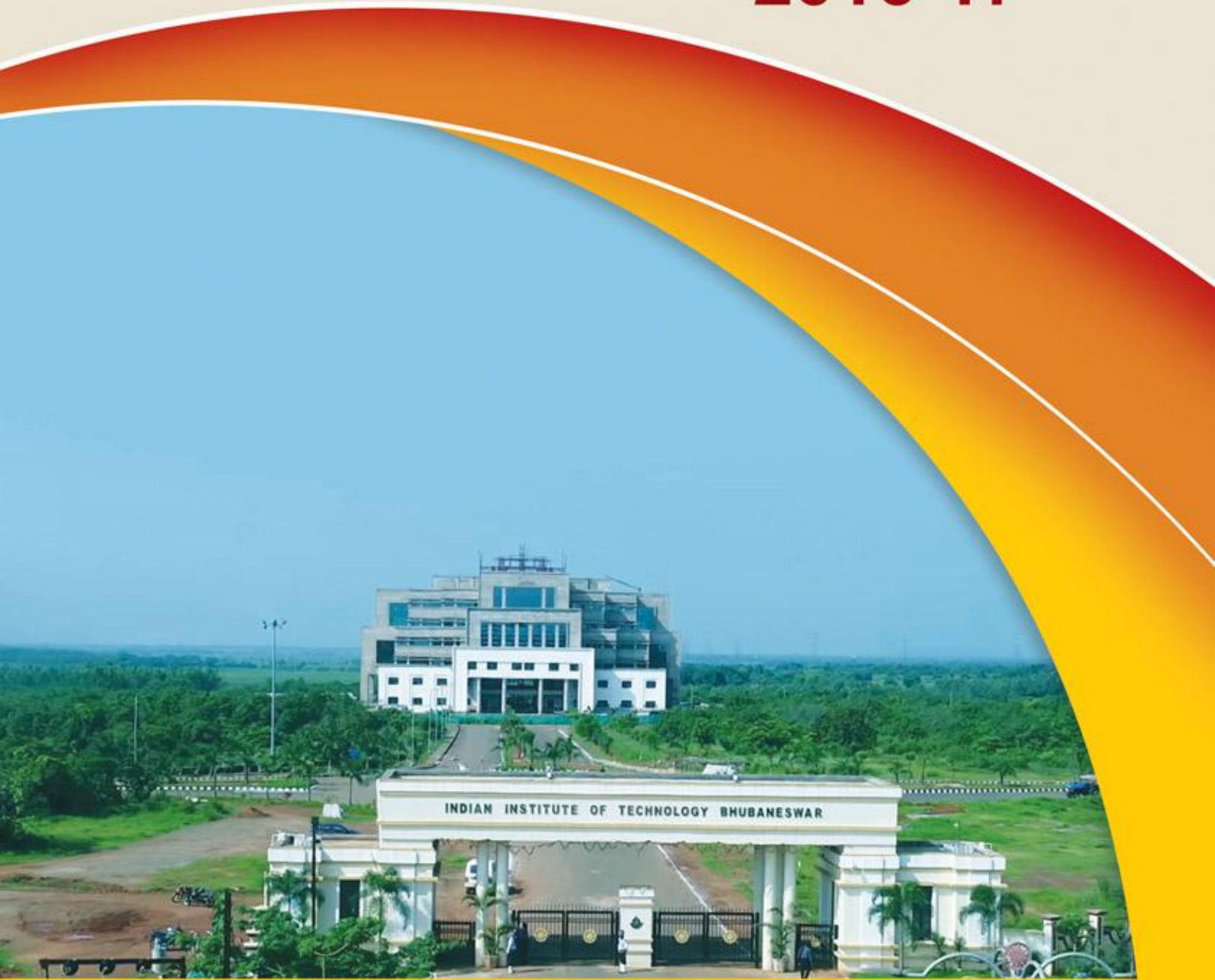




Annual Report 2016-17



Indian Institute of Technology Bhubaneswar

Argul, Jatni - 752050, Khurda

Phone No. 0674-2576011, 2571982

E-mail: info@iitbbs.ac.in, website : www.iitbbs.ac.in

Annual Report

2016-2017



Indian Institute of Technology Bhubaneswar

Argul, Jatni - 752050, Khurdha

Phone No. 0674-2576011, 2571982

E-mail: info@iitbbs.ac.in, website : www.iitbbs.ac.in

Annual Report 2016-2017

Published in 2017

© Indian Institute of Technology Bhubaneswar, Odisha

Published by

Indian Institute of Technology Bhubaneswar, Odisha



CONTENTS

Subject	Page No.
From Director's Desk	v
Board of Governors	x
Finance Committee	xi
Building and Works Committee	xi
Senate	xii
Administration	xiii
PIC, Chairperson & Co-ordinators	xiv
Staffs	xvi
INTRODUCTION	
About IIT Bhubaneswar and its Campuses	01
ACADEMICS	07
SCHOOLS & CENTRES	17
OUR FACULTY	29
PUBLICATIONS	00
Book Chapters	43
Books Edited	45
Journal Articles	45
Conference Proceedings	65
Research, Development and Collaborations	
Sponsored Projects	79
Consultancies	85
Patents	91
Invited Lectures/Presentation by Faculty Members/Conference/Workshops/Visits/ GIAN Programmes Organised/Seminars/Lectures/Colloquium/Visitors	
Invited Lectures/Presentations	101
Conference/Workshops Attended	102
Visits Abroad	109
Conference/Workshops Organised	111
GIAN Programmes organized	113
Institute Seminars/Lectures/Colloquium	115
Distinguished Visitors	116

Subject	Page No.
Awards/Honours/Fellowship/Industry Internships	: 120
Faculty	: 120
Students	: 121
Industry internships	: 122
Central Library	: 123
Career Development Cell	: 126
Entrepreneurship Activities	: 131
StartupCentre	: 131
Technology Incubation Centre	: 131
E- Cell	: 131
Entrepreneurship by Alumni	: 135
Rajbhasha Ekak	: 136
Institute Events	: 139
Students' Activities	: 152
Financial Information	: 163
Institute Account format	: 163
NIRF Format	: 167



From Director's Desk.....

The last year at IIT Bhubaneswar has been very eventful and there have been significant historic developments. At the beginning of the 2016-17 academic session, the dream of shifting of all academics to the permanent campus has been fully realized. Except for the central administration, all operations have happened therein.

One of the ambitions with which I have been serving as the Director is to contribute towards helping the Institute find its place amongst global class. An essential requirement is to rise the standards in multiple fronts and importantly in teaching-learning. Some of the important actions taken up have started yielding results. There is a significant improvement in the confidence level of the students on education at the institute which has shown up in their feedback and phenomenal rise in the placements.

The institute has been ranked by NIRF at all India 18 amongst engineering institutions which underwent a big leap from last year's 26th. Edu-Rand ranked the institute at all India 11.

It gives me immense pleasure in sharing the developments in different domains as shown:

Academics:

With the objective of fulfilling the aspirations of the society, this year we started a new 5-year Dual degree programme in 5 disciplines, one each in Schools of Mechanical Sciences, Infrastructure, Minerals, Metallurgical & Materials Engineering and two in School of Electrical Sciences. Intake of B.Tech students has been increased from 260 to 350 by a significant step. With this, the number of programmes at the institute includes B.Tech in 6 branches of Engineering (Computer Sciences, Electrical, Electronics & Communications, Mechanical, Civil, and Metallurgical & Materials), 5-year Dual degree in 9 disciplines, M.Tech in 10 specializations and MSc in 5 disciplines (Mathematics, Physics, Chemistry, Geology and Atmosphere & Climate Sciences) by the side of Ph.D in almost all the disciplines.

Research & Development Activities:

There has been a considerable progress in Research and Development front in last one year. A total of 88 sponsored and consultancy projects worth about Rs. 23 Crore has been sanctioned to the Institute during the year from different funding agencies. Besides these sanctioned projects, 60 project proposals worth about Rs. 48 Crore have been submitted during the last one year to different funding agencies. The major funding agencies are MHRD, DST, CSIR, UGC, ISRO, DRDO, ICSSR, DAE, CPRI, DAC, DBT, Deity, NALCO, NPOL, IUSSTF, INCOIS, MoES, IITM, NCAOR, BRNS KPIT, P&C Dept.-Govt. of Odisha etc. The various major areas covered by these projects are: Advance Materials, Energy, Nanotech Hardware, Health Care, Defense, CS & ICT, Environmental Sciences & Climate Change, Water Resources & River Science, Manufacturing and Sustainable Urban Design. Our faculty members participated in major initiatives of MHRD like IMPRINT, Uchhatar Avishkar Yojana (UAY).



Some of the worth quoting recent Industry-Academia collaborations and R&D initiatives as well as projects connected to the National/State Missions are as follows - An MoU signed with the Indian Army on 16th March, 2017 for R&D collaboration, an agreement with M/s KPIT Technologies Limited, Bangalore, industrial collaboration with National Aluminum Company (NALCO), a broad based Research Cooperation Agreement was signed with the National Mineral Development Corporation (NMDC) on 9th October 2017 and a research collaboration agreement with Indo-US Science and Technology Forum on 25th September 2017 on "Smart Distribution System with Storage".

The Institute is also actively participating in the national level efforts namely: "IMPacting Research, Innovation and Technology (IMPRINT)" and Uchhatar Avishkar Yojna.

Proposals worth around Rs. 92.00 crore are in pipe line for setting up of five Centres of Excellence (CoE) in different research domains namely: (a) Centre for Advance Research in Next Generation Networks (CARNGN) (b) Centre of Excellence in Precision and Micro Manufacturing (c) Centre of Excellence on Cooling and Energy Store Technology (d) Centre of Excellence on Land, Water, Energy and Climate (e) Centre of Excellence on Regional Climate and Coastal Hazards.

A significant activity of the Institute is the Unnat Bharat Abhiyan(UBA), a flagship mission of MHRD, in which our Institute is participating actively and have adopted six villages. One worth quoting activity under UBA is development of Science Labs by the Institute in two schools of the two adopted villages under UBA, which were inaugurated by the Director on 14th July 2017 in presence of the Sub-collector of the District, as well as students and faculty members.

Research Publications & Patents:

During the last one year, the institute contributed to creating new knowledge by publishing more than 348 research articles including, 227 research papers in National and International Journals of repute, which includes high impact journals, 14 Book-chapters and one book edited. Besides, 107 papers were presented in various national and international conferences in India and abroad and 15 patents have been filed.

International Faculty at IITBBS – A New Initiative:

The Institute took an innovative initiative to appoint faculty from other countries for a period of one semester to two years. This has expectedly infused new dimension in pedagogy, research collaboration and internationalizing the mentoring-paradigm. Few notable names are Prof. Luis Malera, USA; Prof. Matjaz Kovse, Slovenia; Prof. Scott Andrew Whattam, Canada and Prof. Tian C. Zhang, USA.

Awards won:

In an endeavour to create an environment of teaching-learning of high order, the institute honoured its best teachers based on student feedback. This apart, several academic distinctions, honours, distinguished fellowships, associate ships, named lectureships, coveted medals and awards have been bestowed on our faculty, staff and students in recognition of their academic achievements, during the last year.

Collaborative Research:

The Institute is very actively engaged in collaborative research with many reputed universities and research organizations across the world. Some of the collaborating universities include, Warwick Manufacturing Group,

University of Warwick, UK; Washington University in St. Louis, USA; University of Massachusetts Dartmouth USA; University of Southampton UK; National Oceanography Centre (NOC) UK; Woods Hole Oceanographic Institute USA; University of Concepcion, Chili; University of Surrey, London, UK; University of Manchester, UK; University of British Columbia; University of Quebec, Canada; University of Waterloo, Canada; York University, Canada, Texas A&M University, USA and many other reputed universities for joint research, student internship and faculty visits.

About 36 faculty members and 6 students visited foreign countries on various academic and research assignments and paper presentations. The institute also had an innumerable number of distinguished visitors for academic, research and other collaborative programmes.

Infrastructure Development:

The institute completed its Phase-1 constructions to the tune of Rs 410 crore except for the administrative building to take a few more months. The institute has been sanctioned with Rs 850 core from MHRD for construction activity. The institute acted swiftly, made all the arrangements including coming out with improvements in master plan, completing the architectural designs for most of the buildings and already work on one more boys and girls hostels are in progress under phase-2.

The campus community enjoys Gigabit Ethernet connectivity through fibre optic network as well as point-to-point Wireless bridges. The library, computer center and e-class rooms cater to the users till midnight.

Green Campus Initiatives:

The institute has done outstanding work in greening the campus with dedicated contribution from its horticulture section. The campus is now green with vibrant, exotic and indigenous trees, plants and lawn grass. During the last monsoon, massive plantation including shading and evergreen avenue trees (610 nos), palms (77 nos), shrubs (3000 nos) and lawn grass (3900 sq mtrs) has been carried out in the areas of school buildings, main road sides, road medians, islands and circles to create a vibrant look and combat environmental pollution, and also create an excellent ambience for academics, research and quality life in the campus. Now the institute campus stands out amongst the IITs.

Distinguished Visitors:

An innumerable number of distinguished personalities visited the Institute on different occasions and addressed the faculty, students and staff. As many as 75 no of distinguished personalities visited the campus.

Student Activities:

The Students' Gymkhana at the Institute is a central hub for all round development of students. The major councils under Students' Gymkhana are Social & Cultural, Science & Technology and Sports & Games, which remain active throughout the year. The annual techno-management fest *Wissenaire'17*, socio-cultural fest *Alma Fiesta'17*, and Entrepreneurship meet *E-Summit'17* have set a distinguished mark in the eastern zone. Other notable events include a children Fest "*Bachpan Ka Rangmanch*", A newspaper donation drive, A tree plantation drive, Cloth donation drive, NAI DISHAYEN – interaction and teaching program for students in

villages adjoining the campus. Neuromancers (the Programming Society), the Robotics Society, the Web and Design Society participated in the technical fests of other IITs. The CineWave, won 1st and 3rd Prize in Ad-Making and Documentary competition in Spring Fest, IIT Kharagpur. Two students, are selected for Google Summer of Code (GSoC), and a student achievement at Global Peace Conference, Bhubaneswar etc.

Students and student groups also won several awards including best paper awards at conferences and inter institutional competitions.

Alumni Activities:

The institute is very keen to maintain a strong bond with its alumni and started extending several facilities and services including start-ups to the alumni. IIT Bhubaneswar has created an Alumni database to serve as a hallmark to remain connected with its alumni.

The institute conducted its first ever Alumni Meet during 14th April to 16th April, 2017 at the permanent campus. The 3-day meet was participated by around 50 alumni ranging across various batches from B.Tech, M.Tech, M.Sc and Ph.D. The alumni of the institute started showing their mettle by rising and getting selected in prestigious endeavours.

Entrepreneurship & Startup Activity:

IIT Bhubaneswar drafted a vision paper for encouraging entrepreneurship at the institute, put an Entrepreneurship Cell (E-Cell), created a technology incubator and start-up center within a short span of last one and a half years and took very ambitious steps.

The technology incubator provides up to Rs. 2 lakh grant to the selected teams towards consumables, and allows its workshops and laboratories for their use. Three teams of incubates have been successfully exit from the centre and five teams are currently working in the centre.

The Startup Centre was inaugurated on 20th June 2016 and within one year, as many as 12 startups have been registered in this centre, till now.

The E-Cell organized two E-Days in this year – the first E-Day on 18th August 2017 with a talk by young Entrepreneur Mr. Srikumar Mishra, Founder of MILK MANTRA Company and the second E-Day on 6th Oct 2017 with an interactive talk by successful entrepreneur Mr. Subroto Bagchi, Co-Founder of MIND TREE Company.

Continuing Education Programme (CEP):

Continuing Education is part of the IIT Bhubaneswar's outreach programmes created to extend its arm for the promotion and extension of the science and technology benefits to the society, apart from its main focus of teaching and research. During the last year, eleven number of conferences and workshops have been organized by the institute and conducted as many as 22 short courses under the Flagship programs of the Ministry of Human Resource Development, Government of India – GIAN (Global Initiative of Academic Networks). Furthermore, in executing the vision of hon'ble Prime Minister and contributing in implementing the PM-YUVA. IIT Bhubaneswar has been identified as the Nodal E-Hub for the eastern zone.

Placements:

The placement activities in 2016-17 have witnessed many first-time milestones.

- Undergraduate placement is about 85% and M Tech placements are close to 80%.
- Highest foreign CTC offered was 38 lakh in INR
- Highest domestic CTC offered was 21 lakh in INR
- Average salary is 9.5 lakh per annum, a rise of 35% compared to previous year.
- Highest number of job offers are from core industries.
- 75 % rise in placements this year as compared to previous year.
- No. of companies visited; 46 (Major being core).

Women's Grievance Redressal Committee (WGRC):

IIT Bhubaneswar has an active WGRC which conducts several training programmes and workshops for capacity building. These include a workshop on the implementation of "Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act 2013", a workshop "Lighting the lamp in you" addressing women's empowerment and legal awareness, a three-day self-defense training programme as well as various theme based competitions for students and staff of IIT Bhubaneswar. In connection with Women's Day 2017, WGRC organized a health and hygiene awareness programme and talk by Dr. Rajashree Bothale on "A scientific expedition to Antarctica". The event was concluded with cultural programmes by student, staff and faculty members of IIT Bhubaneswar.

Other Activities:

The Institute observed and celebrated several events like the International Yoga Day, 9th Institute day, 71st Independence Day, 154th meeting of All IIT Directors, Rashtriya Ekta Saptah, Vigilance Awareness Week 2016, Ishan Vikas Scheme, 68th Republic Day, E-Summit 2017, Matribhasa Diwas, International Women's Day, All IIT Librarians' Meet, National Science Day, 9th Foundation Day, Yoga day, Teacher's Day besides the regular national events and a large number of students, faculty and staff members participated in the events.

Acknowledgements:

This Institute and its entire activities could not have been carried out well without the full participation and support of all stakeholders – our faculty, students and staff; agencies and industries sponsoring R&D and consultancy projects; professionals from other organizations and our alumni. The Institute is grateful to the Ministry of Human resource Development, Govt. of India for its continued and sustained encouragement and support. There is a lot of work still to be done and I would like to assure that we shall only march forward, year to year.

Prof R. V. Raja Kumar

November 18 , 2017

BOARD OF GOVERNORS

CHAIRMAN



Shri Pankaj Ramanbhai Patel
Chairman & Managing Director
Cadila Healthcare Limited
Ahmedabad

MEMBERS



Prof. Ratnam V. Raja Kumar
Director, Indian Institute of
Technology Bhubaneswar
Toshali Bhawan, Satyanagar,
Bhubaneswar



Shri Sanjay Kumar Singh, IAS
Principal Secretary
Commissioner-Cum-Secretary,
Skill Development & Technical
Education
Govt. of Odisha Bhubaneswar



Prof. S. Parasuraman
Director, Tata Institute of Social
Sciences, Mumbai



Shri Rabindra Nath Nayak
Former CMD, Powergrid
Corporation of India Limited
Gurgaon



Prof. Ramakrishna Ramaswamy
School of Physical Sciences
Jawaharlal Nehru University
New Delhi



Shri R Gopalkrishnan
Director, Tata Sons Ltd.
Mumbai



Prof. R. K. Panda
Professor, School of
Infrastructure
Indian Institute of Technology
Bhubaneswar



Prof. V. R. Pedireddi
Professor, School of Basic
Sciences
Indian Institute of Technology
Bhubaneswar

SECRETARY



Dr. D Gunasekaran
Registrar
IIT Bhubaneswar

FINANCE COMMITTEE

CHAIRMAN

Shri Pankaj Ramanbhai Patel
Chairman & Managing Director
Cadila Healthcare Limited
Ahmedabad

MEMBERS

Prof. Ratnam V. Raja Kumar
Director,
Indian Institute of Technology
Bhubaneswar
Toshali Bhawan, Satyanagar,
Bhubaneswar

Shri R. Subrahmanyam, IAS
Additional Secretary (TE)
Deptt. of Higher Education
Ministry of Human Resource Development
Government of India, Shastri Bhawan
New Delhi

Ms. Darshana M Dabral
JS & FA, Deptt. of Higher Education
Ministry of Human Resource Development
Government of India Shastri Bhawan,
New Delhi

Prof. Ramakrishna Ramaswamy
School of Physical Sciences
Jawaharlal Nehru University
New Delhi

Prof. R. K. Panda Professor, School of
Infrastructure Indian Institute of Technology
Bhubaneswar

SECRETARY

Dr. D Gunasekaran
Registrar
Indian Institute of Technology
Bhubaneswar

BUILDING AND WORKS COMMITTEE

CHAIRMAN

Prof. Ratnam V. Raja Kumar
Director,
Indian Institute of Technology,
Bhubaneswar
Toshali Bhawan, Satyanagar,
Bhubaneswar

MEMBERS

Shri S. R. Sethy
Chief Engineer, Buildings
PWD, Government of Odisha
Bhubaneswar

Shri U. C. Mishra [Till 02.02.2017]
CPM, IIT Project
CPWD, Pokhariput,
Bhubaneswar

Shri R. K. Shami [From 03.02.2017]
Chief Engineer, CPWD
Pokhariput,
Bhubaneswar

Mr. S. Sahu
Sr. General Manager (T)
CESU, Odisha
Bhubaneswar

Prof. R. K. Panda
Head, School of Infrastructure
Indian Institute of Technology
Bhubaneswar

Dr. Prasant Kumar Sahu
Head, School of Electrical Sciences
Indian Institute of Technology Bhubaneswar

SECRETARY

Dr. D Gunasekaran
Registrar
Indian Institute of Technology
Bhubaneswar

SENATE

CHAIRMAN

Prof. Ratnam V. Raja Kumar
Director, Indian Institute of Technology Bhubaneswar

MEMBERS

Prof. Sujit Roy

Dean (F&P)/Head, SMM&ME

Prof. Nirod Chandra Sahoo

Dean (Academic Affairs)

Prof. V. R. Pedireddi

Dean (Students' Affairs)

Prof. S.K. Mahapatra

Dean CE /Dean, AA&IR /Head, SHSS&M

Prof. R.K. Panda

Dean (R&D)/Head, School of Infrastructure

Prof. Saroj K. Nayak

Head, School of Basic Sciences

Dr. P. K. Sahu

Head, School of Electrical Sciences

Dr. Satyanarayan Panigrahi

Head, School of Mechanical Sciences

Prof. Brahma Deo

Head, School of MM&ME & Academic Coordinator

Dr. Sandeep Patnaik

Head, School of Earth, Ocean & Climate Sciences,

Prof. P. C. Pandey

Visiting Professor, School of Earth,
Ocean and Climate Sciences

Prof. Ganapati Panda

Professor, School of Electrical Sciences

Prof. Sadananda Sahu

Visiting Professor, School of Mechanical Sciences

Prof. U.C. Mohanty

Visiting Professor, School of Earth,
Ocean and Climate Sciences

Prof. P. K. Mishra

Visiting Professor, School of Mechanical Sciences

Prof. V. R. Yerikalapudy

Visiting Professor, Basic Sciences (Mathematics)

Prof. Jayanta Pal

Visiting Professor, School of Electrical Sciences

Prof. Ashok Kumar Kapoor

Visiting Professor, School of Basic Sciences (Physics)

Prof. P. K.J. Mahapatra

Visiting Professor, School of Mechanical Sciences

Prof. Brij Kumar Dhindaw

Visiting Professor, School of Minerals,
Metallurgical and Materials Sciences

Prof. K.R. Srivathsan

Visiting Professor, School of Electrical Sciences

Prof. Ajit Kumar Das

Dean, International Institute of
Information Technology (IIIT), Bhubaneswar

Dr. Dillip Kumar Parida

Professor & Head, Department of Oncology,
AIIMS, Bhubaneswar

Dr. Manoranjan Satpathy

Asso. Professor, School of Electrical Sciences

Dr. Partha Sarathi De

Asst. Professor, School of Minerals,
Metallurgical and Materials Sciences

Dr. N.V.L. Murty

Asst. Professor, School of Electrical Sciences

Dr. Amrita Satapathy

Asst. Professor, School of HSS & M

Dr. Shantanu Pal

Asst. Professor, SBS / Warden

Dr. C.N. Bhende

President, Gymkhana

Dr. Rajesh Roshan Dash

Chariman Library / Asst. Professor,
School of Electrical Sciences

SPECIAL INVITTEE

Dr. Naresh Ch. Sahu

Asst. Professor, SHSS&M

STUDENT INVITEES

Ms. Apramita Chand

Ph.D. Research Scholar (School of Basic Sciences)

Mr. Amit Kumar Meena

Vice President, Gymkhana,
(School of Electrical Sciences)

SECRETARY

Dr. D Gunasekaran

Registrar, IIT Bhubaneswar

ADMINISTRATION

Director

Prof. R V Raja Kumar

Deans

Dean (Academic Affairs)

Prof. Nirod Chandra Sahoo
Email: deanac@iitbbs.ac.in

Dean (Faculty and Planning)

Prof. Sujit Roy
Email: deanf@iitbbs.ac.in

Dean (Research & Development)

Prof. R. K. Panda
Email: deanrd@iitbbs.ac.in

Dean (Student Affairs)

Prof. V. R. Pedireddi
Email: deansa@iitbbs.ac.in

Dean (Continuing Education) & Dean (Alumni Affairs and International Relations)

Prof. Swarup Kumar Mahapatra
Email: deance@iitbbs.ac.in
deanaa@iitbbs.ac.in

Head of the Schools

School of Basic Sciences

Prof. Saroj Nayak
Email: hos.sbs@iitbbs.ac.in

School of Electrical Sciences

Dr. Prasant Kumar Sahu
Email: hos.ses@iitbbs.ac.in

School of Earth, Ocean and Climate Sciences

Dr. Sandeep Pattnaik
Email: hos.eoc@iitbbs.ac.in

School of Infrastructure

Prof. R. K. Panda
Email: hos.sif@iitbbs.ac.in

School of Humanities, Social Sciences and Management

Prof. Swarup Kumar Mahapatra
Email: hos.hss@iitbbs.ac.in

School of Mechanical Sciences

Dr. Satyanarayan Panigrahi
Email: hos.sms@iitbbs.ac.in

School of Minerals, Metallurgical and Materials Engineering

Prof. Sujit Roy
Email: hos.smmme@iitbbs.ac.in

Officers

Dr. D. Gunasekaran, Registrar
registrar@iitbbs.ac.in

Shri Debaraj Rath, Joint Registrar
jregistrar@iitbbs.ac.in

Shri Bimalendu Mohanty, Superintending Engineer
se.civil@iitbbs.ac.in

Dr. Bibhuti Bhusan Sahoo, Deputy Librarian
dylibrarian@iitbbs.ac.in

Shri Manas Kumar Behera, Assistant Registrar
ar.acad@iitbbs.ac.in

Dr. Sailendra Narayan Routray, Assistant Registrar
ar.est@iitbbs.ac.in

Shri Pradeep Kumar Sahoo, Assistant Registrar
ar.sp@iitbbs.ac.in

Dr. Naba Kishore Patnaik, Medical Officer
nkpatnaik@iitbbs.ac.in

Shri Rabi Kumar Patnaik, CDPO
tpo.cdc@iitbbs.ac.in

Dr. Sarat Kumar Paikray, Medical Officer

Dr. Mrs. Purarama Pradhan, Medical Officer

Dr. Divya Underkonda, Medical Officer
divyak@iitbbs.ac.in

Shri Biswaranjan Pradhan, AEE (Electrical)
biswaranjan@iitbbs.ac.in

PIC, CHAIRPERSON & CO-ORDINATORS

Dr. Akhilesh Barve

PIC - E-Cell
Email: akhilesh@iitbbs.ac.in

Dr. Amrita Satapathy

Co-ordinator, Newsletter
Email: asatapathy@iitbbs.ac.in

Dr. Animesh Mandal

Co-Chairman, Central Instrumentation Facility
Email: animesh@iitbbs.ac.in

Dr. Ankush Sharma

PIC - Startup Centre
Email: pic.startupcentre@iitbbs.ac.in

Dr. Arun Kumar Pradhan

PIC - Training & Placement [Career Development Cell]
Email: hod.cdc@iitbbs.ac.in

Dr. B. Hanumantha Rao

Co-Coordinator- Extra Academic Activity
Email: bhrao@iitbbs.ac.in

Prof. Brahma Deo

Academic Coordinator, SMMME
Email: bdeo@iitk.ac.in

Dr. Chandrasekhar Bhamidipati

Chairman, JEE
Email: chairman.jee@iitbbs.ac.in

Dr. Dinakar Pasla

PIC - Civil Works
Email: pic.civil@iitbbs.ac.in

Dr. Joy Chandra Mukherjee

PIC - ERP, PIC, Time-Table
Email: pic.erp@iitbbs.ac.in,
pic.timetable@iitbbs.ac.in

Dr. Kaushik Das

Treasurer, Gymkhana
Email: kaushik@iitbbs.ac.in

Dr. M. Sabarimalai Manikandan

PIC - Horticulture
Email: msm@iitbbs.ac.in

Dr. Manas Mohan Mahapatra

Chairman - Central Instrumentation Facility (CIF)
Email: chairman.cif@iitbbs.ac.in

Dr. Mihir Kumar Pandit

PIC - Guest House
Email: pic.guesthouse@iitbbs.ac.in

Dr. Naresh Chandra Sahu

Co-Coordinator UBA Programmes
Email: naresh@iitbbs.ac.in

Dr. Neti V L N Murty

Chairman, CITSC
Email: chairman.citsc@iitbbs.ac.in

Dr. Niladri Bihari Puhon

PIC - Examination
Email: pic.exam@iitbbs.ac.in

Dr. Prasant Kumar Sahu

PIC - Network and Security Service
Email: pic.networks@iitbbs.ac.in

Dr. Pravas Ranjan Sahu

Chairman – CPMC; PIC - Electrical Works
Email: prs@iitbbs.ac.in, pic.electrical@iitbbs.ac.in

Dr. Raj Kumar Singh

PIC - Rajbhasa Ekak
Email: pic.rajbhasa@iitbbs.ac.in

Dr. Rajan Jha

Chairman, JAM
Email: chairman.jam@iitbbs.ac.in

Dr. Rajesh Roshan Dash

Chairman, Central Library; PIC - Transport Services
Email: chairman.library@iitbbs.ac.in,
pic.tran@iitbbs.ac.in

Dr. Remya Neelancherry

Chairperson, Women's Grievance Redressal Committee

Email: chairperson.wgrc@iitbbs.ac.in

Dr. Sankarsan Mohapatro

President, Gymkhana

Email: president.sg@iitbbs.ac.in

Dr. Sathyanarayana Ayyalasomayajula

PIC - E-mail Admin

Email: admin@iitbbs.ac.in;sathya@iitbbs.ac.in

Dr. Satyanarayan Panigrahi

PIC- IPR

Email: pic.ipr@iitbbs.ac.in

Dr. Snehasis Chowdhuri

Coordinator - EAA

Email: coordinator.eaa@iitbbs.ac.in

Dr. Soobhankar Pati

Coordinator - Alumni Affairs & International Relations; Coordinator - Alumni Cell

Email: spati@iitbbs.ac.in

Dr. Srinivas Bhaskar Karanki

PIC - Counselling Services

Email: counselling@iitbbs.ac.in

Dr. Subhransu Ranjan Samantaray

Chairman, GATE

Email: chairman.gate@iitbbs.ac.in

Dr. Sumanta Haldar

PIC - Web Services

Email: pic.web@iitbbs.ac.in

Prof. Sujit Roy

Chairman - Institute Purchase Committee

Email: sroy@iitbbs.ac.in

Prof. V. R. Pedireddi

PIC - Permanent Campus; PIC - Security

Email: pic.argul@iitbbs.ac.in;

Dr. Yogesh G. Bhumkar

PIC - Institute Seminar

Email: pic.seminar@iitbbs.ac.in

Warden**Dr. Shantanu Pal**

Warden

Email: warden@iitbbs.ac.in

Dr. Meenu Ramadas

Assistant Warden

Email: meenu@iitbbs.ac.in

Dr. Srinivas Bhaskar Karanki

Assistant Warden

Email: skaranki@iitbbs.ac.in

Dr. Yogesh G. Bhumkar

Assistant Warden

Email: bhumkar@iitbbs.ac.in

Dr. Barathram Ramkumar

Assistant Warden

Email: barathram@iitbbs.ac.in

Dr. Sourav Sil

Assistant Warden

Email : souravsil@iitbbs.ac.in

STAFF

Director's Office

Shri K. Saikiran [Private Secretary]
Shri Surendranath Patra [Secretary]
Shri Ramesh Chandra Biswal [Driver]

Registrar's Office

Shri Pradeep Kumar Pattanaik [Private Secretary]

Dean Faculty & Planning Office

Shri Satyabrota Ghosh [Junior Superintendent]

Dean Continuing Education Office

Shri Subhranshu Sekhar Patra [Junior Assistant]

Central Library

Ms. Sangita Sahu [Sr. Library Information Asst.]

CITSC

Shri Bhartendu Mishra [Associate Network Administrator]
Shri Durgaprasad Acharya [Associate Network Administrator]
Ms. Shima Kausar [Web Development Assistant]
Shri Chandra Vadde [Programmer]
Shri Abdul Khader LKM [System Administrator]

Basic Sciences

Mr. Tarapada De [Jr. Technician]
Shri Nihar Ranjan Panda [Jr. Technical Superintendent]
Shri Samir Kumar Jena [Junior Laboratory Assistant]

Electrical Sciences

Shri Bikram Ranjan Behera [Junior Technician (JT)]
Shri Dillip Kumar Biswal [Junior Technician (JT)]
Er. Madhusmita Divyadarsini Mohapatra [Junior Technical Superintendent]
Er. Santosh Kumar Sahoo [Junior Technical Superintendent (JTS)]
Er. Birata Keshari Nanda [Junior Technician]
Shri Gouri Shankar Mishra [Junior Assistant]
Shri Raimohan Behera [Junior Technician (JT)]
Shri Brajamohan Mohapatra [Junior Technician]

Infrastructure

Miss. Souravi Behera [Junior Assistant]
Shri Jitendriya Raul [Junior Technician]
Shri Samir Kumar Sethi [Junior Technical Superintendent]
Smt. Akasmika Sarangi [Junior Technician]

Smt. Supriyaran Mohanty [Junior Technical Superintendent]

Mechanical Sciences

Mr. Dillip Kumar Sahoo [Jr. Technician]
Mr. Sidhartha Biswal [Jr. Assistant]
Mr. Sunil Kumar Pradhan [Jr. Technician]
Shri Aloka Kumar Nayak [Junior Technical Superintendent]
Shri Malaya Kumar Routray [Jr. Technical Supdt.]

Mineral Metallurgical Materials engineering

Shri Subhranshu Sekhar Patra [Junior Assistant]

Academic Section

Mr. Manas Ranjan Das, Junior Assistant
Mr. Satyajit Sarangi, Jr. Superintendent
Shri Abhimanyu Mahal [Jr. Superintendent]
Shri Susanta Kumar Prusty [Junior Assistant]

Engg. Cell

Er. Dipti Ranjan Pattanaik [Junior Engineer (Civil)]
Shri Abhisek Das [JE (Electrical)]
Shri Gajendra Behera [Junior Engineer (Electrical)]
Shri Rupesh Kumar Pradhan [Junior Engineer (Civil)]

Establishment

Mrs. Jignyasha Behera [Jr. Superintendent]
Ms. Smruti Smaranika Kumar [Junior Assistant]
Shri Arup Kumar Pandab [Junior Assistant]
Shri Yamuna Prasad [Junior Superintendent]

Finance and Account Section

Shri Ajit Kumar Sahoo [Jr. Account's officer]
Mr. Raghunath Behera [Jr. Accounts Officer]
Shri Sambit Ranjan Mohanty [Jr. Superintendent]

ABOUT IIT BHUBANESWAR

Indian Institute of Technology is established by the government of India in 2008 under The Institutes of Technology Act 1961 with Amendments upto 2012. The Act was passed in the Lok Sabha on 24 March 2011 and by the Rajya Sabha on 30 April 2012. IIT Bhubaneswar became an Institute of National Importance from 29 June 2012 with notification of Amendment in the Institutes' of Technology Act, 1961 by the Ministry of Human Resource Development, (Department of Higher Education) Government of India published in the Gazette of India dated 2 July 2012.

The Institute started functioning from the campus of IIT Kharagpur on 22nd July 2008 and shifted its operation to the city of Bhubaneswar on 22nd July 2009. The Institute has adopted the concept of Schools rather than Departments for promoting interdisciplinary research. At present there are 7 schools offering academic programme. Presently the academic programmes of Institute include B. Tech. (Hons.) in Computer Science, Civil, Electrical, ECE , Mechanical Engineering, Metallurgical and Materials Engineering. The institute is also starting Dual degree courses in Mechanical and civil with intake of 10 from academic year 2016-17. The institute offers 2 years M.Sc and M. Tech courses. The Institute started the Doctoral programme from the academic session 2009-2010 and offer admission to the joint M. Tech-Ph.D. Programme from July 2012.

The Institute has broadly adopted the course curricula, syllabi and other academic regulations of IIT Kharagpur, the mentor institute. The pedagogy emphasizes participatory, student centric and

participatory learning. The academic programmes are equipped with very relevant courses for a budding entrepreneur, the entire institute may be used as a technology incubator and the institute has a 40,000 sqft Startup space for students to avail.

The institute is committed to provide holistic education aimed at producing tomorrow's leaders, nurturing personality, creativity, innovative mindset and capability be it in Science or Technology or Management or in other domains of human excellence. It provides ample opportunity for a young mind to take any path and excel apart from providing opportunity to research in a chosen area. Institute is also committed to create a wellness environment, including in green, clean and healthy environment, quality education, efficient and effective governance, effective health services, security, equality and enlightenment.

The Institute has started all academic operations from permanent campus at Arugul from academic session 2015-16. The Institute provides well qualified faculty, state-of-the-art infrastructure facilities creating a conducive environment for rapid growth of the students' skill sets in all aspects of the personality – academic, research, cultural, sports, ethical and social responsibility. Our Institute's numerous collaborations with foreign universities, industries and institutions across the world provides a scope to the students to be exposed to the global trends in education, research and industry. Ample opportunities in both national and international stints for internships, research projects and exchange programs has been a prominent trend among our students. In the past 10

years the Institute Co-offered degrees to 600 students (B.Tech, M.Tech, Phd, Msc etc.)

During last 9 years the Institute's faculty members and students have contributed to creating knowledge by publishing more than 1150 original research papers in reputed national and international Journals and Conferences. Students also won several awards in conferences and competitions.

It has been ranked well amongst the top engineering institutions in the country. IIT Bhubaneswar was ranked 18th in engineering category by the National Institutional Ranking Framework in 2017. IIT Bhubaneswar is also ranked 22nd by India Today in 2017, 16th by i3RC Times Engineering Institute Rankings 2017, and 11th position by Edu-Rand among engineering colleges in 2017.

Vision & Mission

Indian Institute of Technology Bhubaneswar inherits the brand name IIT. This fact itself charges the Institute not only to be worthy of its inheritance but also to be distinctive and distinguished on its own by scripting a path towards novelties. Presented below are the statements for Vision, Mission, Goals & Strategies (to achieve the Goals) and the Core Values of IIT Bhubaneswar.

Vision

"We will be a highly respected Institute in the world for our distinctive knowledge"

Mission

- To shape ourselves into a learning community where we work, listen and respect each other.
- To encourage and facilitate faculty, researchers and students to work synergistically across discipline boundaries.

- To infuse a sense of excitement in students in innovation & invention, design & creation and entrepreneurship.
- To develop and pursue curricula those are dynamic, flexible and holistically designed to facilitate creativity and cognitive thinking.
- To strive for productive partnership between the industry and the Institute.

Goals and Strategies

Promoting globally competitive academic programs and ambience that support intellectual growth and skill acquisition.

- Promote skills to critically analyze and the competency to effectively synthesize and apply new knowledge in curriculum development and delivery.
- Address the changing needs of the region, state, nation and world in the learning process.
- Create a diverse, fully-engaged, learner-centric campus environment.
- Strengthen the national and international competitiveness of the students by facilitating international internships, industrial project opportunities, student exchange and study abroad participation.
- Put equal emphasis on discovery science and solution science.
- Bring research into class rooms.

Expanding world-class interdisciplinary research and scholarly endeavours.

- Promote distinctive research programs that address the real life as well as futuristic issues.
- Strengthen integrated and synergistic

interdisciplinary research within and across the various Schools.

- Broaden and strengthen the Institute's research base and support infrastructure by engaging with partners from all sectors of the economy.
- Create a talent pool of world-class faculty members, postdoctoral fellows, doctoral and post-graduate students.
- Create an excellent support staff structure and regularly upgrade their competencies.
- Evolve itself into a repository of intellectual properties and prototypes on a globally competitive basis.

Strengthening and providing support in sustaining a healthy society by improving the quality of life through application of technology.

- Establish an institutional structure to facilitate and promote community engagement and societal enterprise.
- Include community engagements into the Institute's promotional guidelines.
- Encourage and reward faculty and students' efforts in community development. Acknowledge efforts and gains in official statements and transcripts.

Establishing a strong and sustainable economic base for the Institute.

- Encourage and facilitate sponsored projects, consultancy and technology transfer for creating a sound corpus.
- Utilize brand value for attracting endowment for sponsored chairs and scholarships.
- Support entrepreneurial endeavours especially in commercializing emerging technologies

evolved out of the Institute labs through public private partnership.

Building up a healthy and robust IIT Bhubaneswar family.

- Promote and sustain a positive working environment and maintain a significantly improved service quality.
- Improve staff support through expanding professional development opportunities.
- Perform Institute's corporate social responsibilities with utmost sincerity.
- Nourish and sustain vibrant co- and extra-curricular activities.
- Create an ambience for bonding through equity, trust and mutual respect.

Core Values

- Respecting students as budding engineers and scientists embarking on a journey towards innovation and invention.
- Nurturing freedom of thought and expression and encouraging sense of inquiry.
- Empowering each person to rise to his/her full potential.
- Respecting the opinions and rights of others.

About Campus

The permanent campus of IIT Bhubaneswar spreads over 936 Acres of land. It is situated at the foot of Barunei Hill, which is famous for its rich history. The campus provides a unique serene and pollution free academic environment. The campus includes Academic area, Residential area and area for Training centres and Research Park. The students are also staying in NISER hostel.

Mahanadi Hall of Residence

Boys Hostel with capacity of 800 students Mess Facilities; Modern and well equipped kitchens; Gym and Physical Fitness; Basketball and Volleyball Courts; Badminton and Table Tennis Court; Media Entertainment Room; Solar Lighting Systems; 24 Hours high alert security system; Gigabit Ethernet to individual hostel rooms; ATM facilities



Subarnarekha Hall of Residence

Girls Hostel with capacity of 200 students Independent mess facilities; Modern and well equipped kitchens; Basketball and Volleyball Courts; Solar lighting systems; 24 hours high alert security system; Gigabit Ethernet to individual hostel rooms.



Health center

Dispensary - Male
Dispensary - Female
Round the clock availability of experienced doctors
Well equipped ambulances
Paramedical staff nurses
Life-saving drugs.



Sports Facility

- Cricket field
- Volleyball courts
- Basketball courts
- Table tennis rooms



Residential facility for Faculty and Staff

Faculty quarters block having 80 quarters 40 room guest house Staff quarter block having 40 quarters Mini-Market 200 seated community centre



Guest House

The guest house is comprised of a total of 42 single and double bedded air conditioned rooms with attached bathrooms and all modern amenities. Online booking and e-payment facilities are available.



Green Campus Initiatives

The horticulture activity was started in 2015 to create the IIT Bhubaneswar campus with full of greenery and more vibrant, including exotic and indigenous deciduous and coniferous trees and plants (long-life tall trees, flower and medicinal trees, fruit trees, palm and pine trees). For the next-five plan, the main focus of the centre for horticulture is to create native landscaping in newly constructed areas and near buildings with lush green gardens adorned with ornamental and medicinal plants that maintain the clean and healthy environment for the students and residents of the campus. Autonomous water irrigation



system will be set up in the campus to saving both water and expenditures. The horticulture section is strict about using only organic fertilizers.

IIT Bhubaneswar is Ragging Free

The Institute strongly adheres to anti-ragging policy and implements it through true spirit of actions. The institute takes several timely actions including close monitoring to ensure the system is in place. Also

the administration, concerned faculty and staff conducts several meetings with the newly joined freshers as well as senior students appraising them about the policy of the institute and counselling them about the good practices of interaction with new students and development of brotherhood towards personality building.



ACADEMICS

In the Academic Year 2016-17, the Institute started new B.Tech. programme in Electronics & Communication Engineering and 5-year Dual degree programme in 4 disciplines, two each in Schools of Mechanical Sciences and Infrastructure. The Intake of the B. Tech. students increased from 180 to 260. With this the number of programmes at the institute includes B. Tech. programmes in 6 branches of Engineering (Computer Sciences, Electrical, Electronics & Communications, Mechanical, Civil, and

Metallurgical and Materials), 5-year Dual degree programme in 4 disciplines, M. Tech. in 8 specializations and M. Sc. in 5 disciplines (Mathematics, Physics, Chemistry, Geology and Atmosphere & Climate Sciences) besides Ph.D. in almost all the disciplines ranging across the B. Tech., M. Tech. and M. Sc. Programmes. The Institute has 1237 Students (B. Tech. - 715, M. Tech. - 170, M. Sc. - 145 and Ph. D. - 207).



The Institute has taken several innovative initiatives on raising global class faculty, fostering

teaching-learning excellence, infrastructure building, collaborative research, entrepreneurship and startup activity.

Annual Report 2016-2017

The 5th Annual Convocation was held on Tuesday, 30th August 2016 in the Community Centre, Argul Campus, IIT Bhubaneswar. Professor Surendra Prasad, Former Director, IIT Delhi and currently Chairperson, National Board of Accreditation (NBA), graced the occasion as Chief Guest. The Chairman, Board of Governors, Shri Pankaj Ramanbhai Patel and the Director IIT Bhubaneswar Prof. Ratnam V. Raja Kumar and other dignitaries were present on the occasion. Total 241 students (110 B. Tech., 55 M. Tech., 69 M.Sc., and 7 Ph.D.) students were awarded degrees during the occasion. Mr. Priyam Dey from B. Tech.

(Electrical Engineering) was awarded the President of India Gold Medal for topping among all B. Tech. branches, Ms. Shubhashree Subudhi of M.Tech. (Thermal Science & Engineering) was awarded the Director's Gold Medal for topping among all M.Tech. Programmes and Ms. Shweta Singh of M.Sc. (Atmosphere and Ocean Sciences) was awarded the Director's Gold Medal for topping among all M.Sc. disciplines. Several other medals and endowment awards were also distributed. The graduates were awarded their certificates and were charged by the Director.

Academic Information for 2016 - 17

Programmes Offered:

4-year Programme	B.Tech.	Civil Engineering, Electrical Engineering, Mechanical Engineering, Computer Science & Engineering, Metallurgical and Materials Engineering, Electronics and Communication Engineering
5-year Dual Degree (B.Tech. + M.Tech)		B. Tech. in Mechanical Engineering + M. Tech. in Mechanical System Design, B. Tech. in Mechanical Engineering + M. Tech. in Thermal Science & Engineering, B. Tech. in Civil Engineering + M. Tech. in Structural Engineering, B. Tech. in Civil Engineering + M. Tech. in Transportation Engineering
M. Tech. Programme		Climate Science and Technology, Electronics and Communication Engineering, Transportation Engineering, Structural Engineering, Materials Science and Engineering, Mechanical Systems Design, Thermal Science and Engineering, Power System Engineering
Joint Programme	M.Sc.- Ph.D.	Physics, Chemistry, Mathematics, Geology, Atmosphere and Ocean Sciences
Ph. D. Programme		School of Basic Sciences, School of Earth, Ocean & Climate Sciences, School of Electrical Sciences, School of Humanities, Social Sciences and Management, School of Infrastructure, School of Mechanical Sciences, School of Minerals, Metallurgical & Materials Engineering

Year-Wise Sanctioned (Approved) Intake

Academic Programme	2016-17	2015-16	2014-15	2013-14
B.Tech & Dual Degree	260	180	180	160
M. Tech.	130	130	130	126
Joint M.Sc. - Ph.D.	100	100	100	80
Ph.D.	270			

Year wise admitted strength of students in various academic programmes

Year	B.Tech.	M.Tech.	M.Sc.	Ph.D.	Total
2010-11	126			25	151
2011-12	112			21	133
2012-13	113	42		50	205
2013-14	148	50	57	44	299
2014-15	164	71	71	48	354
2015-16	162	74	76	58	370
2016-17	249	106	73	61	489

Total Actual Student Strength (2016-17)

Programme	No. of Male Students	No. of Female Students	Total Students	Within State	Outside State	Economically Backward	Socially Backward (SC, ST, OBC-NCL)
B.Tech	656	62	718	25	693	184	372
M.Tech	133	35	168	49	121	52	75
M.Sc.	104	41	145	15	130	49	72
Ph.D	164	47	211	119	92	86	70

Course wise student strength

B. Tech. & Dual Degree

Sl.No	Programme	Approved Intake	No. of students admitted in 2016-17		Total number of students in 2016-17		No. of Students passed in 2015-16		No. of Students passed in 2016-17	
			M	F	M	F	M	F	M	F
1	B.Tech. (Civil Engineering)	40	37	0	127	12	26	4	28	5
2	B.Tech. (Electrical Engineering)	40	36	4	135	20	37	6	29	8
3	B.Tech. (Computer Science and Engineering)	40	38	1	150	19			37	3
4	B.Tech. (Electronics and Communication Engineering)	40	32	6	32	6				
5	B.Tech. (Mechanical Engineering)	40	39	0	146	2	37	0	36	1
6	B.Tech. (Metallurgical and Materials Engineering)	20	17	2	36	2				
7	Dual Degree (B. Tech in Mechanical Engineering + M. Tech. in Mechanical System Design)	10	9	0	9	0				
8	Dual Degree (B. Tech. in Mechanical Engineering + M. Tech. in Thermal Science & Engineering)	10	10	0	10	0				
9	Dual Degree (B. Tech. in Civil Engineering + M. Tech. in Structural Engineering)	10	7	1	7	1				
10	Dual Degree (B. Tech. in Civil Engineering + M. Tech. in Transportation Engineering)	10	10	0	10	0				

Annual Report 2016-2017

M.Tech.

Sl.No	Name of Programme	Approved Intake	No. of students admitted in 2016-17		Total number of students in 2016-17		No. of Students passed in 2015-16		No. of Students passed in 2016-17	
			M	F	M	F	M	F	M	F
1	Electronics and Communication Engineering	18	12	4	17	7	10	4	4	3
2	Power System Engineering	18	12	5	16	8	10	4	2	2
3	Mechanical Systems Design	18	16	1	29	1	1	0	10	0
4	Thermal Science and Engineering	18	18	0	31	1	4	3	10	1
5	Structural Engineering	12	6	4	11	4			3	0
6	Transportation Engineering	10	4	4	6	7			2	0
7	Climate Science and Technology	18	4	3	9	6	3	2	5	3
8	Materials Science and Engineering	18	10	3	22	5	8	1	11	2
9	Civil Engineering						5	0	2	0

M.Sc.

Sl.No	Name of Programme	Approved Intake	No. of students admitted in 2016-17		Total number of students in 2016-17		No. of Students passed in 2015-16		No. of Students passed in 2016-17	
			M	F	M	F	M	F	M	F
1	Chemistry	20	10	6	23	10	8	5	13	4
2	Physics	20	10	6	23	10	14	1	13	4
3	Mathematics	20	14	5	26	11	10	5	11	6
4	Geology	20	9	6	23	8	11	4	14	2
5	Atmosphere and Ocean Sciences	20	5	2	13	2	4	7	4	0

Ph.D.

Sl. No	Name of School	Sanctioned (Approved) Intake	No. of students admitted in 2016-17		Total number of students		No. of Students passed in 2015-16		No. of Students passed in 2016-17	
			M	F	M	F	M	F	M	F
1	Basic Sciences	270	11	1	43	13	3		4	1
2	Earth, Ocean & Climate Sciences		6	2	16	9				
3	Electrical Sciences		13	3	33	9	2		2	
4	Humanities & Social Sciences		1	0	3	3		1		
5	Infrastructure		7	1	23	3	1		1	
6	Mechanical Sciences		12	0	23	0			1	
7	Minerals, Metallurgical & Materials Engineering		3	1	12	4				
			53	8	153	41	6	1	8	1

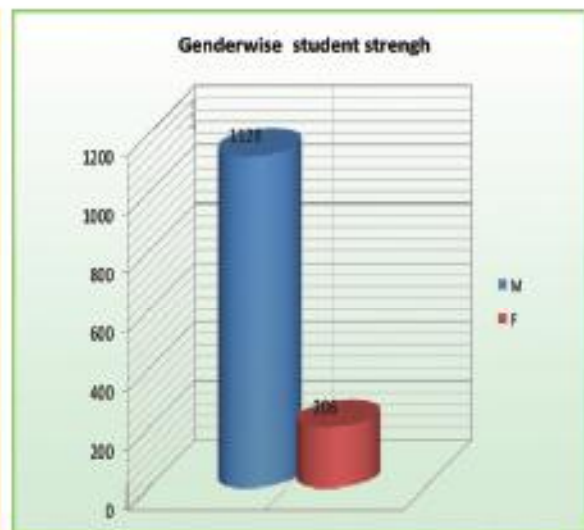
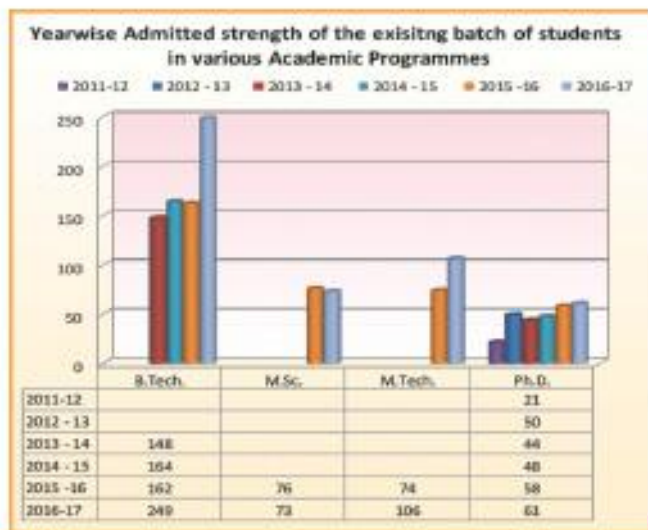
a. Total fees per students for academic year 2016-17

	General	OBC-NCL	SC/ST	Sponsored
B.Tech.	Rs. 1,43,500	Rs. 1,43,500	Rs. 43,500 *	Not applicable
M.Tech.	Rs. 48,500	Rs. 48,500	Rs. 43,500	Rs. 68,000
M.Sc.	Rs. 43,500	Rs. 43,500	Rs. 43,500	Not applicable
Ph.D.	Rs. 46,000	Rs. 46,000	Rs. 43,500	Rs. 45,500

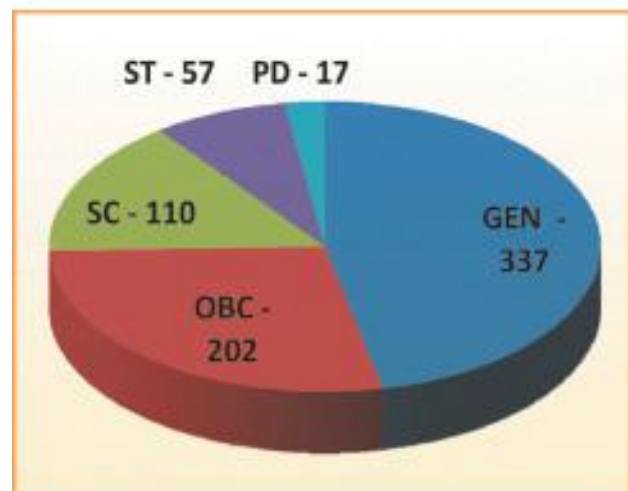
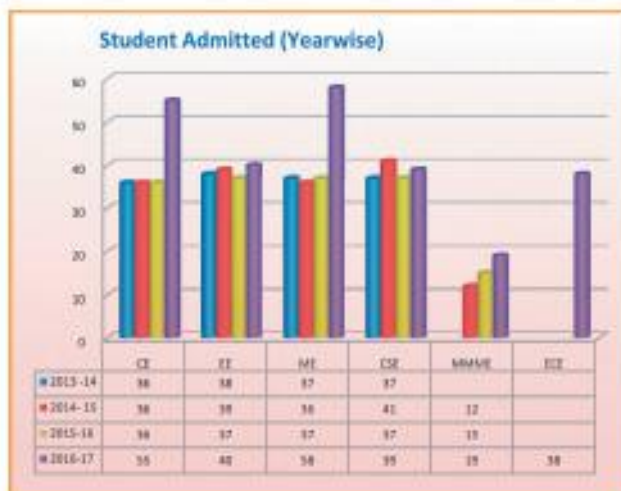
*including PwD candidate

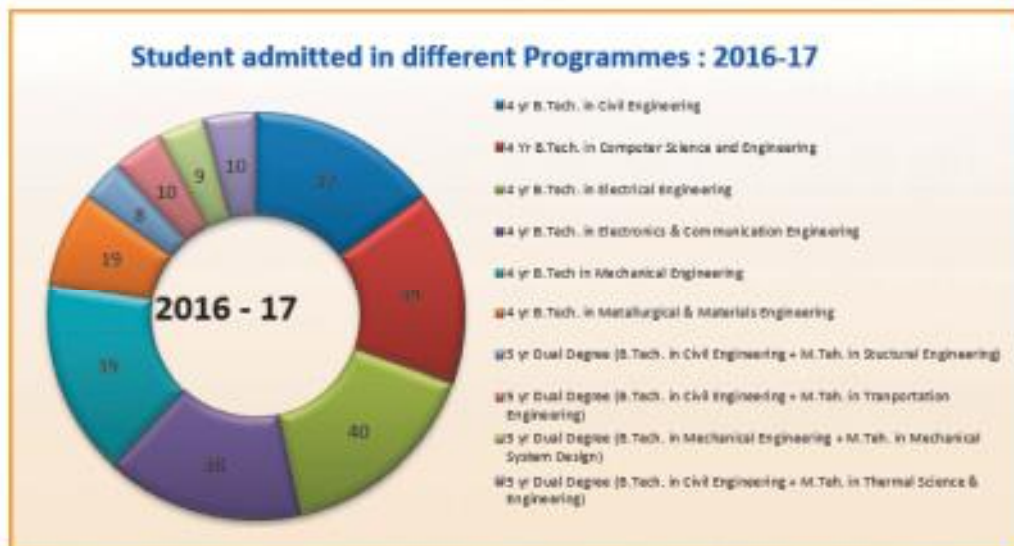
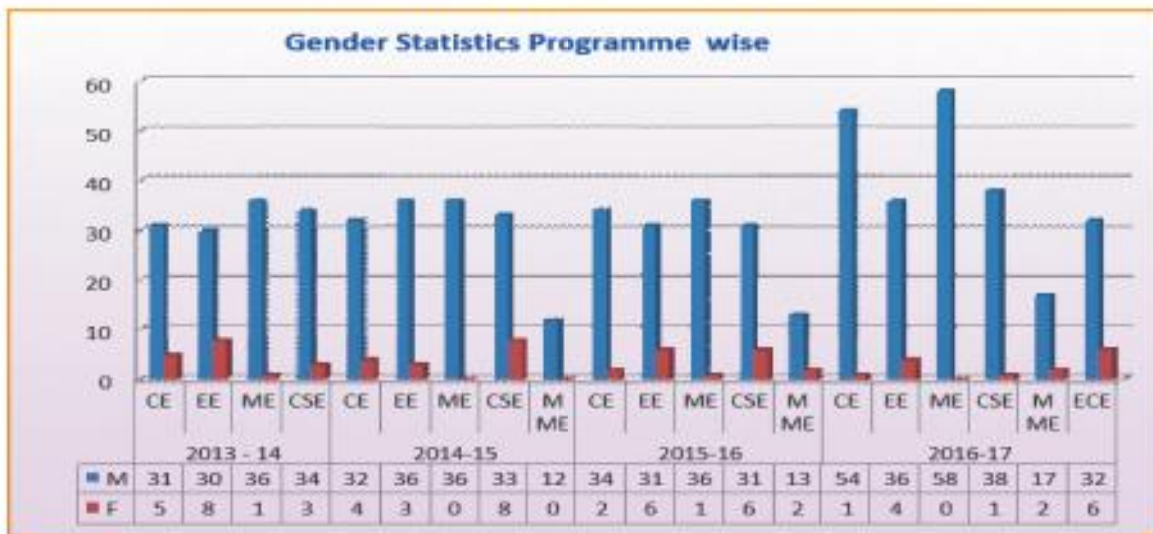
Graphical Representation of different Academic Programmes up to 2016-17

(Based on admission records)

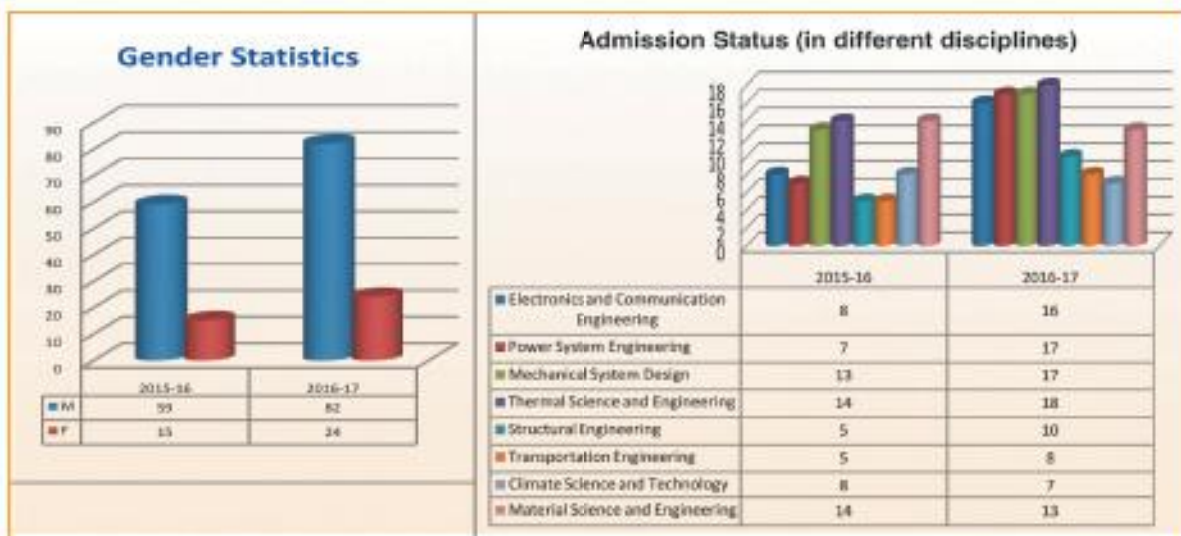


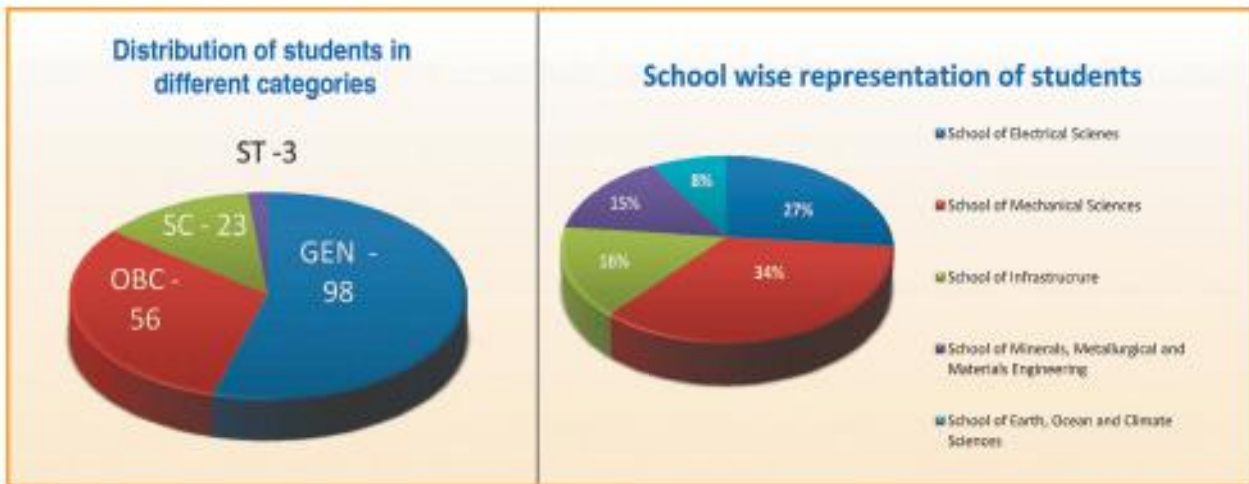
B.Tech. & Dual Degree Programme



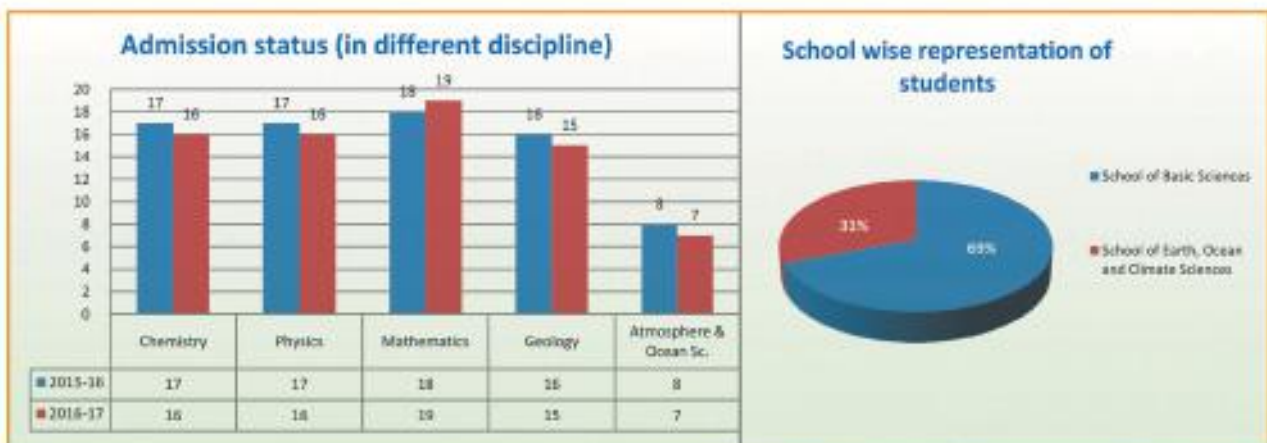
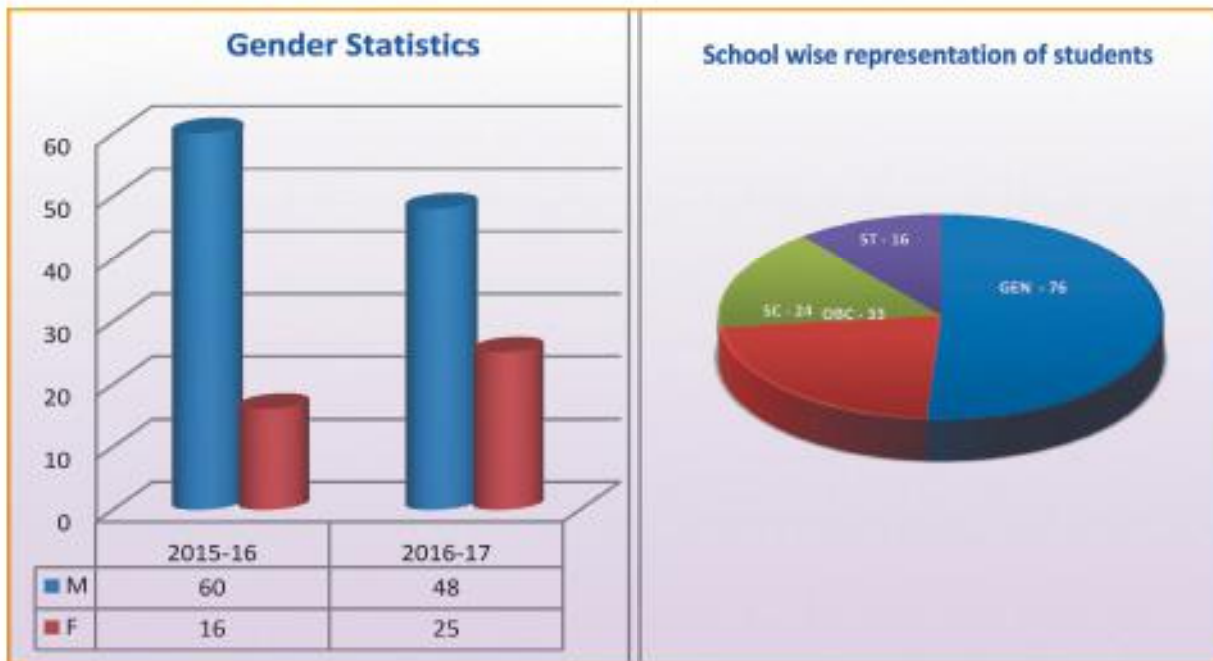


M. Tech. Programme

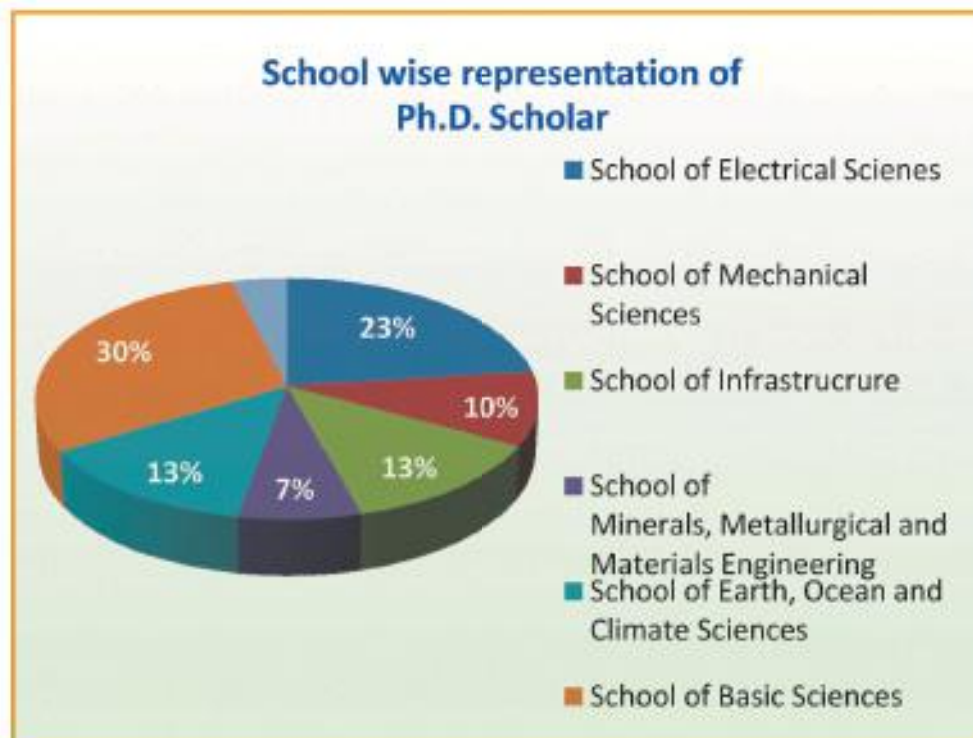
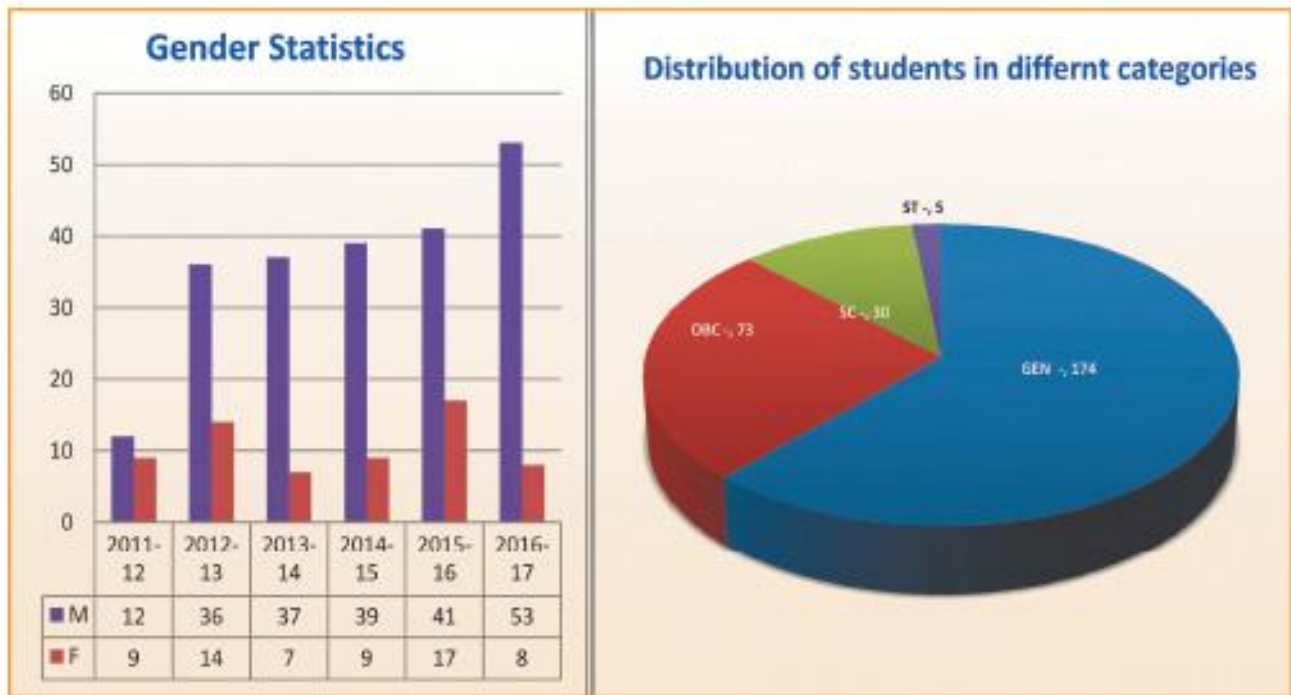




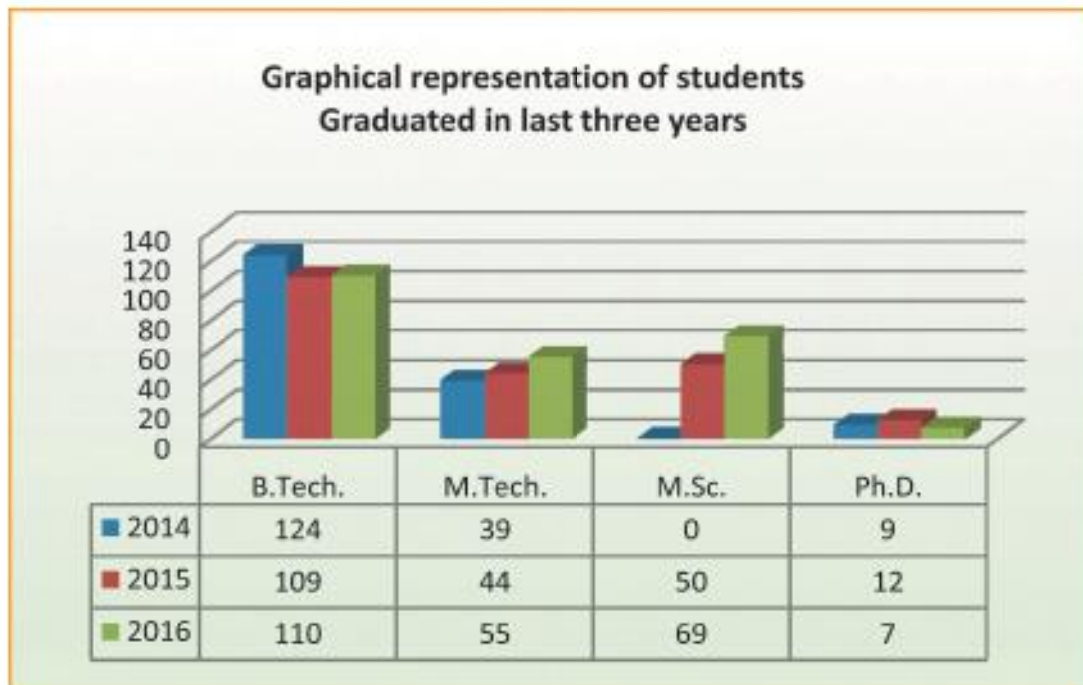
Joint M. Sc. – Ph.D. Programme



Ph.D. Programme



GRADUATION DATA



GRADUATION DATA 2016

Disciplines	Ph.D.	M. Tech.	M.Sc.	B. Tech.
Civil Engineering	1	5	-	30
Electrical Engineering	2	-	-	43
Electronics & Communication Engineering	-	14	-	-
Mechanical Engineering	-	-	-	37
Material Science & Engineering	-	9	-	-
Climate Science & Technology	-	5	-	-
Mechanical System Design	-	1	-	-
Power System Engineering	-	14	-	-
Thermal Science and Engineering	-	7	-	-
School of Basic Sciences	3	-	-	-
School of Electrical Sciences	-	-	-	-
School of Humanities & Social Sciences & Management	1	-	-	-
School of Infrastructure	-	-	-	-
Atmosphere and Ocean Sciences	-	-	11	-
Chemistry	-	-	13	-
Geology	-	-	15	-
Mathematics	-	-	15	-
Physics	-	-	15	-
Total :	7	55	69	110

Annual Report 2016-2017

GRADUATION DATA 2016 -Scholarships

Programme	Name of Scholarship	2016 (Batch)	2015 (Batch)	2014 (Batch)	2013 (Batch)
B. Tech.	MCM Scholarship 2016-17	49	40	41	37
	Free Studentship 2016-17	---	16	9	8
	Financial Assistance	4	2	1	1
Joint M.Sc. – Ph.D.	INSPIRE & Other Scholarship	16	12	--	--

Participation in Conference, Awards & Medals

Programme	National Conference	International Conference	Awards & Medals
B. Tech.	0	0	4
M. Tech.	6	0	7
Joint M. Sc. – Ph.D.	0	0	6
Ph.D.	37	15	---

Academic Events in 2016-17

Programme	Date
Senate Meetings	16.05.2016
	19.08.2016
	15.12.2016
	07.04.2017
	16.05.2017
Convocation	30.08.2016



Schools

About the School

The School of Basic Sciences is an unique school with emphasis on interdisciplinary research in areas of Physics, Chemistry, Mathematics and Biosciences. Presently SBS offers programs as follows:

- Joint M.Sc.- Ph.D. in Physics, Chemistry and Mathematics.
- Ph.D. in Physics, Chemistry, Mathematics and Biosciences.
- Post-doctoral program

The broad areas of research in Physics includes Theoretical and Experimental High Energy Physics, Theoretical and Experimental Condensed Matter Physics, Optics and Photonics, Atomic Molecular and Surface Physics, Non-equilibrium Statistical Mechanics, Nanoscience and Nanotechnology, and Novel Material search.

The research in Chemistry discipline spans over the areas of Physical, Organic, Inorganic and Green Chemistry: the design and development of metal complexes towards catalysis and anti-cancer drugs, functionalization of nanoparticles and nanoparticles based biosensors, coordination chemistry, magnetic materials and magnetostructural correlation and bio-inspired coordination chemistry, catalysis for fine chemicals,

School of Basic Science (SBS)



State of the art Facilities

The School has procured state-of-art equipment to pursue advanced research. Following advanced instrumentation facilities have been established through central instrumentation facility:

- X-ray diffractometers (XRDs)
- Scanning Electron Microscope (SEM)
- Raman Spectrophotometer
- Rheometer
- Nuclear Magnetic Resonance (NMR)
- Physical Properties Measurement System (PPMS)
- Gas Chromatography–Mass Spectrometry (GC-MS)

IIT Bhubaneswar is a member of both Belle and Belle II collaborations at KEK, Japan and a member of CMS collaboration, at Large Hadron Collider (LHC), CERN, Geneva. The School is fully equipped with a central computing server system and integrated and functional for all sorts of high computing research and analysis.

Laboratories

The School of Basic Sciences presently has the following laboratories equipped with relevant modern equipment and instruments:

- Atomic Molecular and Surface Physics Lab
- Biochemistry Lab
- Bioinstrumentation Lab
- Chemical Biology Lab
- Coordination Chemistry and Materials Chemistry Lab

molecular recognition for the synthesis of exotic organic and organic-inorganic hybrid materials.

The main areas of research in Mathematics are Analysis, Applied Functional Analysis, Complex dynamics and Fractals, Matrix Theory, Graph theory, Optimization Theory, Queueing Theory, Applied Probability Models, Computational Fluid Dynamics, Numerical Methods, and Soft Computing. The research work in biosciences is focused on G-protein coupled receptor biology, peptide/protein design and engineering, molecular modelling, computational biology, the structure-function studies of various proteins of eye lenses, leprosy, tuberculosis and mechanism and regulation of a class of enzyme ATPases involved in various biological pathways and human diseases. The School is proud to have two Centres of Excellence, namely MHRD Centre of Excellence for Novel Energy Materials (CENEMA) and S. K. Dash Centre of Excellence of Bio-sciences and Engineering & Technology (SKBET).

Statistics:

No of faculty:	29
No. of PhD Students enrolled :	67
Number of Ph.D.	
Students Graduated :	11
Number of M.Sc. Students:	101
Number of	
Publications in 2016:	106
No. of Patents filled:	2

- Coordination Chemistry Lab
- Experimental High Energy Physics Lab
- M.Sc. Chemistry Lab
- M.Sc. Mathematics Lab
- M.Sc. Physics Lab
- Magnetic Materials Lab
- Nano Photonics & Plasmonics Lab
- Nanostructure & Soft Matter Physics Lab
- Organic Chemistry Lab
- Organic Synthesis Lab
- Protein Chemistry Lab
- Quantum Chemistry Lab
- Renewable Energy Lab
- Supramolecular Chemistry Lab
- Undergraduate Chemistry Lab
- Undergraduate Physics Lab

About the School

Established in 2012 with a vision of generating highly skilled manpower in different specialized areas of Earth System Sciences.

Presently SEOCS offers programs as follows:-

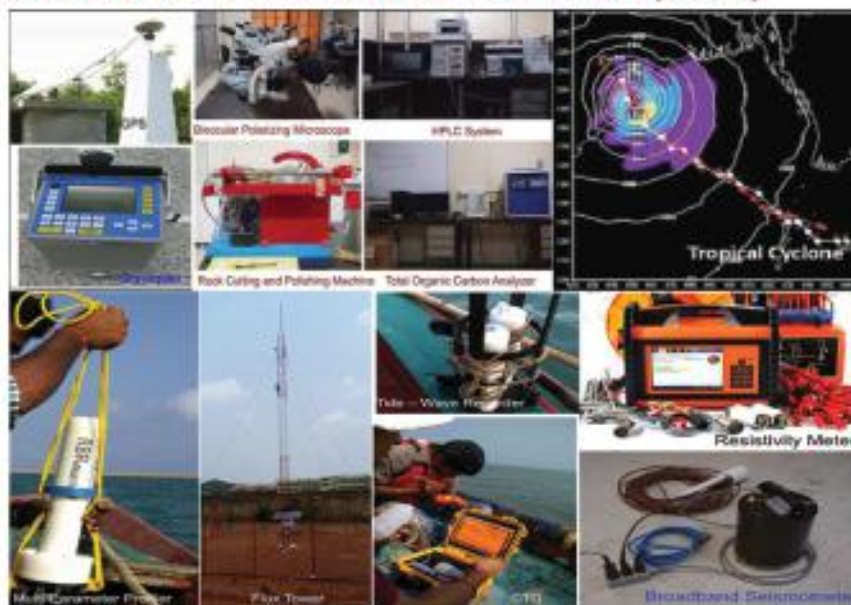
- Joint M.Sc. – Ph.D. in Geology,
- Joint M.Sc. – Ph.D. in Atmosphere and Ocean Sciences,
- M. Tech. in Climate Science & Technology-
- Ph.D. Programmes

Experienced and motivated faculty members with varied specializations has been one of the strengths of the School. Currently, the specializations of these faculty members include geochemistry, hydrogeology and watershed management, active and passive source seismology and geophysics, paleoceanography & paleoclimatology, remote sensing & GIS applications, atmospheric aerosols & climate, data assimilation & analysis, ocean circulations & modeling, mesoscale modeling and prediction of extreme weather events, tropical cyclones, storm surges & air-sea interactions, tropical waves, modelling inter-tropical convergence zone, intrapersonal variability, monsoon dynamics and climate change etc.

Statistics

No. of faculty :	11
No. of Ph.D. students enrolled (2016-2017):	7
No. of M.Sc. students:	34
No. of M.Tech students in Climate Science and Technology (2016-2018) :	21
No of Publications in 2016:	36

School of Earth, Ocean and Climate Sciences (SOECS)



State of the art Facilities

Laboratories are equipped with state-of-the-art computational and scientific instruments viz. Broadband Seismometers, Engineering Seismograph, Digital Gravimeter, Resistivity meter, Continuously Operating GPS Reference Stations, High precision Multi-parameter ocean profiler, Binocular and Trinocular polarizing microscopes, High resolution stereo zoom microscope, range of hydrological and hydro-meteorological instruments, High Performance Liquid Chromatography, Total Organic Carbon Analyzer, Deionized Water Purification System, Microbalances. In addition, a number of high-end workstations are available for simulation, modelling and visualization purposes.

Laboratories

Within the last three years, the following laboratories have been established with state-of-the-art facilities for Geophysical and Geochemical analyses, Petrological and Paleontological studies, Remote Sensing & GIS, Modeling and Visualization, Weather Analysis and Forecasting and Simulation of Atmospheric and Oceanic processes.

- Advance Geochemistry Laboratory
 - Advanced Mineralogy & Crystallography Laboratory
 - Applied Paleontology Laboratory
 - Climate Observatory
 - Cloud physics
 - Computational Geosciences & Geophysical Laboratory
 - Geophysical Lab
 - Hydro geological and Hydro-metrological Laboratory
 - Instrumentation and Observation Laboratory
 - Modelling and Visualization Laboratory
 - Numerical Simulation Laboratory
 - Ore Geology Laboratory
 - Petrology & Geochemistry Laboratory
 - Remote Sensing and GIS Laboratory
 - Structure Geology Laboratory
 - Weather Analysis and Forecasting Laboratory
- In addition, Bay of Bengal Coastal Observatory is being established on the coast line near Puri.

About the School

The School of Electrical Sciences was established in the year 2008.

Presently SES offers programs as follows:

- B. Tech. in Electrical Engineering, Computer Science & Engineering, Electronics and Communication Engineering,
- M. Tech. in Electronics & Communication Engineering, Power System Engineering
- Ph.D. Programmes

School has a distinguished record in both teaching and research. Faculty members are active in research activities and publishing their research findings in highly reputed national and international leading journals and in national and international conferences. In addition, the faculty members are engaged in number of consultancy and in project activities sponsored by government and leading industries.

Statistics

No. of Faculty :	23
No. of B. Tech Students Enrolled 2016-17 :	
• Electrical Engineering :	40
• Computer Science Engineering :	39
• Electronics and Telecommunication Engineering:	38

School of Electrical Sciences



State of the art Facilities

The School provides VLSI system design and fabrication lab, RTDS lab, Renewable Energy system lab, Radiating system design lab and computational facilities for application development and research. Full-fledged FPGA implementation and development facilities linked with embedded system tool and MATLAB provides a smooth platform for ambitious developers.

Laboratories

The School has full-fledged laboratories to train the undergraduate and research students from the very basics to modern trends in the field of Electrical Engineering, Electronics and Communication and Computer Science Engineering. Students utilize the modern lab equipment to carry out design and testing of various projects. At present there are 33 laboratories that include:

- Algorithm Lab
- Analog & Digital Electronics Lab
- Architecture Lab
- Basic Electronics Lab
- Biomedical Signal Processing Lab
- Cloud Lab
- Communication Engineering Lab
- Computer Networking Lab
- Control & Instrumentation Lab

No. of PhD Students Enrolled (2016-17) :	16	● Database Systems Laboratory
No. of PhD Students Graduated :	2	● Digital Signal Processing Lab
No. of M.Tech. Students Enrolled 2016-17 :	33	● Electric Machines Lab
No of Publications in 2016 :	83	● Electrical Technology Lab
The number of patents filed till date:	9	● FACTS and Power Quality Laboratory
The number of patents granted till date :	8	● HPC laboratory
		● Image & Video Processing Lab
		● Measurement and Instrumentation Lab
		● Multimedia Lab
		● Operating System & DBMS Lab
		● Optical Lab
		● Power Electronics & Drives Lab
		● Power Quality & FACT Lab
		● Power System Analysis & Protection Lab
		● Real Time Digital Simulation (RTDS) Lab
		● Real-time Signal Processing Lab
		● Renewable Energy Systems
		● RF & Microwave Lab
		● Security Lab
		● Signal Processing Lab
		● Smart Grid & Hybrid Energy System Lab
		● Telemedicine Lab
		● VLSI Fabrication Lab
		● Wireless Communication Lab

About the School

The School aims at imparting interdisciplinary education in Humanities and other Social Sciences to its students. It has developed into a full-fledged department having expertise in three different disciplines- Economics, English and Psychology. Having a team of six young and dynamic faculties, well-versed in interdisciplinary areas like environment, finance, management, personality development, communication skills and neural science, this school seeks to generate erudite citizens who would be Perfect amalgamation of technical knowledge, creativity, empathy and social responsibility.

The school only offers PhD programme in the area of Economics, English and psychology. There are about six students currently pursuing their Ph. D in the areas of economics, English and psychology.

Statistics

No. of Faculty :	06
Number of Ph.D. Students enrolled:	06
Number of Ph.D. Students Graduated:	05
Number of Publications in 2016:	08

School of Humanities, Social Sciences and Management



Laboratories

The School is equipped with two laboratories. The details are given below:

Language Lab

Language laboratory with its Integrated learning System (ISIL version 3.0 wireless), and user consoles for 1:1 teacher student interaction offers a variety of functions such as Recording Students' presentation, Teacher/ Student Call, Group Conferencing, Role Play, GD, Mock Interview etc. Students are given a brief introduction to Linguistics and Phonetics to develop their communication skills in English using the facilities provided here.

Integrated Computational Lab with Data Bank (ICLDB)

The ICLDB is meant to be used by the research scholars and faculty members for computation and forecasting of various socioeconomics variables.

Research Areas:

- English language training programme
- Forest Resource Management
- Impact of climate change on Agricultural sector
- Mining Sector and Productivity
- Solid Waste Management
- Valuation of natural resources

About the School

In the arena of worldwide infrastructural escalation, School of Infrastructure at IIT Bhubaneswar has come up to dedicate excellence in engineering education, creation of knowledge, innovation in research and leadership in professional services. The mission of the School is to offer unbounded academic environment in undergraduate and postgraduate teaching, doctoral program, research, and public service. Presently the School offers programs as follows:

- B.Tech. in Civil Engineering, Dual-degree B. Tech in Civil Engineering + M. Tech. in Structural Engineering, Dual-degree B. Tech in Civil Engineering + M. Tech. in Transportation Engineering,
- M. Tech. in Transportation Engineering, M.Tech. in Structural Engineering and
- Ph.D. Programmes

The academic activities of the School emphasizes deep understanding of fundamental principles, development of creative ability to handle the challenges of Civil Engineering, and the analytical ability to solve problems which are interdisciplinary in nature. The School also encourages its students to engage in extracurricular activities, essential for

School of Infrastructure



State of the art Facilities

The Environmental Engineering Laboratory of the School are equipped with state of the art equipment like AAS, GC, Freeze Dryer, Radiometer, UV-Vis. Spectrophotometer, Zeta potential cum particle size analyzer, etc. for various sophisticated analysis of water and wastewater. Water Resources Engineering Laboratory is capable of various experiments and simulations related to fluvial hydraulics, flow through submerged and emergent vegetation. The lab is equipped with state of the art equipment like down looking and side looking Acoustic Doppler Velocimeters, Acoustic Doppler Profilers, recirculating tilting flumes with wave generator and sensors like water depth recorder, digital flow meter, etc. Geotechnical Engineering Laboratory houses many sophisticated instruments such as GPR, Auto triaxial setup, Laser profilometer, Flexible wall permeameter, etc. for carrying out the advanced research. Concrete and Structural Engineering Laboratories are having the state of the art equipment such as Shake table, servo controlled compression testing machines, NDT equipment, corrosion analyser, etc. Similarly, the Transportation Engineering Laboratory has the sophisticated instrumental facility such as Dynamic Shear Rheometer, Repeated Load Triaxial Test, etc.

development, promotion of team spirit, and refining their budding managerial skills.

Statistics

No of faculty **16+1** (Inspire faculty)

No.of B.Tech Students :

(I semester) 47

(II semester) 32

(III Semester) 36

(IV semester) 36

No of Dual Degree students:

(I semester) 7

(II semester) 16

No. of PhD Students

enrolled (2016-17) : 08 (Total – 23)

Number of Ph.D.

Students Graduated(2016-17) : 02

Number of Master Students:

(I semester) 30

(II semester) 16

No of Publications in 2016 : 58

Laboratories

Department of Civil Engineering, School of Infrastructure presently runs with eight well-equipped under graduate and postgraduate laboratories as follows:

- Advanced Computational Engineering Laboratory
- Concrete Technology Laboratory
- Engineering Mechanics Laboratory
- Environmental Engineering Laboratory
- Geotechnical Engineering Laboratory
- Groundwater Hydrology Laboratory
- Hydro-meteorology Laboratory
- Soil Dynamics Laboratory
- Structural Engineering Laboratory
- Surveying Laboratory
- Transportation Engineering Laboratory
- Water Resources Engineering Laboratory

All the laboratories are equipped with modern facilities to carry out state of the art research works in any micro specialization of Civil Engineering.

About the School

The School of Mechanical Sciences at IIT Bhubaneswar endeavors to be both globally competent and locally relevant.

Presently the School offers programs as follows:

- B. Tech. in Mechanical Engineering, B. Tech. in Mechanical Engineering + M. Tech. in Mechanical System Design, B. Tech. in Mechanical Engineering + M. Tech. in Thermal Science & Engineering,
- M. Tech. in Mechanical System Design,
- M. Tech. in Thermal Science and Engineering and
- Ph.D. Programmes

Thrust areas of the School include Energy & Environment, Advanced Manufacturing, Autonomous Robotics, Product Design and Agricultural automation. The faculty members of the school are also involved in basic research in their own areas of specialization while also coming together to blend their shared expertise in creating technologies, products and processes that will enrich both the national and local economy. The school sees its role in nation building via three important avenues of contribution – building of human capital, building of

School of Mechanical Sciences



State of the art Facilities

The Advanced Product Development Laboratory houses a high end FORTUS 400 FDM based rapid prototyping machine and a high accuracy 3-D Optical Profilometer. The advanced manufacturing laboratory has various in-house developed equipment such as 400W Fiber laser micro workstation, Laser-Milling Hybrid processing and a Pulsed Micro Electroforming. Besides, the lab also houses CNC Router with Digitizer for Reverse Engineering, CNC Milling and Gear Hobbing Machine. The thermo-fluid laboratory has NEXA PEM Fuel Cell Training System, Flame propagation & stability unit and Mach-Zehnder Interferometer for visualization of various heat transfer phenomena.

Laboratories

School has well equipped laboratories along with a high-end computational laboratory with 30 workstations served by an 18 blade server. This laboratory also provides various software packages like ANSYS, SolidWorks, NASTRAN, Hyper Works, Pro-E, CATIA, ADAMS, COMSOL, MATLAB, LabVIEW, ASAP-PRO, Tecplot360 etc. School has following laboratories with major equipments:

Advanced Manufacturing Laboratory

Surface roughness Tester, Profile projector, Grinders, Laser based Micro-machining Workstation.

Advanced Product Development Laboratory

Fused Deposition Method based Rapid Prototyping Production system, Optical Three Dimensional (3D) Profiler System

Artificial Intelligence and Mechatronics Lab

Stewart Platform, Humanoid robot platforms (Bioid and Lamark), Manipulator arm, Hexapod robot, four wheeled robots, Table top CNC Milling and Turning machines.

CAD/CAM/CAE Laboratory

Work Station for CADLAB, UPS for CADLAB, Electrification of CADLAB, Work Station for CADLAB, Blade Server, ANSYS Software (25 users), ANSYS

knowledge capital and building of wealth capital through creation of comprehensive idea to-industry cycle.

Statistics:

No of faculty :	20
No. of B. Tech Students:	164
No. of PhD Students enrolled (2016-17):	11
Number of M.Tech. Students:	53
Number of Publications 2016:	39
No. of Patents filled:	7

Software (75users), PRO Engg. Software, Hyper Works Software, Scanner & Plotter for CADLAB, UPS for CADLAB, MSC Software bundle, PBS Pro, Tech Plot 360, CATIA, DELMIA, SmartTeam.

Computational Aero-Acoustics Laboratory

TIG & MIG welding, General purpose belt grinder & surface polisher, Hydraulic specimen mounting press, Induction furnace, Resistance furnace, Foundry equipment & Machinery, Muffle furnace.

Fluid Dynamics Laboratory

Experimental set ups for measurement of fluid viscosity, flow measurement, major and minor losses, forces on immersed bodies, flow visualization (All experimental set ups are developed by U.G. students of IIT Bhubaneswar)

Heat Transfer Laboratory

Concentric Tube heat exchanger Unit, Shell and Tube Heat Exchanger Unit, Combined Free and Forced Convection and Radiation Heat Transfer Unit, Radiation Errors in Temperature Measurement, Unsteady State Heat Transfer Unit, Refrigeration Cycle Demonstration Unit, Mach– Zehnder Interferometer setup, Linear and Radial Heat Conduction Unit, Radiation Heat Transfer Unit, Combined Cycle Refrigeration Unit with Cycle Inversion Valve, Extended Surface Heat Transfer Unit.

IC Engine Laboratory

Variable Compression Ratio Engine, Axial Flow Gas Turbine Unit, Flame Propagation & Stability Unit, Nexa Fuel Cell Training System.

Machine and Mechanism Laboratory

Static and Dynamic Balancing, Whirling of Shaft, Gyroscope, Governor, Anti-Friction Bearing, Hydrodynamic Lubrication, Basic Kinematics Demonstrations – Gears, Linkages, Mechanism, Inversion, Differential, Universal Vibration Apparatus.

Machine Tools & Machining Laboratory

Wire cut EDM, Ultrasonic drilling cum milling machine, CNC vertical milling center, Master gear hobbling, radial drilling machine, Industrial grinder, Lathe machine, Milling machine, Hydraulic surface grinder

Materials Testing Laboratory

Hardness Testing Machines: Rockwell, Brinell, Vickers, Spring Testing Machine, Torsion Testing Machine, Rotary Bend Fatigue Testing Machine, Erichsen Cupping Test Machine, Photo-elastic Bench

Mechanism Lab Opto-Thermal Lab (Thermo-Fluid Lab)

Sound Impedance Tube, Handheld Sound Analyzer, DAQ Boards & PXI Chassis, Compact CRIO DAQ system.

About the School

The School of Minerals, Metallurgical and Materials Engineering at IIT Bhubaneswar, established in 2012, is a unique initiative where minerals, metals and materials have come into a collaborative existence with a mission to be locally relevant and globally competitive.

Presently the School offers programs as follows:

- B.Tech. in Metallurgical and Materials Engineering,
- M. Tech. in Materials Science and Engineering and
- Ph.D. Programmes

Located in the state of Odisha, one of the most mineral rich states of India, the school is aware that the maximum economic benefit from a mineral could be achieved when economically transformed to its final product leading to ultimate benefit.

The focus of school activities is therefore multi-directional with an emphasis on both teaching and research. In this regards, the school has drawn a road-map to progress via partnership with Institute of Minerals and Materials Technology (CSIR-IMMT) at Bhubaneswar and student and faculty exchange with Warwick Manufacturing Group (WGM) at Warwick University, UK and Shanghai Jiao Tong University, China. The School has also received a generous endowment of 30 million INR from MGM Group to establish a permanent Chair Professorship.

Currently, the faculty members are engaged in sponsored projects by Department of Science and Technology, UGC-DAE Consortium of Scientific Research - Kalpakkam, Planning Coordination Department - Government of Odisha and Uchchar Aviskar Yojana - MHRD. Also, few consultancy projects with Tata Steel Limited, Tata International Limited and others are being undertaken.

Statistics:

No of faculty:	10
Number of Publications 2016:	18
No. of Patents filled:	5

School of Minerals, Metallurgical and Materials Engineering



State of the art Facilities

The School has procured a Field Emission Scanning Electron Microscope with EDX and EBSD facility which is under Central Instrumentation Facility.

Laboratories

The School is developing fourteen laboratories to cater to under graduate and post graduate teaching and well as various research activities of the School and the Institute. The School is in process of creating facilities for microstructural characterization of materials. Some of them include the microscopy facilities like Field Emission Scanning Electron Microscope with EDX and EBSD, Inverted Optical microscopes with image analysis facility, Melting and heat treatment facility, Metallography facility for sample preparation, Universal Hardness, Testing Machine, Electrochemical workstation and Computer workstation. The school has following laboratories:

- Electrometallurgy and Thermodynamics Laboratory
- High Temperature Processing Laboratory
- Mechanical Testing Laboratory
- Metallography Laboratory
- Minerals Processing Laboratory
- Modeling and Simulation Laboratory
- Optical Microscopy Laboratory
- Physical Metallurgy Laboratory
- Powder Processing Laboratory.

Centre of Excellence

SK Dash Centre of Excellence of Bio-Sciences and Engineering and Technology (SKBET)

IIT Bhubaneswar established the SK Dash Centre of Excellence of Bio-Sciences and Engineering and Technology (SKBET) with a generous grant from Dr S K Dash Foundation, USA to carry out research on probiotics and broader area of multiscale biology. The SKBET aims to work closely with other schools at IIT Bhubaneswar, Medical colleges, research laboratories. The center has hosted a workshop and brain storming session by bringing together experts on the broad area of probiotics and multiscale modeling at IIT Bhubaneswar. Dr. Balamurugan Ramadass joined the center as a Visiting Scientist. The center is now host to the Probiotics and Human Microbiome research laboratory. This Laboratory is applying innovative approaches and state of the art technology to understand and solve problems that are related to Human gut microbiome associated disease. The laboratory is designed to carry out: Probiotic culture & characterization area (Microbiology/infective work area), Molecular biological characterization of isolated probiotics (Molecular biology work –non-contaminated), Cell culture facility (sterile), Bioinformatics work station, Utility (Media preparation, autoclave area).

Bay of Bengal Coastal Observatory (BoBCO)

Bay of Bengal Coastal Observatory (BoBCO) is a centre of excellence in Earth System Sciences. It aims to generate high skilled and competent human resources to address challenging issues such as climate change, monsoon variability, tropical cyclone, extreme weather events and disaster mitigation through multiscale and multidisciplinary approach by examining the complex interactions of Land-Ocean-Atmosphere in terms of observations, modeling and prediction with special reference to Bay of Bengal.

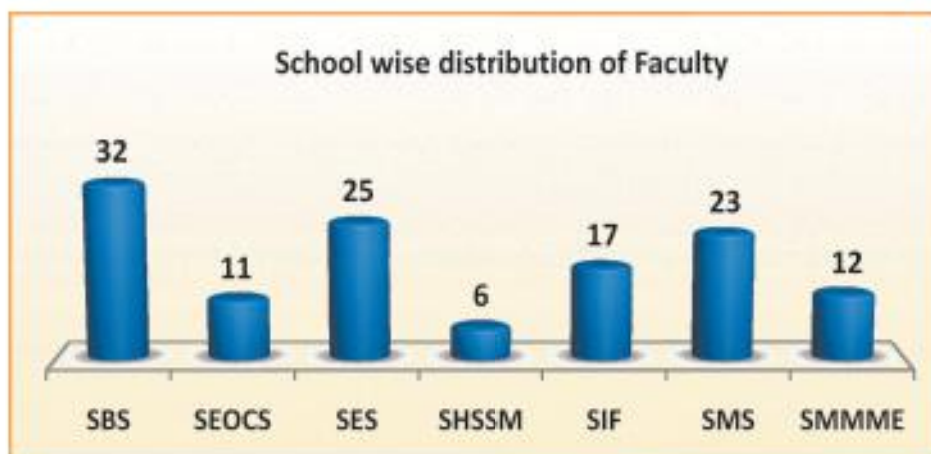
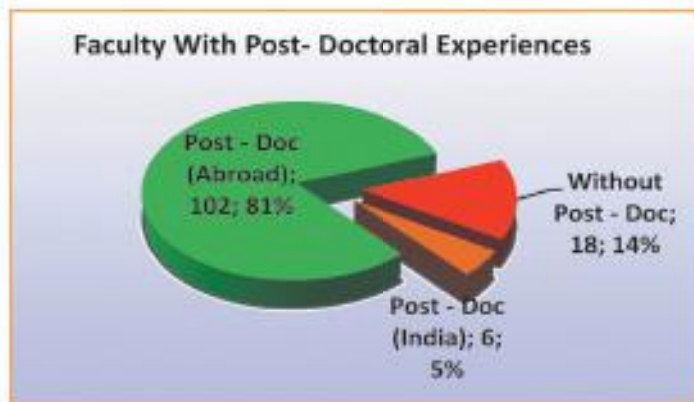
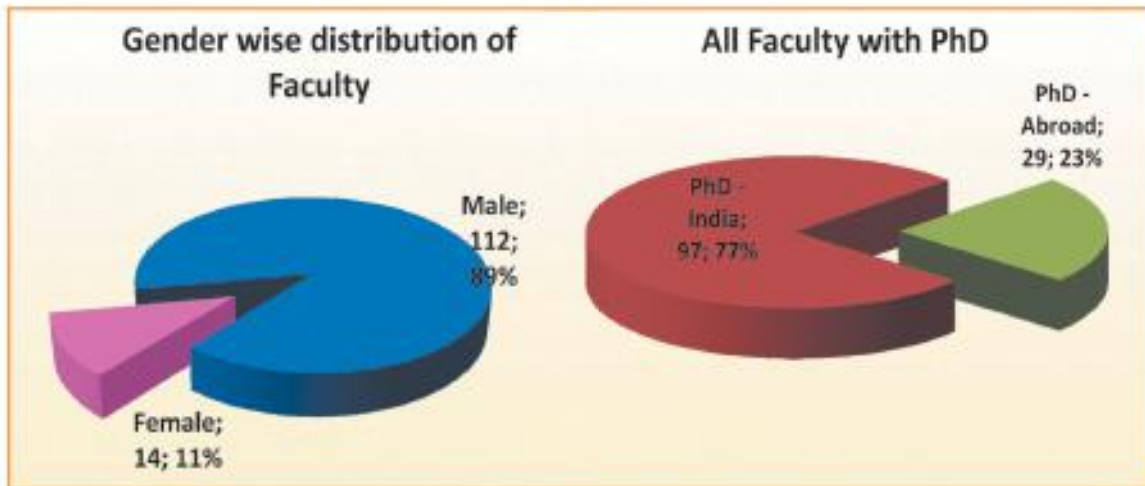
Centre of excellence on Novel Energy Materials (CENEMA)

Centre of excellence on Novel Energy Materials (CENEMA) at IIT Bhubaneswar seeks to develop cutting edge and futuristic materials for energy application. The center focuses on development of two dimensional (2D) hybrid materials for energy storage and conversion.

The primary aim of this center is to become hub for developing and designing new materials for energy conversion and storage, with a bottom up approach starting from atomistic/molecular design to a final usable product. Other complementary functions of center include: industrial outreach and knowledge transfer, operation of shared facilities to support materials research on- and off-campus, educational outreach to graduate and undergraduate researchers. The current team members come from three different centrally funded institutes in Bhubaneswar (IITBBS, IMMT and IOP) with expertise ranging from supramolecular chemistry to fuel cell engineering and other partners include Rice University, Applied Materials.



Our Faculty



Sl. No	Name/Designation/Email	Ph.D./Year	Specialization/Research Area
School of Basic Sciences			
1.	Prof. Saroj Kumar Nayak Professor nayaks@iitbbs.ac.in	Jawaharlal Nehru University, 1995	First Principles Molecular dynamics Simulations, Nanostructures, Quantum transport, Quantum Biology
2.	Prof. Sujit Roy Professor sroy@iitbbs.ac.in	IIT Kanpur, 1987	Organometallic Chemistry, Homogeneous Catalysis
3.	Prof. V. R. Pedireddi Professor vr.pedireddi@iitbbs.ac.in	University of Hyderabad, 1993	Solid State Chemistry; Supramolecular Chemistry; Self-Assembly of Biological, Organic and Organic-inorganic Ensembles
4.	Prof. A. K. Kapoor Visiting Professor akkapoor@iitbbs.ac.in	IIT Kanpur, 1975	Quantum Mechanics and Quantum Field Theory
5.	Prof. V. R. Yerikalapudy Visiting Professor ryvasudeva@iitbbs.ac.in	Andhra University, 1980	Mathematical Modelling for Ultrasonic Nondestructive Testing ;Numerical Methods in elastic wave motion and vibration; Techniques of Applied Mathematics
6.	Prof. Matjaz Kovse Visiting Faculty of Foreign Origin	University of Maribor, 2008	Graph Theory
7.	Dr. Akshay Kumar Ojha Associate Professor akojha@iitbbs.ac.in	Utkal University, 1997	Soft computing; Optimization Theory(Geometric programming and Fractional Programming; Data Mining and Portfolio Optimization
8.	Dr. T. V. S. Sekhar Associate Professor sekhartvs@iitbbs.ac.in	IIT Madras, 1995	Numerical Methods; Computational Fluid Dynamics;
9.	Dr. Abhijit Datta Banik Assistant Professor adattabanik@iitbbs.ac.in	IIT Kharagpur, 2007	Queueing Theory, Applied Probability Models, Stochastic Modelling and Simulation, Stochastic Models in Operations Research and their application in Communication systems, Transportation, Manufacturing, Production and Inventory Systems.
10.	Dr. Akhilesh Kumar Singh Assistant Professor aksingh@iitbbs.ac.in	IIT Kanpur, 2007	Fluorogenic and Chromogenic Chemosensors; Magnetic Materials and MRI Contrast Agents; Synthesis and Characterization of Task Specific Ionic Liquids and Their Application
11.	Dr. Anasuya Roychowdhury Assistant Professor aroychowdhury@iitbbs.ac.in	University of Texas Medical Branch, 2009	Chemomechanistic physiology and regulation of class of enzyme ATPase; Role of ATPase in Cancer Biology; Role of ATPase in Biological Clock
12.	Dr. Ashis Biswas	Bose Institute, 2006	Elucidation of structure-function relationships in

Sl. No	Name/Designation/Email	Ph.D./Year	Specialization/Research Area
	Assistant Professor abiswas@iitbbs.ac.in		small heat shock proteins and its importance in human diseases (leprosy and tuberculosis) using biochemical and biophysical techniques.; Investigating the effect of various post-translational modifications on the eye lens crystalline proteins and their role in developing cataract formation in human lens using biophysical methods.; Elucidating the mechanism behind the interaction of metal complexes (anti-cancer agents) with DNA and proteins using various biochemical techniques.
13.	Dr. C. S. Rout Ramanujan Fellow csrout@iitbbs.ac.in	JNCASR, Bangalore, 2008	Applied Physics, 2D Materials, Energy storage devices and Supercapacitors, biosensors, Field emission
14.	Dr. Chandrasekhar Bhamidipati Assistant Professor chandrasekhar@iitbbs.ac.in	Institute of Physics, 2006	Heat Engines, Thermodynamics and Statistical Mechanics; Black Holes; String Theory
15.	Dr. Kousik Samanta Assistant Professor kousik@iitbbs.ac.in	Texas A&M University, College Station, USA, 2009	Quantum Chemistry; Scattering theory; Mixed quantum-classical dynamics
16.	Dr. Malay Kumar Bandyopadhyay Assistant Professor malay@iitbbs.ac.in	Jadavpur University, Calcutta, 2008	Open Quantum System; Non-equilibrium Statistical Mechanics; Nanomagnetism
17.	Dr. Niharika Mohapatra Assistant Professor niharika@iitbbs.ac.in	IIT Bombay, 2006	Multiferroics; Thermoelectrics; Topological phases of matter
18.	Dr. Rajan Jha Assistant Professor rjha@iitbbs.ac.in	IIT Delhi, 2007	Optical Devices; Plasmonics; Fiber Optic
19.	Dr. Rajesh Kumar Visiting Faculty rajesh@iitbbs.ac.in	Otto-von-Guericke University Magdeburg, Germany, 2011	Pure and Applied Mathematics
20.	Dr. Sabyasachi Pani Assistant Professor spani@iitbbs.ac.in	IIT Kharagpur, 2004	Variational Inequalities and Complementarity Problems; Applied Functional Analysis; Optimization Techniques
21.	Dr. Sasmita Barik Assistant Professor sasmita@iitbbs.ac.in	IIT Guwahati, 2007	Combinatorial Matrix Theory; Graph Theory;
22.	Dr. Satchidananda Rath	Institute of Physics	Semiconductor nanosheets, Dilute magnetic

Sl. No	Name/Designation/Email	Ph.D./Year	Specialization/Research Area
	Assistant Professor srath@iitbbs.ac.in	Bhubaneswar, 2006	semiconductor, Metal clusters, graphene,; Optical properties, fast transitions, Raman scattering, Small angle x-ray scattering, Rheology; Solar cell, Light Emitting Diodes
23.	Dr. Seema Bahinipati Assistant Professor seema.bahinipati@iitbbs.ac.in	University of Cincinnati, Ohio, U.S.A., 2008	Experimental High Energy Physics [B Physics, CP Violation, Beyond Standard Model Physics]
24.	Dr. Shantanu Pal Assistant Professor spal@iitbbs.ac.in	IIT Bombay, 2006	Development of novel methodology and total synthesis of biologically active natural products; Development of chemically modified small molecules as therapeutic agent; Synthesis of modified nucleic acid as anticancer or antiviral drug.
25.	Dr. Shyamal Chatterjee Assistant Professor shyamal@iitbbs.ac.in	The University of Heidelberg, Germany, 2007	Experimental atomic, molecular and surface physics; Nanomaterials; Biomolecules, clusters
26.	Dr. Snehasis Chowdhuri snehasis@iitbbs.ac.in	IIT Kanpur, 2005	Theoretical Chemistry; Statistical Mechanics; Molecular Dynamics Simulation
27.	Dr. Soumendra Rana Assistant Professor soumendra@iitbbs.ac.in	IIT Bombay, 2007	G-protein Coupled Receptor Biology; Molecular Modelling and Computational Biology; Design, Synthesis and Characterization of Peptides
28.	Dr. Srikanta Patra Assistant Professor srikanta@iitbbs.ac.in	IIT Bombay, 2005	Metal Mediated Organic Transformations (Catalysis);Metal Based Anticancer Drugs; Functional Materials, Luminescent Materials, Sensors
29.	Dr. Tabrez Khan Assistant Professor tabrez@iitbbs.ac.in	University Of Mumbai, 2009	Synthetic Method Development; Natural products and natural product inspired bioactive molecule synthesis
30.	Dr. Tarakanta Nayak Assistant Professor tnayak@iitbbs.ac.in	IIT Guwahati, 2007	Complex Dynamics; Fractals; Independence polynomials and independence fractals of graphs
31.	Dr. Bankim Chandra Mandal Assistant Professor	University of Geneva, Switzerland, 2014	Numerical Analysis, Scientific Computing, Partial Differential Equations, Domain Decomposition Methods
32.	Dr. Sunil Kumar Prajapati Visiting Faculty	IIT Delhi, 2013	Algebra
School of Earth, Ocean and Climate Sciences			
33.	Prof. Prem Chand Pandey Visiting Professor pcpandey@iitbbs.ac.in	Allahabad University, 1972	Oceanography; Atmospheric Sciences; Climate Science and Polar research
34.	Prof. Uma Charan	Odessa Hydro-	Tropical Meteorology, Numerical Weather

Sl. No	Name/Designation/Email	Ph.D./Year	Specialization/Research Area
	Mohanty Visiting Professor ucmohanty@iitbbs.ac.in	Meteorological Institute, USSR, 1978	Prediction, Monsoon Dynamics, Regional Climate Studies and Meso-scale Modelling
35.	Prof. Hrusikesh Mishra Visiting Professor	University of Wollongong, New South Wales, Australia, 1987	Coal Geology/Petrology, Coal Preparation, Coal Petrology and its application in Coal & Hydrocarbon exploration
36.	Dr. Debadatta Swain Assistant Professor dswain@iitbbs.ac.in	University of Pune, 2009	Satellite & Physical Oceanography; Ocean-Atmosphere Interactions & Modelling; Atmospheric Dynamics
37.	Dr Kiranmayi Landu Assistant Professor kiranmayi@iitbbs.ac.in	IISc Bangalore, 2008	Climate Dynamics; Tropical Meteorology; Extreme Weather events
38.	Dr Sourav Sil Assistant Professor souravsil@iitbbs.ac.in	IIT Kharagpur, 2012	Physical Oceanography; Ocean Circulation Modelling; Coastal Dynamics
39.	Dr. Raj Kumar Singh Assistant Professor rksingh@iitbbs.ac.in	IIT Kharagpur, 2009	Paleoclimatology and Paleoceanography; Marine Micropaleontology; Hydrogeology
40.	Dr. Sandeep Pattnaik Assistant Professor spt@iitbbs.ac.in	Andhra University, 2006	Tropical Meteorology; Monsoon, Cloud Physics; Extreme Events (e.g. Tropical cyclone, Heavy Rainfall, Lightning)
41.	Dr. Syed Hilal Farooq Assistant Professor hilalfarooq@iitbbs.ac.in	IIT Bombay, 2010	Hydrogeochemistry; Geothermal Energy; Organic Geochemistry
42.	Dr. Vinoj. V Assistant Professor vinoj@iitbbs.ac.in	IISc Bangalore, 2009	Aerosol Cloud Climate Interactions; Satellite Remote Sensing, Radiative Forcing, Field Measurements; Monsoon and Climate Change, Climate Modelling
43.	Dr Abhishek Kumar Rai Visiting Faculty akrai@iitbbs.ac.in	University of Cambridge, UK, 2005	Seismology; Geophysics
School of Electrical Sciences			
44.	Prof. R. V. Raja Kumar Professor, Director director@iitbbs.ac.in	IIT Kharagpur, 1987	Wireless communications systems; Wireless networking protocols; Channel equalization and baseband processing; Detection methods and systems; Tracking algorithms; Adaptive filtering algorithms and their performance analysis; Estimation of time-varying signals and systems; Spectral Estimation methods; Audio and video coding; VLSI based processors for wireless communication systems; Voice and multimedia over IP

Annual Report 2016-2017

Sl. No	Name/Designation/Email	Ph.D./Year	Specialization/Research Area
45.	Prof. N. C. Sahoo Professor ncsahoo@iitbbs.ac.in	National University of Singapore, 2001	Renewable Energy Systems; Power System Optimization and Control; Control of Electric Drives
46.	Prof. Ganapati Panda Visiting Professor gpanda@iitbbs.ac.in	IIT Kharagpur, 1982	Digital Signal processing; Machine Learning and applications; Intelligent Instrumentation
47.	Prof. Jayant Pal Visiting Professor jpal@iitbbs.ac.in	University of Roorkee. [Now IIT, Roorkee], 1981	Reduced Order Modelling; Fractional Order Systems; Electrical Power Systems
48.	Prof. K.R. Srivathasan Visiting Professor krs@iitbbs.ac.in	Queen's University, Canada, 1981	Information Systems and Informatics, e-Learning and Management
49.	Dr. Chandrashekhar Narayan Bhende Associate Professor cnb@iitbbs.ac.in	IIT Delhi, 2008	Renewable Energy, Distributed Generation; Power Quality, Custom Power Devices; Application of soft computing techniques to power systems
50.	Dr. Manoranjan Satpathy Associate Professor manoranjan@iitbbs.ac.in	IIT Bombay, 1997	Software Testing and verification; Advanced Computer Architecture; Programming Languages
51.	Dr. Prasant Kumar Sahu Associate Professor pks@iitbbs.ac.in	IIT Kharagpur, 2008	Optical Communication; Remote Sensing; Speech and Signal Processing
52.	Dr. Pravas Ranjan Sahu Associate Professor prs@iitbbs.ac.in	IIT Kanpur, 2006	Digital Communications, Mobile Communications, Receiver performance in fading channels.
53.	Dr. Subhransu Ranjan Samantaray Associate Professor srs@iitbbs.ac.in	NIT Rourkela, 2007	Power System protection; Smart-Grid; PMU and WAMs
54.	Dr. Ankush Sharma Assistant Professor ankush@iitbbs.ac.in	IIT Kanpur, 2014	Power System State Estimation; Smart Grid Technology Development; Wide Area Monitoring and Control
55.	Dr. Barathram Ramkumar Assistant Professor barathram@iitbbs.ac.in	Virginia Tech, 2011	Signal Processing; Wireless Communication; Bio-Signal Processing
56.	Dr. Debalina Ghosh Assistant Professor deghosh@iitbbs.ac.in	Syracuse University, Syracuse, NY, USA, 2007	Remote Sensing; Electromagnetic Engineering and Antennas; Radar Systems
57.	Dr. Debi Prosad Dogra Assistant Professor dpdogra@iitbbs.ac.in	IIT Kharagpur, 2012	Visual Surveillance and Computer Vision; Human Computer Interface; Augmented Reality
58.	Dr. Dipankar De	IISc Bangalore, 2011	Switched Mode Power Converter and Design of

Sl. No	Name/Designation/Email	Ph.D./Year	Specialization/Research Area
	Assistant Professor dipankar@iitbbs.ac.in		Integrated Magnetics; Application of Power Electronics in Power Systems; Wide band-gap Device based Power Conversion
59.	Dr. Joy Chandra Mukherjee Assistant Professor(On Contract) joy@iitbbs.ac.in	IIT Kharagpur, 2015	Distributed Algorithms, Time-varying Network Algorithms, Intelligent Transportation Systems, Smart Grid
60.	Dr. Lalan Kumar Assistant Professor lkumar@iitbbs.ac.in	IIT Kanpur, 2015	Array Signal Processing; Time-frequency Analysis; Blind Source Separation; Digital Signal Processing
61.	Dr. M. Sabarimalai Manikandan Assistant Professor msm@iitbbs.ac.in	IIT Guwahati, 2009	Signal and Image Processing; Biometric and Multimodal Interfaces; VLSI and Embedded System
62.	Dr. Neti V L N Murty Assistant Professor murtyn@iitbbs.ac.in	IIT BHU, 2008	Compound Semiconductor Device Modelling and Characterisation; Radiation Effects on Semiconductor Devices; Thin-film Sensors
63.	Dr. Niladri Bihari Puhan Assistant Professor nbpuhan@iitbbs.ac.in	Nanyang Technological University, Singapore, 2007	Image Processing; Biometrics; Biomedical Imaging
64.	Dr. Padmalochan Bera Assistant Professor plb@iitbbs.ac.in	IIT Kharagpur, 2011	Networks and System Security; Cryptography; Software Defined Networks
65.	Dr. Sankarsan Mohapatro Assistant Professor sankarsan@iitbbs.ac.in	IISc Bangalore, 2011	High Voltage Engineering; Industrial Application of High Voltage for Pollution Control; Renewable Energy Systems
66.	Dr. Somindu Chaya Ramanna Assistant Professor(On Contract) somindu@iitbbs.ac.in	Indian Statistical Institute, Kolkata , 2015	Cyber Security
67.	Dr. Srinivas Bhaskar Karanki Assistant Professor skaranki@iitbbs.ac.in	IIT Madras, 2012	Power Quality; DC DC Converters for Renewable energy sources; Power Electronics Applications to Power Systems
68.	Dr. Sudipta Saha Assistant Professor (On Contract)	IIT Kharagpur, 2015	Wireless Sensor Network; Cyber-Physical Systems; Internet-of-Things

Sl. No	Name/Designation/Email	Ph.D./Year	Specialization/Research Area
	sudipta@iitbbs.ac.in		
School of Humanities, Social Sciences and Management			
69.	Dr. Amrita Satapathy Assistant Professor asatapathy@iitbbs.ac.in	Utkal University, 2009	Commonwealth Studies, Indian Diaspora Literature, Travel Writings/ Autobiographies/ Memoirs
70.	Dr. Anamitra Basu Assistant Professor anamitrabasu@iitbbs.ac.in	IIT Kharagpur, 2010	Laterality ; Psycholinguistics; clinical Psychology
71.	Dr. Asmita Shukla Assistant Professor asmita@iitbbs.ac.in	IIT Kanpur, 2008	Psychology & Consumer Behaviour
72.	Dr. Dukhabandhu Sahoo Assistant Professor dsahoo@iitbbs.ac.in	Institute for Social and Economic Change, Bangalore, 2007	Open Macroeconomics; Development Economics; Environment and Natural Resource Economics
73.	Dr. Naresh Chandra Sahu Assistant Professor naresh@iitbbs.ac.in	IIT Kanpur, 2008	Environmental Economics; Finance; Mining and Rural Development
74.	Dr. Punyashree Panda Assistant Professor ppanda@iitbbs.ac.in	Berhampur University, 2008	Postcolonial World Literature, Indigenous Writings; Indian Writing in English; ELT, Cross-cultural Communication
School of Infrastructure			
75.	Prof. Rabindra Kumar Panda Professor rkpanda@iitbbs.ac.in	Indian Agricultural Research Institute, New Delhi, 1984	Hydrology ;Watershed Management; Non-point Source Pollution of Water Resources
76.	Dr. Dinakar Pasla Associate Professor pdinakar@iitbbs.ac.in	IIT Madras, 2005	Concrete Technology
77.	Dr. Sumanta Halder Associate Professor sumanta@iitbbs.ac.in	IISc Bangalore, 2008	Offshore wind energy foundation; Soil-structure interaction; Dynamics of soil and foundation
78.	Dr. Arindam Sarkar Assistant Professor asarkar@iitbbs.ac.in	IIT Kharagpur, 2006	Flow through submerged and emergent vegetation; Scour around hydraulic structures; Mathematical flow modelling
79.	Dr. B. Hanumantha Rao Assistant Professor bhrao@iitbbs.ac.in	IIT Bombay, 2009	Geotechnical Engineering; Environmental Geotechnics;

Sl. No	Name/Designation/Email	Ph.D./Year	Specialization/Research Area
80.	Dr. Debasis Basu Assistant Professor dbasu@iitbbs.ac.in	IIT Kharagpur, 2008	Sustainable Transportation, Operation of Public Transport; Transportation Economics; Traffic Studies
81.	Dr. Goutam Mondal Assistant Professor gmondal@iitbbs.ac.in	IIT Kanpur, 2011	Earthquake Engineering and Structural Dynamics; Seismic Analysis of Bridges; Soil-Structure Interaction
82.	Dr. Manaswini Behera Assistant Professor manaswini@iitbbs.ac.in	IIT Kharagpur, 2012	Water and wastewater treatment and reuse; Bioenergy recovery during wastewater treatment in microbial fuel cell; Solid waste management
83.	Dr. Meenu Ramadas Assistant Professor meenu@iitbbs.ac.in	Purdue University, USA, 2015	Hydrology; Water Resources; Drought Modelling
84.	Dr. Partha Pratim Dey Assistant Professor ppdey@iitbbs.ac.in	IIT Roorkee, 2006	Traffic Flow Modelling
85.	Dr. Pushpendu Bhunia Assistant Professor pbhunia@iitbbs.ac.in	IIT Kharagpur, 2008	Nutrients removal and recovery from wastewater; Vermi-filtration of domestic and industrial wastes; Recovery of energy and biogas generation from biodegradable wastes
86.	Dr. Rajesh Roshan Dash Assistant Professor rrdash@iitbbs.ac.in	IIT Roorkee, 2008	Environmental Engineering; Treatment of Water and Wastewater; Solid Waste Management
87.	Dr. Remya Neelancherry Assistant Professor remya@iitbbs.ac.in	National Chiao Tung University Taiwan, 2010	Microwave photocatalytic treatment of complex wastewater; Catalytic copyrolysis of mixed solid waste; Solar photocatalytic treatment and preparation of supported catalyst
88.	Dr. Saikat Sarkar Visiting Faculty	IISc Bangalore, 2014	Structural Engineering
89.	Dr. Shantanu Patra Assistant Professor	IIT Delhi, 2013	Geotechnical engineering, geosynthetics and their application
90.	Dr. Suresh R Dash Assistant Professor srdash@iitbbs.ac.in	University of Oxford, 2011	Structural Dynamics and Earthquake engineering; Soil - Structure Interaction; Seismic Analysis and Design of Pipelines
91.	Dr. Umesh Chandra Sahoo Assistant Professor ucsahoo@iitbbs.ac.in	IIT Kharagpur, 2009	Pavement Analysis and Design; Pavement Materials; Low Volume Roads
School of Mechanical Sciences			
92.	Prof. Swarup Kumar	Jadavpur University,	Conjugate Heat Transfer; Radiation Modelling;

Sl. No	Name/Designation/Email	Ph.D./Year	Specialization/Research Area
	Mahapatra Professor swarup@iitbbs.ac.in	2000	Bio Heat Transfer
93.	Prof. P.K. J. Mohapatra Visiting Professor pkjm@iitbbs.ac.in	IIT Kharagpur, 1978	Industrial Engineering; Systems Dynamics; Operations Research & Management
94.	Prof. Prasanta K. Mishra Visiting Professor pkm@iitbbs.ac.in	Jadavpur University, Calcutta, 1974	Non-conventional Manufacturing; MEMS & Microsystems Engineering
95.	Prof. Sadananda Sahu Visiting Professor sahus@iitbbs.ac.in	IIT, Kharagpur, 1978	Logistics; Supply Chain Management; Productivity Studies; Operations Management; Facilities Layout
96.	Dr. Arun Kumar Pradhan Associate Professor akpradhan@iitbbs.ac.in	IIT Kharagpur, 2008	Solid Mechanics, Composite Materials & Structures, Fracture Mechanics & Delamination studies in Composites; Smart Materials & Structures; Natural Fibre Reinforced Composites
97.	Dr. Manas Mohan Mahapatra Associate Professor mmmahapatra@iitbbs.ac.in	IIT Kharagpur, 2008	Welding Residual Stress & Distortion control, Friction Stir Welding Tool Design, Friction Stir Processing and Friction Cladding; Thermal Spray and Laser Coating for Wear and High Temperature Applications; In-situ Metal Matrix Composites and their Manufacturability
98.	Dr. Mihir Kumar Pandit Associate Professor mihir@iitbbs.ac.in	IIT Kharagpur, 2009	Design and Solid Mechanics; Sandwich Structures; Composite Materials
99.	Dr. Satyanarayan Panigrahi Associate Professor psatyan@iitbbs.ac.in	IISc Bangalore, 2007	Underwater acoustic absorbers; Acoustics of mufflers and ducts; Acoustic metamaterials
100.	Dr. Akhilesh Barve Assistant Professor akhilesh@iitbbs.ac.in	IIT Delhi, 2009	Supply Chain Management; Humanitarian Logistics; Industrial Engineering
101.	Dr. Anirban Bhattacharya Assistant Professor anirban@iitbbs.ac.in	IISc Bangalore, 2014	Multi-phase and multiscale transport phenomena; Phase change and grain structure modelling; Boiling heat transfer modelling
102.	Dr. K. Srinivasa Ramanujam Assistant Professor sramanujam@iitbbs.ac.in	IIT Madras, 2012	Active Passive Remote Sensing; Engineering Design and Optimization; Atmospheric Radiation
103.	Dr. Mihir Kumar Das	IIT Roorkee, 2006	Two Phase Heat Transfer; PCM based Cooling

Sl. No	Name/Designation/Email	Ph.D./Year	Specialization/Research Area
	Assistant Professor mihirdas@iitbbs.ac.in		System; Internal Combustion Engines
104.	Dr. Prasenjit Rath Assistant Professor prath@iitbbs.ac.in	Nanyang Technological University, Singapore, 2007	Transport Phenomena in Materials Processing; Ultrafast Transport; CFD/HT
105.	Dr. Sasidhar Kondaraju Assistant Professor sasidhar@iitbbs.ac.in	Wayne State University, 2009	Microfluidics; Micro/Nanoscale Thermofluids; Multiphase Flows
106.	Dr. Sathyanarayana Ayyalasomayajula Assistant Professor sathya@iitbbs.ac.in	Cornell University, NY, USA, 2007	Turbulence; DNS & LES, Spectral Methods; Experimental Fluid Mechanics
107.	Dr. Satish Dhandole Assistant Professor satish@iitbbs.ac.in	IIT Delhi, 2009	Dynamic Design; Vibro-acoustic; Mechanisms
108.	Dr. V. Pandu Ranga Assistant Professor pandu@iitbbs.ac.in	IIT Kharagpur, 2009	Robotics; Manufacturing; Soft Computing
109.	Dr. Venugopal Arumuru Assistant Professor venugopal@iitbbs.ac.in	IIT Bombay, 2014	Fluid Structure Interaction and unsteady Aero-Hydrodynamics; Heat Transfer augmentation; Acoustics
110.	Dr. Yogesh G. Bhumkar Assistant Professor bhumkar@iitbbs.ac.in	IIT Kanpur, 2012	High performance computing; Computational aero acoustics; Transitional and turbulent flows
111.	Dr. Gaurav Bartarya Assistant Professor bartarya@iitbbs.ac.in	IIT Kanpur, 2014	Conventional and nonconventional Machining Processes
112.	Dr. Suvradip Mullick Assistant Professor suvradip@iitbbs.ac.in	IIT Kharagpur, 2016	Laser material processing, Non-conventional machining
113.	Dr. Ankur Gupta Visiting Faculty ankurgupta@iitbbs.ac.in	IIT Kanpur, 2015	Nanotechnology; Micro-system fabrication; Manufacturing
114.	Dr. Pattabhi Ramaiah Budarapu , Visiting Faculty pattabhi@iitbbs.ac.in	Bauhaus University of Welmar, Germany, 2015	Multiscale methods for fracture; molecular dynamics; fracture in multiphysics problems; structural dynamics
School of Minerals, Metallurgical and Materials Engineering			
115.	Dr. Brahma Deo Visiting Professor bdeo@iitbbs.ac.in	University of Burdwan, 1975	Iron and steel making; Dynamic process control and optimization; Chaos control in dynamical systems

Annual Report 2016-2017

Sl. No	Name/Designation/Email	Ph.D./Year	Specialization/Research Area
116.	Prof. Brij Kumar Dhindaw Visiting Professor dhindaw@iitbbs.ac.in	IIT Kharagpur, 1971	Solidification Processing and Composites; Physical Metallurgy; Mineral Processing
117.	Dr. Kalyani Mohanta Associate Professor kalyanim@iitbbs.ac.in	IIT Kharagpur, 2007	Fabrication of Advance Ceramics
118.	Dr. Amritendu Roy Assistant Professor amritendu@iitbbs.ac.in	IIT Kanpur, 2012	Ferroelectric and multiferroic materials for memory and energy applications; Multi component alloy design; Electronic structure calculations
119.	Dr. Animesh Mandal Assistant Professor animesh@iitbbs.ac.in	IIT Kharagpur, 2007	Aluminium alloys; Metal matrix composites; Semisolid processing of metallic systems
120.	Dr. Kaushik Das Assistant Professor kaushik@iitbbs.ac.in	McGill University, 2012	Mechanical Behaviour of Nanomaterials; Integration of Nanomaterials to Microelectromechanical Systems (MEMS);
121.	Dr. Kisor Kumar Sahu Assistant Professor kisorsahu@iitbbs.ac.in	Kyoto University, 2006	Modelling and simulation of materials; Energy materials and systems; Structural and magnetic frustration of materials
122.	Dr. Partha Sarathi De Assistant Professor parthasarathi.de@iitbbs.ac .in	Missouri University of Science & Technology, USA, 2010	Friction stir welding and processing; High entropy alloys; Thermo-mechanical processing of metals
123.	Dr. Randhir Singh Assistant Professor randhir@iitbbs.ac.in	Imperial College London, 2009	Computational modelling of electrochemical systems; fuel cell and hydrogen production; electrometallurgy of Al and Ti reduction
124.	Dr. Soobhankar Pati Assistant Professor spati@iitbbs.ac.in	Boston University, 2010	Electrochemistry ;Energy Materials; Sustainable Materials and Process
125.	Dr. Srikant Gollapudi Assistant Professor srikant@iitbbs.ac.in	North Carolina State University, 2007	Creep behavior of titanium, zirconium, magnesium and aluminum alloys and solders Mechanical alloying of amorphous and nanocrystalline alloys
126.	Dr. Kodanda Ram Mangipudi Assistant Professor kodanda@iitbbs.ac.in	University of Groningen, 2012	Computational Mechanics Mechanical behavior of (nano)composite materials Mechanics of cellular solids

ADJUNCT FACULTY 2016-17

Sl. No.	Name	Parent Institute	Name of the School visited
1.	Dr. Binod Kumar Sahoo	NISER Bhubaneswar	SBS
2.	Dr. Gyana R Parija	IBM Research-India (IRL)	SBS
3.	Prof. S. Dharmaraja	IIT Delhi	SBS
4.	Prof. B. S. Panda	IIT Delhi	SBS
5.	Prof. H. S. Mani	Chennai Mathematical Institute (CMI)	SBS
6.	Prof. K. P. N. Murthy	Manipal University, Chennai	SBS
7.	Prof. Ramarao Inguva	East West Enterprises, Inc., Alabama, USA	SBS
8.	Dr. Abani R. Samal	GeoGlobal LLC	SEOCS
9.	Dr. C. Gnanaseelan	Indian Institute of Tropical Meteorolgy	SEOCS
10.	Dr. Debdeep Mukhopadhyay	IIT Kharagpur	SEOCS
11.	Prof. Biswajit Mishra	IIT Kharagpur	SEOCS
12.	Prof. Rengaswamy Ramesh	NISER, Bhubaneswar	SEOCS
13.	Prof. Santanu Banerjee	IIT Bombay	SEOCS
14.	Prof. T. K. Biswal	IIT Bombay	SEOCS
15.	Dr. Ashwini Nanda	HPC Research Inc., USA	SES
16.	Dr. Aswini Nanda	HPC Links	SES
17.	Dr. N. K. Goyal	IIT Kharagpur	SES
18.	Dr. Narayana Darapaneni	HPC Links	SES
19.	Dr. Pawan Goyal	IIT Kharagpur	SES
20.	Dr. Rakesh Chandra Balabantaray	IIIT Bhubaneswar	SES
21.	Dr. Shailendra K. Varshney	IIT Kharagpur	SES
22.	Dr. Subhashis Chatterjee	Indian School of Mines, Dhanbad	SES
23.	Dr. Sudipta Mahapatra	IIT Kharagpur	SES
24.	Dr. Swarup Kumar Mohalik	Ericsson Research, Bangalore	SES
25.	Dr. Utpal Garain	Indian Statistical Institute, Kolkata	SES
26.	Prof. Anupam Basu	IIT Kharagpur	SES

Sl. No.	Name	Parent Institute	Name of the School visited
27.	Prof. Arun Kumar Majumdar	IIT Kharagpur	SES
28.	Prof. Gautam Das	University of Texas, Arlington	SES
29.	Prof. Kavi Narayana Murthy	University of Hyderabad	SES
30.	Prof. Rajib Mall	IIT Kharagpur	SES
31.	Prof. Saibal Gupta	IIT Kharagpur	SES
32.	Prof. Damodar Suar	IIT Kharagpur	SHSSM
33.	Prof. Fakir Mohan Sahoo	Xavier Institute of Management, Bhubaneswar	SHSSM
34.	Dr. Sunil Kumar Sarangi	NIT Rourkela	SMS
35.	Dr. Balu Sarma	Consultant	SMMME
36.	Dr. Omkar Nath Mohanty	RSB Metaltech Pvt. Ltd.	SMMME
37.	Prof. Dhanush Dhari Misra	IIT (ISM) Dhanbad	SMMME
38.	Prof. S. C. Panigrahi	Former Professor, IIT Kharagpur	SMMME



Publications - 2016



Book Chapters

School of Earth, Ocean and Climate Sciences

1. Krishnamurti, T. N., Pattnaik, S., & Mandal, M. (2016). Superensemble Technique for Tropical Cyclone Prediction. In U. C. Mohanty & S. G. Gopalakrishnan (Eds.), *Advanced Numerical Modeling and Data Assimilation Techniques for Tropical Cyclone Prediction* (pp. 497–516). Dordrecht: Springer Netherlands. https://doi.org/10.5822/978-94-024-0896-6_19.
2. Mohanty, U. C., Osuri, K. K., & Pattanayak, S. (2016). Tropical Cyclone Research over the North Indian Ocean: Impact of Data and Vortex Initialization in High Resolution Mesoscale Models. In U. C. Mohanty & S. G. Gopalakrishnan (Eds.), *Advanced Numerical Modeling and Data Assimilation Techniques for Tropical Cyclone Prediction* (pp. 465–495). Dordrecht: Springer Netherlands. https://doi.org/10.5822/978-94-024-0896-6_18.
3. Niyogi, D., Osuri, K. K., Subramanian, S., & Mohanty, U. C. (2016). The Role of Land Surface Processes on Extreme Weather Events: Land Data Assimilation System. In U. C. Mohanty & S. G. Gopalakrishnan (Eds.), *Advanced Numerical Modeling and Data Assimilation Techniques for Tropical Cyclone Prediction* (pp. 247–266). Dordrecht: Springer Netherlands. https://doi.org/10.5822/978-94-024-0896-6_9
4. Pattanayak, S., Mohanty, U. C., & Dube, S. K. (2016). The Storm Surge Prediction over Bay of Bengal and Arabian Sea: A Review. In U. C. Mohanty & S. G. Gopalakrishnan (Eds.), *Advanced Numerical Modeling and Data*

Assimilation Techniques for Tropical Cyclone Prediction (pp. 691–723). Dordrecht: Springer Netherlands. https://doi.org/10.5822/978-94-024-0896-6_27.

5. Routray, A., Osuri, K. K., Pattanayak, S., & Mohanty, U. C. (2016). Introduction to Data Assimilation Techniques and Ensemble Kalman Filter. In U. C. Mohanty & S. G. Gopalakrishnan (Eds.), *Advanced Numerical Modeling and Data Assimilation Techniques for Tropical Cyclone Prediction* (pp. 307–330). Dordrecht: Springer Netherlands. https://doi.org/10.5822/978-94-024-0896-6_11.

School of Electrical Sciences

6. Dontamsetti, S. G., & Sahu, P. K. (2016). Speech Based Access of Agricultural Dealers Information in Odia Language. *Application and Theory of Computer Technology*, 1(1), 8–16. <https://doi.org/10.22496/atct20161026106>
7. Jain, A., Samantaray, S. R., Geoffroy, L., & Kamwa, I. (2016). Synchrophasors data analytics framework for power grid control and dynamic stability monitoring. *Engineering & Technology Reference*. <https://doi.org/10.1049/etr.2015.0049>

School of Humanities, Social Sciences and Management

8. Panda S.K., Sahoo, D & Sahu, N.C. (2016), Evolution of the Concept of Corporate Social Responsibility (CSR): The Indian Perspective, in Anup Kumar Samantaray (Ed.), *Issues and Challenges in Business Management* : Himalaya Publishing House,

School of Infrastructure

9. Rout P.R., Bhunia P., Ramakrishnan A., Surampalli R.Y., Zhang T.C., Tyagi R.D., (2016) Sustainable

Hazardous Waste Management/Treatment: Framework and Adjustments to Meet Grand Challenges. In Wong, J. W. C., Surampalli, R. Y., Zhang, T. C., Tyagi, R. D., & Selvam, A. (Eds.). *Sustainable Solid Waste Management*. Reston, VA: American Society of Civil Engineers. <https://doi.org/10.1061/9780784414101.ch12>

10. Rout, P. R., Bhunia, P., & Dash, R. R. (2016). Response Surface Optimization of Phosphate Removal from Aqueous Solution Using a Natural Adsorbent. In F. Kurisu, A. Ramanathan, A. A. Kazmi, & M. Kumar (Eds.), *Trends in Asian Water Environmental Science and Technology* (pp. 93–104). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-319-39259-2_8
11. Verma K. Akshaya, Rout R. Prangya, Bhunia Puspendu, & Dash R. R. (2016). Anaerobic Treatment of Wastewater. *Green Technologies for Sustainable Water Management*. In Ngo, H. H., Guo, W., Surampalli, R. Y., & Zhang, T. C. (Eds.). *Green Technologies for Sustainable Water Management*. (pp.297-336). Reston, VA: American Society of Civil Engineers <https://doi.org/10.1061/9780784414422.ch09>

School of Mechanical Sciences

12. Pradeep Reddy B, Ravi Kumar M and Pandu R. Vundavilli (2016) Development of path tracking control algorithm for a 4-DOF spatial manipulator using PID controller. In Ram, M. & Paulo Davim, J (Ed.). *Mathematical Concepts and Applications in Mechanical Engineering and Mechatronics*. (pp.314-327): IGI Global.

School of Minerals, Metallurgical and Materials Engineering

13. Nussinov, Z., Ronhovde, P., Hu, D., Chakrabarty, S., Sun, B., Mauro, N. A., & Sahu, K. K. (2016).

Inference of Hidden Structures in Complex Physical Systems by Multi-scale Clustering. In T. Lookman, F. J. Alexander, & K. Rajan (Eds.), *Information Science for Materials Discovery and Design* (Vol. 225, pp. 115–138). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-319-23871-5_6

- Singh, R., & Saran, D. (2016). 5 Thermochemical Hydrogen Generation. In *Solar Fuel Generation* (Vols. 1–0, pp. 85–120). CRC Press. <https://doi.org/10.1201/9781315370538-6>

Book Edited

School of Earth, Ocean and Climate Sciences

- Mohanty, U. C., & Gopalakrishnan, S. G. (Eds.). (2016). *Advanced Numerical Modeling and Data Assimilation Techniques for Tropical Cyclone Prediction*. Dordrecht: Springer Netherlands. <https://doi.org/10.5822/978-94-024-0896-6>

Paper published in Peer-reviewed Journals

School of Basic Sciences

- Bahinipati, S., Adamczyk, K., Aihara, H., Angelini, C., Aziz, T., Babu, V., Bacher, S., ...Yoshinobu, T. (2016). Belle II SVD ladder assembly procedure and electrical qualification. *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, 824, 381–383. <https://doi.org/10.1016/j.nima.2015.08.067>
- Bahinipati, S., Adamczyk, K., Aihara, H., Angelini, C., Aziz, T., Babu, V., Bacher, S., ...Yoshinobu, T. (2016). Belle-II VXD radiation monitoring and beam abort with sCVD diamond sensors. *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, 824, 480–482. <https://doi.org/10.1016/j.nima.2015.09.007>
- Bahinipati, S., Adamczyk, K., Aihara, H., Angelini, C., Aziz, T., Babu, V., Bacher, S., ...Yoshinobu, T. (2016). The silicon vertex detector of the Belle II experiment. *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, 824, 406–410. <https://doi.org/10.1016/j.nima.2015.09.076>
- Banik, A. D., & Chaudhry, M. L. (2016). Efficient Computational Analysis of Stationary Probabilities for the Queueing System BMAP/G/1/N With or Without Vacation(s). *INFORMS Journal on Computing*, 29(1), 140–151. <https://doi.org/10.1287/ijoc.2016.0720>
- Bankar, P. K., Ratha, S., More, M. A., Late, D. J., & Rout, C. S. (2017). Enhanced field emission performance of NiMoO₄ nanosheets by tuning the phase. *Applied Surface Science*, 418, 270–274. <https://doi.org/10.1016/j.apsusc.2017.02.177>
- Bharatula, L. D., Erande, M. B., Mulla, I. S., Rout, C. S., & Late, D. J. (2016). SnS₂ nanoflakes for efficient humidity and alcohol sensing at room temperature. *RSC Advances*, 6(107), 105421–105427. <https://doi.org/10.1039/C6RA21252B>
- Bhardwaj, V., Miyabayashi, K., Panzenböck, E., Trabelsi, K., Frey, A., ...Zupanc, A. (2016). Inclusive and exclusive measurements of $B^0 \rightarrow \chi_{c1} \gamma$ and $B^0 \rightarrow \chi_{c2} \gamma$ at Belle. *Physical Review D*, 93(5), 052016. <https://doi.org/10.1103/PhysRevD.93.052016>

8. Bhatia, S. N., & Mohapatra, N. (2016). Effect of copper on the magnetism of half doped bilayer manganite. *Journal of Magnetism and Magnetic Materials*, 411, 29–38. <https://doi.org/10.1016/j.jmmm.2016.03.049>
9. Biswas, A., Karmakar, S., Chowdhury, A., & Das, K. P. (2016). Interaction of α -crystallin with some small molecules and its effect on its structure and function. *Biochimica et Biophysica Acta - General Subjects*, 1860(1), 211–221. <https://doi.org/10.1016/j.bbagen.2015.06.002>
10. Biswas, S. N., & Nandy, P. (2016). Supramolecular assemblies of 4,7-phenanthroline with various aromatic polycarboxylic acids. *Journal of Molecular Structure*, 1122, 1–9. <https://doi.org/10.1016/j.molstruc.2016.05.051>
11. Chakra, T. K., Chakraborty, G., & Nayak, T. (2016). Baker omitted value. *Complex Variables and Elliptic Equations*, 61(10), 1353–1361. <https://doi.org/10.1080/17476933.2016.1174216>
12. Chakra, T. K., Chakraborty, G., & Nayak, T. (2016). Baker omitted value. *Complex Variables and Elliptic Equations*, 61(10), 1353–1361. <https://doi.org/10.1080/17476933.2016.1174216>
13. Chand A, Chowdhuri S, (2016), Effects of dimethyl sulfoxide on the hydrogen bonding structure and dynamics of aqueous N-methylacetamide solution | SpringerLink. (n.d.). Retrieved July 26, 2017, from <https://link.springer.com/article/10.1007%2Fs12039-016-1092-2>
14. Chand, A., & Chowdhuri, S. (2016). Behaviour of aqueous N-methylacetamide solution in presence of ethanol and 2,2,2 tri-fluoroethanol: Hydrogen bonding structure and dynamics. *Journal of Molecular Liquids*, 224, 1370–1379. <https://doi.org/10.1016/j.molliq.2016.10.129>
15. Chandra, F., Kumar, P., Tripathi, S. K., Patra, S., & Koner, A. L. (2016). Iridium Complexes as a Roadblock for DNA Polymerase during Amplification. *ChemMedChem*, 11(13), 1410–1414. <https://doi.org/10.1002/cmdc.201600101>
16. Chaudhry, M.L., Banik, A.D., Pacheco, A., Ghosh, S., (2016), A simple analysis of system characteristics in the batch service queue with infinite-buffer and Markovian service process using the roots method: GI/C-MSP(a,b)/ 1 / " | RAIRO - Operations Research. (n.d.). Retrieved July 26, 2017, from <https://www.rairo-ro.org/articles/ro/abs/201603/ro150035-s/ro150035-s.html>
17. Chettiyankandy, P., & Chowdhuri, S. (2016). Solvation structure and dynamics of ions in concentrated urea solution. *Journal of Molecular Liquids*, 216, 788–796. <https://doi.org/10.1016/j.molliq.2016.02.019>
18. Chobanova, V., Dalseno, J., Kiesling, C., Abdesselam, A., Adachi, I., ...Zupanc, A. (2016). First observation of the decay $\psi(2S) \rightarrow \pi^0 \pi^0$. *Physical Review D*, 93(3), 031101. <https://doi.org/10.1103/PhysRevD.93.031101>
19. Chowki, S., Kumar, R., Mohapatra, N., & Mahajan, A. V. (2016). Long-range antiferromagnetic order and possible field induced spin-flop transition in BiMnVO5. *Journal of Physics: Condensed Matter*, 28(48), 486002. <https://doi.org/10.1088/0953-8984/28/48/486002>

20. Das, A. S., Roy, M., Roy, D., Rath, S., & Bhattacharya, S. (2016). Structural and Optical Properties of V₂O₅-MoO₃-ZnO Glass-Nanocomposite System. *Transactions of the Indian Ceramic Society*, 75(2), 120–125. <https://doi.org/10.1080/0371750X.2016.1175321>
21. Dash, J. N., & Jha, R. (2016). Highly sensitive D shaped PCF sensor based on SPR for near IR. *Optical and Quantum Electronics*, 48(2), 1–7. <https://doi.org/10.1007/s11082-016-0423-3>
22. Dash, J. N., & Jha, R. (2016). Fabry Perot Cavity on Demand for Hysteresis Free Interferometric Sensors. *Journal of Lightwave Technology*, 34(13), 3188–3193. <https://doi.org/10.1109/JLT.2016.2556722>
23. Dash, J. N., & Jha, R. (2016). Mach-Zehnder interferometer based on tapered PCF with an up-tapered joint for curvature, strain and temperature interrogation. *Journal of Optics*, 18(10), 105002. <https://doi.org/10.1088/2040-8978/18/10/105002>
24. Dash, J. N., & Jha, R. (2016). Temperature Insensitive PCF Interferometer Coated With Graphene Oxide Tip Sensor. *IEEE Photonics Technology Letters*, 28(9), 1006–1009. <https://doi.org/10.1109/LPT.2016.2522979>
25. Dash, J. N., Dass, S., & Jha, R. (2016). Photonic crystal fiber microcavity based bend and temperature sensor using micro fiber. *Sensors and Actuators A: Physical*, 244, 24–29. <https://doi.org/10.1016/j.sna.2016.04.016>
26. Dash, S. P., Panda, A. K., Dhaka, S., Pasayat, S., Biswas, A., Maurya, M. R., ...Dinda, R. (2016). A study of DNA/BSA interaction and catalytic potential of oxido vanadium(V) complexes with ONO donor ligands. *Dalton Transactions*, 45(45), 18292–18307. <https://doi.org/10.1039/C6DT03228A>
27. Dass, S., & Jha, R. (2016). Microfiber-Wrapped Bi-Conical-Tapered SMF for Curvature Sensing. *IEEE Sensors Journal*, 16(10), 3649–3652. <https://doi.org/10.1109/JSEN.2016.2531748>
28. Dass, S., Dash, J. N., & Jha, R. (2016). Intensity modulated SMF cascaded tapers with a hollow core PCF based microcavity for curvature sensing. *Journal of Optics*, 18(3), 035006. <https://doi.org/10.1088/2040-8978/18/3/035006>
29. Dinuclear Tetrapyrzolyll Palladium Complexes Exhibiting Facile Tandem Transfer Hydrogenation/Suzuki Coupling Reaction of Fluoroarylketone - ACS Catalysis (ACS Publications). (n.d.). Retrieved July 26, 2017, from <http://pubs.acs.org/doi/abs/10.1021/acscatal.6b01421>
30. Garmash, A., Abdesselam, A., Adachi, I., Aihara, H., Asner, D. M., ...Zupanc, A. (2016). Observation of $Z_{(10610)}$ and $Z_{(10650)}$ Decaying to B Mesons. *Physical Review Letters*, 116(21), 212001. <https://doi.org/10.1103/PhysRevLett.116.212001>
31. Glattauer, R., Schwanda, C., Abdesselam, A., Adachi, I., Adamczyk, K., ...Zupanc, A. (2016). Measurement of the decay $D \rightarrow \nu \ell$ in fully reconstructed events and determination of the Cabibbo-Kobayashi-Maskawa matrix element $|V_{cb}|$. *Physical Review D*, 93(3), 032006. <https://doi.org/10.1103/PhysRevD.93.032006>

32. Hamer, P., Frey, A., Abdesselam, A., Adachi, I., Aihara, H., ...Zupanc, A. (2016). Search for $B^0 \rightarrow \pi^+ \tau^+ \nu$ with hadronic tagging at Belle. *Physical Review D*, 93(3), 032007. <https://doi.org/10.1103/PhysRevD.93.032007>
33. Kang, K. H., Jeon, H. B., Park, H., Uozumi, S., Adamczyk, K., Aihara, H., ...Yoshinobu, T. (2016). A bonding study toward the quality assurance of Belle-II silicon vertex detector modules. *Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, 831, 213–220. <https://doi.org/10.1016/j.nima.2016.03.075>
34. Kannan, P. K., Gelamo, R. V., Morgan, H., Suresh, P., & Rout, C. S. (2016). The electrochemical 4-chlorophenol sensing properties of a plasma-treated multilayer graphene modified photolithography patterned platinum electrode. *RSC Advances*, 6(107), 105920–105929. <https://doi.org/10.1039/C6RA24136K>
35. Kannan, P. K., Hu, C., Morgan, H., & Rout, C. S. (2016). One-Step Electrodeposition of NiCo₂S₄ Nanosheets on Patterned Platinum Electrodes for Non-Enzymatic Glucose Sensing. *Chemistry – An Asian Journal*, 11(12), 1837–1841. <https://doi.org/10.1002/asia.201600362>
36. Kannan, P. K., Hu, C., Morgan, H., Moshkalev, S. A., & Rout, C. S. (2016). Electrochemical sensing of bisphenol using a multilayer graphene nanobelt modified photolithography patterned platinum electrode. *Nanotechnology*, 27(37). <https://doi.org/10.1088/0957-4484/27/37/375504>
37. Kannan, P. K., Moshkalev, S. A., & Rout, C. S. (2016). Electrochemical sensing of hydrazine using multilayer graphene nanobelts. *RSC Advances*, 6(14), 11329–11334. <https://doi.org/10.1039/c5ra24912k>
38. Kannan, P. K., Moshkalev, S. A., & Rout, C. S. (2016). Highly sensitive and selective electrochemical dopamine sensing properties of multilayer graphene nanobelts. *Nanotechnology*, 27(7). <https://doi.org/10.1088/0957-4484/27/7/075504>
39. Kapri, R., Bandyopadhyay, M., & Barma, M. (2016). Order-parameter scaling in fluctuation-dominated phase ordering. *Physical Review E*, 93(1), 012117. <https://doi.org/10.1103/PhysRevE.93.012117>
40. Kato, Y., Iijima, T., Adachi, I., Aihara, H., Asner, D. M., Aulchenko, V., ... Zupanc, A. (2016). Studies of charmed strange baryons in the \bar{D} final state at Belle. *Physical Review D*, 94(3). <https://doi.org/10.1103/PhysRevD.94.032002>
41. Khan, T., Kumar, V., & Das, O. (2016). An Improved Synthesis of Natural Product Inspired Chromenopyrrolizines and Chromenoidolizines Scaffolds: Rapid Access to the Diverse Pyrrolizine Analogs of Aza-Medicarpin and Tetracyclic Isolamellarin Core through a General Base and Metal Free Strategy. *Bulletin of the Chemical Society of Japan*, 89(11), 1331–1340. <https://doi.org/10.1246/bcsj.20160205>
42. King, Z., Pal, B., Schwartz, A. J., Adachi, I., Aihara, H., Al, S., ... Zupanc, A. (2016). Search for the decay $B^0 \rightarrow l^+ l^-$. *Physical Review D*, 93(11). <https://doi.org/10.1103/PhysRevD.93.111101>

43. Kumar, M., Singh, R., Nandy, S., Ghosh, A., Rath, S., & Som, T. (2016). Tunable optoelectronic properties of pulsed dc sputter-deposited ZnO:Al thin films: Role of growth angle. *Journal of Applied Physics*, 120(1). <https://doi.org/10.1063/1.4955056>.
44. Lakma A., Hossain S.M., Pradhan R.N., Topwal D., Cornia A., Singh A.K., (2016), Expansion of a Discrete [3 × 3] Mn₉ Metallogrid to a μ -Carboxylato-Bridged Polymeric {Mn₁₁}_n Assembly - Lakma - 2016 - European Journal of Inorganic Chemistry - Wiley Online Library. (n.d.). Retrieved July 26, 2017, <https://www.doi.org/10.1002/ejic.201600153>.
45. Lanzillo, N. A., O'Regan, T. P., & Nayak, S. K. (2016). Band structure modulation in MoS₂ multilayers and heterostructures through electric field and strain. *Computational Materials Science*, 112, 377–382. <https://doi.org/10.1016/j.commatsci.2015.11.007>.
46. Late, D. J., Kanawade, R. V., Kannan, P. K., & Rout, C. S. (2016). Atomically thin WS₂ nanosheets based gas sensor. *Sensor Letters*, 14(12), 1249–1254. <https://doi.org/10.1166/sl.2016.3764>
47. Masuda, M., Uehara, S., Watanabe, Y., Nakazawa, H., Abdesselam, A., Adachi, I., ...Zupanc, A. (2016). Study of $\delta 0$ pair production in single-tag two-photon collisions. *Physical Review D*, 93(3). <https://doi.org/10.1103/PhysRevD.93.032003>.
48. Mohanty, A., & Roy, S. (2016). Re-entry of tin in N-alkylation: first example of a homogeneous heterobimetallic Pd–Sn catalyst for base and additive free alkylation of amine and surrogates with alcohol. *Tetrahedron Letters*, 57(25), 2749–2753. <https://doi.org/10.1016/j.tetlet.2016.05.018>.
49. Mohapatra, B. D., Mantry, S. P., Behera, N., Behera, B., Rath, S., & Varadwaj, K. S. K. (2016). Stimulation of electrocatalytic oxygen reduction activity on nitrogen doped graphene through noncovalent molecular functionalisation. *Chemical Communications*, 52(68), 10385–10388. <https://doi.org/10.1039/C6CC03319A>.
50. Mohapatra, S. R., Sahu, B., Chandrasekhar, M., Kumar, P., Kaushik, S. D., Rath, S., & Singh, A. K. (2016). Effect of cobalt substitution on structural, impedance, ferroelectric and magnetic properties of multiferroic Bi₂Fe₄O₉ ceramics. *Ceramics International*, 42(10), 12352–12360. <https://doi.org/10.1016/j.ceramint.2016.05.008>
51. Mondal, R., Sahoo, S., & Rout, C. S. (2016). Mixed nickel cobalt manganese oxide nanorods for supercapacitor application. *American Journal of Engineering and Applied Sciences*, 9(3), 540–546. <https://doi.org/10.3844/ajeassp.2016.540.546>
52. Naidu, Y. R., & Ojha, A. K. (2016). Solving Multiobjective Optimization Problems Using Hybrid Cooperative Invasive Weed Optimization With Multiple Populations. *IEEE Transactions on Systems, Man, and Cybernetics: Systems, PP(99)*, 1–12. <https://doi.org/10.1109/TSMC.2016.2631479>.
53. Naik, K. K., Sahoo, S., & Rout, C. S. (2017). Facile electrochemical growth of spinel copper cobaltite nanosheets for non-enzymatic glucose sensing and supercapacitor applications. *Microporous and Mesoporous Materials*, 244, 226–234. <https://doi.org/10.1016/j.micromeso.2016.10.036>.
54. Nandi, P., Giri, C., Joseph, B., Rath, S., Manju, U., & Topwal, D. (2016). CH₃NH₃PbI₃, A Potential Solar Cell Candidate: Structural and

- Spectroscopic Investigations. *The Journal of Physical Chemistry A*, 120(49), 9732–9739. <https://doi.org/10.1021/acs.jpca.6b09718>
55. Nandi, S. K., Chakraborty, A., Panda, A. K., & Biswas, A. (2016). Conformational perturbation, hydrophobic interactions and oligomeric association are responsible for the enhanced chaperone function of *Mycobacterium leprae* HSP18 under pre-thermal condition. *RSC Advances*, 6(67), 62146–62156. <https://doi.org/10.1039/C6RA00167J>.
 56. Nandy, P., Nayak, A., Biswas, S. N., & Pedireddi, V. R. (2016). Self-assembly in solvates of 2,4-diamino-6-(4-methyl-phenyl)-1,3,5-triazine and in its molecular adducts with some aliphatic dicarboxylic acids. *Journal of Molecular Structure*, 1108, 717–726. <https://doi.org/10.1016/j.molstruc.2015.11.083>
 57. Nayak, A., & Pedireddi, V. R. (2016). Rational Analysis of Melting Point Behavior of Co-Crystals of 4-Nitrophenol with Some Aza-Compounds. *Crystal Growth & Design*, 16(10), 5966–5975. <https://doi.org/10.1021/acs.cgd.6b01011>.
 58. Nayak, J. K., Parhi, P., & Jha, R. (2016). Experimental and theoretical studies on localized surface plasmon resonance based fiber optic sensor using graphene oxide coated silver nanoparticles. *Journal of Physics D: Applied Physics*, 49(28), 285101. <https://doi.org/10.1088/0022-3727/49/28/285101>.
 59. Nayak, S., & Ojha, A. K. (2016). An approach to solve multi-objective linear fractional programming problem. *Advances in Intelligent Systems and Computing*, 436, 711–721. https://doi.org/10.1007/978-981-10-0448-3_59.
 60. Negishi, K., Ishikawa, A., Yamamoto, H., Abdesselam, A., Adachi, I., Aihara, H., ...Zupanc, A. (2016). First model-independent Dalitz analysis of $B^0 \rightarrow DK^*0$, $D \rightarrow KS \pi^+\pi^-$ decay. *Progress of Theoretical and Experimental Physics*, 2016(4). <https://doi.org/10.1093/ptep/ptw030>.
 61. Nisar, N. K., Mohanty, G. B., Trabelsi, K., Aziz, T., Abdesselam, A., ...Zupanc, A. (2016). Search for the rare decay $D^0 \rightarrow \gamma \gamma$ at Belle. *Physical Review D*, 93(5), 051102. <https://doi.org/10.1103/PhysRevD.93.051102>.
 62. Nisar, N. K., Mohanty, G. B., Trabelsi, K., Aziz, T., Abdesselam, A., Adachi, I., ... Zupanc, A. (2016). Search for the rare decay $D^0 \rightarrow \gamma \gamma$ at Belle. *Physical Review D*, 93(5). <https://doi.org/10.1103/PhysRevD.93.051102>.
 63. Padhy, P., Sahu, P. K., & Jha, R. (2016). Metal wire waveguide based all plasmonic refractive index sensor for terahertz frequencies. *Sensors and Actuators B: Chemical*, 225, 115–120. <https://doi.org/10.1016/j.snb.2015.09.005>.
 64. Pal, B., Schwartz, A. J., Abdesselam, A., Adachi, I., Aihara, H., ...Zupanc, A. (2016). Observation of the Decay $B_s^0 \rightarrow \overline{K}^0 K^0$. *Physical Review Letters*, 116(16), 161801. <https://doi.org/10.1103/PhysRevLett.116.161801>.
 65. Panda, A. K., Nandi, S. K., Chakraborty, A., Nagaraj, R. H., & Biswas, A. (2016). Differential role of arginine mutations on the structure and functions of π -crystallin. *Biochimica et Biophysica Acta - General Subjects*, 1860(1),

- 199–210. <https://doi.org/10.1016/j.bbagen.2015.06.004>.
66. Panda, A., & Pani, S. (2016). Multi-objective colliding bodies optimization. *Advances in Intelligent Systems and Computing*, 436, 651–664. https://doi.org/10.1007/978-981-10-0448-3_54.
 67. Panda, A., & Pani, S. (2016). A Symbiotic Organisms Search algorithm with adaptive penalty function to solve multi-objective constrained optimization problems. *Applied Soft Computing*, 46, 344–360. <https://doi.org/10.1016/j.asoc.2016.04.030>.
 68. Panda, A., Biswas, R. G., & Pal, S. (2016). A unified and common intermediate strategy for the asymmetric total synthesis of 3-deoxy-neo-inositol and conduritol E. *Tetrahedron Letters*, 57(32), 3625–3628. <https://doi.org/10.1016/j.tetlet.2016.06.127>.
 69. Panda, A., Satpati, S., Dixit, A., & Pal, S. (2016). Novel homologated-*apio* adenosine derivatives as A3 adenosine receptor agonists: design, synthesis and molecular docking studies. *RSC Advances*, 6(14), 11233–11239. <https://doi.org/10.1039/C5RA26416B>.
 70. Panda, G., Goswami, V., & Banik, A. D. (2016). Equilibrium and Socially Optimal Balking Strategies in Markovian Queues with Vacations and Sequential Abandonment. *Asia-Pacific Journal of Operational Research*, 33(5). <https://doi.org/10.1142/S0217595916500366>.
 71. Panda, G., Goswami, V., Banik, A. D., & Guha, D. (2015). Equilibrium balking strategies in renewal input queue with Bernoulli-schedule controlled vacation and vacation interruption. *Journal of Industrial and Management Optimization*, 12(3), 851–878. <https://doi.org/10.3934/jimo.2016.12.851>.
 72. Pany G, Mohapatra R.N., & Pani S. (2016), A Class of Mixed Variational like Inequalities and Equilibrium Problems in Banach Spaces, *Journal of Inequalities and Special Functions*, 7(4), 241–252. <http://www.ilirias.com/jiasf/repository/docs/JIASF7-4-18.pdf>.
 73. Pany, G., & Pani, S. (2016). On mixed equilibrium problems in Banach spaces. *Panamerican Mathematical Journal*, 26(3), 12–24.
 74. Patnaik, A., Nayak, J. K., Senthilnathan, K., & Jha, R. (2016). Localized Plasmon-Based Optical Fiber Sensing Platform for Operation in Infrared. *IEEE Photonics Technology Letters*, 28(19), 2054–2057. <https://doi.org/10.1109/LPT.2016.2573287>.
 75. Rana, S., Sahoo, A. R., & Majhi, B. K. (2016). Structural complexes of the agonist, inverse agonist and antagonist bound C5a receptor: insights into pharmacology and signaling. *Molecular BioSystems*, 12(5), 1586–1599. <https://doi.org/10.1039/C6MB00031B>.
 76. Rath, S., Halder, O., Pradhani, A., Satpati, B., Maity, A., Chini, T. K., ... Ray, S. K. (2016). White-light emission by phonon assisted coherent mixing of excitons in Au8–CdS hybrid nanorods. *Nanotechnology*, 27(49), 495706. <https://doi.org/10.1088/0957-4484/27/49/495706>.
 77. Ratha, S., Marri, S. R., Behera, J. N., & Rout, C. S. (2016). High-energy-density supercapacitors based on patronite/single-walled carbon nanotubes/reduced graphene oxide hybrids. *European Journal of Inorganic Chemistry*,

- 2016(2), 259–265. <https://doi.org/10.1002/ejic.201501001>.
78. Ratha, S., Samantara, A. K., Rout, C. S., & Jena, B. K. (2016). Synergistic electrocatalytic activity of a spinel ZnCo₂O₄/reduced graphene oxide hybrid towards oxygen reduction reaction. *Journal of Solid State Electrochemistry*, 20(1), 285–291. <https://doi.org/10.1007/s10008-015-3035-0>.
 79. Sahoo, S. K., Ratha, S., Rout, C. S., & Mallik, A. (2016). Physicochemical properties and supercapacitor behavior of electrochemically synthesized few layered graphene nanosheets. *Journal of Solid State Electrochemistry*, 20(12), 3415–3428. <https://doi.org/10.1007/s10008-016-3304-6>.
 80. Sahoo, S., & Rout, C. S. (2016). Facile Electrochemical Synthesis of Porous Manganese-Cobalt-Sulfide Based Ternary Transition Metal Sulfide Nanosheets Architectures for High Performance Energy Storage Applications. *Electrochimica Acta*, 220, 57–66. <https://doi.org/10.1016/j.electacta.2016.10.043>.
 81. Samantaray, K. S., Sahoo, S., & Rout, C. S. (2016). Hydrothermal synthesis of CuWO₄-reduced graphene oxide hybrids and supercapacitor application. *American Journal of Engineering and Applied Sciences*, 9(3), 584–590. <https://doi.org/10.3844/ajeassp.2016.584.590>.
 82. Sekhar, T. V. S., Hema, S. R., & Murthy, P. V. S. N. (2016). Higher order compact scheme for laminar natural convective heat transfer from a sphere. *Applied Mathematical Modelling*, 40(3), 2039–2055. <https://doi.org/10.1016/j.apm.2015.09.054>.
 83. Shimpi, M. R., Biswas, S. N., Sarkar, S., & Pedireddi, V. R. (2016). Synthesis and structural evaluation of five coordination complexes of benzenepentacarboxylic acid with aza-donor ligands. *Journal of Molecular Structure*, 1114, 38–47. <https://doi.org/10.1016/j.molstruc.2016.02.010>.
 84. Simbeck, A. J., Lanzillo, N. A., Kharche, N., & Nayak, S. K. (2016). Substrate polarization effect on the band gaps of one-dimensional semiconducting atomic wires. *Computational Materials Science*, 123, 14–18. <https://doi.org/10.1016/j.commatsci.2016.06.014>.
 85. Sivakumar, R., Vimala, S., Damodaran, S., & Sekhar, T. V. S. (2016). Study of heat transfer control with magnetic field using higher order finite difference scheme. *Advances in Applied Mathematics and Mechanics*, 8(3), 449–463. <https://doi.org/10.4208/aamm.2014.m600>.
 86. Stariè, M., Abdesselam, A., Adachi, I., Aihara, H., Arinstein, K., Asner, D. M., ...Zupanc, A. (2016). Measurement of D⁰- mixing and search for CP violation in D⁰ → K⁺K⁻, δ⁺δ⁻ decays with the full Belle data set. *Physics Letters B*, 753, 412–418. <https://doi.org/10.1016/j.physletb.2015.12.025>.
 87. Sudheer, G., Sri Harikrishna, P., & Vasudeva Rao, Y. (2016). Free vibration analysis of tapered columns under self weight using pseudospectral method. *Journal of Vibroengineering*, 18(7), 4583–4591. <https://doi.org/10.21595/jve.2016.17089>.
 88. Talwelkar Shimpi, M., Öberg, S., Giri, L., & Pedireddi, V. R. (2016). Experimental and theoretical studies of molecular complexes of theophylline with some phenylboronic acids. *RSC*

- Advances*, 6(49), 43060–43068. <https://doi.org/10.1039/C6RA04100K>
89. Thalmeier, R., Iglesias, M., Arteché, F., Echeverría, I., Friedl, M., Adamczyk, K., ...Yoshinobu, T. (2016). EMC studies for the vertex detector of the Belle II experiment. *Journal of Instrumentation*, 11(1). <https://doi.org/10.1088/1748-0221/11/01/C01044>
 90. Tripathy, S. K., De, U., Dehury, N., Laha, P., Panda, M. K., Kim, H. S., & Patra, S. (2016). Cyclometallated iridium complexes inducing paraptotic cell death like natural products: synthesis, structure and mechanistic aspects. *Dalton Transactions*, 45(38), 15122–15136. <https://doi.org/10.1039/C6DT00929H>
 91. Tripathy, S. K., Meer, M. van der, Sahoo, A., Laha, P., Dehury, N., Plebst, S., ... Patra, S. (2016). A dinuclear $[[(\text{p-cym})\text{Ru}(\text{ICl})_2(\text{i-bpytz})^+)]$ complex bridged by a radical anion: synthesis, spectroelectrochemical, EPR and theoretical investigation (bpytz = 3,6-bis (3,5-dimethylpyrazolyl) 1,2,4,5-tetrazine; p-cym = p-cymene). *Dalton Transactions*, 45(31), 12532–12538. <https://doi.org/10.1039/C6DT01995A>
 92. Tripathy, S. K., Meer, M. van der, Sahoo, A., Laha, P., Dehury, N., Plebst, S., ... Patra, S. (2016). A dinuclear $[[(\text{p-cym})\text{Ru}(\text{ICl})_2(\text{i-bpytz})^+)]$ complex bridged by a radical anion: synthesis, spectroelectrochemical, EPR and theoretical investigation (bpytz = 3,6-bis(3,5-dimethylpyrazolyl)1,2,4,5-tetrazine; p-cym = p-cymene). *Dalton Transactions*, 45(31), 12532–12538. <https://doi.org/10.1039/C6DT01995A>
 93. Udhayakumar, S., A.D., A. R., T.V.S., S., & Sivakumar, R. (2016). Study of directional control of heat transfer and flow control in the magnetohydrodynamic flow in cylindrical geometry. *International Journal of Heat and Fluid Flow*, 61, 482–498. <https://doi.org/10.1016/j.ijheatfluidflow.2016.06.011>
 94. Udhayakumar, S., Abin, R., Sekhar, T. V. S., & Sivakumar, R. (2016). Numerical investigation of magnetohydrodynamic mixed convection over an isothermal circular cylinder in presence of an aligned magnetic field. *International Journal of Heat and Mass Transfer*, 95, 379–392. <https://doi.org/10.1016/j.ijheatmasstransfer.2015.11.041>
 95. Vanhoefer, P., & Anonymous. (2016). Study of $\{B\}^0 \rightarrow \rho^+ \rho^-$ decays and implications for the CKM angle ϕ_2 [Phys. Rev. D 93, 032010 (2016)]. *Physical Review D*, 94(9), 099903. <https://doi.org/10.1103/PhysRevD.94.099903>
 96. Vanhoefer, P., Dalseno, J., Kiesling, C., Abdesselam, A., Adachi, I., Aihara, H., ... Zupanc, A. (2016). Study of $B^0 \rightarrow \rho^+ \rho^-$ Decays and implications for the CKM angle ϕ_2 . *Physical Review D*, 93(3). <https://doi.org/10.1103/PhysRevD.93.032010>
 97. Vimala, S., Damodaran, S., Sivakumar, R., & Sekhar, T. V. S. (2016). The role of magnetic Reynolds number in MHD forced convection heat transfer. *Applied Mathematical Modelling*, 40(13–14), 6737–6753. <https://doi.org/10.1016/j.apm.2016.02.019>

School of Earth, Ocean and Climate Sciences

98. Acharya, S. S., Panigrahi, M. K., Kurian, J., Gupta, A. K., & Tripathy, S. (2016). Speciation of

- phosphorus in the continental shelf sediments in the Eastern Arabian Sea. *Continental Shelf Research*, 115, 65–75. <https://doi.org/10.1016/j.csr.2016.01.005>
99. Chandrashekar, A. K., Chandrasekharam, D., & Farooq, S. H. (2016). Contamination and mobilization of arsenic in the soil and groundwater and its influence on the irrigated crops, Manipur Valley, India. *Environmental Earth Sciences*, 75(2), 1–15. <https://doi.org/10.1007/s12665-015-5008-0>
 100. Das, M., Singh, R. K., Gupta, A. K., & Bhaumik, A. K. (2016). *Holocene strengthening of the Oxygen Minimum Zone in the northwestern Arabian Sea linked to changes in intermediate water circulation or Indian monsoon intensity?* Article in Press. <https://doi.org/10.1016/j.palaeo.2016.10.035>
 101. Dimri, A. P., Yasunari, T., Kotlia, B. S., Mohanty, U. C., & Sikka, D. R. (2016). Indian winter monsoon: Present and past. *Earth-Science Reviews*, 163, 297–322. <https://doi.org/10.1016/j.earscirev.2016.10.008>
 102. Mohanty U.C., Gopalakrishnan S.G., (2016), Preface, Advanced Numerical Modeling and Data Assimilation Techniques for Tropical Cyclone Predictions, v-viii, <https://www.doi.org/10.5822/978-94-024-0896-6>
 103. Nageswararao, M. M., Dhekale, B. S., & Mohanty, U. C. (2016). Impact of climate variability on various Rabi crops over Northwest India. *Theoretical and Applied Climatology*, 1–19. <https://doi.org/10.1007/s00704-016-1991-7>
 104. Nageswararao, M. M., Mohanty, U. C., Kiran, P., Osuri, K. K., & Ramakrishna, S. S. V. S. (2016). Performance evaluation of NCEP climate forecast system for the prediction of winter temperatures over India. *Theoretical and Applied Climatology*, 126(3–4), 437–451. <https://doi.org/10.1007/s00704-015-1588-6>
 105. Nageswararao, M. M., Mohanty, U. C., Osuri, K. K., & Ramakrishna, S. S. V. S. (2016). Prediction of winter precipitation over northwest India using ocean heat fluxes. *Climate Dynamics*, 47(7–8), 2253–2271. <https://doi.org/10.1007/s00382-015-2962-x>
 106. Nageswararao, M. M., Mohanty, U. C., Ramakrishna, S. S. V. S., Nair, A., & Prasad, S. K. (2016). Characteristics of winter precipitation over Northwest India using high-resolution gridded dataset (1901–2013). *Global and Planetary Change*, 147, 67–85. <https://doi.org/10.1016/j.gloplacha.2016.10.017>
 107. Rai, D., Pattnaik, S., & Rajesh, P. V. (2016). Sensitivity of tropical cyclone characteristics to the radial distribution of sea surface temperature. *Journal of Earth System Science*, 125(4), 691–708. <https://doi.org/10.1007/s12040-016-0687-9>
 108. Rajesh, P. V., Pattnaik, S., Rai, D., Osuri, K. K., Mohanty, U. C., & Tripathy, S. (2016). Role of land state in a high resolution mesoscale model for simulating the Uttarakhand heavy rainfall event over India. *Journal of Earth System Science*, 125(3), 475–498.
 109. Routray, A., Mohanty, U. C., Osuri, K. K., Kar, S. C., & Niyogi, D. (2016). Impact of Satellite Radiance Data on Simulations of Bay of Bengal Tropical Cyclones Using the WRF-3DVAR Modeling System. *IEEE Transactions on*

- Geoscience and Remote Sensing*, 54(4), 2285–2303. <https://doi.org/10.1109/TGRS.2015.2498971>
110. Samanta, D., Dash, M. K., Goswami, B. N., & Pandey, P. C. (2016). Extratropical anticyclonic Rossby wave breaking and Indian summer monsoon failure. *Climate Dynamics*, 46(5–6), 1547–1562. <https://doi.org/10.1007/s00382-015-2661-7>
111. Sato, Y., Iijima, T., Adamczyk, K., Aihara, H., Asner, D. M., Atmacan, H., ... Zupanc, A. (2016). Measurement of the branching ratio of $B_0 \rightarrow \mu^+ \mu^- \nu \bar{\nu}$ relative to $B_0 \rightarrow \mu^+ \mu^-$ decays with a semileptonic tagging method. *Physical Review D*, 94(7). <https://doi.org/10.1103/PhysRevD.94.072007>
112. Tiwari, P. R., Kar, S. C., Mohanty, U. C., Dey, S., Kumari, S., Sinha, P., ... Shekhar, M. S. (2016). Simulations of Tropical Circulation and Winter Precipitation Over North India: an Application of a Tropical Band Version of Regional Climate Model (RegT-Band). *Pure and Applied Geophysics*, 173(2), 657–674. <https://doi.org/10.1007/s00024-015-1102-1>
113. Tiwari, P. R., Kar, S. C., Mohanty, U. C., Dey, S., Kumari, S., & Sinha, P. (2016). Seasonal prediction skill of winter temperature over North India. *Theoretical and Applied Climatology*, 124(1–2), 15–29. <https://doi.org/10.1007/s00704-015-1397-y>
114. Udaya, B., & Swain, D. (2016). Relation between Sonic Layer and Mixed Layer depth in the Arabian Sea. *Indian Journal of Geo-Marine Sciences*, 45(10), 1264–1271. <http://nopr.niscair.res.in/bitstream/123456789/35711/1/IJMS%2045%2810%29%201264-1271.pdf>
115. Yoon, J.-H., Rasch, P. J., Wang, H., Vinoj, V., & Ganguly, D. (2016). The role of carbonaceous aerosols on short-term variations of precipitation over North Africa. *Atmospheric Science Letters*, 17(7), 407–414. <https://doi.org/10.1002/asl.672>

School of Electrical Sciences

116. Bhende, C. N., Kalam, A., & Malla, S. G. (2016). Mitigation of Power Quality Problems in Grid-Interactive Distributed Generation System. *International Journal of Emerging Electric Power Systems*, 17(2), 165–172. <https://doi.org/10.1515/ijeeps-2015-0163>
117. Chacko, S., Bhende, C. N., Jain, S., & Nema, R. K. (2016). Rotor resistance estimation of vector controlled induction motor drive using GA/PSO tuned fuzzy controller. *International Journal on Electrical Engineering and Informatics*, 8(1), 218–236. <https://doi.org/10.15676/ijeel.2016.8.1.15>
118. Das, S., Dubey, R., Panigrahi, B. K., & Samantaray, S. R. (2016). Secured zone-3 protection during power swing and voltage instability: an on-line approach. *IET Generation Transmission & Distribution*. Retrieved from <http://digital-library.theiet.org/content/journals/10.1049/iet-gtd.2016.0974>
119. Dash, K. S., Puhan, N. B., & Panda, G. (2016). BESAC: Binary External Symmetry Axis Constellation for unconstrained handwritten character recognition. *Pattern Recognition Letters*, 83, 413–422. <https://doi.org/10.1016/j.patrec.2016.05.031>
120. Dash, K. S., Puhan, N. B., & Panda, G. (2016). *Odia character recognition: a directional review*. Article in Press. <https://doi.org/10.1007/s10462->

016-9507-5

121. Dash, K. S., Puan, N. B., & Panda, G. (2016). *Unconstrained handwritten digit recognition using perceptual shape primitives*. Article in Press. <https://doi.org/10.1007/s10044-016-0586-3>
122. De, P., & Satija, U. (2016). Sparse Representation for Blind Spectrum Sensing in Cognitive Radio: A Compressed Sensing Approach. *Circuits, Systems, and Signal Processing*, 35(12), 4413–4444. <https://doi.org/10.1007/s00034-016-0279-6>
123. Dogra, D. P., Ahmed, A., & Bhaskar, H. (2016). Smart video summarization using mealy machine-based trajectory modelling for surveillance applications. *Multimedia Tools and Applications*, 75(11), 6373–6401. <https://doi.org/10.1007/s11042-015-2576-7>
124. Dubey, R., Samantaray, S. R., Panigrahi, B. K., & Venkoparao, V. G. (2016). Phase-space-based symmetrical fault detection during power swing. *IET Generation, Transmission and Distribution*, 10(8), 1947–1956. <https://doi.org/10.1049/iet-gtd.2015.1245>
125. Dubey, R., Samantaray, S. R., Panigrahi, B. K., & Venkoparao, V. G. (2016). Data-mining model based adaptive protection scheme to enhance distance relay performance during power swing. *International Journal of Electrical Power and Energy Systems*, Complete(81), 361–370. <https://doi.org/10.1016/j.ijepes.2016.02.014>
126. Dubey, R., Samantaray, S. R., Panigrahi, B. K., & Venkoparao, V. G. (2016). Koopman analysis based wide-area back-up protection and faulted line identification for series-compensated power network. *IEEE Systems Journal*. Retrieved from <http://ieeexplore.ieee.org/abstract/document/7731157>
127. Dubey, R., Samantaray, S. R., Panigrahi, B. K., & Venkoparao, V. G. (2016). Extreme learning machine based adaptive distance relaying scheme for static synchronous series compensator based transmission lines. *Electric Power Components and Systems*, 44(2), 219–232. <https://doi.org/10.1080/15325008.2015.1104563>
128. Kar, D., Panigrahi, S., & Sundararajan, S. (2016). SQLiGoT: Detecting SQL injection attacks using graph of tokens and SVM. *Computers and Security*, 60, 206–225. <https://doi.org/10.1016/j.cose.2016.04.005>
129. Kumar, A., & Sahu, P. R. (2016). Performance analysis of differential chaos shift keying modulation with transmit antenna selection. *IET Communications*, 10(3), 327–335. <https://doi.org/10.1049/iet-com.2015.0716>
130. Kumar, D., & Samantaray, S. R. (2016). Implementation of multi-objective seeker-optimization-algorithm for optimal planning of primary distribution systems including DSTATCOM. *International Journal of Electrical Power and Energy Systems*, 77, 439–449. <https://doi.org/10.1016/j.ijepes.2015.11.047>
131. Kumar, L., & Hegde, R. M. (2016). Near-Field Acoustic Source Localization and Beamforming in Spherical Harmonics Domain. *IEEE Transactions on Signal Processing*, 64(13), 3351–3361. <https://doi.org/10.1109/TSP.2016.2543201>

132. Kumar, P., Gauba, H., Pratim, R., & Prosad, D. (2016). *A multimodal framework for sensor based sign language recognition*. Article in Press. <https://doi.org/10.1016/j.neucom.2016.08.132>
133. Mishra, D. P., Samantaray, S. R., & Joos, G. (2016). A Combined Wavelet and Data-Mining Based Intelligent Protection Scheme for Microgrid. *IEEE Transactions on Smart Grid*, 7(5), 2295–2304. <https://doi.org/10.1109/TSG.2015.2487501>
134. Mishra, S. K., Panda, G., & Majhi, B. (2016). Prediction based mean-variance model for constrained portfolio assets selection using multiobjective evolutionary algorithms. *Swarm and Evolutionary Computation, Complete*(28), 117–130. <https://doi.org/10.1016/j.swevo.2016.01.007>
135. Padhy, P., Sahu, P. K., & Jha, R. (2016). Metal wire waveguide based all plasmonic refractive index sensor for terahertz frequencies. *Sensors and Actuators, B: Chemical*, 225, 115–120. <https://doi.org/10.1016/j.snb.2015.09.005>
136. Panda, G., Goswami, V., & Banik, A. D. (2016). Equilibrium and Socially Optimal Balking Strategies in Markovian Queues with Vacations and Sequential Abandonment. *Asia-Pacific Journal of Operational Research*, 33(5). <https://doi.org/10.1142/S0217595916500366>
137. Panda, G., Goswami, V., Banik, A. D., & Guha, D. (2016). Equilibrium balking strategies in renewal input queue with Bernoulli-schedule controlled vacation and vacation interruption. *Journal of Industrial and Management Optimization*, 12(3), 851–878. <https://doi.org/10.3934/jimo.2016.12.851>
138. Panda, R., Puhan, N. B., & Panda, G. (2016). New Binary Hausdorff Symmetry measure based seeded region growing for retinal vessel segmentation. *Biocybernetics and Biomedical Engineering*, 36(1), 119–129. <https://doi.org/10.1016/j.bbe.2015.10.005>
139. Panigrahi, T., Panda, M., & Panda, G. (2016). Fault tolerant distributed estimation in wireless sensor networks. *Journal of Network and Computer Applications*, 69, 27–39. <https://doi.org/10.1016/j.jnca.2016.04.023>
140. Pappula, L., & Ghosh, D. (2016). Synthesis of Thinned Planar Antenna Array Using Multiobjective Normal Mutated Binary Cat Swarm Optimization [Research article]. <https://doi.org/10.1155/2016/4102156>
141. Pati, A. K., & Sahoo, N. C. (2016). A new approach in maximum power point tracking for a photovoltaic array with power management system using Fibonacci search algorithm under partial shading conditions. *Energy Systems*, 7(1), 145–172. <https://doi.org/10.1007/s12667-015-0185-1>
142. Prabhakararao, E., & Manikandan, M. S. (2016). Efficient and robust ventricular tachycardia and fibrillation detection method for wearable cardiac health monitoring devices. *Healthcare Technology Letters*, 3(3), 239–246. <https://doi.org/10.1049/htl.2016.0010>
143. Pradhan, C., & Bhende, C. N. (2016). Enhancement in Primary Frequency Regulation of Wind Generator using Fuzzy-based Control. *Electric Power Components and Systems*, 44(15), 1669–1682. <https://doi.org/10.1080/15325008.2016.1183153>

144. Pradhan, H. S., & Sahu, P. K. (2016). Brillouin distributed strain sensor performance improvement using FourWaRD algorithm. *Optik - International Journal for Light and Electron Optics*, 127(5), 2666–2669. <https://doi.org/10.1016/j.ijleo.2015.11.190>
145. Pradhan, H. S., & Sahu, P. K. (2016). SNR enhancement of Brillouin distributed strain sensor using optimized receiver. *Smart Innovation, Systems and Technologies*, 43, 377–384. https://doi.org/10.1007/978-81-322-2538-6_39
146. Puhan, N. B., Vasundhara, & Panda, G. (2016). On new efficient i-law-based method for feedback compensation in hearing aids. *Electronics Letters*, 52(14), 1200–1202. <https://doi.org/10.1049/el.2016.0483>
147. Samui, A., & Samantaray, S. R. (2016). An active islanding detection scheme for inverter-based DG with frequency dependent ZIP–Exponential static load model. *International Journal of Electrical Power and Energy Systems, Complete*(78), 41–50. <https://doi.org/10.1016/j.ijepes.2015.11.054>
148. Satija, U., & Ramkumar, B. (2016). Instantaneous Mixture Channel Selection for Blind Equalization Using Cumulant Features in MIMO Systems. *Circuits, Systems, and Signal Processing*, 35(12), 4596–4606. <https://doi.org/10.1007/s00034-016-0272-0>
149. Satija, U., Ramkumar, B., & Manikandan, M. S. (2016). Robust cardiac event change detection method for long-term healthcare monitoring applications. *Healthcare Technology Letters*, 3(2), 116–123. <https://doi.org/10.1049/htl.2015.0062>
150. Sharma, A., Srivastava, S. C., & Chakrabarti, S. (2016). An Iterative Multiarea State Estimation Approach Using Area Slack Bus Adjustment. *IEEE Systems Journal*, 10(1), 69–77. <https://doi.org/10.1109/JSYST.2014.2316205>
151. Sharma, A., Srivastava, S. C., & Chakrabarti, S. (2016). Multi-agent-based dynamic state estimator for multi-area power system. *IET Generation, Transmission and Distribution*, 10(1), 131–141. <https://doi.org/10.1049/iet-gtd.2015.0504>
152. Sharma, A., Srivastava, S. C., & Chakrabarti, S. (2016). Testing and Validation of Power System Dynamic State Estimators Using Real Time Digital Simulator (RTDS). *IEEE Transactions on Power Systems*, 31(3), 2338–2347. <https://doi.org/10.1109/TPWRS.2015.2453482>
153. Sikdar, A., Behera, S. K., & Dogra, D. P. (2016). Computer-Vision-Guided Human Pulse Rate Estimation: A Review. *IEEE Reviews in Biomedical Engineering*, 9, 91–105. <https://doi.org/10.1109/RBME.2016.2551778>
154. Tripathy, L. N., Samantaray, S. R., & Dash, P. K. (2016). A fast time–frequency transform based differential relaying scheme for UPFC based double-circuit transmission line. *International Journal of Electrical Power and Energy Systems, Complete*(77), 404–417. <https://doi.org/10.1016/j.ijepes.2015.11.032>
155. Vamsikrishna, K. M., Dogra, D. P., & Desarkar, M. S. (2016). Computer-Vision-Assisted Palm Rehabilitation With Supervised Learning. *IEEE Transactions on Biomedical Engineering*, 63(5), 991–1001. <https://doi.org/10.1109/TBME.2015.2480881>
156. Vasundhara, Panda, G., & Puhan, N. B. (2016). A robust adaptive hybrid feedback cancellation

scheme for hearing aids in the presence of outliers. *Applied Acoustics*, 102, 146–155. <https://doi.org/10.1016/j.apacoust.2015.09.007>

157. Vasundhara, Panda, G., & Puan, N. B. (2016). An improved block adaptive system for effective feedback cancellation in hearing aids. *Digital Signal Processing*, 48, 216–225. <https://doi.org/10.1016/j.dsp.2015.08.016>
158. Vigneshwara Raja, P., Rao, C. V. S., & NarasimhaMurthy, N. V. L. (2016). Numerical simulation of ^{60}Co -gamma irradiation effects on electrical characteristics of n-type FZ silicon X-ray detectors. *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms*, 379, 23–27. <https://doi.org/10.1016/j.nimb.2016.04.052>

School of Humanities, Social Sciences and Management

159. Panda, S. K., Sahoo, D & Sahu, N. C., (2016), Corporate Social Responsibility (CSR) and challenges of Globalisation in India, *International Journal of Advance Research*, 4(5), 661–671. <https://doi.org/http://dx.doi.org/10.21474/ijar01/571>
160. Panda, S. K., Sahoo, D & Sahu, N. C., (2016), Multi Dimensional Approach to Corporate Social Responsibility (CSR), *International Journal of Engineering Research and Management*, 03(05), https://www.ijerm.com/download_data/IJERM0305052.pdf
161. Panda, Punyashree (2016). In Search of Self: the Pangs of Identity in Salman Rushdie's *Midnight's Children*, *Spring Magazine on English Literature*, 2(2), <http://www.springmagazine.net/salman-rushdies-midnights-children/>, UGC approved Journal

162. Satapathy, Amrita. (2016) *Witnessing England: T.N. Mukharji's A Visit to Europe*. The Atlantic Literary Review (Quarterly), Atlantic Publishers and Distributors, New Delhi.16(3), 109-120
163. Yadav, N, Sahu, N C & Sahoo, D. (2016), Sustainable Tourism Management in the National Chambal Sanctuary, India: Impediments and Opportunities, *International Journal of Innovation, Management and Technology*, 07(05), 177-182, doi : 10.18178/ijimt. 2016. 7.5.668, <http://www.ijimt.org/vol7/668-MB00008.pdf>

School of Infrastructure

164. Bauri, K. P., & Sarkar, A. (2016). Flow and scour around vertical submerged structures. *Sadhana - Academy Proceedings in Engineering Sciences*, 41(9), 1039–1053. <https://doi.org/10.1007/s12046-016-0539-y>
165. Biswal, D. R., Sahoo, U. C., & Dash, S. R. (2016). Characterization of granular lateritic soils as pavement material. *Transportation Geotechnics*, 6, 108–122. <https://doi.org/10.1016/j.trgeo.2015.10.005>
166. Chakraborty, P., & Sarkar, A. (2016). Flow characteristics through submerged rigid vegetation over a sinusoidal perturbed bed. *International Journal of River Basin Management*, 14(3), 255–266. <https://doi.org/10.1080/15715124.2016.1164176>
167. Chakraborty, P., Patnaik, R., & Sarkar, A. (2016). Hydraulic resistance due to vortex generated transverse oscillations in a submerged random array of circular cylinders. *ISH Journal of Hydraulic Engineering*, 22(2), 173–180. <https://doi.org/10.1080/09715010.2015.1129517>

168. Das, B., Saha, R., & Haldar, S. (2016). Effect of in-situ variability of soil on seismic design of piled raft supported structure incorporating dynamic soil-structure-interaction. *Soil Dynamics and Earthquake Engineering*, 84, 251–268. <https://doi.org/10.1016/j.soildyn.2016.02.015>
169. Gangadhara, R., & Hanumantha, R. (2016). Evaluation of the Compaction Characteristics of Untreated and Treated Red Mud (Vol. 2016–January, pp. 23–32). Presented at the Geotechnical Special Publication. <https://doi.org/10.1061/9780784480151.003>
170. Haldar, S., & Basu, D. (2016). Analysis of beams on heterogeneous and nonlinear soil. *International Journal of Geomechanics*, 16(4). [https://doi.org/10.1061/\(ASCE\)GM.1943-5622.0000599](https://doi.org/10.1061/(ASCE)GM.1943-5622.0000599)
171. Halder, D., Panda, R. K., Srivastava, R. K., Kheroar, S., & Singh, S. P. (2016). Stochastic analysis of rainfall and its application in appropriate planning and management for Eastern India agriculture. *Water Policy*, 18(5), 1155–1173. <https://doi.org/10.2166/wp.2016.240>
172. Mohapatra, S. S., Dey, P. P., & Chandra, S. (2016). Conflicting volume for U-turns at uncontrolled median openings. *Proceedings of the Institution of Civil Engineers: Transport*, 169(4), 195–204. <https://doi.org/10.1680/jtran.14.00089>
173. Muduli, R., Pattanayak, R., Raut, S., Sahu, P., Senthil, V., Rath, S., ... Panda, R. K. (2016). Dielectric, ferroelectric and impedance spectroscopic studies in TiO₂-doped AgNbO₃ ceramic. *Journal of Alloys and Compounds*, 664, 715–725. <https://doi.org/10.1016/j.jallcom.2015.12.259>
174. Nayak, S., & Dutta, S. C. (2016). Improving Seismic Performance of Masonry Structures with Openings by Polypropylene Bands and L-Shaped Reinforcing Bars. *Journal of Performance of Constructed Facilities*, 30(2). [https://doi.org/10.1061/\(ASCE\)CF.1943-5509.0000733](https://doi.org/10.1061/(ASCE)CF.1943-5509.0000733)
175. Pavithra, P., Srinivasula, R., Dinakar, P., Hanumantha, R., Satpathy, B. K., & Mohanty, A. N. (2016). A mix design procedure for geopolymer concrete with fly ash. *Journal of Cleaner Production*, 133, 117–125. <https://doi.org/10.1016/j.jclepro.2016.05.041>
176. Pavithra, P., Srinivasula, R., Dinakar, P., Hanumantha, R., Satpathy, B. K., & Mohanty, A. N. (2016). Effect of the Na₂SiO₃/NaOH Ratio and NaOH Molarity on the Synthesis of Fly Ash-Based Geopolymer Mortar (Vol. 2016–January, pp. 336–344). Presented at the Geotechnical Special Publication. <https://doi.org/10.1061/9780784480151.034>
177. Reddy, M. S., Dinakar, P., & Rao, B. H. (2016). A review of the influence of source material's oxide composition on the compressive strength of geopolymer concrete. *Microporous and Mesoporous Materials*, 234, 12–23. <https://doi.org/10.1016/j.micromeso.2016.07.005>
178. Rout, P. R., Dash, R. R., & Bhunia, P. (2016). Development of an integrated system for the treatment of rural domestic wastewater: emphasis on nutrient removal. *RSC Advances*, 6(54), 49236–49249. <https://doi.org/10.1039/C6RA08519A>
179. Rout, P. R., Dash, R. R., & Bhunia, P. (2016). Effectiveness of Aegle Shell (AS) and Groundnut Shell (GS) as Carbon Sources for Bio-Denitrification of Nitrate Rich Aqueous Solution.

- Advanced Science Letters*, 22(2), 354–358. <https://doi.org/10.1166/asl.2016.6858>
180. Rout, P. R., Dash, R. R., & Bhunia, P. (2016). Erratum: Nutrient removal from binary aqueous phase by dolochar: Highlighting optimization, single and binary adsorption isotherms and nutrient release (Process Saf. Environ. Prot. 100 (2016) 91-107 10.1016/j.psep.2016.01.001). *Process Safety and Environmental Protection*, 102, 229. <https://doi.org/10.1016/j.psep.2016.03.020>
181. Rout, P. R., Dash, R. R., & Bhunia, P. (2016). Nutrient removal from binary aqueous phase by dolochar: Highlighting optimization, single and binary adsorption isotherms and nutrient release. *Process Safety and Environmental Protection*, 100, 91–107. <https://doi.org/10.1016/j.psep.2016.01.001>
182. Sarkar, A., Sahoo, G., & Sahoo, U. C. (2016). Feature selection in accident data: an analysis of its application in classification algorithms. *International Journal of Data Analysis Techniques and Strategies*, 8(2), 108. <https://doi.org/10.1504/IJDATS.2016.077484>
183. Sethy, K. P., Pasla, D., & Chandra, S. (2016). Utilization of high volume of industrial slag in self compacting concrete. *Journal of Cleaner Production*, 112, 581–587. <https://doi.org/10.1016/j.jclepro.2015.08.039>
184. Sil, G., Sourava, M., Pratim, D., & Chandra, S. (2016). *Merging process of U-turns at uncontrolled median openings under mixed traffic conditions*. Article in Press. <https://doi.org/10.3846/16484142.2016.1247295>
185. Srinivasula, R., Dinakar, P., Hanumantha, R., Satpathy, B. K., & Mohanty, A. N. (2016). A Study on the Effect of Oxide Compositions on the Compressive Strength Characteristics of Geopolymer Concrete (Vol. 2016–January, pp. 1–10). Presented at the Geotechnical Special Publication. <https://doi.org/10.1061/9780784480151.001>
186. Tahasildar, J., & Rao, B. H. (2016). Determination of Swelling Characteristics Using Soil Water Characteristic Curve Parameter. *Indian Geotechnical Journal*, 46(3), 319–326. <https://doi.org/10.1007/s40098-016-0199-1>
187. Tahasildar, J., Erzin, Y., & Rao, B. H. (2016). *Development of relationships between swelling and suction properties of expansive soils*. Article in Press. <https://doi.org/10.1080/19386362.2016.1250040>
188. Verma, A. K., Bhunia, P., & Dash, R. R. (2016). Performance of UASB reactor treating synthetic textile wastewater: effect of physicochemical pretreatment. *Desalination and Water Treatment*, 57(18), 8050–8060. <https://doi.org/10.1080/19443994.2015.1017739>
189. Vishnuganth, M. A., Remya, N., Kumar, M., & Selvaraju, N. (2016). Photocatalytic degradation of carbofuran by TiO₂-coated activated carbon: Model for kinetic, electrical energy per order and economic analysis. *Journal of Environmental Management*, 181, 201–207. <https://doi.org/10.1016/j.jenvman.2016.06.016>

School of Mechanical Sciences

190. Babu, D. M., Kiran, S. V., Vundavilli, P. R., & Mandal, A. (2016). Experimental investigations and multi-response optimisation of wire electric discharge machining of hypereutectic Al-Si alloys. *International Journal of Manufacturing*

- Research*, 11(3), 221–237. <https://doi.org/10.1504/IJMR.2016.079460>
191. Baig M., Jain S., Gupta S., Vignesh G., Singh V., Kondaraju S., Gupta S., (2016), Engineering droplet navigation through tertiary-junction microchannels, *Microfluidics and Nanofluidics*, 20 (12), <https://www.doi.org/10.1007/s10404-016-1828-9>
 192. Balaganesan, G., & Chandra Khan, V. (2016). Energy absorption of repaired composite laminates subjected to impact loading. *Composites Part B: Engineering*, 98, 39–48. <https://doi.org/10.1016/j.compositesb.2016.04.083>
 193. Budaraju, A., Phirani, J., Kondaraju, S., & Bahga, S. S. (2016). Capillary Displacement of Viscous Liquids in Geometries with Axial Variations. *Langmuir*, 32(41), 10513–10521. <https://doi.org/10.1021/acs.langmuir.6b02788>
 194. C. Pandey, M. M Mahapatra, P. Kumar, N. Saini, (2016), Diffusible Hydrogen Level in Deposited Metal and Their Effect on Tensile Properties and Flexural Strength of P91 Steel | *Journal of Engineering Materials and Technology | ASME DC*. (n.d.). <http://materialstechnology.asmedigitalcollection.asme.org/article.aspx?articleid=2599114,Doi:10.1115/1.4035764>
 195. Dhar, B. K., Mahapatra, S. K., Maharana, S. K., & Sarkar, A. (2016). Effect of Reynolds number on phase change of water flowing across two heated circular cylinders in tandem arrangement. *Journal of Computational Multiphase Flows*, 8(1), 48–60. <https://doi.org/10.1177/1757482X16634198>
 196. Dhar, B. k., Mahapatra, S. K., Maharana, S. K., Sarkar, A., & Sahoo, S. s. (2016). Numerical Study on Phase Change of Water Flowing Across Two Heated Circular Cylinders in Tandem Arrangement. *Heat Transfer—Asian Research*, n/a-n/a. <https://doi.org/10.1002/htj.21236>
 197. Dhar, B. k., Mahapatra, S. k., Maharana, S. k., Sarkar, A., & Sahoo, S. s. (2016). Numerical Study on Phase Change of Water Flowing Across Two Heated Circular Cylinders in Tandem Arrangement. *Heat Transfer—Asian Research*, n/a-n/a. <https://doi.org/10.1002/htj.21236>
 198. Jakhar, A., Rath, P., & Mahapatra, S. K. (2016). A similarity solution for phase change of binary alloy with shrinkage or expansion. *Engineering Science and Technology, an International Journal*, 19(3), 1390–1399. <https://doi.org/10.1016/j.jestch.2016.04.002>
 199. Jena, D. P., & Panigrahi, S. N. (2016). Introducing passive acoustic filter in acoustic based condition monitoring: Motor bike piston-bore fault identification. *Mechanical Systems and Signal Processing*, 70, 932–946. <https://doi.org/10.1016/j.ymssp.2015.09.039>
 200. Jena, H., Pradhan, A. K., & Pandit, M. K. (2016). Study of Solid Particle Erosion Wear Behavior of Bamboo Fiber Reinforced Polymer Composite with Cenosphere Filler. *Advances in Polymer Technology*, n/a-n/a. <https://doi.org/10.1002/adv.21718>
 201. Mishra, P. K., Pradhan, A. K., & Pandit, M. K. (2016). Delamination propagation analyses of spar wingskin joints made with curved laminated FRP composite panels. *Journal of Adhesion Science and Technology*, 30(7), 708–728. <https://doi.org/10.1080/01694243.2015.1121851>
 202. Mishra, P. K., Pradhan, A. K., & Pandit, M. K. (2016). Inter-laminar delamination analyses of

- Spar Wingskin Joints made with flat FRP composite laminates. *International Journal of Adhesion and Adhesives*, 68, 19–29. <https://doi.org/10.1016/j.ijadhadh.2016.02.001>
203. Padhi, A., & Pandit, M. K. (2016). Behaviour of sandwich laminates subjected to thermal loading using higher-order zig-zag theory. *Journal of Sandwich Structures and Materials*, 18(2), 174–199. <https://doi.org/10.1177/109963-6215613487>
204. Padhi, S. S., Wagner, S. M., & Mohapatra, P. K. J. (2016). Design of Auction Parameters to Reduce the Effect of Collusion: Design of Auction Parameters. *Decision Sciences*, 47(6), 1016–1047. <https://doi.org/10.1111/dec.12159>
205. Pandey, C., Saini, N., Mahapatra, M. M., & Kumar, P. (2016). Hydrogen induced cold cracking of creep resistant ferritic P91 steel for different diffusible hydrogen levels in deposited metal. *International Journal of Hydrogen Energy*, 41(39), 17695–17712. <https://doi.org/10.1016/j.ijhydene.2016.07.202>
206. Parida, S. K., & Pradhan, A. K. (2016). Effect of Material Anisotropy on Delamination Damage in Adhesive Bonded Lap Shear Joints Made with Curved Laminated FRP Composite Panels. *Iranian Journal of Science and Technology - Transactions of Mechanical Engineering*, 40(4), 275–287. <https://doi.org/10.1007/s40997-016-0018-4>
207. Patel, G. C. M., Krishna, P., Vundavilli, P. R., & Parappagoudar, M. B. (2016). Multi-Objective Optimization of Squeeze Casting Process using Genetic Algorithm and Particle Swarm Optimization. *Archives of Foundry Engineering*, 16(3), 172–186. <https://doi.org/10.1515/afe-2016-0073>
208. Sahoo, S. K., Das, M. K., & Rath, P. (2016). Application of TCE-PCM based heat sinks for cooling of electronic components: A review. *Renewable and Sustainable Energy Reviews*, 59, 550–582. <https://doi.org/10.1016/j.rser.2015.12.238>
209. Sahoo, S. K., Rath, P., & Das, M. K. (2016). Numerical study of phase change material based orthotropic heat sink for thermal management of electronics components. *International Journal of Heat and Mass Transfer*, 103, 855–867. <https://doi.org/10.1016/j.ijheatmasstransfer.2016.07.063>
210. Sheu, T. W. H., Bhumkar, Y. G., Yuan, S. T., & Syue, S. C. (2016). Development of a High-Resolution Scheme for Solving the PNP-NS Equations in Curved Channels. *Communications in Computational Physics*, 19(2), 496–533. <https://doi.org/10.4208/cicp.230914.040615a>
211. Swain, A., & Das, M. K. (2016). Convective Heat Transfer and Pressure Drop over Elliptical and Flattened Tube. *Heat Transfer - Asian Research*, 45(5), 462–481. <https://doi.org/10.1002/htj.21172>
212. Verma, A. K., Rath, P., & Mahapatra, S. K. (2016). Interaction of short pulse collimated irradiation with inhomogeneity: An accurate model. *International Communications in Heat and Mass Transfer*, 72, 1–9. <https://doi.org/10.1016/j.icheatmasstransfer.2015.08.025>
213. Yadav, D. K., & Barve, A. (2016). Modeling Post-disaster Challenges of Humanitarian Supply Chains: A TISM Approach. *Global Journal of Flexible Systems Management*, 17(3), 321–340. <https://doi.org/10.1007/s40171-016-0134-4>

School of Minerals, Metallurgical and Materials Engineering

214. Babu, D. M., Kiran, S. V., Vundavilli, P. R., & Mandal, A. (2016). Experimental investigations and multi-response optimisation of wire electric discharge machining of hypereutectic Al-Si alloys. *International Journal of Manufacturing Research*, 11(3), 221–237. <https://doi.org/10.1504/IJMR.2016.079460>
215. Baddour, C. E., Das, K., Vengallatore, S., & Meunier, J.-L. (2016). Production and characterization of a novel carbon nanotube/titanium nitride nanocomposite. *Materials Research Express*, 3(12). <https://doi.org/10.1088/2053-1591/3/12/125023>
216. Basak, S., Sahu, K. K., Sharma, S. K., & Majumdar, J. D. (2017). Studies on Electron Beam Surface Melting of AISI 316 Stainless Steel and AISI 347 Stainless Steel. *Procedia Manufacturing*, 7, 647–653. <https://doi.org/10.1016/j.promfg.2016.12.096>
217. Deo, B. (2016). *Wear and Dissolution of MgO–C Refractory Lining in Belly and Top Cone Regions of BOF Vessel*. Article in Press. <https://doi.org/10.1007/s12666-016-1018-1>
218. Kasimuthumaniyan, S., Singh, S. K., Jayasankar, K., Mohanta, K., & Mandal, A. (2016). An alternate approach to synthesize TiC powder through thermal plasma processing of titania rich slag. *Ceramics International*, 42(16), 18004–18011. <https://doi.org/10.1016/j.ceramint.2016.07.169>
219. Kishore, R., Das, S., Nussinov, Z., & Sahu, K. K. (2016). Kinetic instability, symmetry breaking and role of geometric constraints on the upper bounds of disorder in two dimensional packings. *Scientific Reports*, 6. <https://doi.org/10.1038/srep26968>
220. Kumar, A., Pradhan, S. K., Jayasankar, K., Debata, M., Sharma, R. K., & Mandal, A. (2017). Structural Investigations of Nanocrystalline Cu-Cr-Mo Alloy Prepared by High-Energy Ball Milling. *Journal of Electronic Materials*, 46(2), 1339–1347. <https://doi.org/10.1007/s11664-016-5125-x>
221. Kumar, S. D., Vundavilli, P. R., Mandal, A., Mantry, S., & Chakraborty, M. (2017). Erosion Response of Thixoformed A356-5TiB2 in situ Composite Using Taguchi's Experimental Design. *Tribology Transactions*, 60(1), 39–46. <https://doi.org/10.1080/10402004.2016.1145775>
222. Mathew, J., Mandal, A., Warnett, J., Williams, M. A., Chakraborty, M., & Srirangam, P. (2016). X-ray tomography studies on porosity and particle size distribution in cast in-situ Al-Cu-TiB2 semi-solid forged composites. *Materials Characterization*, 118, 57–64. <https://doi.org/10.1016/j.matchar.2016.05.010>
223. Rout, A., Chatterjee, K., Venkatesan, K. A., Sahu, K. K., Antony, M. P., & Rao, P. R. V. (2016). Solvent extraction of plutonium(IV) in monoamide – ammonium ionic liquid mixture. *Separation and Purification Technology, Complete*(159), 43–49. <https://doi.org/10.1016/j.seppur.2015.12.053>
224. Sahu, K. K., Roy, A. K., Roy, A., Das, K., & Singh, R. (2016). Materials for Nuclear and Fossil Energy Applications. *Advances in Materials Science and Engineering*, 2016. <https://doi.org/10.1155/2016/5247563>
225. Singh, R., Das, K., Mishra, A. K., & Kalo, N. (2016). *An Approach for Estimation of Cathode Voltage Drop in an Aluminum Reduction Cell with an Inclined Carbon Block and a Copper Insert*. Article

in Press. <https://doi.org/10.1007/s12666-016-0978-5>

226. Soon, L. L., Zuhailawati, H., Suhaina, I., & Dhindaw, B. K. (2016). Prediction of compressive strength of biodegradable Mg-Zn/HA composite via response surface methodology and its biodegradation. *Acta Metallurgica Sinica (English Letters)*, 29(5), 464–474. <https://doi.org/10.1007/s40195-016-0410-5>
227. Thuong, N. V., Zuhailawati, H., Anasyida, A. S., Huy, T. D., & Dhindaw, B. K. (2016). Dry wear behavior of cooling-slope-cast hypoeutectic aluminum alloy. *International Journal of Materials Research*, 107(6), 578–585. <https://doi.org/10.3139/146.111371>

Paper published in Peer-reviewed Conference Proceedings

School of Basic Sciences

- Bahinipati, S (PoS(CKM2016)135) (2016), Prospects on time-integrated CPV measurements at Belle II, 9th International Workshop on the CKM Unitarity Triangle (CKM2016), 2016, November 28 to December 2, 2016 (TIFR, India), Proceedings of Science
- Chettiyankandy, P., Chand, A., Chowdhuri, S., (2016) (Souvenir, pp 30-38), Effects of concentration and temperature on the solvation structure and dynamics of ions in aqueous hexamethylenetetramine solution, P.K. Mohapatra, Seventh DAE-BRNS symposium on emerging trends in separation science and technology, IIT, Guwahati 2016, <https://www.doi.org/NA>, published in Souvenir
- Dash, J., & Jha, R. (2016). Dual Tapered Photonic Crystal Fiber Based Curvature and Temperature Sensor. In *13th International Conference on Fiber Optics and Photonics (2016)*, paper W3A.20 (p. W3A.20). Optical Society of America. <https://doi.org/10.1364/PHOTONICS.2016.W3A.20>
- Dash, N. & S. Bahinipati, (2016) on behalf of Belle Collaboration, (PoS(ICHEP2016)530), Search for CP violation in D decays to radiative and hadronic decays and search for rare D decay at Belle, 38th International Conference on High Energy Physics, 3-10 August 2016 (Chicago, USA), Proceedings of Science
- Dhal, S and Chatterjee, S (2016) (Page No. 48, ABS-6-ICYRAM), Welding at nano dimension for device applications, IUMRS-ICYRAM, IISC, Bangalore, 2016, December 11-15
- Dhal, S and Chatterjee, S, (2016) (Page No. 57, P02), Ion irradiation induced bending and joining of inorganic nanowires, Ion Beams in Materials Engineering and Characterizations, 2016, Sept 28 to Oct 1, Received best poster award (First prize)
- Irmiler, C., Adamczyk, K., Aihara, H., Angelini, C., Aziz, T., Babu, V., ...Yoshinobu, T. (2016). Construction and test of the first Belle II SVD ladder implementing the origami chip-on-sensor design. *Journal of Instrumentation*, 11(1). <https://doi.org/10.1088/1748-0221/11/01/C01087>
- Barik, N.B. and T. V. S. Sekhar, (2016) (Abstract Proceedings), Multilevel RBF-FD method for Navier-Stokes equations, International conference on Advances in Scientific Computing, 2016, November 28-30.
- Paladino A. et. al, on behalf of Belle II Collaboration, (PoS(ICHEP2016)248) (2016), The Silicon Vertex Detector of the Belle II Experiment, 38th International Conference on High Energy Physics 3-10 August 2016 (Chicago, USA), Proceedings of Science.

School of Earth, Ocean and Climate Sciences

10. Asutosh A. , Vinoj V, & Landu,K (2016) Local and Remote impacts of carbonaceous Aerosols on Indian Summer Monsoon Rainfall, TROPMET,2016.
11. Das M., Singh R.K., Farooq S. H., Vats N. (2016), (Univesity of Humburg), Variability of Asian monsoon and its linkage with deep-sea water and ecological system of benthic foraminifera assemblages over 700 Ka., 1st CVAS Workshop (November 28-30, 2016), Humburg, Germany.
12. Das M., Singh R.K., Holbourn A., Farooq, S,H., Kanjilal A., (2016) (National Institute of Oceanography, Goa), Variations in East Asian Winter monsoon and its impact on the paleoceanography of Japan Sea over 400 Ka. , Quaternary Climate: Recent findings and future challanges (April 28-30, 2016), Goa, India.
13. Farooq, S.H.[et al.] (2016), (Arsenic Proceedings of the 6th International Congress on Arsenic in the Environment, AS 2016., (346-350)), A comparative study of arsenic accumulation in agricultural fields., Arsenic Research and Global Sustainability (June 19-23, 2016), Stockholm, Sweden.
14. Ghose, S. K., Swain, D., Mathew, S., & Venkatesan, R., (2016) (Bulletin of the Indian Meteorological Society, Vol. 17, 2016, pp: 89), Seasonal variation of local heat flux terms for Bay of Bengal and Arabian Sea as observed from in-situ platforms, Annual Monsoon Workshop-2015 & National Symposium on Understanding and Forecasting the Monsoon Extremes, 2016, Feb. 23-24, Pune, India, INDIA.
15. Gogoi, P. P., K. Lekshmi, D. Swain and V. Vinoj, (2016) Temperature changes associated with Urbanization or Land Use Land Cover Changer over the state of Odisha, 1st International Conference on Climate Science Cotton University, Guwahati (7th March 2016), INDIA, Awarded best paper.
16. Jangir, B., Swain, D., & Udaya, B. (2016). Relation between tropical cyclone heat potential and cyclone intensity in the North Indian Ocean (Vol. 9882). Presented at the Proceedings of SPIE - The International Society for Optical Engineering. <https://doi.org/10.1117/12.2228033>.
17. Mahesh Kumar, U., Swain, D., & Ramanjappa, T., (2016) Observation of Geophysical Parameters during Tropical Cyclones using Satellite Altimetry, National Space Science Symposium (NSSS2016), Feb. 9 12, 2016., Thiruvananthapuram.
18. Pandey, S. K., Bakshi, H., & Vinoj, V. (2016). Recent changes in dust and its impact on aerosol trends over the Indo-Gangetic Plain (IGP) (Vol. 9876). Presented at the Proceedings of SPIE - The International Society for Optical Engineering. <https://doi.org/10.1117/12.2223314>.
19. Rajesh, P. V., & Pattnaik, S. (2016). High resolution land surface response of inland moving Indian monsoon depressions over Bay of Bengal (Vol. 9882). Presented at the Proceedings of SPIE - The International Society for Optical Engineering. <https://doi.org/10.1117/12.2239712>.
20. Swain, D., Roberts, G. J., Dash, J., Vinoj, V., Lekshmi, K., & Tripathy, S. (2016). Impact of rapid urbanization on the microclimate of Indian cities: A case study for the city of Bhubaneswar (Vol. 9877). Presented at the Proceedings of SPIE - The International Society for Optical Engineering. <https://doi.org/10.1117/12.2228111>.

21. Vinoj, V., & Pandey, S. K. (2016). Towards understanding the variability of aerosol characteristics over the Indo-Gangetic Plain (Vol. 9882). Presented at the Proceedings of SPIE - The International Society for Optical Engineering. <https://doi.org/10.1117/12.2223315>
- School of Electrical Sciences**
22. Anurag, M. B., Thrinath, G. S., Karanki, S. B., & Yallamili, R. (2016). Design of ZVS based high gain DC-DC converter for PV applications. In *2016 IEEE International Conference on Renewable Energy Research and Applications (ICRERA)* (pp. 584–589). <https://doi.org/10.1109/ICRERA.2016.7884402>.
23. Baghel, V., Panda, G., & Verma, S. K. (2016). Efficient design of radar waveforms using novel multiobjective optimization technique. Presented at the 2015 2nd International Conference on Recent Advances in Engineering and Computational Sciences, RA ECS 2015. <https://doi.org/10.1109/RAECS.2015.7453330>
24. Dash, K. S., Puhan, N. B., & Panda, G. (2016). A sparse concept coded spatio-spectral feature representation for handwritten character recognition. In *2016 International Conference on Signal Processing and Communications (SPCOM)* (pp. 1–5). <https://doi.org/10.1109/SPCOM.2016.7746615>.
25. Dey, P., Dogra, D. P., Roy, P. P., & Bhaskar, H. (2016). Autonomous vision-guided approach for the analysis and grading of vertical suspension tests during Hammersmith Infant Neurological Examination (HINE). In *2016 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)* (pp. 863–866). <https://doi.org/10.1109/EMBC.2016.7590837>
26. Dey, P., Satija, U., & Ramkumar, B. (2016). Single channel blind source separation based on variational mode decomposition and PCA. Presented at the 12th IEEE International Conference Electronics, Energy, Environment, Communication, Computer, Control: (E3-C3), INDICON 2015. <https://doi.org/10.1109/INDICON.2015.7443723>.
27. Dutta, T., Satija, U., Ramkumar, B., & Manikandan, M. S. (2016). A novel method for automatic modulation classification under non-Gaussian noise based on variational mode decomposition. In *2016 Twenty Second National Conference on Communication (NCC)* (pp. 1–6). <https://doi.org/10.1109/NCC.2016.7561103>.
28. Ganthia, B. P., Mohanty, S., Rana, P. K., & Sahu, P. K. (2016). Compensation of voltage sag using DVR with PI controller (pp. 2138–2142). Presented at the International Conference on Electrical, Electronics, and Optimization Techniques, ICEEOT 2016. <https://doi.org/10.1109/ICEEOT.2016.7755068>
29. Ghosh, D., & Sahu, P. K. (2016). UWB in healthcare. In *2016 International Conference on Electromagnetics in Advanced Applications (ICEAA)* (pp. 679–682). <https://doi.org/10.1109/ICEAA.2016.7731489>
30. Guo, X., Mohammad, M., Saha, S., Chan, M. C., Gilbert, S., & Leong, D. (2016). PSync: Visible light-based time synchronization for Internet of Things (IoT) (Vol. 2016–July). Presented at the Proceedings - IEEE INFOCOM. <https://doi.org/10.1109/INFOCOM.2016.7524358>.

31. Jena, M. K., Panigrahi, B. K., Das, S., & Samantaray, S. R. (2016). Exposing zone-2 and zone-3 mal-operations in thyristor-controlled series capacitor compensated transmission system. In *2016 National Power Systems Conference (NPSC)* (pp. 1–6). <https://doi.org/10.1109/NPSC.2016.7858857>
32. Jena, M. K., Samantaray, S. R., & Panigrahi, B. K. (2016). Supervisory control based wide area back-up protection scheme for power transmission network. In *2016 National Power Systems Conference (NPSC)* (pp. 1–5). <https://doi.org/10.1109/NPSC.2016.7858869>
33. Kar, S., & Samantaray, S. R. (2016). Data-mining based comprehensive primary and backup protection scheme for micro-grid (pp. 505–510). Presented at the 2015 IEEE Power, Communication and Information Technology Conference, PCITC 2015 - Proceedings. <https://doi.org/10.1109/PCITC.2015.7438217>
34. Kar, S., Jati, D., & Samantaray, S. R. (2016). Overcurrent relay coordination for micro-grid with different operating conditions. Presented at the 2016 IEEE 6th International Conference on Power Systems, ICPS 2016. <https://doi.org/10.1109/ICPS.2016.7584205>
35. Karanki, S. B., & Xu, D. (2016). Optimal capacity and placement of battery energy storage systems for integrating renewable energy sources in distribution system (pp. 1–6). IEEE. <https://doi.org/10.1109/NPSC.2016.7858983>
36. Kerketta, S. R., & Ghosh, D. (2016). Gain enhancement of millimeter wave antenna using superstrate (pp. 55–58). IEEE. <https://doi.org/10.1109/IndianAW.2016.7883597>
37. Klumpner, C., Rashed, M., De, D., Patel, C., Kulsangcharoen, P., & Asher, G. (2016). Experimental validation of the solid state substation with embedded energy storage concept. In *2016 IEEE Energy Conversion Congress and Exposition (ECCE)* (pp. 1–8). <https://doi.org/10.1109/ECCE.2016.7855100>
38. Kukde, R., Manikandan, M. S., & Panda, G. (2016). Low complexity distributed active noise control using secondary path constraints. In *2016 IEEE Region 10 Conference (TENCON)* (pp. 612–616). <https://doi.org/10.1109/TENCON.2016.7848075>
39. Kumar, M. S., Chandra, T. R., Kumar, D. P., & Manikandan, M. S. (2016). Monitoring moisture of soil using low cost homemade Soil moisture sensor and Arduino UNO. In *2016 3rd International Conference on Advanced Computing and Communication Systems (ICACCS)* (Vol. 01, pp. 1–4). <https://doi.org/10.1109/ICACCS.2016.7586312>.
40. Kushwaha, P. C., & Bhende, C. N. (2016). Single-phase rooftop photovoltaic based grid-interactive electricity system (pp. 1–6). IEEE. <https://doi.org/10.1109/INDICON.2016.7838945>
41. Lorentzen, K., Grønli, T.-M., Ghinea, G., Younas, M., & Satpathy, M. (2016). Sensors in Your Clothes: Design and Development of a Prototype. In *Mobile Web and Intelligent Information Systems* (pp. 302–312). Springer, Cham. https://doi.org/10.1007/978-3-319-44215-0_25
42. Prabhakararao, E., & Manikandan, M. S. (2016). Detection of life-threatening arrhythmias using random noise and zerocrossing information. In *2016 International Conference on Wireless*

- Communications, Signal Processing and Networking (WISPNET)* (pp. 181–185). <https://doi.org/10.1109/WISPNET.2016.7566116>
43. Prabhakararao, E., & Manikandan, M. S. (2016). On the use of variational mode decomposition for removal of baseline wander in ECG signals. Presented at the 2016 22nd National Conference on Communication, NCC 2016. <https://doi.org/10.1109/NCC.2016.7561133>
 44. Sahoo, D., & Satpathy, M. (2016). MSimDRAM: Formal Model Driven Development of a DRAM Simulator (Vol. 2016–March, pp. 597–598). Presented at the Proceedings of the IEEE International Conference on VLSI Design. <https://doi.org/10.1109/VLSID.2016.88>
 45. Sahoo, N. C., Mohapatro, S., & Senapati, M. K. (2016). A SoC based voltage control strategy for DC microgrid (pp. 185–190). Presented at the 2015 IEEE Electrical Power and Energy Conference: Smarter Resilient Power Systems, EPEC 2015. <https://doi.org/10.1109/EPEC.2015.7379947>
 46. Sahoo, N. C., Mohapatro, S., Sahu, A. K., & Mohapatro, B. S. (2016). Loss and cost evaluation of typical DC distribution for residential house (pp. 668–673). IEEE. <https://doi.org/10.1109/PECON.2016.7951644>
 47. Mohapatro, S., Allamsetty, S., ApekshaMadhukar and Nikhil Kumar Sharam, (18th Asian Conference on Electrical Discharge), Study on the Effect of Electrode Configuration on NO_x Removal from Diesel Engine Exhaust, ACED2016, Dec 8-10
 48. Satija, U., Ramkumar, B., & Manikandan, M. S. (2016). A unified sparse signal decomposition and reconstruction framework for elimination of muscle artifacts from ECG signal (Vol. 2016–May, pp. 779–783). Presented at the ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings. <https://doi.org/10.1109/ICASSP.2016.7471781>
 49. Satija, U., Ramkumar, B., & Manikandan, M. S. (2016). Low-complexity detection and classification of ECG noises for automated ECG analysis system. Presented at the 2016 International Conference on Signal Processing and Communications, SPCOM 2016. <https://doi.org/10.1109/SPCOM.2016.7746621>
 50. Satija, U., Ramkumar, B., & Manikandan, M. S. (2016). A robust sparse signal decomposition framework for baseline wander removal from ECG signal (pp. 2470–2473). IEEE. <https://doi.org/10.1109/TENCON.2016.7848477>
 51. Senapati, R. N., Sahoo, N. C., & Mishra, S. (2016). Convolution integral based multivariable grey prediction model for solar energy generation forecasting (pp. 663–667). IEEE. <https://doi.org/10.1109/PECON.2016.7951643>
 52. Singh, G., & Panda, G. (2016). A novel ANC system using nonlinear error LMS algorithm (pp. 539–544). Presented at the 2015 IEEE Power, Communication and Information Technology Conference, PCITC 2015 - Proceedings. <https://doi.org/10.1109/PCITC.2015.7438224>
 53. Singha, A. K., Kapat, S., & Pal, J. (2016). A robust design framework for stable digital peak current-mode control under uniform sampling. Presented at the ECCE 2016 - IEEE Energy Conversion Congress and Exposition, Proceedings. <https://doi.org/10.1109/ECCE.2016.7854769>.

54. Tripathy, B. K., Bera, P., & Rahman, M. A. (2016). Analysis of trust models in Mobile Ad Hoc Networks: A simulation based study. Presented at the 2016 8th International Conference on Communication Systems and Networks, COMSNETS 2016. <https://doi.org/10.1109/COMSNETS.2016.7440007>
55. Tripathy, B. K., Sethy, A. G., Bera, P., & Rahman, M. A. (2016). A Novel Secure and Efficient Policy Management Framework for Software Defined Network (Vol. 2, pp. 423–430). Presented at the Proceedings - International Computer Software and Applications Conference. <https://doi.org/10.1109/COMPASAC.2016.31>
56. Tripathy, S., & Panda, G. (2016). A novel classification of handwritten digits using compressive sensing technique (pp. 233–236). Presented at the 2016 International Conference on Computational Techniques in Information and Communication Technologies, ICCTICT 2016 - Proceedings. <https://doi.org/10.1109/ICCTICT.2016.7514584>
57. Vamsikrishna, K. M., Dogra, D. P., & Bhaskar, H. (2016). Classification of head movement patterns to aid patients undergoing home-based cervical spine rehabilitation (Vol. 2016–May, pp. 849–853). Presented at the ICASSP, IEEE International Conference on Acoustics, Speech and Signal Processing - Proceedings. <https://doi.org/10.1109/ICASSP.2016.7471795>
58. Vasundhara, G. P., & Puhan, N. B. (2016). An improved block sparse method for feedback suppression in hearing AIDS. Presented at the 2016 International Conference on Signal Processing and Communications, SPCOM 2016. <https://doi.org/10.1109/SPCOM.2016.7746669>
59. Vasundhara, Panda, G., & Puhan, N. B. (2016). A low complexity Hirschman Optimal Transform based feedback cancellation scheme for hearing aid (pp. 680–685). Presented at the 2015 IEEE Power, Communication and Information Technology Conference, PCITC 2015 - Proceedings. <https://doi.org/10.1109/PCITC.2015.7438083>

School of Humanities, Social Sciences and Management

60. Nayak, S.K. and Sahoo, D., (International Management Institute Bhubaneswar.), ICT and Growth of two Asian Giants: India and China, The International Conference on India, China and The New World Order: Economic, Social and Cultural Dimensions, 26 -27, 11, 2016
61. Panda, S. K., Sahoo, D and Sahu, N. C., (Antalya,Turkey), Corporate Social Responsibility (CSR) Expenditure and Financial Performance of Mahanadi Coal Field Ltd. (MCL), Odisha, India, 5th World Conference on Business, Economics and Management-WCBEM, May 12-14,2016
62. Panda, S. K., Sahoo, D and Sahu, N. C., (SOA University, Bhubaneswar, Odisha.), Evolution of the concept of Corporate Social Responsibility CSR: The Indian perspective, National Seminar on Issues and Challenges in Business Management, March 2, 2016

School of Infrastructure

63. Pradhan, B., & Jena, R. (2016). Spatial relationship between earthquakes, hot-springs and faults in Odisha, India (Vol. 37). Presented at the IOP Conference Series: Earth and Environmental Science. <https://doi.org/10.1088/1755-1315/37/1/012070>
64. Cherian, C., Bandipally, S., Arnepalli, D. N., Dhulipala, V. R., & Korupolu, R. N. (2016).

- Reappraisal of optimum lime content determination for lime stabilization of fine-grained soils (pp. 260–275). Presented at the GA 2016 - 6th Asian Regional Conference on Geosynthetics: Geosynthetics for Infrastructure Development, Proceedings.
65. Basu, D., Roy, S., Dhingra, S.L., and Banik, A.D., (2016) Methods for Fitting Riding Time Distribution Data of Shared-auto Users in an Urban Area, 14th World Conference on Transportation Research, Shanghai, China
 66. Basu, D., Stefan, K.J., Hunt, J.D., and McCoy, M., (2016) Modeling Location Choice Behavior for Non-mandatory Tours, 14th World Conference on Transportation Research, Shanghai, China
 67. Bauri, K. & Sarkar, A., (2016) (434 (1-3)), Flow characteristics around submerged vertical square cylinder over plane bed, International Conference on Fluid Mechanics and Fluid Power, (2016, 15-17 December)
 68. Bauri, K. & Sarkar, A. (2016), (459-465), Three dimensional flow field analysis around fully submerged square cylinder over plane bed, International Conference on Hydraulics, Water Resources, Coastal and Environmental Engineering, (2016, 8-10 December).
 69. Behera, S. and Behera, M. (2016), (120), Performance of low cost microbial fuel cell using Earthenware separator, International Conference on Water, environment, energy and Society, organized by AISECT University Bhopal and Texas A & M University, 15-18 March, 2016, <https://www.doi.org>.
 70. Behera, S. and Behera, M., (2016) (63), Performance Evaluation of low cost Microbial fuel cell employing clayware separator of different thickness, -, International Conference on Waste Management 'RECYCLE 2016', organized by Association of Civil Engineers, IIT Guwahati and Waste Management Research group (WMRG), IIT Guwahati, 1-2 April, 2016, -, <https://www.doi.org/>
 71. Bisoi, S. and Haldar, S., (2016) (256-263), Behavior of monopile supported offshore wind turbines in clay due to long term dynamic loads, 5th International Conference on Forensic Geotechnical Engineering, Dec. 8 -10, 2016, IISc Bangalore, Bangalore
 72. Biswal, D. R., Dash, S. R., & Sahoo, U. C. (2016). Cement-Flyashstabilisation of granular lateritic soil for use in flexible pavement (pp. 493–504). Presented at the 8th International Conference on Maintenance and Rehabilitation of Pavements, MAIREPAV 2016. <https://doi.org/10.3850/978-981-11-0449-7-087-cd>
 73. Chakraborty, P. & Sarkar, A., (2016) (520 (1-3)), Flow analysis through submerged rigid vegetation over different forms of sinusoidal bed, International Conference on Fluid Mechanics and Fluid Power, (2016, 15-17 December)
 74. Chanda, D, Saha, R. and Haldar, S, (2016) Probabilistic seismic design of soil-pile foundation-structure system, Indian Geotechnical Conference, IGC 2016, 15-17 Dec. 2016, IIT Madras, Madras
 75. Haldar S., (2016) Reliability based design of pile foundations, Indian Geotechnical Conference, IGC 2016, 15-17 Dec., IIT Madras, Madras
 76. Haldar, S., & Basu, D. (2016). Effect of Climate Change on the Reliability of Offshore Wind Turbine Foundations (Vol. 2016–January, pp. 407–417). Presented at the Geotechnical Special

- Publication. <https://doi.org/10.1061/9780784480137.039>.
77. JanardhanTahasildar and B. Hanumantha Rao (2016), Measurement of zeta potential of expansive soils, 19th Southeast Asian Geotechnical Conference & 2nd AGSSEA Conference (19 SEAGC & 2AGSSEA), Kuala Lumpur, 31 May- 3 June 2016 , Kuala Lumpur.
 78. Mohapatra, S.S. and Dey, P.P., (2016) Capacity of U-turn movement at median openings, TRB, 95th Annual Meeting of Transportation Research Board, Washington, DC, January 10 to14, 2016.
 79. Nath D., Bhunia, P., Verma AK, Dash RR., (2016) (IIT Guwahati), Ultrasonication integrated with hybrid biological reactor for treatment of synthetic textile wastewater, Recycle-2016; International conference on waste management, April 1-2, 2016.
 80. Nayak, P., & Sahoo, U. C. (2016). Rejuvenating aged bitumen with composite castor oil (pp. 134–143). Presented at the 8th International Conference on Maintenance and Rehabilitation of Pavements, MAIREPAV 2016. <https://doi.org/10.3850/978-981-11-0449-7-013-cd>.
 81. Reddy, NG.,RaoBH. andSatpathy, B.K.(2016), (5th Annual IBAAS), Variations in the mineralogical compositions of red mud waste calcined at different temperatures, 5th Annual IBAAS , Goa from September 26-28, 2016.
 82. Reddy, NG, Rao BH., &Padmanaban, NPH (2016), (In Proceedings of Indo-US workshop on Geoenvironmental Practices and Sustainability), Surface charge properties and particle size analysis of red mud waste from zeta potential measurements, GLS Babu, KR Reddy, A De, and M Datta, Geo-Chicago 2016, Department of Civil and Materials Engineering, University Illinois at Chicago.
 83. Panda, R. K., Singh, G. (2016), Analysis of Trend and Variability of Rainfall in the Mid- Mahanadi River Basin of Eastern India, Proc. World Academy of Science, Engineering and Technology, [https://www.doi.org/10 \(6\): 636-640](https://www.doi.org/10.636-640).
 84. Pavithra, P., Srinivasula, R., Dinakar, P., Hanumantha, R., Satpathy, B. K., & Mohanty, A. N. (2016). Effect of the Na₂SiO₃/NaOH Ratio and NaOH Molarity on the Synthesis of Fly Ash-Based Geopolymer Mortar (Vol. 2016–January, pp. 336–344). Presented at the Geotechnical Special Publication. <https://doi.org/10.1061/9780784480151.034>.
 85. Reddy NG, Chandra S, and Rao BH , (2016) (1st Int. Con. on Recent Innovations in Engineering and Technology), Assessment of industrial wastes as a road construction material: a review, ICRIEAT-2016, 22-23rd December, 2016, Hyderabad.
 86. Rout, P.R., Bhunia, P., Dash, R.R., (2016) (2nd International Conference on Desalination and Environment (ICODE 2016)), Development of an Integrated System for the Treatment of Rural Domestic Wastewater: Emphasis on Nutrient Removal, 2nd International Conference on Desalination and Environment (ICODE 2016), Doha, Qatar.
 87. Saha, R., Pal, A., & Haldar, S. (2016). Appraisal of the in Situ Variability and Modeling Uncertainty of Dynamic Soil-Piled Raft-Structure Interaction on Seismic Response: A Probabilistic Approach (Vol. 2016–January, pp. 621–630). Presented at the Geotechnical Special Publication. <https://doi.org/10.1061/9780784480151.061>.

88. Singh, G., Das, N.N., Panda, R. K., Mohanty, B. P., (2016) Entekhabi, D., Bhattacharya, B., (Abstract: H31G-1478), High Resolution Soil Moisture Retrieval using SMAP-L Band Radiometer and RISAT-C band Radar Data for the Indian Subcontinent, American Geophysical Union Fall Meeting 2016, USA.
89. Singh, G., Panda, R. K., Mohanty, B. P., & Jana, R. B. (2016). Soil moisture variability across different scales in an Indian watershed for satellite soil moisture product validation (Vol. 9877). Presented at the Proceedings of SPIE - The International Society for Optical Engineering. <https://doi.org/10.1117/12.2222743>
90. Srinivasula, R., Dinakar, P., Hanumantha, R., Satpathy, B. K., & Mohanty, A. N. (2016). A Study on the Effect of Oxide Compositions on the Compressive Strength Characteristics of Geopolymer Concrete (Vol. 2016–January, pp. 1–10). Presented at the Geotechnical Special Publication. <https://doi.org/10.1061/9780784480151.001>.
91. Gelamo, R. V., Augusto, G. de S., Machuno, L. G. B., Moshkalev, S., Vaz, A. R., Rout, C. S., & Sahoo, S. (2016). Plasma-treated multilayer graphene: Synthesis and applications. In *2016 31st Symposium on Microelectronics Technology and Devices (SBMicro)* (pp. 1–4). <https://doi.org/10.1109/SBMicro.2016.7731322>.
- School of Mechanical Sciences**
92. Barve A., Yadav, D.K. (2016) (University of London, London, UK), Role of knowledge management in disaster risk mitigation in India, International Journal of Art and Science Conference.
93. Sinhababu, Arijit, Sathyanarayana Ayyalasomayajula, (2016) (228), Improving Shock Resolving Ability via De-aliasing for DNS of Viscous Burgers' Equation, 6th International & 43rd National Fluid Mechanics & Fluid Power (2016, December 15-17).
94. Surekha, B, Vundavilli, Pandu R and Parappagoudar, M.B. (2016) (Published by Saveetha University, pp.500-503), Chromite and silica based resin bonded sand mould systems: A performance comparison, 2016, 2nd International Conference on Design, Analysis, Manufacturing and Simulation, Chennai.
95. Yadav, D.K. and Barve, A (2016) (Singapore), Analysis of enablers for disaster waste management , 3rd International conference on innovation in business and management.
96. Kannan, S.R., Chandrasekar, V., (2016) Proceedings of SPIE - The International Society for Optical Engineering, (-), Information theoretic approach using neural network for determining radiometer observations from radar and vice versa, Remote Sensing of the Atmosphere, Clouds, and Precipitation VI (4 April 2016 through 7 April 2016), <https://www.doi.org/10.1117/12.2223432>.
97. Mandava, R. K., & Vundavilli, P. R. (2016). Forward and inverse kinematic based full body gait generation of biped robot. In *2016 International Conference on Electrical, Electronics, and Optimization Techniques (ICEEOT)* (pp. 3301–3305). <https://doi.org/10.1109/ICEEOT.2016.7755317>.
98. Ganta, Naveen, Bhumkar, Yogesh, & Sathyanarayana A, (2016) (231), On the

- development of a H-grid Topology Parallel Sover for Transonic Flows, 6th International & 43rd National Fluid Mechanics & Fluid Power (2016, December 15-17).
99. Goel, P. Arun K. A.K. Joshi, J.B. & Das, M, (2016) (Proceedings of the 6th International & 43rd National Conference on Fluid Mechanics and Fluid Power (FMFP-2016), Allahabad, India, 1-3), Experimental Study of Vapour Bubbles Departure Characteristics for a Cylindrical Heater Under Cross Flow Conditions, 6th International & 43rd National Conference on Fluid Mechanics and Fluid Power (FMFP-2016), 2016, December, 14-18.
100. Rangarao, K. V., & Arumuru, V. (2016). Gold-Fourier Kaluri method for estimating vortex shedding frequency (pp. 379–383). Presented at the Proceedings - 2016 IEEE Region 10 Symposium, TENSYP 2016. <https://doi.org/10.1109/TENCONSpring.2016.7519436>
101. S. K. Sahoo, M. K. Das and P. Rath, (2016) (FMFP-2016, MNIT Allahabad), Experimental Analysis of a Hybrid PCM Based Heat Sink, FMFP-2016, Dec 15-17, 2016.
102. Sahoo, S. K., Das, M. K., & Rath, P. (2016). Numerical study of cyclic melting and solidification of nano enhanced phase change material based heatsink in thermal management of electronic components (Vol. 2). Presented at the ASME 2016 5th International Conference on Micro/Nanoscale Heat and Mass Transfer, MNHMT 2016. <https://doi.org/10.1115/MNHMT2016-6499>.
103. Sahoo, S.K., Das, M.K., Rath, P., Arijit (2016) (Proceedings of the 6th International & 43rd National Conference on Fluid Mechanics and Fluid Power (FMFP-2016), Allahabad, India, 1-3), Experimental Analysis of A Hybrid PCM Based Heat Sink, 6th International & 43rd National Conference on Fluid Mechanics and Fluid Power (FMFP-2016), 2016, December, 14-18.
104. Swain, A., Das, M.K., Arijit (2016) (Proceedings of the 6th International & 43rd National Conference on Fluid Mechanics and Fluid Power (FMFP-2016), Allahabad, India, 1-3), Study of Pool Boiling of Distilled Water on 5x3 Staggered Tube Bundle under Variable Heat Flux , 6th International & 43rd National Conference on Fluid Mechanics and Fluid Power (FMFP-2016), 2016, December, 14-18.
105. Verma, A. K., & Mahapatra, S. K. (2016). Thermal wave model for analysis of multilayer tissue medium in presence of inhomogeneity in laser tissue treatment (Vol. 2). Presented at the ASME 2016 5th International Conference on Micro/Nanoscale Heat and Mass Transfer, MNHMT 2016. <https://doi.org/10.1115/MNHMT2016-6464>.
- School of Minerals, Metallurgical and Materials Engineering**
106. Dhindaw, B. K., De, P. S., & Jayashree, P. (2016). Friction stir welding of aluminum alloy 1100 and titanium-al alloy (Vol. 1). Presented at the ASME 2016 11th International Manufacturing Science and Engineering Conference, MSEC 2016. <https://doi.org/10.1115/MSEC20168695>.
106. Mishra, N; Das, K. (2016), (Proceedings of the 2016 COMSOL Conference in Bangalore, 368321), Predicting Elastic Properties of Unidirectional SU8/ZnO Nanocomposites using COMSOL Multiphysics, 2016 COMSOL Conference in Bangalore, 2016, October, 19 -21, Bangalore, COMSOL.



Research, Development and Collaborations

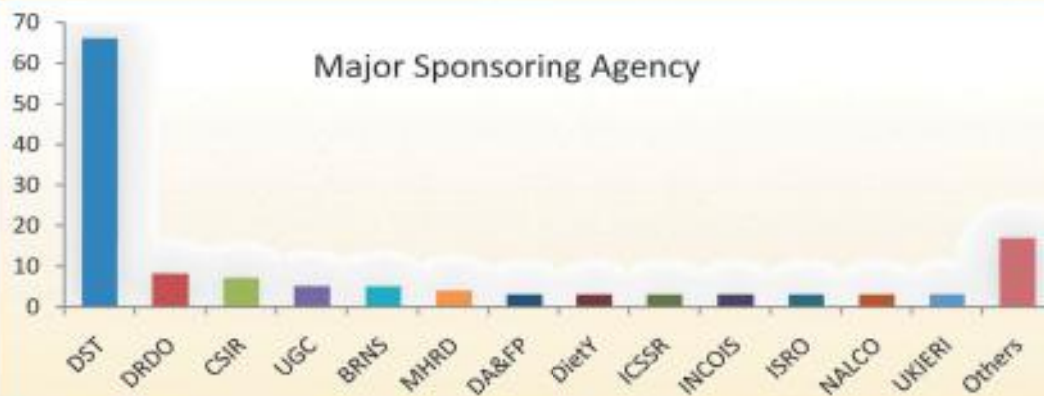
No. of Sponsored Projects



No. of Consultancy Projects



Major Sponsoring Agency



Annual Report 2016-2017

The Research and Development activities of the Institute are growing at a faster rate. The total project funding received so far (2010-2017) from different agencies is Rs. 75.00 crore, which includes around Rs. 69.00 crore towards sponsored research projects and nearly Rs. 6.00 crore towards consultancy projects. During the current year (2016-17), projects worth of Rs. 14.20 crore have been received, which includes Rs. 12.50 crore towards sponsored research projects and Rs. 1.70 crore towards consultancy projects. The major funding agencies are MHRD, DST, CSIR, UGC, ISRO, DRDO, ICSSR, DAE, CPRI, DAC, DBT, Deity, NALCO, NPOL, IUSSTF, INCOIS, MoES, IITM, NCAOR, BRNS KPIT, P&C Dept.-Govt. of Odisha etc. In addition to the above, the faculty members of the Institute have submitted 50 project proposals worth Rs. 33 crore. The various major areas under which these projects have been submitted are: Advance Materials, Energy, Nanotech Hardware, Health Care, Defense, CS

& ICT, Environmental Sciences & Climate Change, Water Resources & River Science, Manufacturing and Sustainable Urban Design. Our faculty members participated in major initiatives of MHRD like IMPRINT, Uchhatar Avishkar Yojana (UAY) etc.

Some of the worth quoting recent Industry-Academia collaborations and R&D initiatives as well as projects connected to the National/State Missions are as follows. An MOU was signed by our Director, Prof. R. V. Raja Kumar and Dr. Umakant Choudhury, Executive Director, BHEL on 17th August 2016 to address the issues of BHEL like Energy, Transmission, Transportation, Renewable Energy and Emerging Technologies. A few project proposals have been initiated by the faculty members in consultation with BHEL for addressing the aforesaid issues.

An effective collaboration was initiated with the Integrated Test Range (ITR), DRDO, Chandipur by





signing agreements for three Sponsored Research Projects. A team led by Dr. B K Das, the Director of ITR, Chandipur visited our Institute and participated in the Agreement Signing Ceremony on 4th August, 2016. Besides the above, an MoU was signed with the Indian Army on 16th March, 2017 for R&D collaboration of mutual interest. Our Director and the Deputy Chief of Army Staff signed the MoU. The Institute also entered into an agreement with M/s KPIT Technologies Limited, Bangalore. Two project proposals were taken up in the area of Driver behavior modeling in the first phase.

The School of Minerals, Metallurgical and Materials Engineering at Indian Institute of Technology Bhubaneswar, Odisha, India and the Engineering Center of Materials Manufacturing, School of Materials Science and Engineering, Shanghai Jiao Tong University, Shanghai, China entered into a

Memorandum of Understanding on 26th May 2016. The MoU was signed by the honourable Director, Prof. R.V. Rajakumar of IIT Bhubaneswar and Dr. Mingxu Xia of SJTU, China (on behalf of Prof. Jianguo Li) during the state visit of the President of India to China from 24-27th May 2016. The MoU was signed at Peking University, Beijing, China in the Presence of hon'ble President which was also attended by a delegation of some Directors of IITs/NITs and Vice Chancellors of Central Universities of India and Minister of Textiles, govt of India, education minister of China and top academicians from China. This MoU is one of the ten MoUs signed between Indian and Chinese universities on the occasion.

The other notable industrial collaboration was with National Aluminium Company (NALCO) as a consequence of which three projects worth Rs. 1.50 Crores have been funded by the NALCO. The Institute



also initiated a collaborative project under Uchchar Avishkar Yojana where NALCO is an industrial partner and other counter parts are MHRD & Ministry of Mines. Another worth quoting initiative of the Institute funded by NALCO is in the area of utilization of industrial wastes for developing an environmental

friendly geo-polymer concrete using red mud alone, fly ash along, and a combination of red mud and fly ash.

Proposals worth around Rs. 92.00 crore are in pipe line for setting up of five Centres of Excellence



(CoE) such as: (a) Centre for Advance Research in Next Generation Networks (CARNGN) (b) Centre of Excellence in Precision and Micro Manufacturing (c) Centre of Excellence on Cooling and Energy Store

Technology (d) Centre of Excellence on Land, Water, Energy and Climate (e) Centre of Excellence on Regional Climate and Coastal Hazards.

SPONSORED RESEARCH PROJECTS

S.No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency
School of Basic Sciences			
1.	Center of Excellence for Novel Energy Materials (CENEMA)	Prof. Saroj Nayak	MHRD
2.	Atomic Scale Aluminium as Interconnects in Electronic devices	Prof. Saroj Nayak	NALCO
3.	Process for development of new applications of Aluminium based Materials in Solar light, solar roof sheets and in Battery having Superior Thermal and Electronic Properties	Prof. Saroj Nayak	NALCO
4.	Magnetic properties of self-assembled bivalent, trivalent and mixed-valent [2x2] transition metal grids	Dr. Akhilesh Ku Singh	UGC-DAE
5.	Heterojunction white light emitting diodes based on metal oxides and their graphene oxide based hybrids.	Dr. Chandra Sekhar Rout	DST
6.	Chemical and Biosensors based on two dimensional layered structures and their grapheme based hybrids	Dr. Chandra Sekhar Rout	UGC-UKIERI
7.	Flexible and free-standing vanadium sulfides/nanocarbon(graphene, reduced graphene oxide, nanotubes) pair for high performance supercapacitor electrodes	Dr. Chandra Sekhar Rout	DST INDO-Brazil
8.	Two dimensional NiCO ₂ O ₄ -graphene composites for high performance supercapacitor electrodes	Dr. Chandra Sekhar Rout	BRNS
9.	Ramanujan Fellowship Grant	Dr. Chandra Sekhar Rout	DST
10.	A bound-state electronic structure theory approach to investigate the electron detachment initiated by light	Dr. Kousik Samanta	DST
11.	Neutron Diffraction studies of fiels induced magnetic transmission in Er ₅ Si ₃	Dr. Niharika Mohapatra	UGC-DAE
12.	Role of A-site cation and disorder on magnetodielectric properties of double properties A ₂ B ₈ O ₆	Dr. Niharika Mohapatra	DST
13.	Synthesis and study of thermoelectric properties of Half - Heusler Alloys with non - trivial topological order	Dr. Niharika Mohapatra	BRNS
14.	Study of hybrid improper ferroelectricity in layered perovskites by high resolution neutron diffraction techniques	Dr. Niharika Mohapatra	UGC-DAE
15.	Study on the development of ultra-sensitive optical fiber accelerometer based on Fiber Bragg grating (FBG) written Trapered Thin-Core Fiber	Dr. RajanJha	RCI (DRDO)

S.No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency
16.	Design and Development of Optical Microfiber based Acoustic Sensors for Under/ Over Water Applications	Dr. Rajan Jha	DST
17.	Design, Synthesis and biological evaluation of novel Ftsz inhibitors a potential anti tubercular agents	Dr. S Pal	DBT
18.	Compact Muon Solenoid (CMS) Upgrade, Operation and Utilization	Dr. Seema Bahinipati	DST
19.	Ion bombardment on nano-structured metal oxides: study of structural, physical,optical and electronic properties	Dr. Shyamal Chatterjee	DST
20.	Ion irradiation induced modification of one-dimensional functional nano-materials	Dr. Shyamal Chatterjee	BRNS
21.	Influence of osmolytes on the structure, dynamics and hydrogen bond properties of water in aqueous solution and other aqueous binary mixtures at different thermodynamic conditions	Dr. Snehasis Chowdhuri	DST
22.	Structural studies on the interaction of hc5a with the N-terminus peptides of C5aR and CSL2 receptor	Dr. Soumendra Rana	DST
23.	Design and Development of heterodimetallic complex of ruthenium iridium and palladium and their chemical and biological aspects	Dr. Srikant Patra	DST
24.	Validity of Quasi - static Approximation in Magneto hydrodynamic Flows and Heat transfer - A numerical study.	Dr. T V S Sekhar	CSIR
25.	Development of Higher Order Compact Scheme to capture Taylor column phenomena in rotating fluids	Dr. T V S Sekhar	DST
26.	Development of Higher Order Compact Scheme to capture Taylor column phenomena in rotating fluids	Dr. T V S Sekhar	DST
27.	Development of a general synthetic approach directed towards the total synthesis of bioactive iridoid class of terpenoids	Dr. Tabrez Khan	DST
28.	Omitted values in complex dynamics	Dr. Tarakanta Nayak	DST
School of Earth, Ocean and Climate Science			
29.	Development and application of extended range forecast system for climate risk management in Agriculture phase – II	Prof. U C Mohanty	DAC
30.	Improved under-standing and representation of land surface processes for short, medium and long range prediction of monsoon rainfall	Prof. U C Mohanty	IITM

S.No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency
31.	Utilization of ITR Doppler Weather Radar Products in High Resolution Mesoscale Model for Prediction of Severe Weather Over Chandipur	Prof. U C Mohanty	ITR Chandipur
32.	High Resolution regional coupled ocean-atmosphere modelling system for the prediction of intense vortices over the Indian Seas	Prof. U C Mohanty	INCOIS
33.	Advanced modeling of tropical land-atmosphere-ocean system for simulation of extreme weather events	Prof. U C Mohanty	IUSSTF
34.	Quantifying the impact of urbanisation and climate change on the microclimate of Bhubaneswar	Dr. Debadatta Swain	DST-UKIERI
35.	Seasonal and inter-annual variability of Relative Heat Content (RHC) in the Indian Ocean	Dr. Debadatta Swain	ISRO
36.	Does Tropical cyclone Heat Potential (TCHP) play a significant role in intensification of tropical cyclones? A comprehensive analysis for the North Indian Ocean	Dr. Debadatta Swain	INCOIS
37.	Millennial to centennial scale variability in the Asian summer monsoon: Foraminiferal perspective from the East China Sea	Dr. Raj Kumar Singh	NCAOR
38.	Lateral Variability in the distribution of arsenic in agriculture fields and its mass balancing - A study from west bengal	Dr. S H Farooq	DST
39.	Monsoon dynamics and thermodynamics from the land surface, through convection to the continental-scale (INCOMPASS)	Dr. Sandeep Pattnaik	IITM
40.	Establishment of Coastal Ocean Observatory at the Innovation Centre for Climate Change (IC3) and Capacity Building of School of Earth, Ocean and Climate Sciences	Dr. Sandeep Pattnaik	Ministry of Earth Sciences
41.	Assessment and improvement of rainfall forecast skills over the state of Odisha with special reference to Mahanadi and Brahmani-Baitarani river system	Dr. Sandeep Pattnaik	CSIR
42.	Role of cloud physics and dynamics on lifecycle of monsoon low pressure using high resolution observation and modeling	Dr. Sandeep Pattnaik	DST
43.	Understanding and characterisation of systematic errors in the WRF-ARW boundary layer parameterization over the Bhubaneswar and its neighbourhood regions	Dr. Sandeep Pattnaik	ISRO
44.	Simulation of coastal circulation on North-West Bay of Bengal	Dr. Sourav Sil	DST

S.No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency
45.	Multiscale analysis of circulation and variability in the North-Western Bay of Bengal using HF radar observations	Dr. Sourav Sil	INCOIS
46.	Advanced in mesoscale assimilation system with non-conventional observations for improved simulation of land falling tropical cyclones and associated storm surges over Bay of Bengal	Dr. Sujata Pattanayak	DST
47.	Investigations of Aerosol Outflow from Indo Gangetic Plain	Dr. V. Vinoj	ISRO
School of Electrical Science			
48.	Design and implementation of MIMO based transceiver for emergency applications	Dr. Barathram Ramkumar	DST
49.	Photovoltaic (PV) based grid-interactive and off-grid electricity system	Dr. C N Bhende	DST Indo-Finish Joint
50.	Computer vision guided mass gathering surveillance using crowd flow analysis	Dr. Debi Prosad Dogra	DST
51.	Design development of light weight wearable wireless acoustic wave sensor array based audio-visual digital stethoscope device	Dr. M S Manikandan	DST
52.	Real time Implementation of Image Fusion Algorithms for IR and CCD Video	Dr. N B Puan	ITR Chandipur
53.	Solar Powered DC System for Domestic Electrification and Rural Application	Dr. N C Sahoo	Planning & Coordination Dept.
54.	Driver behavior modelling for autonomous driving	Dr. N C Sahoo	KPIT Technologies Ltd
55.	Integration and intelligent management of renewable via ICT for smart Micro-Grid networks	Dr. N C Sahoo	DST
56.	Fabrication and characterisation of CVD diamond detectors for plasma diagnostics in nuclear fusion reactors	Dr. N V L Murty	BRNS
57.	Special Manpower Development Program for Chips to System Design (SMDP-C2SD)	Dr. N V L Murty	DeitY
58.	VisvesvarayaPh scheme for Electronics and IT	Dr. N V L Murty	DeitY
59.	Performance studies of silicon Carbide X-Ray Detector in High-Energy Neutron & Gamma Radiation (ITER-Like) Environment	Dr. N V L Murty	BRFST

S.No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency
60.	Speech Based Access of Agricultural Commodity Prices and Weather Information in 12 Indian Languages / Dialects	Dr. P K Sahu	DeitY
61.	Aeronautic Telemetry Channel Estimation and Equalization	Dr. P R Sahu	ITR Chandipur
62.	Techniques and tools for verification of network security policies based on formal methods to assess security of networks	Dr. Padmalochan Bera	DRDO
63.	Design and implementation of High-speed low-power embedded signal processor based custom power devices for power quality improvement	Dr. S B Karanki	DST
64.	Design and Development of Affordable and Movable Solar Photovoltaic (SPV) Water Pumping System	Dr. S B Karanki & Dr. M S Manikandan	DAFP
65.	Development of intellegent relaying scheme for micro-grids with DG penetration	Dr. S R Samantaray	CPRI
66.	Development of a comprehensive wide-area based back up protection scheme for power transmission network	Dr. S R Samantaray	DST
67.	Diesel engine Emission Control using Electrical Discharge based Technique for Clean Environment: A Non-Conventional Approach	Dr. Sankarsan Mohapatro	DST
School of Infrastructure			
68.	Establishment of Innovation-cum-Incubation Centre at IIT Bhubaneswar	Prof. R K Panda	Planning & Coordination Dept.
69.	Study of the effects of Climate Change on Hydro-meteorological processes: Droughts and Floods at Different Spatial and Temporal Scales in Eastern India	Prof. R K Panda	DST
70.	Improving groundwater levels and quality through enhanced water use efficiency in eastern Indian Agriculture	Prof. R K Panda	ITRA
71.	Flow field around group of submerged structures and its application to sediment transport	Dr. Arindam Sarkar	DST
72.	Establishment of swelling and cracking characteristics of expansive soils frm suction measurements	Dr. B Hanumantha Rao	CSIR
73.	Synthesis, Characterisation and development of red mud-fly ash based geopolymer concrete	Dr. B Hanumantha Rao	NALCO

S.No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency
74.	Investigations on Strength and Volume Change Properties of Red Mud for its Effective Utilization in Geotechnical Applications	Dr. B Hanumantha Rao	DST
75.	Investigation on the field and laboratory corrosion behaviour of steel in structural concretes	Dr. Dinakar Pasla	DST
76.	Bioelectricity recovery during treatment of kitchen waste in combined leach bed reactor and low cost microbial fuel cell	Dr. Manaswini Behera	DST
77.	Rice mill wastewater treatment and bio-electricity generation in low cost microbial fuel cell employing ceramic separator	Dr. Manaswini Behera	DST
78.	Treatment of Textile Wastewater via Ultrasonication and Biological Anaerobio - Aerobio Treatment Route	Dr. Puspendu Bhunia	DST
79.	Greywater treatment and reuse by combined sequencing batch reactor and solar photocatalytic reactor	Dr. Remya Neelancherry	DST
80.	Performance Evaluation of Pavements with Stabilized Bases/Subbases for Rural Roads	Dr. U C Sahoo	NRRDA
School of Mechanical Sciences			
81.	Impact of disaster risk reduction activities on livelihood patterns, community resilience and socioeconomic vulnerability in coastal districts of Odisha: A case study	Dr. Akhilesh Barve	ICSSR
82.	Development of Deep Hole Drilling Technique for Measurement of Residual Stresses and its Validation	Dr. Manas Mohan Mohapatra	BRNS
83.	Pool Boiling Crisis on Porous Coated Surface: An Experimental Study and Model Development	Dr. Mihir Kumar Das	DST
84.	Development of enhanced hydrophobic tube bundle with low pressure drop for two phase shell and tube heat exchanger	Dr. Mihir Kumar Das	DST
85.	National Initiative for Design Innovation	Dr. S N Panigrahi	MHRD
86.	Study of Wetting and De-Wetting Transition for Fog-Water Harvesting	Dr. Sasidhar Kondaraju	DST INSPIRE Research Grant
87.	Droplet impact and splashing on oblique surface	Dr. Sasidhar Kondaraju	DST
88.	Design of Optimized Natural Laminar Flow Aerofoil for Transport Aircraft	Dr. Yogesh Bhumkar	AR&DB

S.No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency
89.	Development and Analysis of the space-time optimized dispersion relation preserving (DRP) scheme suitable for high performance computing of fluid flows	Dr. Yogesh Bhumkar	DST
School of Minerals, Metallurgical and Materials			
90.	Designing of Novel Multiferroic Transition Metal Oxides for Memory and Energy Applications	Dr. Amritendu Roy	DST
91.	Recycling of cast alloys scraps to produce alloys with comparable microstructure and properties as that of primary alloys	Dr. Animesh Mandal	UAY of MHRD & NALCO
92.	Optimization HIP process conditions for 9Cr and 18Cr ODS steel powder	Dr. Animesh Mandal	UGC-DAE
93.	Optimization Of Silos, Bins And Hoppers Designs Through Modelling, Primarily Intended For Iron Ore Storage	Dr. K KSahu	UAY of MHRD & NMDC
94.	Study of piezoelectric nanomaterial reinforced polymer nanocomposite films for applications in MEMS	Dr. Kaushik Das	DST
95.	Dissimilar joining of Al with Ti and steel using friction stir welding	Dr. Partha Sarathi De	Naval Materials Research Laboratory (NMRL)
96.	Green Production of Hydrogen Storage Material from Natural Grade limenite	Dr. Soobhankar Pati	DST
97.	Modelling of Chemical Vapour Infiltration (CVI) process for Fabrication of Carbon Reinforced Carbon Matrix Composites	Dr. Soobhankar Pati	ASL, DRDO

CONSULTANCY/DEVELOPMENT PROJECTS

S.No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency
School of Basic Sciences			
1.	Review of science hopper lab in the class program - Physics	Dr. S Chatterjee	Science Hopper Education (P) Ltd., Bangalore
School of Earth, Ocean and Climate Science			

S.No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency
2.	Study of Probabilities and changes in frequencies and intensities of tropical cyclones and associated wind and rainfall over Puri district of Odisha in climate change projection [Period: 1891-2015]	Prof. U C Mohanty	Institute for Social and Environmental Transition-International (ISET-I)
3.	Development of hyperlocal forecast for Chattisgarh and Andhra Pradesh	Dr. S Pattnaik	Remotegrid, Singapore
School of Electrical Science			
4.	Analysis and Implementation of non chronological video synopsis and indexing	Dr. Debi Prosad Dogra	Indo Korea Science and Technology Center, Bangalore
5.	Video analysis algorithms to detect unusual behaviour in crowd and traffic	Dr. Debi Prosad Dogra	outdu Media Tech Pvt. Ltd.
6.	C/C++ implementation with adequate GUI for temporal analysis of motif mixtures using Dirichlet process	Dr. Debi Prosad Dogra	Indo Korea Science and Technology Center, Bangalore
7.	C/C++ implementation with adequate GUI for sparsity based abnormal event detection	Dr. Debi Prosad Dogra	Indo Korea Science and Technology Center, Bangalore
8.	Technical and function test of Gagan enabled GPS PDAs	Dr. P R Sahu	Conservator for Forest, GIS, AranyaBhawan
9.	Design and developing a portable wireless air quality monitor	Dr. Sabarimalai Manikandan	Pentagon Rugged Systems India (P) Ltd
10.	Design and developing a portable wireless noise level and vibration monitors	Dr. Sabarimalai Manikandan	Pentagon Rugged Systems India (P) Ltd

S.No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency
11.	Implementation of water quality monitoring and management system	Dr. Sabarimalai Manikandan	Pentagon Rugged Systems India (P) Ltd
School of Infrastructure			
12.	Vetting of second floor structure of CESU building for additional load	Dr. B Hanumantha Rao	IDCO
13.	Design of experimental road using fly ash	Dr. B hanumatha Rao	Sesa Sterlite Limited
14.	Design and Drawing for Katekela Lagoon-2 ash pond	Dr. B hanumatha Rao	Vedanta Limited
15.	Stability study of the ash filled area	Dr. B hanumatha Rao	Vedanta Limited
16.	Third party sudit on the fly ash generation & utilization by TPPs in Odisha for the year 2015-16	Dr. B hanumatha Rao	M/s State Pollution control Board
17.	Vetting of design and drawings of aranyabhavan 6th floor conference room	Dr. B Hanumatha Rao	IDCO
18.	Development of structural grade concretes utilizing Iron slag as sand replacements (Tata Steel, Jaipur, Odisah)	Dr. Dinaka Pasla	Tata Steel, Kalinga Nagar
19.	Testing of light weight aggregates (LWAs) in various concrete grades and the physical and chemical testing of the aggregates and also the structural load behaviour of the LWA concretes	Dr. Dinakar Pasla	Jindal Steel and Power Limited
20.	Testing of Panels for energy absopion test	Dr. Dinakar Pasla	ILFS SIF
21.	Mix Design of M30 Grade Concrete for ITC Hotel	Dr. Dinakar Pasla	Prime Techno Engineers (P) Ltd.
22.	Mix Design for M25 for Mahanadi Institute of medical sciences and research at Talcher , Angul, Odisha	Dr. Dinakar Pasla	NBCC, Talcher

S.No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency
23.	Mix design for glass fibre reinforced concrete for IMDC Mancheswar, Bhubaneswar	Dr. Dinakar Pasla	NBCC, Bhubaneswar
24.	Vetting of Structural design and drawing of the Dinjan Hanger foundation	Dr. Goutam Mondal	LLOYD Insulations Ltd
25.	Vetting of the AFS Hanger at Bagdogra, super structure drawing (Steel Structure)	Dr. Goutam Mondal	M/s MES Engineering, Kolkata
26.	Widening and strengthening from km 94.000 to 131.000 of NH-133 in the state of Jharkhand through EPC Basis contract – as safety consultant	Dr. P P Dey	Gawar-S.C.C. (JV), Rahtak, Haryana
27.	Vetting of feasibility study of pre-treatment of coke oven and by-product plant effluent in coal gasification process units for recovery of Phenol and Ammonia	Dr. P Bhunia	Jindal Steel and Power Limited
28.	Improvement and upgradation of two lane with paved shoulder configuration of Koderma-Domchanch-Khorimahua-Jamua Road (SH-13) under EPC mode in Jharkhand	Dr. P P Dey	NIT Durgapur
29.	Widening and strengthening of Khunti-Torpa-Kolebira Road (from 0.00 km to 82.055 km) to 2-lane with paved shoulder to work as safety consultancy	Dr. P P Dey	Gawar-S.C.C. (JV), Rahtak, Haryana
30.	Safety consultancy for construction of new road at the missing link portion of NH81 along the approved alignment between Harischandrapur and eastern approach of kalindri - bridge from Km 46.550 to km59.697 in the district of Malda, West Bengal on EPC mode	Dr. P P Dey	Dynamic Projects (P) Ltd
31.	Proof Checkin of Design and Drawing of Substructure of Railway Bridge of RVNL	Dr. S R Dash	Rail Vikas Nigam Ltd, Rail Vihar
32.	Proof checking of design and drawing of substructure for major bridges no 115 and 131	Dr. S R Dash	Rail Vikas Nigam Ltd, Rail Vihar
33.	Proof checking of design and drawing for 2 nos of S&T Cabin building for M/S NTPC at Kaniha	Dr. S R Dash	RITES Ltd

S.No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency
34.	Proof checking of design and drawing of road under bridge (RUB) No-68 of RVNL	Dr. S R Dash	Rail Vikas Nigam Ltd, Rail Vihar
35.	Proof checking of structural calculation/ drawing for proposed construction of JNV/ Nayagarh (Phase-B) works at Odisha	Dr. S R Dash	Buildsol, Architectural & Engineering Consultants
36.	Technical support on pile design in L iquefiable soils for the building at the Sewage Treatment Plant (Tunasan STP)	Dr. S R Dash	VatechWabag Ltd
37.	Proof checking of design and drawing of substructure and foundation abutment-2 of bridge no -76	Dr. S R Dash	Rail Vikas Nigam Ltd
38.	Proof checking of design and drawings of substructure for 6 nos of major bridges of RVNL	Dr. S R Dash	Rail Vikas Nigam Ltd
39.	Proof checking of design and drawing of substructure for 16 nos of major bridges of RVNL	Dr. S R Dash	Rail Vihar Nigam Ltd. BBSR
40.	Proof Checking of Design Splice & its adequacy by M/s S M Consultancy for 30m FOB girder	Dr. S R Dash	Rail Vihar Nigam Ltd. Waltair
41.	Proof checking of major bridge @ Ch 1+445 of NH-149 pallahara to Pitiri Section, Odisha	Dr. S R Dash	RKD Construction (P) Ltd
42.	Proof Checking of Structural Items of Rambili Project	Dr. S R Dash	Suvadra Consultant
43.	Vetting of structure and superstructure of sports climbing facility at Kalinga Stadium confirming to IFSC standard	Dr. Sumanta Halder	Outdoor School
44.	Monitoring and quality assurance of construction of international standard sport climbing wall at kalinga stadium, BBSR	Dr. Sumanta Halder	Outdoor School

S.No.	Title of the Project	Name of Faculty (Principal Investigator)	Name of the Funding agency
45.	Structural stability for the building with revised loading conditions of 2nd floor level with its retrofitting actions	Dr. Sumanta Halder	NBCC (I) Ltd.
46.	Database for Principal Technical Agency & State Technical Agency for states of Jharkhand and odisha	Dr. U C Sahoo	NRRDA
47.	Technical Evaluation of cement concrete roads in Odisha	Dr. U C sahuo	Planning & Coordination Dept., Govt. of Odisha
48.	Quality test of Railway track stone (Gudiakateni&Chandikhol)	Dr. U C sahuo	Jyoti Construction
49.	Testing pf CC cores of RE Facia Panel	Dr. U C Sahoo	NHAI, PIU-BBSR
50.	Mix Design for WMM & GSB with optimum utilisation of granulated slag	Dr. U C sahuo	Tata Steel Ltd
51.	Characterisation of soils treated with Zydex products for its use in PMGSY Roads	Dr. U C Sahoo	Zydex Industries (P) Ltd
School of Mechanical Sciences			
52.	Endorsement of the estimation of production quantities of sponge iron and steel billets of MaaMahamaya Industries Ltd, R.G. Peta in the years 2006-07, 2007-08 and 2008-09 from the charge mix used	Dr. V Panduranga	MaaMahamaya Industries Ltd
53.	Inspection of quality control laboratory	Dr. V Panduranga	MaaMahamaya Industries Ltd
School of Minerals, Metallurgical and Materials			
54.	Accretion control to increase the sponge iron production to the target annual capacity of 390000 Mt	Dr. Brahma Deo	Tata Sponge Iron Ltd
55.	Strategies to counter energy imbalances in an aluminium reduction cell with an insert in the cathode collector bar	Dr. Randhir Singh	Tata International Ltd

PATENTS FILLED

S.N.	Title	Name	No	Year
School of Basic Sciences				
1	Method of making titanate based superhydrophobic coating on metal/metal alloy surface using ion and/or electron irradiation	Shyamal Chatterjee*, K.K. Sahu, Satyanarayan Dhal et al.	Ref. No: 201631040277, App. No: TEMP/E-1/39537/2016-KOL	2016
2	Nano-material for joining of nanostructured materials and a method thereof	Shyamal Chatterjee*, Satyanarayan Dhal, K.K. Sahu et al.,	Ref. No: 028063416022 01750706, App. No: TEMP/E-1/5572/2017-KOL	2017
3	Micro-G Accelerometer based on Solid Core Photonic Crystal Fiber	RajanJha, SumitDass and Jitendra Narayan Dash	E-5/45/2017/Kolkata	2016
4	Fabrication Process for Tuning the Major and Minor Axis of Inline Fiber Micro Air Cavity on Demand	RajanJha and SumitDass	201731009380	2017
School of Mechanical Sciences				
5	A multipurpose leg configuration for wall climbing and sandy walking robot	Vipin Kumar & Dr. V. Pandu Ranga	201631016871	2016
6	A wall climbing robot	Vipin Kumar & Dr. V. Pandu Ranga	201631016872	2016
7	Steering and Focusing of Jets	Dr. Venugopal A, Shyam Nair		
8	Reverse Parking Assistant	Divesh Kumar and S N Panigrahi	201631009727	2016
9	Setup for appliance indication for electrical switches	Mr. AakashMurugan and Mr. Pradeep Rout and S N Panigrahi	201631022632	2016
10	An attachment for acquiring 3D depth image from monocular camera	Mr. AakashMurugan and Mr. Pradeep Rout and S N Panigrahi	201631026695	2016
11	SMART HYBRID WATER SUPPLY SYSTEM FOR BUILDINGS OR BUILDING CLUSTERS	AyyalasomayajulaSathyanarayana	E-2/127/2017/KOL	2017
12	Nano-Fillers Reinforced polymer Composites wrap to repair damaged steel pipelines	Vishwas C K, Guruswamy B, Pandit M K, T Gautam, Pradhan A K, Gupta A K	Provisional Application No.- 201731007916 dated 07-03-	2017

Patents Filled				
S.N.	Title	Name	No	Year
			2017	
School of Minerals, Metallurgical and Materials Engineering				
13	A high throughput industrially scalable process for production of porous silicon powder from metallurgical grade metal-silicon alloys	Dr. K.K. Sahu, Dr. S. Pati, Dr. A. Mandal and Mr. A. Pathak		
14	Porous silicon from metal-silicon alloy and process for its manufacture.	Anil D. Pathak , K.K. Sahu, A. Mandal	201631017873	2016
15	Graphene coated metal/metal alloy wire and its process of manufacture.	Kisor K. Sahu, Anil D. Pathak, Shreeja Das, Turin Datta, SoumyabrataBasak, V. Sai Pranav, Amritendu Roy	220163101705 2	2016
1	Method of making titanate based superhydrophobic coating on metal/metal alloy surface using ion and/or electron irradiation.	Shyamal Chatterjee, Kisor K. Sahu, Satyanarayan Dhal, Anil Pathak, Shreeja Das, SoumyabrataBasak and V. Sai Pranav	201631040277	2016
2	Nano-material for joining of nanostructured materials and a method thereof	Shyamal Chatterjee, Satyanarayan Dhal, Kisor K. Sahu, Anil Pathak and Pritam Das	028063416022 01750706	2017

**INVITED LECTURES/PRESENTATION/CONFERENCE/WORKSHOP/GIAN PROGRAMMES/
SEMINARS/LECTURES/COLLOQUIUM/VISITORS**

Invited Lectures/Presentation

S.N.	Title of Lecture/ Presentation	Faculty	Conference Name, Year, Duration
School of Basic Sciences			
1	Classical spin in contact with an anomalous heat bath	M. Bandyopadhyay	DST solid state physics symposium, 2016, 25th-28th Dec
2	On the Laplacian Spectra of Some variants of Corona	S. Barik, G. Sahoo	International Conference on Discrete Mathematics (ICDM- 2016), June 9-11, 2016
3	Healthcare in India	Anasuya Roychowdhury	IshanVikas Scheme, MHRD, at IIT Bhubaneswar, December 12, 2016
4	Computational Analysis of Stationary Probabilities for the queueing systems $G1^{\wedge}\{X\}/C-MSP/1/infty$ and $G1/C-BMSP/1/infty$ using RG-factorization	A. D. Banik, Souvik Ghosh and M. L. Chaudhry	European Conference on Queueing Theory, Toulouse, France on 18–20 July, 2016
5	Welding at nano dimension for device application	S. Dhal and S. Chatterjee	IUMRS-ICYRAM, IISC Bangalore, 2016, December 11-15
6	White light emission from CdS-Au8 hybrid nanorods	Rath, S. and Halder, O	Advance Materials for energy, health and sustainability, 2016, 3rd -6th, October
7	Ultra small nanomaterials: A journey to quantum science and technology	Rath, S.	Frontiers in Material Sciences, January 6-7, 2017
8	Nanotechnology: A mesoscopic revolution	Rath S.	Recent Trends in Nanotechnology, October 28, 2016
9	Optical coherence in semiconductor-metal hybrid nanomaterials	Rath, S.	Recent Trends in Physics, January 8, 2017
10	Completely Invariant Domains	Tarakanta Nayak	Complex Analysis: Geometric and Dynamical Aspects, 2016, 14-19 November
11	Prospects on time-integrated CPV measurement at Belle II	S. Bahinipati	9 th International Workshop on the CKM Unitarity Triangle (CKM2016), 2016, November 28 to December 2, 2016 Invited Talk (TIFR, India)
12	Mixing and CP violation in D decays	S. Bahinipati	Post-CKM Retrospection School , 2016, December 3-7, 2016; Invited Talk (TIFR, India)
13	Exotics at Flavor Factories	S. Bahinipati	XXII DAE-BRNS High Energy Physics Symposium, 2016, December 12 -16, 2016 - Mini-Review Speaker (University of Delhi, India)
14	Belle II Silicon Vertex Detector (SVD)	S. Bahinipati	Technology and Instrumentation in Particle Physics 2017 (TIPP2017), 2017, May 22-26 - Invited Talk (Beijing, China)
15	The hCSa Receptor: A Potential Target	S. RANA	Hands-On Training on Analysis of

Invited Lectures/Presentation

S.N.	Title of Lecture/ Presentation	Faculty	Conference Name, Year, Duration
	for Drug Discovery		Biological data using Computational Tools 8th July 2016, CIFA, Bhubaneswar
16	Targeting the hCSa-C5aR Signaling axes for Potential Drug Discovery	S. RANA	Keynote Speaker - 17th October 2016, KodaiKanal, 1ST PAN IIT BIOTECH MEET
17	Understanding the Pharmacology and Signaling of hCSaR for Potential Drug Discovery	S. RANA	National Workshop in Drug Design and Discovery 21st March 2017, ILS, Bhubaneswar
18	Structure-function studies of various sHSPs related to several human diseases	Ashis Biswas	1 st PAN IIT Biotech Meet (held at Kodalkanal, Tamilnadu during Oct 16-18, 2016) - keynote speaker
19	Invited Talk on Hybrid Invasive weed Optimization	A.K. Ojha	6 th International conference on Soft Computing for Problem Solving 2016, Thapar University, Patiala, 23rd-24th December 2016
20	Delivered Lectures in Geometric Programming	A. K. Ojha	Workshop on Recent Trends on Optimization Technique in Science and Engineering(ROTS2017) at NIT Silchar, Assam,15th-20th March 2017
21	Generalized Quasi-Complementarity Problems	S Pani, B Sahu	AMS Meeting held at Atlanta, USA, 4-7 Jan 2017
22	Magnetic Materials: Synthesis and Magnetostructural Correlations	Akhilesh Kumar Singh	UGC-Sponsored National Seminar on Advances in Material Chemistry (Polymeric, Organic and Pharmaceutical)
23	Facile tandem Suzuki coupling/transfer hydrogenation reaction by bis-heteroscorpionate-Pd-Ru complex	Niranjan Dehury, Suman Kumar Tripathy, Anupam Sahoo, Niladri Maity and Srikanta Patra	RECENT ADVANCES IN CHEMICAL SCIENCES - Poster Presentation, Won First Prize
24	Metal-Based Anticancer Agents	Srikanta Patra	Emerging Areas of Research in Chemistry
25	Ruthenium and Iridium based Heterodimetallic complexes: synthesis and anticancer activity	Srikanta Patra	5 th Symposium on Advanced Biological Inorganic Chemistry (SABIC-2017).
26	A Porous trimetallicAu@Pd@Ru nanoparticle system: Synthesis, characterisation and efficient dye degradation and removal	Srikanta Patra	Recent Advances in Materials Chemistry (RAMC 2017)
27	Design and Development of Homo- and Heterodimetallic Complexes of Ruthenium and Palladium and Their Potential Catalytic Activity	Srikanta Patra	Recent Trends in Chemical Science (RTCS-2017)

Invited Lectures/Presentation

S.N.	Title of Lecture/ Presentation	Faculty	Conference Name, Year, Duration
28	A Porous trimetallic Au@Pd@Ru nanoparticle system: Synthesis, characterisation and efficient dye degradation and removal	Anupam Sahoo, Suman Kumar Tripathy, Niranjan Dehury, and Srikanta Patra	RECENT ADVANCES IN CHEMICAL SCIENCES Poster Presentation
29	A Porous trimetallic Au@Pd@Ru nanoparticle system: Synthesis, characterisation and efficient dye degradation and removal	Anupam Sahoo, Suman Kumar Tripathy, Niranjan Dehury, and Srikanta Patra	Recent Advances in Materials Chemistry (RAMC 2017) - Poster Presentation
30	A Rapid Access to the Diverse Pyrrolizine Analogs of Aza-Medicarpin and Tetracyclic Isolamellarin Core through a General Base and Metal free Strategy	Tabrez Khan, Virendra Kumar & Oindreela Das	ICOS-21, Dec. 11-16 2016 - Poster Presentation
31	Synthetic studies towards merrilliaquinone: a natural product with potent cytotoxicity towards HCC	Tabrez Khan, Dileep Kumar and Oindreela Das	INCD-2016
School of Minerals, Metallurgical and Materials Engineering			
32	On refinement of primary Si in hypereutectic Al-Si alloy by gamma-Al ₂ O ₃ particles	A. Mandal, M. Acharya	ICAMMP4, Nov 5-7, 2016, 3 Days - at IIT Kharagpur
33	Predicting Elastic Properties of Unidirectional SU8/ZnO Nanocomposites using COMSOL Multiphysics	Neelam Mishra; Kaushik Das	COMSOL Conference, 2016, 19 - 21 October, Bangaore, India - Poster Presentation
34	Prediction of Effective Electroelastic Modulus of SU8/ZnO Nanocomposite	Neelam Mishra; Braj Krishna; Randhir Singh; Kaushik Das	NMD-ATM 2016, November 11 - 14, IIT Kanpur, India
35	Theoretical Estimation of Photovoltaic Response in Multiferroic Gallium Ferrite	Manish K Mohanty, Amritendu Roy	NMD-ATM-2016, 2016, Nov. 11-14
36	First-principles studies in Materials Modeling	Amritendu Roy	ETMR- 2016, Sept. 23-24, 2016
37	Transport modeling of solidification processing	B. K. Dhindaw	ICAMMP 2016, 5-7 November 2016 - Key Note
38	Solidification issues in twin roll casting of long freezing range alloys	B. K. Dhindaw	Workshop on current trends in solidification Science and Processing
39	Chaos control in dynamical systems	Brahma Deo	Workshop on Dynamical Systems: Theory and Applications, June 26-30, 2016 non-linearity and chaos at IIT Dhanbad
40	Advance anodes for lithium ion batteries	Soobhankar Pati	Lithium Ion Batteries Application and Mathematical Modelling, 2016, 1 day
41	Futuristic Metal Ion and Metal Air Batteries	Soobhankar Pati, Anil Pathak	Emerging trends in lithium ion batteries for Defence Applications - Workshop

Invited Lectures/Presentation

S.N.	Title of Lecture/ Presentation	Faculty	Conference Name, Year, Duration
School of Electrical Sciences			
42	A new cross differential protection schemes for parallel transmission lines including UPFC	S R Samantaray, L N Tripathy, P K Dash	IEEE PESGM 2016
43	Solving shortest path problem using particle swarm optimization and noising metaheuristics	N C Sahoo	NIT Silchar, 1st March 2017
44	Application of Formal Methods in Network Security Assessment	Padmalochan Bera	June 6, 2016, SAG, DRDO, New Delhi - Invited Talk
45	Software Defined Networks - A research roadmap	Padmalochan Bera	Workshop on Virtualization and Performance Evaluation of Virtual Machines in Cloud, GIET Bhubaneswar, October 25, 2016 - Invited Talk
46	A Novel Implementation of Parallel Homomorphic Encryption for Secure Data Storage in Cloud	Kamalakanta Sethi, Amartya Majumder, Padmalochan Bera	Cyber Security 2017, London, UK, 19-20 June 2017
47	UWB in Healthcare	D Ghosh, P. K. Sahu	ICEAA 2016, September 19-23, 2016 - Invited as Session Co-chair
48	Technical Challenges in Integration of Large-Scale Wind Generation into the Grid	C. N. Bhende	IEEE Conference on Signal Processing, Communication, Power and Embedded System, 2016, 03-05 Oct. 2016 - Keynote Speaker
49	Smart Grid Technology Architecture and Protocols	Ankush Sharma	Smart Electric Power Grid with Emphasis on Embedded systems and cyber security, 21st to 25th, February 2017, JNTU Kakinada
50	Test case generation using Bounded Model Checking	M Satpathy	Workshop on recent trends in Software Testing at NIT Rourkela
51	Development of a DRAM simulator	D. Sahoo, M Satpathy	IEEE VLSI Design
52	Experimental study of Dynamic bank partitioning	D Sahoo, M Satpathy	IEEE VLSI Design
53	Application of Evolutionary Algorithms in Power Systems	Srinivas Bhaskar Karanki	Application of Evolutionary Algorithms in Power Systems, 2017, 28th-29th April 2017 - Keynote Speaker, SERB-DST Sponsored Conference
54	Power Quality And Converters	Srinivas Bhaskar Karanki	Expert Talk, FDP
55	Multi Sensor Video Fusion	N B Puhan	ITR Chandipur Continuing education program)
56	Approaches for early disease detection in fundus image analysis	N B Puhan	NIT Rourkela

Invited Lectures/Presentation

S.N.	Title of Lecture/ Presentation	Faculty	Conference Name, Year, Duration
57	A Sparse Concept Coded Spatio-Spectral Feature Representation for Handwritten Character Recognition	N B Puhan	SPCOM, 2016, IISc Bangalore
58	Recurrent Neural Network Based Retinal Nerve Fiber Layer Defect Detection in Early Glaucoma	N B Puhan	ISBI, 2017, Melbourne
59	Large Scale System Modelling & Control	Jayanta Pal	Invited Talk on 28th April 2017, at Jyothismati Institute of Technology & Science, Karimnagar, Telangana - 505481
60	Advances in Cognitive Radios	Barathram Ramkumar	QIP, NIT Rourkela
School of Mechanical Sciences			
61	LES of flows using accurate schemes	Y. G. Bhumkar	TEQIP program at College of Engineering Adoor, Kerala
62	Accurate computation of acoustic field using optimized high accuracy schemes	Y. G. Bhumkar	VSSC, ISRO, Trivendrum
63	Application of Enthalpy Method for Modelling Micro-scale Solidification and Microstructure Evolution	Anirban Bhattacharya	Workshop on Solidification and Phase Transformation, 2016, Aug 26-27
64	Application of genetic algorithms and Neural Networks in the field of Mechanical Engineering		National Conference on Recent Advances in Mechanical Engineering, organized by Andhra University, Visakhapatnam, AP - Key note lecture
65	Residual stresses and hydrogen embrittlement in welded joints	M M Mahapatra	ICRAMMCE-2017
66	Nano-fashioned Fabrication and challenges	Ankur Gupta	25 February 2017 - Invited Lecture in The Northcap University
67	On the Linearity, Turndown Ratio and Shape of the Bluff Body for Vortex Flowmeter	Venugopal A	6th International & 43rd National Conference on 'Fluid Mechanics and Fluid Power' (FMFP-2016) - Session Chair
68	Vorticity Dynamics in Confined Channels	Venugopal A	TEQIP talk
69	Flow Visualization	Dr. Venugopal A	TEQIP talk
70	Enthalpy like model for modeling etching and deposition	P. Rath	SPT Workshop, Jadavpur University, Aug 26-27, 2016
71	CFD Modeling of Moving Boundary Problems Involving Heat and Mass Transfer	P. Rath	National Workshop on Recent Advances in Heat and Fluid Flow, GCETT, Berhampore, West Bengal, 18-22 Oct, 2016
72	CFD Modeling of Moving Boundary Problems Involving Heat and Mass	P. Rath	ICRSE – ME &AutoE, Dr. K. N. Modi University, Newai, Rajasthan, 22-23

Invited Lectures/Presentation

S.N.	Title of Lecture/ Presentation	Faculty	Conference Name, Year, Duration
	Transfer		Feb, 2017
73	Introduction to Turbulence	Sathyanarayana Ayyalasomayajula	AITAM, Tekkali, AP
74	Axisymmetric Contraction & Relaxation of Homogenous & Isotropic Turbulence – A Comparison between Experiments & DNS	Sathyanarayana Ayyalasomayajula	6th International & 43rd National Fluid Mechanics & Fluid Power, 2016, 15th - 17th December - Invited Talk by Session Chair
75	Introduction to Bioheat Transfer	Sathyanarayana Ayyalasomayajula	NIT Silchar, 7th Nov, 2016
76	Introduction to Bio Heat Transfer	Sathyanarayana Ayyalasomayajula	S GIAN course, IIT Bhubaneswar, 8th June 2016 - Lecture as principal Coordinator
77	Bio Heat Transfer	Sathyanarayana Ayyalasomayajula	College of Engg. & Management, Kolaghat, 2nd October, 2016
78	Introduction to CFD	Sathyanarayana Ayyalasomayajula	CET Bhubaneswar, October, 2016
School of Infrastructure			
79	Identification of Factors from Trip-makers' Perception: A Case Study	Debasis Basu	AICTE Short Term Course on "Modelling and Analysing Sustainable Transport for Scientific Decision Support", held at CCE, IISc Bangalore, 26-30th December, 2016
80	Ranking Methods and their Application in Transportation Policy Analysis	Debasis Basu	AICTE Short Term Course on "Modelling and Analysing Sustainable Transport for Scientific Decision Support", held at CCE, IISc Bangalore, 26-30th December, 2016
81	Improvement Needs of Pedestrian-environment used for accessing city bus services	Debasis Basu	Workshop on Accessible India Campaign, Organized by Ministry of Social Justice and Empowerment of Persons with Disabilities, Govt. of India, held at Mayfair Hotel, Bhubaneswar, 19th August, 2016
82	Urban Mobility and Need for State-of-the-art Demand Modelling Technique	Debasis Basu	CISCO Networking Academy Student Conference - "Find Yourself in Future" 2016, (Theme on SMART City), held at Trident Academy of Technology, Bhubaneswar, 17th March, 2016
83	Reliability based design of pile foundation	Sumanta Halder	Indian Geotechnical Conference, 2016, 15-17 Dec. - Theme speaker (Invited)
84	Water and Wastewater	R.R. Dash	World Water Day 2017 at Tata Steel,

Invited Lectures/Presentation

S.N.	Title of Lecture/ Presentation	Faculty	Conference Name, Year, Duration
			Joda - Key Note Speaker
85	Diffusive leaching behaviour of sulfamethoxazole in selected soils	Neelancherry Remya, Ankit Singh, Chitransh Sharma, Gadde Naveena, Kunsoth Haritha and Lakshmi P V	International Symposium on Southeast Asian Water Environment
86	Basics of microwave application in wastewater treatment	Remya Neelancherry	STP on Advanced wastewater treatment, IIT Madras
87	Application of microwave for bio-refractory organics removal	Remya Neelancherry	STP on Advanced wastewater treatment, IIT Madras
88	Influence of mineralogical and chemical compositions on the swelling behavior of expansive soils	BH Rao	workshop on "Significance of Geotechnical Engineering in Hydraulic Structures
89	foundations for structures	BH Rao	2nd Training programme for Third party Quality Monitoring for Bridges, Roads and Buildings
90	Understanding Uncertainty in Climate Change Impact Assessment Studies	Meenu Ramadas	Seminar at IDP Climate Studies, IIT Bombay, 2016, Aug. 17. - School Seminar Series
91	Uncertainty Analysis of Impacts of Climate Change on Water Resources	Meenu Ramadas	FDP on Assessment of Climate and Land-use Change Impacts on Water Resources organized by Department of Civil Engineering, NIT Calicut, 2016, Sep 3.
92	Climate Change Impact Assessment using HEC-HMS for Hydrologic Modeling and SDSM for Statistical Modeling	Meenu Ramadas	Workshop on Climate Change Assessment: Hydrologic Modeling & Perspective conducted by Department of Civil Engineering, NIT Silchar, 2016, Oct 23
93	Uncertainty in Climate Change Impact Assessment Studies	Meenu Ramadas	Workshop on Climate Change Assessment: Hydrologic Modeling & Perspective conducted by Department of Civil Engineering, NIT Silchar, 2016, Oct.22
94	Probabilistic drought monitoring using crop water stress-based agricultural drought index	Meenu Ramadas	TROPMET 2016 - National Symposium on Tropical Meteorology: Climate Change and Coastal Vulnerability, Bhubaneswar, Odisha, India, 2016, Dec. 18-21.
95	Future Prospective of Sustainable Agriculture Water Management	R K Panda	Chief Speaker on World Water Day 2017 at Indian Institute of Water Management, Bhubaneswar
96	Quantification and Control of Non-point	R K Panda	Key Note Speaker, World Bank Assisted

Invited Lectures/Presentation

S.N.	Title of Lecture/ Presentation	Faculty	Conference Name, Year, Duration
	Source Pollution of Water Resources in a Small Agricultural Watershed- A Case Study		National Watershed Management Project- Neeranchal on 6th Jan. 2017 at State Institute of Rural Development, Govt. of Odisha
97	Influence of concrete cover and cement type on the behaviour of steel in structural concrete	Akshay Jain, Mahindra Singh Jatav, Rahul Ristav, Dinakar P	Corrosion Conference (CORCON 2016), 18-21st September, 2016 New Delhi
98	Cement-flyash stabilisation of granular lateritic soil for use in flexible pavement	Biswal D.R., Dash S.R., Sahoo, U.C	8th International Conference on Maintenance and Rehabilitation of Pavements, MAIREPAV 2016, 27-29 July, Singapore
99	Seismic protection research for NPPs in India	Dash S.R	UK-China-India Workshop on Seismic Resilience of Nuclear Power Plants University of Surrey – 31st Jan – 1st Feb 2017
School of Earth, Ocean and Climate Sciences			
100	Assessing deep water mass variability in East China Sea using population abundance and Mg/Ca ratio of benthic foraminifera	Singh, R.K., Holbourn, A., Kuhnt, W., Das, M., Pandey, D.K.	Quaternary climate: recent finding and future challenges, 2016, 28-30th April
101	A relook into the thermodynamics of Bay of Bengal	D. Swain	INDO-US OMM Programme & MISO-BoB Steering Committee Meeting 2017, Jan 11 - 13
102	Establishment of a Lightning Monitoring Network	D. Swain and A. Taori	Protecting human beings and animals from lightening 2016, October, 25
103	Science for Society	D. Swain	6 th Angul District Level Science Exhibition, 2016, October 20-22
104	Achievements of Indian Space Programme	D. Swain, S. Vedanta, D. Samal	PARIKRAMA, DD-Odia, 2017, March 1
105	Remote Aerosols and Indian Monsoon Rainfall	V. Vinoj, Asutosh Acharya, H. Wang, K. Landu, J.H. Yoon and P. J. Rasch	Local and Remote influences on Rainfall over India, 18 to 19th July, 2016
106	Optical and Radiative Properties of Atmospheric Aerosols	V. Vinoj	Analytical techniques of macro-nutrients, dissolved oxygen and aerosol optical properties, 6th to 10th October, 2016
107	Atmospheric Aerosols optical properties derived from satellite and ground based measurements over Bhubaneswar city	Tanmoy and V. Vinoj	TROPMET 2016
108	Temperature changes associated with Urbanization/Land use cover change	P. P. Gogoi, Lekshmi. K, J. Dash, Roberts.	TROPMET 2016

Invited Lectures/Presentation

S.N.	Title of Lecture/ Presentation	Faculty	Conference Name, Year, Duration
	over Odisha State of India	G. J. D. Swain and V. Vinoj	
109	Land cover classification for monitoring urbanization over Bhubaneswar	Lekshmi, J. Dash, D. Swain, G. J. Roberts, and V. Vinoj	TROPMET 2016
110	Validation of MODIS land surface temperature for Bhubaneswar using ground measurements	K. Lekshmi, P.P Gogoi, D. Swain, J. Dash, V. Vinoj and G. J. Roberts	TROPMET 2016
111	Local and Remote impacts of carbonaceous Aerosols on Indian Summer Monsoon Rainfall	A. Asutosh, V. Vinoj, K. Landu	TROPMET 2016
112	Long-term variation of Tropospheric Ozone over the Indian Subcontinent: Potential Causes	Mukherjee, S. K. Midya, V. Vinoj	TROPMET 2016
113	Aerosol loading during waning phase of Indian Summer Monsoon over the Indo-Gangetic Basin: PM10 levels and heavy metal concentrations	SarwarNizam, IndraS. Sen, V. Vinoj	TROPMET 2016
114	Changes in absorbing aerosols over India	K Pandey and Vinoj V	TROPMET 2016
115	High resolution land surface response of inland moving Indian monsoon depressions over Bay of Bengal	S Pattnaik and P V Rajesh	SPIE Asia-Pacific Remote Sensing, 4-7 April 2016
116	High resolution land data assimilation by offline land surface model approach for Indian summer monsoon domain	P V Rajesh, S Pattnaik, U C Mohanty and HimadriBaisya	TROPMET-2016, 18-21 December 2016
117	Long term trends in intra seasonal variations: Implications	Kiranmayi Landu and Vijay Sagar	Local and remote influence on rainfall over India, 2016, 18-19 July
118	Role of Bay of Bengal Air-sea interactions on tropical wave driven monsoon fluctuations	KiranmayiLandu	Ocean Mixing and Monsoon, 2017, January 11-12
School of Humanities, Social Sciences and Management			
119	Memory, Empathy and Narrative in Meena Kandasamy's The Gypsy Goddess	Punyashree Panda	East West: Ruptures and Convergences International Conference, University of Malaya, Kuala Lumpur, Malaysia, 1-2 December 2016
120	Cultural Displacement and the Search for a National Identity through Stories	Punyashree Panda	Decentring English Studies: Studying Literature in the Global South, Utkal University, Bhubaneswar, 20-21 January 2017
121	Indigenous Humor in Thomas King's The Back of the Turtle: an Ecocritical Perspective	Punyashree Panda	Golden Jubilee/UGC International Conference on Environment: Literature, Ethics and Praxis

Seminars/Conferences/Workshops Attended

S.N	Name	Title	Dates		Place
			From	To	
School of Basic Sciences					
1	Dr. Malay Kumar Bandyopadhyay	DST Solid State Physics Symposium	2016-12-24	2016-12-29	KIIT, Bhubaneswar
2	Dr. Shyamal Chatterjee	International Conference of Young Researchers on Advanced Materials,	2016-12-11	2016-12-15	IISC, Bangalore
3	Dr. Seema Bahinipati	9th International Workshop on the CKM Unitarity Triangle (CKM2016)	2016-11-28	2016-12-02	TIFR, India
4	Dr. Seema Bahinipati	Post-CKM Retrospection School	2016-12-03	2016-12-07	TIFR, India
5	Dr. Seema Bahinipati	DAE HIGH ENERGY PHYSICS SYMPOSIUM 2016	2016-12-12	2016-12-16	University of Delhi, India
6	Dr. Seema Bahinipati	Technology and Instrumentation in Particle Physics 2017 (TIPP2017)	2017-05-22	2017-05-26	Beijing, China
7	Dr. Rajan Jha	PHOTONICS 2016	2016-12-05	2016-12-08	IIT Kanpur
8	Dr. Ashis Biswas	Structure-function studies of various sHSPs related to several human diseases	2016-10-16	2016-10-18	Kodaikanal, Tamilnadu
9	Dr. Akshay Kumar Ojha	6th International Conference on Soft Computing for Problem Solving 2016(SocProS2016) as Invited Speaker	2016-12-23	2016-12-24	Thapar University, Patiala
10	Dr. Akshay Kumar Ojha	Recent Trends on Optimization Techniques in Science and Engineering (ROTS-2017) Delivered Lecture	2017-03-15	2017-03-20	NIT Silchar, Assam

Seminars / Conferences / Workshops Attended					
S.N	Name	Title	Dates		Place
			From	To	
11	Dr. Sabyasachi Pani	44th Annual Conference, OMS	2017-03-31	2017-04-01	Ravenshaw University, Cuttack
12	Dr. Srikanta Patra	SABIC - 2017	2017-01-06	2017-01-10	IACS, Kolkata
13	Dr. Srikanta Patra	Conference on Recent Advances in Materials Chemistry (RAMC 2017)	2017-02-24	2017-02-25	Department of Chemistry, Utkal University, Bhubaneswar
14	Dr. Srikanta Patra	National Seminar on Recent Trends in Chemical Science (RTCS-2017)	2017-04-08	2017-07-08	North Orissa University
15	Dr. Srikanta Patra	Emerging Areas of Research in Chemistry	2017-02-26	2017-02-26	Department of Chemistry, Christ College, Cuttack,
16	Dr. Akhilesh Kumar Singh	UGC-Sponsored National Seminar On Advances in Material Chemistry: (Polymeric, Organic and Phramaceutical)	2017-01-29	2017-01-29	Mahanga Puspagiri Mahavidyalaya, Erakana, Cuttack.
School of Earth, Ocean and Climate Sciences					
17	Dr. Raj Kumar Singh	Quaternary Climate: Recent findings and future challenges	2016-04-28	2016-04-30	NIO, Goa
18	Dr. Debadatta Swain	10th SPIE Asia- Pacific Remote Sensing Symposium on Remote Sensing for Weather & Climate Monitoring	2016-04-04	2016-04-07	Delhi, INDIA
19	Dr. Debadatta Swain	National Information System on Climate and Environmental Studies (ISRO-NICES Workshop & Meeting with participating Ministries, ISRO centres and other user organizations)	2016-04-26	2016-04-27	Hyderabad, INDIA
20	Dr. Debadatta Swain	National Symposium on Tropical Meteorology: Climate Change and	2016-12-18	2016-12-21	Bhubaneswar, INDIA

Seminars / Conferences / Workshops Attended					
S.N	Name	Title	Dates		Place
			From	To	
		Coastal Vulnerability (Tropmet-2016)			
21	Dr. Vinoj. V	TROPMET 2016	2016-12-18	2016-12-21	Bhubaneswar
22	Dr. Sandeep Pattnaik	SPIE Asia-Pacific Remote Sensing	2016-04-04	2016-04-07	New Delhi
23	Dr. Kiranmayi Landu	Longterm trends in intraseasonal variations: Implications	2016-07-18	2016-07-19	Bangalore
School of Electrical Sciences					
24	Dr. Subhansu Ranjan Samantaray	IEEE PESGM 2016	2016-07-17	2017-07-21	Boston, USA
25	Dr. Subhansu Ranjan Samantaray	IEEE PES Chapter Chairs meet	2016-11-29	2016-12-01	Melbourne, Australia
26	Dr. N. C. Sahoo	IEEE Power and Energy Conference (PECON 2016)	2016-11-28	2016-11-29	Malaysia
27	Dr. Padmalochan Bera	IEEE Cyber Security 2017	2016-06-19	2016-06-20	London, UK
28	Dr. Padmalochan Bera	National Workshop on Geospatial Information Systems	2017-01-27	2017-01-27	Kolkata, India
29	Dr. Padmalochan Bera	Round Table Meeting on IETF Capacity Building in India	2017-02-07	2017-02-07	MeitY, New Delhi
30	Dr. Debi Prosad Dogra	Indo-Japan IoT Workshop	2016-01-19	2016-01-19	IIT Hyderabad
31	Dr. Debalina Ghosh	International Conference on Electromagnetics in Advanced Applications (ICEAA), 2016	2016-09-19	2016-09-23	Cairns, Australia
32	Dr. Ankush Sharma	National Power Systems Conference	2016-12-19	2016-12-21	IIT Bhubaneswar
33	Dr. Srinivas Bhaskar	Harmony Workshop	2016-	2016-	IIT BHU

Seminars / Conferences / Workshops Attended					
S.N	Name	Title	Dates		Place
			From	To	
	Karanki		12-28	12-30	(Varanasi)
34	Dr. Srinivas Bhaskar Karanki	19th National Power System Conference	2016-12-19	2016-12-21	IIT Bhubaneswar
35	Dr. M. Sabarimalai Manikandan	TENCON 2016	2016-11-22	2016-11-25	Singapore
School of Humanities, Social Sciences and Management					
36	Dr. Punyashree Panda	East West: Ruptures and Convergences International Conference	2016-12-01	2016-12-02	University of Malaya, Kuala Lumpur, Malaysia
37	Dr. Punyashree Panda	Decentring English Studies: Studying Literature in the Global South	2017-01-20	2017-01-21	Utkal University, Bhubaneswar
38	Dr. Punyashree Panda	Golden Jubilee/UGC International Conference on Rethinking Environment: Literature, Ethics and Praxis	2016-12-28	2017-12-30	Berhampur University, Berhampur
39	Dr. Naresh Chandra Sahu	International Journal of Arts & Sciences' (IJAS) International Conference for Business and Economics	2017-11-08	2017-11-11	London
School of Infrastructure					
40	Dr. Debasis Basu	14th World Conference of Transportation Research	2016-07-10	2016-07-14	Shanghai, China
41	Dr. Debasis Basu	2nd International Workshop on ILUMN	2016-07-15	2016-07-16	Wuhan, Hubei, China
42	Dr. Debasis Basu	Workshop on Smart Mobility Solutions in Bhubaneswar, organized by Bhubaneswar Municipal Corporation and Bhubaneswar Development Authority	2017-02-16	2017-02-16	Bhubaneswar, India
43	Dr. Debasis Basu	UK-India Joint Network on	2017-	2017-	Kolkata, India

Seminars / Conferences / Workshops Attended					
S.N	Name	Title	Dates		Place
			From	To	
		Sustainable Cities and Urbanization in India, Urban Observatory Workshop	03-07	03-08	
44	Dr. Sumanta Haldar	Geo-Chicago 2016: Sustainability, Energy and the Geoenvironment	2016-08-14	2016-08-18	Chicago, Illinois
45	Dr. Sumanta Haldar	US-India Workshop on Geoenvironmental Practices and Sustainability - Linkages and Directions	2016-08-19	2016-08-19	Chicago, Illinois
46	Dr. Sumanta Haldar	5th International Conference on Forensic Geotechnical Engineering	2016-12-08	2016-12-10	IISc. Bangalore
47	Dr. Sumanta Haldar	Indian Geotechnical Conference, IGC 2016	2016-12-15	2016-12-17	IIT Madras
48	Dr. Partha Pratim Dey	96th Annual Meeting of Transportation Research Board	2017-01-08	2017-01-12	Washington D. C.
49	Dr. Remya Neelancherry	International Symposium on Southeast Asian Water Environment (SEAW2016)	2016-11-28	2016-11-30	Hanoi, Vietnam
50	Dr. Umesh Chandra Sahoo	8th Int. Conference on Maintenance and Rehabilitation of Pavements	2016-07-27	2016-07-29	Singapore
51	Dr. B. Hanumantha Rao	Geo-Chicago-2016	2016-08-24	2016-08-28	Chicago, USA
52	Dr. B. Hanumantha Rao	5th Annual IBAAS (International Bauxite, Alumina & Aluminum Society) Conference	2016-09-26	2016-09-28	Goa, India
53	Dr. Meenu Ramadas	TROPMET 2016 - National Symposium on Tropical Meteorology: Climate Change and Coastal Vulnerability	2016-12-20	2016-12-21	Bhubaneswar
54	Prof. Rabindra Kumar Panda	World Academy of Science, Engineering and Technology	2016-06-09	2016-06-10	San Francisco

Seminars / Conferences / Workshops Attended					
S.N	Name	Title	Dates		Place
			From	To	
55	Prof. Rabindra Kumar Panda	Field-scale Agricultural Water Management using In-situ IT-based monitored data and Remotely Sensed Products	2017-01-20	2017-01-22	Raipur
56	Dr. Pasla. Dinakar	Corrosion Conference (CORCON 2016)	2016-09-18	2016-09-21	New Delhi
57	Dr. Suresh R Dash	8th International Conference on Maintenance and Rehabilitation of Pavements (MAIREPAV8)	2016-07-27	2016-07-29	Singapore
School of Mechanical Sciences					
58	Dr. Anirban Bhattacharya	Workshop on solidification and phase transformation	2016-08-26	2016-08-27	Jadavpur University, Kolkata
59	Dr. Ankur Gupta	International Conference on Sustainable Energy and Environmental Challenges	2017-02-26	2017-02-28	Mohali, Punjab
60	Dr. Venugopal Arumuru	National Frontiers of Engineering Symposium (NatFOE11)	2017-06-30	2017-07-01	IIT Bombay
61	Dr. Mihir Kumar Das	ASME 2016 5th International Conference on Micro/Nanoscale Heat and Mass Transfer, MNHMT 2016	2016-01-04	2016-01-06	Biopolis, Singapore
62	Dr. Mihir Kumar Das	6th International & 43rd National Conference on Fluid Mechanics and Fluid Power (FMFP-2016)	2016-12-14	2016-12-18	Allahabad, India
63	Dr. Satyanarayan Panigrahi	SERB School on Noise and Vibration Control	2016-12-19	2016-12-23	Bhubaneswar
64	Dr. Sathyanarayana Ayyalasomayajula	6th International & 43rd National Fluid Mechanics & Fluid Power (2016, December 15-17)	2016-12-15	2016-12-17	Allahabad, India

Seminars / Conferences / Workshops Attended					
S.N	Name	Title	Dates		Place
			From	To	
55	Prof. Rabindra Kumar Panda	Field-scale Agricultural Water Management using In-situ IT-based monitored data and Remotely Sensed Products	2017-01-20	2017-01-22	Raipur
56	Dr. Pasla. Dinakar	Corrosion Conference (CORCON 2016)	2016-09-18	2016-09-21	New Delhi
57	Dr. Suresh R Dash	8th International Conference on Maintenance and Rehabilitation of Pavements (MAIREPAV8)	2016-07-27	2016-07-29	Singapore
School of Mechanical Sciences					
58	Dr. Anirban Bhattacharya	Workshop on solidification and phase transformation	2016-08-26	2016-08-27	Jadavpur University, Kolkata
59	Dr. Ankur Gupta	International Conference on Sustainable Energy and Environmental Challenges	2017-02-26	2017-02-28	Mohali, Punjab
60	Dr. Venugopal Arumuru	National Frontiers of Engineering Symposium (NatFOE11)	2017-06-30	2017-07-01	IIT Bombay
61	Dr. Mihir Kumar Das	ASME 2016 5th International Conference on Micro/Nanoscale Heat and Mass Transfer, MNHMT 2016	2016-01-04	2016-01-06	Biopolis, Singapore
62	Dr. Mihir Kumar Das	6th International & 43rd National Conference on Fluid Mechanics and Fluid Power (FMFP-2016)	2016-12-14	2016-12-18	Allahabad, India
63	Dr. Satyanarayan Panigrahi	SERB School on Noise and Vibration Control	2016-12-19	2016-12-23	Bhubaneswar
64	Dr. Sathyanarayana Ayyalasomayajula	6th International & 43rd National Fluid Mechanics & Fluid Power (2016, December 15-17)	2016-12-15	2016-12-17	Allahabad, India

Seminars / Conferences / Workshops Attended					
S.N	Name	Title	Dates		Place
			From	To	
School of Minerals, Metallurgical and Materials Engineering					
65	Dr. Kaushik Das	COMSOL Conference 2016	2016-10-19	2016-10-21	Bangalore
66	Dr. Kaushik Das	NMD-ATM 2016	2016-11-11	2016-11-14	Kanpur
67	Dr. Amritendu Roy	NMD-ATM-2016	2016-11-11	2016-11-14	IIT Kanpur
68	Dr. Amritendu Roy	ETMR 2016	2016-09-23	2016-09-24	NIT Raipur
69	Prof.Brij Kumar Dhindaw	ICAMMP 2016	2016-11-05	2016-11-08	IIT Kharagpur
70	Dr. Randhir Singh	NMD ATM 2016	2016-11-11	2016-11-14	IIT-Kanpur, India
71	Dr. Partha Sarathi De	Emerging trends in Materials research- a National perspective	2016-09-23	2016-09-24	NIT Raipur
72	Dr. Brahma Deo	National Metallurgist Day, Annual Technical Meeting Nov. 2016	2016-11-11	2016-11-15	IIT Kanpur

Visits Abroad

S.N.	Faculty Name	Place of visit	Dates of visit		Purpose of visit	Funding Agencies
			From	To		
1	Dr. Malay Kumar Bandyopadhyay	University of Toronto	2016-10-10	2016-10-14	Scientific collaboration and present some lectures	University of Toronto
2	Dr. Subhansu Ranjan Samantaray	Boston, USA	2016-07-17	2016-07-21	Attending IEEE PESGM 2016	UGC
3	Dr. Subhansu Ranjan Samantaray	Melbourne, Australia	2016-11-29	2016-12-01	Attending IEEE PES Chapter Chair 'meet	IEEE
4	Dr. Tarakanta Nayak	ICTP, Italy	2016-05-17	2017-07-15	Research	ICTP
5	Dr. Seema Bahinipati	Beijing, China	2017-05-22	2017-05-26	Deliver talk in the conference	

Annual Report 2016-2017

Visits Abroad						
S.N.	Faculty Name	Place of visit	Dates of visit		Purpose of visit	Funding Agencies
			From	To		
6	Dr. Akhilesh Barve	University of London, UK	2016-11-07	2016-11-12	Conference	IIT Bhubaneswar
7	Dr. Debasis Basu	Shanghai, China	2016-07-09	2016-07-17	Participating and presenting paper	IIT Bhubaneswar
8	Dr. Sumanta Haldar	Chicago, Illinois	2016-08-14	2016-08-19	To attend conference and workshop	IIT Bhubaneswar
9	Dr. N. C. Sahoo	Malaysia	2016-11-28	2016-11-29	Conference	Sponsored project
10	Dr. Partha Pratim Dey	Washington D. C.	2017-01-07	2017-01-14	Paper Presentation	IIT Bhubaneswar
11	Dr. Padmalochan Bera	London	2017-06-19	2017-06-22	presenting research paper in IEEE Cyber Security 2017	IIT Bhubaneswar
12	Dr. Remya Neelancherry	Hanoi, Vietnam	2016-11-28	2016-11-30	To present paper in the international Symposium on Southeast Asian Water Environment (SEAWE2016)	SEAWE 2016
13	Dr. Umesh Chandra Sahoo	Singapore	2016-07-27	2016-07-29	Attending conference	IIT Bhubaneswar
15	Prof. Rabindra Kumar Panda	San Francisco	2016-06-09	2016-06-12	Oral Presentation in Conference	IIT Bhubaneswar
16	Dr. Sabyasachi Pani	Atlanta, USA	2017-01-04	2017-01-07	to present our work	IIT Bhubaneswar
17	Dr. Debalina Ghosh	Cairns, Australia	2016-09-19	2016-09-23	Conference	IIT Bhubaneswar
18	Dr. Mihir Kumar Das	Moscow, Russia	2016-06-17	2016-06-25	Collaborative Research Work	DST, India
19	Dr. Mihir Kumar Das	Biopolis, Singapore	2016-06-03	2016-06-07	Conference	IIT Bhubaneswar
20	Dr. Chandrashekhar Narayan Bhende	Lappeenranta University of Technology, Finland	2016-09-19	2016-09-27	Collaborative project	DST India and Academy of Finland
22	Dr. Naresh Chandra Sahu	London	2016-11-08	2016-11-11	Attending international Conference	IIT Bhubaneswar
23	Dr. Niladri Bihari Puhan	Melbourne	2017-04-17	2017-04-22	Conference	IIT Bhubaneswar and DRDO
24	Dr. Suresh R Dash	University of	2017-	2017-	Attend UK-China-India	University of

Visits Abroad						
S.N.	Faculty Name	Place of visit	Dates of visit		Purpose of visit	Funding Agencies
			From	To		
		Surrey, UK	01-29	02-04	Workshop on Seismic Resilience of Nuclear Power Plants University of Surrey – 31st Jan – 1st Feb 2017	Surrey and IIT Bhubaneswar

Seminars/Conferences/Workshops organized

S.N.	Title	Organized	Dates		Remarks
			From	To	
School of Basic Sciences					
1.	Ishan Vikas Scheme of MHRD	Seminars	2016-12-07	2016-12-21	School children from North Eastern region of India
2.	9th International Workshop on the CKM Unitarity Triangle (CKM2016)	Workshops	2016-11-28	2016-12-02	Member, Local Organizing Committee @ TIFR, India
3.	Indo-German Conference on Modelling, Simulation and Optimization in Applications	Conferences	2017-02-22	2017-02-24	Organizing committee member @ Department of Mathematics, Bankura University, West Bengal, India
4.	Experiments with Entangled Photons	Seminars	2016-04-04	2016-04-04	Prof. H. S. Mani, Former Director of Harish Chandra Research Institute, Allahabad
5.	Lectures on Bell's Inequality	Seminars	2016-10-03	2016-10-10	Prof. H. S. Mani, Former Director of Harish Chandra Research Institute, Allahabad
6.	From Clusters to Crystals: A Bottom-up Design of Energy Materials	Seminars	2016-10-03	2016-10-03	Prof. P. Jena, Virginia Commonwealth University
7.	Quest for a Unified Theory	Seminars	2016-09-08	2016-09-08	Prof. S. Panda, Director, IOP Bhubaneswar
8.	LIGO and Search for Black Holes	Seminars	2017-01-20	2017-01-20	Dr. Satya Mohapatra, MIT, USA
9.	Brighter side of Semiconductor Nanocrystals: How to make Defects useful	Seminars	2016-08-11	2016-08-11	Prof. D. D. Sarma, IISc Bangalore
10.	Current Excitements in Physics: Gravitational Waves	Seminars	2016-07-28	2016-07-28	Prof. Ashok Das, Rochester University
11.	Second Joint Implementation Committee (JIC) Meeting of JEE Advanced 2017	Workshops	2016-11-29	2016-12-01	Chairman/Vice-Chairman from 22 IITs participated
School of Electrical Sciences					
12.	National Power Systems Conference- NPSC 2016	Conferences	2016-12-19	2016-12-21	
13.	National Workshop on Smart Grid Technology	Workshops	2014-11-08	2014-11-09	
14.	Higher education, Entrepreneurship and Global Cities: Prospects of Bhubaneswar jointly with	Workshops	2017-03-09	2017-03-09	

Annual Report 2016-2017

Seminars / Conferences / Workshops organized					
S.N.	Title	Organized	Dates		Remarks
			From	To	
	British Council of India				
15.	Invited Talk by Prof. Raj kumar Buyya, University of Melbourne, Australia; Topic:	Seminars	2016-12-20	2016-12-20	
16.	Invited Talk by Prof. Sajal Das, MIST, Rolla, USA; Topic: "Cyber Physical Systems and Its Applications - research road-map",		2016-08-09	2016-08-09	
17.	VLSI Digital Signal Processing Architectures	Workshops	2017-01-02	2017-01-06	
School of Infrastructure					
18.	Recent Advances in Earthquake Geotechnical Engineering	Workshops	2016-11-30	2016-11-30	
19.	IT-based Real Time Monitoring of Soil, Water and Atmospheric Variables for Sustainable Surface and Groundwater Management	Workshops	2017-03-25	2017-03-25	
20.	One day brain storming workshop on " IT-based Real Time Monitoring of Soil, Water and Atmospheric Variables for Sustainable Surface and Groundwater Management"	Workshops	2017-03-25	2017-03-25	
21.	Recent Advances in Earthquake Geotechnical Engineering	Workshops	2016-11-30	2016-11-30	
School of Earth, Ocean and Climate Sciences					
22.	National Symposium on Tropical Meteorology: Climate Change and Coastal Vulnerability (Tropmet-2016)	Conferences	2016-12-18	2016-12-21	
23.	Colloquium on recent developments in prediction of tropical cyclone and associated coastal hazards	Workshops	2016-12-14	2016-12-16	
School of Mechanical Sciences					
24.	Innovation in Education & Engineering Design (IEED-2016)	Workshops	2016-11-05	2016-11-05	
25.	One day Workshop conducted through DIC@IIT Bhubaneswar: IEED 2016. [Funded by Planning and Coordination Department, Govt. Of Odisha]	Workshops	2016-11-05	2016-11-05	
School of Minerals, Metallurgical and Materials Engineering					
26.	Current Trends in Solidification Processing and Technology	Workshops	2017-04-03	2017-04-06	

GIAN Programmes Organized

S.N.	Course Name /Duration	Host Faculty	Foreign Faculty
1.	Computational acoustics Engineering and Scientific approaches 23/05/2016 to 04/06/2016	Dr. Yogesh G. Bhumkar	Prof. Datta V. Gaitonde, John Glenn Chair in the Mechanical and Aerospace Engineering Department at the Ohio State University, USA
2.	Productive Efficiency Theory and Practice 30/05/2016 to 08/06/2016	Dr Naresh Chandra Sahoo	Prof. Kaliappa Kalirajan, The Australian National University, Australia
3.	BIOHEAT TRANSFER 06/06/2016 to 17/06/2016	Prof. Swarup K. Mahapatra	Prof. Sunil Kumar, United Arab Emirates
4.	Modelling and Analysis of Cyber Physical Systems 08/07/2016 to 20/07/2016	Dr M Satpathy	Prof Michael Butler, Southampton, England United States of America , Prof S. Ramesh, General Motors Global R&D, G N Technical Fellow, Warren, USA
5.	Computational Electronic Structure Methods for Atomic, Molecular and Solid-State Systems 09/07/2016 to 18/07/2016	Dr. Kousik Samanta	Professor Danny L. Yeager, Chemistry Department, Texas A&M University, USA
6.	Fundamentals of Geosynthetic Engineering 11/07/2016 to 22/07/2016	Dr. B. Hanumantha Rao	Dr. Sanjay Kumar Shukla, Edith Cowan University, Australia
7.	Design of offshore foundations 18/07/2016 to 22/07/2016	Dr. Sumanta Halder	Prof. Subhamoy Bhattacharya, University of Surrey, United Kingdom
8.	Modeling analysis and simulation of coagulant fluid 25/07/2016 to 29/07/2016	Dr. Rajesh Kumar	Prof. Joaquim M.C. Correia, DMat, ECT, University of Évora, Portugal
9.	Polluted Sites Characterization and Remediation 25/07/2016 to 05/08/2016	Dr. B. Hanumantha Rao	Prof. Krishna R. Reddy, University of Illinois, USA
10.	Applied Cyber Security 05/08/2016 to 12/08/2016	Dr. Padmalochan Bera	Dr. Ehab Al-Shaer, Professor in Computer Science and Director, CyberDNA, University of North Carolina Charlotte, USA

GIAN Programmes organized			
S.N.	Course Name /Duration	Host Faculty	Foreign Faculty
11.	Climate Change Science, Impact and Adaptation 01/12/2016 to 08/12/2016	Prof. U. C. Mohanty	Prof. Devdutt Niyogi, Purdue University, United States of America
12.	Multiprocessor Architectures and Programming 05/12/2016 to 16/12/2016	Dr. Monaranjan Satpathy	Prof. Laxmi Narayan Bhuyan, University of California Riverside, United States of America
13.	Current advances in numerical techniques for PDEs with random input data 08/12/2016 to 13/12/2016	Dr Rajesh Kumar	Prof. Fabio Nobile, Ecole Polytechnique Federale de Lausanne, Switzerland
14.	Design and Performance of Pavements (DaPoP) 12/12/2016 to 16/12/2016	Dr. Umesh Chandra Sahoo	Prof. Wynand JvdM Steyn, University of Pretoria, South Africa
15.	Satellite Altimetry and Instrumentation for Oceanography 12/12/2016 to 16/12/2016	Dr. Debadatta Swain	Dr. Stefano Vignudelli, Consiglio Nazionale delle Ricerche (NRC), Italy
16.	Design and Applications of Fixed Wing Unmanned Aerial Vehicles (UAV) 12/12/2016 to 23/12/2016	Dr. Sathyanarayana A	Prof. Sumon K. Sinha, President, SINHATECH, United States of America
17.	Recent Advances in Modeling Tools and Techniques for Urban Travel Demand Forecasting 19/12/2016 to 23/12/2016	Dr. Debasis Basu	Dr. Abdul Rawoof Pinjari, University of South Florida, United States of America
18.	Spectral Methods for Engineering & Scientific Computing Applications 19/12/2016 to 28/12/2016	Dr. Sathyanarayana A	Prof. David A Kopriva, The Florida State University, United States of America
19.	Travel Writing Texts, Theories, and Frameworks for Analysis 19/12/2016 to 29/12/2016	Dr Amrita Satpathy	Dr Carl Thompson, Trent University, United Kingdom
20.	Extreme Weather and Climate Variability Observation, Understanding, Prediction 22/12/2016 to 31/12/2016	Dr. Sandeep Pattnaik	Prof. T. N. Krishnamurti, Florida State University, United States of America
21.	Soil Moisture and Soil Hydraulic Properties at Micro- and Macro Scales for Water Resources Management 26/12/2016 to 30/12/2016	Prof. Rabindra Kumar Panda	Professor Binayak Mohanty, Texas A&M University, United States of America

Institute Seminar Series

No.	Title of the talk/Date	Speaker
1	Evolution of Mobile Communications 16/8/2016	Prof. A. Paulraj, Stanford University
2	Healthy Way of Life 13/9/2016	Mr. M. H. Dalmia, President OCL India Limited
3	Let's talk Innovation 27/9/2016	Mr. S. Bagchi, Chairman, Odisha Skill Development Authority
4	Effective Communication Skills for Engineers, Scientists & Educators 03/10/2016	Dr. R. Sinha, Sinha Research, Switzerland
5	Emerging Software Technology & Market Trends 02/11/2016	Mr. J. R. Dash, Consultant in Silicon Valley
6	Water for Global Food Security: Challenges and Opportunities 08/11/2016	Prof. C. Ray, Director, Nebraska Water Center
7	Computing Signal Processing and Machine Learning Functions using DNA 04/01/2017	Prof. K. K. Parhi, University of Minnesota, Minneapolis
8	Nano-Engineered Materials: Challenges and Opportunities 06/01/2017	Prof. P. M. Ajayan, Rice University
9	Spirituality: An Algorithm for Perfect Life 07/01/2017	Prof. K. Chowdhury, IIT Kharagpur

Distinguished Visitors

A large number of distinguished personalities visited the Institute on different occasions, addressed the faculty, students and staff. The visitors include:

Distinguished Visitors		
Sl.No	Distinguished Visitor	Institution
1.	Padma Vibhushan Dr. R. Chidambaram	Principal Scientific Adviser to the Government of India and Chairman of the Scientific Advisory Committee to the Cabinet
2.	Swami Dr. Mangalteertham	Director, Nutan Sanjeevani Sansthan, Deoghar
3.	Padma Shri Prof. Kota Harinaryana	formerly Vice-Chancellor of University of Hyderabad; former Programme Director and Chief Designer of India's Light Combat Aircraft (LCA) Tejas Programme
4.	Prof. Surendra Prasad	Chairperson, National Board of Accreditation (Former Director, IIT Delhi)
5.	Shri Rajiv Ranjan, IPS,	Superintendent of Police, CBI, Anti Corruption Wing, Bhubaneswar
6.	Prof. V. Ramgopal Rao,	Director, IIT Delhi
7.	Prof. Pradipta Banerji	Director, IIT Roorkee
8.	Prof. Indranil Manna	Director, IIT Kanpur
9.	Prof. Rajeev Sangal	Director, IIT BHU
10.	Prof. U. B. Desai	Director, IIT Hyderabad
11.	Prof. Timothy A. Gonsalves	Director, IIT Mandi
12.	Prof. Pushpak Bhattacharyya	Director, IIT Patna
13.	Prof. Sarit Kumar Das	Director, IIT Ropar
14.	Prof. Amit Prashant	IIT Gandhinagar
15.	Shri G. C. Pati	IAS, Former Chief Secretary, Govt. of Odisha
16.	Prof. Binayak Rath	Former Vice-Chancellor, Utkal University, Bhubaneswar
17.	Dr. S. P. Mohanty	General Manager, Reserve Bank of India, Bhubaneswar
18.	Shri R. L. Mohanty	Chairman, MGM Minerals Ltd., Bhubaneswar
19.	Prof. Ikuo Towhata	Professor Emeritus at the University of Tokyo, Japan

Distinguished Visitors		
Sl.No	Distinguished Visitor	Institution
20.	Prof. Ramana M. Pidaparti	College of Engineering, The University of Georgia, USA
21.	Prof.. M. Ramamoorthy	Ex-Director General, CPRI, Bangalore
22.	Prof. Saifur Rahman	IEEE PES President Elect
23.	Prof. S C Srivastava	IIT Kanpur
24.	Dr. N D R Sarma	Texas A & M University
25.	Dr. Saikat Chakrabarti	IIT Kanpur
26.	Prof. Bhim Singh	IIT Delhi
27.	Prof. Mahesh Kumar	IIT Madras
28.	Prof. S A Soman	IIT Bombay
29.	Prof. Anil Kulkarni	IIT Bombay
30.	Ms Kumud Wadhwa	PGCIL
31.	Prof. Sandeep Shukla	IIT Kanpur
32.	Prof. Anirudhra Gole	Univeristy of Minitoba, Canada
33.	Prof. Anil Pawhs	Kansas State University , USA
34.	Prof. Anurag Srivastava	Washington State University, USA
35.	Prof. Chanan Singh	Texas A &M, USA
36.	Dr. Rambabau Adapa	EPRI, USA
37.	Prof. V Ajarapu	Lowa State University, USA
38.	Dr. Ratan Das	IcaPower, USA
39.	Mr S K Soonee	Ex CEO, POSOSCO
40.	Mrs. Paramita Mahapatra	MD, UMSL Limited
41.	Prof. Damodar Acharya	Former Director, IIT Kharagpur and Chairman Advisor Board, SOA University
42.	Shri Dharmendra Pradhan	Hon'ble Minister of State - Independent Charge, Petroleum and Natural Gas, Govt. of India

Distinguished Visitors		
Sl.No	Distinguished Visitor	Institution
43.	Prof. V. Chandrasekhar	Director, NISER, Bhubaneswar
44.	Prof. A. Srinivasan	NISER, Bhubaneswar
45.	Dr. Rajashree Bothale	Senior Scientist & Head of Water Resource Division, National Remote Sensing Centre, Hyderabad
46.	Prof. Datta V. Gaitonde	Ohio State University, USA
47.	Prof. Kaliappa Kalirajan	The Australian National University, Australia
48.	Prof. Sunil Kumar	United Arab Emirates
49.	Prof. Michael Butler	University of Southampton, England
50.	Prof. Danny L. Yeager	Texas A&M University, USA
51.	Dr. Sanjay Kumar Shukla	Edith Cowan University, Australia
52.	Prof. Subhamoy Bhattacharya	University of Surrey, United Kingdom
53.	Prof. Joaquim M.C. Correia	DMat, ECT, University of Évora, Portugal
54.	Prof. Krishna R. Reddy	University of Illinois, USA
55.	Dr. Ehab Al-Shaer	University of North Carolina Charlotte, USA
56.	Prof. Devdutt Niyogi	Purdue University, USA
57.	Prof. Laxmi Narayan Bhuyan	University of California Riverside, USA
58.	Prof. Fabio Nobile	Ecole Polytechnique Federale de Lausanne, Switzerland
59.	Prof. Wynand JvdM Steyn	University of Pretoria, South Africa
60.	Dr. Stefano Vignudelli	Consiglio Nazionale delle Ricerche (NRC), Italy
61.	Prof. Sumon K. Sinha	President, SINHATECH, USA
62.	Dr. Abdul Rawoof Pinjari	University of South Florida, USA
63.	Prof. David A Kopriva	The Florida State University, USA
64.	Dr Carl Thompson	Trent University, United Kingdom
65.	Prof S. Ramesh	General Motors Global R&D, G N Technical Fellow, Warren, USA

Distinguished Visitors		
Sl.No	Distinguished Visitor	Institution
66.	Prof. T. N. Krishnamurti	Florida State University, United States of America
67.	Prof. Binayak Mohanty	Texas A&M University, USA
68.	Prof. A. Paulraj	Stanford University, USA
69.	Mr. M. H. Dalmia	President, OCL India Limited
70.	Mr. S. Bagchi	Chairman, Odisha Skill Development Authority
71.	Dr. R. Sinha	Sinha Research, Switzerland
72.	Mr. J. R. Dash	Consultant in Silicon Valley
73.	Prof. C. Ray	Director, Nebraska Water Center, USA
74.	Prof. K. K. Parhi	University of Minnesota, USA
75.	Prof. P. M. Ajayan	Rice University, USA
76.	Prof. K. Chowdhury	IIT Kharagpur
77.	Padma Shri Dr. T. P. Das	Vice Chairman, L V P Eye Institute, Hyderabad
78.	Mr. A. Trigunayat	Ambassador, IFS Retd.
79.	Prof. Avijit Gangopadhya	University Massachusetts Dartmouth, USA
80.	Prof. Subrata Pradhan	IPR, Gandhinagar
81.	Prof. H. S. Mani	Chennai Mathematical Institute, Chennai (Former Director, Harish-Chandra Research Institute, Allahabad)
82.	Prof. Purusottam Jena	Virginia Commonwealth University, USA
83.	Prof. Sudhakar Panda	Director, Institute of Physics, Bhubaneswar
84.	Prof. D. D. Sarma	Solid State and Structural Chemistry Unit, IISc Bangalore
85.	Prof. Ashok Das	University of Rochester, USA
86.	Prof. B. S. Panda	Indian Institute of Technology Delhi
87.	Prof. S. Thangavelu	Indian Institute of Science, Bangalore
88.	Prof. Christopher W. Bielawski	University Distinguished Professor at Ulsan National Institute of Science and Technology, Korea.

AWARDS/HONOURS/FELLOWSHIP/INDUSTRY INTERNSHIPS

Awards/Honours/Fellowship (Faculty)

S.N.	Faculty Name	Details of the Awards/Honours/Fellowship	Remarks
School of Electrical Sciences			
1.	Dr. Debalina Ghosh	International Travel Support from SERB	For attending APS-URSI 2017 Conference in San Diego, California
2.	Dr. Sudipta Saha	Best-in-session-presentation award in the technical session of IoT	35th annual IEEE International Conference on Computer Communications (INFOCOM), 2016
3.	Dr. Chandrashekhar Narayan Bhende	Bhaskara Advanced Solar Energy (BASE) Fellowship Program	Through this program, he will visit Washington State University, Pullman, USA for collaborative research work
4.	Dr. Debi Prosad Dogra	KIST Flagship Project (Project No.2E27190) Grant, South Korea, 2017.	Received for Collaborative Research and Travel
5.	Dr. S.R.Samantaray	Editor- IEEE Transactions on Smart Grid	
6.	Dr. S. R. Samantaray	Guest Editor- IEEE Sensor Journal Special Issue on "Smart Sensors for Smart Grids and Smart Cities".	
School of Humanities, Social Sciences and Management.			
7.	Dr. (Mrs) Kumkum Mohanty,	Awarded with Teaching Excellence Autumn 2016-17, IIT Bhubaneswar	
School of Infrastructure			
8.	Dr. Meenu Ramadas	2016 ASCE State of the Art of Civil Engineering Award	For the papers in the Current and Future Challenges in Groundwater series, Co-authors: Richa Ojha and Prof. R S Govindaraju
9.	Dr. Sumanta Haldar	IGS-ONGC Biennial Award from Indian Geotechnical Society	Best paper on Marine Geotechnical Engineering published in Asian Regional Conference, Fukuoka, Japan
10	Dr. Arindam Sarkar	Awarded with Teaching Excellence Autumn 2016-17, IIT Bhubaneswar	
11	Dr. Remya Neelancherry	Full financial support (Registration, Travel, Boarding & Lodging)	International Symposium on South East Asian Water and Environment (SEAWE 2016) to attend the symposium held in Nov 2016 in Hanoi, Vietnam

Awards/Honours/Fellowship			
S.N.	Faculty Name	Details of the Awards/Honours/Fellowship	Remarks
School of Mechanical Sciences			
12	Dr. Yogesh G. Bhumkar	Awarded with Teaching Excellence Autumn 2016-17, IIT Bhubaneswar	
13	Dr. Mihir Kumar Pandit	Awarded with Teaching Excellence Autumn 2016-17, IIT Bhubaneswar	
14	Dr. Anirban Bhattacharya	Prof. B K Subba Rao Gold Medal for Best PhD Thesis (2014-15, IISc, Bangalore)	Awarded on June 2016
15	Dr. Ankur Gupta	ISEES Young Scientist Award 2017	
16	Dr. Ankur Gupta	Participating in BRICS Young Scientist Conclave to be held from 11-15 July 2017, Hangzhou, China.	Shortlisted by DST, Government of India, for the participation in this conclave.

Awards/Scholarships/Achievements (Students)

School of Basic Sciences

1. Mr. Satyanarayan Dhal has received best poster award (First prize) in international conference on Ion Beam in Materials Engineering and Characterizations 2016 (IBMEC 2016), from 28 Sep – 1st Oct 2016, held at IUAC, New Delhi.

School of Earth, Ocean and Climate Sciences

International

2. Ms. Manisha Das, JRF Inspire and Mr. Nishant Vats, JRF (Project) got PAGES financial support of 1500 Euro each to attend 1st CVAS workshop at Universität Hamburg, Germany.
3. Mr. Asutosh Acharya received financial support for participation in the prestigious European Research Course on Atmospheres (award amount 2900 Euro) held during 11th January to 9th February, 2017 at University of Grenoble, FRANCE.

National

4. Mr. Subrota Halder (M.Sc. Atmosphere & Ocean Sciences), Second Prize in Best Poster at Research Conclave'17, IIT Guhawati
5. Mr. Samiran Mandal (Ph.D. Scholar) and Mr. Samar Kumar Ghose (Ph.D. Scholar) got first and

third prize in the best poster presentation in Workshop at National Institute of Technology (NIOT), Chennai.

6. Mr. Samir Debnath (M.Sc. Geology), 8th Rank in UPSC-combined Geoscience Examination
7. Ms. Urmi Ghosh (M.Sc. Geology), 6th Rank in CSIR-JRF, Dec 2015
8. Mr. Partha Sarathi Jena (M.Sc. Geology), 16th Rank in CSIR-JRF, June 2016, 10th Rank in CSIR-JRF, Dec 2016
9. Mr. Ashutosh Acharya (Ph.D. Scholar), Ms. Babita Jangir (Ph.D. Scholar) and Ms. Annu Panwar (M.Sc. Atmosphere and Ocean Sciences) got awarded the TROPMET conference, Dec 2016

Institute Awards

10. Ms. Shweta Singh, Director's Gold Medal 2016, M. Sc. topper
11. Ms. Shweta Singh, Institute Silver Medal 2016, M. Sc. Atmosphere and Ocean Sciences
12. Ms. Urmi Ghosh, Institute Silver Medal 2016, M. Sc. Geology
13. Mr. Dipanjan Dey, Institute Silver Medal 2016, M. Tech in Climate Science and Technology
14. Ms. Shweta Singh, Institute Proficiency Prize,

Annual Report 2016-2017

Atmosphere and Ocean Sciences

15. Mr. Sambuddha Dhar,, Institute Proficiency Prize, Atmosphere and Ocean Sciences

Scholarship

16. Mr. Praveen Kumar (M.Sc. Atmosphere & Ocean Sciences), Mr. Rishav Goyal (M.Tech. Climate Science and Technology), Mr. Pintu Layek (M.Sc. Geology), Mr. Archan Ganguly(M.Sc. Geology) and Ms. Joyita Chattaraj (M.Sc. Geology) got Joint Indian Academies Summer Research Fellowship Award 2016
17. Mr. Sourav Dutta (M.Sc. Geology) got Physical Research Laboratory, Ahmedabad Summer Fellowship Award 2016
18. Mr. Shashikant Singh (M.Sc. Geology) got Atomic Mineral Directorate, Gol Summer Studentship 2016
19. Mr. Apurba Narayan Das (M.Sc. Geology) got GERMI summer intern fellowship 2016

School of Electrical Sciences:

20. Loknath Tripathy-POSOCO Power System Award (Doctoral Category)-2016.
21. Deepak Kumar- POSOCO Power System Award (Doctoral Category)-2016.
22. Rahul Kumar Dubey (IIT Delhi)-POSOCO Power System Award (Doctoral Category)-2017.

23. Susmita Kar-POSOCO Power System Award (Doctoral Category)-2017.
24. Pankaj Dilip Achlerkar-POSOCO Power System Award (Masters Category)-2017.
25. Abinash Ankit Raut – Summer Internship Fellowship, Korea Institute of Science and Technology, South Korea and IKST Bangalore 2017.
26. Rahul Reddy, Summer Internship Fellowship, Korea Institute of Science and Technology, South Korea and IKST Bangalore, 2017.
27. Swargam Avinash, Summer Internship, SRFP Fellowship 2016.
28. Debiprasanna Sahoo, VLSID fellowship to attend VLSID Conference, 2017.
29. Debiprasanna Sahoo, UCR Research Fellowship, 2016-2017.
30. Shreyans Srimal, Google Summer of Code Stipends Program, 2017.
31. R Krishnan, Google Summer of Code Stipends Program, 2017.
32. Santosh Kumar Behera, ICPR-MVA Conference International Travel Grant, 2017.
33. K. Sudarshan, Shreyans Srimal, and Keshav have won IBM I-CARE Watson Cognitive Challenge 2016.

Industry internships in year 2016-17.	Number of summer placements
Total number of students eligible for industry internships in 2016-17	161
Total Number of students who got industry internships	161
Number of students who got industry internships in Indian companies	96
Number of students who got industry internships in MNCs	48
Number of students who got industry internships done outside India	17
Duration of internship	8 weeks



Central Library

Introduction:

The mission of the Central Library is to provide quality information resources in all forms to the academic and research community of IIT Bhubaneswar. With a commitment to excel, the Library plays a vital role starting from acquiring to disseminating all types of information resources by timely and innovative services to support the academic and research need of the user community. The range and quality of services offered by the Central Library are comparable to any modern libraries in India of International standard. In 2016, Central Library has extended its services at Argul campus i.e. the permanent campus of Institute. Further, it has also extended the Library timing up to 11 pm at permanent campus w.e.f. March 2016. In a nut shell, currently it is having over 16093+ volumes of books, 49+ full text as well as bibliographical database subscriptions, and other resources like popular magazines/print journals, theses, and reports in Engineering, Science & Technology, Management, Humanities and Social Sciences. Apart from the procurement on print books, the Central Library achieved phenomenal progress in the subscription of e-resources which includes more than 8645 e-journals to its digital collection making "24x7 Library" in real sense on institute-wide network and off-campus access to e-resources through ezproxy.

Library Collection:

The total collection of library as on March 2017 stands as follows:

- Printed Books: 16093 Nos.
- Journals & Magazines: 24 Nos.



- Daily Newspapers: 12 Nos.
- E-resources: 8500+ e-journals
(Technology: 3122+; Science: 3079+ & Humanity & Social Sc.: 2299+ e-journals)
- Full text online databases: 40 Nos.
- Bibliographical databases: 04 Nos.
- CD/Multi-media databases: 02 Nos.
- Patent Database: 01 No.
- E-Book Database: 02 No.
- Web tools: 02 Nos.

Library Services & Facilities:

- Reader's Assistance
- Membership and Borrowing Facilities
- Photocopying Facility
- Hindi Collection (Rajbhasa Collection)
- Leadership Corner
- Non-Book Materials
- Reserved Collection in reading area
- Special Collection for Scheduled Castes & Scheduled Tribes

- Display of Scholarship and fellowship information
- Display of Forthcoming conferences, other events, employment opportunities, and prospectus of foreign universities
- Orientation Programmes

Online Subscriptions:

There are 49 Electronic Resources including e-journals, online databases, bibliographic databases, data sets, software tools, e-Books etc. are being subscribed and renewed annually in collaboration with eSS (e-ShodhSindhu: A nationwide initiative by Ministry of HRD for Higher Education e-Resources).

Full Text Online Databases:

1. AAAS (Science)
2. ABI INFORM Complete
3. ACM Digital Library
4. American Chemical Society
5. American Institute of Physics
- 6) American Mathematical Society
7. American Meteorological Society
8. American Physical Society
9. American Society of Civil Engineers (ASC)
10. American Society of Mechanical Engineers (ASME)
11. Annual Reviews Journals
12. ASTM International Standards and Engineering DL
13. Begell House Engineering Research Collection
14. Cambridge Journals.
15. ECS Digital library Online
16. Economic & Political Weekly New
17. Emerald Journals
18. Geo Science World
19. ICE+ Thomas Telford

20. IEEE Xplore Digital Library
21. IOP Science Extra
22. ISID
23. JSTOR
24. McGraw-Hill Access Engineering Library
25. NATURE - 12 Titles
26. Optical Society of America
27. Oxford University Press
28. Project Muse
29. Proquest Dissertation & Theses
30. Royal Society of Chemistry
31. Sage (2 Journals)
32. Science Direct Option-1 (5 Sub- Phy, Chm, Mat, Eng, & Mt.Sc)
33. Earth & Planetary Sc. - Elsevier (Science Direct Additional)
34. SIAM Journals
35. South Asia Archive
36. Springer Journals
37. Taylor & Francis Online (Sc. & Tech, Business & Mgmt. & Ecos)
38. Wiley Online - 65 titles

Bibliographical E-DATABASES:

1. SCIFINDER Scholar (web enabled version)
2. MATHSCINET
3. SCOPUS
4. Web of Science (SCIE) (back files since 1965)

Patent Database

1. WIPS Global Advanced

Web Tools

1. Turnitin Anti-Plagiarism Tool
2. Ezproxy (for remote access of all subscribed e-resources)

E-Book

1. McGraw-Hill Access Engineering Library
2. World eBook Library

CD/ Multi-media Databases:

1. Cambridge Structural Database System (Researcher License)
2. Indian Standards - (DVD leased)

Computing Infrastructure and Services:

The Library has its own sub-LAN, which is connected to the Campus LAN. It has more than 20 PCs dedicated for the user to access electronic resources (e-journals, e-databases, etc), SUN Fire Server and Blade Server. The Central Library has a comprehensive Home Page as a part of the Institute's web site. The Library Home page serves as an integrated interface for all services available from the

Central Library. The interface, available at <http://library.iitbbs.ac.in/> and offers the following web-based services:

- Recent Additions to the IIT Library (<http://library.iitbbs.ac.in/>)
- New Arrival Display & Alert Services (both physical & online)
- Electronic Resources subscribed (<http://library.iitbbs.ac.in/online-e-resources.php>)
- Web-based Library OPAC (<http://10.10.32.47/> - intranet; <http://14.139.204.213/> - outside Argul network)
- Web Access to Journals subscribed in Print.
- Off Campus Remote Access to all e-Resources through EZProxy (<http://14.139.204.214:2048/> login)



Open Source Software (OSS) for Library Automation and Institutional Repository:

Open source Library Management Software (KOHA) has been installed and the day-to-day housekeeping activities are being done through this system. Central Library has also successfully implemented an IR (Institutional Repository) using the open source software DSpace in accordance with the National Digital Library (NDL), IIT Khargpur mandate.

Out-reach and other Programs:

Central Library has conducted 5th Annual Meeting of IIT Librarians held during 18-19 November, 2016. All the Librarians were attended during the two days of meeting both through physically or through Skype.

Apart from this Central Library has also conducted following orientation programmes:

- IEEE Author Workshop on 22-9-2016

CAREER DEVELOPMENT CELL

The Career Development Cell (CDC) offers a broad range of student-centered support service that empower students to explore, define, and realize their career goals. The CDC also engages in one-on-one counselling sessions, consultations throughout the career planning process, and assistance with goal-setting and goal achievement through a variety of career exploration activities. The ultimate aim is to provide lifetime tools and skills for professional development, job search success, and career satisfaction, supporting the students in shaping and managing their careers by building key ingredients required for a student to be a complete professional.

CDC also engages with organisations for their staffing requirements of the diverse portfolio of the companies. CDC understands that collaboration with industry helps generating both breakthrough discoveries and product developments that can support continuous innovation and growth. With a perfect track record of very productive relationships with corporations of all sizes, from start-ups to mature, successful enterprises, CDC provides the students with education, research and connections to world class corporate entities. It tries to bring closer the Industry-Academia interface.

Key highlights of placement of 2016-17

1. A total of 164 students have been placed (171 got offers) so far out of 200 plus registered. Total 105 students from UG got placed from the total 126 registered.
2. Undergraduate placement is about 84% till now and continuing.
3. M Tech placements are more than 80%.
4. Highest number of job offers are from core industries.
5. 75% rise in placements this year as compared to previous year.
6. No. of companies recruited are 46 so far.
7. Highest foreign CTC offered was 38 Lakhs in Rupees.
8. Highest domestic CTC offered was 21 Lakhs in Rupees.

- 9. Average salary is 10 Lakh per Annum, a rise of 35% compared to previous year.
- 10. PSU's like ISRO, IOCL, BPCL, NCCBM participated in the campus placement.
- 11. Duration of placement season in number of days for 2016-17: 180 days



Course/stream wise distribution of placement:

Branch (B.Tech)	No. of students Registered	No. of students Placed
Civil	27	14
Comp. Science	37	37
Electrical	33	30
Mechanical	29	24
Total	126	105

Branch (M.Tech/ M.Sc)	No. of students interested in placement	No. of students placed
M Tech	44	37
M Sc	43	14
PhD	-	08
Total	87	59

Overall placement:	Campus placement:	Off campus placement:
No of students registered: 213	No of students placed: 158	No of students placed: 6
No of students placed: 164	Percentage of placement: 74%	Percentage of placement: 3%
Percentage of placement: 77%		

Companies:

Companies:



Sector wise placement analysis:

IT: 21 %
 Core/Manufacturing: 44 %
 PSU: 9%
 Analytics: 4%
 Education: 15%
 Insurance: 3%
 E- Commerce: 4%

Sector-wise placement data



■ Core Industries ■ IT ■ PSU
 ■ Education ■ E- Commerce ■ Analytics
 ■ Insurance

Placement & Higher studies for previous 3 years

Academic Year first admitted)	No. of first year students admitted	Academic year (passout)	No. of students graduating in minimum stipulated time	No. of students placed through campus placement	Median salary of placed graduates (Amount in Rs.)	No. of students selected for Higher Studies
B. Tech						
2011-12	112	2014-15	106	63	6.16 lacs	25
2012-13	113	2015-16	105	92	6.5 lacs	10
2013-14	148	2016-17	140	107	7.5 lacs	16
M. Tech:						
2013-14	50	2014-15	44	16	6.77 lacs	16
2014-15	71	2015-16	55	28	6.0 lacs	27
2015-16	74	2016-17	57	46	6.0 lacs	11
M. Sc						
2013-14	57	2014-15	50	0	6.77 lacs	28
2014-15	71	2015-16	68	17	6.0 lacs	17
2015-16	76	2016-17	70	23	6.0 lacs	19

Annual Report 2016-2017

Academic Year 2016-17

S.N.	Name of the Company	No of students recruited	Minimum salary Offered	Maximum salary offered	Average salary offered	Median salary offered
1.	Affine, Alakriti, Amazon, Addverb, Aakash Institute, Avanti Fellows, BPCL, Belcan India, Capgemini, CTS, Cyient, Deloitte, Dereciti, Fiiitjee, Finisar, Go Jek, GMR IT, Hyundai, IOCL, ISRO, Ittiam, KPIT, KIIT University, L&T, Mahindra & Mahindra, MAQ Software, Maruti Suzuki, Microsoft, NCCBM, Rao Edusolutions, Reliance Jio, Sandip University, SOA University, Samsung, Styletag, Tata Motors, Tata Steel, Tesco, TCS R & D, UHG, Vedanta, Works Application, Zuti Engg., OHPC, BECL.	105	4.5 (LPA)	38 (LPA)	10.52 (LPA)	8.33 (LPA)

Details for jobs for year 2014-15, 2015-16 and 2016-17

	2014-15	2015-16	2016-17
Percentage of students placed for jobs	73%	93%	85%
Average salary offered per annum (in Rs. lakhs)	6.59	7.05	10.52 (LPA)
Median salary offered per annum (in Rs. lakhs)	6.16	6.5	8.33 (LPA)
Maximum salary offered per annum (in Rs. Lakhs)	13	16	38 (LPA)
Minimum salary offered per annum (in Rs. lakhs)	3.27	3	4.5 (LPA)
Total number of companies that visited the campus	24	35	45

ENTREPRENEUR ACTIVITIES



Startup Centre:

The Department of Science & Technology and the Ministry of Human Resource Development, Government of India, sanctioned Rs.1.50 Crore for establishing a Startup Centre at IIT Bhubaneswar. Prof. R. V. Raja Kumar, Director, IIT Bhubaneswar, inaugurated the centre on **20th June 2016**. The Startup Centre is envisioned to enrol minimum 10 startups in the 1st year of its commencement. This facility is available to **all budding entrepreneurs** of the region.

Technology Incubation Centre:

With the objective of encouraging IIT Bhubaneswar students and faculty members to take up entrepreneurship, the Institute has established an **in-house technology incubator**, as a part of well-thought-of incubation-cum-entrepreneurial ecosystem. This facility is also made available to the **outgoing students of the institute**.

E- Cell:

Entrepreneurship Cell (E-Cell) of IIT Bhubaneswar aims at promoting a spirit of entrepreneurship in the academic community of the Institute. Started in 2013 as a student-run organization under the aegis of Institute Gymkhana, it is now a Board-approved body (vide 19th Meeting of the Board of Governors held on 29 October 2015) and is recognized as an important organ to create an Ecosystem for Fostering Entrepreneurship at IIT Bhubaneswar. E-Cell conducts workshops for creating awareness on entrepreneurship and encouraging technology incubation. An annual fest '**E-Summit**' organised by

E-Cell provides a wider platform to students for interacting with industrialists, funding agencies, and entrepreneurs.

Startup Centre:

Important dates:

Date of selection letter received by the Institute	22 March 2016
Date on which the IIT Startup Centre was inaugurated	20 June 2016
Date of advertisement of invitation letter for opening Startups	22 July 2016
Date of selection of First round of Startups	28 Sept 2016
Date of selection of Second round of Startups	6 May 2017

ACTIVITIES

- The Startup Centre was inaugurated on **20 June 2016** by the Director of the Institute.
- The Institute has earmarked more than 50,000 sq. ft. area for the startup centre.
- Invitation for opening startups and the relevant application forms are uploaded on the Institute Website and are also sent to various colleges/universities/industrial enterprises in and around the State of Odisha which includes Andhra Pradesh, West Bengal, Jharkhand, Chhatisgarh etc.
- Advertisements are also sent to leading newspapers regarding invitation for opening Startups.
- 56 applications were received in first round of advertisement.

Annual Report 2016-2017

- The first round of selection committee was held on **27 and 28 Sep 2016** and 13 startups were selected.
 - 30 applications were received in the second round of advertisement.
 - The second round of selection committee meeting to be held on **6th May 2017**.
 - E-cell, IIT Bhubaneswar Organised Workshop on "Funding Opportunities and Legal Aspects of Startups" on 9th April, 2016.
 - Vasitars Pvt. Ltd., one of the first start-ups of Startup Centre, IIT Bhubaneswar won various Innovation & Business events awards in Techkriti 2017, the annual techno-management fest of IIT Kanpur held during 23 Mar 2017 – 26 Mar 2017.
- FACILITIES PROVIDED FOR STARTUPS -**
- Furnished/Semi-furnished/Unfurnished space as per the requirement of the entity
 - Internet, electricity, and water facility
 - Hostel facility, if available
 - Laboratory and workshop facilities
 - Library facility
 - Networking
 - Mentoring support
 - Support for legal and financial advice by empanelled consultants
 - Availability of IIT students for internship
 - Interactive workshops with Angel Investors and Venture Capitalists
 - Workshops on different issues of Entrepreneurship
 - Guidance and support for filing patents
 - Fooding and lodging facility available in nearby Atmaram Hotel.

Technology incubation centre

Important dates:

- Date of First round of selection: 13.4.16
- Total Incubatees selected in first round: 04
- Date of second round of selection: 03.05.2017
- Total Incubatees selected in second round: 04



"IIT Bhubaneswar Startup Centre" has been inaugurated by the Director



Startup Centre - Inner view



Startup Centre - Front View



Workshop on "Funding Opportunities and Legal Aspects of Startups"



Workshop on "Funding Opportunities and Legal Aspects of Startups"



Workshop on "Funding Opportunities and Legal Aspects of Startups".

Entrepreneurship by Alumni

S.No	Name of the Student/Alumni/Faculty entrepreneur	Graduating year (applicable for student/alumni)	Name of the company incubated
1	Pericherla Chaitanya Varma	2016	TechSasya (Highrise Buildings Water Supply System)
2	Pratik Pattanaik	2014	TorrDroid (https://play.google.com/store/apps/details?id=intelligems.torrdroid)
3	Radha Alekhya K	2013	iBuild Innovations India Pvt. Ltd.
4	Ankit Maurya	2013	ShaeMyReads
5	Prinkesh Barodia	2013	ShaeMyReads
6	Manas Pratim Pathak	2013	Neoric
7	Mudit Sharma	2012	Dapper
8	Nimish Shrivastava	2012	The Banyan Tee (www.thebanyantee.com)
9	Mohammad Yadish Faraz Khan	2012	Musk Technologies Pvt. Ltd.
10	Aravind Sanka	2012	Rapido (Roppen Transporation Services Private Limited)

RAJBHASHA EKAK

In pursuance of the Official Language Policy of the Government of India, Rajbhasha Ekak has been established in the Institute to promote the progressive use of Hindi in IIT Bhubaneswar. Presently the Cell is functioning with a single sanctioned post of Junior Hindi Translator. The Institute is completely follow the rules and regulations of the Govt. of India regarding Official Languages Hindi. Some the highlights are as follows:

On Going Activities

Translation of Institute Annual Report, Annual Accounts, Audit Report and various other documents which comes under Section 3(3) of Official Language Act, 1963. In addition, various other letters and correspondence, replies etc. are either translated or prepared in Hindi. The Ekak also try to ensure the effective implementation of Official Language policy of Govt. of India at Institute. The Ekak ensures the bilingual display and use of different nameplates, notice boards, rubber stamps, routine type forms and also help in preparing bilingual Degrees certificate awarded by the Institute during Convocation. The Ekak is trying to involve the students in various Rajbhasha activities and motivated them to form Hindi literary society "Abhivyakti" under student gymkhana.

Hindi Training

Time to time, Rajbhasha Ekak impart Hindi training to all Institute employees who has no working knowledge in Hindi on Roster. The Ekak nominates the employees for the Pragya and Praveen course under Hindi Teaching Scheme, Dept. Official Language, MHA, Gol. The Hindi classes for Pragya and Praveen are arranged in the Institute. After the successful completion of the training, the employees were nominated for the examination conducted by Hindi Teaching Scheme in the city. This year 7 employees of

the Institute have acquired the working knowledge of Hindi in this year.

In addition, Rajbhasha Ekak also nominated the employees of the Institute for Hindi Typing Training Programme, under Hindi Teaching Scheme and 5days Hindi translation workshop organised at IMMT Bhubaneswar under the aegis of TOLIC Bhubaneswar.

Hindi Workshops:-

To accelerate the pace of official language progressive use, the Rajbhasha Ekak organized various workshops for the employees of the Institute in every quarter. In the report year, the following workshops were organized :

1. During 23-24 June, 2016 a Hindi Workshop on "Sarkari Nitiyo ke Karyanvayan me Hindi ka Mahatva" was organized for the employees.
2. On 23 September, 2016 a target oriented Hindi Workshop on "Praroop avam Tippam Lekhan" was organized for the Officers/ Staff of the Institute.
3. On 24 March, 2017, a Hindi Workshop on "Rajbhasha ka prayog avam upay" was organized for the employees of the Institute.

Dr. D. Gunasekaran, IIT Bhubaneswar, Sri Debraj Rath, Joint Registrar and Dr. Raj K. Singh, PIC Rajbhasha encouraged, addressed and motivated the participants on these occasions to work more in Hindi.

Hindi Pakhwada Ceremony

During 01-14 September, 2016 Rajbhasha Ekak organized "Hindi Pakhwada" in the Institute. Several Programmes and competition in Hindi were organized for employees and students of the Institute. The highlights of this year Hindi Pakhwada was for 1st time inter institute as well as intra institute competition



for the student were organised with the help of "Abhvyakti". Various neighbouring colleges and institutes were participated in these programs. The popular programs were hindi creative writing "Rachnatamak Lekhan" and "Awaz Dil Ki". On 14th September, 2016 Hindi Diwas was celebrated in the Institute. Prizes were distributed to the winners of the various competitions on that day.

Publications:

Rajbhasha Ekak publishes a bi-monthly newsletter "E-Samachar" in Hindi, covering all the academic, cultural, extra-curricular activities of the Institute followed by "Hindi Sahitya Manch" column.

In addition, Rajbhasha Ekak has also published a handbook on routine types noting in Hindi to for use of authority in their daily official use and same is available in our institute website.

Bilingual Website

As per the Official Language policy, Govt. of India, Rajbhasha Ekak maintains bilingual updation in Institute's website. Further, Rajbhasha Ekak links added in our institute website which contains various useful information related to effective use of Official Language Policy.

Committees

Official Language Implementation Committee

The Institute has an Official Language Implementation Committee to look after the implementation of Official Language policies of Govt. of India and to review the progressive use of Hindi in Institute. Three quarterly meetings of the committee were held last year under the chairman ship of the Director. In the meeting discussion were made to accelerate the progressive use of Hindi in the Institute.

Town Official Language Implementation Committee (TOLIC)

In addition of this, Rajbhasha Ekak plays a vital role in coordinating the implementation the Official Language policy in the city and adjoining area. Rajbhasha Vibhag, Ministry of Home Affairs, Govt. Of India has selected our Institute Director as Chairman, TOLIC (C). All the Heads of Central government offices

of the city and its adjoining areas are the ex-officio members of TOLIC. The 59th & 60th meetings of the TOLaC was organized on 24.08.2016 and 06.03.2017 under the chairmanship of Hon'ble Director Prof. R. V. Rajakumar. At present, there are nearly 120 offices in the committee. Workshop and training programs were also organised under the aegis of TOLIC (C) Bhubaneswar.



EVENTS

MoU with Shanghai Jiao Tong University, China on 26th May 2016

The School of Minerals, Metallurgical and Materials Engineering at Indian Institute of Technology Bhubaneswar, Odisha, India and the Engineering Center of Materials Manufacturing, School of Materials Science and Engineering, Shanghai Jiao Tong University, Shanghai, China entered into a Memorandum of Understanding on 26th May 2016. The MoU was signed by the Director Prof. R.V. Raja Kumar of IIT Bhubaneswar and Dr. Mingxu Xia of SJTU, China (on behalf of Prof. Jianguo Li) during the state visit of the Hon'ble President of India to China from 24-27th May 2016. The MoU was signed at Peking University, Beijing, China in the presence of Hon'ble President which was also attended by a delegation of Directors of IITs/NITs and Vice Chancellors of Central Universities of India and Minister of Textiles, govt of India, education minister of China and top academicians from China. This MoU is one of the ten MoUs signed between Indian and Chinese universities on the occasion.

**Inauguration of Startup Centre on 20th June 2016**

The Department of Science & Technology and



the Ministry of Human Resource Development, Government of India sanctioned Rs.1.50 crore for establishing a Startup Centre at IIT Bhubaneswar. Prof. R. V. Raja Kumar, Director, IIT Bhubaneswar inaugurated the centre on 20th June 2016. The Startup Centre is envisioned to have enrollment of 10 startups in the 1st year of its commencement. The Startup Centre provides working space and a seed grant to the tune of Rs. 2.5 lakh for the enrolled startups.

International Yoga Day

The Institute celebrated the "International Day of Yoga" on 21st June 2016 with the enthusiastic



participation of students, faculty and staff. Initial two days (19th and 20th June) were dedicated to introduction and practice sessions where participants were introduced to Yoga, Pranayama and Meditation and got accimatized. The celebration was started by lighting the lamp by the director Prof. R. V. Raja Kumar. He addressed the gathering about yoga and its importance. He also shared his experiences & wisdom about his decade's long Yoga practices. Swami Dr. Mangalteertham, the director of Nutan Sanjeevani Sansthan, Deoghar was invited on this special occasion to teach and demonstrate about Yoga, its scientific relevance and benefits. He explained the importance and benefits of Yoga in our life and how Yoga plays very important role to reduce the stress in life. The celebration ended with Yoga practice and a short Yoga Dance, performed by school children of the DAV School - Unit VIII and a vote of thanks by the EAA coordinator, Dr. Akhilesh Kumar Singh.



9th Institute Day

The Institute organized its 9th Institute Day for the first time in the permanent campus at Argul on 22nd July 2016. Padma Shri Prof. Kota Harinaryana graced the occasion as Chief Guest. In his address, Prof. Harinaryana emphasized the importance of development of indigenous technology in the field of Military Aviation and least dependence on imported materials. While sharing his thought and achievement in design of Light Combat Aircraft (LCA) which is now inducted to defence set up advised students to be more accurate and quality concern in achieving the target.

He reiterated the significance of networking in achieving a product having national importance with highest organizational skills of our people. The project which lead to the successful launch of a LCA was a massive conglomerated effort of more than 100 institutions, labs, scientific centers. He inspired the students to participate in novel innovations and contribute to the nation building. Director Prof. R V Raja Kumar expressed his gratitude and indebtedness to the man behind the success of LCA, Prof. Harinaryana for kindly agreeing to grace the occasion. He also remarked that the contributions made by Prof. Harinarayana to the society will be written in the golden letters for his remarkable achievement in making a fully automatic and indigenously built LCA. Prof. V R Pedireddi, Dean, Student Affairs informed the audience that the Institute was very fortunate to have a such a great personality on the auspicious day and it was a coincidence that Prof. Narayana who was born in Berhampur, Odisha has been a part of the great institution which is trying to take shape in the historic foothills of Barunei hills of Odisha. Institute Day function was followed by a tree plantation by the Chief Guest and cultural programme organized by the students.

70th Independence Day

IIT Bhubaneswar celebrated the 70th Independence Day of our Nation in its campus at Argul. Prof R V Raja Kumar, the Director hoisted the National Flag, offered floral tribute to the Father of the Nation and delivered his Independence Day address. The faculty, staff and students of the institute participated in the celebrations in large numbers with patriotic fervour.

In his address the Director emphasised on country's self reliance and economic security through the developmental programs like Unat Bharat Abhiyan (UBA), Start Up prog. , Siksyta Abhiyan , creation of Incubation Centres etc. through the institution like IITs. While addressing, the Director stated that "On this day, let's all of us join in paying our respectful homage to the great personalities who sacrificed their lives and fought for the independence of India, re-ignite our hearts with patriotic manifestation, re-resolved to maintain unity in diversity and work towards strengthening the nation in all its dimensions through hard work, adopting high ethical standards, spirited performance of our duties and innovating to bring in positive differences to the society". He stated that the institute has made strong plans and started implementing, to emerge as a strong institute of world

class education and to fulfil the national dream to see all comforts of the students. He called upon the students to get empowered with right learning, harness the inherent potential, stay away from being complacent, become informed and knowledgeable individuals by emulating the personalities of the leaders like Bapuji, take to entrepreneurship than job seekers. He reiterated the students to adopt bicycle culture in the campus to improve GREEN TECHNOLOGY and wanted them to strive to make the institution a world class institution by setting standards with proper teaching learning. He expressed that the institute will make sure by engaging faculty of foreign origin to add flavour. He thanked the Ministry for sanctioning 800 Crores for construction purpose and wanted to build world class campus.

The Programme was followed by excellent performance displayed by the students of all the local villages adopted by IIT. The school kids performed folk dances & skits, sang songs on patriotic themes. The students were given away with prizes by the Director. The Director called on the students to emulate the spirit of becoming good human beings and look forward to work hard and get into the main stream.

He also felicitated the award winners of the inter college academic and sports competitions. A massive



Annual Report 2016-2017

plantation drive was carried out with all the students and faculty members. The programme was carried out to commemorate the directives issued by the Ministry for a fortnight long celebration. Prof. V R Pedireddi thanked the faculty, staff and students for their enthusiastic participation. The programme was marked by the cultural function organised by the Dramatic Society of the institute.

5th Annual Convocation – 2016

The 5th Annual Convocation was held on Tuesday the 30th August 2016 in the Community

Centre, Arugul Campus, IIT Bhubaneswar. Prof. Surendra Prasad, Chairperson, National Board of Accreditation (Former Director, IIT Delhi) graced the occasion as the Chief Guest of the event and delivered the Convocation Address.

154th meeting of All IIT Directors

The 154th meeting of All IIT Directors was held on 11th September 2016 (Sunday) at IIT Bhubaneswar, Argul from 2 PM to 5 PM in the Institute Guest House. The following Directors participated in the important meeting:



1. Prof. V. Ramgopal Rao, Director, IIT Delhi
2. Prof. Pradipta Banerji, Director, IIT Roorkee
3. Prof. Indranil Manna, Director, IIT Kanpur
4. Prof. Rajeev Sangal, Director, IIT BHU
5. Prof. U. B. Desai, Director, IIT Hyderabad
6. Prof. Timothy A. Gonsalves, Director, IIT Mandi
7. Prof. Pushpak Bhattacharyya, Director, IIT Patna
8. Prof. Sarit Kumar Das, Director, IIT Ropar
9. Prof. Amit Prashant, Dean, Academic, IIT Gandhinagar attended for Prof. S. K. Jain, Director, IIT Gandhinagar
10. Prof. Partha P. Chakrabarti, Director, IIT Kharagpur (through Video Conference)
11. Prof. Bhaskar Ramamurthi, Director, IIT Madras (through Video Conference)
12. Prof. Gautam Biswas, Director, IIT Guwahati (through Video Conference)
13. Prof. Pradeep Mathur, Director, IIT Indore (through Video Conference)
14. Prof. R. V. Raja Kumar, Director, IIT Bhubaneswar chaired the meeting



Prof. Devang V. Khakhar, Director, IIT Bombay and Prof. C. V. R. Murty, Director, IIT Jodhpur could not attend the meeting due to visit abroad and on leave respectively. The Directors discussed about several agenda items related to governance, future admissions, intake, research, student scholarships, attracting foreign faculty and students, project Viswajit, recruitment by PSU's, student, staff and faculty matters besides several others. Some of the Directors also visited the Schools / Departments of their area of expertise and interacted with faculty and students.

Swachh Bharat Programme on Gandhi Jayanti Day

IIT Bhubaneswar observed Swachh Bharat Abhiyan on 2nd October 2016 at 10.00 AM at the Permanent Campus, Argul to commemorate the birth anniversary of the Father of the Nation, Mahatma Gandhi. Prof. R V Raja Kumar, Director offered floral tribute to Bapuji in the presence of other faculty, students and staff. The "Swacchta" pledge was administered by the Registrar, after which the Director addressed the gathering. In his address, the Director said that Non-violence and Truth, the basic doctrines

of Gandhian philosophy are as relevant today as ever.

He hoped that the world in general and IITians in particular continue to take inspiration from this great personality of the Millennium. He also urged that we renew our resolve to stand up for the values of Gandhian philosophy and work for the prosperity of our country. He took this opportunity to call upon



एक कदम स्वच्छता की ओर



every IITian to join the campaign called by our Hon'ble Prime Minister, Shri Narendra Modi by committing towards the "Swachchhata" of our mother land starting from our own premises. Thereafter, cleanliness drive was undertaken by the faculty, students and staff.

Blood Donation Drive

Souls for Solace, IIT Bhubaneswar in association with Alma Fiesta and Students Gymkhana, IIT Bhubaneswar conducted a blood donation drive at the institute's Community Center, Arugul campus on 17th October, 2016. The event was conducted in partnership with the Capital Hospital, Bhubaneswar. The event served towards fulfilling the social cause- Blood donation- adopted by Alma Fiesta for its 2017 edition. Students, from both IIT Bhubaneswar and NISER, participated in the event. A total of 108 units of blood were donated on the evening, surpassing all expectations by a long shot.



The participants were awarded a certificate and an Identity Card (for if they ever needed blood). All in all, the event was extremely memorable and soul-satisfying, especially for the students donating blood for the first time.

Rashtriya Ekta Saptah

The institute organized Unity Run (a mini marathon) on 5.11.2016 at 6.30 am on the occasion

of the birth anniversary of Sardar Vallabhai Patel, Iron Man of India, as a part of week-long celebration on the occasion of Nation-wide campaign of "Rashtriya Ekta Saptah" of Ministry of Human Resource Development (MHRD).

Prof. R. V. Raja Kumar, Director, offered floral tribute to Sardar Vallabhai Patel and flagged off the Unity Run. He reiterated efforts of Govt. of India under the leadership of Hon'ble Prime Minister, Shri Narendra Modi in spreading the message of unity across the country through this initiation. Olympian Ms Anuradha Biswal also took part in the event as a Guest of Honour and inspired students, faculty and staff who participated in the Unity Run.

Marathon started from IIT Main Gate at Argul covering a distance of ~ 6 Km, by ending at Khorda Railway Station. Around 700 students, staff and faculty along with the guests (district administration, railway staff, local dignitaries and press people) took part in the event so enthusiastically giving a perception as if the road getting painted white by blocks of a kilometer length.

Prof. V. R. Pedireddi (Dean, Student Affairs), Dr. D. Gunasekara (Registrar) and Mr Debaraj Rath (Deputy Registrar) of IIT Bhubaneswar, Mr. S.P Dwivedi (Additional Divisional Railway Manager, Khorda) and Mr. Bijay Kumar Swain (Tahsildar of Jatni) also participated in the mini marathon, encouraging the students throughout the process.



The event is of the first of its kind in the areas of Jatni - Argul and the local community greatly appreciated the cause and indeed some people joined the run on the way. The programme was a grand success with all the students reaching the destination with ease and healthy.

Vigilance Awareness Week 2016

As a part of the Vigilance Awareness week Celebration, an Institute Lecture was delivered by Shri Rajiv Ranjan, IPS, Superintendent of Police, CBI, Anti Corruption Wing, Bhubaneswar followed by an Interactive Session on 12th November 2016 in the Community Centre of the campus.

The programme was chaired by the Director, Prof. R. V. Raja Kumar and coordinated by Prof. R. K. Panda, Chief Vigilance Officer of the Institute. The programme was attended by a large number of faculty members, staff and students of the Institute. Shri Rajiv Ranjan spoke in detail about the role of CBI and answered all the queries of the audience. The Director welcomed the Chief Guest and emphasized the importance of ethics, transparency, accountability and integrity for the IIT community in his address.



Prof. R. K. Panda, CVO of the Institute introduced the Chief Guest at the beginning of the programme and proposed a vote of thanks at the end.

Panel Discussion on "Demonetization and Its Economics"

Students Gymkhana, a student body of IIT Bhubaneswar, has organized a panel discussion on 15th November on the topic "Demonetization and Its Economics". The eminent members from various sections, disciplines, expertise who shared the dais as panel members includes Shri G. C. Pati, IAS, Former Chief Secretary, Govt. of Odisha, Prof. Binayak Rath, Former Vice-Chancellor, Utkal University,



Dr. S. P. Mohanty, General Manager, Reserve Bank of India, Bhubaneswar, Shri R. L. Mohanty, Chairman, MGM Minerals Ltd., Bhubaneswar, Prof. P. K. J. Mohapatra, IIT Bhubaneswar and Mr. K. Tejesh, Final Year BTech Student, IIT Bhubaneswar. The meeting was attended by Prof. R V Raja Kumar, Director, IIT Bhubaneswar, several distinguished guests, a large number of students, faculty and staff members of IIT Bhubaneswar. The enlightened discussions were followed by queries by students to the Panelists on the menace of fake currency and its impact on economy etc.

Ishan Vikas Scheme

IIT Bhubaneswar hosted school students from North-East region of India under "Ishan Vikas" scheme of MHRD, during 7th-21st December 2016. Under this scheme 42 students, and their teachers came to IIT Bhubaneswar, as representatives of the state of

Annual Report 2016-2017

Assam, Arunachal Pradesh, and Mizoram. The students were in their 9th and 10th standard and were from Mingmang Tribal High School, Golam Sorowar Sainik School Goalpara, Assam, V.K.V. Kharsang, Arunachal Pradesh and Government High School, Tawipui south, Mizoram. The Institute had planned a series of lectures, practical training sessions, laboratory visits and also cultural events along with visit to some of the historical / heritage places in and around Bhubaneswar.



The 14 day-long event was inaugurated on 7th December 2016 at Argul campus by Prof. R. V. Raja Kumar, Honorable Director, IIT Bhubaneswar and he interacted with the students learning about their interests and future career plans etc. Later, he

delivered an enthralling lecture on the essence of learning and education highlighting the understanding of science principles and applying them in engineering fields.

Many faculty members of IIT Bhubaneswar also attended the meeting. This event was coordinated by faculty members Dr. S. Rana, Dr. (Miss.) S. Barik, Dr. (Mrs.) A. Roychowdhury, Dr. K. Samant, Dr. S. Sil. Dr. S. Rana, School of Basic sciences delivered the vote of thanks, concluding the inauguration session of the "Ishan Vikas" program.

19th National Power Systems Conference

The 19th National power System Conference NPSC-2016 was held at the School of Electrical Sciences, IIT Bhubaneswar during 19-21 December 2016. The main theme of the NPSC-2016 was "Towards reliable, safe and secure Smart-grid infrastructure". The conference was inaugurated by Prof. M. Ramamoorthy, Ex, Director General, CPRI, Bangalore as Chief Guest, Prof Saifur Rahman, IEEE PES President Elect, as Guest of Honour. Prof R V Raja Kumar, Director, IIT Bhubaneswar presided over the inaugural function. Prof S C Srivastava, Chairman, NPSC National Standing committee and Dr S R Samantaray, Convener, NPSC-2016 coordinated the conference. The conference honoured Shri R N Nayak,



Ex CMD, POWERGRID with Industry excellence award and Prof D Thukaram, IISC, Bangalore with Academic Excellence Award. Shri Mata Prasad received IIT BHU Malviya Excellence Award for his life time achievement in the field.

There were 4 pre-conference tutorials including topics on latest trends in power system engineering such as State Estimation in Power System by Dr ND R Sarma, Texas A & M University and Dr Saikat Chakrabarti, IIT Kanpur, Micro-grid / Renewable Integration by Prof Bhim Singh, IIT Delhi and Prof Mahesh Kumar, IIT Madras, Synchro-Phasor and Wide-Area applications by Prof S A Soman, and Prof Anil Kulkarni, IIT Bombay, Smart-grid and Cyber Security in Power System by Ms Kumud Wadhwa, PGCIL and Prof Sandeep Shukla, IIT Kanpur.

The conference included 8 keynote lectures delivered by eminent speakers including inaugural keynote lecture by Prof Saifur Rahman, IEEE PES President Elect. Other keynote speakers included Prof Anirudhra Gole from University of Minnesota, Canada, Prof Anil Pawhs from Kansas State University, USA, Prof Anurag Srivastava from Washington State University, USA, Prof Chanan Singh from Texas A & M, USA, Dr Rambabau Adapa from EPRI, USA, Prof V Ajarapu from Iowa State University, USA, Dr Ratan Das from IcaPower, USA and Mr S K Soonee, Ex CEO, POSOSCO. All of them delivered keynote lectures on latest trends in power engineering and smart-grid.

The conference had 15 oral sessions spreading over 9 tracks including PMU and Wide Area Applications, Power Electronics and Drives, power Electronics Applications to Power Systems, Power Quality Issues, Power System Protection, Power Systems Dynamics and Stability Analysis, Restructuring in Distribution Systems, Smart Grid and Cyber Security for Smart-grid. All the sessions were conducted by experts in respective fields as sessions chairs and co-chairs. Apart from oral sessions, 43

papers were displayed in the poster session. The conference was attended by 250 participants and delegates from different parts of the country and abroad.

Alma Fiesta – a three day annual socio-cultural fest

The institute celebrated the Eighth edition of 'Alma Fiesta' – a three day annual socio-cultural fest during 13 – 15th January, 2017. It was held for the first time in its Argul campus. The event started on 13th January, 2017, with the inaugural evening addressed by Professor R V Raja Kumar, Director, IIT Bhubaneswar and Mrs. Paramita Mahapatra (MD, UMSL Limited) as Chief Guest. A series of programmes were held, starting with Sarod recital by President Gold Medal Winner Debanjan Bhattacharjee followed by Padma Shri Kumkum Mohanty's dance group performance. Also, 'Bachpan ka Rangmanch' - the children fest – was celebrated with the participation of our little buddies from Argul village high school and Swabhimani (State Disability Information and Resource Centre) with its Chief Executive Dr. Sruti Mohapatra as the chief guest of the event. The second day of the cultural extravaganza witnessed the participation in various dance, music and literary events from local and other National colleges like IIIT, SIT, KIIT, UTKAL, RD Women's, SOA, ITER, VITS Satna, IMI, XIMB, IGIT etc. The fest also had various other events like Model United Nations, Parliamentary debate, Euphony-Battle of Bands and finally concluding with the



Annual Report 2016-2017

performance of Delhi based rock band THE LOCAL TRAIN on 15th Jan'17.

68th Republic Day

The institute celebrated the 68th Republic Day in its Campus at Argul, attended by a large number of Faculty, Staff and Students with a great enthusiasm and spirit. On this occasion, the Director Prof. R V Raja Kumar hoisted the National Flag and took the Guard



of Honour. In his address he reminded the contributions of the great Leaders in making the country as a Republic and documentation of Constitution of India. He also informed the need of the hour and importance of dedicated efforts of every individual to have successful implementation of several programmes, like Swachh Bharat, Make-in-India, Digitization and Informatics etc. initiated by the Government of India. He also shared the development plans of the Institute about new construction and growth plans of the Institute in terms of Infrastructure, Academics and Research.

E-Summit 2017

E-Summit 2017 a three day event was organized by E-Cell of IIT Bhubaneswar with the motto to provide a platform for the upcoming young engineers and entrepreneurs to share their views. Prof. Damodar Acharya, former Director, IIT Kharagpur and Chairman Advisor Board, SOA University attended the evening as the Chief Guest at the inaugural function on 27th January 2017. He highlighted the benefits of entrepreneurship and shared his views on development of ecosystem for budding entrepreneurs. Shri Gokul Chandra Pati, IAS, former Chief Secretary of the Government of Odisha attended as a Guest of honor in the august presence of Prof. R.V. Raja Kumar, Director of IIT Bhubaneswar. The Director of the Institute emphasized on the importance of inculcating the culture of entrepreneurship in the minds of young engineers and initiatives taken by IIT Bhubaneswar to build suitable environment for start-ups and entrepreneurs. He also called upon the young graduates/entrepreneurs to contribute to the Govt. of India drive "Startup India Standup India". This E-summit'17 also included a gamut of activities, like IPL auction, Product design, Stock wars B-plan and Biz Quiz. The E-summit'17 also witnessed mega events like startup expo and investors drive. Prof. V.R. Pedireddi, Dean, Students affairs, Dr. V. Pandu Ranga, Chairman, E-Summit'17, Dr. Ankur Gupta, Vice chairman, E-Summit'17, Dr. Akhilesh Barve, Professor In-charge, E-Cell, Mr. Amit Meena, Vice-president, Student Gymkhana, Mr. C. Likith





Kumar, Chief Coordinator, E-Summit'17, faculty members and students of IIT Bhubaneswar were present on the occasion.

9th Foundation Day

The institute celebrated its 9th Foundation Day on 12th February 2017. Shri Dharmendra Pradhan, Hon'ble Minister of State - Independent Charge, Petroleum and Natural Gas, Govt. of India graced the occasion as the Chief Guest and inaugurated the function. Prof. V. Chandrasekhar, Director, National Institute of Science Education and Research (NISER) was the Guest of Honour and delivered the Foundation Lecture.

Shri Dharmendra Pradhan Ji, Hon'ble Minister in his address mentioned that IITs have huge contribution not only in the field of Science and Technology but to create a knowledge ecosystem to have greater impact over the world. Addressing the students and the audience Shri Pradhan said that , "India, particularly the state of Odisha, with its culture richness and heritage, can surpass any country in the world if an institution, such as the IIT Bhubaneswar, takes up the challenge in providing the leadership". He assured all the help from the central government in the process. He gladly offered to mentor the institute activities in any direction for taking it to new heights and called upon the students to be aggressive and vibrant and contribute largely in the field of innovation and research which can benefit the poor man of the country.

Prof. R. V. Raja Kumar Director of the Institute welcomed the Chief Guest and other dignitaries of the function and extended his heart-felt thanks to the Hon'ble Minister Shri Dharmendra Pradhan Ji for his august presence on the 9th foundation day function. The Director reiterated fulfilment of the expectation of the student community in making the shifting to the permanent campus to a reality in lesser than one and half years time and expressed that the Institute is striving to reach global standards matching up to the expectations of the society. He also promised that the Institute will gracefully contribute to the societal development with dedicated student and faculty engagements.

The Hon'ble Minister of Human Resource Development, Shri Prakash Javadekar also conveyed his best wishes to the students, faculty and staff on the Foundation Day through the telephonic conversation with the Chief Guest.

The Chief Guest handed over the teaching excellence awards to the following faculty members for their contributions in innovative teaching based on the feedback received from the students.

- Dr. Yogesh GanpatBhoomkar, Assistant Professor, School of Mechanical Sciences
- Dr. MihirPandit, Associate Professor, School of Mechanical Sciences
- Dr. Arindam Sarkar, Assistant Professor, School of Infrastructure

- Dr. (Mrs) Kumkum Mohanty, Adjunct Faculty, School of Humanities, Social Sciences and Management

Prof. V. Chandrasekhar, Guest of Honour in his Foundation Day Lecture delivered an excellent talk on the journey of life in the light of Dr. C V Raman highlighting discovery of Raman effect which resulted getting the Nobel prize. The programme was attended by many heads of the national level institutions in Odisha including NISER, AIIMS, IOP, IIM, ILS, CET etc. Prof. V R Pedireddi, Dean Student Affairs proposed the vote of thanks. The Institute celebrated its Foundation Day with a cultural programme showcased by SPIC MACAY.

Matribhasa Diwas

The institute celebrated the Matri Bhasa Diwas on 21st February 2017 to commemorate the International Mother Language Day- a day dedicated to promote awareness of linguistic and cultural diversity and multilingualism.

The event was celebrated in the presence of the students, staff, officers and faculty of the Institute. Director Prof. R. V. Rajakumar, Prof. R. K. Panda, Dean (R&D) and Prof. Sujit Roy, Dean (Faculty) addressed the gathering and shared their views on linguistic diversity and importance of Mother Tongue.

The talks were followed by Odissi dance performed by a group of artist from Gita Govinda, Bhubaneswar. Students, staff and faculty members showed their linguistic diversity through songs, poem,



speeches and recitation in their mother tongue (Hindi, Odia, Bengali, Malayalam, Telugu etc.) and performing in local dance forms. All the performers were felicitated by the Director, IIT Bhubaneswar, Prof. R.V. Raja Kumar, who encouraged the talent of all the performers.

National Science Day

The Institute celebrated the National Science Day (and Annual Research Scholars' Day) on 28th February 2017. The event was celebrated in the presence of the students, research scholars, faculty members of the Institute.

The event started with the poster presentation session, which was inaugurated by the Director, Prof. R. V. Raja Kumar. In the poster presentation session, the Research Scholars of the institute displayed their research findings and explained their research works to all.

In his address, the Director emphasized on focused research towards development of next generation communication technology, based on advanced signal processing tools, for aerospace and defence applications. The Guest of Honor for the occasion was Prof. A. Srinivasan, Professor in School of Chemical Sciences, NISER. He also gave a spirited address to the students. It was followed by announcement of the three best posters, as evaluated by a panel of experts, by Prof. N. C. Sahoo, Dean (Academic Affairs). The prize winners were: Jeeban Nayak from School of Basic Sciences (1st prize), Manu S. Nadesan from School of Infrastructure (2nd prize) and Debi Prasanna Sahoo from School of Electrical Sciences (3rd prize). The cash prizes and certificates were awarded to the Research Scholars of these posters. The participation certificates were also given to all the Research Scholars who participated in the poster.

International Women's Day Celebration

Women's Grievance Redressal Committee (WGRC), of the institute organized a three day programme as a part of International women's day celebration 2017.



1st Day (4.3.2017): Theme based competition on various events.

Students from IIT Bhubaneswar and nearby educational institutions participated in various competitions. Shristy Jha, Sreeja Das, Mridul Rai, Sangeeta, Satya Samiran Nayak, Ganesh Niranjana Rao, Paritosh Pandey Sayani Bhattacharyya and Gauravi Kabaddi won the prizes in various competitions.

2nd Day (5.3.2017): Awareness programme on "Women rights as well as health & hygiene."

The programme was graced by Chief guest Dr. Sruti Mohapatra, the Chairman of Swabhimana, a State Disability Information and Resource Centre, Bhubaneswar and Dr. Purarama Pradhan, Medical Officer, IIT Bhubaneswar. Dr. Sruti Mohapatra gave an inspiring lecture about the importance of the theme "be bold for change" stating her own



experience. Dr. Purarama Pradhan gave insight to human health, hygiene and safety during the awareness programme.

3rd Day (8.3.2017): International Women's Day Lecture & Cultural evening

On the third day programme on 8th March 2017, Dr. Rajashree Bothale, Senior Scientist & Head of Water Resource Division, National Remote Sensing Centre, Hyderabad was the chief guest for the evening. The programme started with lighting the lamp followed by formal welcome address by the chairperson, WGRC. The director Prof. R.V. Raja Kumar gave the presidential address by sharing his thoughts and insights on the importance of such celebration. The chief guest of the day, Dr. Rajashree Bothale, gave women's day lecture on "Scientific expedition to Antarctica". The audience were fascinated by the unique and once-in-a-lifetime lecture experience.



Thereafter, prizes were distributed to the winners of various competitions. The event was concluded by cultural programme with the performance from music society, dramatics society, and a narrative play by faculty members and their family.

STUDENTS' ACTIVITIES

SOCIO-CULTURAL COUNCIL

MUSIC SOCIETY (AAROH)

- The Music Society has performed on various occasions like Independence Day and Republic Day presenting the National Anthem, National Song and other patriotic songs.
- The Music Society Introduction on 15.08.16 was as beautiful as a spectacular painting. It was a vocal and instrumental masterclass and left everyone in the audience shouting "Once More!".
- The Music Society conducted its auditions on 25.08.16 following a guitar workshop for the freshers. Around 75 students actively participated in the workshop.
- Convocation (29/08/2016): Aaroh performed on the National Song and the National Anthem at the convocation in 2016.
- Teachers' Day (05/09/2016): As a token of gratitude to the teachers, Aaroh, the Music Society put up some performances on the occasion of Teachers' Day.
- Autumn Music Productions (11/11/2016): On 11th November, Aaroh conducted its Autumn Productions. The official name of the society, "Aaroh" and its logo were released on that day.
- Guitar Workshop (30/01/2017): Aaroh conducted its second workshop on guitar for all the interested people and there was significant attendance in the workshop.
- Foundation Day (12/02/2017): Foundation Day was the perfect opportunity for all the junior members to showcase their full potential, and they set the stage on fire with a wonderful mash-up of classic Bollywood hits and also a soulful classical rendition of "Samjhawan".
- Women's Day (08/03/2017): To pay tribute to women all around the world, Aaroh members dedicated a performance to them and also joined hands with faculty members in producing a musical play which highlighted the plights of women.
- Cultural Week + Spring Productions 2017 (01/04/2017): 2017 saw the merging of Cultural Week and Spring Productions, where beautiful performances were produced not only by members of Aaroh, but also other members of the college. A variety of competitions were held, with Antakshari being the most popular one. On 1st April, the Music Society of IIT Bhubaneswar



conducted its Spring Productions. There was a huge turnout of people to cheer for the final year students and it would be an understatement to say that the event was a success.

- The Music Society took part in in two socio-cultural fests: Alma Fiesta and Spring Fest

DANCE SOCIETY (D-GANG)

- Independence Day/ Dance Society Introduction (15-08-2016): Dance Society through variety of collection of songs performed various styles of dance like Indian classical, hip-hop, bollywood.
- Dance workshop and Auditions: Dance society conducted a workshop (03/09/2016) for the students in order to encourage them to learn and

discover their dancing skills. On 9th September 2016, Dance Society took auditions for the students who are interested to join the Dance society.

- Participation in various competitions: The Dance society performed in Alma Fiesta, (15/01/2017) and Spring fest (cultural fest of IIT Kharagpur, 21/01/2017) in group dance competition.
- Foundation Day: On the eve of Institute's Foundation day, 'D-Gang' performed a 4 dance style, 6 song performance involving breathtaking feats.
- Cultural Week Productions: The Dance Society performed in the cultural week and gave an astonishing 50 minute performance with 28



songs that included solos, duets and group dances of hip-hop, top-rock, classical and many different styles.

DRAMATICS SOCIETY (THE FOURTH WALL)

- Independence Day (15/08/2016): A Nukkad Natak (Street play), based on 4 themes: 1. Stereotypical Indian, 2. Passion killing of teenagers, 3. After-life of a rape victim, 4. Common problems faced in our college – was conducted on the Independence Day, at the Community Centre.



- Auditions for Freshers (21/08/16): Inductions for the freshers were put up in a smooth manner and students participated in huge numbers.
- Collaborated productions with CINEWAVE: Origin - Our Responsibility || Cinewave || IIT Bhubaneswar || Yes Foundation YouTube Link: <https://www.youtube.com/watch?v=hofLzPsbNwY>



- Participation in Spring Fest 2017 (20-22 Jan'17): The Dramatics Society, a regular winner at the Spring Fest, IIT KGP, finished at 2nd position in 2016, and 3rd in 2015. This year, it finished 7th among the 30 teams participating country-wide.

CINEMATIC SOCIETY(CINEWAVE)

Following videos were produced by the Society:

- A Video for Counselling Service Team.
- A Fresher's video.
- Harlem shake video.
- A Video for Institute Day.
- A Short film, *Origin: our responsibility*, for Convocation dinner.
- A Video for Teachers day.
- A Video covering Run for Unity.
- A New Year Video.
- Promotional videos for Startups from the Institute. (3 videos in this category)
- Teasers, Glimpses and Theme Release videos for different fests of the Institute. (10 videos in this category)

Following Events were covered by the Society:

- Introduction and Performances of Music, Dance and Dramatics societies.
- Independence Day.
- E-Summit 2017.



- DIC workshop on 'Innovation in Education and Engineering Design'.
- Aghaaz 2016, Alma Fiesta.
- Run for Unity.

The Society also participated in Spring Fest, IIT Kharagpur and won 1st and 3rd Prize in Ad-Making and Documentary competition respectively.

SOCIAL WELFARE SOCIETY (SOULS FOR SOLACE)

- Newspaper Donation Drive: Souls For Solace organised the first newspaper donation drive in the campus during March 2016. Paper bags which were made from the newspapers collected from the drive were distributed to the vendors at Shopping Complex. A second newspaper donation drive was organised during Feb 2017.
- Cleanliness Drive: A cleanliness drive under the SWACCH BHARAT ABHIYAN was organised on the occasion of Independence day of 2016.
- Competitions in Arugul High School: Various competitions in fine arts and literary genre were organised in the Arugul High School under the UNNAT BHARAT ABHIYAN of the institute. The competitions were based on different social issues like blood donation, renewable energy, clean India, India in Olympics etc.
- Blood Donation Camp: For the first time in the history of IIT Bhubaneswar, a blood donation camp was organised in the institute. The camp was organised on 17th October 2017 and saw a very enthusiastic participation from students

residing in Arugul campus as well from the students residing in NISER Transit hostel. A total of 108 units of blood was donated in the evening. The society plans to organize the camp on a regular basis every year so as to spread a social message and to abolish the different myths associated with the practice of blood donation.

- Plantation Drives: Tree plantation drives were organised in Arugul village as well as in the institute on different occasions. A plantation drive in Arugul village was organised on 15th September 2016 and the plantation drive in Arugul campus was held in association with the institute on the occasion of Independence Day.
- Diwali Celebration: The society members and the students of B.Tech. final year celebrated Diwali with the orphanage children in Jharpada, Bhubaneswar.
- Teaching in Arugul High School: The society members went to Arugul High School on Fridays and Saturdays to teach and interact with class 8,9 and 10 students. The aim was to bring about an awareness in them about the current happenings around the world as well as to motivate them towards studies.
- Children Fest- 'Bachpan Ka Rangmanch': The children fest was organised in association with Alma Fiesta on 13th January in which students from Podapada, Khudupur, Arugul village as well as differently abled students from SWABHIMAAN NGO took part. Different competitions in Music,



Dance, Fine arts were organised during the fest.

- Cloth Donation Drive: The cloth donation drive was organised by the society to collect old clothes from the students and faculty members of the institute. The clothes from this drive would be donated to orphanage children in Bhubaneswar.

LITERARY SOCIETY

Panacea (English Literary Society)

- Creation of society website: A secure website (<https://panacea.iitbbs.wordpress.com/>) was created to upload our work and make it available to a larger audience.
- Inter-college Creative Writing Competition: On the eve of Independence Day, a creative writing competition was conducted. Nine colleges from Odisha were invited to participate. We received an enthusiastic participation from various colleges. Gifts were duly awarded to deserving candidates.
- Intra-college Creative Writing Competition: On the eve of Vigilance Week, we conducted an intra-college creative writing competition, with the help of Dr. Snehasis Choudhuri (EAA Coordinator).
- Model United Nations Conference: IIT BBSR MUN '17 was conducted from 13 to 15 January, in association with Alma Fiesta. It witnessed the participation of around 250 students from across the country.
- Parliamentary Debate: A parliamentary debate competition was conducted from 13 to 15 January, in association with Alma Fiesta. It will witness the participation of more than 70 students from Odisha and West Bengal.
- Report of every Institute event: Every institute event was reported and uploaded on the website for the students to benefit from.

- Participated in KIIT MUN, Odisha Parliamentary Debate, IIT Bhubaneswar Model United Nations, Utkal University MUN, Utkal Diwas where our students performed brought laurels to the institute.

Abhivyakti (Hindi Literary Society)

Activities were as follows:

- Independence Day Fortnight: (Writing Competition)
- In Hindi Pakhwada:
 - वाद-ववाद (Debate)
 - बसयेपल (Extemporization)
 - आवाजवदलकी (Recite anything self-written poem, story etc)
 - रचनात्मक लेखन (Creative Writing Competition)
- Alma Fiesta:
 - सीधासंवाद (Debate and Panel Discussion)
 - हविकोण (Extemporization)
 - काव्य-सररता (Self-written Poem Competition)

Quiz Club

- Institute Day: A small quiz event was conducted on the occasion of Institute day on 22nd July 2016. It was a general quiz, where students and professors enthusiastically participated to answer the questions.
- Fresher's Quiz: A Quiz was organised in collaboration with Counselling Service Team (CST) to welcome freshers and to incorporate quizzing culture in them.
- Independence Day: A large scale quiz competition was conducted on 13th August 2016. The basic theme of the quiz was India and its struggle to independence. Participated in Cultural week quiz and Inter departmental quiz at Spring Fest.

ACHIEVEMENT BY CULTURAL SOCIETIES:

- Aaroh won the first place in Alma Fiesta and sixth place in Spring Fest.
- D-Gang won the Third place in Alma Fiesta.
- Cinewave won at Spring Fest.
- Panacea won two prizes at Utkal University MUN.

SCIENCE AND TECHNOLOGY COUNCIL

CLIX - PHOTOGRAPHY CLUB

The activities of the society last year were as follows:

- Photo Walk in residential area of the campus
- A Photo Editing workshop was organized over a period of two weeks for the members of Clix. (Basic and Advanced Editing)
- Two projects were started on –
- Humans of IIT Bhubaneswar
- Campus Diaries;

on Facebook and both have been successful.

- Members of Clix made a time-lapse of the Campus. Link - <https://www.youtube.com/watch?v=Knen4deCunQ>
- An Online Picture Hunt Event was conducted.
- A Photography club was created for non-members and other interested students so that they can get reviews on their photos and learn from each other.
- The following events were covered by the society:
- Convocation.
- Fachas Got Talent (FGT).
- Music and Dance Society's Autumn Production.
- Socio-Cultural Council Introduction.
- Design and Innovation Center (DIC) Workshop.
- Institute Seminars.



NAKSHATRA - ASTRONOMY SOCIETY

The society activities are as follows:

- Two newsletters have already been published with the following cover stories: Mars Orbiter Mission and Mission JUNO.
- Society members have had a group discussion session where the following topics were discussed at length: General and Special Theory of Relativity, Astronomy: An Abstract Introduction, International Space Station, White Holes, and Mars Terra Forming.
- Nakshatra successfully organized a seminar talk on the topic "Search methods that have made the discovery of gravitational waves possible" on the 20th of January 2017. The talk was given by Dr. Satya Mohapatra, Identity and Access Management Developer at LIGO (Laser Interferometer Gravitational-Wave Observatory).
- Nakshatra, the Astronomy Club, participated in the 5th Inter-IIT Tech Meet at IIT Kanpur in two competitions under the event Eyes on the Sky: Planetarium Simulation and Messier Marathon.



NEUROMANCERS - PROGRAMMING SOCIETY

- Two members of Neuromancers were selected for Google Summer of Code.
- The team secured region rank 53 in ACM-ICPC

2016 Kharagpur regionals.

- Programming week was conducted from 24th October to 30th October. During this week, two workshops (Android App Development and Computer Vision) and online coding competition in association with CodeChef were conducted.
- The society members worked on small projects like application for human computer interaction, android application for the institute, etc.
- IBWC (IIT Bhubaneswar Winter Code) also took place throughout the winter vacation (December) where the seniors guided some allotted juniors with learning new skills, be it programming language or advanced topic such as data analytics and software development.
- Two teams of three participated in Kshitij, the techno-management fest of IIT Kharagpur for the events Overnite and Source Code.

RISC - ROBOTICS SOCIETY

In the last year, the society activities were as follows:

- Made the following devices for the introduction.
- Mobile controlled Bot: Using an accelerometer on an android phone, a bot was made which can be controlled with the tilting of a smart phone.
- Conducted demo competitions of Kick-off and Robowars.
- Kick-off competition was organized in the institute: Full standard Kick-off competition was conducted where participants were required to make a bot which can move and kick a ball. Using these bots, they would contest against each other in the predefined arena to score maximum number of goals. This was conducted in the first week of November.
- Yantrix Events were designed: Competitions which would be conducted in Wissensaire as part of Yantrix were designed and would be



conducted by the society. For this we have designed competitions and their problem statements which are released in Wissenaire website. The competitions are Clean India, Robo wars, Kick-off, Maze Runner, Trajectory, Trekk-on and Rescue Bot.

- Participated in IIT Guwahati's Tech Expo: In this semester members of the society have participated in Tech Expo conducted by IIT Guwahati. The team qualified two preliminary

rounds and lost in the last round.

- The society participated in IIT Kharagpur's annual Techno-management fest Kshitij. Two teams of three participated in various events and one of the teams made it to the semifinals of the event Bomb Defusal.

WEB AND DESIGN SOCIETY

The society activities for the year are as follows:

- Work for Convocation (30-07-2016 to 30-08-2016): Different types of work as follows: Photo



STUDENTS' GYMKHANA

IIT BHUBANESWAR



Students' Gymkhana, IIT Bhubaneswar

The Students' Gymkhana is a student body, housing all student activities at IIT Bhubaneswar and bridging the gap between the students and the authorities. From its genesis in the year 2001, it seeks to cultivate various student agencies amongst students to ensure an enhanced life. The Students' Gymkhana is the nucleus of the numerous extra-curricular, technical and co-curricular activities held in IIT Bhubaneswar. Learning activities of different genres of sports, culture and technical fields, fosters a collaborative and collaborative learning that encourages students towards interdisciplinary participation in a spirit of nurturing growth, development and knowledge gain in their overall development in the students through their active role in extra-curricular activities in supplement education and enhancing the general welfare of our students. The hierarchy of Students' Gymkhana comprises the President, Student' Council, an elected representative body and the elected executives: the Vice President, General Secretary, Branch/Club/Center Council, Sports Secretary, Branch and

AWARDS

- Four students from IIT Bhubaneswar are selected for Google Systems of India (GSI).
- Two students are selected for Intel India.
- Students Council, IIT Bhubaneswar, is selected for Intel India.

Annual Report 2016-2017

collecting, Response collecting, Template for yearbook, Designing yearbook according to graduation list of year 2016, Id-cards for alumni, flexes and invitations for convocation.

- Gymkhana Website (September): A new gymkhana website was made.

SPORTS COUNCIL

- EAA was made compulsory for freshers to learn a game of their choice. This has been a success in the past year as many students improve their skill set and also play for the institute team.

- Students also participated in a majority of the tournaments held in Bhubaneswar. They also play friendly games with colleges around Bhubaneswar. This gives us the much needed competitiveness in today's world.
- The students play outdoor sports like Basketball, Volleyball, Lawn Tennis, Swimming, Athletics, Football, Cricket and indoor sports like Badminton, Chess, Table Tennis and Carrom etc.

Basketball

- We performed well in Inter-IIT Sports Meet 2017.
- Apart from INTER IIT, we have proved our talent



in various tournaments in other colleges like CENTURION, XIMB.

VOLLEYBALL

- Our Institute has a very good volleyball court in



MHR with flood lights around.

- Apart from INTER IIT, students showcased their talent in different tournaments conducted by different colleges in Bhubaneswar like CENTURION, NISER, RITE, SILICON etc.
- Students' Gymkhana conducted various events like volleyball matches on August 15th, September 5th and also General Championship,

in which students proved their talents and enhanced their skills .

LAWN TENNIS

The institute has offered practice sessions at Centurion University. Our students bagged the runner up position in singles and doubles in the Centurion Tournament. Apart from this they also participated in IIT Kharagpur Open Tournament.



SWIMMING

The institute also offered swimming practice in Centurion University, which helped a lot for the players to perform well in Inter-IIT Aquatics Meet 2016.

ATHLETICS

The institute offer extravagant facilities to enhance athletic spirits in students. Both Track and Field athletics are encouraged from student athletes





and required equipment are provided by the Students' Gymkhana. The Institute Athletics Team actively participates in Inter IIT every year to enhance the institute pride among all IITs. The Student Athletes are regularly trained in events like Sprint, Hurdles, Long jump, High jump, Triple jump, Shot Put, Discus throw, Hammer throw and Javelin throw.

The athletes of the institute have access to participate in athletic sports fests and tournaments all across the country. Apart from Inter IIT, various inter departmental and inter hall tournaments are organised to raise the competitive spirit among students.

FOOTBALL

The society arranges friendly matches every fortnight with the football team of institutes within the city and the football team of IIT Bhubaneswar proves their worth in these matches. Apart from this



we also arrange inter departmental and inter hall tournaments within the institute, and the students and teams are awarded prizes on a gala night for their excellent performance in various matches and tournaments. Some of the intra-college tournaments are:

1. General Championship (department wise championship).
2. Hostel Day.
3. Year wise matches on Independence day.
4. Matches for Teachers day.

CRICKET

The Cricket Society participate in INTER IIT, GENERAL CHAMPIONSHIP, HOSTEL DAY GAMES and a lot more.



INDOOR SPORTS

The institute has indoor sport facilities are Badminton, Chess, Table Tennis and Carrom. The Gymkhana is having sufficient number of all the necessary equipments. The institute has experienced coaches for Table Tennis and Badminton. To examine the potential of students, our students participate in regular inter-city tournaments.

The Institute ensures that the students get to attend as many tournaments as possible. The institute provide them the opportunity to participate in various sports meet held in Regional Colleges, as well as Tournaments held throughout the country.

FINANCIAL INFORMATION

RECEIPTS AND PAYMENTS FOR THE YEAR ENDED 31.03.2017

Sl No.	RECEIPTS	242,454,540.96 CURRENT YEAR 2016-17	(Amount- Rs.) PREVIOUS YEAR 2015-16	Sl No.	PAYMENTS	(Amount- Rs.) CURRENT YEAR 2016-17
I.	<u>Opening Balance</u>			I.	<u>EXPENSES</u>	
	a) Cash in Hand	-			a) Establishment Expenses	190,501,588.00
	b) Bank Balances				b) Academic Expenses	116,442,555.37
	i) In Current accounts				c) Administrative Expenses	34,466,519.00
	ii) In deposit accounts				d) Transportation Expenses	15,154.00
	iii) In Savings accounts	255,232,322.79	428,744,073.81		e) Repairs & Maintenance	490,403.00
					f) Prior Period Expenses	36,452.83
					g) Finance Cost	1,157.59
					g) Gymkhana Expenses	2,083,055.85
II.	<u>Grants Received</u>			II.	<u>Payment against Earmarked/ Endowment Funds</u>	33,862,577.00
	a) From Govt. of India	1,788,970,985.00	663,200,000.00			
	b) From State Government					
	c) From Other Sources (Details)					
	(Grants from Capital and Revenue expenses to be Shown Separately)					
III.	<u>Academic Receipts</u>	77,358,795.00	78,494,025.00	III.	<u>Payment against Sponsored Projects/ Schemes</u>	178,748,295.36
IV.	<u>Receipts against Earmarked/ Endowment Funds :</u>			IV.	<u>Payment against Sponsored Fellowships/ Scholarships</u>	
	a) Earmarked/Endowment Fund	-	-			
	c) Own Funds (other Investment)		-			

Annual Report 2016-2017

V.	<u>Receipts against Sponsored Projects/ Schemes</u>	172515388	238,927,481.96	V.	<u>Investments and Deposits made</u>	
					a) Out of Earmarked/ Endowment funds	6,800,000.00
					b) Out of Own funds (Investments - other)	
VI.	<u>Receipts against Sponsored Fellowships and Scholarships</u>		4,155,256.00	VI.	<u>Term Deposits with Scheduled Banks</u>	1,273,096,500.00
VII.	<u>Income on Investment</u>			VII.	<u>Expenditure on Fixed Assets and Capital Wrok-in-Progress</u>	
	a) Earmarked/ Endowment funds	10,305,483.47	381,302.21		a) Fixed Assets	32,929,785.28
	b) other Investments				b) Capital Works-in-Progress	1,161,938,213.00
VIII.	<u>Intrest received on</u>			VIII.	<u>Other Payments including statutory payments</u>	549,467,476.20
	a) Bank deposits	6,169,852.75	925,276.00		Capital fund	
	b) Loans and Advances	-	243,741.00			
	c) Savings Bank Accounts	8,053,913.55	8,662,195.46			
IX.	<u>Investments encashed</u>			IX.	<u>Refunds of Grants</u>	-
X.	<u>Term Deposits wih Scheduled Banks encashed</u>	1,407,430,085.07	461,764,675.53	X.	<u>Deposits and Advances</u>	35,705,065.61
					Hostel Avance	
XI.	<u>Other Income (including Prior Period Income)</u>	10,781,074.51	7983200.11	XI.	<u>Other Payments</u>	
					Hostel Payment	37,897,629.00
					Hostel Payment against Fixed Assets	432,508.00
					Hostel Payment against Current Liabilities	6,907,157.00

XII.	Deposits and Advances	19,950,831.00	338,204,930.00		IX	Closing Balances	
						a) Cash in Hand	
XIII.	Miscellaneous Receipts including Statutory Receipts	126,706,835.47	228,819,382.45			b) Bank Balances	
						i) In Current accounts	
						ii) In deposit accounts	
XIV	Any Other Receipts					iii) In Savings accounts	257,851,875.70
	Hostel Income	15,795,617.66	13,366,491.63				
	Receipt against Hostel Current Assets	19,948,146.55	12,018,420.00				
	Accured Intrest	454,637.00	216,700.00				
	TOTAL	3,919,673,967.79	2,486,107,151.16			TOTAL	3,919,673,967.79

**RESEARCH & DEVELOPMENT
RECEIPT & PAYMENTS A/C FOR THE FINANCIAL YEAR 2016-17**

RECEIPT		In (Rs)
Opening Balance		312,507,321.07
Add: Receipt during the year	-	
Consultancy Project		12,760,834.43
Sponsored Research Project	80,222,414.00	
Less : Refunded	644,638.00	79,577,776.00
Seed Grant	-	
Sponsored Fellowship	10,484,735.00	10,484,735.00
Institute Overheads		10,411,314.43
TDS		2,539,865.00
Service Tax		2,240,378.00
Professional Tax		25,300.00
EMD		577,500.00
PBG		146,753.00
Other Current Liability		840,257.00
Sundry Creditors		39,340,950.00
Liquidated Damages		216,130.00
Bank Interest		1,434,520.57
Interest on TDR		177,463.00
Stale Cheque		120,824.00
DST Travel Grant		94,500.00

Annual Report 2016-2017

Interest on TDR Accrued		10,867,632.54
Workshop		606,655.00
Tender fee		52,000.00
TOTAL RECEIPT		485,022,709.04
LESS: PAYMENT DURING THE YEAR		In (Rs)
FOR REVENUE EXPENSES		
Salary to JRF/SRF and project Assistant		18,565,276.00
Consumables		3,452,563.00
Contingencies		1,409,154.00
Recurring Expenses		1,314,046.00
Travel Expenses		2,801,544.00
Consultancy Fees & Honorarium		7,818,963.43
Meeting & Workshop Expenses		1,077,032.00
Analytical Charges & Data Collection Charges		418,348.00
Fellowship		9,214,156.00
Overhead Expnses		1,573,210.00
Duty & Taxes		4,483,174.00
DST Travel Grant		94,500.00
Sundry Creditors		38,468,964.00
Faculty Development Fund		363,532.00
Bank Interest		482,960.12
EMD		1,484,000.00
PBG		292,103.00
Other Current Liability		1,630,559.00
TOTAL PAYMENT		94,944,084.55
CLOSING BALANCE		390,078,624.49

Financial Resource: Utilized Amount for the Capital & Operational expenditure in previous 3 years (As per NIRF Format)

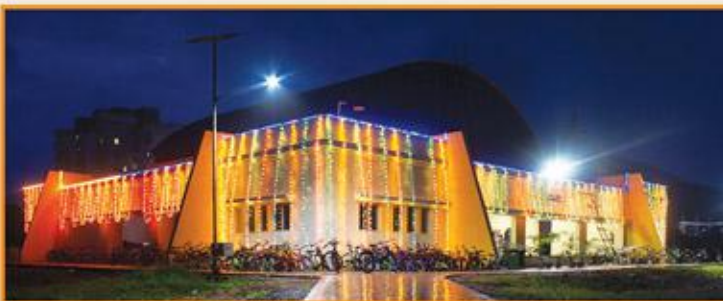
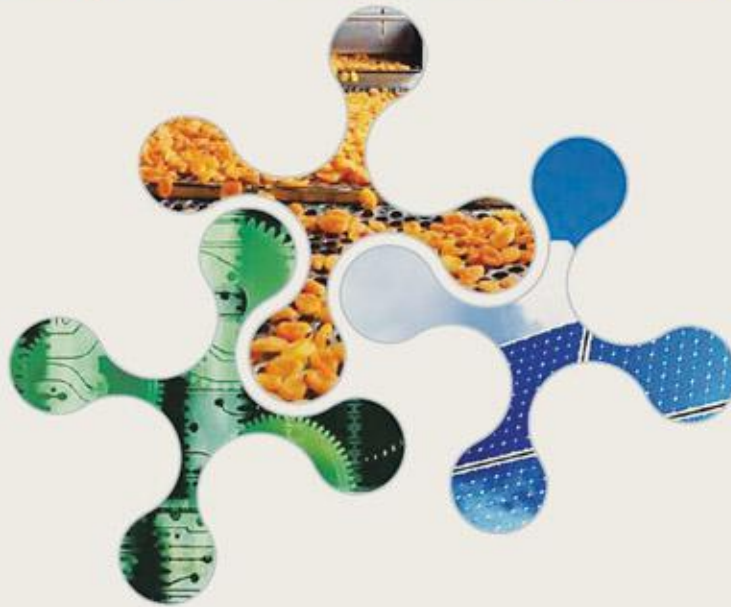
Capital Expenditure				Remarks
Head	2016-17 Utilized Amount (in Rs.)	2015-16 Utilized Amount (in Rs.)	2014-15 Utilized Amount (in Rs.)	
Library	66,952,648	10,732,662	87,181,432	Amount spent under head Books, E Subscription & Advance paid for e-subscription upto Dec 2017.
New Equipment for laboratories	48,872,516	56,957,501	101,574,947	All equipment purchased for the Institute taken in this head expect for School as SES, SIF & SMS
Engineering Workshops	68,858,847	40,672,361	80,816,721	Equipment purchased for School as SES, SIF & SMS taken in this head
studios	13,557,058	22,116,454	8,428,872	Expenses made for school CITSC for purchase of equipment , computer & software expect Camera
Other expenditure on creation of Capital Assets (excluding expenditure on Land and Building)	17,169,923	43,263,294	36,429,465	All other expenses made in capital expenditure expect expenditure made in construction & furniture.
TOTAL	21,54,10,992	17,37,42,272	31,44,31,437	
Operational Expenditure				
Head	2016-17 Utilized Amount	2015-16 Utilized Amount	2014-15 Utilized Amount	Remarks
Salaries (Teaching and Non Teaching staff)	178,152,618	158,721,590	147,185,598	Amount spent under salary
Maintenance of Academic Infrastructure or consumables, other running expenditures etc. (excluding maintenance of hostels and allied services)	329,834,137	307,256,367	345,203,623	Total amount spent from operating expenditure except salary
Seminars/Conferences/Workshops	16,023,693	5,969,956	3,168,810	
TOTAL	52,40,10,448	47,19,47,913	49,55,58,031	

Sponsored Research Details (As per NIRF Format)

Financial Year	2016-17	2015-16	2014-15
Total No. of Sponsored Projects	97	83	69
Total No. of Funding Agencies	28	24	24
Total Amount Received (Amount in Rupees)	85,271,270.00	160,991,636.00	51,709,279.00
Amount Received in Words	Rupees Eight Crore Fifty Two Lakh Seventy One Thousand Two Hundred and Seventy only	Rupees Sixteen Crore Nine Lakh Ninety One Thousand Six Hundred and Thirty Six only	Rupees Five Crore Seventeen Lakh Nine Thousand Two Hundred and Seventy Nine only

Consultancy Project Details (As per NIRF Format)

Financial Year	2016-17	2015-16	2014-15
Total No. of Consultancy Projects	54	32	18
Total No. of Client Organizations	35	26	15
Total Amount Received (Amount in Rupees)	18,378,498.00	9,600,294.00	4,148,836.00
Amount Received in Words	Rupees One Crore Eighty Three Lakh Seventy Eight Thousand Four Hundred and Ninety Eight only	Rupees Ninety Six Lakhs Two Hundred and Ninety Four only	Rupees Forty One Lakh Forty Eight Thousand Eight Hundred and Thirty Six only



Indian Institute of Technology Bhubaneswar

Argul, Jatni - 752050, Khurdha

Phone No. 0674-2576011, 2571982

E-mail: info@iitbbs.ac.in, website : www.iitbbs.ac.in