have projects SIC, Gender Sensitization, Road Safety, and Indus Action. Under Social Innovation Cell, we conducted events that promote solving social problems using technology. We also created a "wool slate", a better blood donation bed, games for the blind, spende app. Under Gender Sensitization, we Conducted 25 + OED's (Open Ended Discussions) last year, set up a stall for awareness on menstruation at WindT and screened movies to stimulate thinking regarding gender equality.

In conclusion, it would be right to say that NSS IIT Delhi has expanded in all directions in this academic year. We would like to thank everyone involved with NSS for their contribution and hope they continue to work with even more enthusiasm, helping NSS to achieve new heights.

3. NATIONAL CADET CORPS (NCC)

The NCC unit at IIT Delhi is affiliated to 7 Delhi Battalion NCC. The NCC unit IIT Delhi organized the following activities during the preceding year:

- Regular training in foot, arms and ceremonial activities.
- Regular parade drills.
- Parade on the Republic Day, where the Director of IIT Delhi undertook the inspection of the NCC cadets.
- Award for the Best Cadet and the Most Disciplined Cadet were conferred to two of the cadets.
- A winter camp was organized on the IIT Delhi premises in December that involved weapons training, map reading activities, physical fitness and hygiene, firefighting lectures. Cadets were sent to attend annual training camps that were organized by 7 Delhi NCC Battalion, outside the IIT campus, and the cadets participated with full enthusiasm and zeal. Some cadets were given preparation guidelines for the B- and C- certification examinations which they plan to undertake in the current year.

4. STUDENT COUNSELLING SERVICES (SCS)

The aim of Student Counselling Services (SCS) of IIT-D is to support the students to perform better and to cope with various distresses and to address and satisfy issues of parents regarding their wards and addressing problems of any IITD staff as per their requirement.

Three components of SCS are firstly, the initial problem which is to be addressed by the counsellors which is subsequently followed by support through psychological therapies and assessment done by the counselors and the referrals by the counselors to a psychiatrist and other medical intervention if required and thirdly, the follow up sessions with the students and staff.

Counselling in SCS involves therapies based on cognitive, behavioral, rational, emotive, supportive, existential and interpersonal and intrapersonal and personality domains of an individual.

Common Psychological problems brought at SCS

The primary problems that individuals come up with and the SCS deals with, that disturb the individual's emotional, psychological, mental and physical well being, thus leading with poor coping are as follows:

- Stress and anxiety
- Academic concerns
- Depression
- Forms of eating disorders
- Anger and low self esteem
- Time management
- Problem solving
- Decision making
- Personality orientation of self and that of others (social schemas)
- Interpersonal and Intrapersonal communication skills etc.

SCS Activities between July 2015 till March 2016

Orientation Programme : Programme was held for two days in the month of July.

Day 1:- SCS provided a Counselling session with parents. Session was aimed at sensitizing parents towards potential stressors for their wards and how they can handle effectively their wards issues while they at IIT-D in the initial 3 months of their joining and to help their wards in adjusting to the new environment and coping with the problems and potential stresses.

Day 2:- SCS provided information to students regarding their adjustment to IITD campus life and hostel environment. A brief talk was given to assist them in coping with problems like Language difficulty, change in food, the system of assessment in terms of grading, loneliness and home sickness. This was done through a stall put up by the mentor team of students, which proved to be highly effective and where the student mentors gave a video representation showing the functioning of SCS IIT-D and SCS awareness.

Hostel visits by counselors from 4th to 8th August, 2015

Twelve hostels were visited. Each hostel had approximately 50 new students who were addressed between 7.30 pm-11.00 pm. This included orienting new students to the hostel environment of the institute.

Awareness was created about the existence and services of SCS. Emphasis was laid on the fact that SCS is exclusively meant for the benefit of students facing problems. It is a free facility of IITD which can be availed during times of distress.

Mentor training by counselors from 21st to 22nd July, 2015

Each session was held for two hours daily. This training was meant for the core group of mentors. Mentors were trained to:-

- Identify students facing problems in different areas of life
- Help students at the elementary stage of their problem.
- Make referrals to SCS in case of urgent or serious problems.

Workshops conducted in October 2015

1. Workshop conducted by Alcohol Anonymous group, Delhi.

The primary motive to conduct such a workshop was to address excess of alcohol consumption issues amongst students and also to create awareness pertaining to alcohol addiction and its consequences in the domains of academic, personal, family, professional and social life.

2. SCS conducted workshop on Interview Stress organized by the placement cell of IIT Delhi.

The objective of the workshop was to address students fear towards interviews and skills to deal with such stress were imparted through a power point and practical hands on experience of relaxation exercises and tools to improve interview taking abilities was conducted.

Recent Developments

- With an increase in the number of SCS counselors, the Student Counselling Services was able to deal with the increasing number of students having concerns more effectively and giving each student more time in the session and evaluation and therapy.
- There has been a decrease in waiting time for the students, thus, saving their waiting time for a consultation.

5. STUDENT-TEACHER INTERACTION COMMITTEE (STIC)

STIC (Student-Teacher Interaction Committee) tried different initiatives to improve student teacher interaction. Dinners were organized for all freshers with their teachers who were teaching in 1st semester of 2015-2016. All hostels hosted STIC dinners for their students during both the semesters of 2015-2016. This programme also supports teachers financially to interact with the students of their class. There was encouraging participation of teachers from all the departments to interact with their students using STIC funding. There is provision in STIC to partially fund professional societies of the departments.

10. Social Responsibility

RELAXATIONS TO SC/ST/OBC/PD STUDENTS AND STAFF

IIT Delhi is sensitive to the need of the students belonging to the SC/ST community and to those who are having disabilities. Special care and attention are paid to them.

Relaxation in Admissions

Admission to the first year of the four-year B.Tech., dual degree and the 5-year integrated M.Tech. programmes is made through the Joint Entrance Examination (JEE) which is held in April and is common for all the IITs and the Institute of Technology, BHU, Varanasi.

- The minimum qualifying marks for SC/ST candidates are specially prescribed at a lower level than those for the general category of students.
- The age limit is also relaxable in their case by five years.
- Candidates declared successful in this category are paid second class railway fare to and fro from the place of their normal residence to the counsellingcentre.

Reservation of Seats

At IIT Delhi, the percentage of seats reserved for SC/ST/OBC/PD candidates is as follows :

	B.Tech. Dual Deg. & Int. M.Tech.	M.Sc.	M.Tech.	M.Des.	M.B.A.
Scheduled Castes	15	15	15	15	15
Scheduled Tribes	7½	7½	7½	7½	7½
OBC	27	27	27	27	27
PD	3	3	3	3	3

Persons with Disabilities (PD)

For any category of disability (viz., locomotor, visual, speech and hearing), benefit is given to those candidates who have at least 40% permanent physical impairment in relation to a body part/ system/ extremity/extremities/ whole body etc. The candidates in this category are required to be certified by a Medical Board. The Medical Board decides the following:

- Whether the Candidate qualifies for the benefits under this category, and
- if the disability is likely to interfere in his/her studies.

The Medical Board duly constituted for this purpose meets at the time of counselling. The decision of the Medical Board is held final.

SCHOLARSHIPS AND FINANCIAL ASSISTANCE

All SC/ST students are given scholarships and financial assistance as detailed below:

- All SC/ST Students are exempted from payment of tuition fee.
- Free messing (basic menu) and a pocket allowance of Rs. 250 per month in lieu of the merit-cum-means scholarship for the students having annual family income upto 4.5 lacs. In addition, they are exempted from payment of Hostel seat rent.
- All eligible SC/ST students, while on training or doing courses during semester breaks or required to stay in the Institute during semester breaks or exempted from taking meals from hostels due to medical reasons etc. are given payment of 70 per month and a per diem allowance in lieu of free messing on the basis of prevalent average rate of messing charges as applicable from time to time.
- SC/ST students who fail in the examination for the first time continue to receive the free messing subject to a maximum limit of five years.
- SC/ST students are loaned books upto a value of 500 from the book bank without payment of any loan fee. The books are, however, required to be returned at the end of each semester.

Master of Science

Merit-cum-means scholarship of 1,000 per month and free tuition are permissible to M.Sc. students to the extent of 25% of the sanctioned strength subject to a maximum of five in each department. Only those students are eligible whose parents' gross income is less than 4.5 lacs per annum for all categories of students, including SC/ST students. The terms and conditions of the award of scholarship including conditions for continuation are laid down in the Rules and Regulations and are subject to change from time to time.

PREPARATORY COURSE

A one-year preparatory course is also run for SC/ST/PD candidates. Candidates admitted to this programme are amongst those who appeared for the JEE but were unsuccessful in qualifying for admission. The number admitted to this programme varies from year to year depending upon the number of SC/ST/PD candidates who were successful in gaining regular admission with the total number of candidates admitted to the regular B.Tech.

Dual Degree Integrated M.Tech. programmes as well as the preparatory course being limited to the above indicated percentage. Preparatory course students undergo zero level courses in Physics, Chemistry, Mathematics and English.

Candidates who successfully complete the preparatory course are eligible to seek admission during the following academic year against the vacant SC/ST/PD seats of the current year. Alternately, in case they desire a discipline of their choice, they must reappear for the JEE in the subsequent year. SC/ST Preparatory course students are also eligible to receive free messing and pocket allowance on the basis of the same norms as for regular undergraduate students belonging to SC/ST category.

OTHER FACILITIES

- Reduction in the academic load in subsequent semester in case they do not maintain the required semester grade point average (SGPA).
- Tutorial type remedial courses with half the normal credits.
- Special courses during the summer vacations to make up for the credit requirements due to reduced load during the regular semesters.
- Counselling service to help such students to better adjust to campus life and environment.

CONCESSIONS ALLOWED TO STAFF

I.I.T. Delhi follows the Government of India rules governing reservation for Scheduled Castes/Scheduled Tribes, OBC and Physically Handicap persons. Appointments made in respect of these categories during the year under report are given below:

No. of Candidates Appointed*				
Groups	Scheduled Castes	Scheduled Tribes	OBC	PD	Total
A	0	0	0	0	0
B	02	0	0	0	02
C	07+01*	01	07	0	15+01*
D	0	0	0	0	0

Note : These include contract appointments.

SUMMER RESEARCH FELLOWSHIP PROGRAMME

The main objectives of this programme are - to help inculcate research culture among the faculty members of educational institutions outside the IIT system, to provide orientation towards research through interaction with the mentors and other research students and exposure to the facilities and labs, with a view to eventually motivate them to undertake higher studies and research activities within or outside IIT Delhi. The feedback received from both the fellows and the mentors so far has been quite positive and encouraging. Under the Summer Faculty Research Fellowship Programme of the Institute organized under the CEP, 104 faculty fellows joined this year and they come from 68 different colleges/institutes representing 15 states of the country. They have been associated with a total of 40 faculty mentors. They spent about six weeks during the summer and worked with IIT faculty mentors.

COMMITMENTS IN SUSTAINABILITY

The solar energy park was established in the year 1996 with research funding received from various Government Ministries. In solar energy park, there are low cost mud house, 5 kWpstand alone PV system , underground water pumping, various design of solar still, evacuated solar water heater, integrated PV hybrid active solar still, water heater, air heater, conventional and green house crop dryer, greenhouse cultivation system. Energy and ExergyAnalysis of Solar Thermal devices and systems, PV-T hybrid systems, HVACR Systems and thermal power plants (including combined cycle and Co-generation Power Plants) is being undertaken by CES and some pioneering work has been carried out by CES which is well cited at international level.

ENVIRONMENT

A new "Biogas Development and Training Centre" (BDTC) started in IIT Delhi in the year 2008 and engaged in research and development of biogas related technologies. BDTCs are supported by Ministry of New and Renewable Energy (MNRE) under National Biogas and Manure Management Programme (NBMMP) for providing technical training and publicity support for quality implementation of biogas programme.

BDTC, IIT Delhi is engaged in research and development of biogas related technologies and its applications. In broader terms, BDTC, IIT Delhi is to provide technical support for National Biogas Manure Management Program (NBMMP) on decided areas with Ministry of New and Renewable Energy and coordinate R&D and consultancy work on biogas technology with expertise available in IIT Delhi.

Services of BDTC IIT Delhi:

- R&D related to bio-methanation
- Training and Human Resource Development
- Consultancy services related to biogas technology
- Technical guidance

COMMUNITY

For the second time this year, a 10-day Special Orientation Programme for Entry Level students was conducted for about 120 participants with the objective of enhancing their learning skills, English language and communication skills, inter-personal relationships and motivation. This programme was conducted with the help of Centre for Research and Education for Social Transformation (CREST), Calicut, Kerala. All those who participated in it appreciated the program. The SC Commission had a special word of praise for the Institute's initiative to help students from weaker sections of society through this self-enrichment program.

A group named ASSISTECH was formed at IIT Delhi to design and develop assistive devices for the visually impaired. ASSISTECH was formed more than two years back with the clear objective of "Making a difference in the lives of million plus visually impaired people by the year 2015". At any one time it is an active association of 12 to 15 students who contribute both through academic projects as well as other activities. Specifically the group is working on the following four projects for the visually impaired:

- Smart Cane: An aid for assisting safe mobility
- Bus Identification Device: An aid for assisting use of public buses
- Braille Tutor: A Braille and language learning device
- Disha – Indoor Navigation Device: An aid for independent mobility within the public buildings
- IIT Delhi also encourages students to take part in service of humanity, working for the education of the under-privileged. Voluntary blood donation and tree planting are undertaken.

11. Alumni Contribution

(April 1, 2015 - March 31, 2016)

The Alumni are a very valuable resource for the Institute, and increasingly, they have started to make a difference to the way things are done at IIT Delhi. The Alumni have directly contributed for instituting Chair Professorships, Young Faculty Incentive Fellowships and Student Awards and even for Infrastructure Development.

Some of the contributions from the Alumni in the previous year are listed below and are gratefully acknowledged:

Contributor	Contribution in Rs.	Contribution For
Mr. Arun Duggal	10,00,000.00	Sarla Devi Duggal Excellence Award for Woman

The Institute is financed by the Department of Higher Education, Ministry of Human Resource Development, Government of India. During 2014-2015, the Institute received a grant of Rs. 39,622 lakhs from the Ministry of Human Resource Development to meet its yearly expenses. The Institute receives funds for sponsored research projects and for consultancy assignments being undertaken by the Institute from several funding agencies and Industries. The financial year of the Institute corresponds with that of Govt. of India i.e. 1st April to 31st March. The accounts of the Institute are annually audited by the Director General of Audit & Central Revenue of India. The 112th Finance Committee of the Institute (shown in the box on the side) in its meeting held on 04-04-2016 recommended Plan (Normal) Revised Estimates for Rs. 36,850 lakhs for the year 2015-2016 and Budget Estimates for Rs. 56,700 lakhs for the year 2016-2017 respectively and Non-Plan Revised Estimates for Rs. 36,160 lakhs for the year 2015-16 and Budget Estimates for Rs. 41,060 lakhs for the year 2016-17.

The following are the details for the financial year 2014-2015 and 2015-2016:

FINANCE COMMITTEE
(As on 31.3.2016)

Kumar Mangalam Birla, *Chairman*

K. Thyagarajan

Tripti Gurha (Ms.)

Alex Thomas

Punya S. Srivastava (Ms.)

Sanjeev Sanghi

Sandeep Chatterjee, *Secretary*

PLAN
Detailed Statement showing the Actual Receipt and Expenditure for 2014-15, 2015-16 along with Revised Estimates and Budget Estimates 2016-17

Head of Expenditure	Actuals 2014-2015 (in ₹ Lakhs)	Budget Estimates 2015-2016 (in ₹ Lakhs)	Revised Estimates 2015-2016 (in ₹ Lakhs)	Actuals 2015-2016 (in ₹ Lakhs)	Budget Estimates 2016-2017 (in ₹ Lakhs)
A. Receipt					
Plan Grant from MHRD carryforward	(409.04)	-	-	383.10	-
Plan Grant from MHRD (Normal)	16,000.00	48,700.00	36,850.00	15,501.17	56,700.00
Grant Receivable from MHRD	-	-	-	1,028.31	-
Total A	**15,590.96**	**48,700.00**	**36,850.00**	**16,912.58**	**56,700.00**
B. Expenditure					
Normal Development Activities & Increase of Students Intake (including new hostel) New Courses Modernisation & Thrust Areas					
(i) Non-Recurring	12,471.17	45,700.00	30,650.00	12,304.77	50,500.00
(ii) Recurring	2,736.69	3000.00	6,200.00	4,607.81	6,200.00
Commitments against L.C.'s for the year 2015-2016 Plan (Normal)	383.10	-	-	-	-
Total B	**15,590.96**	**48,700.00**	**36,850.00**	**16,912.58**	**56,700.00**

Financials

Detailed Statement showing the Actual Expenditure for 2014-15, 2015-16 alongwith Revised Estimates and Budget Estimates 2016-17

Head of Expenditure	Actuals 2014-15 (in ₹ Lakhs)	Budget Estimates 2015-16 (in ₹ Lakhs)	Revised Estimates 2015-16 (in ₹ Lakhs)	Actuals 2015-16 (in ₹ Lakhs)	Budget Estimates 2016-17 (in ₹ Lakhs)
Major Works					
On Going Schemes	5,171.97	36,00.00	20,500.00	4,452.84	20,000.00
Repair & Maintenance on Buildings	364.43	1,000.00	1,000.00	296.73	1,000.00
Fresh Schemes/Projects	-	-	-	-	20,000.00
Teaching Equipment/Computerization	4,210.49	5,000.00	5,800.00	6,094.99	6,000.00
Office General Equipments, Hospital Equipments/ Furniture and Fixtures & Institute Level Network	903.20	1,000.00	1,000.00	863.60	1,700.00
Research Funds, Central Facilities & Thrust Areas	331.21	300.00	300.00	229.21	300.00
Library Books & Journals	1,172.66	1,500.00	1,400.00	367.40	1,500.00
Web Based Academic Systems	-	200.00	-	-	-
Institute Level Network	317.21	700.00	650.00	-	-
Institute Scholarships	2,722.00	2,800.00	6,000.00	4,588.77	6,000.00
Centres of Excellence	14.69	200.00	200.00	19.04	200.00
Total	**15,207.86**	**48,700.00**	**36,850.00**	**19,912.58**	**56,700.00**

NON-PLAN

Detailed Statement showing the Actual Expenditure for 2014-15, 2015-16 along with Revised Estimates Budget Estimates 2016-17

Head of Income	Actuals 2014-15 (in ₹ Lakhs)	Budget Estimates 2015-16 (in ₹ Lakhs)	Revised Estimates 2015-16 (in ₹ Lakhs)	Actuals 2015-16 (in ₹ Lakhs)	Budget Estimates 2016-17 (in ₹ Lakhs)
Institute Income	8,402.92	8,482.00	8,982.00	8,581.42	9,182.00
Grant from MHRD	23,622.00	26,518.00	27,178.00	24,200.00	31,878.00
Total	**32,024.92**	**35,000.00**	**36,160.00**	**32,781.42**	**41,060.00**

NON-PLAN

Detailed Statement showing the Actual Receipt and Expenditure for 2014-15, 2015-16 along with Revised Estimates and Budget Estimates 2016-17

Head of Expenditure	Actuals 2014-15 (in ₹ Lakhs)	Budget Estimates 2015-16 (in ₹ Lakhs)	Revised Estimate 2015-16 (in ₹ Lakhs)	Actuals 2015-16 (in ₹ Lakhs)	Budget Estimates 2016-17 (in ₹ Lakhs)
Pay & Allowances	15,058.19	18,200.00	18,600.00	15,639.14	21,000.00
Pension & Pensionary Benefits	6,488.90	7,300.00	7,930.00	7,933.02	9,080.00
Academic Expenses	970.70	1,300.00	1,100.00	1,043.57	1,500.00
Educational Expenses	897.18	800.00	1,000.00	881.04	1,000.00
Estate Maintenance	4846.82	5,700.00	5,800.00	5,867.30	6,700.00
Office Contingencies, Misc. & Commitments/ Provisions	1,559.52	1,700.00	1730.00	1,649.11	1780.00
Total	**29,821.31**	**35,000.00**	**36,160.00**	**33,013.18**	**41,060.00**

INCOME

Detail Statement showing the Actual Income for 2014-15, 2015-16 along with Revised Estimate and Budget Estimates 2016-17

Sources of Income	Actuals 2014-15 (in ₹ Lakhs)	Budget Estimates 2015-16 (in ₹ Lakhs)	Revised Estimates 2015-16 (in ₹ Lakhs)	Actuals 2015-16 (in ₹ Lakhs)	Budget Estimates 2016-17 (in ₹ Lakhs)
Academic Receipts	3,194.08	3,000.00	3,400.00	3,448.34	3,500.00
Receipt-Central Administration					
Interest on Investments/Savings Accounts	1,019.58	1,500.00	1,200.00	957.25	1,200.00
Charges for use of Staff Cars and Buses	5.87	6.00	6.00	5.91	6.00
Application Fee	121.19	75.00	100.00	104.72	125.00
Sponsored Project/Consultancy and CEP	430.78	300.00	400.00	352.60	400.00
Works & Building					
Licence Fee	235.72	250.00	250.00	252.33	250.00
Seat Rent	496.80	375.00	500.00	599.60	500.00
Water & Electricity	452.95	400.00	450.00	394.93	500.00
Hospital & Medical	1.10	1.00	1.00	1.73	1.00
Guest House	188.98	250.00	250.00	236.53	250.00
Joint Entrance Exam	268.44	300.00	325.00	303.06	350.00
GATE	1,711.99	1,800.00	1,800.00	1,683.01	1,800.00
Joint Admission Test for M.Sc.	98.39	75.00	100.00	106.32	100.00
Misc./Other Receipts (including sale of obsolete equipments)	183.05	150.00	200.00	135.09	200.00
Total	**8,408.92**	**8,482.00**	**8,982.00**	**8,581.42**	**9,182.00**

INTERNAL AUDIT

Internal Auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization's operation. Internal Audit Section is functioning independently as per Revised Audit System (w.e.f.1/12/2011) directly under the control of the Director, supported by Assistant Registrar (Audit). The section conducts the Internal Audit of the Departments/Centres/Sections etc. within the Institute Internal Control System. The Internal Audit Section also renders advise on various financial as well as administrative/service matters as per needs of the Institute. All the 76 auditable units have been internally audited during the financial year 2015-16.

Appendix I
SENATE
(As on 31.03.2016)

K. Thyagarajan, Chairman (Officiating Director)	Veena Chaudhary (Ms.)	P.K. Jain	S. Kundu
Ashwini K. Agarwal	Anoop Chawla	S.K. Jain	N.D. Kurur
G.P. Agarwal	Sudhir Chandra	Sanjeev Jain	Alok Madan
V.K. Agarwal	R. Chattopadhyay	V.K. Jain	Puneet Mahajan
R. Algirusamy	Apurba Das	M. Jagadesh Kumar	S.N. Maiti
Suhail Ahmad	Manoj Datta	Manjeet Jassal (Ms.)	Abhijit Majumdar
Babu J. Alappat	S. Dharmaraja	Jayadeva	Hitendra K. Malik
S.K. Atreya	J.K. Dutt	B. Jayaram	Ranjan Kumar Mallik
Chandra B. (Ms.)	Viresh Dutta	Joby Joseph	Shashi Mathur
R. Bahl	S.G. Deshmukh	Mangla Joshi (Ms.)	B.R. Mehta
M. Balakrishnan	Anupam Dewan	S.D. Joshi	D.S. Mehta
D.K. Bandhopadhyay	Chinmoy Sarkar Dey	S.R. Kale	Prashant Mishra
S. Banerjee	Anil Jacob Elias	N.C. Kalra	Saroj Mishra (Ms.)
Ananjan Basu	O.P. Gandhi	Prem Kumar Kalra	Sukumar Mishra
S. Basu	A. Ganguly	T.C. Kandpal	Aditya Mittal
B.K. Behera	A.K. Ganguli	Santosh Kapuria	A.K. Mittal
A. N. Bhaskarwar	N.K. Garg	I.N. Kar	Manju Mohan (Ms.)
Kanika T. Bhal (Ms.)	Naveen Garg	Subrat Kar	Ratan Mohan
B. Bhattacharjee	Rahul Garg	Ravinder Kaur (Ms.)	Sudipto Mukherjee
Bhim Singh	Anup K. Ghosh	S.C. Kaushik	Atul Narang
Naresh Bhatnagar	James Gomes	Saroj Kaushik (Ms.)	S.N. Naik
T.S. Bhatti	A.K. Gosain	A.K. Keshari	R.B. Nair (Ms.)
B. Bhowmik (Ms.)	V.R. Gunturi	Rajesh Khanna	Sunil Nath
G. Bhuvaneswari (Ms.)	Ashok Gupta	Mukesh Khare	K. Narayanan
Jayashree Bijwe (Ms.)	B.D. Gupta	Neeraj Khare	A.K. Nema
V.S. Bisaria	Bhuvnesh Gupta	S.K. Khare	B.S. Panda
Ranjan Bose	Deepti Gupta (Ms.)	Rakesh Khosa	Preeti Ranjan Panda
Bijoy H. Boruah	K. Gupta	Sangeeta Kohli (Ms.)	Siddharth Pandey
Charusita Chakravarty (Ms.)	S.K. Gupta (Ch.E.)	S.K. Koul	Sunil Pandey (on lien)
N. Chatterjee	M.P. Gupta	Veena Koul (Ms.)	K.K. Pant
Ratnamala Chatterjee (Ms.)	S.K. Gupta (CS&E)	M.S. Kulkarni	Nalin Pant
Tapan Kumar Chaudhuri	S.E. Hasnain	Ajit Kumar	B.S. Panwar
B.R. Chahar	Sriram Hegde	Arun Kumar (Phy.)	B.P. Patel
Santanu Chaudhury	Harish Hirani	Arun Kumar (CARE)	Shankar Prakriya
Sujeet Chaudhary	S.M. Ishtiaque	Anshul Kumar	Sanjiva Prasad
A. Ramanan	K.C. Iyer	Amit Kumar	Rajesh Prasad
	A.K. Jain	S. Arun Kumar	K. R. Rajagopal

contd. .....

N.G. Ramesh	P. K. Roychoudhury	Satyawati Sharma (Ms.)	Sushil
A.D. Rao	Ambuj D. Sagar	Kushal Sen	N. Tandon
K.S. Rao	Subir Kumar Saha	Sandeep Sen	Geetam Tiwari (Ms.)
S.C.S. Rao	Sanjeev Sanghi	P. Senthilkumaran	G.N. Tiwari
P.V. Rao	Sanil V.	M.R. Shenoy	K. Thyagarajan
P.V. Madhusudan Rao	Huzur Saran	A.K. Singh	C.A. Tomy
P.M.V. Subba Rao	Anil Kumar Saroha	Harpal Singh	Amitabh Tripathi
Anurag Singh Rathore	Santosh Satya (Ms.)	Jai Deo Singh	Suneet Tuli
M.R. Ravi	Maithili Sharan	Purnima Singh (Ms.)	V. Upadhyay
Ravi Kumar D.	Jagdish T. Shahu	S.N. Singh	R.K. Varshney
V. Ravishankar	Ravi Shankar (Chy.)	S.P. Singh	M. Veerachary
Anjan Ray	Ravi Shankar (DMS)	R.K. Soni	S.V. Veeravalli
Rengasamy R. S.	Anurag Sharma	T.R. Sreekrishnan	V.K. Vijay
G. B. Reddy	R.K. Sharma	A.K. Srivastava	S.S. Yadav
Shantanu Roy	R.P. Sharma	Pankaj Srivastava	Sandeep Chatterjee (Secretary)

EXECUTIVE COMMITTEE OF THE SENATE (ECS)
(As on 31.03.2016)

K. Thyagarajan, Chairman	S. Dharmaraja
S.K. Koul	S.R. Kale
Sushil	B.R. Mehta
Anurag Sharma	B.K. Behera
Kushal Sen	Arun Kumar
Suneet Tuli	Veena Koul (Ms.)
Shashi Mathur	Sanjeev Sanghi
S.K. Gupta	Huzur Saran
K.S. Rao	Viresh Dutta
Puneet Mahajan	O.P. Gandhi
Prashant Mishra	A.D. Rao
Rajesh Khanna	A.K. Ghosh
Ravi Shankar	V.K. Vijay
Manoj Datta	Sangeeta Kohli (Ms.)
Saroj Kaushik (Ms.)	P.V.M. Rao
Bhim Singh	B.D. Gupta
Ravinder Kaur (Ms.)	Sandeep Chatterjee, Registrar, Member Secretary
Kanika T. Bhal (Ms.)	

Appendix II
ADMINISTRATIVE AND OTHER STAFF
(As on 31.03.2016)

Administration	
Sandeep Chatterjee	Registrar (on contract)
M.K. Gulati	Joint Registrar (Accounts) (presently on deputation at CBSE)
Nanak Chand Chauhan	Joint Registrar (Legal Cell & E-I Section)
K.K. Bhattacharjee	Deputy Registrar (SP Section, R&I and RTI)
Vivek Raman	Deputy Registrar (PGS)
Atul Vyas	Deputy Registrar (Director's Office)
N. Bhaskar	Assistant Registrar (CDN & Health Unit)
V.K. Vashistha	Assistant Registrar (IRD)
Alan V. Siante	Assistant Registrar (UGS)
Mohd. Shamim	Assistant Registrar (R&D Accounts)
Raj Kumar Gupta	Assistant Registrar (Accounts)
Mukesh Chand	Assistant Registrar (SAS)
Ramesh Kumar Thareja	Assistant Registrar (E-II & Manpower Training)
S.N. Tiwari	Assistant Registrar (T&P)
Debranjan Mukherjee	Assistant Registrar (Accounts)
Sanjay Pande	Assistant Registrar (Plg, Alumni, Conference, Transport)
Amitabh Mukherjee	Assistant Registrar SAS (Accounts) (against lien vacancy)
G.K. Taneja	Executive Engineer & Offtg. Institute Engineer
K.M. Vijay Kumar	Executive Engineer
Anuj Gaur	Executive Engineer
Rafat Jamal	Assistant Executive Engineer
V.K. Bharaj	Assistant Executive Engineer
Hitendra Govil	Assistant Executive Engineer
K.P. Mishra	Assistant Executive Engineer
Prem Kumar	Assistant Executive Engineer
Brahm Prakash	Assistant Executive Engineer
Ashok Kumar	Assistant Executive Engineer
Raju Ram Parihar	Assistant Executive Engineer
Vishal	Assistant Executive Engineer (On Deputation)
Pradip Karmarkar	Assistant Executive Engineer
Anishya Obhrai Madan (Ms.)	Industrial Liaison Officer
Deepak Negi	Sports Officer
Shachi Mathur (Ms.)	Student Counsellor
Rama Raj (Ms.)	Student Counsellor (on contract in PB-3)
Sandeep Sharma	Security Officer

Administrative and other Staff

Administrative Computerisation Support Service	
S. Arun Kumar	Head
R. Raghavan (Ms.)	Senior System Programmer
K. Narayanan	Senior System Programmer
P.K. Baboo	Senior System Programmer
Pardeep Kumar Gupta	Senior System Programmer

Student Counselling Service	
Saroj Kaushik	Head

Professors-in-Charge of Different Sections	
Sudipto Mukherjee	Professor-in-Charge (Planning)
Naresh Bhatnagar	Professor-in-Charge (Transport)
O.P. Sharma	Professor-in-Charge (Guest Houses)
Kushal Sen	Professor-in-Charge (Training & Placement)

Hindi Cell	
Santosh Satya	Head

Library	
B.D. Gupta	Chairman
J.P. Srivastava	Dy. Librarian
Nabi Hasan	Dy. Librarian

IIT Hospital	
Brahm Prakash	Head, Hospital Services (on contract)
Ajay Kumar Jain	Chief Medical Officer (SAG)
Lily Khosa (Ms.)	Chief Medical Officer (SAG)
Renu Misuriya (Ms.)	Chief Medical Officer (NFSG)
Mahesh Kumar Sagar	Chief Medical Officer (SAG)
Anila Khosla (Ms.)	Chief Medical Officer
P.K. Rajesh	Senior Medical Officer
Md. Ashafaque Hussain	Senior Medical Officer
Sayed Yasmeen Raunaq	Medical Officer
L. Pangerlemba	Medical Officer
Rajlaxmi Borah	Medical Officer (on contract in PB-3)

Appendix III
OTHER COMMITTEES
(As on 31.03.2016)

BUILDING AND WORKS COMMITTEE	
K. Thyagarajan, Chairman (Officiating Director)	
S. Ramanujam	K.J. Singh
Jose Kurian	G.K. Taneja
M.N. Joglekar	K.S. Rao
K.N. Rai	Sandeep Chatterjee, Secretary
ADVISORY COMMITTEE FOR LIBRARY	
B.D. Gupta, Chairman	Ananjan Basu
Anupam Dewan	R. Raghavan (Ms.)
Atul Narang	P. Hari Prasad
A. Ramanan	Santosh Satya (Ms.)
G.V. Ramana	Veena Chaudhary (Ms.)
Kolin Paul	Sumer Singh
I.N. Kar	Uday Khankhoje
Richa Kumar (Ms.)	Smruti Ranjan Sarangi
Ravi Shankar	Aditya Mittal
R. Barman	Saif Khan Mohammed
J.K. Dutt	K.K. Pant
Rahul S. Marathe	Ranjan K. Mallik
Amit Rawat	Vaibhav Grover
Poornima Agarwal	Kshitij Jain
Anup Singh	Suraj Kumar
A. Ganguli	Preeti (Ms.)
J. Bijwe	Narender Kumar, Member Secretary
COMPUTER USERS' COMMITTEE	
S. Arun Kumar, Chairman	Sneh Anand (Ms.)
Sanjeev Sanghi	Harish Kumar
A.K. Srivastava	V.K. Agarwal
Gaurav Goel	Mahesh Abegaonkar
Hemant Kashyap	Veena Choudhary (Ms.)
Vasant Matsagar	A.K. Agarwala
Maya Ramanath	V.M. Chariar
Kushal Shah	Gopal Krishan
Ankush Agarwal	Pragya Jain (Ms.)
Ravi Shankar	K. Narayanan
Mani Mehra (Ms.)	Tanmay Pradhan
G.V. Prakash	Nitesh Singh
N. Bhatnagar	Surabhi Aadarsh
Ramesh Narayanan	Harshit Jain
R.S. Rengasamy	Manju Mohan (Ms.)
Vimlesh Pant	Savita Goel (Ms.), Member-Secretary