



Annual Report 2015-16

**BIRLA INSTITUTE OF TECHNOLOGY**

(Deemed University)

Mesra, Ranchi - 835215, Jharkhand, India



# The Institute Prayer

## प्रार्थना

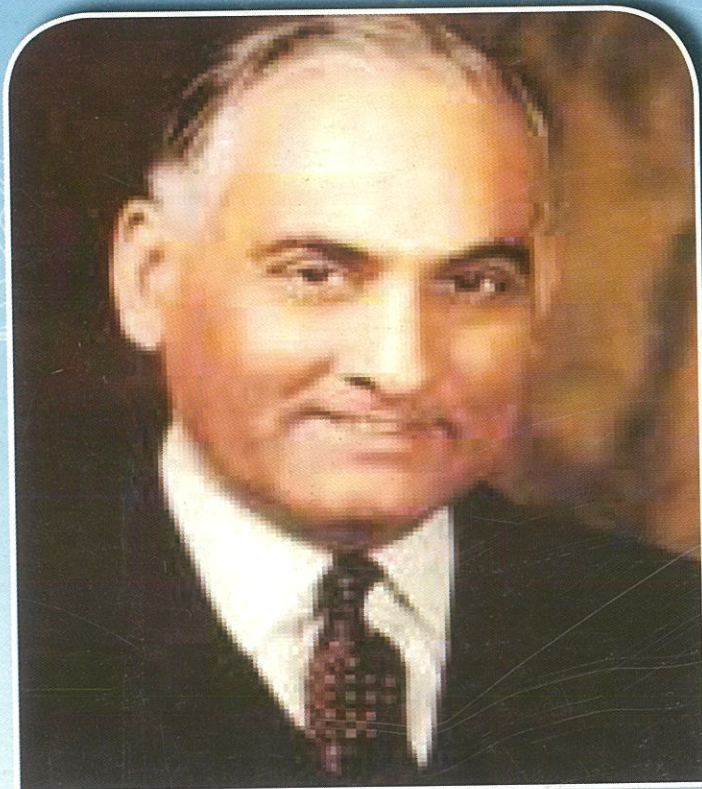
यं शैवाः समुपासते शिव इति ब्रह्मेति वेदान्तिनो  
बौद्धाः बुद्ध इति प्रमाण पटवः कर्तेति नैयायिकाः ।  
अर्हन् नित्यथ जैन शासनताः कर्मेति मीमांसकाः  
सोऽयं नो विदधातु वाञ्छित फलं त्रैलोक्य नाथो हरिः ॥

*"May the Lord of the Universe, the remover of evil, whom devotees of Shiva worship as Shiva, the Vedantins as Brahman, the Buddhists as Buddha, the followers of the Nyaya philosophy who are clever in logic as Agent, those devoted to the Jaina doctrines as Arhat, the ritualists of the Mimamsa School as Karma – grant us all our hearty desire."*

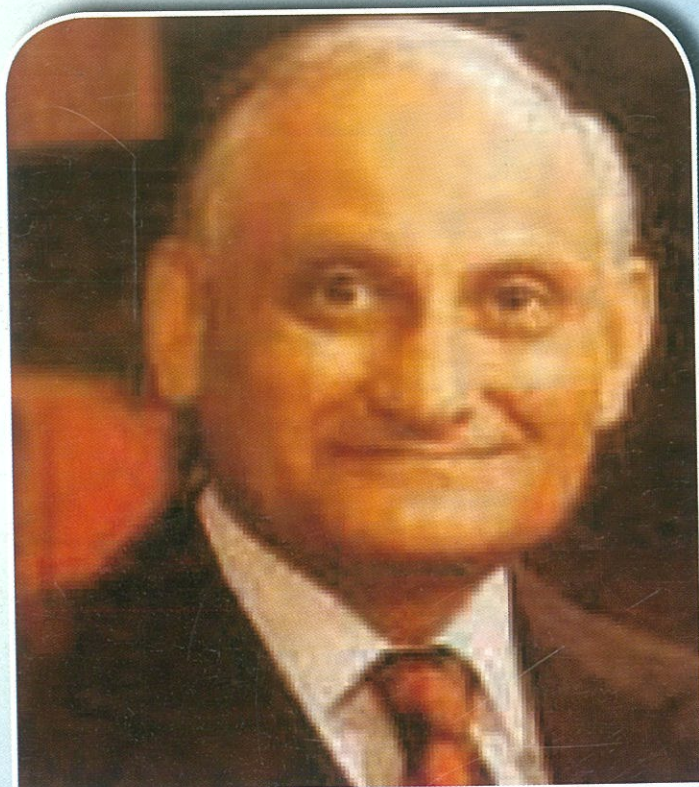
हे जग त्राता, विश्व विधाता, हे सुख शांति निकेतन हे ।  
प्रेम के सिन्धु, दीन के बन्धु, दुःख दरिद्र विनाशन हे ।  
नित्य अखण्ड अनन्त अनादि, पूरन ब्रह्म सनातन हे ।  
जगआश्रय जगपति जगवन्दन, अनुपम अलख निरंजन हे ।  
प्राण सखा त्रिभुवन प्रतिपालक, जीवन के अवलम्बन हे ।

*You are the saviour and the creator of the Universe, the abode of peace and happiness, the ocean of love, the friend of the helpless, the reliever of sorrows and afflictions. You are the external, the indivisible and the infinite. You are the complete universe and the prime Being. You are the shelter, the lord and worshipped of world. You are unparalleled, unseen and blissful. You are friend of the living, the preserver of the universe and the support of our life.*





**Shri B. M. Birla**  
Founder of the Institute



**Shri G. P. Birla**  
Former Chairman of the Board of  
Governors









**Shri C. K. Birla**  
Chairman of the Board of Governors

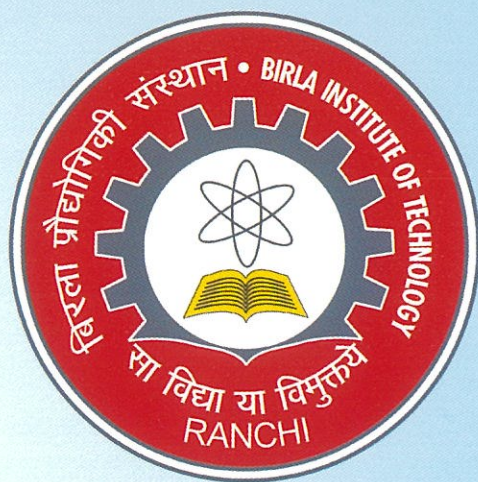






# ANNUAL REPORT

## 2015-16



**BIRLA INSTITUTE OF TECHNOLOGY**

(DEEMED UNIVERSITY)  
MESRA, RANCHI-835215  
JHARKHAND, INDIA





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## **OFF CAMPUSES**

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## **Activity Report of the Institute By The Vice Chancellor**

Birla Institute of Technology, Mesra, Ranchi founded by the philanthropist, industrialist Late Shri B.M. Birla in 1955, attained the status of a Deemed University in the year 1986. The rich legacy of the founder has been carried forward by his son Padmabhushan Late Shri. G. P. Birla and his grandson, the present Chairman of our Board of Governors, Shri C. K. Birla by continuing his commitment to provide high quality education to further our country's capability for quicker all round progress.

On the occasion of 26th Convocation and Diamond Jubilee celebration held on January 10, 2016 of our Institute, Hon'ble President, Shri Pranab Mukherjee, Hon'ble Governor of Jharkhand and the Chancellor of our University, Smt. Droupadi Murmu, Honorable Chief Minister Jharkhand, Shri Raghubar Das, Chairman of Board of Governors Shri C. K. Birla, respected members of founder's family graced the occasion.

BIT, by virtue of the quality of its academic programmes, has consistently been ranked amongst the leading technical Institutes of the country. Academic programmes are offered in 17 disciplines with 707 faculty and over 11,000 students spanning our campuses in India and abroad.

The Institute has initiated many schemes to strengthen quality education to the students, generating suitable and varied career opportunities for them in reputed organizations across the globe through a strong campus placement programme in reputed organizations across the globe.

The Institute has also vigorously pursued policies for timely career progression of its faculty and non teaching staff and two cycles of regularisation/MACP promotion for non teaching and one cycle of CAS based promotion has been completed for the faculty in the past one year.

The Institute has been working dedicatedly towards the vision of producing quality technical graduates, competent teachers, scientists and leaders for academia, research, industry and administration under the dynamic leadership of our Chairman who has provided a big impetus to quality improvement through his special grant of Rs. 150 Crores for academic upgrade, increased funding of Rs. 2 Crores per year for student scholarships, seed money for 87 faculty research proposals and approving the set up of the GP Birla Center for Innovative start-ups.

A brief multidimensional activity of the Institute during the period is as follows:

### **1.0 BOG**

The Fiftieth meeting of the Board of Governors was held on 7th May, the Fifty-first Meeting on 2nd November, 2015 and the 52nd meeting of the Board were held yesterday. The major approvals of the Board which have been implemented in the past one year are:

- All departmental proposals approved by the institute budget committee chaired by the Dean (Academic Programs) were funded to the tune of 5.36 crores
- Upgradation of Civil, Mechanical and Computer Science and Engineering Departments was approved through special grants of Rs. 1.36, 3.22 and 1.15 crores respectively



- Chemistry, Pharmacy and Electrical and Electronics Engineering departments were provided additional grant of Rs.1.59 crores to upgrade their instrumentation facilities
- Board approved major Infrastructure Upgrades consisted of :
  - \* Modernisation of Lecture Halls 1 and 2, existing class rooms, GP Birla Auditorium and CAT Auditorium with a total spend of nearly 12.5 crores
  - \* Electricity supply, Roads and Water Supply upgraded with a spend of nearly 5 crores
  - \* A modern Language Lab was set up
- Implementation of Career Advancement Scheme (CAS)
- Department of Humanities and Social Sciences has been notified
- Alumni Interactions were systematised by establishing BITOSA Global which has successfully organised two Global Conclaves in Delhi and Kolkata in December 2014 and November 2015 respectively

## 2.0 ACADEMIC ACHIEVEMENTS

- The Department of ECE identified for PhD Programme of Visvesvaraya Scheme under DeitY
- RAK off shore campus of the Institute honoured with First RAK Free Trade zone - Business Excellence Award for the Best Small to medium size enterprise

## 2.1 R & D ACTIVITIES OF THE INSTITUTE

The Institute is committed to high end R&D activities and supports it through Institute Fellowships and travel grants to attend National and International seminars, symposia and conferences.

During the period, 359 faculty members were supported by the Institute to attend National Seminars and 22 faculty members were offered financial support to attend international conferences. 86 Ph.D. scholars are being provided Institute Research Fellowships.

The high level of research conducted at BIT has led to grants from National/ and international agencies like UGC, CSIR, DST, DAE, BRNS, ISRO, DRDO, ARDB, DBT, AICTE, NAMPET, C-DAC, ICAR, Govt. of Jharkhand, BMBF etc. through sponsored projects and consultancies.

The Institute's research achievements are reflected by the following data:

Publication in International Journals	:	487
Publication in International Proceedings	:	181
Publication in National Journals	:	20
Publication in National Proceedings	:	43
R&D Projects Granted	:	18
On-going R&D Projects	:	57
R&D Projects Completed	:	30



Books Authored/ chapters/edited	:	09
Patent Granted / Filed	:	03

## 2.2 INFRASTRUCTURE DEVELOPMENT

Keeping in line with the expansion of its academic programmes, the Institute continued its efforts to consolidate academic and infrastructural support in the form of equipment, learning resources and space. A few of them are as follows:

- Establishment of Food Analysis Laboratory, funded by National Mission on Food Processing, Directorate of Industries, Govt. of Jharkhand in the Department of Chemical Engineering & Technology
- Under DST – FIST in the Department of Chemistry the NMR system and computational laboratory have been installed
- The Department of Civil and Environmental Engineering witnessed major infrastructure development through upgradation in structures/soil/hydraulics/environmental laboratories
- In the Department of CSE of HPC(High Performance Computing) and Cloud computing facility were installed
- The Department of Management established a Language Lab

## 2.3 MOUs / COLLABORATIONS

- BIT, Mesra signed an MOU with RDCIS-SAIL on 1st October, 2015 to pursue joint research and development projects and identified primarily 10 areas of collaborative research works with various departments of the institutes.
- Department of Chemistry signed MoU with Kagoshima University, Japan for Collaborative Research in June 2015
- An outreach programme with the scientists of Board of Research in Nuclear Science (BRNS), DAE was held on 13th February. Out of the 26 proposals submitted; Prof. T.Ghose and Dr. P.R.Thakura of Electrical and Electronics Engineering Department presented their proposal so far. Invitations of other divisions of BARC are expected for the remaining 24 proposals.

## 2.4 CONSULTANCY

- Department of Chemical Engineering & Technology was consultant for Minor Irrigation quality Department, Ranchi, Indian Institute of Natural Resin and Gums, Mangal Fibre and for Astec Bitumen Product Pvt Ltd during December 2014 to December 2015 for testing
- Dr.Kirti Avishek was consultant to ENVDA India for Short term consultancy project on DPR preparation for rural sanitation scheme under Swatch Bharat Abhiyan
- Dr. S. K. Ghorai and Dr. S. S. Tripathy of Department of ECE were consultant to S. D. Engineers, Ranchi during August 2015 – Dec 2015 for Development of an Object Detection System using

## Ultrasonic Wave for Mining Application

- Dr. C. Jeganathan of Department of Remote Sensing was consultant to International Water Management Institute (IWMI), Sri Lanka for Agriculture Drought Assessment over different environmental Conditions from July 2014 to August 2015

## 2.5 NEW PROGRAMMES / REVISIONS

The Institute started / revised the following programmes at the main campus as well as at the off campuses:

- Off campus Allahabad has started Bachelor of Engineering in Computer Science & Engineering and Bachelor of Engineering in Information Technology programmes
- Department of Architecture added new elective subject in 8th Semester: AR 8311 Sustainability and Built Environment and minor reshuffling has been done of electives in B. Architecture Course Structure
- Syllabus of M-Tech Environmental Science and Engineering programme revised on 21.12.2015
- Department of ECE revised the syllabi of
  1. MEC1019 Microelectronics Devices & Circuits
  2. MEC2113 Real Time Embedded System Design
  3. MEC2067 VHDL & Verilog
- BIT off campus Jaipur revised Syllabus of Three Year B.Sc. Animation & Multimedia Programme
- Department of Production Engineering revised syllabus of BE and ME
- BIT off shore campus RAK revised the syllabus of BCA

## 3.0 NATIONAL AND INTERNATIONAL EXCHANGE PROGRAMMES WITH UNIVERSITIES / RESEARCH ORGANIZATIONS

- One Research Scholar of the Department of ECE completed a 6-month research internship under the Newton-Bhabha Fellowship scheme under joint funding of DST, Govt. of India and British Council, from June 2015 to Nov. 2015 at the Dept. of Aeronautics, Imperial College, London.
- 8 Students of the Department of Space Engineering & Rocketry accepted to perform research work at various reputed organizations like Vikram Sarabhai Space Centre and Liquid Propulsion System Centre, Thiruvananthapuram, (ISRO), Defence Research & Development Laboratory, Hyderabad, High Energy Material Research Laboratory Pune (DRDO) and National Aerospace Laboratory, Bangalore



#### **4.0 TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME, PHASE –II**

Birla Institute of Technology, Mesra, Ranchi selected in TEQIP-II. Following activities were carried out during the period

- Up gradation of Existing laboratory facilities
- Teaching and Research Assistantships
- Faculty and Staff Development
- Institutional Management Capacity Enhancement
- Academic support to weak students
- E-enabled learning
- Development of research interest among students

#### **5.0 SEMINARS / SYMPOSIA / SHORT TERM COURSES ORGANIZED**

The Institute and its off / off shore Campuses organized 40 Seminars / Symposia / Workshops. Some of them are:

1. Dean SR organised one day workshop on Capacity Building for writing research proposal under various schemes of DST, New Delhi was conducted on 18th September, 2015 in the institute. 72 faculty members of the institute attended the workshop
2. Department of Bio Engineering organised National Conference on Biotechnology for Sustainable Development during Dec 17, 2015 - Dec 19, 2015 sponsored by CoE and TEQIP II
3. Dept. of CSE of off campus Deoghar organized 2 days workshop on Big data Initiatives: Trends and Applications: with ISI Kolkata, Cognizant Technology Solutions, IIM Ahmadabad and NASSCOM On 17th & 18th September 2015
4. Department of Chemical Engineering organized one Week STTP On ANALYSIS OF COMPOSITE MATERIALS during January 19th- 23rd 2015 sponsored by TEQIP – II BIT, Mesra
5. Department of CEE organized Two Week ISTE short term training program on Environmental Studies during June 2 – 12, 2015 sponsored by IIT Bombay & MHRD, India
6. Department of CSE organized International Conference on Computational Intelligence (ICIC 2015) from 11- 15 December 2015
7. Department of ECE organised Analog Maker Competition – 2015 from 22nd January 2015 to 22nd February 2015 sponsored by Texas Instruments (Edgate Technologies, Bangalore)
8. Department of EEE organised National workshop on Intelligent Computational Technique Applications from 23/11/2015 to 27/11/2015 sponsored by Jharkhand Council of Science & Technology, Ranchi
9. Department of EEE organised One week workshop on Advanced Microcontroller Applications from 02/02/ 2015 to 08/02/2015 sponsored by TEQIP

10. BIT off campus Jaipur organised Entrepreneurship Development Programme from March 11, 2015 to March 27, 2015 sponsored by Dept of Science & Technology, Govt. of India
11. Department of Management organised Annual conference of the Indian Society of Labour Economics during December 18-20, 2014 sponsored by ICSSR,UGC,ILO
12. Department of Biotechnology of offshore campus Muscat organised Refresher course on Health on 9th April, 2015
13. Department of Computer Science of offshore campus Muscat organised course on Advance Routing & Switching on 10th March, 2015
14. BIT off campus Patna organised seminar on Electronic System Design and Manufacturing (ESDM) on 29/01/2015 sponsored by DeitY
15. Department of Pharmaceutical Science & Technology organised Short Term Course on AUTOMATION IN DRUG DISCOVERY from 21.11.2014 to 04.12.2014 sponsored by AICTE
16. Department of Pharmaceutical Science & Technology organised Short Term Course on Recent Advances in Formulation Techniques & Tissue Engineering from 13TH Nov 2015 to 26th Nov 2015 sponsored by AICTE
17. Department of Production Engineering organised STTP on Lean Six Sigma tools and applications, BIT, Mesra, Ranchi during May 25-29, 2015 sponsored by TEQIP-II
18. Department of Remote Sensing organised Workshop on application of Remote Sensing, GIS & GPS in watershed management, BIT, Mesra Ranchi from 3rd July 2015 to 5th July 2015 sponsored by Watershed Mission, GoJ and Dept. Land Resources MoRD, GoI

### **6.0 EMINENT VISITORS / DELEGATION FROM OTHER ORGANISATIONS**

Eminent personalities visited BIT Mesra and its off campuses to share their expertise with teachers and students. That includes

- Dr. Sanjay Ghosh, Research Assistant Professor at Department of Physiology and Genetics, University of Oxford, UK visited Department of Bio Engineering to deliver a lecture on October 01, 2015
- Dr. Sunil Pabbi, Center for Conservation and Utilization of Blue Green Algae, IARI, New Delhi visited Department of Bio Engineering to deliver a lecture on October 09, 2015
- Prof. Arup Bhattacharya, IIT, Mumbai visited Department of Chemical Engineering to deliver a lecture
- Dr. Asit Baran Panda, (CSIR-CMCRI) delivered Invited Lecture in the Department of Chemistry in October 2015
- Dr. Sanjay Kumar Shukla, Professor, Edith Cowan University visited Department of CEE for Interactions and possible collaborations during Dec, 2015
- Mr. Somesh Gupta, Distinguished Technocrat, Head of Jaipur Unit of Infosys Ltd. visited BIT off campus Jaipur as Guest of honour in the Annual function of the Institute in March, 2015



- Dr. G. K. Chaturvedi, Eminent Technocrat, Managing Director of Logic Plus Plus India Ltd, Ex-R&D Head (RADAR Group), Hindustan Aeronautics Limited, Ex-Advisor Central Electronics Ltd, Govt. of India visited BIT off campus Jaipur for Invited Lecture on industrial research & interaction with faculty & researchers in December, 2105
- Prof. Deshdeep Sahdev from IIT Kanpur visited Department of Physics to deliver Invited Talk on September 16, 2015
- Dr. A. K. Sharma, Department of Physics from IIT Guwahati visited Department of Physics to deliver Invited Talk on October 8, 2015
- Prof. V. Subramanian, Department of Physics, IIT Madras visited Department of Physics to deliver Invited Talk on November 5, 2015
- Dr. A. K. Saraf, Professor, IIT Roorkee visited Department of Remote Sensing for Research review & Guest Lecture in October 2015
- Dr. P.S. Roy, 'Geospatial Chair Professor', University of Hyderabad visited Department of Remote Sensing for Viva-voce in October 2015

## **7.0 AWARD / DISTINCTION RECEIVED AND VISITS IN INDIA & ABROAD**

Following faculty members who were felicitated and visited various Institutes and R & D organizations in India and abroad.

- Dr.(Mrs.) Nidhi Tiwari of off campus Allahabad received Best paper award at International Conference on the topic "Advances in management & technology: Mapping strengths with opportunities"
- Dr D M Pandey of Department of Bio Engineering was Keynote Speaker in 9th Biotechnology Congress-2015 at Hyatt Regency Orlando International Airport, Orlando Florida, USA scheduled from August 31, 2015 to September 02, 2015.
- Dr. J. K. Prasad, Director, off campus Deoghar, became member, Aerospace Engineering Board, Institute of Engineering (India), 2015
- Chinmay Chakraborty of off campus Deoghar appointment as International Advisory Board for Malasia Technical Scientist Congress (MTSC) – BIZMATOUR, Malasia Technical Scientist Congress, 2015
- Dr. Soumya Banerjee of off campus Deoghar became member Task Force on Awareness Computing Under IEEE Computational Intelligence Society
- Dr.Chandralata Bal of Department of Chemistry received International travel grant award by DST, New Delhi for attending 28th International Conference on Antiviral Research 2015
- Dr.Gautam Sen of Department of Chemistry served as Jury member in INSPIRE award scheme conducted by GOVT. of Jharkhand, for Ranchi district, on 30-31st October 2015 and also Served as Jury member in Technical fest 2015 at University polytechnique BIT Mesra
- Dr.J.P.Pandey, Head, Department of Chemistry served as Jury member in Technical fest 2015 at University polytechnique BIT Mesra and is to visit Fachhochschule lubeck, Germany for

8th International congress of Environmental research during July 27-28,2016

- Dr. Rahul of Department of Chemistry served as Jury member in INSPIRE award scheme conducted by GOVT. of Jharkhand, for Ranchi district (November 2015)& Hazaribag district (October 2015)
- Dr. Ashoke Sharon of Department of Chemistry served as Jury member in INSPIRE award scheme conducted by GOVT. of Jharkhand, for Hazaribag district in October 2015
- Tanushree Bhattacharya of Department of CEE is recipient of Endeavour Research Fellowship Award, Australian Ministry of Education, 2015
- Dr. Kirti Avishek of Department of CEE was resource Person for in Workshop on Ecosystem Management and Monitoring for Developing Countries at Beijing. China. Nov 1-18, 2015
- Dr. R. Naresh Kumar became Adjunct lecturer, School of natural Sciences, Edith Cowan University, Australia
- Bhaskar Karn of Department of CSE received best paper award in International Conference on Advances in Economics, Social Science and Human Behaviour Study - ESSHBS 2015, August, 28 - 29, 2015, Bangkok, Thailand
- Dr. Nisha Gupta of Department of ECE became IEEE APS Region 10 Distinguished Speaker for the year 2015-2016
- Dr. Vijay Nath has become ESDM Program Coordinator East Zone of India & Resource Person funded by DeitY, MC&IT, New Delhi under aegis of IETE New Delhi
- Dr. R. K. Lal has become member of National Advisory Committee of NCCS-2015
- Dr. Aminul Islam received Best paper award for the paper entitled, "Which is the Best 2-to-1 Line Multiplexer for Ultralow-Power Applications?," at IEEE International Conference on Computational Intelligence & Communication Technology (CICT) in 2015
- Dr. Sarbani Chakraborty of Department of EEE received IETE Technomedia Award for Young women in Engineering (2015)
- Dr. T. Ghose nominated by the Chancellor of Jadavpur University as a member of Screening committee of faculty promotion and re-employment of faculty
- Dr. Abhinav Kr Shandilya of the Department of HMCT became Regional Vice president: East Indian Hospitality Congress
- Dr. Abhinav Dinesh, Director, BIT off campus, Jaipur was invited as Chief Guest and delivered key note speaker in the inaugural function of International conference on Intelligent Computing, Communication & Sciences organized by Institution of Engineers at Regional College of Education Research & Technology, Jaipur on April 10, 2015
- Dr. Vibhuti Pandya of BIT off campus, Jaipur became one of the Jury Member in the Jaipur International Film Festival Awards 2015
- Dr. Bimal Kumar Mishra of Department of Mathematics became Associate Editor of International Journal of Information Technology and Computer Sciences (Korea)



- Dr.B.N.Sinha, Professor & Head, of Department of Pharmaceutical Science & Technology visited De Montfort University, Leicester, UK in 2015
- Dr. Biswatrish Sarkar of Department of Pharmaceutical Science & Technology received International Travel Fellowship, DBT CTEP, Govt. of India and International Travel Fellowship, CICS, Chennai
- Dr. R. N. Gupta of Department of Pharmaceutical Science & Technology attended and presented paper in 17th International Drug Delivery Symposium: Diverse Therapeutic Approaches to Address Disease Heterogeneity held at Salt Lake City, UTAH, State USA in 2015 organized by College of Pharmacy, University of UTAH and also visited Roosevelt University, Chicago
- Mr. S. P. Pattanayak of Department of Pharmaceutical Science & Technology received PBC Award for outstanding researcher from India and China, Ministry of Higher Education, Israel 2014 – 2015 (For 3 Years)
- Dr. I. Banerjee of Department of Physics received Commonwealth Academic Fellow, British Council, UK
- Dr. L. N. Pattanaik of Department of Production Engineering received Best Paper award in International Conference on Signal processing, Control & Data Analytics (Online) (ICSCD-2015), San Diego, USA.
- Dr. C. Jeganathan of Department of Remote Sensing felicitated with the Prestigious INDIAN NATIONAL GEOSPATIAL AWARD for the year 2015 by the Indian Society of Remote Sensing and received Erasmus Mundas Visiting Professor European Fellowship to visit UK in 2015
- Dr. A. P. Krishna, Professor & Head, Department of Remote Sensing became reviewer of Jour. of Earth System Sciences, Water Resources & Management, Current Science, India and Indian Journal of Radio & Space Physics (IJRSP)
- Dr. V. S. Rathore of Department of Remote Sensing became reviewer of International Journal of Remote Sensing
- Dr. N. Patel of Department of Remote Sensing became member of Scientific Committee- ICTTE Belgrade 2016, International Conference on Traffic and Transport Engineering, 24-25 November 2016, Belgrade, Serbia and Advisory Board, Folia Forestalia Polonica
- Dr. Mohan Varma, Professor & Head, Department of Space Engineering & Rocketry nominated as Member, National Advisory Committee of 24th National Conference on I.C. Engine & Combustion
- Dr. Ranjana Sharma of BIT off shore campus RAK received Best Paper award, ICSET-2015
- Dr. P K Upadhyay of BIT off shore campus RAK was Guest Speaker and received Distinguished Researcher Award, ICSET-2015, RAK
- Ms Chetna Nagpal of BIT, Off shore campus RAK received Best Presentation & Research Paper award in 3rd International Conference on Modern Trends in Science, Engineering and Technology, Dubai

- Dr. Kavita of BIT off shore campus RAK received Certificate of Recognition as Mentor from AMITY Business Day, Amity University, Dubai

### **8.0 STUDENTS' ACTIVITIES**

The Institute promotes multidimensional growth in different facets related to students. The students showcased their talents and responsibilities by organising, participating and being victorious in various programmes of social, cultural and technical in nature.

#### **8.1 NSS & CSR**

The NSS Cell, BIT Mesra organized following activities in five adopted villages Rudia, Pancholi, Humbai, Mesra and Navatoli nearby the Institute

- Pulse Polio Immunization
- Road safety week
- Prabhat Pheri
- Workshop at Yogda Ashram
- Legal awareness program
- Blood donation on 10/10/15
- Plantation during August 2015
- Yoga Day
- Cleanliness Drive on October 15, 2015
- Literacy Program during July to October 2015 where School dropouts and deprived children of adopted villages were taught at community centers

##### **8.1.1 SOCIAL / CULTURAL EVENTS ORGANISED**

- Creative Arts section organized its annual fest with the theme "Bharat Vishwaguru"
- UNESQUO organised Debate and quiz during September 5 -6, 2015
- EPAC, BIT, Mesra Chapter organised Environment Awareness Program cum Quiz on 2nd September 2015
- BIT got talent is scheduled in January 2016
- Diamond Jubilee BITOTSAV was organised in February 2016

#### **8.2 TECHNICAL EVENTS**

- COLESENCE 2015, National Students Technical Events, organised by IICHe BIT Mesra Students Chapter
- Exhibition on Robotics was organised on 15th August -2015



- SAE India Student Chapter BIT, Mesra organised seminar on August 20, 2015
- Workshop on PLC & SCADA organised during September 2 – 14, 2015
- Workshop on C / C++ and Java Programming Language organised during September 2015
- Cyber Students Association of Department of CSE organised MICROSOFT AZURE ON 29th September 2015
- Pantheon – The Inter University Technical Festival was organised during October 2-4, 2015 in which 150 teams participated.
- Team Firebolt participated off terrain vehicle competition in January- February 2016
- Team Pratyunmish represented BIT Mesra in All India Robotics Competition in February 2016

### **8.3 SPORTS ACTIVITIES**

- 30th Annual Athletic Meet was organized by Institute
- 24th Chetan Dev Raj Memorial Inter Technical Cricket Tournament was organized during January 2016
- BIT, Mesra participated and won total 27 medals in various events in PARAKRAM-2015, (ISM Dhanbad)
- Inter Hostel Table Tennis and Football Tournaments were organised during August - September, 2015
- Inter Hostel Cricket, Badminton Tournaments were organised during October -November, 2015

#### **8.3.1 VISIT OF TEAMS FROM BIT MESRA TO OTHER INSTITUTE / UNIVERSITY**

- Karan Dhawan, Roll No.- BARCH/10030/2012 was winner at AIU, ALL INDIA National Youth Festival in Photography, held at DAV, Indore
- Team Firebolt represented the Institute for the BAJA SAE India 2015 virtual round during August 1st-2nd, 2015 at Gandhinagar, Gujarat
- Girls ' only Badminton team of BIT Mesra participated in Badminton tournament organised at IIT Kanpur and won Gold Medal during September -October, 2015
- students participated in "INTERTECHNICAL SPORTS FEST, SPARDHA-15" organised by IIT-BHU, Varanasi during the period of 30th October to 1st November 2015 where they won 3 gold medal

#### **8.3.2 VISIT OF TEAMS FROM OTHER INSTITUTE / UNIVERSITY TO BIT MESRA**

- Team of IIT Kharagpur, ISM Dhanbad, NIFT, BHU, NIT Jamshedpur, BE College Sibpur, UCET Hazaribagh, BIT off campus Lalpur, Allahabad, Kolkata, Patna and Deoghar participated in Technical Festival Pantheon during October 2-4, 2015

#### 8.4 AWARDS RECEIVED BY STUDENTS

- ShubhraSekhar Chakraborty received Best paper Award in International conference on sustainable energy and built environment, VIT University, Vellore, Tamilnadu
- Team Srijan stood 3rd in the national level rules quiz organised by Formula Student India on June 22, 2015
- Anila Surin received 3rd prize for Best Thesis award by Institute of Town Planning (ITPI)
- Harsh Aggarwal (BE/6337/12) and Richa Sinha (BE/6099/12) of off campus Deoghar were awarded in SUSTAINERGIES 1.0: THE NEXT BIG THING held from 12/03/2015 to 13/03/2015
- Students of Department of Chemical Engineering & Technology, BIT, Mesra won 2nd place in PETROFIESTA, 2015 held at IIT, Kharagpur from 06/11/15 to 08/11/15.
- Shikha Kumari Pandey received Best paper award in National level conference on "Environmental challenges and solution (NC-ECS-2015)" at CSIR-NML, Jamshedpur and also recipient of Jawaharlal Nehru Scholarship for Doctoral Studies, 2015
- Poonam Tirkey is recipient of Maulana Azad National Fellowship For Minority Students, 2015
- Sai Kiran Santosh B.E 7th semester won 1st prize in state level android app development competition on 10th November 2015
- Chetan Khalkho (MCA/10003/14), Priya Ranjan (MCA/10005/14 ), Abhishek Kumar (MCA/10001/15) received first prize worth Rs. 1 Lakh in the event Hackathon 2015 organized by Department of Information Technology
- Amit Krishna Dwivedi received Commonwealth fellowship UK 2016
- Gitansh Gulati of BIT off campus, Jaipur secured First Position in poster presentation in the student category in a National Conference on Recent Trends in Microwave Techniques and Optical Communication, held at IIS University, Jaipur
- Rachit Nagdev of BIT off campus, Jaipur secured First Position in student programming contest organised by Computer Society of India
- Team of Amol khugshal BE-ECE V th Sem & other students of BE-CSE, BE-EEE, BBA & B.Sc. Animation Courses of BIT off campus, Jaipur secured Second Position in nukkad natak competition in Jairangam festival organized at IIS University, Jaipur, on 5-9 October 2015
- Mr. Subham Raj and Mr. Keshav Tripathi of BIT off campus, Jaipur won Gold Medal in chess Competition in the sports fest held at IIT, Jodhpur
- Deepanwita Maji of Department of Pharmaceutical Science & Technology received 1st prize in poster presentation in 5th Annual International Convention of Association of Pharmacy Professionals on the Theme 'Redesigning Pharmacy Education and Regulations for Translational Drug Research in India. Utkal University, Bhubaneswar, Odisha on 15th Nov 2015



## INTRODUCTION



The Main Building at BIT Mesra, Ranchi

The Institute was established as an All India Institute of Technical Education by the renowned philanthropist and visionary industrialist, Late Sri B. M. Birla in July 1955. Initially it was started as an affiliated college of the erstwhile Bihar University and later in 1960 upon creation of new universities in the state; its affiliation was transferred to Ranchi University. In pursuance of the recommendation of the Education Commission, Government of India (1964 – 1966) and on the basis of the report of a joint Selection Committee of the UGC and AUDIT, in March 1972, the Institute was granted the status of an 'Autonomous' College by making special provision in Bihar State University Act. The chancellor of the University of Bihar made the rules for its governance.

The achievement of the Institute in terms of research and excellent academic programme led to its attaining the status of a Deemed University under section 3 of the UGC Act in August 1986.

The Institute has constantly improved on its technical facilities as well as in academics in order to keep pace with the fast changing technological scenario, thereby acquiring a pride of place amongst the institutions offering technical education in the country. This Institute celebrated the Golden Jubilee of its establishment in the year 2005 reaffirming its commitment to the cause of higher education.



Lecture Halls



## Administration

B. I. T. Mesra is a "Deemed University" under Sec. 3 of the U. G. C. act 1986. It functions under the overall supervision, direction and control of a high powered Board of Governors, comprising representatives of the Ministry of Education, Government of India, the U.G.C, the State Government, the Chancellor, the A.I.C.T.E, The Hindustan Charity Trust and the Institute Faculty. The Governor of the state of Jharkhand is the Chancellor of the Institute. Shri C.K. Birla is the Chairman of the Board of Governors. The composition of the Board of Governors is given in Annexure – II.

The Academic Council decides the academic policy of the Institute. It controls and approves the curriculum, the courses and the examination results. It appoints committees like Regulation Committee for Under – Graduate and Post – Graduate Courses, Semester Programme Coordination Committee, Admission Committee, Scholarship Committee, Students Welfare Committee etc. and Departmental Board of Studies to look into specific academic matters arising from time to time. The teaching, training and research activities of various Departments at the Institute are constantly under review for both facilities and standards. The Vice Chancellor of the Institute is the Chairman of the Academic Council. The members of the Academic Council have been enlisted in Annexure – V.

The Finance Committee gives financial advice to the Institute in matters relating to building work as well. The composition of these committees have been given in Annexure –III & IV

## The Main Campus, Mesra, Ranchi

The main campus of the Institute is fully residential and is spread over 780 acres. The main building of the Institute itself covers an area of 30,000 sq. mtrs. and accommodates the various research and training laboratories, administrative offices and class rooms.

The workshop annexe has built up area of 4,000 sq. mtrs. The laboratories and offices of the Department of Space Engineering & Rocketry are situated for security reasons in a sub – Campus, about half a kilometer away from the main building. The campus is self contained amidst well laid lawns, with its own protected water supply, marketing centre, dispensary, bank and schools. The first off campus was established in Ranchi city at Lalpur in 1976 with the spirit to support the continuing education programme for the working Engineers and professionals.

## Institute Building

	(Sq. Mtrs.)
❖ Main building & Administration block	3700
❖ Class room & laboratory, Drawing halls, Staff room's etc	19300
❖ Library block	2600
❖ Mini – Auditorium	450
❖ Space Engg. & Rocketry block ( Including Explosive, Fuel cell & Cryogenic laboratory)	2490
❖ Workshop sheds, General stores, Garage/ Godown	4880
❖ Gymnasium	850
❖ Indoor Badminton Stadium	1000

❖ Animal House	400
❖ R & D Building	7200
❖ Multi – Purpose Halls	785
❖ Biotechnology Centre	3477
❖ Polymer Engineering	744
❖ Lecture Theatre – I	1143
❖ Lecture Theatre – II	1535
❖ Hotel Management Building	2835
❖ Pharmacy Building	3220
❖ Golden Jubilee Auditorium	3280

### **Residential Complex**

❖ Staff quarters in different categories	422
❖ Residential complex for supporting services Guards, Dairy Shopkeepers, Washer man etc.	116

### **Others**

❖ Consumer's co-operative stores	375 Sq. Mtrs.
❖ NCC Block	400 Sq. Mtrs.
❖ Rifle Firing Range	1 No.
❖ NCC Parade ground	1 No

### **Guest Houses**

The Institute maintains two Guesthouses with a total number of 38 furnished rooms and one VIP Guest - House with 3 deluxe bedrooms to accommodate the Institute's Guests.

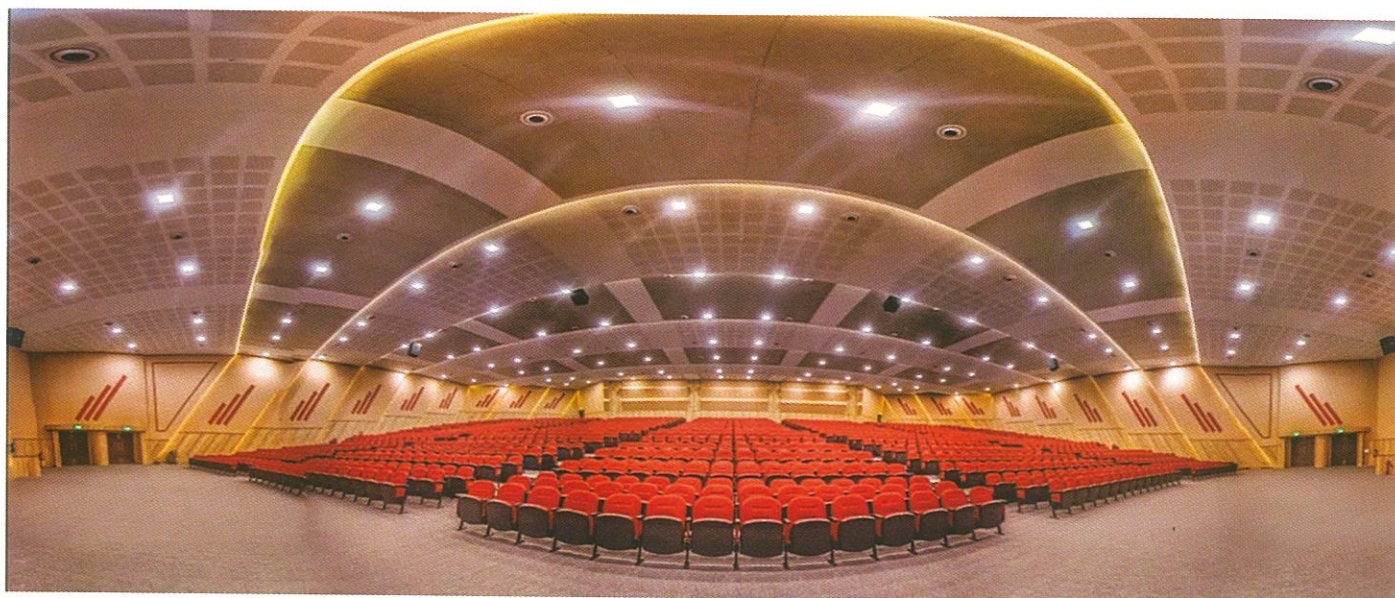
### **Auditorium**

The Institute auditoriums have been refurbished with a world class infrastructure. One with a capacity of for 350 persons and the other for 4000 persons. The bigger auditorium has been renamed as G P Birla auditorium.



G P Birla Auditorium





Renovated Interiors of G P Birla Auditorium

## Games & Sports Complex

The Institute has highly structured sports facilities for Indoor as well as Outdoor games. These are as follows:

❖ Gymnasium including Multi – Gym	1
❖ Stadium for Track & Fields for Sports/ Athletics	1
❖ Cricket ground including net	2
❖ Football ground	2
❖ Hockey ground	2
❖ Basket Ball courts	4
❖ Volley Ball courts	6
❖ Tennis courts	6
❖ Badminton courts (three indoor & five outdoor)	8
❖ Kho – Kho ground	1
❖ Kabaddi ground	1

## Dispensary cum Health Centre

The present BIT Dispensary is 20 bedded including 8 bedded two isolation wards. Fully functional Health Care Centre providing facilities to BIT Students, Faculties, staff members and members of their family and to Villagers around the Campus.

The Dispensary is functioning in all the 3 shifts (Round the clock 24x7) including Sunday & Holidays attending all OPD and IPD & Emergency Cases.

Presently it is manned by 4 Allopath & 1 Homeopath Doctor put in shift/General shift and about



20 paramedical staff. We have also Dentist, Physiotherapist, Skin, & Gynecologist as visiting specialist every week for health care service.

The dispensary is functioning essentially as a primary health centre and patients who need specialized treatment or hospitalization are referred to multi specialty hospitals. All students and staff members & their two dependent children are covered under Mediclaim policy by Oriental General Insurance Company.

The Health Centre is equipped with 2 Ambulances, available in all the 3 shifts fitted with Oxygen Cylinders & first aid kits.

At present, the following facilities/services are available in the dispensary.

1. OPD services including part time specialist OPD viz. Skin, Obs/ Gynecologist & Dental surgeon & Physiotherapist.
2. In patient services for minor ailments.
3. Emergency Services
4. Homeopathy Clinic
5. Dental Clinic
6. Pathological Laboratory
7. Physiotherapy Unit
8. X-Ray Unit
9. ECG Unit
10. General Ward- Total 03 ( Student male – 01, Student female – 01 and BIT Staff- 01 each)
11. Isolation ward – Total- 02 (one each for male & Female patients)
12. Dressing unit

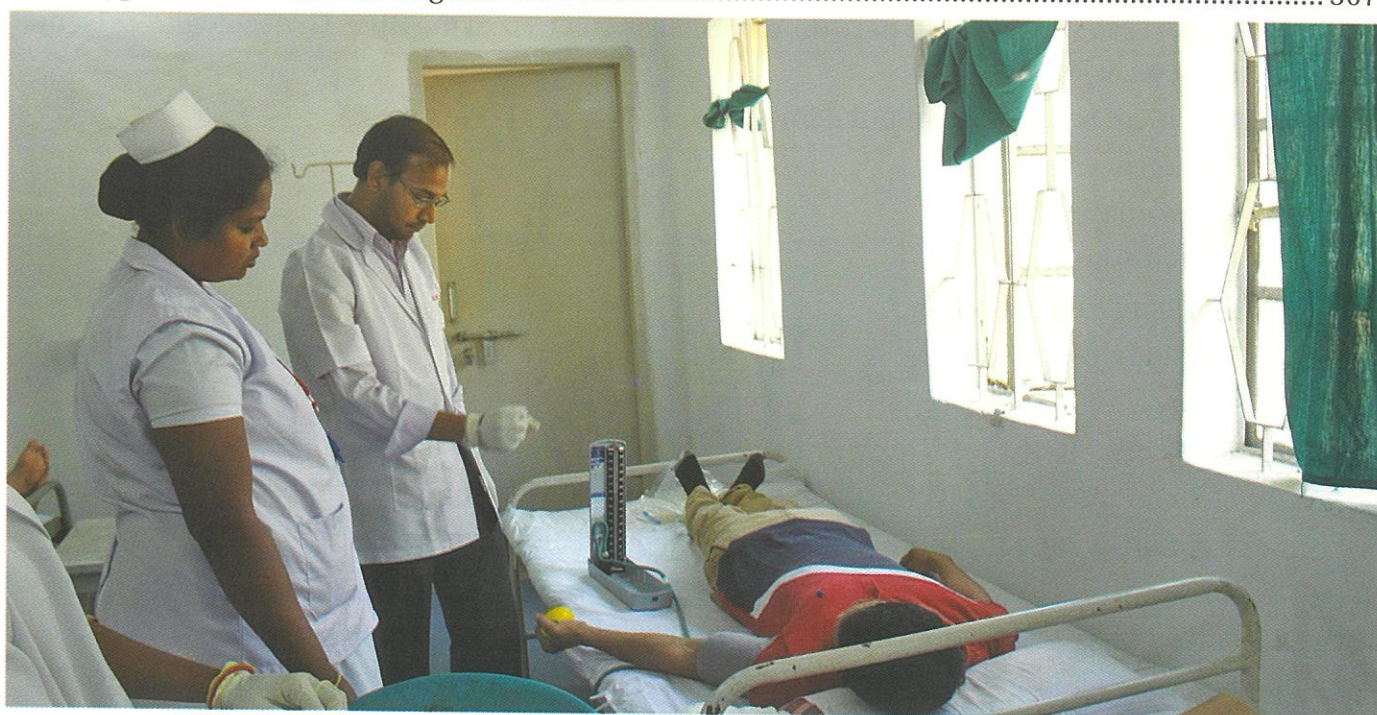
Services provided during the period 01.07.2015 to 30.06.2016

Total number of patients: .....	39382
Number of outdoor patients treated & supplied medicines:.....	39382
(a ) Male: .....	24573
(b ) Female: .....	14809

Categories:

(a) Students: .....	12156
(b) Staff members & their dependants: .....	21825
(c) Non-entitled cases:.....	5401
(d) Number of patients admitted & treated: .....	621
(e) Number of patients referred:.....	323
(f) Number of Medi claim settled:.....	82
(g) Medical Budget Allocation (2015-16):.....	Rs. 3800000 (Aprox)
(h) Expenses incurred: .....	Rs. 3600000 (Aprox)

(i) Number of patients treated by Homeopathic Physician:.....	5407
(j) Number of patients treated by Dental Surgeon: .....	927
(k) Number of patients treated by Gynecologist: .....	721
(l) Number of patients treated by Skin Specialist: .....	1056
(m) Number of patients treated by Physiotherapist: .....	1645
(n) Number of Chicken Pox, Measles & Herpes patients treated & supplied medicines:.....	23
(o) Number of X-Ray done:.....	361
(p) Number of ECG done: .....	57
(q) Number of Pathological test done:.....	507



BIT Dispensary

## Facilities Available

❖ O.P.D Services	:	8 A.M to 12 .00 Noon 4.00 P.M. to 8.00 P.M.
❖ Emergency Services	:	Round the clock
❖ Total No. beds	:	12 (Male -8, Female – 4)
❖ X – ray	:	
❖ E. C.G	:	
❖ Oxygen Facilities	:	
❖ Suction Machine Facility	:	
❖ Medical Officers	:	04
❖ Pharmacists	:	04
❖ Dressers	:	01
❖ X – ray Technician	:	01
❖ Pathological Technician	:	01
❖ Staff Nurse	:	01



## Visiting Physician

- ❖ Physiotherapy
  - ❖ Dentistry
  - ❖ Pediatric Clinic
  - ❖ Homeopathic Clinic
  - ❖ Eye & Skin Clinic
  - ❖ Anti Natal Clinic
  - ❖ Ambulance Facilities
  - ❖ Pathological Lab Facility
  - ❖ Immunization
- ❖ Blood donation camp, Eye camp, Gynaecological camp are organized at frequent intervals.
  - ❖ During emergency patients are referred either to RIMS or to any private Nursing Homes depending upon the situation as per necessity and convenience of the patient / attendants of patients
  - ❖ Permanent faculties, staff members and students are covered by Group Mediclam Policy in case of hospitalization
  - ❖ Proposed - Ultrasound machine facilities & ICU facility, isolation ward & Pathological Lab
  - ❖ Community Health services are also carried out by organizing Medical camp in villages.

National Health Services like Pulse Polio immunization, TB, Leprosy, Blindness eradication programmes are organized regularly.

## Shopping Centre

A well-maintained Cooperative Store provides the daily requirements of the campus residents. Over past few years, additional Shopping Complexes have been developed to meet the day to day sundry needs.

## Hostel Facilities for Students

Since the Institute is completely residential, it has eleven boys' and two girls' hostels for their accommodation. All rooms of the hostels are having Internet facility. Boarders participate in inter-hostel tournaments, indoor and outdoor games, various competitions and adventure trips. Each hostel is having its own well maintained dining hall and a mess committee being managed by the students under the supervision of Hostel Wardens.



Students' Hostel



Hostel No	HOSTELS ROOM CAPACITY				Occupancy
	Single	Double	Triple	Total	
1*	130	4	0	134	136
2*	137	2	0	139	139
3*	148	3	0	151	149
4*	142	6	0	148	145
5*	319	8	0	327	296
6*	296	0	0	296	283
7*	307	0	0	307	295
8#	245	57	13	315	580
9#	15	325	9	349	649
10*	376	10	30	416	653
11*	376	10	30	416	450
12*	248	0	0	248	224
13*	265	0	0	265	258
14*	112	0	0	112	77
<b>Total</b>	<b>3110</b>	<b>425</b>	<b>82</b>	<b>3623</b>	<b>4334</b>

\*BOYS' HOSTEL

# GIRLS' HOSTEL

## Academic Programmes

Institute is offering a number of programmes, introduced at different point of times, as detailed below

### BIT MESRA Campus

Programme	Year of Introduction of the Programme	Duration of the Programme	Intake Capacity
<b>Bachelor of Engineering Programmes</b>			
Biotechnology	2002	4 Years	60
Chemical Engineering	2011	do	60
Chemical Engineering (Plastics & Polymer)	2011	do	60
Civil Engineering	1957	do	60
Computer Science & Engineering	1983	do	120
Electrical & Electronics Engineering	1955	do	60
Electronics & Communication Engineering	1964	do	120

Information Technology	2001	do	60
Mechanical Engineering	1955	do	90
Production Engineering	1964	do	60
<b>Other Bachelor Programmes</b>			
Pharmacy	1972	4 Years	60
Architecture	1993	5 Years	40
Hotel Management & Catering Technology	2002	4 Years	60
<b>Master of Engineering Programme</b>			
<b>Electrical Engineering</b> Specializations: 1. Control System 2. Power System 3. Power Electronics Engineering	1964 2010	2Years	42
<b>Mechanical Engineering</b> Specializations: 1. Heat Power Engineering 2. Design of Mech. Equipment	1964	2Years	24
<b>Civil Engineering</b> Specializations: 1. Soil Mechanics & Foundation Engineering 2. Structural Engineering	1964	2Years	24
<b>Electronics &amp; Communication Engineering</b> Specializations: 1. Instrumentation & Control 2. Microwave Engineering 3. Wireless Communication	1965	2Years	42
<b>Space Engineering &amp; Rocketry</b> Specializations: 1. Rocket Propulsion 2. Aerodynamics	1965	2Years	24
<b>Automated Manufacturing System</b>	1996	2Years	25
<b>Software Engineering</b>	2000	2Years	15
<b>Chemical Engineering</b>	2013	2Years	18
<b>Computer Aided Analysis &amp; Design (CAAD)</b>	1999	2 Years	18
<b>Master of Technology Programme</b>			
<b>Bio-Medical Instrumentation</b>	2013	2Years	18
<b>Biotechnology</b>	2010	2Years	18

<b>Computer Science &amp; Engineering</b>	1994	2 Years	16
<b>Energy Technology</b>	2010	2 Years	18
<b>Environmental Science &amp; Engineering</b>	2002	2 Years	18
<b>Information Security</b>	2010	2 Years	18
<b>Information Technology</b>	2013	2 Years	18
<b>Nano Science &amp; Technology</b>	2010	2 Years	18
<b>Remote Sensing</b>	1997	2 Years	18
<b>Master of Pharmacy</b> Specializations: 1. Pharm. Chemistry 2. Pharmaceutics 3. Pharmacology 4. Pharmacognosy 5. Clinical Research 6. Quality Assurance & Regulatory Affairs	1983 1983 2004 2002 2009 2010	2 years	96
<b>Master of Urban Planning</b>	2006	2 Year	12
<b>Master of Science Programmes</b>			
<b>Bio Informatics</b>	2006	2 Years	20
<b>Geo Informatics</b>	2006	2 Years	20
<b>Biotechnology</b>	2014	2 Years	30
<b>Chemistry</b>	2009	2 Years	15
<b>Mathematics</b>	2009	2 Years	15
<b>Physics</b>	2009	2 Years	15
<b>Master of Business Administration (MBA)</b> Specializations: 1. Marketing 2. Finance 3. System 4. Human Resource	1980	2 Years	120
<b>Master of Computer Applications (MCA)</b>	1984	3 Years	60
<b>Integrated M.Sc.</b> Specializations: 1. Chemistry 2. Mathematics & Computing 3. Physics 4. Food Technology	2011 2011 2011 2014	5 Years	40 40 40 40



### Courses / Programmes Offered at Other Campuses

Courses /Pro-grammes	Allhabad	De-oghar	Jaipur	Kolkata	Lalpur	NOI-DA	Patna	Muscat	RAK
BBA	*		*	*	*	*		*	*
BCA	*		*	*	*	*		*	
BBE						*			
B.Sc.(A&M)			*			*			
MBA	*		*	*	*	*		*	*
MCA	*		*	*	*	*			
MAD			*			*			
M.Tech.(CS)	*			*		*			
MBA (PT)	*					*			
M.Tech (CS) (PT)	*			*	*	*			
ME(WC)				*					
ME(WC)(PT)				*					
M.Tech.(BT)				*					
IMBA					*				
IMCA					*				
MIT					*				
MTM					*				
BE		*	*				*	*	*
EMBA								*	*
BCA(Hn.)								*	
BBA(Hn.)								*	
IEngg.									*
B.ARCH.							*		*
B.COM									*
Dip.Engg.									*
I.M.Sc.							*		

### Programmes leading to Doctor of Philosophy

The Institute offers research programmes leading to Ph. D. degree in all disciplines.

**Students Enrolment**

During the academic year 2015 – 2016, a total of 12123 students were registered in various courses. The programme – wise enrolment is given below.

Sl.No.	Course	No. of Students
1	Bachelor of Engineering	4732
2	Bachelor of Architecture	237
3	Bachelor of Pharmacy	187
4	Bachelor of Hotel Management & Cat. Tech.	98
5	Bachelor of Computer Application	1109
6	Bachelor of Business Administration	1604
7	BBE	44
8	IMBA	151
9	IMCA	48
10	I.M.Sc.(Chemistry)	54
11	I.M.Sc.(Maths)	112
12	I.M.Sc.(Physics)	78
13	B. Sc. ( A & M)	180
14	IMBE	5
15	B.Sc.(Food Technology)	21
16	Master of Business Administration	435
17	Master of Computer Applications	560
18	Master of Pharmacy	74
19	Master of Engineering	317
20	Master of Technology	232
21	M.Sc.(Applied Chemistry)	10
22	M.Sc.(Applied Physics)	12
23	M. Sc. ( Mathematics)	7
24	M. Sc.(Bio Technology)	40
25	I.E	1
26	M. Sc. ( Bio-informatics )	3
27	M. Sc. (Geo-Informatics)	17
28	M.Sc. (Animation & Design)	12
29	MUP	9
30	EMBA	40
31	B.COM	114

32	Ph.D.	383
33	Diploma	86
<b>Total</b>		<b>11,012</b>

### Admission during 2015 – 2016

During the academic year 2015-16, total number of students admitted at BIT main campus was 1288. The branch wise breackup is given below.

### Admission in UG Programmes 2015 (As on 07 September, 2015)

Sl.No.	Course		No of Seats	Net Admission	
1	BE	JOSAA	750 + NRI	598	683
		NRI		38	
		EBC/OBC		47	
		GOI (J&K)		00	
2	B.Arch	JOSAA	40 + NRI	32	37
		NRI		03	
		EBC/OBC		02	
3	B. Pharm.		60	54	
4	HMCT		40	21	
5	Integrated M.Sc. Chemistry		40	20	
6	Integrated M.Sc. Physics		40	30	
7	Integrated M.Sc. Mathematics		60	38	
8	Integrated M.Sc. Food Tech.		30	09	
	Total		1060	892	

### Admission in PG Programmes 2015 (As on 07.09.2015)

Sl.No.	Course		No of Seats	Net Admission	
1	MBA		90	63	
2	MCA		60	27	
3	ME Automated Manufacturing Systems		25	09	
4	ME Chemical Engineering		18	02	
5	ME Civil Engineering	Soil Mechanics	12	11	20
		Structural Engg.	12	09	
6	ME Electrical Electronics & Engineering	Control System	12	10	34
		Power System	12	11	
		Power Electronics	18	13	



7	ME Electronics & Communication	Microwave	12	09	34
		Inst. & Control	12	09	
		Wireless Com.	18	16	
8	ME Mechanical Engineering	Design of Mech.	12	08	18
		Heat Power Engg.	12	10	
9	ME Space Engineering & Rocketry	Aerodynamics	12	04	10
		Rocket Propulsion	12	06	
10	ME Computer Aided Analysis & Design		18	01	
11	ME Software Engineering		15	00	
12	M.Tech Nano Science & Technology		18	03	
13	M.Tech Bio- Technology		18	11	
	M.Tech Bio Medical Instrumentation		18	03	
14	M.Tech Computer Science & Engineering		16	16	
	M.Tech Information Security		18	14	
	M.Tech Information Technology		18	05	
15	M.Tech Energy Technology		18	01	
16	M.Tech Env. Science & Engg.		18	07	
17	M.Tech Remote Sensing		18	08	
18	M.Sc. Chemistry		15	07	
19	M.Sc. Mathematics		15	05	
20	M.Sc. Physics		15	09	
21	M.Sc. Biotechnology		30	15	
	M.Sc. Bio – Informatics		20	03	
22	M.Sc. Geo – Informatics		20	09	
23	M.Pharm		84	40	
24	MUP		12	03	
	Total		753	377	

## Admission in Ph.D Programmes 2015

Sl.No.	Course	No of Seats	Net Admission
1.	Ph. D 2015 (Monsoon Session)		10
2.	Ph. D 2016 (Spring Session)		09

## Convocation, Results, Degrees / Diploma Awarded

Upon the recommendation of the Board of Governors, all those who have fulfilled the requirements of their respective programmes during 2015-16, have been awarded Degree / Diploma in 26<sup>th</sup> convocation held on 10<sup>th</sup> January 2016 .

BIRLA INSTITUTE OF TECHNOLOGY, MESRA-835215, RANCHI						
1	Doctoral Degrees					
	Doctor of Philosophy	Architecture				1
	Doctor of Philosophy	Engineering				19
	Doctor of Philosophy	Management				22
	Doctor of Philosophy	Pharmacy				24
	Doctor of Philosophy	Science				29
	Doctor of Philosophy	Technology				18
					Total	113
2	Master of Philosophy	Civil				1
	Master of Philosophy	Management				5
					Total	6
3	Post-Graduate Degrees		ID**	I***	II****	Total
	Master of Business Administration		93	226	37	356
	Master of Computer Applications		88	107	12	207
	Master of Animation Design		4	8	0	12
	Master of Engineering	Automated Manufacturing System	14	1	0	15
	Master of Engineering	Computer Aided Analysis and Design	9	1	0	10
	Master of Engineering	Civil	5	1	0	6
	Master of Engineering	Electrical	25	14	0	39
	Master of Engineering	Electronics and Communication	56	13	0	69
	Master of Engineering	Mechanical	14	3	0	17
	Master of Engineering	Chemical	1	0	0	1
	Master of Engineering	Software Engineering	10	2	0	12
	Master of Engineering	Space engineering and Rocketry	8	8	2	18
	Master of Pharmacy		46	17	0	63
	Master of Science	Applied Chemistry	9	1	0	10
	Master of Science	Applied Mathematics	1	0	0	1

	Master of Science	Applied Physics	2	3	0	5
	Master of Science	Bioinformatics	8	2	0	10
	Master of Science	Information Technology	6	3	0	9
	Master of Tourism Management		1	6	0	7
	Master of Technology	Biomedical Instrumentation	6	2	0	8
	Master of Technology	Biotechnology	13	5	0	18
	Master of Technology	Computer Science	62	24	5	91
	Master of Technology	Energy Technology	14	1	0	15
	Master of Technology	Environmental Science and Engineering	13	0	0	13
	Master of Technology	Information Security	10	5	0	15
	Master of Technology	Information Technology	11	0	0	11
	Master of Technology	Nanoscience and Nanotechnology	9	0	0	9
	Master of Technology	Remote Sensing	11	4	0	15
	Master of Technology	Scientific Computing	3	0	0	3
	Master of Urban Planning		3	0	0	3
					Total	1068
4	Under- Graduate Degrees		ID**	I***	II****	Total
	Bachelor of Architecture		23	12	0	35
	Bachelor of Business Administration		107	34	5	146
	Bachelor of Business Economics		4	1	0	5
	Bachelor of Computer Applications		48	11	9	68
	Bachelor of Engineering	Biotechnology	27	14	1	42
	Bachelor of Engineering	Civil	54	34	2	90
	Bachelor of Engineering	Computer Science	184	79	9	272
	Bachelor of Engineering	Electrical and Electronics	117	83	16	216
	Bachelor of Engineering	Electronics and Communication	180	117	13	310
	Bachelor of Engineering	Information Technology	49	27	5	81
	Bachelor of Engineering	Mechanical	137	58	7	202
	Bachelor of Engineering	Chemical	19	3	0	22
	Bachelor of Engineering	Chemical and Polymer	13	7	0	20
	Bachelor of Engineering	Production	37	21	0	58
	Bachelor of Hotel Management		2	0	0	2
	Bachelor of Hotel Management and Catering Technology		6	5	2	13
	Bachelor of Pharmacy		42	10	4	56
	Bachelor of Science	Animation and Multimedia	18	11	2	31



	Bachelor of Science	Animation and Multimedia (Hons)	3	0	0	3
	Bachelor of Science	Food Processing Technology	1	0	0	1
	Bachelor of Science	Medical Laboratory Technology	16	13	0	29
	Bachelor of Science	Chemistry	3	1	0	4
	Bachelor of Science	Mathematics	1	0	0	1
					<b>Total</b>	<b>1708</b>
5	Diploma		<b>ID**</b>	<b>I***</b>	<b>II****</b>	<b>Total</b>
	Diploma	Medical Laboratory Technology	1	5	1	7
	Diploma in Technology	Automobile Engineering	14	12	1	27
	Diploma in Technology	Computer Science	16	7	0	23
	Diploma in Technology	Electrical and Electronics Engineering	22	6	0	28
	Diploma in Technology	Electronics Engineering	8	16	2	26
	Diploma in Technology	Mechanical Engineering	19	9	0	28
	Diploma in Technology	Manufacturing Engineering	9	6	1	16
			<b>Total</b>			<b>155</b>
			<b>Grand Total</b>			<b>3050</b>
*	UPTO NOVEMBER 02, 2015					
**	ID : FIRST CLASS WITH DISTINCTION					
***	I : FIRST CLASS					
****	II : SECOND CLASS					

### Summary of Faculty strength

S. No.	Category	Number
1	Professor	71
2	Associate Professor	72
3	Assistant Professor	456
4	Lecturer	14
5	Associate Lecturer	52
6	Scientific Officer	1
7	Teaching cum Research Fellow	7
8	Others	34
	<b>Total</b>	<b>707</b>

### Department of Architecture

S. No.	Name	Designation
1.	Dr. Debajyoti Biswas	Professor & Head
2.	Dr. Manjari Chakraborty	Professor
3.	Dr. Satyaki Sarkar	Associate Professor
4.	Mrs. Ritu Agarwal	Assistant Professor
5.	Mrs. Smriti Mishra	Assistant Professor
6.	Mr. Janmejoy Gupta	Assistant Professor
7.	Dr. Bimal Chandra Roy	Assistant Professor
8.	Mr. Rajan Chandra Sinha	Assistant Professor
9.	Mr. Anuj Toppo	Assistant Professor
10.	Mr.K.B.Singh	Assistant Professor
11.	Mr. Mrinal Pathak	Assistant Professor
12.	Mrs. Sangita	Associate Lecturer

### Department of Bio-Engineering

S. No.	Name	Designation
1	Dr. P. Padmanabhan	Professor & Head
2	Dr. Kunal Mukhopadhyay	Professor
3	Dr. Ramesh Chandra	Professor
4	Dr. Rakesh Kumar Sinha	Professor
5	Dr. D. M. Pandey	Associate Professor
6	Dr. V. K. Nigam	Associate Professor
7	Dr. Surendra Kumar	Assistant Professor
8	Dr. Manish Kumar	Assistant Professor
9	Dr. Raju Poddar	Assistant Professor
10	Dr. Shashwati Ghosh Sachan	Assistant Professor
11	Dr. Ashish Sachan	Assistant Professor
12	Dr. Sheela Chandra	Assistant Professor
13	Dr. Santosh Kumar Jha	Assistant Professor
14	Dr. Koel Mukherjee	Assistant Professor
15	Dr. Shubha Rani Sharma	Assistant Professor
16	Dr. Hare Ram Singh	Assistant Professor
17	Dr. Dinesh Prasad	Assistant Professor

18	Dr. Yogender Aggarwal	Assistant Professor
19	Dr. Anjana Dwivedi	Assistant Professor
20	Mr. Supriyo Kumar Das	Associate Lecturer
21	Dr. Sneha Singh	Assistant Professor

### Department of Chemical Engineering & Technology

S. No.	Name	Designation
1	Dr. (Mrs.) Mandira Mukherjee	Professor
2	Dr. Gautam Sarkhel	Professor & Head
3	Dr. (Mrs.) Sudipta Goswami (Sharma)	Professor
4	Dr. Akhil Kumar Sen	Associate Professor
5	Dr. Arup Chaudhury	Assistant Professor
6	Dr. Sumit Kumar Jana	Assistant Professor
7	Dr. Sudeepan J	Assistant Professor
8	Dr. Pulak Datta	Assistant Professor
9	Mrs. Debasree Ghosh	Assistant Professor
10	Dr. G.T. Mohanraj	Assistant Professor
11	Dr. Amar Nath Mishra	Assistant Professor
12	Dr. Raghu Raja Pandiyan K.	Assistant Professor
13	Dr. Arnab Karmakar	Assistant Professor
14	Dr. Dharmendra Pandey	Assistant Professor
15	Dr. Bidhan Chandra Ruidas	Assistant Professor
16	Mr. Anupam Roy	Assistant Professor

### Department of Chemistry

S. No.	Name	Designation
1.	Dr. Usha Jha	Professor
2.	Dr. J.P. Pandey	Associate Professor & Head
3.	Dr. Bimal Verma	Associate Professor
4.	Dr. Ashoke Sharon	Associate Professor
5.	Dr. Sumit Mishra	Assistant Professor
6.	Dr. Deep Shikha	Assistant Professor
7.	Dr. Chandralata Bal	Assistant Professor
8.	Dr. Subhendu Naskar	Assistant Professor
9.	Dr. Rafique Ul Islam	Assistant Professor
10.	Dr. Rahul	Assistant Professor
11.	Dr. Gautam Sen	Assistant Professor



12.	Dr. Barnali Dasgupta Ghosh	Assistant Professor
13.	Dr. Poulomi Roy	Assistant Professor
14.	Dr. Susanta Sinha Mahapatra	Assistant Professor
15.	Dr. Pradip Kar	Assistant Professor
16.	Dr. G. K. Agarwal	Assistant Professor

### Department of Civil & Environmental Engineering

S. No.	Name	Designation
1	Dr. Gopal Pathak	Professor
2	Dr. Balram Singh	Professor
3	Dr. Anand Kumar Sinha	Professor
4	Dr. Sudeshna Chakravarty	Professor
5	Dr. Bindhu Lal	Professor
6	Dr. Arun Kumar	Associate Professor
7	Dr. Indrajit Roy	Associate Professor
8	Dr. Birendra Kumar Singh	Associate Professor
9	Dr. Sidharth Sengupta	Associate Professor
10	Dr. Jitu Kujur	Assistant Professor
11.	Mr. Koushik Paul	Assistant Professor
12	Mr. Mani Mohan	Assistant Professor
13	Dr. Kirti Avishek	Assistant Professor
14	Dr. R. Naresh Kumar	Assistant Professor
15	Dr. Sukalyan Chakraborty	Assistant Professor
16	Dr. Tanusree Bhattacharya	Assistant Professor
17	Dr. Jawed Iqbal	Associate Lecturer
18	Mrs. Neeta Kumari	Associate Lecturer

### Department of Computer Science Engineering

S. No.	Name	Designation
1.	Dr. Sandip Dutta	Associate Professor & Head
2.	Dr. G. Sahoo	Professor
3.	Dr. D. K. Mallick	Associate Professor
4.	Dr. (Mrs) Aruna Jain	Associate Professor
5.	Dr. Bhaskar Karn	Associate Professor
6.	Dr. V. K. Jha	Associate Professor
7.	Dr. K. Sridhar Patnaik	Associate Professor
8.	Dr. Kumar Rajnish	Assistant Professor
9.	Dr. Abhijit Mustafi	Assistant Professor

10.	Dr.B.K.Sarkar	Assistant Professor
11.	Dr. Sabina Priyadarshini	Assistant Professor
12.	Dr. I.Mukherjee	Assistant Professor
13.	Dr.Sanchita Paul	Assistant Professor
14.	Dr. Sudip Kumar Sahana	Assistant Professor
15.	Dr.Sujan Kumar Saha	Assistant Professor
16.	Dr.ShashankPushkar	Assistant Professor
17.	Dr.AnupKeshri	Assistant Professor
18.	Mr.S.K.Chatterjee	Assistant Professor
19.	Mr. Kishore Kumar Senapati	Assistant Professor
20.	Mr.PPaul	Assistant Professor
21.	Mrs.ShrutiGarg	Assistant Professor
22.	Mrs.ItuSnigdh	Assistant Professor
23.	Mrs.Amritanjali	Assistant Professor
24.	Mrs.Samama Anwar	Assistant Professor
25.	Mr.RiteshJha	Assistant Professor
26.	Mrs.DebjaniMustafi	Asso.Lecturer
27.	Mr.S.Mohapatra	Assistant Professor
28.	Mr.KalyanSamanta	Assistant Professor
29.	Mr.B.K.Chanda	Assistant Professor
33.	Mr.Niraj Kumar Singh	Assistant Professor
34.	Mr. Sumit Srivastava	Assistant Professor
34.	Mr.AmitParkash	Teaching cum Institute Research Fellow

### Department of Electronics & Communication Engineering

S. No.	Name	Designation
1	Prof. R. Sukesh Kumar	Professor & Dean Faculty Affairs
2	Prof. S. K Ghorai	Professor
3	Prof. Nisha Gupta	Professor
4	Prof. Vibha Rani Gupta	Professor & Head
5	Prof. S. Pal	Professor
6	Prof. S.S. Solanki	Professor
7	Prof. Mahesh Chandra	Professor
8	Mr. K. K. Masand	Associate Professor

9	Mr. B. B. Pal	Associate Professor
10	Dr. Sanjay Kumar	Associate Professor
11	Dr. N. Chattoraj	Associate Professor
12	Dr. R.K.Lal	Associate Professor
13	Mr. Vishal H. Shah	Assistant Professor
14	Mr. Sukanta K. Dash	Assistant Professor
15	Dr. K.Mahto	Assistant Professor
16	Dr. Sanjeet Kumar	Assistant Professor
17	Mr. Janardan Sahay	Assistant Professor
18	Dr. S.S Tripathy	Assistant Professor
19	Mrs. Annapurna S. M.	Assistant Professor
20	Dr. Dileep Kumar Upadhyay	Assistant Professor
21	Mr. G. K. Mishra	Assistant Professor
22	Mr. Priyank Saxena	Assistant Professor
23	Mr. Somnath Sengupta	Assistant Professor
24	Dr. Manoj Kumar Mukul	Assistant Professor
25	Dr. A. Islam	Assistant Professor
26	Ms. Swati Prasad	Assistant Professor
27	Dr. Vijay Nath	Assistant Professor
28	Dr. A. K. Tiwary	Assistant Professor
29	Dr. S S Sahu	Assistant professor
30	Mrs. P P Dash	Assistant professor
31	Dr. Sudip Kundu	Assistant professor
32	Mr. R. K. Sinha	Asso. Lecturer
33	Mr. Santashraya Prasad	Asso. Lecturer
34	Dr. S. Sidhishwari	Asso. Lecturer

### Department of Electrical & Electronics Engineering

S. No.	Name	Designation
1	Prof. Rakesh Chandra Jha	Professor & Head
2	Prof. Tirthadip Ghose	Professor & Dean (Sponsored Research)
3	Prof. Dusmanta Kumar Mohanta	Professor (on lien)
4	Dr. Nutan Lata Nath	Associate Professor
5	Dr. Parshuram Thakura	Associate Professor
6	Dr. Sarbani Ray Chakraborty	Associate Professor
7	Dr. Vijaya Laxmi	Associate Professor



8	Mr. Prem Prakash	Assistant Professor
9	Mr. Abinash Prasad	Assistant Professor
10	Dr. Sudhanshu Kumar Mishra	Assistant Professor
11	Dr. Debomita Ghosh	Assistant Professor
12	Mr. Gauri Shanker Gupta	Assistant Professor
13	Ms. Aparna Gautam	Assistant Professor
14	Mr. Brij Mohan Prasad	Assistant Professor
15	Mrs. Sushma Suryaprakash Kamlu	Assistant Professor
16	Dr. V. K. Gupta	Assistant Professor
17	Mr. S. K. Swain	Assistant Professor
18	Dr. Deepak Kumar	Assistant Professor
19	Mr. Aftab Alam	Assistant Professor
20	Mr. Nirbhar Neogi	Visiting Faculty

### Department of Hotel Management and Catering Technology

S. No.	Name	Designation
1.	Dr. Abhinav Kr. Shandilya	Assistant Professor & HOD (I/c)
2.	Dr. Praveen Srivastava	Assistant Professor
3.	Dr. Rajeshwari Chatterjee	Assistant Professor
4.	Mr. Abhisek Jana	Assistant Professor
5.	Mr. Sanjeev Srivastava	Assistant Professor
6.	Mr. Nishikant Kumar	Assistant Professor
7.	Dr. Amit Saran	Assistant Professor
8.	Mr. Gautam Shandilya	Assistant Professor
9.	Mrs. Pratima Ekka	Assistant Professor
10.	Mr. Pranjal Kumar	Assistant Professor

### Department of Management

S. No.	Name	Designation
1	Dr. Utpal Baul	Professor & Head
2	Dr. S.K. Bose	Professor
3	Dr. Mrs. Manju Bhagat	Professor
4	Dr. Mrs. Shradha Shivani	Professor
5	Dr. R. N. Bhagat	Professor
6	Prof. S.C. Mishra	Associate Professor

7	Dr. Supriyo Roy	Associate Professor
8	Dr. P.C. Jha	Assistant Professor
9	Dr. D.K. Chand	Assistant Professor
10	Mr. S. K. Singh	Assistant Professor
11	Dr. A. Ghosh	Assistant Professor
12	Dr. R.K. Pandey	Assistant Professor
13	Dr. J.B. David	Assistant Professor
14	Mr. A. Kumar	Assistant Professor
15	Mrs. S. Srivastava	Assistant Professor
16	Dr. A. Verma	Assistant Professor
17	Dr R. Jha	Assistant Professor
18	Mr. A.Pd. Sinha	Assistant Professor
18	Mrs. S.P. Dash	Associate Lecturer

#### Department of Mathematics

S. No.	Name	Designation
1.	Dr. S. K. Jain	Professor
2.	Dr. S. K. Chakraborty	Professor
3.	Dr. B. K. Mishra	Professor
4.	Dr. S. Padhi	Professor
5.	Dr. S. Chakraborty	Professor
6.	Dr. (Ms.) A. P. Ghorai	Associate Professor
7.	Dr. (Ms.) P. Kaur	Assistant Professor
8.	Dr. Abhinav Tandon	Assistant Professor
9.	Dr. Satyabrata Adhikari	Assistant Professor
10.	Dr. Randhir Singh	Assistant Professor
11.	Dr. (Ms.) S.D. Jabeen	Assistant Professor

#### Department of Mechanical Engineering

S. No.	Name	Designation
1	Dr. Arbind Kumar	Professor & Head
2	Dr. Arbind Kumar	Professor
3	Prof. A. K. Ray	Professor
4	Dr. R.P.Sharma	Professor
5	Dr. Kausik Kumar	Associate Professor
6	Dr. Rejeev Kumar	Associate Professor
7	Dr. D. B. Lata	Associate Professor

8	Dr. D. P. Mishra	Associate Professor
9	Dr. Apurba Kumar Roy	Associate Professor
10	Prof. S. K. Sinha	Associate Professor
11	Dr. S. Bhaduri	Assistant Professor
12	Prof. S. K. Dhiman	Assistant Professor
13	Dr. Nirmal Kumar	Assistant Professor
14	Dr. Partosh Mahata	Assistant Professor
15	Dr. Dhaneswar Mahato	Assistant Professor
16	Dr. Ashok Kumar Mandal	Assistant Professor
17	Dr. Praveen Mishra	Assistant Professor
18	Prof. Sujeet Kumar Mishra	Assistant Professor
19	Dr. Abhijeet Nag	Assistant Professor
20	Dr. Richa Pandey	Assistant Professor
21	Mr. O. P. Pandey	Assistant Professor
22	Mr. B. K. Pravakar	Assistant Professor
23	Dr. Om Prakash	Assistant Professor
24	Mr. Arun Dayal Udai	Assistant Professor
25	Dr. L. S. Brar	Teach. cum. Res. Fellow
26	Sri A. Bhowmik	Scientific Officer

### Department of Pharmaceutical Sciences & Technology

S. No.	Name	Designation
1	Dr. B.N. Sinha	Professor & Head
2	Dr. P.R.P. Verma	Professor
3	Dr. S. Samanta	Professor
4	Dr. S. Jha	Professor
5	Dr. R. N. Gupta	Professor
6	Dr. (Ms.) S. Ganguly	Professor
7	Dr. (Mrs.) P. Mitra Mazumder	Professor
8	Dr. Jayaram Kumar	Professor
9	Dr.(Mrs.)S. M. Verma	Professor
10	Mrs. S. G. Panpalia	Associate Professor
11	Mr. Ashok Pattanaik	Associate Professor
12	Dr. J. Venkatesan	Associate Professor
13	Dr. Manik	Assistant Professor
14	Dr. S.P. Pattanayak	Assistant Professor

15	Dr. A. Dev	Assistant Professor
16	Mr. B. Sarkar	Assistant Professor
17	Dr. T. Bal	Assistant Professor
18	Dr. A. Pandey	Assistant Professor
19	Dr. Neelima Sharma	Assistant Professor
20	Dr. Sandeep Kumar Singh	Assistant Professor
21	Dr. Animesh Ghosh	Assistant Professor
22	Dr. Uma Ranjan Lal	Assistant Professor
23	Dr. Sugato Banerjee	Assistant Professor
24	Dr. Kishanta Pradhan	Assistant Professor
25	Mr. M. P. Chopra	Assistant Professor

### Physical Education and Sports

S. No.	Name	Designation
1	Dr. Mahendra Kumar	Assistant Professor

### Department of Physics

S. No.	Name	Designation
1	Dr S Konar	Professor & Head
2	Dr (Mrs) S Keshri	Professor
3	Dr. S K Sinha	Associate Professor
4	Dr R K Paul	Associate Professor
5	Dr. S K Rout	Associate Professor
6	Dr I Banerjee	Associate Professor
7	Dr K Bose	Assistant Professor
8	Dr. M. Mishra	Assistant Professor
9	Dr Sanat K Mukherjee	Assistant Professor
10	Dr (Mrs) Ela Sina	Assistant Professor
11	Dr R Sharma	Assistant Professor
12	Dr. Nishi Srivastav	Assistant Professor

### Department of Production Engineering

S. No.	Name	Designation
1	Dr. Vinay Sharma	Professor & Head
2	Dr. B.K. Singh	Professor & Dean (Academic Program)
3	Mr. A. K. Thakur	Associate Professor
4	Dr. Sanjay Kumar Jha	Associate Professor
5	Dr. Ritesh Kumar Singh	Associate Professor



6	Dr. L.N. Pattanaik	Associate Professor
7	Dr. Vijay Pandey	Associate Professor
8	Dr. S. C. Srivastava	Associate Professor
9	Dr. Joyjeet Ghose	Associate Professor
10	Dr. Rajeev Agrawal	Assistant Professor
11	Mr. Binay Kumar	Assistant Professor
12	Dr. Somak Datta	Assistant Professor

### Department of Remote Sensing

S. No.	Name	Designation
1.	Dr. Akhouri Pramod Krishna	Professor and Head
2.	Dr. Nilanchal Patel	Professor
3.	Dr. C. Jeganathan	Professor
4.	Dr. V.S. Rathore	Assistant Professor
5.	Mrs. R.N.K. Sharma	Assistant Professor
6.	Mr. S. Chelliah	Assistant Professor
7.	Dr. Mili Ghosh	Assistant Professor

### Department of Space Engineering & Rocketry

S. No.	Name	Designation
1.	Dr. Mohan Varma	Professor & Head
2.	Dr. Sudip Das	Associate Professor
3.	Mr. Priyank Kumar	Assistant Professor
4.	Dr. Partha Mondal	Assistant Professor
5.	Dr. Rajiv Kumar	Assistant Professor
6.	Dr. Shelly Biswas	Assistant Professor

### OFF CAMPUSES

#### Allahabad

S. No.	Name	Designation
1.	Dr. P.K. Srivastava	Professor & Director
2.	Dr. S. Kanungo	Assistant Professor
3.	Dr. R.S. Pandey	Assistant Professor
4.	Mrs. A. Kushwaha	Assistant Professor
5.	Shri S.C. Pandey	Assistant Professor
6.	Dr. K.N. Mishra	Assistant Professor
7.	Shri Shambhu Sharan Kumar	Assistant Professor
8.	Dr. Adhip Kumar Mahanty	Assistant Professor

9	Shri A.K. Keshri	Assistant Professor
10	Dr. Sunil Kumar Pandey	Assistant Professor
11	Dr. Prakash Chandra Srivastava	Assistant Professor
12	Shi Ratnesh Kumar Mishra	Assistant Professor
13	Dr. Ashish Mohan Dubey	Assistant Professor
14	Dr. Nidhi Tiwari	Associate Lecturer
15	Shri Hareshwar Prasad	Associate Lecturer
16	Mrs. Aparna Shukla	Associate Lecturer
17	Shri Naveen Trivedi	Associate Lecturer
18	Mrs. Alka Srivastava	Music Teacher

## Deoghar

S. No.	Name	Designation
1	Dr. Mainak Mukhopadhyay	Assistant Professor & I/C, ECE
2	Mr. Babu Lal Shahu	Assistant Professor
3	Mrs. Sutapa Mondal	Assistant Professor
4	Mr. Sridhar Chintala	Assistant Professor
5	Mr. Mahendra Kumar Das	Associate Lecturer
6	Mr. Chinmay Chakraborty	Assistant Professor
7	Mr. Akash Kumar Gupta	Assistant Professor
8	Mr. Piyush Kumar Ojha	Assistant Professor & I/C, EEE
9	Mr. Pankaj Mishra	Assistant Professor
10	Mr. Prabhat Kumar Ranjan	Assistant Professor
11	Mr. Srihari Gude	Assistant Professor
12	Mr. Deep Shekhar Acharya	Assistant Professor
13	Mr. Nilesh Kumar Rajalwal	Assistant Professor
14	Mr. Surendra Kumar Mahto	Associate Lecturer
15	Dr. Soumya Banerjee	Associate Professor and I/C, CSE
16	Mr. Balaram Mondal	Assistant Professor
17	Mr. Raja Ram Dutta	Assistant Professor
18	Mr. Rayees Ahmad	Assistant Professor
19	Mr. S.K. Borat	Associate Lecturer
20	Mr. Nishi Kant Kumar	Associate Lecturer
21	Mr. Saswata Mukherjee	Associate Lecturer
22	Mrs. Neena Jha	Associate Lecturer
23	Dr. A. K. Chakraborty	Associate Professor and I/C, Mech. Engg.
24	Mr. R. K. Upadhyay	Assistant Professor
25	Mr. Ashutosh Kumar	Assistant Professor

26	Mr. S. Rao Gopiseti	Assistant Professor
27	Mr. Anil Kumar Sharma	Assistant Professor & I/C, Prod. Engg.
28	Mr. Prafulla Kumar Manoharan	Assistant Professor
29	Dr. Bappa Acherjee	Assistant Professor
30	Dr. Abhishek Kumar Singh	Assistant Professor
31	Dr. Randhir Kumar	Assistant Professor
32	Mr. Sanjiv Kumar Tiwari	Assistant Professor
33	Dr. Ram Krishna Sarkar	Associate Professor & I/C, Physics
34	Dr. Soumen Karmakar	Assistant Professor
35	Dr. M. K. Dutta	Assistant Professor
36	Dr. S. S. Majhi	Assistant Professor & I/C, Chemistry
37	Dr. A. C. Singh	Assistant Professor
38	Dr. Ranjan Chattaraj	Assistant Professor and I/C
39	Dr. Amit Kumar	Assistant Professor
40	Dr. Bishnu Kumar	Assistant Professor
41	Dr. S. G. Hazra	Assistant Professor, I/C, Management Dept.
42	Mrs. M. Jha	Associate Lecturer
43	Mrs. A. Banerjee	Associate Lecturer

## Jaipur

S. No.	Name	Designation
1	Dr. Abhinav Dinesh	Director
<b>Computer Science Department</b>		
2	Dr.(Mrs.) Madhavi Sinha	Associate professor
3	Dr.ShripalVijayvargiya	Associate professor
4	Mr. P.K. Sharma	Assistant Professor
5	Dr.Bimalendu Pathak	Assistant Professor
6	Dr.Vishwambhar Pathak	Assistant Professor
7	Dr.Piyush Gupta	Assistant Professor
8	Mr.Madan Mohan Agarwal	Assistant Professor
9	Mr.Vivek Gaur	Assistant Professor
10	Mr.Subhash Chand Gupta	Assistant Professor
11	Dr. (Mrs.) ArchanaBhatnagar	Assistant Professor
12	Mrs.Seema Gaur	Assistant Professor
13	Mrs.Anju Sharma	Assistant Professor
14	Mr. Santosh Kumar Sharma	Assistant Professor

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15	Mr.Santhosh Kumar Agarwal	Associate Lecturer
<b>Electronics &amp; Communication Engineering Department</b>		
16	Mr. Deepak Chaturvedi	Assistant Professor
17	Mrs.Jyoti Sharma	Assistant Professor
18	Mr. Gaurav Jain	Assistant Professor
19	Mr.SnehanshuShekhar	Assistant Professor
20	Mr.Ankur Agarwal	Assistant Professor
21	Mr. M.K. Vishwakarma	Assistant Professor
22	Mr.Puneet Sharma	Associate Lecturer
23	Mr.Jitendra Kumar Saini	Associate Lecturer
24	Mrs.Kanika Joshi	Teaching cum Research Associate
<b>Electrical &amp; Electronics Engineering Department</b>		
25	Mr.Prashant Singh Rathore	Assistant Professor
26	Mrs.Aparajita Pandey	Assistant Professor
27	Mr.Saurabh Kumar	Assistant Professor
<b>Management Department</b>		
28	Dr.Roopali Sharma	Associate Professor
29	Dr.Ritu Arora	Assistant Professor
30	Mrs.Pankaj Sharma	Assistant Professor
31	Mr.Priyanshu Sharma	Associate Lecturer
32	Mrs.PurviMathur	Associate Lecturer
<b>Animation &amp; Multimedia Department</b>		
33	Dr.Vibhuti Pandya	Assistant Professor
34	Mr.Gautam Kumar Goswami	Assistant Professor
35	Mr. Manish Kumar	Associate Lecturer
36	Dr. (Mrs.) Rishika Sharma	Associate Lecturer
<b>Chemistry Department</b>		
37	Dr. S.K. Sharma	Professor
38	Dr. (Mrs) Ranjana Agarwal	Assistant Professor
<b>Physics Department</b>		
39	Dr.Dheeraj Bhardwaj	Assistant Professor
40	Dr.Anand Kumar Srivastava	Assistant Professor
41	Mr.Ravindra Kumar	Associate Lecturer
<b>Mathematics Department</b>		
42	Dr.Gurminder Singh Malhotra	Associate Professor



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43	Dr. Indra Kumar Dadheech	Assistant Professor
44	Dr. (Mrs.) Bhawna Agarwal	Assistant Professor
<b>Mechanical Department</b>		
45	Mr. Vikas Sangwan	Assistant Professor
<b>Humanities Department</b>		
46	Mrs. Ritu Pareek	Associate Lecturer (English Language)
<b>Bio- Technology Department</b>		
47	Dr. M. Krishna Mohan	Professor (Presently Deputed to BISR, Jaipur)
48	Mr. P.S. Solanki	Assistant Professor (Presently Deputed to BISR, Jaipur)
49	Dr. R.K. Gothwal	Assistant Professor (Presently Deputed to BISR, Jaipur)
<b>Climatology / Environmental Science Dept.</b>		
50	Dr. Sunita Verma Payra	Assistant Professor (Presently deputed at Jaipur Centre)
51	Dr. Swagat Payra	Assistant Professor (Presently deputed at Jaipur Centre)
52	Mrs. Nidhi Singh	Associate Lecturer

### Kolkata

S. No.	Name	Designation
1	Dr. R. T. Goswami	In-Charge
2	Prof. Subho Chaudhuri	Associate Professor
3	Dr. Srabani Mukhopadhyaya	Associate Professor
4	Dr. Ajanta Das	Associate Professor
5	Dr. Bharat Gupta	Associate Professor
6	Dr. Sraboni Dutta	Associate Professor
7	Dr. Sanchita Ghosh	Assistant Professor
8	Dr. Ambar Dutta	Assistant Professor
9	Dr. Ruchira Mukherjee	Assistant Professor
10	Dr. Sandip Kumar Sengupta	Assistant Professor
11	Dr. Tanmoy Banerjee	Assistant Professor
12	Prof. Rohit Kamal Chatterjee	Assistant Professor
13	Dr. Soumendra Bhattacharjee	Assistant Professor

14	Prof. Siba Mitra	Assistant Professor
15	Prof. Abhijit Kundu	Adjunct Professor
16	Prof. Ranadeep Mukherjee	Associate Lecturer
17	Prof. Soumya Ray	Assistant Professor
18	Prof. Khalid Ashraf	Associate Lecturer
19	Prof. Sohini Ghosh	Assistant Professor

**Lalpur****Department: Management**

S. No.	Name of the Faculty	Designation
1	Dr.A.N.Jha	Professor
2	Dr. Pranab Kumar	Associate Professor
3	Dr. Arun Kumar Singh	Assistant Professor
4	Dr. Abhay Ranjan Srivastava	Assistant Professor
5	Ms. Anupama Sahai	Assistant Professor
6	Dr. Somnath Mukherjee	Assistant Professor
7	Dr. Ashutosh Mishra	Assistant Professor
8	Dr. Syed Anis Haider	Assistant Professor
9	Dr. Sandeep Nath Sahdeo	Assistant Professor
10	Mr. Amitabh Chandan	Assistant Professor
11	Dr.(Mrs.) Mili Dutta	Assistant Professor
12	Dr. Pradeep Munda	Assistant Professor
13	Mr. Soumitro Chakravorty	Assistant Professor
14	Dr. Avinash Sinha	Assistant Professor
15	Dr. Jaleswar Bhagat	Assistant Professor
16	Mr. Satrajeet Choudhary	Assistant Professor
17	Mrs. Swati Priyadarshini	Associate Lecturer

**Department: Computer Science & Engineering**

18	Dr.(Mrs.) Vandana Bhattacharjee	Professor
19	Dr.(Mrs.) Amrita Priyam	Associate Professor
20	Mrs. Onima Tigga	Assistant Professor
21	Mr. N. P. Tiwary	Assistant Professor

22	Mr. Amar Kumar	Assistant Professor
23	Dr. N. K. Singh	Assistant Professor
24	Dr. Sanjay Kumar	Assistant Professor
25	Dr. Parth Sarathi Bishnu	Assistant Professor
26	Mr. Binod Kumar Sharma	Assistant Professor
27	Ms. Jaya Pal	Assistant Professor
28	Dr. Kuntal Mukherjee	Assistant Professor
29	Mr. D. K. Mishra	Associate Lecturer
30	Dr. Umesh Prasad	Associate Lecturer

## NOIDA

S. No.	Name	Designation
<b>Department of Management</b>		
1	Dr. Munish Makkad	Professor
2	Dr. Asha Prasad	Professor
3	Dr. Vandna Sharma	Associate Professor
4	Mrs. Rachana Pratik	Assistant Professor
5	Dr. Meenakshi Sharma	Associate Professor
6	Ms. Harpreet Charanjit	Assistant Professor
7	Mrs. Ritu Jain	Assistant Professor
8	Mrs. Preety Bajaj	Assistant Professor
9	Dr. Arun Mittal	Assistant Professor
10	Dr. K.B. Singh	Assistant Professor
11	Dr. Monika Bisht	Assistant Professor
12	Dr. Abhishek Singh	Assistant Professor
13	Dr. Suparna Dutta	Associate Professor
<b>Department of Computer Science</b>		
14	Dr. Peeyush Tewari	Associate Professor
15	Mrs. S. Mallika	Assistant Professor
16	Dr. S.P. Singh	Assistant Professor
17	Dr. Ila Sahay	Associate Professor
18	Mr. Anil Kumar	Assistant Professor
19	Mr. Pankaj Gupta	Assistant Professor
20	Mrs. Mrinalini Mehta	Assistant Professor

21	Dr. Vibha Kaw	Assistant Professor
22	Mrs. Soma Sircar	Assistant Professor
23	Dr. Shruti Kohli	Assistant Professor
24	Mr. Aruna Malik	Assistant Professor
25	Mrs. Sheetal Dhir	Assistant Professor
26	Mrs. Pramila Joshi	Assistant Professor
27	Mrs. Muntaha Ahmad	Assistant Professor
28	Mrs. Smitha Jha	Assistant Professor
29	Mr. Anurag Joshi	Assistant Professor
30	Mrs. Priti Sharma	Assistant Professor
31	Ms. Charu Wahi	Assistant Professor
32	Mrs. Seema Sharma	Assistant Professor
33	Mrs. Lipika Jha	Associate Lecturer
34	Mr. Rakesh Singh	Associate Lecturer
35	Dr. B. B. Sagar	Assistant Professor
36	Mr. Umair Ujala	Assistant Professor
<b>Department of Animation &amp; Multimedia</b>		
37	Mr. Kiran A. Shetti	Sr. Animation Trainer
38	Mr. Lalit Mohan Bhatt	Editor
39	Mr. Rahul Dora	Tech. Superintendent
40	Mr. Partha Acharya	Faculty
41	Mr. Niket Mehta	Assistant Professor
42	Mr. Das Mohan Singh	Designer
43	Mr. Aroop Kerketta	Faculty
44	Mr. Obed H. Longvah	Cinematographer
45	Mr. Manoj Kumar	Animator

## Patna

S. No.	Name	Designation	Department
1	Dr. S.P. Lal	Director	Production
2	Dr. Kaushlendra Sharma	Assistant Professor & In-Charge	Chemistry
3	Ms. Anubha Singh	Assistant Professor	Chemistry
4	Dr. Rajnish Kumar	Assistant Professor & In- Charge	Mathematics
5	Dr. Premlata Singh	Assistant Professor	Mathematics



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S. No.	Name	Designation	Department
6	Dr. A.K. Tiwary	Assistant Professor	Mathematics
7	Dr. S.K. Sinha	Associate Professor & In- Charge	Physics
8	Dr. Binay Bhushan	Assistant Professor	Physics
9	Dr. Kamala Pati Tiwary	Assistant Professor	Physics
10	Dr. Paramjit Kour	Assistant Professor	Physics
11	Ms. Anamika Nandan	Assistant Professor & In- Charge	B. Arch
12	Mr. Danish	Assistant Professor	B. Arch
13	Mr. Nitish Chandra	Assistant Professor	B. Arch
14	Prof. A.S.Vidarthi (On Lien)	Professor & Head	Bio-Tech.
15	Prof. R R Sahay	Professor & In- Charge	Civil
16	Dr. Subha Sinha	Assistant Professor	Civil
17	Dr. Syed Tabin Rushad	Assistant Professor	Civil
18	Mr. Anish	Assistant Professor	Civil
19	Ms. Bandana Mahto	Assistant Professor	Civil
20	Mr. Bishwas Narayan Singh	Associate Lecturer	Civil
21	Dr. Kanhaya Lal	Assistant Professor & In- Charge	CSE/IT
22	Dr. Upendra Kumar	Assistant Professor	CSE/IT
23	Ms. Sheel Shalini	Assistant Professor	CSE/IT
24	Mr. Shridhar Kumar	Assistant Professor & In- Charge; BCA	CSE/IT
25	Mr. Samant Saurav	Assistant Professor	CSE/IT
26	Mr. Ayan Kumar Das	Assistant Professor	CSE/IT
27	Mr. Adnan Mahmood	Associate Lecturer	CSE/IT
28	Mr. Madhup Kumar	Associate Lecturer	CSE/IT
29	Mr. Raghav Mallik	Associate Lecturer	CSE/IT
30	Ms. Smita Srivastava	Associate Lecturer	CSE/IT
31	Ms. Smita Pallavi	Jr. Teaching Cum-Research Fellow	CSE/IT
32	Mr. Shahiruddin	Assistant Professor & In- Charge	ECE
33	Dr. Megha Dadel	Assistant Professor	ECE
34	Mr. Atul Kumar Pandey	Assistant Professor	ECE
35	Mr. Priyadarshi Suraj	Assistant Professor	ECE
36	Ms. Poonam Priyadarshini	Assistant Professor	ECE
37	Mr. Prashant Kumar	Assistant Professor	ECE
38	Mr. Ritesh Kumar Badhai	Assistant Professor	ECE

S. No.	Name	Designation	Department
39	Ms. Shipra	Assistant Professor	ECE
40	Mr. Shiv Kumar Choubey	Teaching Cum Research Fellow	ECE
41	Ms. Sweta Kumari	Teaching Cum-Research Fellow	ECE
42	Mr. Sanjay Kumar I	Assistant Professor & In- Charge	EEE
43	Mr. Kumar Nikhil	Assistant Professor	EEE
44	Mr. Mayank Singh	Assistant Professor	EEE
45	Ms. Shradha Kishore	Assistant Professor	EEE
46	Md. Asif Hassan	Assistant Professor	EEE
47	Mr. Sanjay Kumar - II	Assistant Professor	EEE
48	Mr. Raj Kumar Mishra	Assistant Professor	EEE
49	Mr. Girish Pathak	Assistant Professor & In- Charge	Mechanical
50	Dr. Anand Kumar	Assistant Professor	Mechanical
51	Md. Ashique Hassan	Assistant Professor	Mechanical
52	Mr. Chandan Kumar	Assistant Professor	Mechanical
53	Mr. Ravi Shankar Anand	Assistant Professor	Mechanical
54	Mr. Soumen Mandal	Assistant Professor	Mechanical
55	Mr. Sudipta Kishore Pradhan	Assistant Professor	Mechanical
56	Mr. Amit Kumar	Assistant Professor	Mechanical
57	Mr. Ajay Kumar Kapardar	Teaching Cum Research Fellow	Mechanical
58	Dr. Vijay Agrawal	Associate Professor & In- Charge	Management
59	Dr. Iftekhar Ahmad	Assistant Professor	Management
60	Dr. Amit Raghuvanshi	Assistant Professor	Management
61	Dr. Sweta	Associate Lecturer	Management
62	Mr. Kapildeo Prasad	Assistant Professor & In- Charge	Production
63	Mr. Prashant Prakash	Assistant Professor	Production
64	Mr. Thakur Abhinav Amar	Assistant Professor	Production
65	Mr. Manish Oraon	Assistant Professor	Production
66	Mr. Vijay Kr. Mandal	Associate Lecturer	Production
67	Mr. Suresh Singh Yadav	Associate Lecturer	PT & Game
68	Mr. K.C. Bajpai	Visiting Professor	Creative Arts

OFF-SHORE CAMPUSES

Muscat

S. No.	Name	Designation
1	Dr. Sadaf Zahra	Assistant Professor
2	Ms. Akhila Rajan	Assistant Professor
3	Ms. Atiya Tabassum	Assistant Professor
4	Dr. David Mandepudi	Assistant Professor
5	Ms. Sharmila Queenthly	Assistant Professor
6	Ms. P. Vijaya	Assistant Professor
7	Ms. Akрати Kaul	Assistant Professor
8	Ms. Alycia Edwin	Assistant Professor
9	Dr. Anu Manchanda	Assistant Professor
10	Mr. Arbind Kumar Choudhary	Assistant Professor
11	Ms. Cimi Thomas	Assistant Professor
12	Ms. Kothar Salim Al-Rawahi	Information System Teacher
13	Ms. Nabila Saif Al-Ghenami	Lecturer
14	Dr. Prabal Datta	Assistant Professor
15	Mr. Sanjay Kumar	Assistant Professor
16	Dr. Sanjay Kumar Mohanty	Assistant Professor
17	Mr. Satish Chander	Assistant Professor
18	Mr. Shahid Ali	Assistant Professor
19	Ms. S. B. Sinymol	Assistant Professor
20	Dr. Sounak Paul	Assistant Professor
21	Ms. Vallikannu R. M.	Assistant Professor
22	Mr. Akhilesh Roy	Assistant Professor
23	Ms. Anasuya Patil	Assistant Professor
24	Mr. Kuldeep Gupta	Assistant Professor
25	Dr. Mohammad Mohatram	Assistant Professor
26	Mr. Mohammed Waadalla Dawod	Assistant Professor
27	Mr. Praveen James Sanga	Assistant Professor
28	Ms. Priya C Rajan	Assistant Professor
29	Dr. Rajeev Kumar	Assistant Professor
30	Mr. Rajeev Ranjan	Assistant Professor
31	Ms. Seema Arora	Assistant Professor

32	Mr. Shyam Sunder Purohit	Senior Lab Technician
33	Ms. Smitha Felix	Assistant Professor
34	Mr. Vikash Sharma	Lecturer - Selection Grade
35	Dr. Jyoti K Chandel	Assistant Professor
36	Dr. A. Prakash	Assistant Professor
37	Dr. Arvind Hans	Assistant Professor
38	Ms. Blossom Christina	Assistant Professor
39	Dr. Ganesh Prasad Mishra	Professor
40	Ms. Houda Nasser Al-Quwaitai	Assistant Professor
41	Ms. Kusum Lata Mishra	Associate Lecturer
42	Mr. Mithun Srivastava	Assistant Professor
43	Dr. Namrata Pathak	Assistant Professor
44	Ms. Neelufer Aslam	Assistant Professor
45	Dr. Niraj Mishra	Assistant Professor
46	Dr. Nupur Sen	Assistant Professor
47	Mr. Prashant Kumar Singh	Assistant Professor
48	Dr. Prashant Rastogi	Associate Professor
49	Mr. Said Khalfan Salim Al-Amri	Lecturer
50	Ms. Sameena Begum	Assistant Professor
51	Dr. Seema Gupta	Assistant Professor
52	Dr. Seema Varshney	Assistant Professor
53	Dr. Srilekha Goveas	Assistant Professor
54	Mr. Sultan Khan	Lecturer
55	Dr. Sushil Kumar	Assistant Professor
56	Mr. Syed Aulia	Assistant Professor
57	Dr. David Manohar	Assistant Professor
58	Ms. Arti Vats	Assistant Professor
59	Mr. El Amin El Nur	Associate Lecturer
60	Mr. Hamid Mubarak Al Habsi	English Teacher
61	Ms. Iman Bader Al Hosini	English Teacher
62	Ms. Khulood Salim Nasser Al Ghadani	English Teacher
63	Mr. Mounir Mohammed Al Hussain	English Teacher
64	Ms. Omaira Khalifa Sulieman Al Kiyumi	English Teacher
65	Mr. Omar Rashid Said Al Shibli	English Teacher
66	Mr. Roby Varghese	Associate Lecturer



67	Ms. Smita Prasad	Assistant Professor
68	Mr. Ziyad Ali Saif Al Shehhi	English Teacher

## Ras Al Kahimah

S. No.	Name	Designation
1	Dr. R. P. Singh	Professor & Director
<b>Architecture Department</b>		
2	Ar. Gayathri Viswanathan	Associate Prof, In charge of Department
3	Ar. Champa HS	Assistant professor
4	Ar. Surabhi Raizada	Assistant professor
5	Ar. Bhavna Mody	Assistant professor
6	Er. Sivamalar Shijumon	Assistant professor
7	Ar. Greeshma Mohandas	Part-time Faculty
<b>Mechanical Engineering</b>		
8	Mr. Prashanth T	Assistant Professor, Department Incharge,
9	Dr. Abrar Ahamed	Assistant Professor
10	Mr. Ani Daniel	Assistant Professor
11	Mr. Shital M Patil	Assistant Professor
12	Mr. Jaimon Dennis Quadros	Assistant Professor
<b>Department Of Science</b>		
13	Dr. P. K. Upadhyay	Assistant Professor
14	Mrs. Vijayalaxmi	Assistant Professor
15	Mrs. Ranjana	Assistant Professor
<b>EEE &amp; ECE</b>		
16	Mrs. Chetna Nagpal	Assistant Professor
17	Ms. Nisha Mary Mathew	Assistant Professor
18	Mrs. Annie Therese Edwis	Assistant Professor
19	Mrs. Deepthy Manikandan	Part-time Faculty
20	Ms. Saranya	Part-time Faculty
<b>Computer Science &amp; Engineering</b>		
21	Dr. S. Jeyalatha	Assistant Professor

22	Mr. Siva Surya Narayana	Assistant Professor
23	Ms. Deepa Suresh	Assistant Professor
24	Ms. Archana Pandita	Assistant Professor
<b>Management Department</b>		
25	Mr. Soofi Anwar	Asst. Professor & In-charge-Dept. of Management
26	Ms. Rhoda Alexander	Asst. Professor
27	Mr. Nikhil VP	Asst. Professor
28	Dr. Kavita Tiwari	Asst. Professor
29	Mr. Mohammed Irfan	Asst. Professor
30	Mr. Onkar Nath Mishra	Asst. Professor
31	Dr. Naresh G	Associate Professor
32	Dr. Indranil Bose	Part-time Faculty
33	Mr. Sarfaraz Khan	Part-time Faculty
34	Dr. Mohammed Rizwan	Part-time Faculty
35	Ms. Divya Jadeja	Part-time Faculty
36	Ms. Sona Sebastian	Part-time Faculty
<b>Language</b>		
37	Ms. Sri Thivvya	Part-time Faculty
38	Ms. Martina Daniel	Part-time Faculty
39	Ms. Heidi	Part-time Faculty

### University Polytechnic

S. No.	Name	Designation
1	Mr. Devendra Kumar Jain	Senior Lecturer
2	Mr. Ramkesh	Assistant Professor
3	Dr. B. N. Sanyal	Assistant Professor
4	Mr. Pradeep Toppo	Assistant Professor
5	Dr. (Mrs.) Meena Singh	Assistant Professor
6	Mr. Ramnish Sinha	Assistant Professor
7	Mr. Abhay Kumar	Assistant Professor
8	Dr. G. M. Ansari	Assistant Professor

9	Mr. Rajendra Mahto	Assistant Professor
10	Dr. Satish Kumar	Lecturer
11	Dr. (Mrs.) Sandhya Rani	Lecturer
12	Dr. (Mrs.) Sumana	Lecturer
13	Dr. T. K. Parashar	Lecturer
14	Mrs. Neeru Singh	Lecturer
15	Mr. Niraj Kumar	Lecturer
16	Mrs. Rekha Kumari	Lecturer
17	Mr. Manoj Kumar	Lecturer
18	Mr. Mohd. Neyaz Ahsan	Lecturer
19	Mr. Chanchal Kumar Mishra	Lecturer
20	Mrs. Nirupam	Lecturer
21	Mr. Rakesh	Associate Lecturer
22	Mr. N. K. Mukherjee	Associate Lecturer
23	Mr. Maqubool Hossain	Associate Lecturer
24	Mr. Narendra Kumar Singh	Physical Training Instructor
25	Mr. Sanjay Jha	Teaching Assistant
26	Mr. P. R. Mahto	Teaching Assistant
27	Mr. Shankar Kumar	Teaching Assistant



## Department of Architecture



Innovating Designs

The Department of Architecture was established in BIT Mesra in the year 1993. Architecture is primarily the art and science of designing spaces for serving the multifarious activities of human beings and for meeting their specific needs in a meaningful built environment. Architecture calls for originality, creativity, conceptualization, perception, aesthetic values and a holistic judgment of people, places, objects and events. Imparting these values, our fifteen batches of architecture students have graduated till now and they have found gainful employment in planning, design and construction sector. Many of our students have opted for higher studies in India and abroad in the disciplines of Urban Design, City Planning, Landscape Architecture, Conservation and Construction Management. Our students have also opted for diversified fields such as Visual Design, Product Design, Fashion Design, Management and Software Development related with architecture.

The department started offering the Master in Urban Planning degree course from January 2007 with a maximum intake capacity of 12. The eligibility of students is degrees of B.Arch., B.E. / B.Tech. (Civil Engineering), M.A. in Geography, Sociology or Economics. The students have gained fruitful employment in planning organizations, in teaching, and other related activities.

The department offers following academic program:

**UG Program:** “Bachelor of Architecture” (B. Arch) degree course in Architecture of 5-year / 10 semester duration



**PG Program:** “Master in Urban Planning” degree course of 2-year / 4 semester duration.

**Doctoral Program:** “PhD” degree in Architecture and Planning

### Sponsored projects

#### Project Sanctioned

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1	Identification and Prioritization of Housing Quality Indicators for prospective buyers under Middle Income Group (MIG) section	PI - Dr. Satyaki Sarkar Co-PI - Ar. R.C. Sinha	BIT Mesra	October 2015	80,000	3 years

#### Ongoing Projects

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1	Identification and Prioritization of Housing Quality Indicators for prospective buyers under Middle Income Group (MIG) section	PI - Dr. Satyaki Sarkar Co-PI - Ar. R.C. Sinha	BIT Mesra	October 2015	80,000	3 years
2	National Mission Project on Education through ICT: Developing suitable pedagogical methods for courses on Architectural Sociology	PI – Dr. Satyaki Sarkar Co-PI - Sangita	MHRD, Govt. of India	August 2009	5,60,000	2017
	National Mission Project on Education through ICT: Developing suitable pedagogical methods for courses on : Energy Efficient Building	PI – Dr. Manjari Chakraborty Co-PI - Dr. B.C. Roy & Ar. Janmejoy Gupta	MHRD, Govt. of India	August 2009	5,60,000	2017
	National Mission Project on Education through ICT: Developing suitable pedagogical methods for courses on : Housing & Community Planning	Co-PI - Ar. R.C. Sinha	MHRD, Govt. of India	August 2009	5,60,000	2017

National Mission Project on Education through ICT: Developing suitable pedagogical methods for courses on : Vernacular Architecture	Co-PI – Ar. Ritu Agrawal & Ar. Smriti Mishra	MHRD, Govt. of India	August 2009	5,60,000	2017
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### Seminar / Conferences / Short – term Courses Conducted by the Department

S. No.	Title of Seminar / Conferences / Short – term Courses / Workshop	Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short – term Courses
1.	Short Term Training Program	Dr. Satyaki Sarkar	Govt. of Jharkhand	29/02/2016-04/03/2016

### Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1	Satyaki Sarkar	International Conference on Emerging Strides in Innovations and Skill Development : A Sustainable Perspective	BIT Mesra	SMS University, Varanasi,	SMS University, Varanasi,	19-22 February 2016
2	Satyaki Sarkar	5th International Conference on Advancement of Development Administration 2016 – Social Sciences and Interdisciplinary Studies	BIT Mesra	NIDA Thailand	NIDA Thailand	26- 28 May 2016
3	Ritu Agrawal	V Annual Conferences & National Seminar, ICSSR Sponsored, on “Environmental Degradation: Challenges & Remedies	BIT Mesra	Nirmala College, Ranchi, Jharkhand	Nirmala College, Ranchi, Jharkhand	5-6 November 2015

4	Ritu Agrawal	Short-term Course on Conservation, Protection & management of India's standing living Heritage of 19th and 20th Century".	BIT Mesra	Department of Architecture, NIT Patna, Under G.I.A.N Scheme of MHRD	Department of Architecture, NIT Patna, Under G.I.A.N Scheme of MHRD	14-18 December 2015
5	Smriti Mishra	All India Seminar on Quality Management in Rural Roads & Bridges and Role of Civil Engineering in Smart Cities	BIT Mesra	Institution of Engineers	Ranchi, Jharkhand	12-13 September 2015
6	Smriti Mishra	V Annual Conferences & National Seminar, ICSSR Sponsored, on "Environmental Degradation-Challenges & Remedies	BIT Mesra	Institution of Engineers	Ranchi, Jharkhand	5-6 November 2015
7	Smriti Mishra	Short-term Course on Conservation, Protection & management of India's standing living Heritage of 19th and 20th Century".	BIT Mesra	Department of Architecture, NIT Patna	Department of Architecture, NIT Patna	14-18 December 2015
8	Janmejy Gupta	International Conference on South Asian Vernacular Architecture: Challenges to its continuity and Strategies for its future.	BIT Mesra	Indira Gandhi Rashtria Manav Sangrahalay, (IGRMS), Bhopal, India.	Indira Gandhi Rashtria Manav Sangrahalay, (IGRMS), Bhopal, India.	11-13 December 2015
9	Janmejy Gupta	Annual International Conference on Architecture and Civil Engineering, ACE 2016.	BIT Mesra	Global Science and Technology Forum. (GSTF)	Fort Canning Hotel, Singapore.	25-26 April, 2016

10	Sangita	All India Seminar on Quality Management in Rural Roads & Bridges & and Role of Civil Engineering in Smart Cities	BIT Mesra	Ranchi, Jharkhand	Ranchi, Jharkhand	12-13 September 2015
11	Sangita	V Annual Conferences & National Seminar, ICSSR Sponsored, on "Environmental Degradation-Challenges & Remedies"	BIT Mesra	Ranchi, Jharkhand	Ranchi, Jharkhand	5-6 November 2015
12.	Dr. Manjari Chakraborty	Faculty Development Program(as speaker)	KIIT University	KIIT University, Bhubaneswar, Orissa	KIIT University, Bhubaneswar, Orissa	28th -29th June 2015

## Publications

### Published in International Journals

1. Roy, B. C. Sarkar, S. Impact of Infrastructure Availability on Industrial Development- A Micro and Macro Level Analysis for Resource Rich State of Jharkhand, India, Indian Journal Science and Technology, February 2016, Vol 9, Issue 5, 1-7.
2. Sinha, R. C., Sarkar, S. Mandal, N. R. Adequate housing and quality of life- A literature review, Journal of Applied Research and Social Sciences, 2016, Vol.3, Issue 3, 33-51.
3. Sinha, R. C. Sarkar, S, Housing Quality Evaluation Tools - A Comparative Study, International Journal of Innovative Research in Technology and Science, 2016, Vol. 2, Issue 10
4. Sinha, R. C. Sarkar, S. Roy, B C., Forging Urban Development through Literacy Improvement for Less-developed States Study of Jharkhand, International Journal of Chemical, Metallurgical and Civil Engineering, May 2016, Vol. 3, Issue 1, 13-16.



5. Gupta, J. and Chakraborty, M. (2016), The need for vernacular mud huts of Ranchi to adapt to the changing climate of Ranchi, International Journal of Environmental Studies, Routledge (Taylor and Francis Group). (Published online: 24th May 2016), Print Version: International Journal of Environmental Studies, Volume 73, Issue 4, August 2016, Special Issue: South Asian Vernacular Architecture. pp. 584-603.
6. Gupta, J., Surface Volume Ratios and Thermal Comfort in Rural Mud Architecture of Jharkhand: A Study through Simulation, Journal of Indian Institute of Architects, January 2016, Volume 81, Issue 01. Pp 30-38.
7. Dash Monalipa, Chakraborty M. (2016), Bio Climatic analysis of Bhubaneswar – An investigation to arrive human comfort through natural ventilation, International Journal of Scientific and Research publications, Vol 6, issue 5, May 2016; ISSN 2250-3153 ( pg 557-560)
8. Dash Monalipa, Chakraborty Manjari (2016), City parameters and their impact on Urban Micro-climate – A review, International Journal of Applied Engineering Research, Vol 10, No 21 (2015); ISSN 0973-4562 ( pg 41867-41872)
9. Gupta, J. and Chakraborty, M. (2015), Perimeter-area ratios and thermal discomfort due to excess heat in rural mud architecture of Jharkhand: A study through simulation and temperature measurements in composite climate, International Journal of Applied Engineering Research, 2015, Vol.10, Number 7, pp.17503-17518. (ISSN: 0973-4562)

### **Published in International Proceedings**

1. Sarkar, S. Roy, B.C.: A Conceptual Model for Sustainable Urban Development of Inner City Areas, In proceeding of International Conference Emerging Strides in Innovations and Skill Development : A Sustainable Perspective, SMS University, Varanasi, India, February 2016.
2. Sarkar, S. Roy, B C. Sinha, R C.: The Paradigm Shift in Indian Construction Industry post Economic Policy Reforms during Globalization, in the proceeding of 5<sup>th</sup> International Conference on Advancement of Development Administration 2016 – Social Sciences and Interdisciplinary Studies, NIDA, Bangkok, Thailand May 2016.
3. Gupta, J. and Chakraborty, M. (2016),: Comparative analysis related to compactness of dwelling units and its effect on thermal comfort amongst rural mud huts in composite climate in India, Annual International Conference Proceedings, 25-26<sup>th</sup> April 2016, Singapore, 4<sup>th</sup> Architecture and Civil Engineering (ACE 2016), published by Global Science & Technology Forum (GSTF), pp.389-398.

### **Published in National Journals**

1. Panda S., Chakraborty M. and Misra S.K. (2016), Deriving a thematic framework for measurement of Urban Sustainability in India, Journal of Civil Engineering and Environmental Technology (JCEET) ISSN 2349-8404, Vol 3, issue 1, pp34-38

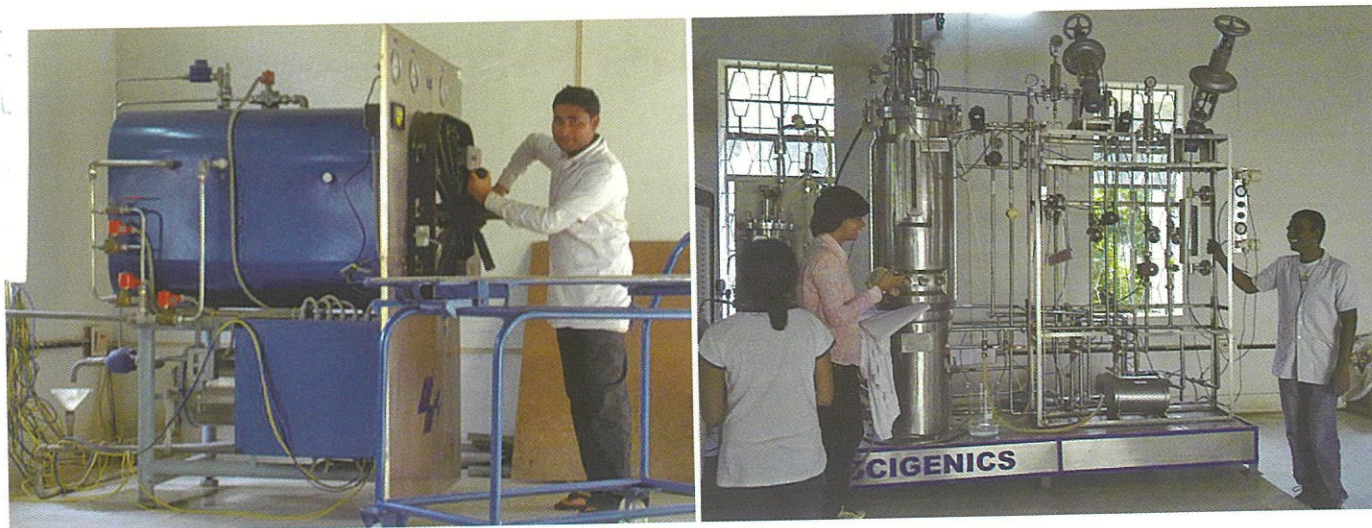
### **Board of Studies (UG/PG)**

1. Dr. D.J. Biswas, Professor & Head as Chairman
2. Dr. Manjari Chakraborty, Professor as Member
3. Dr. Satyaki Sarkar, Associate Professor as Member
4. Dr. A.P. Krishna, Professor & Head, Remote Sensing, as Non-departmental expert
5. Dr. Gopal Pathak, Professor & Head, Civil Engineering as Non-departmental expert
6. Professor B.K. Sengupta, Architecture department IIT Kharagpur, as external expert
7. Mr. Rajiv Chadda, Practicing Architect in Ranchi, as external expert

### **Departmental Academic Committee**

1. Dr. D.J. Biswas, Prof. & Head, Department of Architecture
2. Dr. Manjari Chakraborty, Prof., Department of Architecture
3. Dr. Satyaki Sarkar, Associate Prof., Department of Architecture
4. Dr. Gopal Pathak, Prof. & Head, Department of Civil & Environmental Engineering
5. Dr. Utpal Baul, Prof. & Head, Department of Management

## Department of Bio Engineering



Bio Engineering Laboratory

The Department has received magnificent financial supports from both Union and State Government for establishing state-of-the-art facility for academic and research activities since its inception in the year 2002. A Centre of Excellence in Bioresources and Bioprospecting has been awarded to the department for the period May 2013 - December 2016, sponsored by TEQIP-II. Well planned department building situated on the bank of Suvernarekha River has attracted almost every visitor of the Institute. The visitors included government officials, diplomats, technocrats, scientists and industrialists, and have recognized the department as centre of excellence for research based academics and expressed their desires to participate and propel the scientific and technological endeavor with BIT.

Department's unique culture, in which the staffs & students are treated as assets and stakeholder of the scientific achievement, provides a congenial environment to apply multidimensional approaches to solve the scientific problems. Students of this department are well placed in company jobs and also had gained admission in MS and Ph.D. programmes of foreign Institutions.

Presently, B.E. Biotechnology, M. Sc. Bioinformatics, M. Tech Biotechnology, M. Tech Bio-Medical Instrumentation, M.Sc. Biotechnology are the courses offered by the department. 2 students enrolled in the Ph.D. programme in the department and 05 candidates have submitted Ph.D. thesis in this year. Eight scholars have completed their Ph.D. viva voce. The Ph.D. degree was awarded to eighteen scholars. Chromatography system for Proteomics, Ice Flakers, Rotary Vacuum Flash Evaporator, Particle Bombardment Apparatus, Fermenter, Plant Growth Chamber, Linear Ion trap Mass Spectrometer, Real Time PCR, UHPLC, Ultra-water purification system, Ultra-low deep freezer ( -86° C), Spectrophotometer with kinetics study feature, Non refrigerated Centrifuge and thermo mixer have been recently added to the list of instrumentation facility in the department.

## Sponsored projects

### Project Sanctioned

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount (Lakhs)	Duration of the Project (Years)
1	To analyse the effect of different music types on autonomic nervous system	Y. Aggarwal	SMS 2015 BIT Mesra	GO/SMS/ DSR-013/2015- 16/3132 Dt. 17/12/2015	0.4	Dec 2015 to Nov 2016
2	Development of Extractive Fermentation Methodology for the Enhanced Production of Endotoxin Free L-Asparaginase	PI: Dr. H. R. Singh Co-PI: Dr. S. K. Jha	BIT, SMS	GO/SMS/ DSR-009/2015- 16/3128) Dt. 17/12/2015	0.8	
3	Development of Upstream and Downstream Process for the production of microbial lipid from oleaginous endophytes using non-edible feedstock	PI: Dr. S.K. Jha Co-PI: Dr. H.R. Singh	BIT, SMS	GO/SMS/ DSR-009/2015- 16/3129 Dt. 17/12/2015	0.8	
4	Expedition of traditional therapeutic plants of Jharkhand as a potential source for new angled restorative possibilities for cancer treatment	Dr. D. M. Pandey	SMS BIT Mesra	GO/SMS/DSR- 007/ 2015-16/3126 Dt. 17/12/2015	0.60	



5	Cytotoxicity screening of medicinal plant extract on human breast cancer cell lines	Dr. S. Chandra	SMS BIT Mesra	GO/SMS/ DSR-008/2015- 16/3127 Dt. 17/12/2015	0.60	Dec 2015 to Nov 2016
6	A study on gene expression related to wall proteins in flacherie infected mulberry silkworms ( <i>Bombyx mori</i> L.)	Dr. K. Mukherjee	SMS BIT Mesra	GO/SMS/ DSR-002/2015- 16/3123 Dt. 17/12/2015	0.80	
7	Size focusing studies of biosynthesis of gold nano particles by combined kinetic- diffusion -thermodynamic analysis	Dr. P. Padmanabhan (PI) Dr. R. Raja Pandiyan (Co-PI)	SMS BIT Mesra	GO/SMS/ DSR-002/2015- 16/3121 Dt. 17/12/2015	0.80	
8	Modelling, Simulation Optimization of Nano-Size Evolution During Biosynthesis of Gold Nano particles	Dr. R. Raja Pandiyan (PI) Dr. P. Padmanabhan (Co-PI)	SMS BIT Mesra	DSR/SMS- 2015/2015-16 Dt. 17/12/2015	0.80	
9	Identification and molecular characterization of SNARE genes in wheat ( <i>Triticum aestivum</i> ) responsive to leaf rust disease.	Dr. K. Mukhopadhyay	SMS BIT Mesra	SMS/DSR/2015- 16/3124 Dt. 17/12/2015	0.80	

10	Brain and cardiac signals analysis for the development of brain computer interface	Dr. R. K. Sinha	SMS BIT Mesra	GO/SMS/ DSR-006/2015- 16/3125 Dt. 17/12/2015	0.70	
11	"Development of Molecular Targets for Genetic Engineering on Metabolic Map of Isoprenoid Biosynthesis in Tulsi (Ocimum sanctum L.) using Functional Genomics Approaches."	Dr. M. Kumar	SMS BIT Mesra	GO/SMS/ DSR-012/2015- 16/3131 Dt. 17/12/2015	0.80	
12	Bioremediation of synthetic dyes using microorganism	Dr. S. Ghosh Sachan	SMS BIT Mesra	GO/SMS/ DSR-003/2015- 16/3122 Dt. 17/12/2015	0.80	
13	Development of an Eco-friendly process to Effectively Degrade Triclosan	Dr. A. Sachan	SMS BIT Mesra	GO/SMS/ DSR-011/2015- 16/3130 Dt. 17/12/2015	0.80	

### Ongoing Projects

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount (Lakhs)	Duration of the Project
1	Establishment of BTISnet SubDIC at BIT, Mesra	Dr. K. Mukhopadhyay (Coordinator, Since January 2014)	Department of Biotechnology, Govt. of India BT/ BI/04/065/04	18.01.2005	98.63	Feb 2005 to Mar 2017

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount (Lakhs)	Duration of the Project
2	Centre of Excellence on Bioresources and Bioprospecting	Dr. K. Mukhopadhyay Dr. A. Sachan, Dr. M. Kumar, Dr. S. Ghosh Sachan, Dr. S. Chandra	TEQIP II	(NPIU/ TEQIP-II/ FIN/31/158) November, 2012	05 Crore	Nov 2012 to Oct 2016
3	To Study the Structure and Blood Flow of Chorioretinal Complex in Human Using Optical Coherence Angiography.	Dr. R. Poddar	Indian council of Medical research (ICMR) 5/20/21 (Bio)/2014 – NCD-I	25.05.2015	37.23	Jun 2015 to May 2018
4	A RNAi approach to induce parthenocarp in <i>Trichosanthes dioica</i> Roxb. by regulating phytohormones	Dr. D. Prasad	UGC BSR	01.04.2013	5.40	Apr 2013 to Mar 2016
5	Exploiting agricultural wastes for harnessing a value- added product ferulic acid	Dr. A. Sachan	DST - SERB	SERB SR/ FT/LS- 46/2012 Dt. 12/12/2012	19.4	Feb 2013 to Mar 2016
6	Biosynthesis of fungal secondary metabolite Lovastatin	Dr. V. K. Nigam (PI) Dr. A. S. Vidyarthi (Co-PI)	AICTE	20/AICTE/ RIFD/RPS (Policy-1) 24/2012-13 28/11/2012	10.5	Nov 2012 to Oct 2015
7	Biotransformation of eugenol into value-added methoxyphenols	Dr. S. Ghosh Sachan	DST-SERB	No.SB/YS/ LS-308/2013 Dated: 30.6.2014	21.2	Sept 2014 to Aug 2017

## Projects Completed

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount (in Rs. lakhs)	Date of completion of the Project
1	Determination of mental workload and fatigue under different degrees of mental task	Dr. Y. Aggarwal	UGC	March 2013	6.00	Jul 2016
2	Molecular Cloning and Heterologous Expression of <i>Antheraea mylitta</i> Cocoonase	Dr. D. M. Pandey (PI) Dr. K. Mukhopadhyay (Co-PI)	DBT, New Delhi	June 2013	14.36 Sactioned (8.36 Received as Ist Ins.)	Jun 2013 to Dec 2015
3	Discovery, annotation, validation and characterization of SNPs in Wheat ( <i>Triticumaestivum</i> L.) and haplotype structure determination using Next-Generation Sequencing Data	Dr. K. Mukhopadhyay (Project Co-ordinator) Dr. M. Kumar (Co-PI) Dr. R. Poddar (Co-PI) Multi-Institutional R&D Project Collaborators: CCSU Meerut	DBT	BT/PR3925/ BID/7/384/2011 Dt. 06.05.2012	24.6	Nov 2015

## Seminar / Conferences / Short – term Courses Conducted by the Department

S. No.	Title of Seminar / Conferences / Short – term Courses / Workshop	Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short – term Courses
1	One Week BTISNet Sponsored Workshop On Emerging Techniques in Bioinformatics and its' Application	Dr. R. Poddar (Coordinator) Dr. M. Kumar (Co-Coordinator)	BTISNet DBT, GOI	Nov 30 - Dec 04, 2015



2	National Conference on "Biotechnology for sustainable development"	Dr. K. Mukhopadhyay (Convenor) Dr. A. Sachan (Organizing Secretary)	Centre of Excellence, TEQIP II	Dec 17-19, 2015
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### Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1	Dr. D. M. Pandey	9th Biotechnology Congress-2015	Science and Engineering Research Board, GOI, New Delhi	Omics Groups Conferences Pvt. Ltd.	Hyatt Regency Orlando International Airport, Orlando Florida, USA	Aug 31- Sept 2, 2015
2	Dr. H. R. Singh Dr. S. Chandra, Dr. S. Kumar	Emerging techniques in Bioinformatics and its' application	COE-TEQIP-II	BTISNet SubDIC, Department of Bio-Engineering Birla Institute of Technology, Mesra Ranchi - 835215, Jharkhand, India	BIT Mesra	Nov 30-Dec 4, 2015
3	Dr. S. Kumar	Inteligent computational technique application	TEQIP-II	Dept. of EEE	BIT Mesra	23-27 Nov, 2015
4	Dr. H. R. Singh Dr. S. Singh	National Conference on Biotechnology for Sustainable Development, BSD-2016	COE-TEQIP-II	Department of Bio-Engineering Birla Institute of Technology, Mesra Ranchi	BIT Mesra	Dec 17-19, 2015

5	Dr. S. K. Jha Dr. H. R. Singh Dr. S. Singh	International Winter School and Hands-on Training Programme on Nano-biotechniques (I WiSH NanoBio: 2016)" International Winter School and Hands-on Training Programme on Nano-biotechniques (I WiSH NanoBio: 2016)"	COE-TEQIP-II	Department of Biotechnology and Centre for Nanotechnology, IIT Roorkee, Roorkee	IIT-Roorkee	Feb 9-14, 2016
6	Dr S. R. Sharma	Refresher Course		UGC-Academic Staff College, Ranchi Univ., Ranchi	Academic staff College, Ranchi	4-24 Mar, 2016
7	Dr. S. K. Jha Dr. H. R. Singh	Tissue engineering: Biomaterials and stem cells for manufacturing of biological Tissues	COE-TEQIP-II	Indian institute of Technology Hyderabad	IIT-Hyderabad	May 30-Jun 3, 2016
8	Dr. Koel Mukherjee	Refresher Course	COE-TEQIP-II	UGC-Academic Staff College, JNU, New Delhi	Academic Staff College, JNU, New Delhi	20 July 2015 - 15 August 2015

## Publications

### Published in International Journals

1. Chaudhary, N., Aggarwal, Y., Singh, N., Sinha, R. K., Electronic analogy to simulate and predict the dynamics of cellular mechanism of Parkinson's disease stimulated by environmental factors. Biomedical Engineering- Applications, Basis and Communications. 2015, 27, 1550051 (1-13).
2. Ranjan, P., Mazumder, P. M., Parmaguru, R., Sasmal, D., Sinha, R. K., Aggarwal, Y., Das, J., Effect of Ethyl Acetate Fraction of the Aerial Parts of *Salvia splendens* Sellow ex Roem. and Schult on Diabetic Neuropathy. Pharmacologia, 2015, 6, 313-323.
3. Kumari, M., Chandra, S., Stevioside glycosides from in vitro cultures of *Stevia rebaudiana* and antimicrobial assay. Braz. J. Bot., 2015, 38, 761-770.
4. Smita, S., Katiyar, A., Chinnusamy, V., Pandey, D. M., Bansal, K. C., Transcriptional regulatory network analysis of MYB transcription factor family genes in rice. Front. Plant Sci., 2015, 6: 1157. doi: 10.3389/fpls.2015.01157
5. Wany, A., Nigam, V. K., Pandey, D. M., (2015) Evolutionary evidence for the prevalence of TY3 GYPSY sub-class retrotransposons during annotation of geraniol-dehydrogenase gene in *Java citronella* (*Cymbopogon winterianus* Jowitt). International Journal Pharma Biosciences, 2015, 6, (B) 58-80.
6. Katiyar, A., Smita, S., Muthusamy, S. K., Chinnusamy, V., Pandey, D. M., Bansal, K. C., Identification of novel drought-responsive microRNAs and trans-acting siRNAs from *Sorghum bicolor* (L.) Moench by high-throughput sequencing analysis. Front. Plant Sci., 2015, 6: 506. doi: 10.3389/fpls.2015.00506.
7. Nigam, V. K., Shukla, P., Enzyme based biosensors for detection of environmental pollutants-A Review. Journal of Microbiology and Biotechnology, 2015, 25, 1773-1781.
8. Dhar, R., Nigam, V. K., Studies on process parameters for production of lovastatin. Asian Journal of Biomedical and Pharmaceutical Sciences, 2015, 5, 25-30.
9. Singh, K., Ghosh, M., Sharma, S. R., Water Surface Boundary Detection Algorithm Using Landsat 8 OLI Data. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015, 9, 363-368.
10. Kumar, S., Ghosh, S., Tetarway, Sinha, R. K., Support vector machine and fuzzy C-mean clustering-based comparative evaluation of changes in motor cortex electroencephalogram under chronic alcoholism, Medical & Biological Engineering & Computing, 2015, 53, 609-622.
11. Kumar, S., Ghosh, S., Sinha, R. K., Automated Identification of Chronic Alcoholism from Brain Signals. Online J Health Allied Scs., 2015, 14, 20.
12. Chaudhary, N., Aggarwal, Y., Sinha, R. K., Role of  $\alpha$ -synuclein in Parkinson's Disease. Pharma Times, 2016, 48, 11-14.
13. Panda, M., Singh, H. R., Jha, S. K., Optimization of Fed Batch Production of *E. coli* K12 L-Asparaginase by Taguchi Orthogonal Array. Int. J. PharmTech Res., 2016, 9, 546551.

14. Sinha, R. K., Singh, H. R., Statistical optimization of the recombinant L-asparaginase from *Pseudomonas fluorescens* by Taguchi DOE. *Int. J. PharmTech Res.*, 2016, 9, 254-260.
15. Bhattacharya, R., Singh, H. R., Jha, S. K., Thermokinetic studies of production of L-asparaginase by *Bacillus licheniformis* in batch fermentation. *Int. J. Adv. Res.*, 2016, 4, 1670-1677.
16. Govind, R., Jha, S. K., Singh, H. R., Isolation of oleaginous endophytes from natural sources. *Int. J. Adv Res.*, 2016, 4, 1678-1682.
17. Parasar, P., Dubey, A. K., Singh H. R., Jha S. K., Changes in Rheological and Biochemical Properties of Saliva and Semen in Relation to Increasing Body Mass Index (BMI) of Human Subjects. *Int. J. Pharm. Sci. Rev. Res.*, 2016, 37, 122-124.
18. Kumar, S., Ghosh, S., Sinha, R. K., Using Computational Classifiers to Detect Chronic Alcoholism. *Journal of Clinical Engineering*, 2016, 41, 90-94.
19. Reddikumar, M., Bose, K., Poddar, R., Implementation of the swept source optical coherence tomography (SSOCT) system with a statistical method to analyze optical properties of turbid media. *Optik-International Journal for Light and Electron Optics*, 2016, 27, 1656-1659.
20. Jacob, K. S., Ganguly, S., Kumar, P., Poddar, R., Kumar, A., Homology model, molecular dynamics simulation and novel pyrazole analogs design of *Candida albicans* CYP450 lanosterol 14-demethylase, a target enzyme for antifungal therapy, *Journal of biomolecular structure & dynamics*, 2016, 2, 10-44.
21. Chandra, S., Singh, D., Pathak, J., Kumari, S., Kumar, M., Poddar, R., Balyan, H. S., Gupta, P. K., Prabhu, K. V., Mukhopadhyay, K., De Novo Assembled Wheat Transcriptomes Delineate Differentially Expressed Host Genes in Response to Leaf Rust Infection. *PLoS ONE*, 2016, 11, e0148453. doi:10.1371/journal.pone.0148453.
22. Chandra, S., Mukhopadhyay, K., Kumar, M., Mining Single Nucleotide Polymorphism from publicly available ESTs of bread wheat (*Triticum aestivum* L.). *Int J Pharm Pharm Sci.*, 2016, 8, 189-196.
23. Shamim, G., Pandey, D. M., Sharma, K. K., Ramani, R., Genes involved in the biosynthesis of lac dye constituents in India lac insect, *Kerria lacca* (Kerr). *J. Entolmol. Res. Soc.*, 2016 18, 07-17.
24. Mishra, S., Kullu, M., Sachan, A., Vidyarthi, A. S., Ghosh Sachan, S., Bioconversion of ferulic acid to vanillic acid by *Paenibacillus lactis* SAMS-2001. *Annals of Microbiology*, 2016, 66, 875-882.
25. Yadav, A. N., Ghosh Sachan, S., Verma, P., Kaushik. R., Saxena, A. K., Cold active hydrolytic enzymes production by psychrotrophic Bacilli isolated from three sub-glacial lakes of NW Indian Himalayas. *Journal of Basic Microbiology*, 2015, 56, 294-307.
26. Nezami, S., Joseph, K., Ahsan, A., Aparna, LVS., Sharma, S. R., Jha, S. K., Screening of commercially important halophilic microbial community for bioactive compounds. *IJPCBS*, 2016, 6, 309-321.



### Published in International Proceedings

1. Wany, A., Nigam, V. K., Jha, S. and Pandey, D. M. Enrichment of essential oil components in Citronella (*Cymbopogon winterianus* Jowitt): A novel approach. In Proceedings of the 9th Biotechnology Congress-2015, Hyatt Regency Orlando International Airport, Orlando, Florida, USA, Aug 31-Sept 02, 2015.

### Published in National Journals

1. Yadav, A. N., Ghosh Sachan, S., Verma, P., Saxena, A. K., Bioprospecting of plant growth promoting psychrotrophic Bacilli from the cold desert of north western Indian Himalayas. Indian Journal of Experimental Biology, 2016, 54, 142-150.

### Book

#### Chapter(s) in Edited Book

1. Kumari, A., Nigam V. K., Pandey D. M., Regulation of lignin biosynthesis through RNAi in aid of biofuel production. In Microbial Factories: Biodiversity, Biofuels, Biopolymers, Bioactive molecules and Waste treatment (ed. Kalia V.C.), Springer Publisher, 2016, Volume 1, pp. 185-201.
2. Mishra, A., Ghosh Sachan, S., Nigam, V. K., Pandey, D. M., Application of Bioinformatics in Biofertilizer Technology. In Recent Trends in Biofertilizers (eds. Pati B. K., Mandal S. A.), IK International Publishers, New Delhi, India, 2016, pp. 146-154.

### Award / Recognition Bestowed on Faculties ( State / National / International )

S. No.	Name of the Faculty	Title of the Award/ Honours	Organisation	Year / Duration
1	Dr. D. M. Pandey	International: Travel Grant Award for presenting research findings in 9th Biotechnology Congress-2015 at Hyatt Regency Orlando International Airport, Orlando Florida, USA scheduled from August 31, 2015 to September 02, 2015.	From: Science and Engineering Research Board, GOI, New Delhi	Aug 31-Sept 02, 2015
2	Dr. D. M. Pandey	International: Keynote Speaker, Chair of one Congress Session, Organizing Committee Member, Poster Evaluation Committee Member	In: 9th Biotechnology Congress-2015 at Hyatt Regency Orlando International Airport, Orlando Florida, USA	Aug 31-Sept 02, 2015

3	Dr. D. M. Pandey	National: Juri Member for District Level as well as State Level INSPIRE DST INSPIRE Award Scheme	By Government of Jharkhand at District College, Ranchi, Jharkhand.	October 30-31, 2015; November 03- 04, 2015
4	Dr. R. Poddar	Assistant Research Professor	University of California, Davis, USA	Jun 6-Aug 30, 2016

### MoUs / Collaborations

S. No.	Name of Organisation / University	Purpose / Area	Year / Duration
1.	Max Planck Institute of Biophysical Chemistry, Gottingen Germany	Collaborative study on SNARE Genes during plant-pathogen interaction	July 2014 / 03 Years
2.	University of Padova, DAFNAE, Italy	Study on climate change	January 2015 / 03 Years

### Board of Studies(UG/PG)

S. No.	Name of Member	Designation
1	HOD/In-Charge	Chairperson (Ex-Officio)
2	Dr. P. Padmanabhan, Prof., Bio-Engineering	Member
3	Dr. K. Mukhopadhyay, Prof., Bio-Engineering	Member
4	Dr. R. Chandra, Prof., Bio-Engineering	Member
5	Dr. R. K. Sinha, Prof., Bio-Engineering	Member
6	Dr. Usha Jha	Member
7	Dr. S. Jha	Member
8	Dr. D. M. Pandey	Member
9	Dr. Manish Kumar	Member
10	Dr. S. Ghosh Sachan	Member
11	Dr. R. Ramani, Director, IINRG, Namkum, Ranchi	External Expert

### Departmental Academic Committee

S. No.	Name of Member	Designation (DAC/AC)
1	HOD/In-Charge	Chairperson (Ex-Officio)
2	Dr. P. Padmanabhan, Prof., Bio-Engineering	Member
3	Dr. K. Mukhopadhyay, Prof., Bio-Engineering	Member

4	Dr. R. Chandra, Prof., Bio-Engineering	Member
5	Dr. R. K. Sinha, Prof., Bio-Engineering	Member
6	Dr. V. K. Nigam, Assoc. Prof., Bio-Engineering	Member
7	Dr. Raju Poddar, Asst. Prof., Bio-Engineering	Member
8	Dr. Shashwati Ghosh Sachan, Asst. Prof. Bio-Engineering	Member
9	Dr. Usha Jha, Prof., Chemistry	Member
10	Dr. S. Jha, Prof., Pharmaceutical Sciences & Technology	Member
11	Guide(s) of the Candidate	Member

## Department of Chemical Engineering & Technology



Spray Dryer



Atomic Absorption Spectrometer (AAS)

The Department of Chemical Engineering offers two undergraduate programmes – BE(Chemical Engineering) and B.E(Chemical Engineering –Plastics & Polymers), and post graduate programmes - ME (Chemical Engineering). The Department also provides facilities for Doctoral Research in Engineering and Technology in the areas related to Chemical Engineering, Polymer Science and Engineering, Chemical Technology including Food Technology. The Department is a DST FIST Department, and also winner of the Gold Trophy for Plasticon Award 2012 in the category of Best Educational Institution Contributing to Plastics. Major grant of 1 Core has been sanctioned by Ministry for Food Processing Industries for the introduction of M.Sc. (Food Technology) programme.

The undergraduate programme BE (Chemical Engineering) imparts high standard training, emphasizing on Chemical Engineering fundamentals - Heat Transfer, Mass Transfer, Fluid Mechanics, Process Control, Reaction Engineering, Computer Aided Engineering etc to groom them to carry out economic and environment friendly design, technology development and operation of a wide range of industries – Industrial chemicals, petroleum, polymers, pharmaceuticals, cement, fertilizer, fuel, processed food etc.

In addition to the core chemical engineering subjects, students of BE (Chemical Engineering –Plastics & Polymers) programme are exposed to courses in Polymer Materials Technology, Polymer Processing, Polymer Product Design and Development in order to serve industries involved in polymer manufacture, polymer processing industries, polymer processing machinery manufacturing industries and advanced level research in the field of polymer science and engineering.



The Department has modern and sophisticated Laboratories and workshop facilities such as Chemical Engineering Unit Operation laboratory, Chemical Reaction Engineering, Process Control Laboratory, Fuel technology Laboratory, Synthesis Laboratory, Polymer Characterization Laboratory, Polymer Processing Workshop and Product Development Laboratory including a mould design and manufacturing facility. The facilities in the Process Control Laboratory include Trainers for Flow, Level, Pressure & Multi Process control with SCADA etc. Chemical Reaction Engineering Laboratory is equipped with Isothermal, Cascade CSTR, Isothermal Batch Reactor, Isothermal Plug Flow Reactor, computer controlled high pressure reactor etc. The Sophisticated Instrumental facilities include HPLC, Gas Chromatograph, UV-VIS Spectrophotometer, HAAKE Torque Rheometer, Haake Minilab Micro Compounder and micro injection Moulding, Rotational Rheometer, Malvern, Instron Tensile Testing machine, Dynamic Mechanical Thermal analyzer (TA). The major Polymer Engineering facilities are - Injection Moulding machines - 80 ton L&T Ergotech, Extrusion Blow moulding machine with parison programming, Kolsite Film blowing plant and PVC pipe Extrusion plant, Ultrasonic welding, FDM system Stratasys for rapid prototyping, MCP-HEK vacuum casting machine for prototyping, 3 axis CNC EDM machine etc. The students are trained in various CAE applications -ASPEN Plus, Accelrys-Material Studio for molecular simulation, MATLAB, PROENGINEER, ANSYS, CATIA, FLUENT, POLYFLOW, and MOLDFLOW etc.

The research areas in the Department include Catalytic Reaction Engineering, Multiphase Flow, Polymer Composites, Alternative Energy, Pollution Control, Water Treatment Technologies, Polymer Blends and Interpenetrating Polymer Networks, Nano filtration Membrane, Recycling of Polymer Waste, Specialty Polymer, Colloids and Interfacial Science, Tissue Engineering, Sensors, Fuel Cell Membrane etc. New acquisition in this year are Cyclone Separator and Tray Dryer for Unit Operation Laboratory.

**DESIGN DEVELOPMENT AND TRAINING CENTRE IN PLASTICS ENGINEERING:** Department of Chemical Engineering also coordinates the activities of "Design Development and Training Centre in Plastics Engineering", a joint venture of Department of Industries, Government of Jharkhand and BIT Mesra. Services provided by the Centre are : Product Testing Facility to the Plastics Processing Industry, Consultancy and Industry-Institute Collaborative R&D, Need based Short Term Courses to the Industry in the areas of CAD, CAE, Plastics Processing machinery operation, Mould design and fabrication, Entrepreneurship in Plastics Processing, Quality Control, etc.

**CENTRE FOR FOOD PROCESSING TECHNOLOGY & QUALITY CONTROL:** The Centre for Food Processing & Quality control received grants from Ministry of Food Processing Industries to set up Food Processing Laboratory and Quality Control Laboratory. The Centre's objective is to create adequate Human Resources for the food processing industry and to provide testing and quality control facilities to farmers, entrepreneurs and food processing industries, and to promote entrepreneurship in Food Processing by providing consultancy, and prospective entrepreneurs an opportunity to obtain test runs of their produce and develop standard operating procedure for their products. The Centre offers 5 year Integrated M.Sc (Food Technology). The Food Quality Control Laboratory includes Lyophilizer, Polarimeter, Microscope, Laminar flow clean Air workstation, UV-VIS Spectrophotometer, HPLC, Digital Photofluorometer, spectral analyser, spray drier, texture analyser, fibre extraction unit, AAS etc.

## Sponsored projects

### Ongoing Projects

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount (Rs. Lac.)	Duration of the Project
1	Development of organophosphorous flame retardants for epoxy and vinyl ester resin	PI: Dr Akhil Kumar Sen	NRB, DRDO	24.02.15	Rs 24.95	Three Years
2	Developing suitable Pedagogical methods for various classes,	PI: Prof (Mrs) S Goswami Co-PI: Dr. Akhil Kumar Sen	Ministry of HRD Govt of India, (Mentor IIT Kharagpur)	2014-2016	Rs 7.00	Two years
3	Human Resource development - Creation of Infrastructure facilities for running degree / diploma course in Food Technology of National Mission on Food Processing (NMFP)- 2013-17	Head of the Department	National Mission on Food Processing Directorate of Industries Govt. of Jharkhand	28.02.2014	Rs. 100.00	5 years
4	Development of Infrastructure for Polymer blends & nanocomposite Laboratory	Head of Department	DST-FIST	31.1.11	Rs. 67.0	5 Years

### Projects Completed

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount (Rs. Lac.)	Date of completion of the Project
1	Preparation of novel Poly(m-aminophenol) / functionalised carbon nanotube nanocomposite for selective sensing of aliphatic alcohols.	PI: Dr. Arup Choudhury Co-PI: Dr. Pradip Kar	DST-SERC, Govt. of India	12/01/2012	Rs. 24.95	3 years

### Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S. No.	Name of the faculty	Topic of Conference / Symposia / Workshop attended	Duration of Conference / Symposia / Workshop	Place of the Conference / Symposia / Workshop
1	Dr. A. N. Mishra Dr. Amit Tiwary Dr. P. Datta	Innovative drug discovery approaches & emerging trends in neuropharmacology	9 <sup>th</sup> December to 22 <sup>nd</sup> December 2015	BIT, Mesra
2	Dr. A. N. Mishra	Emerging Techniques in Bioinformatics and its Application	30 <sup>th</sup> November to 4 <sup>th</sup> December 2015	BIT Mesra
3	Dr. Raghuraja Pandiyan Dr. J. Sudeepan	Thermal Analysis of Materials using DSC, DTA, TG & Dilatometer, TAM-III"	December 14-19, 2015	IIT, Hyderabad
4	Dr. Raghuraja Pandiyan Dr. J. Sudeepan	Materials Microstructure Characterization using Optical and Scanning Electron Microscopy	December 20-24, 2015	IIT, Hyderabad
5	Dr A K Sen	International Conference and Exhibition, Fire India 2015	5th to 7th October 2015	Pragati Maidan New Delhi
6	Dr A K Sen	International Conference on Multifunctional Materials for Future applications (ICMFA 2015)	27th to 29th October 2015	IITBHU, Varanasi, UP.

### Publications

S. No.	Author	Title	Journal/ proceeding name	Issue No. vol. no. pp	Year	ISSN
1	Pulak Datta, Chandan Guha & Gautam Sarkhel	Morphological, Dynamic Mechanical, Creep and Weathering Behavior of Carbon Nanotube-Reinforced 50/50 ASA/ Zn-Ionomer Blend	Polymer-Plastics Technology and Engineering	Volume 55, Issue 5	2016	0360-2559
2	Abhishek Das , Gautam Sarkhel,	Effect of stoichiometric ratios for synthesized epoxy phenolic novolac (EPN) resins on their physicochemical, thermomechanical and morphological properties	Pigment & Resin Technology	Volume: 45 Issue: 4	2016	0369-9420

3	Dharmendra Pandey and Goutam Deo	Determining the Best Composition of a Ni-Fe/ Al <sub>2</sub> O <sub>3</sub> Catalyst Used for the CO <sub>2</sub> Hydrogenation Reaction by Applying Response Surface Methodology	Chemical Engineering Communications	203, 372-380	2016	0098-6445
4	Dharmendra Pandey and Goutam Deo	Effect of support on the catalytic activity of supported Ni-Fe catalysts for the CO <sub>2</sub> methanation reaction	Journal of Industrial and Engineering Chemistry	33, 99-107	2016	1226-086X
5	Arup Choudhury, Ji-Hoon Kim, Kap-Seung Yang, Duck-Joo Yang	Facile synthesis of self-standing binder-free vanadium pentoxide-carbon nanofiber composites for high-performance supercapacitors	Electrochimica Acta	Vol. 213, 400-407	2016	0013-4686
6	Sushil K. Verma, Manindra Kumar, Pradip Kar and Arup Choudhury	Core-shell functionalized MWCNT/poly(m-aminophenol) nanocomposite with large dielectric permittivity and low dielectric loss	Polymers for Advanced Technologies	DOI: 10.1002/pat.3836	2016	1099-1581
7	Arup Choudhury, Ji-Hoon Kim, Kap-Seung Yang, Duck-Joo Yang	Facile synthesis of self-standing binder-free vanadium pentoxide-carbon nanofiber composites for high-performance supercapacitors	Electrochimica Acta	Vol. 213, 400-407	2016	0013-4686
8	Abhijit Jadhav, Mohanraj G T	Synthesis of activated carbon from Cocos nucifera leaves agrowaste by chemical activation method	Chemistry & Chemical Technology	2, 10, 201-208	2016	1996-4196
9	A.S. Jadhav, G. T. Mohanraj	Synthesis and characterization of chemically activated carbon derived from arecanut shell	Carbon- Science & Technology	8, 1, 32-39	2016	0974-0546



10	Pulak Datta, Chandan Guha, & Gautam Sarkhel	Study of Mechanical, Thermal, Morphological & Process Rheology of Acrylonitrile Styrene Acrylate (ASA)/ Na+1 poly(ethylene-co-methacrylic acid) Ionomer blend (2014)	Polymer Engineering and Science	55(7), 1571-1579	2015	1548-2634
11	Pulak Datta, Chandan Guha, & Gautam Sarkhel	Mechanical, Rheological and Electrical Properties of Multiwalled Carbon Nanotube Reinforced ASA/Na-Ionomer Blend	Journal of Applied Polymer Science	132(36), 42516	2015	097-4628
12	Pulak Datta, Chandan Guha, & Gautam Sarkhel	Thermal, Dynamic Mechanical and Creep Behavior of Carbon Nanotube Reinforced ASA/Na-ionomer Blend	Polymer for Advanced Technology	26, 1294-1301	2015	1099-1581
13	Pulak Datta, Chandan Guha, & Gautam Sarkhel	Mechanical, Rheological, and Electrical Properties of Multiwalled Carbon Nanotube Reinforced Nanocomposites of 50/50 Acrylonitrile Styrene Acrylate/ Zn+2 poly(ethylene-co-methacrylic acid) Ionomer Blend	Polymer Plastics Technology & Engineering	54(16), 1753-1763	2015	1525-6111
14	Sudeepan, J, Kumar, K, Barman, T. K, Sahoo, P.	Study of mechanical and tribological properties of ABS/ZnO polymer composites	Int. J. Adv. Mat. Manf. Char.	5, 125-135.	2015	2277-3886
15	Sudeepan, J, Kumar, K, Barman, T. K, Sahoo, P.	Mechanical and Tribological Behavior of ABS/TiO <sub>2</sub> Polymer Composites and Optimization of Tribological Properties Using Grey Relational Analysis	J. Inst. Eng. India Ser. C.	1-13	2015	2250-0553

16	Arnav Prakash, Gautam Sarkhel, Kaushik Kumar	Multi-objective Optimization of Wear Properties for Kaolin Reinforced Epoxy Composite with Grey- Taguchi Technique	International Journal of Applied Engineering Research	Vol. 10 No.55	2015	1087-- 1090
17	Arnav Prakash, Gautam Sarkhel Kaushik Kumar	Multi-objective Strength Optimization for Kaolin Reinforced Epoxy Composite Using Grey- Taguchi Approach	International Journal of Applied Engineering Research	Vol. 10 No.55	2015	1087-- 1090
18	Abhishek Das and Gautam Sarkhel	Effect of Stoichiometric Ratios for Synthesized Epoxy Phenolic Novolac (EPN) Resins on Their Physicochemical, Thermomechanical & Morphological Properties	Pigment & Resin Technology	Accepted	2015	0369- 9420
19	Pandey, D. and Deo, G.	Determining the Best Composition of a Ni-Fe/ Al <sub>2</sub> O <sub>3</sub> Catalyst Used for the CO <sub>2</sub> Hydrogenation Reaction by Applying Response Surface Methodology	Chem. Eng. Commun.	DOI: 10.1080/ 00986445. 2014. 1001889	2015	1563- 5201
20	Kalpna Mahato, Apoorva Ambarkar, Sudipta Goswami	Morphology and Mechanical Properties of Sisal Fibre /Vinyl Ester Composites	Fibres and Polymers	Accepted	2015	1875- 0052
21	Sudipta Goswami, Kalpana Kiran	PMMA/PHEA Interpenetrating Network Embedded with Iron Oxide Nanoparticles for Drug Delivery Applications	International Journal of Polymeric materials and Polymeric Biomaterials	Accepted	2015	1563- 535X
22	Arup Choudhury, Jeliza S. Bonso, Melissa Wunch, Kap Seung Yang, John P. Ferraris and Duck J. Yang.	In-situ synthesis of vanadium pentoxide nanofibre/exfoliated graphene nanohybrid and its supercapacitor applications.	Journal of Power Sources	Vol. 287, pp: 283-290	2015	0378- 7753

23	Arup Choudhury Sushil K Verma, Pradip Kar, Duck J. Yang,	Poly(m-aminophenol)/ functionalized multi- walled carbon nanotube nanocomposite based alcohol sensors.	Sensors & Actuators B: Chem.	Vol.219, pp 199-208	2015	0925- 4005
24	Arup Choudhury Sushil K Verma, Pradip Kar	Interaction of multi- walled carbon nanotube with poly(m- aminophenol) in their processable conducting nanocomposite.	Physica Status Solidi A: Appl. Mater. Sci.	Issue No. 9, Vol. 212, pp. 2044–2052.	2015	1862- 6319
25	S. Shekhar, M. Mukherjee and A.K.Sen	Swelling thermal and mechanical properties of NIPAM based terpolymeric hydrogel	Poly. Bull.	DOI: 10.1007/ s00289-015- 1076-3	2015	0170- 0839
26	D.Ghosh	Numerical Simulation of Combustion Mechanism of Dual Fuel Diesel-Producer Gas Compression Ignition Engine	International Journal Of Innovative Research In Advanced Engineering	Issue 7, Volume 2 (July2015)	2015	2349- 2163
27	B C Ruidas, S Ganguly	Insitu combustion of light oil ; stoichiometric, kinetic and thermodynamic analyses from the flow experiments	Combustion Science and Technology	Vol 187	2015	0010- 2202
28	B C Ruidas, S Ganguly	Production of light oil by injection of hot inert gas	Heat Mass Transfer	Online	2015	0947- 7411
29	Arnab Karmakar, Swapn Paruya	Visualization of boiling flow structure in a natural circulation boiling loop	Nuclear Engineering and Design	285, 158–170	2015	
30	Sumit Kumar Jana, Asit Baran Biswas and Sudip Kumar Das	ANN applicability in gas holdup prediction in tapered bubble columns using non-Newtonian pseudoplastic liquids	Chem. Xpress	8(2), 102-111	2015	2320- 1975

31	Sumit Kumar Jana, and Sudip Kumar Das	Effect of gas holdup enhancement using aqueous solutions of electrolyte in taper bubble column pseudoplastic liquids	Chem. Xpress	8(1), 42-47	2015	2320-1975
32	Magar subhash B., Jadhav A. S., Sumit Kumar Jana, G.T. Mohanraj,	Microbial production of green polymer Xanthan gum from Xanthomonas campestris	Int. J. Sci. Eng. Res	6(8), 1045-1052	2015	2229-5518
33	Magar subhash B., Jadhav A. S., Sumit Kumar Jana	Sustainable production of microbial polysaccharide xanthan gum from supplemental substrate	Int. J. Sci. Res	4(8), 473-475	2015	2277-8179
34	Amit Kumar Tiwari A.S. Vidyarthi	Nutritional Evaluation of Various Edible Fruit Parts of Jackfruit (artocarpus heterophyllus) at Different Maturity Stages	Int. J. Chem. Pharm. Rev. Res.,	Vol. (1), Issue (2), Page. 21-26	2015	2395-3306

## Book

1	Sudipta Goswami, Kalpna Kiran	Polymeric IPNs for Biomedical Application edited by Munmaya Mishra	Encyclopedia of Biomedical Polymers and Polymeric Biomaterials	2015	ISBN-10: 1439898790
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## Departmental Students' Activities

S. No.	Name of the Activity	Students' coordinator	Date/Duration
1	Under Graduate Engineering students under took Vocational training at ONGC, TATA Steel Ltd, ONGC, NTPC, MECON, CSIR-NML, RDCIS-SAIL, SAIL (Bokaro), Hindalco Industries Ltd., ICT, IOCL (Mathura, Panipat, Haldia, Barauni), Schenk Process India Ltd., L & T Hydrocarbon Engineering, MCC PTA India Corporation Pvt Ltd, TATA Steel, HPCL Visakh Refinery, Orient Paper Industries Ltd, CMPDI, Deepak Fertilizer & Petrochemical Corp. Ltd., Orient Cements, HPCL Visakha Refinery, NTPC (M.P),		May-June 2016
2	COLESENCE 2016, National Students Technical Events, organised by IICChE, BIT Mesra Students Chapter	Sourav Agarwal	April 1-2, 2016



3	Department of Chemical Engineering & Technology, BIT, Mesra won 2 <sup>nd</sup> place in PETROFIESTA, 2015 held at IIT, Kharagpur.  Other winners in different events are as follows: ➤ PETRODEBATE – K. Chandana (3 <sup>rd</sup> Place) ➤ PETROGYAN – K. Chandana, Deblina De, Subhodeep Banerjee (3 <sup>rd</sup> Place) ➤ PETROCASESTUDY – K. Chandana, DEblina De, Prakriti Jaiswal, Shivam Rai (3 <sup>rd</sup> Place) -	06/11/15 to 08/11/15
4	Industrial visit of IMSc students (III Semester) at Parle Food product Ltd., Jharkhand	September, 2015
5	Industrial visit of Chemical Engineering and Chemical Engineering- Plastics & Polymers students (V Semester) at HINDALCO Plant, Muri, Jharkhand	October, 2015

### Board of Studies (UG/PG)

S. No.	Name	
1	HOD/In-Charge	Chairman (Ex-Officio)
2	Prof. (Mrs.) M. Mukherjee	Member
3	Dr. Gautam Sarkhel	Member
4	Dr. (Mrs.) S. Goswami	Member
5	Dr. Akhil Kumar Sen	Member
6	Dr. P. Raghuraj	Member
7	Dr. A. Kumar (I), Professor, Dept. of Mechanical Engg	Member
8	Dr. (Mrs.) U. Jha, Professor Dept. of Chemistry	Member
9	Dr. (Mrs.) P Padmanabhan, Department of Bio - Engineering	Member
<b>External Member</b>		
S. No.	Name of Member, Designation, Institute/Company, Full Address	
1	Prof. A. N. Samanta Dean PG and Research, Dept. of Chemical Engineering, IIT, Kharagpur	
2	Prof. Parthapratim Gupta Dean Research and Consultancy, Dept. of Chemical Engineering, NIT, Durgapur	
3	Prof. A. K. Ghosh Centre for Polymer Science and Engineering, IIT, Delhi	
4	Prof A.K. Datta, Department of Food and Agriculture Engineering, IIT Kharagpur	

5	Prof A.K.Chauhan. Centre for Food Science and Technology, BHU,
6	Dr. K. Naskar, Rubber Technology Centre, IIT Kharagpur
7	Dr. T. K. Das SAIL, R & D
8	Dr. S. K. Nayak Director General, CIPET
9	Dr Samik Gupta Senior Scientist, SABIC Global research Centre, Bangalore

### Departmental Academic Committee

S. No.	Name of Member	Designation (DAC/AC)
1	HOD/In-Charge	Chairman (Ex-Officio)
2	Prof. (Mrs.) M. Mukherjee	Member
3	Dr. Gautam Sarkhel	Member
4	Dr. (Mrs.) S. Goswami	Member
5	Dr. Akhil Kumar Sen	Member
6	Dr. G. T. Mohan Raj	Member
7	Dr A. Choudhury	Member
8	Dr. P. Raghuraj	Member
9	Dr. A. Kumar (I) Dept. of Mechanical Engg	Member
10	Dr. (Mrs.) U Jha Dept. of Chemistry	Member
11	Guide(s) of the Candidate	Member

### Other important information

- Mr. Tridip Sarkar, GM, Project IOCL, New Delhi delivered a lecture on petrochemical business in India on 2nd April, 2016.
- Dr. A. R Bhattacharayay, Professor, Department of Metallurgy and Materials Engineering visited Department on 9th Nov, 2015

## Department of Chemistry



Chemistry Laboratory

The Department was established in 1955 as a support department offering various chemistry courses for the BE programmes and other post graduate programmes like M.Tech in Env. Sc. & Engineering, M.Tech in Nano Sc. & Technology

The Department now currently offers following programmes independently.

Programmes Offered	Intake
Integrated M.Sc. in Chemistry – (5-years,10- semesters)	40
M. Sc. in Chemistry – (2-years, 4- semesters)	15

Ph. D. Programmes in various discipline of Chemistry and Applied Chemistry  
The Department has received support under “Fund for Improvement in Science & Technology Infrastructure” (FIST-2012) programme of the Department of Science and Technology, New Delhi for NMR and Computational Chemistry facility. We have received the Instruments as well as all the accessories and has been installed since December 2015. The Department has also received significant funds from World Bank under TEQIP-I which has helped in creating a central Instrumentation Facility with sophisticated instruments like :ICP-AES, AAS, FTIR, GC, UV-Vis, GC-MS, HPLC, HPTLC, DSC, TGA, SEM, AFM and Electrochemical Analyzer. Through the funds obtained from UGC XIth plan the department has developed a state of art Synthesis Lab which caters to the needs of PG students & research scholars.

The department has quality research programs supported by UGC, SERB-DST, DBT, AICTE, CSIR etc.. The faculty members are actively involved in research in the fields of pure and applied chemistry and have various publications in high-impact journals.



The Department runs a post graduate programme M.Sc. in Chemistry from Session 2009 and is continuing. This program designed to provide an in-depth knowledge in various aspects of Chemistry relevant to current educational and research prospects in Organic synthesis & Medicinal Chemistry, Environmental & Inorganic Chemistry, Electrochemistry, Nano Materials, Computational/Theoretical and Physical Chemistry. This curriculum expands not only the scope of traditional chemistry courses but also various interdisciplinary courses by encouraging students to apply various R&Ds, companies and other well-known institutes. The aim of this program is to prepare students for entry into Ph.D. programs, academics, industries and careers in R & D laboratories.

The Department has also started an Integrated M.Sc. in Chemistry programme in the year 2011. This programme lays emphasis on mastering interdisciplinary concepts. Biology, chemistry, mathematics, physics, electronics and computers are intertwined, in lectures and in labs, to achieve a dynamic understanding of a wide range of fundamental principles within the modern scientific method. The result is a community of students trained in, and dedicated to, an interdisciplinary strategy for learning, and ultimately advancing, the many directions of science. Learning the foundations of physical, mathematical and life sciences in an integrated, active-learning classroom has the effect of producing students who are well prepared for delving into diverse areas of research. In addition to meeting disciplinary learning outcomes in biology, chemistry, mathematics, physics and computers, the students develop skills in teamwork, real problem solving, and communication.

Our department conducted workshops for the 10+2 students and teacher by Vigyan Prasar. We have opened the east zone nodal chapter for Indian Society of Chemists and Biologists (ISCB) at BIT Mesra to develop our department further organizing different national as well as international conferences, workshops and seminars. Moreover, the department purchased two new instruments (AUTOLAB Potentiostat/Galvanostat and Peccel Solar Simulator) under the BIT instrument budget 2014-15. The modernization of research lab in our department is undergoing and soon to be completed. Such as ENDNOTE (10 USERS), BROOKFIELD VISCOMETER, UV-Vis SPECTROPHOTOMETER. So for nine faculties awarded seed money scheme for research on the basis of which various research projects are being sent to various funding agency.

### List of instruments in the department

S. No.	Name of the equipment procured	Funding Agency
1.	400 MHz NMR	DST-FIST
2.	AUTOLAB Electrochemical Analyzer	Institute
3.	Solar Simulator	Institute
4.	Molecular Modeling Software	DBT MED
5.	Digital Karl- Fischer titration Apparatus	DST FT.
6.	Precision Recirculating Chiller	CSIR
7.	Vacuum Pump	SERB
8.	HP laserjet M1005 MFP, Print/ Scan/Copy	SERB
9.	Balance	SERB



10.	Vacuum Pump	SERB
11.	Ultrasonic Bath	SERB-DST
12.	Emergency Showers	Lab expenses
13.	Hot air oven	Lab expenses
14.	Balance	Lab expenses
15.	Battery 7AH, 12 V SMF	Lab expenses
16.	Magnetic Stirrer with Hot plate (3 nos.)	Lab expenses
17.	pH Meter	Lab expenses
18.	Conductivity Meter	Lab expenses
19.	Distillation Assembly	Lab expenses
20.	Portable Balance	Lab expenses
21.	Chemoffice professional	
22.	Rotavapor-100	
23.	Distillation units-3	

## Sponsored projects

### Project Sanctioned

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Influence of functionalized nanomaterial on electrochemical bio-sensing of biotin-avidin couple	Dr. Pradip KAR	DST Nanomission	09.06.16	40.78 lakh	3 years

### Ongoing Projects

S. No	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1	DST-FIST Programme		DST	2014	160.00 Lac	5 Yrs
2	One-dimensional Nanostructured Si-based Electrodes for High-Performance Energy Storage Devices		BRNS	2015	30.53Lac	3 Yrs

3	Intramolecular ring contraction mediated synthesis of novel 2-isoxazol-3-yl-acetamide scaffold as possible anti-HIV agents		SMS Grant, BIT Mesra	2015	0.80Lac	3 Yrs
4	Synthesis of cyclopentene based carbocyclic nucleosides as possible antiviral agents		Kagoshima University, Japan	2015	10.97Lac	3 Yrs
5	Microwave Based Synthesis of Poly-2-hydroxyethyl methacrylate/Cinnamic acid grafted guar and its applications	Dr. S. Mishra	AICTE	2014	14.11Lac	3 Yrs
6	Microwave Based Synthesis of Graft copolymers of Barley, its Characterizations and Applications	Dr. S. Mishra	DST	2013	29.5Lac	3 Yrs
7	Synthesis, Characterization and catalytic application of supported metal nanoparticles in Carbon-Carbon bond formation		SERB-DST	2015	Rs. 28.06 Lac	3 Yrs.
8	Fabrication of Nanostructured Metal Oxides for Energy storage Devices		Seed Money Scheme – BIT Mesra	2015	0.8 lakhs	3 Yrs.
9	Development of polymer - ceramic nanocomposites with high dielectric constant		SERB-DST	2014	22.9 lakhs	3 Yrs.
10	Influence of functionalized nanomaterial on electrochemical bio-sensing of biotin-avidin couple		DST	2016	40.78 Lac	3 Yrs.
11	Deciphering the mode of antiviral action of isolated phytoconstituents and their synthetic analogues/ counterparts combining structure and analogs-based approach to develop a therapeutic anti-viral candidate.		DBT	2013	11.55 Lac	3 Yrs.

12	Structure Based Discovery of novel antiviral molecules with potential to inhibit drug resistance viruses.		DBT	2013	25.00 Lac	3 Yrs.
13	Computer assisted design and synthesis of carbocyclic nucleosides as an anti-hepatitis agent.		UGC	2013	5.94 Lakhs	3 Yrs.
14	The target based discovery of carbocyclic nucleosides as an anti-HCV agent through computer assisted drug design and synthesis.		DST	2013	17.03 Lac	3 Yrs.
15	Winged Helix domain-oligonucleotide recognition as an axis to develop PfPRIO-2 specific inhibitor: implication in anti-malarial drug development		DBT	2013	32.46 Lac	3 Yrs.
16	Synthesis and Evaluation of Carbocyclic Nucleoside Analogs with Exocyclic Double Bond as Anti-HBV HepDirect Prodrug		UGC	2013	4.82 Lac	3 Yrs.
17	Discovery of HepDirect Nucleotide Prodrug as Anti-Hepatitis B Agent		DST	2013	17.78 Lac	3 Yrs.
18	Microwave assisted synthesis of polyacrylamide grafted agar (Ag-g-PAM), characterizations and applications as flocculant for waste water treatment	Dr. S. Mishra	UGC	2013	5.97Lac	3 Yrs.
19	Preparation of Novel Poly(m-aminophenol)/functionalised carbon nanotube nanocomposites selective sensing for aliphatic alcohol,	PI: Dr. Arup Choudhury, Co-PI: Dr. Pradip KAR	DST	2012	24.95Lac	3 Yrs.
20	Synthesis, characterization and electrochemical study of biologically active manganese complexes	Dr. S. Naskar	UGC	2012	11.45 Lac	3.5 Yr

21	Cobalt Oxide – Graphene Nanocomposite as Anode Material for High Performance of Lithium Ion Battery	Dr. P. Roy	SERB-DST	2014	21 Lac	3 Yrs.
22	Metal Oxide Core-Shell Nanostructures as Anode Material for Lithium Ion Batteries	Dr. P. Roy	CSIR	2015	23 Lac	3 Yrs.
23	Synthesis of polysaccharide based graft copolymers of cinnamic acid and their applications for fruit juice clarification	Dr. G.Sen	DST	2014	21.9 Lacs	3 Yrs
24	DST FIST Infrastructure Fund	Head, Chemistry	DST	2014	160 Lacs (DST:BIT= 1:1) + 50 Lacs	3 yrs.
25	Development of Polymer ceramic Nanocomposites with High Dielectric Constant	Dr. B. Dasgupta Ghosh	SERB-DST	2014	22.9 Lacs	3 Yrs.
26	Development of polymer-ceramic nanocomposites with high dielectric constant	Dr. Barnali Dasgupta Ghosh (PI)	SERB-DST	2014	22.9 lakh	3 years
27	Induced doping of chemically synthesized processable conducting poly-phenylenediamine	Dr. Pradip KAR	SERB-DST	2013	21.53 lakh	3 years
28	Synthesis, Characterization and catalytic application of supported metal nanoparticles in Carbon-Carbon bond formation	Dr. Rafique Ul Islam	SERB-DST	2015	INR 28,06,400	3 Years

### Projects Completed

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Date of completion of the Project
1.	Synthesis, Characterisation and reactivity study of Biologically relevant and Industrially important Coordination Complexes of Mn, Co, Ni, Cu and Zn with N, O and S donor ligands	Dr. S. Naskar	CSIR	2012	20.00 Lac	30.06.2015



2.	Microwave assisted synthesis of polyacrylamide grafted agar (Ag-g-PAM), characterizations and applications as flocculant for waste water treatment	Dr S. Mishra Dr G. Sen	UGC	2011	5.97 Lacs	28.2.14
3	Ion beam treated HAP coating on alumina for orthopaedic implants	Dr. Deep Shikha	DST	2012	17.05 lac	Feb 15
4.	Preparation of Novel Poly(m-aminophenol)/functionalised carbon nanotube nanocomposites selective sensing for aliphatic alcohol	Dr. A. Choudhury and Dr. P. KAR	DST	2012	24.95 Lacs	Jul 2015
5	Title of the Scheme: Synthesis, Characterisation and reactivity studies of Biologically relevant and industrially important Coordination Complexes of Mn, Co, Ni, Cu & Zn with N, O & S donor ligands	PI	CSIR	2012	18.42	30/06/2015
6	"Synthesis, characterization and electrochemical study of biologically active manganese complexes"	PI	UGC	2012	11.458	30/06/2015
7	Preparation of Novel Poly(m-aminophenol)/functionalised carbon nanotube nanocomposites selective sensing for aliphatic alcohol	PI: Dr. Arup Choudhury; Co-PI: Dr. Pradip KAR	DST	2012	24.95	3 years + 1 year extended
8	Synthesis, characterization and redox & photo-physical study of Ruthenium dyes for Dye Sensitized Solar Cell	PI	AICTE	2012	20.00	31/03/2014

### Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1	Dr. S.Naskar	International Conference on Alternative Energy Sources (ICAES-2016)	TEQIP-II	Department of Mechanical Engineering and Department of Bio-Engineering B.I.T.-Mesra, Ranchi	BIT-Mesra	Date: 29th - 30th January, 2016

2	Dr. S.Naskar	Workshop on Electronic Structure of Coordination Complexes	IIT-Bombay	IIT-Bombay	IIT-Bombay	16-18th May, 2016
3	Dr. S. Naskar	ISTE STTP on Environmental Studies	MHRD	IIT-Bombay	BIT-Mesra	02-12 June'2015
4	Dr. P. Roy	International conference on NanoEnergy	NanosMat	Univ. of Manchester	Manchester, UK	June 1-3, 2015
5	Dr. G.Sen	Workshop	IIT Bombay	National mission on education through ICT (MHRD)	BIT Mesra	02.11.15 to 12.11.15
6	Dr. S.S. Mahapatra	International Conference on Alternative Energy Sources (ICAES-2016)	TEQIP-II	Department of Mechanical Engineering and Department of Bio-Engineering B.I.T.-Mesra, Ranchi	BIT-Mesra	Date: 29th - 30th January, 2016
7	Dr. Pardip KAR	NCCM 2015, IIC, NPL, New Delhi, India	TEQIP II	NPL	New Delhi	26.11.15
8	Dr. Pardip KAR	RACEE 2016, BIT, Mesra, Ranchi, India	SERB-DST	BIT	Ranchi	26.02.16
9	Dr. Rahul	Workshop	IIT Bombay	National mission on education through ICT (MHRD)	BIT Mesra	02.11.15 to 12.11.15
10	Dr.J.P.Pandey Dr.Gautam Sen Pinki Pal	International Conference on Recent Trends in Applied Physical, Chemical Sciences	DST	Bio-engineering	BIT Mesra	2015
11	Dr.J.P.Pandey Dr.Gautam Sen Pinki Pal	National conference on Biotechnology for sustainable development	DST	Bio-engineering	BIT MESRA	17-12-2015 TO 19-12-2015
12	Dr.J.P.Pandey Dr.Gautam Sen Pinki Pal	International conference on Materials science & technology	DST	University o of Delhi		1-4-2016 to 4-4-2016

13	Dr.J.P.Pandey Dr.Gautam Sen Pinki Pal	International conference on Alternative Energy Sources	DST	Mechanical Engeneering	BIT MESRA	29-1-2016 TO 30-1-2016
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## Publications

### Published in International Journals

1. Mohan Kasula, M.; Toyama, M.; Samunuri, R.; Rozy, E; Yadav, M.; Bal, C. Jha, A. K.; Baba, M.; Sharon, A.; Synthesis and anti-HBV activity of -stereoisomer of aristeromycin based analogs Bioorg. Med. Chem. Letts. 2016, 25, 5224-7.
2. Thiagarajan, A.; Toyama, M.; Baba, M. Sharon, A.; Bal, C. Synthesis and Anti-HCV Activity of 4-Methoxy-7H-Pyrrolo[2,3-d] Pyrimidine Carbocyclic. Nucleosides, Nucleotides and Nucleic Acids, 2016, 35, 305-14.
3. Kasula, M., Samunuri, R.; Chakravarty, H.; Bal, C.; Baba, M.; Jha, A. K.; Sharon, A.; Regioselective synthesis of pyrazolo[3,4-d]pyrimidine based carbocyclic nucleosides as possible antiviral agent. Nucleosides, Nucleotides and Nucleic Acids, 2016, 35, 43-52.
4. Chaudhary, S.; Sharma, V.; Jaiswal, P. K.; Gaikwad, A. N.; Sinha, S. K.; Puri, S. K.; Sharon, A.; Maulik, P. R.; Chaturvedi, V. Stable Tricyclic Antitubercular Ozonides Derived from Artemisinin. Org Lett 2015, 17, 4948-51.
5. Balaraju, T.; Konreddy, A. K.; Parveen, A.; Toyama, M.; Ito, W.; Karampuri, S.; Baba, M.; Sharon, A.; Bal, C. Synthesis and anti-HCV determinant motif identification in pyranone carboxamide scaffold. Bioorg Med Chem Lett 2015, 25, 5224-7.
6. Divya, S.; Pongilat, R.; Kuila T.; Nallathamby K.; Srivastava S. K.; Roy P; Spinel-Structured NiCo2O4 Nanorods as Energy Efficient Electrode for Supercapacitor and Lithium Ion Battery Applications. Journal of Nanoscience and Nanotechnology, 2016, 16, 9761-9770.
7. Samanta, S.; Roy, P.; Kar, P.; Structure and Properties of Conducting Poly(o-phenylenediamine) Synthesized in Different Inorganic Acid Medium, 2016, Molecular Research, 24, 342-349.
8. Naskar, S.; Pakhira B.; Mishra, D.; Mitra, P.; Chattopadhyay, S.; Naskar, S.; Synthesis, characterization and theoretical studies of the heteroleptic Ruthenium(II) complexes of 2,6-bis(benzimidazolyl)pyridine, 2015, Polyhedron, 100, 170-179.
9. Mongal, B.; Pal, A.; Mandal, T.; Datta, J.; Naskar, S.; Synthesis, characterisation, electrochemical study and photovoltaic measurements of a new terpyridine and pyridine-quinoline based mixed chelate ruthenium dye, 2015, Polyhedron, 102, 615-626.
10. Sagar, S.; Mongal, B.; Dutta, A.; Mondal, P.; Lewis, W.; Saba, N.; Naskar, S.; Complexation study of Schiff base ligand: pyridin-2-ylimino methyl naphthanol with Co<sup>2+</sup>, Mn<sup>2+</sup> and Ni<sup>2+</sup> ions in solid and solution phase, Journal of Coordination Chemistry, 2015, 2364-2376.
11. Mongal, B. N.; Naskar, S.; Pal, A.; Bhattacharya, S.; Mandal, T. K.; Datta, J.; Naskar, S.; Ruthenium complexes of substituted terpyridine and pyridyl-quinoline based ligands with ancillary ligands:

- Synthesis, Characterization, Electrochemical Study and DFT Calculation, *Chemistryselect*, 2016, 3276 – 3287.
12. Mongal B.; Bhattacharya, S.; Sengupta, S.; Mandal, T.; Datta J.; Naskar, S.; A novel ruthenium sensitizer with –OMe substituted phenyl-terpyridine ligand for dye sensitized solar cells, *Solar Energy*, 2016, 134, 107-118.
  13. Roy, P.; Srivastava, S. K.; Nanostructured Anode Materials for Lithium Ion Batteries, *Journal of Materials Chemistry A*, 2015, 3, 2454-2484.
  14. Roy, P.; Srivastava, S. K.; Nanostructured Copper Sulfides: Synthesis, Properties and Applications, *CrystEngComm.*, 2015, 17, 7801-7815.
  15. Panigrahi, R.; Roy, P.; Srivastava, S. K.; Controlled Growth of PbSe Nanorods to Flower-like Structure and Their Size-dependent Optical Properties, *Advanced Science, Engineering and Medicine*, 2015, 7, 190-194.
  16. Islam, R.Ul.; Taher, A.; Choudhary M.; Witcomb, M. J.; Mallick, K.; Polymer supported Cu(I) catalyst for 'click reaction' in aqueous media, *Dalton Transactions*, 2015, 44, 1341–1349.
  17. Islam, R.Ul.; Taher, A.; Choudhary M.; Siwal, S.; Mallick, K.; Polymer immobilized Cu(I) formation and azide-alkyne cycloaddition : A one pot reaction, *Nature Scientific Reports*, 2015, 6, 09632.
  18. Taher, A.; Nandi, D.; Islam, R.Ul.; Choudhary M.; Mallick, K.; Microwave assisted azide-alkyne cycloaddition reaction using polymer supported Cu(I) as a catalytic species: A solvent less approach, *RSC Advances*, 2015, 5, 47275-47283.
  19. Nandi, D.; Taher, A.; Islam, R.Ul.; Choudhary M.; Siwal, S.; Mallick, K.; Light effect on Click reaction: Role of photonic quantum dot catalyst, *Nature Scientific Reports*, 2016, 6, 33025.
  20. Pal, P.; Pandey, J. P.; Sen, G.; Algal biomass harvesting by graft copolymer of polyacrylamide on guar gum (GG-g-PAM): A sustainable method for alternative source of energy, *Carbon-Science and Technology*, 2016, 139-145.
  21. Samanta, S.; Roy, P.; Kar, P.; Influence of pH of the Reaction Medium on the Structure and Property of Conducting Poly (o-Phenylenediamine), *Materials Today: Proceedings* 2015, 2 (4), 1301-1308.
  22. Verma, SK ; Kar, P ; Yang, DJ A Choudhury; Poly (m-aminophenol)/functionalized multi-walled carbon nanotube nanocomposite based alcohol sensors, *Sensors and Actuators B: Chemical* 2015, 219, 199-208.
  23. Thombare, Nandkishore ; Jha, Usha; Mishra, Sumit ; Siddiqui M.Z. ; Guar gum as a promising starting material for diverse applications: A review, <http://dx.doi.org/10.1016/j.ijbiomac.2016.04.001>. (Publisher: Elsevier). *International Journal of Biological Macro molecules*, 2016, Volume 88, July 2016, Pages 361-372.
  24. Bharti, S; Mishra, S; Narendra, L.V; Balaraju, T; Balraju, K; Ceric ion-induced synthesis of polymethyl methacrylate-grafted oatmeal: its characterizations and applications DOI: 10.1080/19443994.2015.1056836 (Publisher: Taylor and Francis)., *Desalination and Water Treatment*, 2016, 57 (27), pp. 12777-12792.



25. Bharti, S.; Mishra, S.; Narendra, L. V.; Comparative Studies on the High Performance Flocculating Agent of Novel Polyacrylamide grafted Oatmeal, art. no. 21540 (Publisher: Wiley), Advances in Polymer Technology, 2016, 35 (2).
26. Bharti, S.; Mishra, S.; Synthesis, characterization and application of polymethyl methacrylate grafted oatmeal: A potential flocculant for wastewater treatment, International Journal of Environmental Research, 2016, 10 (1), pp. 169-178.
27. Jha, R.; Jha, U.; Dey, R. K.; Mishra, S.; Swain, S. K.; Fluoride sorption by zirconium (IV) loaded carboxylated orange peel, Desalination and Water Treatment, 2015, Vol. 53, Issue 8, pp 2144-2157.
28. R. Jha, U. Jha, R. K. Dey, S. Mishra & S. K. Swain, Fluoride sorption by zirconium (IV) loaded carboxylated orange peel, Desalination and Water Treatment, 2015, 53, 2144-2157.
29. Shahid, Md.; Shikha, Deep; Sinha, Sanjay Kumar; Corrosion and Thrombogenicity of Argon implanted HAP/alumina, Materials Performance, 2016, 55(6), 54-58.
30. Kumar, A.; Pandey, J. P.; Kumar, S.; Removal of As(III) from aqueous solution using sawdust of Ficus benghalensis: kinetic and modeling studies, International Journal of Applied Environmental Sciences, 2015, 10, 4, 1245-1261.
31. Kumar, S.; Pandey, J. P.; Sinha, A. K.; Systematic Study of Iron Removal from Water by Traditional Method, Physical & Environmental Science Bulletin, 2015, 3, 1, 19-24.
32. Bal, N. C.; Jena, N.; Chakravarty, H.; Kumar, A.; Chi, M.; Balaraju, T.; Rawale, S. V.; Rawale, J. S.; Sharon, A.; Periasamy, M. The C-terminal calcium-sensitive disordered motifs regulate isoform-specific polymerization characteristics of calsequestrin. Biopolymers 2015, 103, 15-22.
33. Verma, S. K.; Kumar, M.; Kar, P.; Choudhury, A.; Core-shell functionalized MWCNT/poly (m-aminophenol) nanocomposite with large dielectric permittivity and low dielectric loss. Polymers for Advanced Technologies 2016, DOI: 10.1002/pat.3836.
34. Samanta, S.; Roy, P.; Kar, P.; Structure and properties of conducting poly (o-phenylenediamine) synthesized in different inorganic acid medium. Macromolecular Research 2016, 24 (4), 342-349.
35. Raj, S.; Srivastava, S. K.; Kar, P.; Roy, P.; Three-dimensional NiCo<sub>2</sub>O<sub>4</sub>/NiCo<sub>2</sub>S<sub>4</sub> Hybrid Nanostructures on Ni-foam as High-performance Supercapacitor Electrode. RSC Advances 2016, DOI: 10.1039/C6RA19376E.
36. Bal, N. C.; Jena, N.; Chakravarty, H.; Kumar, A.; Chi, M.; Balaraju, T.; Rawale, S. V.; Rawale, J. S.; Sharon, A.; Periasamy, M. The C-terminal calcium-sensitive disordered motifs regulate isoform-specific polymerization characteristics of calsequestrin. Biopolymers 2015, 103, 15-22.
37. Parween, A.; Mandal, T. K.; Guillot, R.; Naskar, S.; Acid-base behavior, electrochemical properties and DFT study of redox non-innocent phenol-imidazole ligands and their Cu complexes, Polyhedron 2015, 99, 34-46.
38. Naskar, S.; Pakhira, B.; Mishra, D.; Mitra, P.; Chattopadhyay, S.; Naskar, S.; Synthesis, characterization and theoretical studies of the heteroleptic Ruthenium(II) complexes of 2,6-bis(benzimidazolyl)pyridine, Polyhedron 2015, 100, 170-179.

39. Roy, P., Srivastava, S. K., Nanostructured Anode Materials for Lithium Ion Batteries, *Journal of Materials Chemistry A*, 2015, 3, 2454-2484.
40. Panigrahi, R., Roy, P., Srivastava, S.K., Controlled Growth of PbSe Nanorods to Flower-like Structure and Their Size-dependent Optical Properties, *Advanced Science, Engineering and Medicine*, 2015, 7, 190-194.
41. R Jha, Usha Jha, R K Dey, S Mishra, S K Swain; Fluoride sorption by Zr(IV) loaded carboxylated orange peel; *Desalination and Water Treatment*; 2015, 53, 2144-2157.
42. Bharti, S., Mishra, S., Narendra, L.V. Comparative Studies on the High Performance Flocculating Agent of Novel Polyacrylamide grafted Oatmeal, *Advances in Polymer Technology*, 2015, (In Press, DOI: 10.1002/adv.21540).
43. Bharti, S, Mishra, S, Narendra, L.V., Balaraju, T., Balraju, K., Ceric ion-induced synthesis of polymethylmethacrylate-grafted oatmeal: its characterizations and applications, *Desalination and Water Treatment*, 2015, (In press, DOI: 10.1080/ 19443994. 2015. 1056836),
44. Rani, G.U., Dey, K.P., Bharti, S., Mishra, S., Controlled drug release of 5-amino salicylic acid by poly(2-hydroxyethylmethacrylate) grafted agar, *Frontiers of Chemical Science and Engineering*, 2015, (In press, DOI: 10.1007/s11705-014-1452-8),
45. Shahid, M., Shikha, D, Sinha, S. K., Jha, U., Murugesan, S., Mohandas, E., Kothari, D. C. Morphological study of HAP coated alumina by sol-gel method for orthopedic implants, *Advanced Materials Research*, 2015, 1086, 50-60.
46. Shikha, D., Jha, U., Sinha, S. K., Nair, K. G. M., Tyagi, A. K. Nitrogen Ion Beam modification of alumina for hard tissue implants, *Macromol. Symp.* 2015, 347, 39-48.
47. Rahul, R., Kumar, S., Jha, U., Sen, G. Cationic inulin: A plant based natural biopolymer for algal biomass harvesting, *International Journal of Biological Macromolecules*, 2015, 72, 868.
48. Islam, R. U., Choudhary, M., Mallick, K. Taher, A., Nandi, D. Microwave assisted azide-alkyne cycloaddition reaction using polymer supported Cu(I) as a catalytic species: A solvent less approach, *RSC Advances*, 2015, 5, 47275-47283.
49. Islam, R. U., Taher, A., Choudhary, M., Siwal, S., Mallick, K. Polymer immobilized Cu(I) formation and azide-alkyne cycloaddition: A one pot reaction; *Scientific Reports*, 2015, 5, 9632
50. Islam, R. U., Taher, A., Choudhary, M., Witcomb, M. J., Mallick, K. Polymer supported Cu(I) catalyst for 'click reaction' in aqueous media; *Dalton Transactions*, 2015, 44, 1341-1349.
51. Govender, D., Islam, R. U., Charles B. De Koning, Willem A. L. van Otterlo, Patrick Arbuthnot, Mario Ariatti, Moganavelli Singh; Stealth lipoplex decorated with triazole-tethered galactosyl moieties: a strong hepatotropic gene vector;, *Biotechnology Letters*, 2015, 37, 567-575
52. Verma, S.K., Kar, P., Yang, D.J., Choudhury, A. Poly(m-aminophenol)/functionalized multi-walled carbon nanotube based alcohol sensor, *Sensors Actuators B: Chemical* 2015, 219, 199-208.
53. Verma, S.K., Choudhury, A., Kar, P. Interaction of multi-walled carbon nanotube with poly(m-

- aminophenol) in their processable conducting nanocomposite, *Physica Status Solidi A*, 2015, 212, 2044-2052.
54. Behera, A.K., Adhikari, B., Kar, P. Synthesis of processable conducting poly(m-aminophenol) having structure like keto derivative of polyaniline derivative, *Polymer Science Series B*, 2015, 57, 159-166.
  55. Kumar, A., Pandey, J. P., Kumar, S. Removal of As(III) from aqueous solution using sawdust of *Ficus benghalensis*: kinetic and modeling studies, *International Journal of Applied Environmental Sciences*, 2015, 10, 1245-1261.
  56. Md Shahid, Deep Shikha, Sanjay Kumar Sinha, Corrosion and Thrombogenicity of Argon implanted HAP/alumina, Vol 55 (6), (2016) 54-58, *Materials Performance (SCI)*.
  57. Systematic Study of Iron Removal from Water by Traditional Method, *Physical & Environment Science Belletin*, Stish Kumar, J.P.Pandey, A.K.Sinha, Volume 3, Number 1, 2015.

### **Published in National Proceedings**

1. Samanta, S., Roy, P., Kar, P. Influence of pH of the reaction medium on the structure and property of conducting poly(o-phenylenediamine), *Materials Today: Proceedings*, 2015, 2, 1301 – 1308.
2. Kumar, A., Pandey, J. P., Kumar, S. Study of Occurrence and Toxic Effect of Arsenic in Ground Water of Ranchi and Effort of Remediation, *Proceeding of Current trends in Analytical Chemistry (CTAC-2015)* at BARC, Mumbai from 25-29 May, 2015
3. Pal, P., Pandey, J.P., Sen, G. Study of Alum-Polyacrylamide Grafted Starch (St-g-PAM) based Composite Treatment of Water /Waste Water, *Proceeding of 6<sup>th</sup> International Conference on "Recent Trends in Applied Physical, Chemical Sciences, Mathematical/ Statistical and Environmental Dynamics"* (PCME-2015).

### **Book**

#### **Edited Books**

1. Mishra, S., Dey, K. P., Bharti, S. "Eco-friendly Grafted Polysaccharides for Pharmaceutical Formulation: Structure and Chemistry" (Chapter 15: Book: *Handbook of Polymers for Pharmaceutical Technologies*, Volume 1: Structure and Chemistry; Edited by Vijay Kumar Thakur, Manju Kumari Thakur), Pages 457-475. ISBN 978-1-119-04134-4, Wiley Scrivener Publishing, USA.
2. Mishra, S., Sen, G., Usha Rani, G., Dey, K. P. "Synthesis and Applications of grafted Carboxy methyl cellulose: A Review" (Chapter 21: Book: *Cellulose-Based Graft Copolymers Structure and Chemistry*; Edited by Vijay Kumar Thakur), Pages 475–496. CRC Press 2015, Print ISBN: 978-1-4822-4246-1, eBook ISBN: 978-1-4822-4248-5. DOI: 10.1201/b18390-22, Taylor & Francis.
3. Sinha, S., Sen, G., Mishra, S. "Microwave assisted synthesis of polyacrylamide grafted casein (CAS-g-PAM) as an effective flocculant for wastewater treatment" (Chapter 10) - *Advanced Polymeric Materials*, Editors: Sabu Thomas, Nandakumar Kalarikkal, Maciej Jaroszewski and Josmine p.

ISBN: 978-177-188-0961. Publisher: Apple Academic Press (2015).

4. Rahul, R., Sen, G. "Synthetic derivatization of inulin and its applications" - Green polymer composites technology: properties and applications, Editor: Inamuddin. ISBN: 9781498715461 Publisher: CRC Press, Taylor & Francis.
5. P. Pal, J. P. Pandey, Rahul, G. Sen; A novel biodegradable cinnamic acid grafted carboxymethyl cellulose based flocculant for water treatment, Material Science Forum, 156-166, 2016.
6. Pinki Pal, Jai Prakash Pandey, Gautam Sen, Synthesis and application as programmable water soluble adhesive of polyacrylamide grafted gum tragacanth (GT-g-PAM), Editor: Vijay Thakur, Publisher: ELSEVIER, 2016.
7. Pinki Pal, J. P. Pandey, Rahul, Gautam Sen, A novel biodegradable cinnamic acid grafted carboxymethyl cellulose based flocculant for water treatment, Editor: Inamuddin
8. Trans Tech Publications, Switzerland, 2016, 156-166. ISSN: 1662-9752
9. Sweta Sinha, Gautam Sen, Sumit Mishra; Microwave assisted synthesis of polyacrylamide grafted casein (CAS-g-PAM) as an effective flocculant for wastewater treatment (Chapter 10) - Advanced Polymeric Materials; Editors: Sabu Thomas, Nandakumar Kalarikkal, Maciej Jaroszewski and Josmine p. Publisher: Apple Academic Press; Chapter 10, 2016, ISBN 978-177-188-0961.
10. Sumit Mishra, Gautam Sen, Kartick Prasad Dey, G. Usha Rani; Synthesis and applications of grafted carboxymethyl cellulose - A review" (Chapter 21) - Cellulose Based Graft Copolymers: Structure and Chemistry; Editor: Vijay Thakur Publisher: CRC Press; Chapter 21; 2015; ISBN 978-148-224-2461.

### MoUs / Collaborations

S. No.	Name of Organisation / University	Purpose / Area	Year
1	Kagoshima University, Japan	Collaborative Research	2015

### Board of Studies (UG/PG)

1	Dr. J.P. Pandey, Associate Professor & Head	Chairman
2	Dr. Usha Jha, Professor	Member
3	Dr. Ashoke Sharon, Associate Professor	Member
4	Dr. Sumit Mishra, Assistant Professor	Member
5	Dr. Rahul, Assistant Professor	Member
6	Dr. Rafique-ul-Islam, Assistant Professor	Member
7	Dr. S. Naskar, Assistant Professor	Member
8	Dr. S.S. Mahapatra, Assistant Professor	Member
9	Dr. G. Sen	Member
10	Dr. R.N. Gupta, Professor, Dept. of Pharmaceutical Sciences & Technology	Member

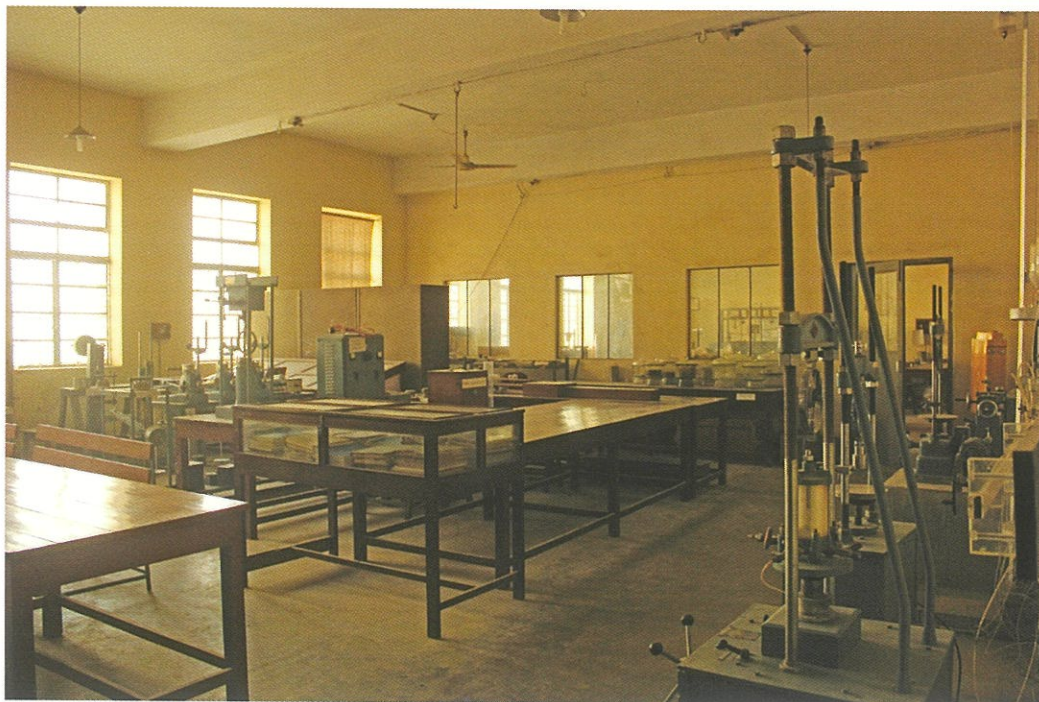
11	Dr. Arvind kumar Professor Dept. of Mechanical Engineering	Member
12	Dr. Sagar Pal, Associate Professor, Dept. of Chemistry, ISM Dhanbad	Member (Ext.)
13	Dr. D. Tiwari, Professor, Dept. of Chemistry, I.I.T. BHU	Member (Ext.)
14	Dr. Lal Bahadur, Professor, Dept. of Chemistry, BHU	Member (Ext.)
15	Dr. R.K. Dey, Professor, Centre of Chemistry, CUJ	Member (Ext.)

#### **Departmental Academic Committee**

1	Dr. J.P. Pandey, Associate Professor & Head	Chairman
2	Dr. Usha Jha, Professor	Member
3	Dr. Ashoke Sharon, Associate Professor	Member
4	Dr. Sumit Mishra, Assistant Professor	Member
5	Dr. Poulomi Roy, Assistant Professor	Member
6	Dr. Rafique-Ul-Islam, Assistant Professor	Member
7	Dr. S. Naskar, Assistant Professor	Member
8	Dr. Pradip Kar, Assistant Professor	Member
9	Dr. R.N. Gupta, Professor, Dept. of Pharmaceutical Sciences & Technology	Member
10	Dr. A.Kumar, Professor Dept. of Mechanical Engineering	Member
<b>Guide(s) of the candidate</b>		
11	Dr. C. Bal, Assistant Professor	Member



## Department of Civil & Environmental Engineering



Civil Engineering Laboratory

The Department of Civil Engineering which was established in 1957 is one of the oldest Departments and has the infrastructure and facilities to match with the very best in the country. It imparts knowledge in basic and advanced techniques of Civil Engineering. The range includes topics of general nature and service to mankind. The various topics covered are Buildings, Roads and Highways, Railways, Tunnels and Bridges, Dams and Canals, Docks and Airports, Water Supply and Drainage Works, Tower Structures and Skyscrapers. Civil engineering discipline offers wide scope to students in terms of promising career opportunities and professional advancement. The institute is the State Technical Agency (STA) for Pradhan Manthri Sadak Yogana (PMGSY). The new equipment procured by the department are corrosion analyser, carbonation chamber, accelerated curing tank and digital triaxial machine.

The Environmental Science & Engineering Group (ESEG), established in the year 2002 has emerged as a potential centre in the field of environment through its dedicated involvement and quality contribution towards education, research & professional services. The institute had been identified as a State Referral Institute and an MOU was entered between Drinking Water and Sanitation Department, Government of Jharkhand and BIT, Mesra for community based national rural drinking water quality monitoring and surveillance programme.

In May 2014 Department of Civil Engineering and Environmental Science & Engineering Group has been merged together and is presently known as Department of Civil and Environmental Engineering. Currently the Department offers full time BE in Civil Engineering, M.E. in soil Mechanics and Foundation Engineering, M.E. in Structural Engineering, M-Tech in Environmental Science & Engineering and PhD programmes in various disciplines of Civil and Environmental Science & Engineering

## Sponsored projects

### Project Sanctioned

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	National Carbonaceous Aerosol Monitoring Programme	PI: Prof. Gopal Pathak Co-PI: Kirti Avishek Co-PI: R. Naresh Kumar	MoEFCC, New Delhi	Jan 2016	Rs. 106 lacs	5 yrs

### Ongoing Projects

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1	Development of guidelines to predict distance between toe of the shovel-dumper-dump and that of dragline Dump with consideration of safety and economical design of both shovel-dumper dump and dragline	Dr. Indrajit Roy	Coal India R & D, supported by Ministry of Coal	August, 2013	Rs. 27 lakhs	Sept., 13 to Aug.,16
2	Interference of two closely spaced strip footings carrying eccentric loads in sand	Dr. Siddhartha Sengupta (PI)	Council of Scientific & Industrial Research (CSIR)	26/2/2013	Rs. 6,10,000	15/05/13 to 14/05/16
3	Corrosion of steels in carbonated high volume flyash concrete	Jitu Kujur	DST-SERB	21.7.2014	Rs. 5,00,780	3 Yrs
4	Arsenic enrichment in agricultural soils with potential impacts on crops and food security of Sahibganj, Jharkhand, India	PI: Dr. Sukalyan Chakraborty	DST	31/10/2013	Rs. 19 lakhs	3 years



5	Carbon Accounting and sequestration potentials of BIT Campus	PI: Kirti Avishek	BIT Mesra (Seed Money Scheme)	Nov 2015	Rs. 80,000	One Year
6	Chemically Assisted Phytoextraction of Metals from Fly Ash and its Potential Use as Fertiliser	PI: Tanusree Bhattacharya	BIT Mesra (Seed Money Scheme)	5/10/2016	Rs. 80,000	1 year
7	Pavement Design by using Rice Husk Ash and Brick Kiln Dust as Stabilising Agent	PI: Prof. Bindhu Lal, Co-PI: Prof. Anand Kr. Sinha	BIT Mesra (Seed Money Scheme)		Rs. 0.80 lakhs	1 year
8	Co-treatment of municipal wastewater and landfill leachate using granular activated carbon supplemented sequencing batch reactor (GAC-SBR)	PI: R. Naresh Kumar	BIT Mesra (Seed Money Scheme)	October 2015	Rs. 0.79 Lakhs	1 year

### Projects Completed

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Date of completion of the Project
1	Slope Stability Study of Khadia ocp, Gauri ocp & Mungoli ocp.	Dr. Indrajit Roy	Northern coalfield & Western coalfield ltd	2015-2016	8 lakhs	June,2016
2	DPR preparation for Rural Sanitation and Waste Management under Swatch Bharat Abhiyan for 5 Panchayats	PI: Kirti Avishek	ENV DAS, Lucknow	April 2015 to Sep 2015	1.25 lacs	Sep 2015

3	"Environmental Consequences and Reclamation Options for coal mining Activities in Charhi & Kuju of Jharkhand, India."	PI: Dr. Sukalyan Chakraborty	UGC	March 2014	Rs. 6 lakhs	2 years
4	Evaluating the spatial and temporal variations in groundwater quality around municipal solid wastes dumping site in Ranchi and developing a solute transport model	PI: Dr. R. Naresh Kumar	UGC	April 2013	Rs. 11.5 Lakhs	years

**Seminar / Conferences / Short – term Courses Conducted by the Department/Campus**

S. No.	Title of Seminar / Conferences / Short – term Courses / Workshop	Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short – term Courses
1	National Conference on Recent advances in Civil and Environmental Engineering (RACEE – 2016)	Chairman: Prof. Gopal Pathak. Co-ordinators: Siddhartha Sengupta and Sukalyan Chakraborty	BIT, Mesra	25 <sup>th</sup> – 26 <sup>th</sup> February 2016

**Conferences/ Seminars/ Workshops/ Staff Development Programmes attended**

S. No.	Name of the Faculty	Title of the Conference/Seminar	Funding Agency	Organizers	Venue	Date
1	Dr. Siddhartha Sengupta	National Workshop on Intelligent Computational Technique Applications	Jharkhand Council of Science & Technology	Dept. Of Electrical & Electronics Engineering, BIT Mesra	BIT Mesra	23/11/15 – 27/11/15

S. No.	Name of the Faculty	Title of the Conference/Seminar	Funding Agency	Organizers	Venue	Date
2	Dr. Siddhartha Sengupta	Short term training programme on Building Maintenance and Preservation	Dept. of Tourism, Art Culture, Sports and Youth Affairs, Govt. Of Jharkhand	Dept. of Architecture, BIT, Mesra	BIT, Mesra	29/02/16 – 04/03/16
3	Jitu Kujur	Training Programme on "Structural steel"	TEQIP sponsored	IIT Hyderabad	IIT Hyderabad	06.06.2016-11.06.2016
4	Kirti Avishek	International Workshop on Ecosystem Management and Monitoring for Developing Countries	Chinese Academy of sciences	Chinese Academy of Sciences	Beijing	Nov 1-18, 2015.
5	Kirti Avishek	Time series satellite data processing for understanding space time dynamics.	TEQIP, BIT	ICIMOD Nepal and BIT Mesra	BIT Mesra	Nov 26-27, 2015.
6	Tanushree Bhattacharya	Short-Term Course on "Advanced technologies for water and wastewater treatment"	TEQIP	Civil Engineering Department, Indian Institute of Engineering Science and Technology, Shibpur	Shibpur, Howrah	23rd-28th May, 2016
7	Bindhu Lal	National Seminar on 'Recent Advances in Civil and Environmental Engineering'		Birla Institute of Technology, Mesra	Birla Institute of Technology, Mesra	February, 25-26, 2016



S. No.	Name of the Faculty	Title of the Conference/Seminar	Funding Agency	Organizers	Venue	Date
9	Anand Kr. Sinha	National Seminar on 'Recent Advances in Civil and Environmental Engineering'		Birla Institute of Technology, Mesra	Birla Institute of Technology, Mesra	February, 25-26, 2016
10	R. Naresh Kumar	Water and Wastewater Treatment: Recent Advances	TEQIP	IIT, Roorkee	IIT, Roorkee	21 – 25 July, 2015

## Publications

### Published in International Journals

1. Srivastava, A. & Pathak, G. Water Qual Expo Health (2015) A Short Review on Mitigation of Metals from Groundwater Using Dried Hyacinth Root. Water Qual Expo Health (2015) 7: 423. doi:10.1007/s12403-014-0153-3
2. S. Sengupta, S. Sharma & I. Roy Identification of Failure Surfaces in Dragline Dumps of Opencast Coal Mines. Journal of Earth Sciences.. 4. No.2. pp 43-53.
3. S. Sengupta, S. Sharma & I. Roy Slope Failure of Waste Rock Dump at Jayant Opencast mine, India – a case study. International Journal of Applied Engineering Research. 10 (13), 33006 - 33012
4. Sushama Kiran, Bindhu Lal (2015) ANN based Prediction of Shear Strength of Soil from their index properties, International Journal of Earth Sciences and Engineering, 8(5), 2195-2202
5. Bindhu Lal, Nidhi Kapoor, Apurva Jha, (2016) Soil Stabilization with Rice Husk Ash and Brick Kiln Dust for Base Course and Sub-Base Course for Low Volume Roads, International Journal of Earth Sciences and Engineering, 9(1), 30-34
6. Bindhu Lal (2015) An Empirical Model to Evaluate SPM Concentration in a Colliery Area, Civil engineering and Architecture, 3 (1), 12-21, 41738-41743
7. Bindhu Lal (2015) Utilization of waste polyethylene bags in Bitumen, International Journal of Applied Engineering Research, 10 (21)
8. Osaid, A. Wasim Akram, Sukalyan Chakraborty, Kirti Avishek, Tanushree Bhattacharya. (2015). Groundwater Arsenic Contamination and Potential Health Risk Assessment of Gangetic Plains of Jharkhand, India. Health and Exposure. Springer. 125-142.
9. Hazra M., Avishek K., Pathak G., (2015). Phytoremedial potential of Typha latifolia, Eichornia crassipes and Monochoria hastata found in contaminated water bodies across Ranchi city (India). 2015, International Journal of Phytoremediation. Taylor and Francis, 17, 835-840,

10. Abhinav, Jyotsna Roseline E., Zahra, P. Kirti Avishek (2015). Declining Ecosystem Services due to urbanization and Mismanagement. Int. Jour of Applied Engineering Research, 10 ( 35). 27422-27443. ISSN 0973-4562
11. Md.Osaid Alam, Sukalyan Chakraborty, Tanushree Bhattacharya. Soil Arsenic availability and transfer to food crops in Sahibganj, India with reference to Human Health risk. Environmental Processes. 2016, DOI 10.1007/s40710-016-0184-9.
12. Amudala Prataph, Vivek Kujur, Sukalyan Chakraborty and Tanushree Bhattacharya. Assessment of Soil characteristics in the vicinity of open cast coal mine and its suitability for vegetative reclamation in Charhi and Kuru of Jharkhand, India. Journal of Environmental Biology. 2016, 37, 523 – 528.
13. Poonam Tirkey, T. Bhattacharya, S. Chakraborty. First Report on Presence of Arsenic and Other Metals in the Groundwater Samples of Ranchi City, State Capital of Jharkhand, India. Current Science, 2016, 110 (1), 76-80.
14. Md.Osaid Alam, Wasim Akram Shaikh, Sukalyan Chakraborty, Kirti Avishek, Tanushree Bhattacharya. Groundwater Arsenic Contamination and Potential Health Risk Assessment of Gangetic Plains of Jharkhand, India. Exposure and Health, 2015, 8(1): 125-142.
15. Sikha Kumari Pandey, Tanushree Bhattacharya, Sukalyan Chakraborty. Metal phytoremediation potential of naturally growing plants on flyash dumpsite of Patratu thermal power station, Jharkhand, India. International Journal of Phytoremediation 2016, 18(1) 87-93.
16. Piyal Bhattacharya, Alok Chandra Samal, Tanushree Bhattacharya and Subhas Chandra Santra. Sequential Extraction for The Speciation of Trace Heavy Metals in Hooghly River Sediments, India. International Journal of Experimental Research and Review. 6, 39-49, 2016.
17. Chakraborty, S. and Naresh Kumar, R. (2016). Assessment of groundwater quality at a MSW landfill site using standard and AHP based water quality index: a case study from Ranchi, Jharkhand, India. Environmental Monitoring and Assessment. Vol. 188, pp. 335 (1-18).
18. Naresh Kumar, R., McCullough, C.D., Lund, M.A. and Larranaga, S. (2016). Assessment of factors limiting algal growth in acidic pit Lakes-a case study from Western Australia, Australia. Environmental Science and Pollution Research. Vol. 23, pp. 5915-5924.

### **Published in International Proceedings**

1. Sarangi, S. and Sinha, A.K. (2016) 'Mechanical Properties of Hybrid Fibre Reinforced Concrete' at 2<sup>nd</sup> International Conference on Sustainable Energy and Built Environment on March 10-12, 2016 at VIT, University, Vellore
2. Gautam, R. and Sinha, A.K. (2015) 'Role of Evapotranspiration in Water Cycle' at International Conference on Geo-Engineering and Climate Change Technologies for Sustainable Environmental Management on October 9-11, 2015 at Motilal Nehru National Institute of Technology, Allahabad
3. I. Roy "A possible solution to the Stability problem of Internal Dump over Steeply Inclined Mine Floor." 6<sup>th</sup> Asian Mining congress, MGMI, India, 23<sup>rd</sup> – 27<sup>th</sup> Feb, 2016.

4. Sukalyan Chakraborty, Osaid Alam and Wasim Akram Shaikh. Arsenic in groundwater, agricultural soil and crops of Sahibganj in the middle Gangetic plain: A potential threat to food security and Health. presented in 6<sup>th</sup> International Congress: Arsenic in the environment (As2016) at KTH Royal institute, Stockholm, Sweden 2016.
5. T. Bhattacharya, P. Tirkey, Arsenic in groundwater and its potential health risk in a fast growing urban agglomeration of Chota Nagpur plateau, India (as extended abstract). Proceedings of Arsenic Research and Global Sustainability. Taylor and Francis Group, London, pp. 60-61, 2016.
6. Chakraborty, S., P.K. Mohanty, J. Iqbal and R. Naresh Kumar (2016). Co-treatment of landfill leachate and municipal wastewater by combined SBR and electrocoagulation process. International Conference on Waste Management (Recycle 2016), 1-2 April 2016, IIT Guwahati, Assam, India.

### **Published in National Journals**

1. Kumar, S., Pandey, J. P., and Sinha, A. K. (2015) "Systematic Study of Iron Removal from Water by Traditional Method", Physical and Environmental Science Bulletin, 3(1 & 2), 19-23, published by PESB Journals
2. Acharya, S., Mohan, M., and Kujur, J., Study on Control of Horizontal Deflection and Storey Drift in Multi-Storey Buildings due to Lateral Loads by Changing Column Section. Indian Journal of Science and Technology, 2016, 9(30) 1-4.
3. Mrityunjay Jaiswal, Bindhu Lal (2016) Impact of Rice Husk Ash on Soil Stability (Including Micro Level Investigation), Indian Journal of Science and Technology, 9(30) 1-7

### **Published in National Proceedings**

1. Siddharth and Paul, K., Strengthening of a RC Beam using Synthetic FRP Laminates. In Proceedings of the International Civil Engineering Symposium (ICES), 2nd International Conference on Sustainable Energy & Built Environment, VIT University, 10-12th March, 2016.

### **Books / Edited Books**

1. I Roy & S. Sengupta "A hand book on dragline dump profile in surface coal mines of India." Central Mine Planning & Design Institute Ltd., An International Mining consultant, 2016
2. Shiwani, Avishek, K., Paul, K., Flood Assessment & Management in Bagmati River Basin — A Geoinformatic Approach. Bonfring Publishers, Coimbatore, India, 2016. ISBN: 978-93-85477-93-5.
3. Shiwani, Kirti Avishek, Koushik Paul (2016). Flood Assessment and Management in Bagmati River Basin-A Geoinformatic Approach. Bonfring Pub, Chennai (India). ISBN: 978-93-85477-93-5.
4. Roy D., Avishek K., (2015). Conflict and Development. Mitram Pub. Kolkata. ISBN: 978-93-80036-75-5.
5. Kuldeep Suman and Avishek, K. (2015). Urbanization and Resource Depletion in Ranchi. Development and Conflict. Pp-216-224. Mitram Publications. Kolkata. ISBN: 978-93-80036-75-5

**Book****Single Authored**

Bindhu Lal, Study of Air Pollution using Intelligent Models, Lord's Publishing House, ISBN 978-93-85292-00-2

**Award / Recognition Bestowed on Faculty Member ( State / National / International )**

S. No.	Name of the Faculty	Title of the Award / Honours	Organisation	Year / Duration
1	Kirti Avishek	Invited Speaker Topic: Ecological Monitoring and Management: Past experiences	International Workshop on Ecosystem Management and Monitoring for Developing Countries. Chinese Academy of Sciences, Beijing. China.	Nov 1-18, 2015.
2	Dr. Sukalyan Chakraborty	International Travel Support Scheme	Science and Engineering Research Board, Department of Science and Technology, Government of India	2016
3	Tanushree Bhattacharya	Endeavour Research Fellowship Award	Australian Ministry of Education	4 months
4	R. Naresh Kumar	Adjunct Lecturer	School of Science, Edith Cowan University, Australia	2015-2018

**MoUs / Collaborations**

S. No.	Name of Organisation / University	Purpose / Area	Year / Duration
1	Dr. Kirti Avishek is collaborating with Chinese Academy of Sciences, Beijing	i. Lectures of Ecological Monitoring ii. Working on Ecological Monitoring Manual with CAS	2015-2016

**Departmental Students' Activities**

S. No.	Name of the Activity	Students' co ordinator	Date/Duration
1	Bridge Fabrication Workshop	Bindhu Lal	October 2015
2	Industrial Visit to IICM, Kanke for students of M-Tech ESE programme	Dr R Naresh Kumar & Dr. Kirti Avishek	Dec, 2015.
3	Auto CAD workshop	Bindhu Lal	January 2016
4	Aarohan	Bindhu Lal	February 2016
5	Participation of Mr Ankit Kumar in National Conference	Kirti Avishek	May 2016

**Board of Studies(UG/PG)**

1. Prof. Gopal Pathak
2. Prof. Balram Singh
3. Prof. Anand Kumar Sinha
4. Prof. Sudeshna Chakravarty
5. Prof. Bindhu lal
6. Dr. Arun Kumar
7. Dr. Indrajit Roy
8. Dr. Kirti Avishek
9. Dr. R. Naresh Kumar
10. Dr. Sukalyan Chakraborty
11. Dr. C. Jeganathan (Remote Sensing)
12. Dr. B. K. Mishra ( Mathematics)
13. Dr. Gurdeep Singh ( Vice Chancellor, Vinobha Babe University)
14. Dr. A. K. Gupta (Prof. Civil Engg., IIT Kharagpur)
15. Er. K. K. Chatterjee (G.M. Civil, CMPDI, Ranchi)
16. Dr. S. C. Jain ( MECON, India Ltd, Ranchi)
17. Dr. Mukesh Khare ( CESE, IIT, Delhi)
18. Dr. Pramila Goel ( IIT, Delhi)

**Departmental Academic Committee**

1. Prof. Gopal Pathak
2. Prof. Balram Singh
3. Prof. Anand Kumar Sinha
4. Prof. Sudeshna Chakravarty
5. Prof. Bindhu lal
6. Dr. Arun Kumar
7. Dr. Indrajit Roy
8. Dr. Jitu Kujur
9. Dr. Kirti Avishek
10. Dr. R. Naresh Kumar
11. Dr. S. K. Jain (Mathematics)
12. Dr. C. Jeganathan (Remote Sensing)
13. Respective Guide(s)



## Department of Computer Science and Engineering



HPC

The Department of CSE was established in the year 1983 and is now recognized as one of the leading departments with infrastructure and facilities to match the very best in the country. The department remains committed towards its mission which is twofold. One is to provide students with the fundamental knowledge and problem solving skills in Computer Science required for a fulfilling career. The other goal is to create and disseminate knowledge to improve Computer Science research, education and practice.

The department currently offers the following programmes, all of which are approved by the All India Council for Technical Education (AICTE).

Programmes Offered	Intake
B.E in Computer Science (4 years :8-semesters)	120
B.E in Information Tetchnology(4 Years:8-semesters	60
M.E.in Software Engineering(2 years: 4-semesters)	15
M.Tech in Computer Science(2 years:4-semesters)	16
M.Tech in Information Technology(2 years:4-semesters)	16
M.Tech in Information Security(2 years:4-semesters)	16
MCA(3 years:6-semesters)	60
Ph.D.Programmes	

**Facilities:** The department is equipped with seven laboratories with over 445 computers available

for conducting laboratory sessions in diverse topics like in (i) programming languages : C, C++, Java, Oracle.(ii) Matlab for Soft Computing and Image Processing (iii) Rational Rose for Software Engineering and (iv) Laboratories for Networking, Multimedia, Simulation, Parallel Computing etc. All the Laboratories are internally networked allowing students to remotely access any particular resource at any point in time. The Department has recently acquired a state of the art Fujitsu HPC System, which will be leveraged to fuel multiple domains of research. The system will also be the backbone of the hands on session proposed as a part of the workshop. The system additionally has facilities to deploy a private cloud environment if required.

**Areas of Research:** Bioinformatics, DNA Computing, Parallel Computing, Image Processing, Robotics, Intelligent Systems, Rough Sets, DNA Nanorobotics, Software Engineering, Sensor Networks, Data Mining, Pattern Recognition, Natural Language Processing, IoT etc.

### Sponsored project:

### Ongoing Projects

S. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Automatic Question Generation and Evaluation Based System for Instant Assessment of Learning in School Level	Dr.S.Saha	Science and Engineering Research Board	18/03/2016	1961400	3 years

### Projects Completed

S. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount	Date of completion of the Project
1	Local Rainfall Prediction Using Hybrid Approach	Dr.B.K.Sarkar	UGC	01.02.2011	1,45,000	21.07.2012
2	Major Research Project "Need, Availability and Utilization of Electronic Resources and UGC INFONET Consortia in Universities of Eastern India". (2011)	Dr.B.Karn	UGC	2011	5.66 lac	2014
3.	A Non Invasive Method to Treat Brain Blood Clot through Nanorobot	Dr.S.Paul	AICTE	April 2011	4 lac	2016

### Seminar / Conferences / Short – term Courses Conducted by the Department/Campus

S. No.	Title of Seminar / Conferences / Short – term Courses / Workshop	Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short – term Courses
1.	International Conference on Computational Intelligence (ICCI-2015)	Dr.S.Sahana	TEQIP-II	Dec 10- 11, Dec,2015
2	National Workshop on High Performance Computing (HPC2016)	Dr.K.Sridhar Patnaik	TEQIP-II	May 2-6,2016
3.	Evolutionary Optimization for Engg and Scientific Application (EOESA-2016)	Dr.S.Sahana Dr.S.Mahapatra	TEQIP-II	Oct 3-7, 2016
4.	National Workshop on Wireless Network Simulation Using NS-2/ NS-3	Dr. Amritanjali Dr. I. Snigdha	TEQIP-II	Oct 13-18, 2016

**Conferences/ Seminars/ Workshops/ Staff Development Programmes attended**

S. No.	Name of the Faculty	Title of the Conference/Seminar	Funding Agency	Organizers	Venue	Date
1	Shamama Anwar, Shruti Garg, Subrajeet Mohapatra	National Workshop on Intelligent Computational Technique Applications	TEQIP	BIT Mesra	BIT Mesra Ranchi	23/11/2015 to 27/11/2015
2	Subrajeet Mohapatra	One Week Btinet Sponsored Workshop On Emerging Techniques In Bioinformatics And Its' Application	TEQIP	Dept.of Bio Engineering, BIT Mesra	BIT Mesra	30/11/2015 to 04/12/2015
3	K.Sridhar Patnaik	STTP on Internet of Things, Cloud, Sensors and Big Data,	AICTE	IIT-KGP	IIT-KGP	July 13-26,2016
4	Debjani Mustafi	National Workshop on Evolutionary Optimization for Engineering and Scientific Applications (EOESA 2016)	TEQIP-II	Department of Computer Science and Engg.	Department of Computer Science and Engg.	Oct 3-7 2016



S. No.	Name of the Faculty	Title of the Conference/Seminar	Funding Agency	Organizers	Venue	Date
5	Debjani Mustafi	National Workshop on High Performance Computing (HPC2016)	TEQIP-II	Department of Computer Science and Engg.	Department of Computer Science and Engg.	May2-6,2016
6	Dr. Bhaskar Karn	Advances In Economics, Social Science and Human Behaviour Study	TEQIP	Institute of Research Engineers And Doctors	Hotel Lebua at State Tower Bangkok, Thailand	Aug 28-29,2015

## Publications

### Published in International Journals

1. Apuravanand, Sandip Dutta, Prashant Kumar, Priyadarshaisuraj, "Automatic Car Tracing by License Plate Recognition and using GPS & Wireless Cellular Network", International Journal of Advanced Research in Computer Science and Application, Volume 4, Issue 2 Feb 2016.
2. Vaibhav Shukla; Aruna Jain (2016), "Design of AWG based Optical Switch for High Speed Optical Networks", Journal of Engineering Research(IJE), Status: Accepted, Indexing: Scopus
3. Sakshi Mehta, Basant Sah, Dr V K Jha. "A study on Modeling and Constraints of Visual Cryptography" International Journal of Innovations in Engineering and Technology (IJJET), Volume 7 Issue 1 June 2016, ISSN: 2319 – 1058
4. Shree Ranjan., Vijay Kumar Jha and Pralay Pal, (2016) 'Literature review on ERP implementation challenges', International Journal of Business Information Systems, Vol. 21, No. 3, pp. 388–402. –Accepted and is planned in the forthcoming issue.(Scopus indexed)
5. Alpana, Subrajeet Mohapatra, Machine learning approach for automated coal characterization using scanned electron microscopic images, Computers in Industry, Elsevier, 75: 35–45, 2016.
6. I. Mukherjee, Jasni M Zain, P.K. Mahanti, "An Automated Real-Time System for Opinion Mining using a Hybrid Approach", I.J. Intelligent Systems and Applications, 7, 55-64, 2016
7. Akriti Nigam, R.C.Tripathi, "Trademark Image Retrieval using weighted combination of SIFT and HSV correlogram", International Journal of Computer Applications in Technology, Vol 54, No. 1, pp 61-67, 2016.
8. Dilip Kumar Choubey, Sanchita Paul, "Classification Techniques for Diagnosis of Diabetes Disease: A Review", International Journal of Biomedical Engineering and Technology (IJBET), Inderscience, Vol. 21, No.1., pp. 15 - 39, 2016.
9. "Accessing social network data using semantic web",2016, International journal of advanced information science and technology

10. V K Saxena and Shashank pushkar, Protecting Sensitive Knowledge with Effective Privacy Preservation, International Journal of Applied Engineering Research Vol.11(6) (2016) pp.4049-4052.
11. Dipti Kumari and Kumar Rajnish, "Finding best Mining technique For development of Multinomial software fault prediction model", Accepted for publication in International Journal of Multimedia Ubiquitous Engineering", Index: Scopus, 2015, Vol.11, No.5, pp. 183-98, May 2016,
12. Kumar A. and Sarkar B.K. (2016): A case study on Machine Learning and Classification.- International Journal of Information and Decision Sciences (IJIDS, Scopus) (in Press)
13. Sarkar B.K. (2016): A case study on partitioning data for classification.- in International Journal of Information and Decision Sciences (IJIDS, Scopus), 8( 1):73-91.
14. Chandan Kumar, Sandip Dutta and Soubhik Chakraborty, "A Hybrid Polybius-Playfair Music Cipher", International Journal of Multimedia and Ubiquitous Engineering 08/2015; 10(8):187-198.
15. Vaibhav Shukla; Aruna Jain; R. Srivastava (2015), "A performance Comparison of Various Optical Packet Switch Architectures", Journal of Information Processing System, Indexing: Scopus (Elsevier),
16. Sweta Sinha, Aruna Jain, S S Agarwal (2015), »Acoustic Phonetic Feature based dialect identification in Hindi Speech« International Journal On Smart sensing and Intelligent systems, New Zeland Vol 8, No 1, 2015. Indexing: Scopus
17. Sweta Sinha, Aruna Jain, S S Agarwal (2015), »Fusion of multi-stream speech feature for dialect classification« CSI Transaction on ICT, Springer, Vol 2, Issue 4, pp: 243-252, 2015
18. Sweta Sinha, Aruna Jain (2015), "Spectral and Prosodic Features based Speech Pattern Classification" International Journal of Applied Pattern Recognition, Inderscience publishers Vol 2, No 1, 2015
19. Vaibhav Shukla; A. Jain; R. Srivastava (2015). " Performance Evaluation of an AWG based Optical Router", Optical and Quantum Electronics, Springer, Vol. (48)(1), Indexing: SCI, Scopus, SCIE, IF: .987 On Line Link: <http://link.springer.com/article/10.1007/s11082-015-0348-2>
20. Vaibhav Shukla, Aruna Jain, Rajiv Srivastava (2015), " Physical Layer Analysis of Arrayed Wave guide Based Optical Switch" IJAER (RIP Publication Volume 9 No. 22 pp. 10035- 10050 ISSN : 0973-4562 Indexing: Scopus Elsevier, Google Scholar 2014. On Line Link: <http://www.rippublication.com/Volume/ijaerv9n21.htm>
21. Chandrashekhar Azad and Vijay Kumar Jha. (2015). Genetic algorithm to solve the problem of small disjunct in the decision tree based intrusion detection system. International Journal of Computer Network and Information Security (IJCNIS). ISSN: 2074-9090 (Print), ISSN: 2074-9104 (Online). Volume 7 Issue 8. PP: 56-71. Indexed SCIRUS.
22. Suchi Kumari, Vijay Kumar Jha, and Chandrashekhar Azad. (2015). COMPARITIVE STUDY OF DATA MINING TECHNIQUES FOR INTRUSION DETECTION SYSTEM. International Journal of Application or Innovation in Engineering & Management (IJAIEEM). Vol 4, issue 4.
23. Basant Sah and Dr. V. K Jha. "Efficient and Secure Data Transmission using Steganography Technique" International Journal of Applied Engineering Research ISSN 0973-4562 Volume 10, Number 22 (2015) pp 42869-42872 © Research India Publications. <http://www.rippublication.com> 42869



24. Ms. Smitha Jha, Dr. D. K. Mallick, Dr. D. K. Suri, "Nature Inspired Algorithm for Dependent Task Scheduling in Grid System." International Journal of Applied Engineering Research ISSN 0973-4562 Volume 10, Number 8 (2015) pp. 18935-18944(Scopus Index)
25. Vaibhav Soni and Dheeresh K. Mallick, "A novel scheme to minimize hop count for GAF in Wireless Sensor Networks Two-level GAF (T-GAF)", Journal of Computer Networks and Communications, Vol. 2015, 2015, pp. 1-9. (Hindawi, Scopus)
26. Pooja Jha, K Sridhar Patnaik, "Empirical Bug Estimation Model: Replicating Ideas with Analysis and Implication of Bugs in CK Metric Suite", International Journal of Software Engineering and Its Applications (Scopus), 9(12), pp. 267-284, 2015
27. Pooja Jha, K S Patnaik, "Enhancing Software Productivity Using Metrics and Improving Software Performance Using Proposed Model: An Empirical Study of Effect of Variance", International Journal of Applied Engineering Research (Scopus), 10(8), pp. 19949-19966, 2015.
28. B.Chakraborty, K.S.Patnaik, "Software Development Effort Estimation using Fuzzy Bayesian Belief Network with COCOMO II", International Journal of Software Engineering" Vol 8, No 1, pp 3-18, January, 2015
29. Ankur Singh, Shruti Garg, PicWords: Creating Pictures by its keywords, published in International Research Journal of Engineering and Technology (IRJET), Vol. 02 Issue 02, May-2015, pp. 753-762, ISSN 2395 -0056
30. Shruti Garg, G. Sahoo, Cracks and Brush Strokes Classification in Old Digital Paintings using Clustering Methods, published in European Journal of Scientific Research, FRDN Incorporated, Vol. 128, No. 1, Jan. 2015, pp. 18-34, FRDN, ISSN 1450-216X. (Scopus Indexed)
31. Dilip Kumar Choubey, Sanchita Paul, "GA\_J48graft DT: A Hybrid Intelligent System for Diabetes Disease Diagnosis", SERSC: International Journal of Bio-Science and Bio-Technology (IJBSBT), ISSN: 2233-7849, Vol. 7, No. 5, pp. 135-150, 2015.
32. Puneet Singh Duggal, Sanchita Paul, Priyanka Tiwari., "Analytics for the Quality of Fertility Data using Particle Swarm Optimization." International Journal of Bio-Science and Bio-Technology Vol.7, No.1 (2015), pp.39-50.
33. Shailendra Kumar Singh, Sanchita Paul, "Sentiment Classification on Social Issues and Sentiment Score Calculation of Negative Prefixes", International Journal of Applied Engineering Research, Volume 10, Number 55 (2015) pp. 1694-1699.
34. Tausif Anwar, Abhishek Kumar, Sanchita Paul, "DNA Cryptography Based on Symmetric Key Exchange", International Journal of Engineering and Technology (IJET), Vol 7, No 3 2015, pp. 938-950.
35. Raja Manish Singh, Abhishek Kumar, Priyanka Karn, Sanchita Paul, "Task Scheduling in Cloud Computing using ATM Approach", International Journal of Engineering Research & Technology, Vol. 4 - Issue 04 (April - 2015), pp. 1201-1205.
36. Mukta Majumdar, Sujana Kumar Saha. 2015. Development of a Hindi Named Entity Recognition System without Using Manually Annotated Training Corpus. International Arab Journal of Information Technology (accepted). ISSN:1683-3198. [Thomson Reuter Indexed: Impact Factor: 0.582]

37. Dipti Kumari and Kumar Rajnish, "A new Approach to find predictor of software fault using association rule mining", *International Journal of Engineering and Technology*, Index: Scopus, Vol. 7, No.5, pp.1671-1684, 2015
38. Amit Kumar Jakhar and Kumar Rajnish, "Measurement of Complexity and Comprehension of a program through cognitive approach" *International Journal of Engineering Transaction B: Application*, Index: Scopus, IF:1.093, Vol.28 No.11, pp.1579-1588, 2015.
39. Kumar Rajnish and Ruchika Singh, "Class Complexity and Development Time: A Study", *International Journal of Applied Engineering and Research*, Vol. 10 No.55, pp.1442-1447, Index: Scopus, 2015
40. Anurag Shukla and Kumar Rajnish, "Sorting based approach on path based condition for test case selection by symbolic execution", *International Journal of Applied Engineering and Research*, Vol. 10 No.55, pp.1379-1383, Index: Scopus, 2015.
41. Kumar Rajnish and Mohit Sharma, "Measure of Internal structural Complexity of ER diagram through software metrics", *International Journal of Applied Engineering and Research*, Vol. 10 No.55, pp.1495-1499, Index: Scopus, 2015.
42. H. P. Patra and Kumar Rajnish, "A New Software Cost Estimation Model for Small Software organizations: An Empirical Approach", *International Journal of Applied Engineering Research*, Vol. 10, No.15, Index: Scopus, 2015.
43. Dipti Kumari and Kumar Rajnish, Evaluating the impact of binary and multinomial LR in developing software fault prediction model using Object Oriented Metrics", *Global Journal of Pure and Applied Mathematics (GJPAM)*, Index: Scopus, Vol.11, No.1, pp.437-462, 2015.
44. Dipti Kumari and Kumar Rajnish" Investigating the Effect of Object-oriented Metrics on Fault Proneness Using Empirical Analysis", *International Journal of Software Engineering and Its Applications*, vol.9 No.2, Feb 2015 (Scopus), pp.171-188
45. Amit Kumar Jakhar and Kumar Rajnish, "A Empirical Approach for estimation of software development effort", *IJMUT, SCOPUS Indexed*, Vol.10, No.2, 2015, pp.97-110.
46. Snigdh, I. Gupta, N., 2015. Enhancing Reliability in Backbone Assisted Wireless Sensor Networks. *International Journal of Performability Engineering*, 11(5),.
47. Snigdh, I. and Gupta, N., 2015. Evaluating Quasi Random Deployment in Zigbee Based Wireless Sensor Networks. *Indonesian Journal of Electrical Engineering and Computer Science*, 15(1), pp.142-150.
48. Gosain, D. and Snigdh, I., 2015. Performance Comparison of Routing Protocols in Bipartite Wireless Sensor Network. *International Journal of Electrical and Computer Engineering*, 5(6).
49. Snigdh, I. and Gupta, N., 2015. Performance Analysis of Quasi-Random Deployment Strategy in Sensor Networks., *International Journal of emerging Technology*.
50. Arora, P, Snigdh, I, Mahato, S. and Arora, R., 2015. Review on Energy Efficient Chain based Hierarchical Routing Protocols in WSN.

51. Kumari, A., Singh, N.K. and Chakraborty, S., 2015. A Statistical Comparative Study of Some Sorting Algorithms. International Journal in Foundations of Computer Science & Technology (IJFCST), Vol. 5, No. 4, pp. 21-29, July 2015.

### **Published in International Proceedings**

1. Rhyme Upadhyaya, Aruna Jain (2016), "Cyber Ethics and Cyber Crime: A deep dwelled Study into Legality, ransomware, underground web and bitcoin wallet" IEEE International Conference on Computing, Communication & Automation (ICCCA-2016), Xplore Digital Library Delhi, India, April 2016. Indexing: Scopus
2. Vaibhav Shukla, Aruna Jain (2016). "Performance of Fiber Delay Lines and AWG based Switch in Optical Network", ICETEESES-16, IEEE Sponsored International Conference KNIT Sultanpur.
3. Archana Chougule, Vijay Kumar Jha, Debajyoti Mukhopadhyay; Adaptive Ontology Construction Method for Crop Pest Management; 1st International Conference on Data Engineering and Communication Technology, ICDECT 2016 Proceedings, Lava City, Pune-India; Springer-Verlag Germany; March 10-11, 2016 (DBLP) (SpringerLink - AISC Series) (Published)
4. Archana Chougule, Vijay Kumar Jha, Debajyoti Mukhopadhyay; Ontology based System for Pests and Disease Management of Grapes in India; 6th IEEE International Advance Computing Conference, IACC 2016 Proceedings, Andhra Pradesh, India; IEEE, USA;; February 27-28, 2016 (DBLP) (IEEE Xplore) (Presented).
5. Archana Chougule, Vijay Kumar Jha, Debajyoti Mukhopadhyay; Using IoT for Integrated Pest Management; International Conference on Internet of Things, IOTA 2016 Proceedings, Pune, India; IEEE, USA; January 22-24, 2016 (DBLP) (IEEE Xplore) (Presented)
6. Archana Chougule, Vijay Kumar Jha, Debajyoti Mukhopadhyay; AgroKanti: Location-aware Decision Support System for Forecasting of Pests and Diseases in Grapes; Third International Conference on Information System Design and Intelligent Applications, INDIA 2016 Proceedings, Visakhapatnam, India; Springer-Verlag Germany; January 8-9, 2016 (DBLP) (SpringerLink - AISC Series) (Published)
7. Shree Ranjan., Vijay Kumar Jha and Pralay Pal, 'Antecedents and imperatives of integrating SCM and ERP in manufacturing organizations: A conceptual perspective with Big Data Analytics, - Accepted and also Presented in International Conference of Computing Paradigm (ICCP 2016) on July 23 at Chennai.
8. Vaibhav Soni, Dheeresh K Mallick, "An Optimal Geographic Routing Protocol based on Honeycomb Architecture in Wireless Sensor Networks", Proc. of International Conference on Electrical, Electronics and Optimization Techniques (ICEEOT – 2016)
9. Abhishek Kumar, Amritanjali and Bharat Bhusan, Survey of Various Clustering Schemes in MANET, Proceedings of National Conference on Computational Intelligence, Communication Network and Smart Grid, 2016.
10. I. Mukherjee, Kirti Vardhan Rathore, "Twitter-based semantic approach to multi-class classification", International Conference on Sustainable Computing Techniques in Engineering, Science and Management (SCESM-2016), 2016.

11. Naela Rizvi, Prashant Pranav, Bibhav Raj, Sanchita Paul, "Auction Model Using SJF Approach for SLA Based Resource Provisioning in Multi-Cloud Environment", in ICCCS 2016 (Taylor and Francis Series-CRC Press).
12. Dilip Choubey, Sanchita paul.,» Classification of PIMA Indian Diabates dataset using Naive base with GA as an attribute selection. ", in International conference on communication and computing systems (ICCCS 2016) (Taylor and Francis Series-CRC Press).
13. Anil Kumar, Partha paul," Security analysis and Implementation of a simple method for prevention and Detection against evil Twin attack in IEEE 802.11 Wireless LAN, Proc of IEEE, ICCTICT. pp.367-372,11-13, March,2016
14. Anil Kumar Bibhav Raj, Partha paul." Detection and Prevention against Evil TWIN attack in WLANS",proc of recent trend in computer science and technology,vol.10,pp.25,12-13, April 2016
15. Nishat Aafreen, Partha Paul," Energy Optimization in Traffic grooming WDM Optical Mesh Network", proc of recent trend in computer science and technology,vol.10,pp.1,12-13, April 2016.
16. Amit Keshri, Partha Paul," Energy saving for the Ethernet Passive Optical Networks(EPON), proc of recent trend in computer science and technology,vol.10,pp.3, 12-13, April 2016
17. Gupta A. and Sarkar B.K. (2016): Parallel algorithm for Lagrange's Interpolation on BSN-Mesh.- International Conference on Intelligent Communication, Control and Devices (ICICCD-2016, April-2-3), University of Petroleum & Energy Studies, Derhadun, India (Springer Conference Ref. No.-45700)
18. Mustafi, D., Sahoo, G. and Mustafi, A., An Improved Heuristic K-Means Clustering Method using Genetic Algorithm based Initialization. In Proceedings of International Conference of Computational Intelligence, Department of Computer Science, BIT, Mesra, Ranchi, 2015.
19. K.S.Patnaik,M.Sajwan," Quantiable Image Nearness Approach Using Descriptive Neighbourhood" Proceodings of the International Conf on Signals,Networks, Computing and Systems,ICSNCS-2016,JNU,N.Delhi Lecture Notes in Elect.Engg, Spinger, Vol 395,p73-85,2016.
20. Pooja Jha,K,S Patnaik," Program Code Understandability and Authenticating Code Predicting Systems: A Metric-Based Approach, Proceodings of the International Conf on Signals,Networks, Computing and Systems, ICSNCS-2016,JNU,N.Delhi, Lecture Notes in Elect.Engg, Spinger, Vol 396,p95-103,2016.
21. Sandip Dutta "Information Security in Big data perspective", Big Data Initiatives: Trends and Applications (BDI 2015).
22. Vaibhav Shukla, A. Jain (2015), "Performance evaluation of two AWG based Optical Packet Switches, ICETEESES-15, IEEE Sponsored International Conference KNIT Sultanpur.
23. Shweta Sinha, Aruna Jain (2015), S S Agarwal, " Influence of regional dialect on acoustic characteristics of Hindi vowels " To be published in proceedings of International conference of O- COCOSDA/CASLRE,, Shangai China, Oct 28-30, 2015.

24. Chandrashekhar Azad and Vijay Kumar Jha. A Novel Fuzzy Min Max neural network and Genetic algorithm based Intrusion Detection System. (2015). 2<sup>nd</sup> International Conference on Computer & Communication Technologies (IC3T-2015). Indexed in ISI Proceedings, SCOPUS, and Springer link.
25. Chandrashekhar Azad and Vijay Kumar Jha. (2015). Fuzzy min max neural network based intrusion detection system. 1<sup>st</sup> International Conference on Nano-electronics, Circuits & Communication Systems (NCCS-2015). [Springer Proceedings under process]
26. Basant Sah and Dr. V. K Jha. "Efficient and Secure Data Transmission by using Steganography Technique" Proceedings of National Conference on Innovative Trends in Computer Science Engineering (ITCSE-2015) held at BRCMCET, Bahal on 4th April 2015, IJRRA ISSN: 2349-7688.
27. Shree Ranjan., Vijay Kumar Jha and Pralay Pal, (2015) 'Change Management challenges in ERP Implementation: A Methodical approach', IT Floors "A journal Mapping Lanes of Information Technology". ISSN: 22779639. Volume 3. Issue I & II
28. D. R. Das Adhikary, and Dheeresh K. Mallick, Fuzzy-logic based unequal clustering with on demand based clustering approach for a better lifetime of wireless sensor network, International conference on Computational Intelligence (ICCI-2015), Springer.
29. D. R. Das Adhikary, and Dheeresh K. Mallick, A fuzzy-logic based relay selection scheme for multi-hop wireless sensor networks, International conference on Next Generation Computing Technologies (NGCT-2015), IEEE
30. A. Sahu, S. Anwar, V. Kumar, A. Shukla (2015), "Human Activity Recognition Using CSI Angle and Euclidean Distance Feature", International Journal of Applied Engineering Research, Vol 10, No. 55, 2015, 2968 – 2972.
31. Partha Paul, "Static Traffic Grooming with Grooming resources at Max- Connectivity nodes of WDM Mesh Networks", Proc. of Intt. Conference on Telecommunication Tech and Management. at IIT, Delhi, 11-12 April' 2015
32. V. K Saxena and Shashank Pushkar, Fuzzy based Privacy Preseving Approach in Centralized Database Envirinment, International Conference on Computational Intelligence (ICCI 2015)
33. Sweta Kumari and Shashank Pushkar, Software Cost Estimation Using Cuckoo Search, International Conference on Computational Intelligence (ICCI 2015)
34. V. K Saxena and Shashank Pushkar, Enhancing Communication Service Provider performance with Big Data: A growing Torrent, National Seminar on Advanced Communication Technologies, NCACT 1-2 December 2015 uec, Ujjain.
35. V. K Saxena And Shashank Pushkar, Privacy Preserving using multidimensional k-anonymity, National Conference on Innovation in Management and Computer Science, NCIMCS 2015, organized by Advanced College of Science & Commerce, Ujjain, January, 31, 2015.
36. Shlok Kumar Mishra, Pranav Kumar, and Sujana Kumar Saha. 2015. A Support Vector Machine Based System for Technical Question Classification. Third International Conference on Mining Intelligence and Knowledge Exploration (MIKE 2015). IIIT Hyderabad, India. December 9 - 11, 2015.



37. Amit Prakash, Sujan Kumar Saha. 2015. A Comparative Study on Different Translation Approaches for Query Formation in the Source Retrieval Task. 7th meeting of Forum for Information Retrieval Evaluation (FIRE 2015). DAIICT, Gandhinagar. December 4 - 6, 2015.
38. Nimesh Ghelani, Sujan Kumar Saha, Amit Prakash. 2015. Mixed Script Ad hoc Retrieval using back transliteration and phrase matching through bigram indexing: Shared Task report by BIT, Mesra. 7th meeting of Forum for Information Retrieval Evaluation (FIRE 2015). Pages: 61-64. DAIICT, Gandhinagar. December 4 - 6, 2015.
39. Mukta Majumdar, Sujan Kumar Saha. 2015. A System for Generating Multiple Choice Questions: With a Novel Approach for Sentence Selection. Proceedings of The 2nd ACL 2015 Workshop on Natural Language Processing Techniques for Educational Applications (NLP-TEA), pages 64-72, Beijing, China, July 31, 2015.
40. Dipti Kumari and Kumar Rajnish, "Comparing efficiency of software Fault Prediction Models developed through binary and Multinomial Logistic Regression Techniques", proceeding of Second International conference on Information System Design and Intelligent Applications (INDIA-2015), Proceeding published in the Springer's series on Information Systems Design and Intelligent Applications, Advances in Intelligent Systems and Computing, Vol. 339, pp. 187-197, 2015, Index: Scopus.
41. Singh, N.K., Mallick, D.K. and Chakraborty, S., 2015. Counts vs. weights: From traditional to untraditional complexity analysis of computer algorithms. Future Communication, Information and Computer Science-Zheng (Ed.): © 2015 Taylor & Francis Group, London, 978-1-138-02653-7. [Indexed in EI Compendex, ISI (CPCI-S, ISTP) and Scopus].

### Chapter(s) in Edited Book

1. Mustafi, D., Sahoo, G. and Mustafi, A., A Multi Criteria Document Clustering Approach using Genetic Algorithm. Advances in Intelligent System and Computing, Computational Intelligent in Data Mining Vol. I, Springer Series, 237-248.

### Award / Recognition Bestowed on Faculty Member ( State / National / International)

S. No.	Name of the Faculty	Title of the Award/ Honours	Organisation	Year / Duration
1	Dr. Bhaskar Karn	Received the Best Paper Award for the paper entitled "Information Science in various Engineering and Computing Degree programme's specialization : It's possibilities, challenges and opportunities"	INSTITUTE OF RESEARCH ENGINEERS AND DOCTORS in the second International Conference on "ADVANCES IN ECONOMICS, SOCIAL SCIENCE AND HUMAN BEHAVIOUR STUDY"	28-29 August, 2015

### Departmental Students' Activities

S. No.	Name of the Activity	Students' co ordinator, if any	Date/Duration
1	Pantheon' 2015	Dr. Bhaskar Karn Coordinator	October 2-4, 2015

### Departmental Students' Activities

S. No.	Name of the Activity	Students' co ordinator, if any	Date/Duration
1.	Hackathon 2015	Mr. Chetan Khalkho, PriyaRanjan, Abhishek Kumar	31st October, 2015
2.	State Level Android App Development	Sai Kiran Santosh	10th November, 2015

### Board of Studies (UG/PG)(Internal)

Head of the Department, CSE, Chairman (Ex-Officio)

Dr. G. Sahoo

Dr. AbhijitMustafi

Dr. D.K.Mallick

Mr. S. K. Chatterjee

Dr. S. K. Saha

Mr. K.K.Senapati

Dr. I. Mukherjee

Dr. Nisha Gupta

### Board of Studies(UG/PG)(External)

Dr. Rajib Mall, Dept. of Computer Science, IIT Kharagpur

Dr. AdityaBagchi, Dean of Studies, ISI, Kolkata

Dr. Atal Chaudhuri, Dept. of Computer Science and Engineering, Jadavpur University, Kolkata

Dr. Swapan Bhattacharya, Dept. of Computer Science and Engineering, Jadavpur University, Kolkata

Mr. Kushal Banerjee, Academic Relationship Manager, India-East, Tata Consultancy Services

### Departmental Academic Committee

Dr.SandipDutta                      Chairman

Dr.G.Sahoo                          Member

Dr.D.K.Mallick	Member
Dr.(Mrs)Aruna Jain	Member
Dr.BhaskarKarn	Member
Dr.V.K.Jha	Member
Dr.K.S.Patnaik	Member
Dr.A.A.Somsundara	Member
Dr.Vibha Rani Gupta	Member
Dr.R.C.Jha	Member

## Department of Electronics & Communication Engineering



Bread Board

The Department of Electronics and Communication Engineering was established in the year 1960. This is one of the largest departments of the institute, having the highest number of students and the faculty members. Due to its modern infrastructure and exposure given to the students, it is one of the elite departments in India.

The department has the following **Vision**

To become a centre of excellence in teaching and research for creating technical manpower to meet the technological need of the country in the field of Electronics and Communications Engineering.

In order to fulfil the Vision, department has the following **Mission**

DM1: To facilitate state of the art Education and Research at Undergraduate, Post Graduate and Doctoral levels to enable to perform challenging engineering and managerial jobs in the field of Electronics and Communication Engineering.

DM2: To build national capabilities in technology, education and research in emerging areas in the field of Electronics and Communication Engineering.

DM3: To create an environment to provide excellent Research and Development facilities to strengthen Ph.D. programmes and research projects.

DM4: To provide excellent technological services to bridge the gap between academia and industry in order to fulfil the overall academic needs of the society.

DM5: To provide high quality course structure in order to turn out qualified professionals to meet the engineering needs of the country.

DM6: To develop effective teaching skills and the research potentials of the faculty members.

DM7: To ensure all round development of the students, and to create a platform for turning out engineering professionals who can assume leadership position in society.

### **Programmes offered by the department**

The ECE department runs Bachelor in Engineering (BE) and several Master in Engineering (ME) Programmes in addition to Ph.D. Programme within the field of Electronics and Communications Engineering.

### **Bachelor in Engineering**

It offers B.E. in Electronics & Communication Engineering, a 4-year (8-semester) programme with intake of 120 students. The students are exposed to all fundamental and advanced technology in the field of Electronics and Communication Engineering. Some of the courses offered are Modern Instruments and Measurements, Microprocessor and Microcontroller, Digital Communication system, Microwave Engineering, Digital Signal Processing, Intelligent Instrumentation, Computer Networking, Fiber Optics Communication System, Antennas and Propagation for Wireless Communication, Mobile and Cellular Communication etc. The syllabi are frequently updated to incorporate recent developments. The Department has several well-equipped and advanced laboratories to help students in gaining practical exposure. Almost 100% students are absorbed by various leading industries and organizations by campus placement.

### **Programme Educational Objectives (PEOs)**

PEO1: To develop an ability, enthusiasm and understanding for life-long learning and professional development in the field of Electronics and Communication Engineering.

PEO2: To develop engineering competence and desire to achieve leadership positions in industry or academia to handle higher responsibilities.

PEO3: To develop an inclination towards electronics system design and manufacturing.

PEO4: To develop interest towards higher studies and research.

PEO5: To develop an aptitude and ability for industrial competence and entrepreneurship.

PEO6: To enable to acquire practical knowledge of relevant technologies and multi-disciplinary fields, including broad social, ethical and environmental issues, within which engineering is practiced.

PEO7: To develop problem solving approach using analytical abilities, effective communication skills and team work.

PEO8: To develop awareness and understanding related to societal issues and a sense of commitment to the community and the profession through sincere involvement.



## Programme Outcomes (POs)

The graduates of this program will

- PO1: Demonstrate knowledge on fundamental principles and concepts, apart from the knowledge on various systems, standards and their applications related to Electronics and Communication Engineering.
- PO2: Have ability for in depth analytical and critical thinking in order to conceptualize, analyze, design and improve different kinds of electronic systems and communication applications.
- PO3: Have ability to use lab equipment using modern tools and relevant simulation software to perform measurements, experiments, design and analysis.
- PO4: Have ability in written and oral communications to effectively communicate product design and analysis.
- PO5: Develop know-how in project management and finance to acquire leadership position in industry.
- PO6: Have ability to investigate and analyze complex problems and development of appropriate solution.
- PO7: Demonstrate entrepreneurship aptitude and skills.
- PO8: Have ability to work in a team, besides having awareness of professional code of conduct and ethics, and sensitivity towards social and environmental needs.
- PO9: Have and interest and aptitude for life-long learning and continuous professional development.

## Master in Engineering

The Department is currently running three postgraduate programmes with specializations in (a) Instrumentation with intake of 12, (b) Microwave Engineering with intake of 12 and (c) Wireless Communication with intake of 18 students. A team of expert teachers are involved in teaching and providing research guidance. Students are exposed to several specialized software tools such as Cadence System Design Tools, Silvako Software (Athena & Atlas), IE3D, HFSS, Microwave Office, Sonnet, Fidelity, ADS, CST, Beampro, SystemView, LABView, MATLAB, NS-2 and QualNet etc. The department is recipient of assistance in the form of Departmental Research Support under the Special Assistance Programme of UGC. The department is running several R & D projects from various agencies like UGC, DST, AICTE, ISRO etc.

## ME (Microwave Engineering)

The PEOs are:

- PEO1: To develop an ability, enthusiasm and understanding for life-long learning, apart from ensuring professional development in the field of RF and Microwave communication technology.
- PEO2: To develop RF/Microwave engineers to meet the increasing demand for manpower in the field of RF/Microwave communication technology.

PEO3: To develop engineering competence and desire to achieve leadership positions in industry or academia to handle higher responsibilities.

PEO4: To develop an aptitude and ability for research and development, this may be reflected by significant contributions in research publications.

PEO5: To enable to acquire knowledge of relevant technologies and multi-disciplinary fields including broad social, ethical and environmental issues within which the engineering is practiced.

PEO6: To develop problem solving approach using analytical abilities, effective communication skills and team work.

PEO7: To create awareness and understanding related to societal issues, apart from developing a sense of commitment to the community and profession with sincere involvement.

### **Program Outcomes (POs)**

The graduates of this program are expected to have

PO1: In-depth knowledge on fundamental principles and concepts, apart from the knowledge on various systems, standards and their applications related to RF/Microwave communication technology.

PO2: An ability for in depth analytical and critical thinking in order to conceptualize, analyze, design and improve different kinds of RF/Microwave systems and applications.

PO3: An ability to use lab equipment and different kinds of simulation software to perform measurements, experiments, design and analysis.

PO4: Effective written and oral communications skills in order to effectively communicate design, analysis and research results.

PO5: An ability to acquire good positions in industry as well as academia.

PO6: Clear insight to appreciate the multidisciplinary nature of the technological field of RF/Microwave communication.

PO7: Developed an ability to work in team, apart from having awareness of social needs and professional code of conduct, ethics and behaviour.

PO8: An aptitude for lifelong learning and continuous professional development.

PO9: Developed problem-solving skills and aptitude.

### **ME (Instrumentation)**

**The PEOs are:**

PEO1: To train the students to excel in the field of instrumentation with an attitude to meet the needs of national and multinational industries.

PEO2: To develop problem solving approach using analytical abilities, effective communication skills

and team work.

PEO3: To develop engineering competence and desire to achieve leadership positions in industry or academia to handle higher responsibilities.

PEO4: To develop an aptitude and ability for research and development, this may be reflected by significant contributions in research publications.

PEO5: To enable to acquire knowledge of relevant technologies and multi-disciplinary fields including broad social, ethical and environmental issues within which the engineering is practiced.

PEO6: To develop an ability, enthusiasm and understanding for lifelong learning, apart from ensuring professional development in the field of instrumentation and measurement technology.

PEO7: To create awareness and understanding related to societal issues, apart from developing a sense of commitment to the community and profession with sincere involvement.

### **Program Outcomes (POs)**

The graduates of this program are expected to have

PO1: In-depth understanding on fundamental principles and concepts of instrumentation, apart from the knowledge on various systems, standards and their applications related to this technology.

PO2: An ability for in-depth analytical and critical thinking in order to conceptualize, analyze, design and improve different kinds of instruments for different applications.

PO3: An ability to use lab equipment and different kinds of simulation software to perform measurements, experiments, design and analysis.

PO4: Effective written and oral communications skills in order to efficiently communicate design, analysis and research results.

PO5: An ability to acquire good positions in industry as well as academia.

PO6: Clear insight to appreciate the multidisciplinary nature of the technological field of instrumentation.

PO7: An ability to work in team, apart from having awareness of social needs and professional code of conduct, ethics and behaviour.

PO8: Developed problem solving skills and aptitude.

PO9: Promising career in the industry as well as in academic field.

PO10: An aptitude for lifelong learning and continuous professional development.

### **ME (Wireless Communication)**

**The PEOs are:**

PEO1: To develop an ability, enthusiasm and understanding for life-long learning, apart from ensuring professional development in the field of wireless communication technology.

PEO2: To develop engineering competence and desire to achieve leadership positions in industry or academia to handle higher responsibilities.

PEO3: To develop an aptitude and ability for research and development, this may be reflected by significant contributions in research publications.

PEO4: To enable to acquire knowledge of relevant technologies and multi-disciplinary fields including broad social, ethical and environmental issues within which the engineering is practiced.

PEO5: To develop problem solving approach using analytical abilities, effective communication skills and team work.

PEO6: To create awareness and understanding related to societal issues, apart from developing a sense of commitment to the community and profession with sincere involvement.

### **Program Outcomes (POs)**

The graduates of this program are expected to have

PO1: Sound knowledge on fundamental principles and concepts, apart from the knowledge on various systems, standards and their applications related to Wireless communication technology.

PO2: An ability for in depth analytical and critical thinking in order to conceptualize, analyze, design and improve different kinds of wireless systems, networks and applications.

PO3: An ability to use lab equipment and different kinds of simulation software to perform measurements, experiments, design and analysis.

PO4: Developed effective written and oral communications skills in order to effectively communicate design, analysis and research results.

PO5: An ability to acquire good positions in industry as well as academia. Clear insight to appreciate the multidisciplinary nature of the technological field of wireless communication.

PO6: Developed an ability to work in team, apart from having awareness of social needs and professional code of conduct, ethics and behaviour.

PO7: An aptitude for lifelong learning and continuous professional development.

PO8: Developed problem-solving skills and aptitude.

### **Ph.D. Programme**

The Department runs PhD programme within the field of Electronics and Communications Engineering. Currently the research areas undertaken for the PhD programme are: Fibre Optic Sensors & Communication, Optoelectronic Devices, Wireless Communication Printed RF & Microwave Circuits, and Antennas for various Applications, Electromagnetics, EMI/EMC, Computational Electromagnetics, VLSI & Embedded System Design, RF MEMS, Biomedical Signal Processing, Speech & Audio Signal Processing, Image Processing, and Multimedia & Automation

## Sponsored projects

### Project Sanctioned

S. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount	Duration
1	Design of Ultra Low Power CMOS Temperature Sensor for Aerospace Applications	Dr. Vijay Nath	ISRO Bangalore	29.10.15	25.0 lakhs	3 Yrs

### Ongoing Projects

S. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount	Duration
1	Speech-based Access of Agricultural Commodity Prices and Weather Information in 12 Indian Languages/Dialects	Dr. Mahesh Chandra	DEITY	21.07.14	31.82 lakhs (out of total of 699.98 lakhs)	2 Yrs
2	Studies on Microwave Dielectric Ceramics and their device applications	Co-PI: Prof. V. R. Gupta & Prof. Nisha Gupta PI: Dr. S. Keshri	DST (SERB)	20.5.13	31.7 Lakh	3 Yrs

### Seminar / Conferences / Short – term Courses Conducted by the Department

S. No.	Title of Seminar / Conferences / Short term Courses / Workshop	Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short term Courses
1	Visual TCAD & Genius Device Simulator (TCAD Workshop-2016)	Dr. A Islam	TCAD	08-12 May, 16
2	Workshop : ADS Training	Dr. A. K. Tiwary	Keysight Application Engineer	10-11 Sep, 15



**Conferences/ Seminars/ Workshops/ Staff Development Programmes attended**

S. No.	Name of the Faculty	Title of the Conference/Seminar	Funding Agency	Organizers	Venue	Date
1	Dr. Aminul Islam	VLSI & Embedded System	MHRD Govt. of India	NIT, Patna	NIT, Patna	09-18 Dec,15
2	Dr. Aminul Islam	High Performance Computing (HPC-2016)	TEQIP BIT, Mesra	BIT, Mesra	BIT, Mesra	02-06 May, 16
3	Dr. Aminul Islam	Visual TCAD & Genious Device Simulator (TCAD)	TCAD	BIT, Mesra	BIT, Mesra	08-12 May,16
4	Dr. D. K. Upadhyay	High Performance Computing (HPC-2016)	TEQIP BIT, Mesra	BIT, Mesra	BIT, Mesra	02-06 May, 16
5	Dr. K. Mahto	High Performance Computing (HPC-2016)	TEQIP BIT, Mesra	BIT, Mesra	BIT, Mesra	02-06 May, 16
6	Dr. S. S. Tripathy	High Performance Computing (HPC-2016)	TEQIP BIT, Mesra	BIT, Mesra	BIT, Mesra	02-06 May, 16
8	Dr. Anjini Kumar Tiwary	International Conference on Microwave and Photonics (ICMAP-2015)	TEQIP-II	ISM Dhanbad, India	ISM Dhanbad, India	11-13 Dec,15
9	Dr. Anjini Kumar Tiwary	Modern Antenna Technology (MAT)	TEQIP-II	ISM Dhanbad	ISM Dhanbad	29Jun-03Jul,15
10	Mr. Janardan Sahay	Short term course on MIMO wireless communication: fundamental and advancement under TEQIP-II	TEQIP-II	IIT-Delhi	IIT-Delhi	06-13 Jul,15
11	Mr. Janardan Sahay	Short term course on Algorithms Of Sensor Network With Recent Trends	TEQIP-II	ISM-Dhanbad	ISM-Dhanbad	20-24 Jun, 16
12	Dr. Neela Chatteraj	Thin Films & Nanomaterials for Device Applications	TEQIP-II	NITTE Meenakshi Institute of Technology	Bangalore	19-23 Jan, 16

S. No.	Name of the Faculty	Title of the Conference/Seminar	Funding Agency	Organizers	Venue	Date
13	Dr. Neela Chatteraj	NEMS/MEMS and Theranostic Devices	TEQIP-II	IIT Guwahati,	IIT Guwahati,	21-22 Mar, 16
14	Dr. Neela Chatteraj	Modeling and Investigation of Electrothermally Actuated Micro-Gripper	TEQIP-II	ARTTC, BSNL near Jumar River Bridge, Hazaribag Road, Ranchi	Ranchi	14-15 Nov, 16
15	Mr. Priyank Saxena	FDP on use of ICT for effective & Blended learning	TEQIP-II	IIT Bombay	IIT Bombay	06May-05Aug, 16
16	Dr. Sudip Kundu	Advanced Analog Circuits using Current Model Building Blocks	TEQIP-II	ISM Dhanbad, Dhanbad	ISM Dhanbad, Dhanbad	27-31 Jul, 15
17	Dr. Sudip Kundu	International Conference on VLSI Design	TEQIP-II	IEEE Circuits and Systems Society	IEEE Circuits and Systems Society	04-08 Jan, 16
18	Dr. Sudip Kundu	Use of ICT in Education for Online and Blended Learning	TEQIP-II	IIT Bombay, India	IIT Bombay, India	05-08 May, 16
19	Dr. Vijay Nath	IC- MICRO-2015	DST- New Delhi	ISTM kolkata	ISTM kolkata	11-12 Jul, 15
20	Dr. Vijay Nath	ICICCD-2016	ISRO Bangalore	UPES Dehradun	UPES Dehradun	02-03 Apr, 16
21	Dr. Rajesh Kumar Lal	Use of ICT in Education for Online and Blended Learning	TEQIP-II	Institution (IIT Bombay)	Institution (IIT Bombay)	05Feb-05Mar, 16
22	Mr. Somnath Sengupta	International Conference on Microwave and Photonics 2015	TEQIP-II	ISM Dhanbad	ISM Dhanbad	13Dec, 15
23	Ms. Swati Prasad	Wireless VITAE 2015, Hyderabad	TEQIP-II	Aalborg University Denmark	Aalborg University Denmark	13-16 Dec, 15
24	Dr. Mahesh Chandra	Impact of Each Camera on Multiple Camera Visual Speech Recognizer using ANOVA: A Brief Study	BIT Mesra	MACAU, China	MACAU, China	01-04 Nov, 15

S. No.	Name of the Faculty	Title of the Conference/Seminar	Funding Agency	Organizers	Venue	Date
25	Dr. Mahesh Chandra	VidTIMIT audio visual phoneme recognition using AAM visual features and human auditory motivated acoustic wavelet features	BIT Mesra	Jadavpur University, Kolkata, India	Jadavpur University, Kolkata, India	09-11 Jul,15
26	Dr. Sanjay Kumar	TV White Space for affordable Broadband access	Self Financed	Joint Global Conference on Democratizing Communications Hyderabad	Joint Global Conference on Democratizing Communications, Hyderabad	13Dec, 15
27	Dr. S. S. Sahu	Emerging Techniques in Bioinformatics and its' Application	Self Financed	BIT, Mesra	BIT, Mesra	30Nov,15
28	Dr. M K Mukul	Short term course on MIMO wireless communication: fundamental and advancement under TEQIP-II	TEQIP-II	IIT-Delhi	IIT-Delhi	13Jul,15
29	Dr. Sanjeet Kumar	Short term course on MIMO wireless communication: fundamental and advancement under TEQIP-II	TEQIP-II	IIT-Delhi	IIT-Delhi	13Jul,15
30	Ms. Prajna Parimita Dash	IEEE International Conference on Computer Graphics, Vision and Information Security	--	KIIT University, Bhubaneswar	KIIT University, Bhubaneswar	29Jun-03Jul,15
31	Ms. Prajna Parimita Dash	National Workshop on Machine Vision and Biometrics	--	MNIT, Jaipur, Rajasthan	MNIT, Jaipur, Rajasthan	17-21 Oct,15

## **Publications**

### **Published in International Journals**

1. M. Kumar, S.K. Mishra and S.S. Sahu, "Cat Swarm Optimization based Functional Link Artificial Neural Network Filter for Gaussian Noise Removal from Computed Tomography Images" Applied Computational Intelligence and Soft Computing, Volume 2016, pp:1-6, Article ID 6304915.
2. Kumar Mohit, Vibha Rani Gupta, S.K. Rout, "A CPW-Fed Quad-Directional Stacked Magneto-Dielectric Resonator Antenna For Angle Diversity Application", Microwave and Optical Technology Letters, Vol 58, No. 1, pp-61-64, Jan2016, DOI: 10.1002/mop.29496.
3. Kumar Mohit, Vibha Rani Gupta, S.K. Rout, "Two Element Magneto-Dielectric Resonator Antenna for Angle Diversity", Frequenz -Berlin- • January 2016, DOI: 10.1515/freq-2015-0130.
4. P Mohanty, S Keshri, MK Sinha, VR Gupta, "Study on Microwave Dielectric Properties of Corundum Type ( $\text{Mg}_{1-x}\text{Co}_x$ )  $4\text{Ta}_2\text{O}_9$  ( $x=0-0.6$ ) Ceramics for Designing a Microwave Low Pass Filter, online 5 January 2016, Ceramics International, doi:10.1016/j.ceramint.2015.12.139.
5. Pratyush Pushkar and Vibha Rani Gupta, "A Metamaterial Based Tri-Band Antenna for WiMAX/WLAN Application", Microwave and Optical Technology Letters, pp-558-561, Vol 58, No. 3, March 2016, DOI: 10.1002/mop.29616.
6. Punit kumar and Janardan Sahay, "Design of a Microstrip Patch MIMO Antenna with DGS for UWB Applications" International Journal of Modern Trends in Engineering and Research(IJMTER), Volume 3, Issue-5, May -2016, ISSN (Online):2349-9745 ; ISSN (Print): pp. 20-25 (May2016): SJIF:3.158.
7. H. K. Palo, Mihir Narayan Mohanty and Mahesh Chandra, "Efficient feature combination techniques for emotional speech classification" International Journal of Speech Technology, vol.19, pp.135-150, 2016. Springer, ISSN 1381-2416, Scopus, DOI 10.1007/s10772-016-9333-9.
8. Aloke Saha, Dipankar Pal and Mahesh Chandra, "Benchmarking of DPL Based 8b×8b Novel Wave-Pipelined Multiplier", International Journal of Electronics Letters, published online 06 Apr. 2016, SCI, IF: 0.459, 2168-1724 (Print), 2168-1732 (Online), DOI:10.1080/21681724.2016.1175031.
9. S. Pratap Singh, Meenu Jadon, Rahul Kumar, Sanjay Kumar, "BER Analysis over Alpha-mu Fading Channel using Proposed Novel MGF", International Journal of Wireless and Mobile Computing, Vol. 10, No. 2, 2016.
10. Sudakar Singh Chauhan, Sanjay Kumar, "Achievable performance analysis of multiuser scheduling for different MIMO systems over Rayleigh fading channels," Elsevier International Journal for Light and Electron Optics, vol. 127, pp. 6884-6893, April 2016.
11. Sudakar Singh Chauhan, Sanjay Kumar, "Outage probability and symbol error rate analysis of MIMO-MRC with estimation error, feedback delay and co-channel interference", WSEAS Trans. on Commun., vol. 14, pp. 506-511, Feb 2016.
12. Sudakar Singh Chauhan and Sanjay Kumar, "Achievable unified performance analysis of orthogonal space-time block codes with antenna selection over correlated Rayleigh fading channels," WSEAS Transaction on Commun., vol. 14, pp. 499-505, Feb 2016.

13. Babulal Sahu, Srikanta Pal and Neela chattraj "A Novel Traingular Shaped UWB Fractal Antenna Using Circular Slot, Frequenz, De Gruyter Vol 70, pp113-120 February 2016.
14. Nagaraj N Bhat, Samik Dutta, Tarun Vashists, Srikanta Pal, Surjya K Pal, Ranjan Sen, "Tool Condition Monitoring by SVM Classification of Machined Surface Images in Turning", International Journal of Advanced Manufacturing Technology, Springer, Vol. 83, No. 9, PP 1487 - 1502, April 2016.
15. Nagaraj N Bhat, Samik Dutta, Kanchan Kumari, Srikanta Pal, Surjya K Pal, 'Friction Stir Weld Classification by Applying Wavelet Analysis and Support Vector Machine on Weld Surface Images', Journal of Manufacturing Processes, Elsevier, Vol.20, Part1, October 2015, pp 274-281.
16. Nagaraj N Bhat, Samik Dutta, Srikanta Pal, Surjya K Pal, 'Tool Condition Classification in Turning Process using Hidden Markov Model based on Texture Analysis of Machined Surface Images MEAS-D-15-00685', Measurement, Elsevier, Vol. 90, Aug 2016, pp 500-509.
17. A.N. Ghazali, Mohd Sazid and S. Pal, "A miniaturized microstrip-to-CPW transition based UWB-BPF with sharp roll-off and minimum insertion loss," Microwave and Optical Technology Letters (MOTL), Wiley, Vol.58, No. 2, pp 289-293, Feb 2016.
18. Mrinmoy Chakraborty, Srikanta Pal, Neela Chottoraj, 'Realization of high performance compact CPW-fed planar UWB antenna using higher order asymmetry for practical applications', Microwave and Optical Technology Letters, Wiley, Vol. 58, No. 2, pp 398-399, Feb 2016.
19. S. Prasad, Z. H. Tan, R. Prasad, "Multiple Frame Rates for Feature Extraction and Reliable Frame Selection at the Decision for Speaker Identification Under Voice Disguise", Journal of Communications, Navigation, Sensing and Services (CONASENSE), June 2016.
20. Ritesh Kumar Badhai and Nisha Gupta, "Design of Wideband Inverted Sinc Shaped Monopole Antenna for Wireless Applications," International Journal of Signal Processing, Image Processing and Pattern Recognition Vol.9, No.1 (2016), pp.387-398.
21. I. Snigdh, D. Gosain and N. Gupta, "Optimal Sink Placement in backbone assisted Wireless Sensor Network", Egyptian Informatic Journal., Volume 17, Issue 2, July 2016, Pages 217-225.
22. Aftab Alam, Manoj Kumar Mukul and Parashuram Thakura "Wavelet Transform Based EMI Noise Mitigation in Power Converter Topologies", IEEE Trans. on Electromagnetic Compatibility, Vol.: PP, Issue.99, pp.:1-12, 2016 (DOI:10.1109/TEMPC.2016.2570299) (ISSN :0018-9375).
23. Sumanta Bhattacharya and Manoj Kumar Mukul "Cepstral Coefficients Based Multivariate Gaussian Probability Density Function as a Feature for Real Time Movement Imagery Classification", International Journal of Engineering and Technology (IJET), Engg. Journals Publications, pp.: 117-123, Vol 8, No.1, Feb-Mar 2016, (p-ISSN: 2319-8613).
24. Deepak Kumar and S.S. Tripathy, "Computer Classification of Jharkhand Coal Based on Feature analysis and Repeatability using Image Processing" International Journal of Advanced Research in Electrical Electronics and Instrumentation Engineering, Vol 5, Issue-4, 2538-2544, April 2016.
25. Suryadeep Roy, S.S. Tripathy, "A Novel Approach for the Detection of Malaria Parasites and Measure its Severity Using Image Processing and Fuzzy Logic" International Journal of Advanced Research in Electrical Electronics and Instrumentation Engineering, Vol 5, Issue-4, 3080-3088, April 2016.



26. Sushant Kumar, Dr. S.S Solanki, A Unique Approach for Automatic Courier Receiving System, International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering (An ISO 3297: 2007 Certified Organization), Vol. 5, Issue 2, February 2016. ISSN (Print):2320-3765,ISSN(Online):2278-8875,IJAREEIEDOI:10.15662/IJAREEIE.2016.0502026, pp - 1124-1128.
27. Nilotpal, Dileep Kr. Upadhyay, "A Compact UWB-Bandpass Filter Based on CRLH Via-less CPW-Fed," Microwave and Optical Technology Letters, vol. 58, Issue 2, pp. 276-279, Feb. 2016.
28. S.D. K.Verma, P.K. Barhai, V. Nath, "QCA and CMOS Nanotechnology Based Design & Development of Nanoelectronic Security Devices with encryption Schemes TELKOMNIKA, Indonesian Journal of Electrical Engineering, DOI:10.11591/telkomnika.v14i2.7485, Vol. 14, No. 2, pp. 270 - 279, 2015.
29. Badhai Ritesh Kumar, Nisha Gupta, "Parametric Study of Sine Shaped Monopole Antenna for Wireless Devices", Applied Computational Electromagnetics Society, Journal 30, no. 1, 2015.
30. Badhai Ritesh Kumar, Nisha Gupta, "Compact asymmetric coplanar strip fed Sinc shaped monopole antenna for multiband applications", International Journal of Microwave and Wireless Technologies, pp1-7, 2015.
31. Snigdha Itu, Nisha Gupta, "Evaluating Quasi Random Deployment in Zigbee Based Wireless Sensor Networks", International Journal of Electrical and Computer Engineering (IJECE), vol.5, No. 4, 2015.
32. Babulalshahu, SrikantaPal, NeelaChattoraj, "Design of super wideband hexagonal-shaped fractal antenna with triangular slot", Microwave & Optical Technology Letters (USA), volume 57, issue 7, pp 1659-1662, July 2015.
33. AftabAlam, Manoj Kumar Mukul, Parshu Ram Thakura, "Stability analysis and reliability evaluation of a Z-source inverter", International Journal of Power Electronics, Inderscience Publishers (IEL), 1-2, vol.7,1-15, 2015.
34. Manoj Kumar Mukul, "Combined effect of blind source separation and common spatial pattern", International Journal of Applied Engineering Research, RIP Publishers, 01/2015, 10(9), 22691-22701, 2015.
35. Astik Biswas, P. K. Sahu and Mahesh Chandra, "Multiple Camera AVICAR Audio-visual Speech Recognition using Phonetic and Visemic Information", Computers and Electrical Engineering, Elsevier vol.47, pp.35-50, 2015.
36. Astik Biswas, P. K. Sahu, AnirbanBhowmick and Mahesh Chandra, "Speech Recognition using ERB like Admissible Wavelet Packet Decomposition based on Perceptual Sub-band Weighting", IETE Journal of Research 2015.
37. ManasRay, Mahesh Chandra, B.P. Patil, "Speech Coding Techniques for VOIP Applications: A Technical Review", World Applied Sciences Journal (WASJ), Vol.33, Issue 5, pp736-743, Oct. 2015.
38. Astik Biswas, P.K. Sahu and Mahesh Chandra, "Audio visual isolated Hindi digits recognition using HMM", International Journal of Computational Vision and Robotics, Vol.5, No.3, pp.320-334, 2015.

39. Astik Biswas, P. K. Sahu, Anirban Bhowmick and Mahesh Chandra, "AAM Based Features for Multiple Camera Visual Speech Recognition in Car Environment", *Procedia Computer science*, vol.57, pp. 614-621, 2015.
40. Manas Ray, Mahesh Chandra, B.P.Patil, "Analysis of CDMA Microwave System to address QoS needs of VoIP Applications", *Wulfenia Journal*, vol. 22, Issue no.9, pp. 284-295, September 2015.
41. Sanjeev Kumar and Mahesh Chandra, "Detection of Micro-calcification Using Wavelet Based Adaptive Sigmoid Function and Neural Network", *Journal of Information Processing Systems*, pp.1-13, 2015.
42. Nilotpal, Dileep Kr. Upadhyay and G. K. Mishra, "A Compact Zeroth-Order Resonator Based On CRLH Via-less CPW-Fed", *Microwave and Optical Technology Letters* Vol. 57, No. 11, pp. 2576-2580, Nov. 2015.
43. Amit Krishna Dwivedi, A. Islam, "Nonvolatile and robust design of content addressable memory cell using magnetic tunnel junction at nanoscale regime", *IEEE TRANSACTIONS ON MAGNETICS*, Publisher: IEEE, vol. 51, no. 12, 17 Nov2015.
44. Arko Mukherjee, AbhijeetPasumarthy, Aminul Islam, "Design of MEMS Single Pole Double Throw Switch based on PZT", *International Journal of Scientific and Engineering Research*, vol. 6, No. 7, pp. 248 – 251, Jul. 2015.
45. AdityaTyagi, ChGopi, PrayankBaldi, Aminul Islam, "CNFET Based 0.1 V to 1.2 V DC/DC Boost Converter with Voltage Regulation for Energy Harvesting Applications", *IEEE TRANSACTIONS ON NANOTECHNOLOGY*, Publisher: IEEE, vol. 14, no. 4, pp. 660–667, Jul. 2015.
46. Santashraya Preasad, Amit Krishna Triwadi, "Characterization of AlGaIn/GaN and AlGaIn/AlN/GaN HEMTs in Terms of Mobility and Subthreshold Slope", *Journal of Computational Electronics*, Springer, 1572-8137, 24sept.2015.
47. Janardan Sahay and Sanjay Kumar, "Compact Triple Band Patch Antenna for Cognitive Radio Applications Using Defected Ground Structure", *International Journal of Applied Engineering Research (IJAER)*, Volume 10, No.11, pp. 29883-29891, 2015.
48. Mohammad Irfanul Hasan, Sanjay Kumar, "Average Channel Capacity of Correlated Dual-Branch Maximal Ratio Combining Under Worst Case of Fading Scenario", *Wireless Personal Communications*, Vol. 83, No. 4, pp.2623-2646, Aug 2015.
49. Md Irfanul Hasan and Sanjay Kumar, "Average Channel Capacity Evaluation for Selection Combining Diversity Schemes over Nakagami-0.5 Fading Channels", *International Journal of Communication Networks and Information Security*, vol. 7, No. 2, pp. 69-79, August 2015.
50. Shahnawaz Arif, R. K. Lal, "Design and Comparative Study of Wallace tree and CLA based Multiplier for DSP Application", *International Journal of Applied Engineering Research (IJAER)*, Vol. 10 No.55, pp.1080-1084, Nov. 2015. ISSN: 0973-4562.
51. Soumitra Pal, A. Islam, "Variation Tolerant Differential 8T SRAM Cell for Ultralow Power Applications," *IEEE Transactions on Computer-Aided Design Of Integrated Circuits And Systems*, Vol. 35, No. 4, April 2016.

52. Prashant Kumar Singh, Anjini Kumar Tiwary & Nisha Gupta, Design of Radial Microstrip Band Pass Filter with Wide Stop-Band Characteristics for GPS Application, Progress In Electromagnetics Research C, vol. 59, pp. 127-134, Sep. 2015.
53. Prashant Kumar Singh & Anjini Kumar Tiwary, Novel Compact Dual Bandstop Filter Using Radial Stub, Microwave Review, vol. 21, no. 1, pp. 17-22, Sep. 2015.
54. N. Ghazali and S. Pal, "Planar UWB Filter with Multiple Notched band and Stopband with Improved Rejection Level," Frequenz, De Gruyter, Vol. 69 No. (5-6), pp 207-218, 2015.
55. Abu N Ghazali, Mohd. Sazid, Srikanta Pal, 'A Compact Broadband Balun based UWB-BPF With Minimum Insertion Loss and Sharp Selectivity' IET Electronics Letters, Vol. 51, No. 15, pp 1174-75, 2015.
56. Ujjwal Kumar, Inderjeet Yadav Shilpi Kumari, Kanchan Kumari, Nitin Ranjan, Ramkumar Kesharwani, Rahul Jain, Sachin Kumar, Srikanta Pal, Surjya K Pal, Debashish Chakravarty, "Defect identification in friction stir welding using discrete wavelet analysis", Advances in Engineering Software, Elsevier, Vol. 85 (2015), pp 43-50.
57. Sarika Tyagi, Amit Krishna Dwivedi & B.B.Pal & A.Islam, "Robust Design of Trigger Pulse Generator using Delay element & its applications." In Indian Journal of Science & Technology, 2016.
58. Sarika Tyagi, Amit Krishna Dwivedi & B.B.Pal & A.Islam, "Novel Design of a current mode operated monirity based function based Full Adder Circuit" In International Journal of Engineering, 2016.

### **Published in International Proceedings**

1. Ankita Mishra, Ashutosh Kumar Singh and Sitanshu Sekhar Sahu, "ECG Signal Denoising using Time-Frequency based Filtering Approach" IEEE International Conference on Communication and Signal Processing, Melmaruvathur, April 6-8, 2016.
2. Aarushi Agarwal, Spriha Chandrayan and Sitanshu S Sahu, "Prediction of Parkinson's Disease using Speech Signal with Extreme Learning Machine" IEEE International Conference on Electrical, Electronics, and Optimization Techniques (ICEEOT), Chennai, March 3-5, 2016.
3. Ashutosh Kumar Singh and Sitanshu Sekhar Sahu, "Prediction of host-pathogen protein-protein interaction network using Machine learning approach" National Conference on Emerging & Innovative Trends in Computer Science, Hyderabad, India, April 12-14, 2016.
4. Ipsita Chakraborty, V. R. Gupta, "Design and Parametric Study of Ultra Wideband PIFA Antenna", IEEE Indian Antenna week Workshop on Advanced Antenna Technology 2016, Thiagarajar College of Engineering (TCE), Madurai in Association with IEEE AP Madras Chapter 6-19 June 2016. ( Best PG Research Paper Award).
5. Manisha Guduri, Sudip Kundu, and Aminul Islam, "Investigation on Electrical Characteristics of FDSOI Device for Ultra-Low Power Operation", International Conference on Recent Advances In Information Technology, ISM Dhanbad, 2016.
6. Janardan Sahay and Sanjay Kumar, "A Novel CPW-FED Aperture Antenna For Ultra-WideBand Applications " IEEE Sponsored 3rd International Conference on Innovations in Information, Embedded and Communication Systems (ICIIECS-16), 17-18 March -2016, Vol.-II, ISBN: 978-1-4673-8207-6 pp. 120-123 (March 2016).

7. Chandan Raj and Janardan Sahay, "Design of a Microstrip Patch Filtenna For UWB Application " IEEE Sponsered 3rdInternational Confrence on Innovations in Information, Embedded and Communication Systems(ICII ECS-16),, 17-18 March -2016, Vol.-II,ISBN: 978-1-4673-8207-6 pp. 443-446 (March 2016).
8. S. Agarwal and M. Chandra, "Web Based Data Extraction Using Speech Recognition", IEEE International Conference on Innovation in information Embedded and Communication Systems (ICII ECS -2016), Feb. 19, 2016, presented, Coimbatore, India.
9. Arvind Kumar and Mahesh Chandra, "Real Time Automatic Acoustic Guitar Notes Transcription into Text and Color Using Cepstral Analysis", International Conference on Recent Trends in Engineering and Material Science(ICEMS), Jaipur, Rajasthan, India, presented March 17-19,2016.
10. Sushant kumar, S.S.Solanki, Voice and Touch Control Home Automation, 3rd Int'l Conf. on Recent Advances in Information Technology | RAIT-2016, 978-1-4799-8579-1/16/\$31.00 ©2016 IEEE.
11. Sushmita Verma,V.Nath & B.B.Pal "Design of Ring Oscillator Using Pseudo Depletion NMOS And CMOS Logic" 1st International Conference on Microelectronics, Computing & Communication Systems(MCCS2015) organized by Indian society for VLSI E Education (ISVE) Ranchi ARTTC BSNL near Jumar River H.B Road Ranchi(JH) India from 14th to 15th Nov-2015.
12. Sushmita Verma,B.B.Pal & V.Nath "Robust Study and design of a Low Power CSVCO in 45 nanometer CMOS Process", world conference on futuristic trends in research & innovation for social welfare (WCFTR-2016) organized by DEPTT of ECE,Karpakam College of Engg, Coimbatore, India from 29.2.16 to 1.3.16.
13. Anish Kumar Verma, Sanjay Kumar, "Resistive Feedback Low Noise Amplifier for Software Defined Radio", IEEE sponsored 3rd International Conference on Innovations in information embedded and Communication systems, (ICII ECS-16), Coimbatore, 17-18 March, 2016.
14. Anish Kumar Verma, Sanjay Kumar, "Design of a Planar Inverted F-Antenna for Wireless applications", IEEE sponsored 3rd International Conference on Innovations in information embedded and Communication systems, (ICII ECS-16) Coimbatore, 17-18 March, 2016.
15. Devprita Sinha, Sanjay Kumar, "FIR Filter Compensator for CIC Filter suitable for Software Defined Radio", IEEE conference (WCFTR-2016), Coimbatore, 29 Feb-01March, 2016.
16. Devprita Sinha, Sanjay Kumar, "Sine and cosine compensators for CIC Filter suitable for Software Defined Radio", IEEE conference (WCFTR-2016), Coimbatore, 29 Feb-01March, 2016. This papers has been selected for Indian journal of Science and technology.
17. Devprita Sinha, Sanjay Kumar, "CIC Filter for Sample Rate Conversion in Software Defined Radio", IEEE conference (WCFTR-2016), Coimbatore, 29 Feb-01March, 2016.
18. Devprita Sinha, Anish Kumar Verma, Sanjay Kumar, "Digital Front End In Software Defined Radio", IEEE conference (ICECS-2016), Coimbatore, 25-26 Feb, 2016.
19. Devarpita Sinha, Anish Kumar Verma, Sanjay Kumar, "Software Defined Radio: Operation, Challenges and Possible Solutions", 10th International Conference on Intelligent Systems and Control, (IEEE ISCO'16), Coimbatore, 7-8 January, 2016.

20. Devarpita Sinha, Anish Kumar Verma, Sanjay Kumar, "Sample Rate Conversion Technique for Software Defined Radio Receiver", 10th International Conference on Intelligent Systems and Control, (IEEE ISCO"16), Coimbatore, 7-8 January, 2016.
21. Anish Kumar Verma, Devarpita Sinha, Sanjay Kumar, "Low Noise Amplifier for Software Defined Radio", 10th International Conference on Intelligent Systems and Control, (IEEE ISCO"16), Coimbatore, 7-8 January, 2016.
22. P.V.S.Murli Krishna, Naveen Kumar, R. K. Lal and Avireni Srinivasulu, "Grounded Resistor/ Capacitor Controlled Multi-Phase Sinusoidal Oscillator Using DDCCCs", Proc. of IEEE International conference on Communication on communication and signal Processing, held at Department of Electronics and Communication Engineering, Adhiparasakthi Engineering College, Melmaruvathur, Tamilnadu, 6-8 April, 2016, pp. 0266-0269, 2016.
23. Soumik Senapati, Yogesh Kumar Sharma, and Sanjeet Kumar, "Target Detection using Hybrid DWT-DCT based Feature Extraction in a Visual Sensor Network", International Conference of Recent Trends in Engineering and Material Science (ICEMS-2016), Jaipur National University, Jaipur, India, March 17-19, 2016.
24. Yogesh Kumar Sharma, Soumik Senapati, Deo Kumar and Sanjeet Kumar, "Efficient Formation of Cluster Heads based on Centre of Gravity with respect to density of nodes for a heterogeneous WSN", International Conference of Recent Trends in Engineering and Material Science (ICEMS-2016), Jaipur National University, Jaipur, India, March 17-19, 2016.
25. Ankul Anand, and Manoj Kumar Mukul," Comparative Analysis of different Direction of Arrival Estimation Techniques", IEEE International Conference On Recent Trends In Electronics Information Communication Technology, May 20-21,,pp.: 200-205, 2016, India (978-1-5090-0774-5/16/\$31.00 © 2016 IEEE).
26. Ankul Anand, and Manoj Kumar Mukul," Comparison of STFT Based Direction of Arrival Estimation Techniques for Speech Signal", IEEE International Conference On Recent Trends In Electronics Information Communication Technology, May 20-21,,pp.: 356-360, 2016, India (978-1-5090-0774-5/16/\$31.00 © 2016 IEEE).
27. Sonjuhi Mrinalee and Manoj Kumar Mukul," Performance Analysis of the MIMO System using the Chaos Shift Keying", IEEE International Conference On Recent Trends In Electronics Information Communication Technology, May 20-21,,pp.: 200-1878-1882, 2016, India (978-1-5090-0774-5/16/\$31.00 © 2016 IEEE).
28. Uday Kumar, Dileep Kumar Upadhyay, Babu Lal Shahu, "Improvement of Performance parameters of rectangular patch antenna using metamaterial" IEEE International Conference on Recent Trends In Electronics Information Communication Technology (RTEICT-2016), pp. 1041-1045, May, 20-21, 2016.
29. Pankaj Kumar Das, Dileep Kr. Upadhyay, Babu Lal Shahu "Design and Development of a frequency Reconfigurable Annular Ring Slot Microstrip Triangular Patch Antenna" IEEE International Conference on Recent Trends In Electronics Information Communication Technology (RTEICT-2016), (Poster paper) pp. 20-23, May, 20-21, 2016.



30. Vidya kumari, A.K. Tiwary, A planar, dual band antenna with wideband characteristics, International Conference on Communication and Signal Processing, pp 1119-1122, April 6-8, 2016, India.
31. Vidya Kumari, Anjini Kumar Tiwary, Design of Triple Band Planar Antenna Using Composite Right Left Handed Metamaterial, International Conference on Communication and Signal Processing, pp. 1123-1126, April 6-8, 2016, India.
32. Ritija Monali, Shreya Moonka, Anushruti Priya, Sanjaya Shankar Tripathy, "Effects of noise and relative overlap on image mosaicing Using SURF Features", Proceedings of IEEE conference on RTEICT-2016, 20-21 May 2016.
33. Deepak Kumar and Sanjaya Shankar Tripathy, "Analysis and Classification of Jharkhand coal", Proceedings of ICEMS-2016, 3-IC-1379, 17-19 March 2016.
34. Suryadeep Roy and Sanjaya Shankar Tripathy, "Detection of malarial parasites in human blood using image processing", Proceedings of ICECS-2016, 2737-2740, 25-26 FEB 2016.
35. Suraj Kumar Saw, Vijay Nath, "A 10.8 nW low power CMOS temperature sensor for wireless applications", IEEE International conference on electrical, electronics, signal, communication and optimization (EESCO-2015), pp.1-3, 2015.
36. Suraj Kumar Saw, Vijay Nath, "An Ultra-Low Power and Low Phase Noise Current Starved CMOS VCO for Wireless Application", IEEE International Conference on Industrial Instrumentation and Control (ICIC-2015) pp.1388-1391, 2015.
37. Abhishek Pandey, Subhra Chakraborty, Suraj Kumar Saw, Vijay Nath, "A Darlington Pair Transistor based Operational Amplifier", IEEE International Global Conference on Communication Technologies (GCCT-2015), pp.273-276, 2015.
38. Abhishek Pandey, Subhra Chakraborty, Suraj Kumar Saw, Ram Krishna Kundu, Vijay Nath, "A 83 nW CMOS Temperature Sensor & Signal Conditioning with in accuracy  $-1/+0.7^{\circ}\text{C}$  between  $-30^{\circ}\text{C}$  to  $130^{\circ}\text{C}$ ", International Conference Computing Communication & Sensor Network (CCSN-2015), pp.31-35, July-2015.
39. Sudip Kundu, Pradip Mandal, "Design Automation of Analog and Mixed Signal System / Sub-system using Hierarchical Abstraction", PhD forum of international conference on VLSI Design, 2016.
40. Somnath Sengupta, S K Ghorai, "High Performance Optical Comb Filter using Full duty cycle based Periodically Chirped- Sampled Fiber Bragg Grating", International Conference on Microwave & Photonics 2015 (ICMAP2015), 2015.
41. Ashutosh Kumar Singh, S S Sahu, Ankita Mishra, "Sub-Cellular Localization Prediction Using Machine Learning Approach", Proceedings of International Conference on Instrumentation, Electrical and Electronics Engineering, 2015.
42. Singh Subhendra pratap & Nisha Gupta, "Novel Planar Power Divider for EMC application", International Conference on electromagnetic Interference & Compatibility (INCEMIC 2015), Visakhapatnam, India, 2015.

43. Prashant Kumar Singh, Anjini Kumar Tiwary and Nisha Gupta, Microstrip Low-Pass Filter Using Modified Log Periodic Radial Stub, 5th IEEE Applied Electromagnetics Conference (AEMC-2015), 18-21 Dec. 2015, IIT Guwahati.
44. Anjini Kumar Tiwary, Rishikesh Ranjan and Nisha Gupta, Dual Bandpass Filter using SIR for WLAN, II International Conference on Microwave and Photonics (ICMAP-2015), 11-13 Dec. 2015, ISM Dhanbad, India.
45. Tanushree, Anjini Kumar Tiwary and Nisha Gupta, Electromagnetic Interference Reduction Using Radial Stub Structures, 13th International Conference on Electromagnetic Interference & Compatibility (INCEMIC 2015), pp. 311-314, 22-23 July 2015, Visakhapatnam, India. Organized by Society of EMC Engineers.
46. Rahul Pelluri, Nisha Gupta & Bhargav Appasani, "A Multi Band Absorber using Band Gap Structures", IInd International Conference on Microwave and Photonics ICMAP -2105, 11-13 Dec., ISM Dhanbad, 2015.
47. Satish Kumar, A Dash, M.K Mukul, "Design and development of low-cost EOG acquisition circuit for HMI application", 2nd International Conference on Signal Processing and Integrated Networks (SPIN), 192 – 197, 2015.
48. Ashok Behuria, B.P. Mishra, Pankaj Goel, Asutosh Kar, Shibalik Mohapatra and Mahesh Chandra, "A Novel Variable Step-Size Feedback Filtered-X LMS Algorithm for Acoustic Noise Removal", International Conference on Advances in Computing, Communications and Informatics (ICACCI-2015), SCMS, Aluva, Kochi, India, pp.166-171, 10-13, Aug.15.
49. Monali Dhal, Monalish Ghosh, Pankaj Goel, Asutosh Kar, Shibalik Mohapatra and Mahesh Chandra, "An Unique Adaptive Noise Canceller with Advanced Variable-Step BLMS Algorithm", International Conference on Advances in Computing, Communications and Informatics (ICACCI-2015), SCMS, Aluva, Kochi, India, pp.178-183, 10-13, Aug.15.
50. Chandramauleswar Roy, Aminul Islam, "Low Power Single-Ended 7T SRAM Cell at 16 nm Technology node", International Conference on Computing, Communication and Sensor Network (CCSN-2015), Kolkata, India, Dec. 2015.
51. Manisha Guduri, Shruti Agrawal, Vikash Kumar, Aminul Islam, "Study of FinFET Based Circuit for Ultra-Low Power Operation", International Conference on Computing, Communication and Sensor Network (CCSN-2015), Kolkata, India, Dec. 2015.
52. Manisha G, Aminul Islam, "Device Sizing for Minimum Energy Operation of CMOS Inverter in Deep Subthreshold Region for Ultra Low Power Applications", International Conference on Computing, Communication and Sensor Network (CCSN-2015), Kolkata, India, Dec. 2015.
53. Rishab Mehra, Aminul Islam, "Variability Analysis of CS Amplifier @ 45 nm Technology Node", International Conference on Computing, Communication and Sensor Network (CCSN-2015), Kolkata, India, Dec. 2015.
54. Sarika Tyagi, Amit Krishna Dwivedi, Basab Bijoy Pal, Aminul Islam, "Threshold Voltage Extraction Techniques for Device @ 16 nm Technology Node", International conference on smart sensors and systems (IC-SSS-2015), M.S. Ramaiah Institute of Technology, Bangalore, India, Dec. 2015.

55. Sarika Tyagi, Amit Krishna Dwivedi, Animul Islam, "Revisiting Performance of Various Delay Elements to Realize a Trigger Pulse Generator", International conference on smart sensors and systems (IC-SSS-2015), M.S. Ramaiah Institute of Technology, Bangalore, India, Dec. 2015.
56. Anubhav Sinha, Aminul Islam, "Low-Power 9T Subthreshold SRAM Cell with Single-Ended Write Scheme", 12th IEEE India International Conference (INDICON 2015), Jamia Millia Islamia, New Delhi, India, Dec. 2015.
57. Vikash Kumar, Ravi Kumar Prinshu, Yashdeep Singh, Aminul Islam, "Design of CNFET Based Charge Pump for RF Energy Harvesting Applications", 12th IEEE India International Conference (INDICON 2015), Jamia Millia Islamia, New Delhi, India, Dec. 2015.
58. Abhijeet Pasumarthi, Harshit Sinha, Aminul Islam, "MEMS Based Gecko Foot for Micro Robotics", COMSOL conference 2015, Hyatt Regency, Pune, Maharashtra, India, pp. 1-5, Oct.29-30, 2015.
59. Harsh Choudhary, Amresh Kumar, Aminul Islam, "Propagation Delay and its Robustness Study of Inverter Topologies", IEEE Int. conf. on Reliability, Infocom technologies and Optimization (ICRITO) (Trends and Future Directions), Amity University, Noida, Sep. 2015.
60. Himanshu Kumar, Amresh Kumar, Aminul Islam, "Comparative Analysis of D Flip-Flops in Terms of Delay and its Variability," IEEE Int. conf. on Reliability, Infocom technologies and Optimization (ICRITO) (Trends and Future Directions), Amity University, Noida, Sep. 2-4, 2015.
61. Anubhav Sinha, Aminul Islam, "Half-Select Free Data-Dependent Stack PMOS Switching 10T Single-Ended SRAM Cell", International Conference on Microelectronics, Circuits and Systems (Micro2015), Kolkata, India, 11-12, vol. 2, pp. 135-141, Jul. 2015.
62. Amresh Kumar, Aminul Islam, "Robust Design of Nanoscale Summing Circuit using Multi-Gate Devices @ 32-nm Technology Node", International Conference on Microelectronics, Circuits and Systems (Micro2015), Kolkata, India, vol. 2, pp. 22-27, 11-12 Jul. 2015.
63. ManishaGuduri, Pragya Srivastava, Aminul Islam, "A Circuit-Level Technique to Design Robust Summing Circuit for Ultra-Low Power Application", International Conference on Microelectronics, Circuits and Systems (Micro2015), Kolkata, India, 11-12 vol. 2, pp. 77-82, Jul. 2015.
64. Chandaramauleshwar Roy, Aminul Islam, "Comparative Analysis of Various 9T SRAM Cell at 22-nm Technology Node", 2nd IEEE Int. Conf. on Recent Trends in Information Systems (ReTIS-15), Jadavpur University, Kolkata, India, pp. 491 – 496, Jul. 9-11, 2015.
65. Swati Prasad, Ramjee Prasad, "Reliable Frame Selection for Speaker Identification under Voice Disguised Scenario", Conference proceeding, IEEE Press, WirelessVITAE Dec.13-16, 2015, Hyderabad, 2015.
66. Ram Ch. Barik, Sitanshu S. Sahu and S. P. Bhoi, "A novel data encryption approach in the grid structured binary image" International Conference on Microelectronics, Computing & Communication Systems, Ranchi, India, Nov., 2015.

**Award / Recognition Bestowed on Faculty Member ( State / National / International )**

S. No.	Name of the Faculty	Title of the Award/ Honours	Organisation	Year / Duration
1	Prof. Nisha Gupta	Senior member	IEEE	2016 – onwards
2	Dr. Aminul Islam	Best Paper Award	Third International Conference on Information Systems Design and Intelligent Applications 2016 (INDIA-2016)	2016

**Departmental Students' Activities**

**Papers published in Journals**

S. No.	Name of the Activity	Students' Co-ordinator	Date/Duration
1	Punit kumar, "Design of a Microstrip Patch MIMO Antenna with DGS for UWB Applications" International Journal of Modern Trends in Engineering and Research(IJMTER), Volume 3, Issue-5,, ISSN (Online):2349-9745 ; ISSN (Print): pp. 20-25: SJIF:3.158.	Mr. Janardan Sahay	May,16
2	H. K. Palo, Mihir Narayan Mohanty, "Efficient feature combination techniques for emotional speech classification" International Journal of Speech Technology, vol.19, pp.135-150,. Springer, ISSN 1381-2416, Scopus, DOI 10.1007/s10772-016-9333-9.	Dr. Mahesh Chandra	2016
3	Deepak Kumar "Computer Classification of Jharkhand Coal Based on Feature analysis and Repeatability using Image Processing" International Journal of Advanced Research in Electrical Electronics and Instrumentation Engineering, Vol 5, Issue-4, 2538-2544.	Dr. S.S. Tripathy,	April, 16.
4	Suryadeep Roy "A Novel Approach for the Detection of Malaria Parasites and Measure its Severity Using Image Processing and Fuzzy Logic" International Journal of Advanced Research in Electrical Electronics and Instrumentation Engineering, Vol 5, Issue-4, 3080-3088.	Dr. S.S Tripathy	April, 16.
5	Sushant Kumar, A Unique Approach for Automatic Courier Receiving System, International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering (An ISO 3297: 2007 Certified Organization), Vol. 5, Issue 2, February 2016. ISSN (Print) : 2320 – 3765, ISSN (Online): 2278 – 8875, IJAREEIE, DOI:10.15662/IJAREEIE.2016.0502026, pp - 1124-1128.	Dr. S.S Solanki	Feb,16.

6	Nilotpai, "A Compact UWB-Bandpass Filter Based on CRLH Via-less CPW-Fed," Microwave and Optical Technology Letters, vol. 58, Issue 2, pp. 276-279.	Dr. Dileep Kr. Upadhyay	Feb,16.
7	Nilotpai, "A Compact Zeroth-Order Resonator Based On CRLH Via-less CPW-Fed", Microwave and Optical Technology Letters Vol. 57, No. 11, pp. 2576-2580.	Dr. Dileep Kr. Upadhyay Mr. G. K. Mishra,	Nov, 15
8	Amit Krishna Dwivedi, "Nonvolatile and robust design of content addressable memory cell using magnetic tunnel junction at nanoscale regime", IEEE TRANSACTIONS ON MAGNETICS, Publisher: IEEE, vol. 51, no. 12.	Dr. A. Islam	17 Nov,15
9	Arko Mukherjee, Abhijeet Pasummarthy,, "Design of MEMS Single Pole Double Throw Switch based on PZT", International Journal of Scientific and Engineering Research, vol. 6, No. 7, pp. 248 – 251.	Dr. Aminul Islam	July, 15.
10	AdityaTyagi, Ch Gopi, PrayankBaldi,, "CNFET Based 0.1 V to 1.2 V DC/DC Boost Converter with Voltage Regulation for Energy Harvesting Applications", IEEE TRANSACTIONS ON NANOTECHNOLOGY, Publisher: IEEE, vol. 14, no. 4, pp. 660–667.	Dr. Aminul Islam	July, 15.
11	Amit Krishna Triwadi, "Characterization of AlGaIn/ GaN and AlGaIn/AlN/GaN HEMTs in Terms of Mobility and Subthreshold Slope", Journal of Computational Electronics, Springer, 1572-8137.	Mr. Santashraya Prasad	24sept,15
12	Shahnawaz Arif, "Design and Comparative Study of Wallace tree and CLA based Multiplier for DSP Application", International Journal of Applied Engineering Research (IJAER), Vol. 10 No.55, pp.1080-1084,. ISSN: 0973-4562.	Dr. R. K. Lal	Nov,15
13	Sarika Tyagi, Amit Krishna Dwivedi & Robust Design of Trigger Pulse Generator using Delay element & its applications." In Indian Journal of Science & Technology.	Mr B.B.Pal & Dr. A.Islam	2016
14	Sarika Tyagi, Amit Krishna Dwivedi &," Novel Design of a current mode operated minority based function based Full Adder Circuit" In International Journal of Engineering.	Mr. B.B.Pal & Dr. A.Islam	2016

### Papers presented in Conferences

1	Ankita Mishra, Ashutosh Kumar Singh "ECG Signal Denoising using Time-Frequency based Filtering Approach" IEEE International Conference on Communication and Signal Processing, Melmaruvathu.	Dr. Sitanshu Sekhar Sahu	6-8 Apr, 16.
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2	Aarushi Agarwal, Spriha Chandrayan "Prediction of Parkinson's Disease using Speech Signal with Extreme Learning Machine" IEEE International Conference on Electrical, Electronics, and Optimization Techniques (ICEEOT), Chennai.	Dr. Sitanshu S Sahu,	3-5 Mar, 16.
3	Ashutosh Kumar Singh, "Prediction of host-pathogen protein-protein interaction network using Machine learning approach" National Conference on Emerging & Innovative Trends in Computer Science, Hyderabad, India.	Dr. Sitanshu Sekhar Sahu	12-14 Apr, 16.
4	Ipsita Chakraborty, "Design and Parametric Study of Ultra Wideband PIFA Antenna", IEEE Indian Antenna week Workshop on Advanced Antenna Technology 2016, Thiagarajar College of Engineering (TCE), Madurai in Association with IEEE AP Madras Chapter. ( Best PG Research Paper Award).	Prof. V. R. Gupta	6-19 Jun, 16
5	Manisha Guduri, Sudip Kundu, "Investigation on Electrical Characteristics of FDSOI Device for Ultra-Low Power Operation", International Conference on Recent Advances In Information Technology, ISM Dhanbad.	Dr. Aminul Islam	2016
6	Chandan Raj "Design of a Microstrip Patch Filtenna For UWB Application " IEEE Sponsored 3 <sup>rd</sup> International Conference on Innovations in Information, Embedded and Communication Systems(ICIECS-16),, 17-18 March -2016, Vol.- II, ISBN: 978-1-4673-8207-6 pp. 443-446.	Mr. Janardan Sahay	Mar,16
7	S. Agarwal, "Web Based Data Extraction Using Speech Recognition", IEEE International Conference on Innovation in information Embedded and Communication Systems (ICIECS -2016),, presented, Coimbatore, India.	Dr. M. Chandra	19Feb, 16
8	Arvind Kumar, "Real Time Automatic Acoustic Guitar Notes Transcription into Text and Color Using Cepstral Analysis", International Conference on Recent Trends in Engineering and Material Science(ICEMS), Jaipur, Rajasthan, India, presented.	Dr. Mahesh Chandra	17-19 Mar,16.
9	S Agarwal, "GUI Implementation of Real Time Feedback System to Help Learn Singing", IEEE International Conference on Recent Trends in Electronics, Information & Communication Technology, presented, Bangalore, India.	Dr. M. Chandra	2016

10	Sushant kumar, "Voice and Touch Control Home Automation, 3rd Int'l Conf. on Recent Advances in Information Technology   RAIT-2016, 978-1-4799-8579-1/16/\$31.00 © IEEE.	Dr. S.S.Solanki	2016
11	Sushmita Verma, "Design of Ring Oscillator Using Pseudo Depletion NMOS And CMOS Logic" 1 <sup>st</sup> International Conference on Microelectronics, Computing & Communication Systems(MCCS2015) organized by Indian society for VLSI E Education (ISVE) Ranchi ARTTC BSNL near Jumar River H.B Road Ranchi(JH).	Dr. V.Nath & Mr. B.B.Pal	14-15 Nov,15
12	Sushmita Verma, "Robust Study and design of a Low Power CSVCO in 45 nanometer CMOS Process", world conference on futuristic trends in research & innovation for social welfare (WCFTR-2016) organized by DEPTT of ECE,Karpakam College of Engg, Coimbatore, India.	Mr. B.B.Pal & Dr. V.Nath	29 Feb, 16 To 01Mar,16
13	Anish Kumar Verma, "Resistive Feedback Low Noise Amplifier for Software Defined Radio", IEEE sponsored 3 <sup>rd</sup> International Conference on Innovations in information embedded and Communication systems, (ICIECS-16), Coimbatore.	Dr. Sanjay Kumar	17-18 Mar, 16.
14	Anish Kumar Verma, "Design of a Planar Inverted F-Antenna for Wireless applications", IEEE sponsored 3 <sup>rd</sup> International Conference on Innovations in information embedded and Communication systems, (ICIECS-16) Coimbatore.	Dr. Sanjay Kumar	17-18 Mar, 16.
15	Devprita Sinha, "FIR Filter Compensator for CIC Filter suitable for Software Defined Radio", IEEE conference (WCFTR-2016), Coimbatore.	Dr. Sanjay Kumar	29 Feb, 16 To 01Mar,16
16	Devprita Sinha, "Sine and cosine compensators for CIC Filter suitable for Software Defined Radio", IEEE conference (WCFTR-2016), Coimbatore,. This papers has been selected for Indian journal of Science and technology.	Dr. Sanjay Kumar	29 Feb, 16 To 01Mar,16
17	Devprita Sinha, "CIC Filter for Sample Rate Conversion in Software Defined Radio", IEEE conference (WCFTR-2016), Coimbatore.	Dr. Sanjay Kumar	29 Feb, 16 To 01Mar,16
18	Devprita Sinha, Anish Kumar Verma, "Digital Front End In Software Defined Radio", IEEE conference (ICECS-2016), Coimbatore.	Dr. Sanjay Kumar	25-26 Feb, 16

19	Devarpita Sinha, Anish Kumar Verma, "Software Defined Radio: Operation, Challenges and Possible Solutions", 10 <sup>th</sup> International Conference on Intelligent Systems and Control, (IEEE ISCO"16), Coimbatore.	Dr. Sanjay Kumar	7-8 Jan, 16.
20	Devarpita Sinha, Anish Kumar Verma, "Sample Rate Conversion Technique for Software Defined Radio Receiver", 10 <sup>th</sup> International Conference on Intelligent Systems and Control, (IEEE ISCO"16), Coimbatore.	Dr. Sanjay Kumar	7-8 Jan, 16
21	Anish Kumar Verma, Devarpita Sinha, "Low Noise Amplifier for Software Defined Radio", 10 <sup>th</sup> International Conference on Intelligent Systems and Control, (IEEE ISCO"16), Coimbatore.	Dr. Sanjay Kumar	7-8 Jan, 16
22	Soumik Senapati , Yogesh Kumar Sharma, "Target Detection using Hybrid DWT-DCT based Feature Extraction in a Visual Sensor Network", International Conference of Recent Trends in Engineering and Material Science (ICEMS-2016), Jaipur National University, Jaipur, India.	Dr. Sanjeet Kumar	17-19 Mar,16.
23	Yogesh Kumar Sharma, Soumik Senapati, Deo Kumar, "Efficient Formation of Cluster Heads based on Centre of Gravity with respect to density of nodes for a heterogeneous WSN", International Conference of Recent Trends in Engineering and Material Science (ICEMS-2016), Jaipur National University, Jaipur, India.	Dr. Sanjeet Kumar	17-19 Mar,16.
24	Ankul Anand," Comparative Analysis of different Direction of Arrival Estimation Techniques", IEEE International Conference On Recent Trends In Electronics Information Communication Technology,,pp.: 200-205, India (978-1-5090-0774-5/16/\$31.00 © 2016 IEEE).	Dr. Manoj Kumar Mukul	20-21 May, 16
25	Ankul Anand,," Comparison of STFT Based Direction of Arrival Estimation Techniques for Speech Signal", IEEE International Conference On Recent Trends In Electronics Information Communication Technology,,pp.: 356-360, 2016, India (978-1-5090-0774-5/16/\$31.00 © IEEE).	Dr. Manoj Kumar Mukul	20-21 May, 16
26	Sonjuhi Mrinalee " Performance Analysis of the MIMO System using the Chaos Shift Keying", IEEE International Conference On Recent Trends In Electronics Information Communication Technology, pp.: 200-1878-1882, 2016, India (978-1-5090-0774-5/16/\$31.00 © IEEE).	Dr. Manoj Kumar Mukul	20-21 May, 16

27	Pankaj Kumar Das, Babu Lal Shahu "Design and Development of a frequency Reconfigurable Annular Ring Slot Microstrip Triangular Patch Antenna" IEEE International Conference on Recent Trends In Electronics Information Communication Technology (RTEICT-2016), (Poster paper) pp. 20-23, May, 20-21, 2016	Dr. Dileep Kr. Upadhyay	20-21 May, 16
28	Uday Kumar,, Babu Lal Shahu, "Improvement of Performance parameters of rectangular patch antenna using metamaterial" IEEE International Conference on Recent Trends In Electronics Information Communication Technology (RTEICT-2016), pp. 1041-1045.	Dr. Dileep Kumar Upadhyay	20-21 May, 16
29	Vidya kumari, , A planar, dual band antenna with wideband characteristics, International Conference on Communication and Signal Processing, pp 1119-1122, India.	Dr. A.K. Tiwary	6-8 Apr, 16
30	Vidya Kumari, , Design of Triple Band Planar Antenna Using Composite Right Left Handed Metamaterial, International Conference on Communication and Signal Processing, pp. 1123-1126, , India.	Dr. A K Tiwary	6-8 Apr, 16
31	Ritija Monali, Shreya Moonka, Anushruti Priya,, "Effects of noise and relative overlap on image mosaicing Using SURF Features", Proceedings of IEEE conference on RTEICT-2016.	Dr. Sanjaya Shankar Tripathy	20-21 May, 16
32	Deepak Kumar, "Analysis and Classification of Jharkhand coal", Proceedings of ICEMS-2016, 3-IC-1379	Dr. Sanjaya Shankar Tripathy	17-19 Mar,16.
33	Suryadeep Roy, " Detection of malarial parasites in human blood using image processing", Proceedings of ICECS-2016, 2737-2740.	Dr. Sanjaya Shankar Tripathy	25-26 Feb,16
34	Suraj Kumar Saw, "An Ultra-Low Power and Low Phase Noise Current Starved CMOS VCO for Wireless Application", IEEE International Conference on Industrial Instrumentation and Control (ICIC-2015) pp.1388-1391.	Dr. Vijay Nath	2015
35	Abhishek Pandey, Subhra Chakraborty, Suraj Kumar Saw, Ram Krishna Kundu, "A 83 nW CMOS Temperature Sensor & Signal Conditioning with in accuracy -1/+0.7oC between -30oC to 130oC", InternationalConferenceComputingCommunication & Sensor Network (CCSN-2015), pp.31-35.	Dr. Vijay Nath	Jul,15.

36	Singh Subhendra pratap &, "Novel Planar Power Divider for EMC application", International Conference on electromagnetic Interference & Compatibility (INCEMIC 2015), Visakhapatnam, India, 2015.	Prof. Nisha Gupta	2015
37	Rahul Pelluri, & Bhargav Appasani, "A Multi Band Absorber using Band Gap Structures", IInd International Conference on Microwave and Photonics ICMAP -2105, 11-13 Dec., ISM Dhanbad.	Prof. Nisha Gupta	2015
38	Satish Kumar, A Dash,, "Design and development of low-cost EOG acquisition circuit for HMI application", 2nd International Conference on Signal Processing and Integrated Networks (SPIN), 192 – 197.	Dr. M.K Mukul	2015
39	ManishaGuduri, Shruti Agrawal, Vikash Kumar,, "Study of FinFET Based Circuit for Ultra-Low Power Operation", International Conference on Computing, Communication and Sensor Network (CCSN-2015), Kolkata, India.	Dr. Aminul Islam	Dec,15
40	Manisha G, "Device Sizing for Minimum Energy Operation of CMOS Inverter in Deep Subthreshold Region for Ultra Low Power Applications", International Conference on Computing, Communication and Sensor Network (CCSN-2015), Kolkata, India.	Dr. Aminul Islam	Dec,15
41	RishabMehra, "Variability Analysis of CS Amplifier @ 45 nm Technology Node", International Conference on Computing, Communication and Sensor Network (CCSN-2015), Kolkata, India.	Dr. Aminul Islam	Dec,15
42	SarikaTyagi, Amit Krishna Dwivedi "Threshold Voltage Extraction Techniques for Device @ 16 nm Technology Node", International conference on smart sensors and systems (IC-SSS-2015), M.S. Ramaiah Institute of Technology, Bangalore, India.	Mr. Basab Bijoy Pal, Dr. Animul Islam,	Dec,15
43	SarikaTyagi, Amit Krishna Dwivedi, "Revisiting Performance of Various Delay Elements to Realize a Trigger Pulse Generator", International conference on smart sensors and systems (IC-SSS-2015), M.S. Ramaiah Institute of Technology, Bangalore, India.	Dr. Animul Islam	Dec,15
44	AnubhavSinha, "Low-Power 9T Subthreshold SRAM Cell with Single-Ended Write Scheme", 12th IEEE India International Conference (INDICON 2015), JamiaMilliaIslamia, New Delhi, India.	Dr. Aminul Islam	Dec,15



45	Vikash Kumar, Ravi Kumar Prinshu, Yashdeep Singh, "Design of CNFET Based Charge Pump for RF Energy Harvesting Applications", 12th IEEE India International Conference (INDICON 2015), Jamia Millia Islamia, New Delhi, India.	Dr. Aminul Islam	Dec,15
46	Abhijeet Pasumarthy, Harshit Sinha,, "MEMS Based Gecko Foot for Micro Robotics", COMSOL conference 2015, Hyatt Regency, Pune, Maharashtra, India, pp. 1-5.	Dr. Aminul Islam	29-30 Oct, 15
47	Harsh Choudhary, Amresh Kumar, "Propagation Delay and its Robustness Study of Inverter Topologies", IEEE Int. conf. on Reliability, Infocom technologies and Optimization (ICRITO) (Trends and Future Directions), AmityUniversity, Noida.	Dr. Aminul Islam	Sep, 15.
48	Himanshu Kumar, Amresh Kumar, "Comparative Analysis of D Flip-Flops in Terms of Delay and its Variability," IEEE Int. conf. on Reliability, Infocom technologies and Optimization (ICRITO) (Trends and Future Directions), AmityUniversity, Noida.	Dr. Aminul Islam	2-4 Sep, 15.
49	AnubhavSinha, "Half-Select Free Data-Dependent Stack PMOS Switching 10T Single-Ended SRAM Cell", International Conference on Microelectronics, Circuits and Systems (Micro2015), Kolkata, India, 11-12, vol. 2, pp. 135-141.	Dr. Aminul Islam	Jul,15
50	Amresh Kumar, "Robust Design of Nanoscale Summing Circuit using Multi-Gate Devices @ 32-nm Technology Node", International Conference on Microelectronics, Circuits and Systems (Micro2015), Kolkata, India, vol. 2, pp. 22-27.	Dr. Aminul Islam	11-12 Jul,15
51	Manisha Guduri, Pragya Srivastava, "A Circuit-Level Technique to Design Robust Summing Circuit for Ultra-Low Power Application", International Conference on Microelectronics, Circuits and Systems (Micro2015), Kolkata, India, 11-12 vol. 2, pp. 77-82.	Dr. Aminul Islam	Jul,15
52	Chandaramauleshwar Roy, "Comparative Analysis of Various 9T SRAM Cell at 22-nm Technology Node", 2nd IEEE Int. Conf. on Recent Trends in Information Systems (ReTIS-15), Jadavpur University, Kolkta, India, pp. 491 – 496.	Dr. Aminul Islam	9-11 Jul,15

### Contributed to Book Chapters

1	Soumitra Pal, Y. Krishna Madan, Chapter Title: Low-Leakage, Low-Power, High-Stable SRAM Cell Design, Book Title: Proceedings of the 2nd International Conference on Computer and Communication Technologies.	Dr. Aminul Islam	24-26 Jul,15
2	Amit Krishna Dwivedi, Manisha Guduri, Rishab Mehra, Chapter Title: A Monotonic Digitally Controlled Delay Element Based Programmable Trigger Pulse Generator, Book Title: Proceedings of the 2nd International Conference on Computer and Communication Technologies.	Dr. Aminul Islam	24-26 Jul,15

### Expert talk organized by IEI Student Chapter

S. No.	Name of the Activity	Students' co ordinator, if any	Date/Duration
1	Expert talk on "Fundamental of modern VLSI devices (basics of MOSFETs)", BIT Mesra, Ranchi.	S S Noel	18 Jan, 16
2	Expert talk on "Dennard's Scaling theory and modern scaling theory" BIT Mesra, Ranchi.	S S Noel	19 Jan, 16
3	Expert talk on "Side effects of technology scaling", BIT Mesra, Ranchi.	S S Noel	20 Jan, 16
4	Expert talk on "Design rules and physical layout", BIT Mesra, Ranchi.	S S Noel	27 Jan, 16
5	Expert talk on "MOSFET modeling", BIT Mesra, Ranchi.	S S Noel	28 Jan, 16
6	Expert talk on "Characterization of Hi-skewed and LO-skewed CMOS inverter", BIT Mesra, Ranchi.	S S Noel	03 Feb, 16
7	Expert talk on "CMOS inverting amplifiers: active PMOS load and current-source load", BIT Mesra, Ranchi.	S S Noel	04 Feb, 16
8	Expert talk on "Common source amplifiers", BIT Mesra, Ranchi.	S S Noel	05 Feb,16
9	Expert talk on "Cascode amplifier", BIT Mesra, Ranchi.	S S Noel	16 Feb,16
10	Expert talk on "Current sink amplifier", BIT Mesra, Ranchi.	S S Noel	17 Feb,16
11	Expert talk on "Differential amplifier", BIT Mesra, Ranchi.	S S Noel	19 Feb,16
12	Expert talk on "Two-stage operational transconductance amplifier (OTA)", BIT Mesra, Ranchi.	S S Noel	20 Feb,16
13	Expert talk on "SRAM and its design metrics", BIT Mesra, Ranchi.	S S Noel	21 Feb,16
14	Expert talk on "Need for non-volatile semiconductor memory", BIT Mesra, Ranchi.	S S Noel	22 Feb,16

All the above talks were delivered by Dr. A. Islam

**Project Demonstration**

1	Puja Shukla and Cherry Maskara demonstrated smart ring at IIT Bombay with accurate readings for Oxygen Saturation Measurement, Pulse & Motion Detection.	Puja Shukla	30 Jun, 16
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**ECE Society (ECSOC)**

S. No.	Name of the Activity	Students' co ordinator, if any	Date/Duration
1	'Gateway to Electronics'	Akshat Chitransh	3rd September 2015 to 6th September 2015
2	Pantheon Event- 'Analog Design Challenge'	Akshat Chitransh	3rd October 2015
3	'MATLAB & Image Processing' Workshop	Akshat Chitransh	13th February 2016 and 14th February 2016

**Board of Studies (UG/PG)****Panel for BOS**

HOD, ECE (Ex-officio)	Chairman
Prof. R. Suresh Kumar	Member
Prof. Nisha Gupta	Member
Prof. S. K. Ghorai	Member
Prof. S. Pal	Member
Prof. S.S.Solanki	Member
Prof. M. Chandra	Member
Prof. V. R. Gupta	Member
Dr. S. Kumar	Member
Dr. S. S. Tripathy	Member
Prof. R. C. Jha (EEE)	Member
Prof. S. Dutta (CSE)	Member

**Panel for expert from outside**

Prof. G. Panda, IIT Bhubaneswar  
Dr. V. Kumar, ISM, Dhanbad  
Prof. S. Sanyal, IIT Kharagpur

Dr. S. Chakravarty, IIT Kharagpur

Dr. S. K. Patra, NIT Rourkela

Dr. Tapas Chakravarty, TCS, Kolkata

### **Departmental Academic Committee**

HOD (Ex-officio Chairman)

Prof. R. Sukesh Kumar

Prof. N. Gupta

Prof. S. K. Ghorai

Prof. S. Pal

Prof. S. S. Solanki

Prof. Mahesh Chandra

Prof. Vibha Rani Gupta

Dr. Neela Chattoraj

Dr. Sanjeet Kumar

Dr. Manoj Kumar Mukul

Dr. Aminul Islam

Dr. Rakesh Kumar Sinha (BMI)

Dr. R. C. Jha (EEE)

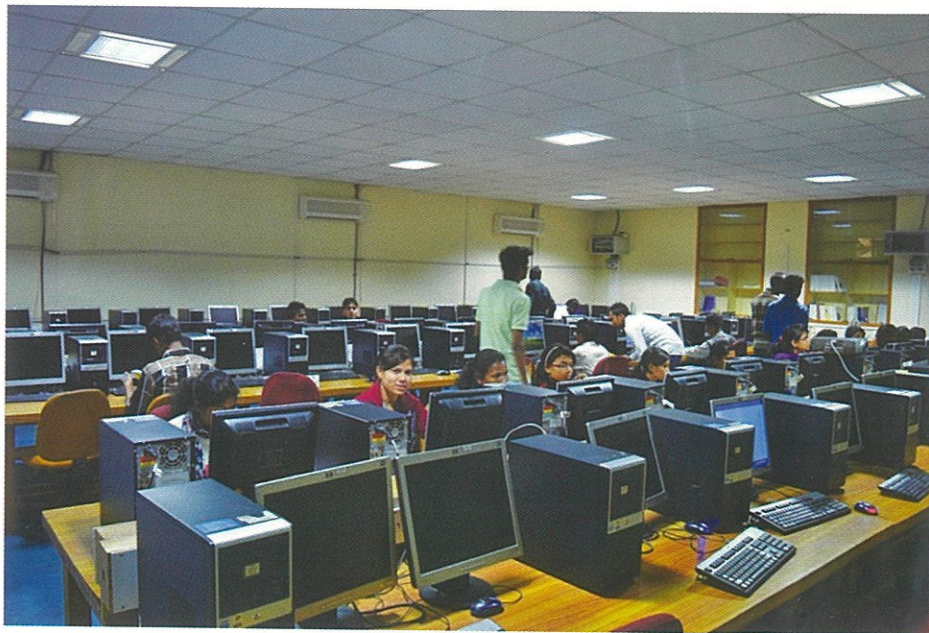
**Other important information:** ME programme of Wireless Communication has been accredited by NBA for two years, with effect from 01 July, 2016.



## Department of Electrical & Electronics Engineering



Electrical Machines Lab



Digital Signal Processing Lab

The Department of EEE offers B.E. in Electrical and Electronics Engineering, M.E. in Electrical Engineering with three different specializations, viz., Power System, Control System and Power Electronics. 30 research scholars are currently pursuing their doctoral degree. Department of EEE is presently utilizing the grants received from DST (FIST), UGC (SAP), MODROB and TEQIP to strengthen the research facility. Twin rotor MIMO System, Magnetic Levitation system, DC servo fundamental trainer kit, Temperature, Pressure, level and flow controller ( both manual and PLC based), Air



circuit breaker, SVC, Relay testing system, Generator protection system, several numbers of DSO, Programmable function generator, Harmonic analyser, NI power measurement system, variable DC power supply, LCQ meter, different ratings of DC and AC motors, M-G set, BLDC motor, single phase and three phase transformers, NI Data acquisition Card etc. are the major equipments available in the departmental laboratories like Control System, Power System, Power Electronics, Measurement and Process Control and Machines. In the financial year 2015-16, department has procured two area network, CRIO, LabVIEW single user, 5kW solar photovoltaic system, smart energy meter for the new Smart Grid lab and NAO Humanoid Robot for the Control Lab and Machine Fault Simulator as a Central Instrumentation facility. In the process of developing Drive lab, department has procured 23 computers, 30 sets of microcontroller kit (Arduino board, sensors, servo-motors etc.), AC, DC motors with loading arrangements. The department has also renovated the Control Lab and the Measurement Lab in this financial year. Faculty members are working on different concepts related to Smart Grid, Hybrid Electric Vehicles, Multi-level inverters, Robotics, V2V energy exchange while in motion, fault tolerant multi phase drives, electric vehicle propulsion, Power System Voltage Stability, System Identifications, Soft Computing Techniques, applications etc. A magneto-optic laboratory has been developed in the area of sensor design in the department. Researchers and post-graduate students are working utilising the facilities available in the said laboratories.

## Sponsored Projects

### Project Sanctioned

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1	Hardware development for Z-source inverter for hybrid electric vehicles	Dr. P. R. Thakura	BIT, Mesra	Nov., 2015	80,000/-	1 Year
2	Development of Visual Inspection System for Monitoring of Rail Deformation	Dr. V. Laxmi	BIT, Mesra	Nov., 2015	80,000/-	1 Year
3	Multi objective Evolutionary Techniques for tracking multiple objects in surgical video	Dr. S. K. Mishra	BIT, Mesra	Nov., 2015	80,000/-	1 Year
4	Development of Low Cost PMU and its Implementation in Network for Communication Feasibility Amongst Them	Dr. Debomita Ghosh	BIT, Mesra	Nov., 2015	80,000/-	1 Year

### Ongoing Projects

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1	FIST Grant for doing research on Smart Grid and Drive Hybrid Electric Vehicle	Dr. T. Ghose	DST (FIST), GOI	2012	58.00	3 Years
2	Application of Power Electronics in Power System and Electrical Drive	Dr. T. Ghose Dr. P. R. Thakura	UGC (SAP)	2012	61.00	5 Years
3	Hardware Development and Implementation of Microcontroller Based Boost Converter for Hybrid Electric Vehicles	Dr. P. R. Thakura	UGC	2012	12.65	3 Years

### Projects Completed

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Date of completion of the Project
1	Developing Suitable Pedagogical Methods for various classes, intellectual calibre and e-learning for course "Industrial Drives and Control"	Dr. Kartik Chandra Jana (PI) Dr. Ritesh Kumar Keshri (Co-PI)	NMEICT	2009	Approx. 2.8	July, 2015
2	Development of Vehicle License Plate Recognition System	Dr. V. Laxmi	UGC (Research Award)	2013	3.00	Official Documents pending

### Seminar / Conferences / Short – term Courses Conducted by the Department/Campus

S. No.	Title of Seminar / Conferences / Short – term Courses / Workshop	Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short – term Courses
1	National Workshop on 'Intelligent Computational Technique Applications'	Dr. Vijaya Laxmi	Jharkhand Council of Science and Technology	23 <sup>rd</sup> -27 <sup>th</sup> Nov., 2015
2	Workshop on Advanced Microcontroller Applications	Dr. P. R. Thakura Dr. T. Ghose	TEQIP	11 <sup>th</sup> -17 <sup>th</sup> Feb., 2016

**Conferences/ Seminars/ Workshops/ Staff Development Programmes attended**

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1	Mr. B. M. Prasad Ms. Aparna Gautam Mr. P. Prakash	Workshop on Advanced Microcontroller Applications	TEQIP	BIT, Mesra	BIT, Mesra	11 <sup>th</sup> -17 <sup>th</sup> Feb., 2016
2	Dr. S. Chakraborty Dr. D. Ghosh Mrs. S. S. Kamlu	National Workshop on 'Intelligent Computational Technique Applications'	Jharkhand Council of Science and Technology	BIT, Mesra	BIT, Mesra	23 <sup>rd</sup> -27 <sup>th</sup> Nov., 2015
3	Dr. Vijaya Laxmi	National Workshop on 'LabVIEW Implementation on Measurement'		NIT, Rourkela	NIT, Rourkela	14 <sup>th</sup> -19 <sup>th</sup> Dec, 2015
4	Dr. S. K. Mishra	National workshop on Machine Vision and Biometrics, IUPRAI and Benchmark		NIT, Jaipur	NIT, Jaipur	17 <sup>th</sup> -21 <sup>st</sup> Oct, 2015.
5	Dr. S. K. Mishra	Training program on Fujitsu HPCA		BIT, Mesra	BIT, Mesra	28 <sup>th</sup> -4 <sup>th</sup> Oct, 2015.
6	Dr. S. K. Mishra Mr. G. S. Gupta	National workshop on School on Systems and Control	TEQIP	IIT, Kanpur	IIT, Kanpur	4 <sup>th</sup> -9 <sup>th</sup> Aug, 2015.
7	Dr. D. Ghosh	84 <sup>th</sup> Orientation Programme	UGC	Ranchi University, Ranchi	Ranchi University, Ranchi	3 <sup>rd</sup> - 30 <sup>th</sup> Dec., 2015

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
8	Dr. V. K. Gupta Dr. Deepak Kumar	National workshop on High Performance Computing	TEQIP II	BIT, Mesra	BIT, Mesra	2 <sup>nd</sup> -06 <sup>th</sup> May, 2016
9	Mr. S. K. Swain	Short term training program on 'Advanced Engineering Optimization Through Intelligent Techniques (AEOTIT)'		SVNIT, Surat	SVNIT, Surat	22 <sup>nd</sup> - 26 <sup>th</sup> June 2015
10	Mr. S. K. Swain	FDP on 'Control Engineering Analysis & Design with Matlab/ Simulink'			Indian Institute of Space Science and Technology (IIST), Thiruvananthapuram,	15 <sup>th</sup> -18 <sup>th</sup> December 2015
11	Mr. S. K. Swain	'A Course on Nonlinear Control System Design – NCSD – 2016' by Department of Avionics,			Indian Institute of Space Science and Technology (IIST), Thiruvananthapuram	20 <sup>th</sup> - 24 <sup>th</sup> June 2016

## Publications

### Published in International Journals

1. Malkhandi, A., Ghose, T., Improved e-IpDFT for Synchrophasor Estimation implemented in an FPGA-based Controller. Perspective in Sciences, Elsevier, 2016. DOI: 10.1016/j.pisc.2016.04.039
2. Rajaraman, N., Sundaravaradan, R. Meyur, Reddy, M. J. B., Mohanta, D. K., Fault Classification in Transmission Lines Using Wavelet Multiresolution Analysis. IEEE Potentials, 2016, 35(1), 38-44.
3. Mohanta, D. K., Murthy, Ch., Roy, D. S., A Brief Review of Phasor Measurement Units as Sensors for Smart Grid. Electric Power Components & Systems (Taylor & Francis Publications), 2016, 411-425 (DOI:10.1080/15325008.2015.1117538)
4. Sundaravaradan, N.A., Rajarama, P., Meyur, R., Balimidi, M., Reddy, M. JayaBharata, Mohanta,

- D. K., Real-Time Fault Analysis of Transmission Lines Using Wavelet Multi Resolution Analysis Based Frequency Domain Approach. IET Science, Measurement & Technology, 2016, 10(7), 693–703. DOI: 10.1049/ietgmt.2016.0038, Online ISSN 1751-8830
5. Reddy, M Jaya Bharata; Gopakumar, P; Mohanta, DK, A novel transmission line protection using DOST and SVM, Engineering Science and Technology, an International Journal, 2016, 19(2), 1027-1039.
  6. Chakraborty, Sarbani, Kumari, Sarita, Simulation of transmission characteristics of birefringent filter using magneto-optic elements. Journal of Optics, Springer Publication, 2015, 44(3), 281-289. DOI:10.1007/s12596-015-0256-7
  7. Mishra, Sudhansu Kumar, Panda, G., Majhi, B., Prediction based mean-variance model for constrained portfolio assets selection using multiobjective evolutionary algorithms. Swarm and Evolutionary Computing, Elsevier 2016, 16, 117-130 ISSN: 2210-6502
  8. Kumar, Manish, Mishra, Sudhansu Kumar, Sahu, Sitanshu, Cat Swarm Optimization Based Functional Link Artificial Neural Network Filter for Gaussian Noise Removal from Computed Tomography Images. Applied Computational Intelligence and Soft Computing (Hindawi Publishing Corporation), 2016, Article ID 6304915, 6 pages, <http://dx.doi.org/10.1155/2016/6304915>
  9. Kumar, Deepak, Samantaray, S. R., Implementation of multi-objective seeker-optimization-algorithm for optimal planning of primary distribution systems including DSTATCOM. International Journal of Electrical Power and Energy Systems (Elsevier), 2016, Vol. 77, 439-449, 2016. (Impact factor: 3.432)
  10. Alam, A., Mukul, M. K., Thakura, P. R., Stability analysis and reliability evaluation of Z- Source inverter. International Journal of Power Electronics, 2015, 7(1), 1-16.

### **Published in International Proceedings**

1. Karn, Shalini, Malkhandi, Arpan, Ghose, T., Laboratory Prototype of a Phasor Measurement Unit using FPGA based Controller. In Proceedings of the IEEE International Conference on Electrical Electronics and Optimization Techniques, Chennai, March, 2016.
2. Malkhandi, Arpan, Ghose, T., Teaching and Learning based Optimization Applied to Optimization of Power Transmission Line Parameters. In Proceedings of the IEEE International Conference on Power Systems, IIT Delhi, 4-6 March, 2016.
3. Ghose, T., Teaching and Learning based Optimization Applied to Optimization of Power Transmission Line Parameters. In Proceedings of the IEEE International Conference on Power Systems, IIT Delhi, 4-6 March, 2016
4. Deb, Sanchari, Ghosh, Debomita, Mohanta, Dusmanta Kumar, Reliability Analysis of PV cell, Wind turbine and Diesel Generator by using Bayesian Network. In Proceedings of the International Conference on Electrical, Electronics and Optimization Techniques (ICEEOT), India, Mar. 3-5 2016.
5. Dutta, Soham, Ghosh, Debomita, Mohanta, Dusmanta Kumar, Optimum Solar Panel Rating for Net Energy Metering Environment. In Proceedings of the International Conference on Electrical,



Electronics and Optimization Techniques (ICEEOT), India, Mar. 3-5, 2016.

6. Deb, Sanchari, Ghosh, Debomita, Mohanta, Dusmanta Kumar, Adequacy Analysis of Stand Alone Hybrid Microgrid by using Bayesian Network. In Proceedings of the 5th International Conference on Computing of Power, Energy & Communication (ICCPEIC), India, Apr. 20-21, 2016.
7. Dutta, Soham, Ghosh, Debomita, Mohanta, Dusmanta Kumar, Location Biased Nature of Net Energy Metering. In Proceedings of the 5th International Conference on Computing of Power Energy & Communication (ICCPEIC), India, Apr. 20-21, 2016.
8. Lal, Urjaswit, Dutta, Pallavi, Nath, Nutanlata, Analysis Of Inter-turn Short Circuit Fault In 2.5 HP 3- Phase Induction Motor. In Proceedings of the IEEE First International Conference On Control, Measurement & Instrumentation (CMI 2016), Jadavpur Uni., Kolkata, Jan. 8 – 10, 2016.
9. Tiwari, Utkarsh, Mani, Utkarsha, Paul, Susmit, Nath, Nutanlata, Non-linear Method Used For Distortion Correction Of Fish-eye Lens: Comparative Analysis Of Different Mapping Functions. In Proceedings of the International Conference on Man and Machine Interfacing (MAMI), C.V.Raman College of Engg., Bhubaneswar. Dec. 17 – 19, 2015.
10. Hazra, Kashmera, Dasgupta, Saunak S., Chakraborty, Sarbani, Liquid Lens and Various Tuning Methods. In Proceedings of the IEEE International Conference on Electrical, Electronics, and Optimization Techniques (ICEEOT) – 2016, DMI College of engineering, Chennai, Tamilnadu, 3rd -5th March, 2016.
11. Hazra, Kashmera, Dasgupta, Saunak S., Chakraborty, Sarbani, Analysis of Electrowetting Phenomenon Using Image Processing Tool. In Proceedings of the International Conference On Recent Trends In Engineering And Material Sciences, ICEMS-2016, Elsevier publisher, Jaipur National University, Jaipur, India, March 17-19, 2016.
12. Dasgupta, Saunak S., Hazra, Kashmera, Chakraborty, Sarbani, Measurement of Angular Displacement using Mueller Matrix Approach. In Proceedings of the International Conference On Recent Trends In Engineering And Material Sciences, ICEMS-2016, Elsevier publisher, Jaipur National University, Jaipur, India, March 17-19, 2016.
13. Saha, Ayan, Sain, Debdoot, Chakraborty, Sarbani, Modified Genetic Algorithm Based Set Point Weighted PID Controller Design for Coupled Tank System. In Proceedings of the International Conference On Recent Trends in Engineering and Material Sciences, ICEMS-2016, Elsevier publisher, Jaipur National University, Jaipur, India, March 17 19, 2016.
14. Saha, Ayan, Chakraborty, Sarbani, Genetic Algorithm Based IPD Controller Design for Twin Rotor Mimo System. In Proceedings of the IEEE 2nd International Conference on Control, Instrumentation, energy and Communication, 2016 (CIEC16), January 28-30, 2016.
15. Pandey, Parivesh, Laxmi, Vijaya, Wireless Image Sensor Networks: A Review. In Proceedings of the International Conference on Microelectronics, Computing & Communication Systems (MCCS-2015), Ranchi, 15-16 November, 2015.
16. Jain, Sneha, Laxmi, Vijaya, Color Image Segmentation Techniques: A survey. In Proceedings of the International Conference on Microelectronics, Computing & Communication Systems (MCCS-2015), Ranchi, 15-16 November, 2015.

17. Kamlu, Sushma S., Laxmi, Vijaya, Effective method of Maintenance Scheduling of Vehicles using Neural Network. In Proceedings of the International Conference on Microelectronics, Computing & Communication Systems (MCCS-2015), Ranchi, 15-16 November, 2015.
18. Pandey, Parivesh, Laxmi, Vijaya, Design of Low cost and Power efficient wireless vision sensor for surveillance and monitoring. In Proceedings of the IEEE 5th International Conference on computation of Power, Energy, Information and Communication (ICCPEIC), India, 20-21 April 2016.
19. Jain, Sneha, Laxmi, Vijaya, Analysis and Design of Neural network based Image retrieval system for identification of Species. In Proceedings of the IEEE 5th International Conference on computation of Power, Energy, Information and Communication (ICCPEIC), India, 20-21 April 2016, IEEE.
20. Rout, Mithilesh, Mishra, Sudhansu Kumar, PID Controller Design for Cruise Control System using Genetic Algorithm. In Proceedings of the IEEE International Conference on Electrical, Electronics, and Optimization Techniques (ICEEOT) – 2016, DMI College of Engineering, Chennai, Tamilnadu, March 3-5, 2016.
21. Singh, Rajat Kumar, Gupta, Vikash Kumar, Comparison of GSA and PSO based Optimization techniques for the optimal placement of Series & Shunt FACTS devices in a Power System. In Proceedings of the International Conference on Artificial Intelligence and Evolutionary Computations in Engineering System (ICAIECS-2016), Chennai, 19-21 May 2016.
22. Sain, D., Swain, S.K., Mishra, Sudhansu K., Design of Two-loop PID controller for Inverted Cart-pendulum System Using Modified Genetic Algorithm. In Proceedings of the International Conference on Computational Intelligence, BIT Mesra, Ranchi, December 10-11, 2015.
23. Kumar, Deepak, Samantaray, S. R., Optimal Integral Planning of Primary-Secondary Distribution Networks via MOEA. In Proceedings of the IEEE PCITC-2015, Siksha 'O' Anusandhan University, Bhubaneswar, India, Oct. 15-17, 2015.

### **Published in National Proceedings**

1. Mahato, B., Kumari, Rashmi, Raushan, Ravi, Jana, K. C., Thakura, P. R., Singh, S.K., Comparative Analysis of Different PWM Techniques in Multilevel Inverters, In Proceeding of National Conf. on Modelling And Reliability Analysis of Electrical System, CMRAES-2016, RVS College of Engg & Tech Jamsedpur, 29-30 Jan. 2016.
2. Mahato, B., Raushan, Ravi, Jana, K. C., Thakura, P. R., Singh, S.K., Comparative Study of Space Vector Pulse Width Modulation based T-Type three-level Inverter, In Proceeding of National Conf. on Modelling and Reliability Analysis of Electrical System, CMRAES-2016, RVS College of Engg & Tech Jamsedpur, 29-30 Jan. 2016.

## Book

### Chapter(s) in Edited Book

1. Dey, Soham, Kamlu, Sushma, Mishra, Sudhansu Kumar, Artificial Intelligence and Evolutionary Computations, Springer, 2016, 394, 715-722. Online ISBN-978-81-322-2656-7, Series ISSN-2194-5357, 2016.
2. Malik, Sadhna, Mishra, Sudhansu Kumar, Optimal Design of a Fuzzy PID Controller for Inverted Pendulum System. In Artificial Intelligence and Evolutionary Computations in Engineering Systems, Advances in Intelligent Systems and Computing, Springer, 394, 2016, 1297-1307. Online ISBN-978-81-322-2656-7, Series ISSN-2194-5357.

### Award / Recognition Bestowed on Faculty Member ( State / National / International )

S. No.	Name of the Faculty	Title of the Award/ Honours	Organisation	Year / Duration
1	Dr. S. Chakraborty	IETE-Technomedia Award for Young Women in Engineering	Institution of Electronics and Telecommunication Engineers	2015

### Patents (Applied / Granted)

S. No.	Name of the Inventor	Title of the Invention	Application / Patent No. (As applicable)	Year
1	Dr. D. K. Mohanta	A Novel Power Monitoring System for Detection, Localization and Classification of Disturbances.	Application No. 612/KOL/2008, Patent No. 254882	2015
2	Dr. D. K. Mohanta	A Novel System for Detection and Classification of power System Transmission line Faults.	Application No. 611/KOL/2008, Patent No. 256209	2015
3	Dr. Vijaya Laxmi	A Novel Methodology for Concealment Alertness Pertaining to Motor Vehicles	Application No. 839/KOL/2015	2015

### Departmental Students' Activities

S. No.	Name of the Activity	Students' co ordinator, if any	Date/Duration
1	C/C++ and Data Structures workshop	Kartikay Mishra, IEEE Students Chapter (chairman) IET Students Chapter (chairman)	23/08/15 to 26/08/15
2	Induction for New Batches	Utkarsh Tiwari, EEE Soc (chairman)	26/08/15

S. No.	Name of the Activity	Students' co ordinator, if any	Date/Duration
3	Induction test	IET Students Chapter	31/08/15
4	MATLAB Workshop	Utkarsh Tiwari, EEE Soc (chairman)	28/09/15 to 30/09/15
5	Google it Out	IET Students Chapter	02/10/15
6	The Ultimate Engineer	IET Students Chapter	03/10/15
7	Blitzkreig	IET Students Chapter	04/10/16
8	Linux OS and Python Language Workshop	IET Students Chapter	10/10/15, 12/10/15 to 14/10/15
9	Big Data and HADOOP Analysis	Kartikay Mishra, IEEE Students Chapter (chairman)	15/01/16 to 17/01/16
10	Workshop on Web development, Introduction to Git and Google Summer of Code	IET Students Chapter	21/01/16 to 24/01/16
11	Digital Signal Processing Workshop	Utkarsh Tiwari, EEE Soc (chairman)	12/03/16 to 13/03/16
12	Blitzkreig 2.0	IET Students Chapter	17/03/16
13	Comic coder	IET Students Chapter	20/03/16
14	Node.js	Kartikay Mishra, IEEE Students Chapter (chairman)	08/04/16 to 10/04/16
15	CodeX	Indranil Chatterjee	04/09/16 to 07/09/16
16	Pantheon (Technical Fest of BIT, Mesra) Events		3/10/2015
17	Mentorship Programme	Utkarsh Tiwari, EEE Soc (chairman)	18/01/2016 to 12/04/2016
18	Summer Project Programme	Sri chakra Kumar	25/05/16 to 24/07/16
19	TESLA (Online Test)	Kartikay Mishra, IEEE Students Chapter(chairman) Utkarsh Tiwari, EEE Soc (chairman)	Throughout the year, From 20/02/16, organised every Sunday night

## **Board of Studies(UG/PG)**

### **Internal Members**

- |   |   |          |
|---|---|----------|
| 1. HOD, EEE (Ex-Officio)  | - | Chairman |
| 2. Prof. T. Ghose   | - | Member   |
| 3. Prof. R. C. Jha  | - | Member   |
| 4. Dr. N. L. Nath, Asso. Prof.                                      | - | Member   |
| 5. Mr. P. Prakash, Asst. Prof.                                      | - | Member   |
| 6. Dr. Mahesh Chandra, Dept. of ECE                                 | - | Member   |
| 7. Prof. G. Sahoo, Dept. of CSE                                     | - | Member   |
| 8. One student representative each from UG, PG and Ph.D. Programme. |   |          |

### **External Experts (Any Two)**

1. Dr. J. Pal, Prof., Dept. of Electrical Engineering, IIT, Kharagpur
2. Dr. A. K. Sinha, Prof., Dept. of Electrical Engineering, IIT, Kharagpur
3. Dr. D. Das, Prof., Dept. of Electrical Engineering, IIT, Kharagpur
4. Dr. S. K. Biswas, Professor, Dept. of EE, Jadavpur University, Kolkata
5. Dr. S. K. Goswami, Professor, Dept. of EE, Jadavpur University, Kolkata
6. Dr. S. C. Bera, Professor, Dept. of Applied Physics, Instrumentation Engineering Section Calcutta University, Kolkata
7. Dr. S. Basu, Mg. Director, Electronics Res. & Dev. Centre. Bose Res. (P) Ltd. Bangalore
8. Mr. S. B. Prasad, GM, MECON, Ranchi
9. Mr. Sandeep Dhir, Chief Employee Training & Development, TISCO, Jamshedpur.

### **Departmental Academic Committee**

- |  |   |          |
|--|---|----------|
| 1. Head of Department, EEE (Ex-Officio)                  | - | Chairman |
| 2. Dr. T. Ghose, Professor, Dept. of EEE                 | - | Member   |
| 3. Dr. R. C. Jha, Professor, Dept. of EEE                | - | Member   |
| 4. Dr. N. L. Nath, Associate Professor, Dept. of EEE     | - | Member   |
| 5. Dr. P.R. Thakura, Associate Professor, Dept. of EEE   | - | Member   |
| 6. Dr. Vijaya Laxmi, Associate Professor, Dept. of EEE   | - | Member   |
| 7. Dr. S. Chakraborty, Associate Professor, Dept. of EEE | - | Member   |
| 8. Dr. S. K. Mishra, Assistant Professor, Dept. of EEE   | - | Member   |



- |  |   |        |
|--|---|--------|
| 9. Dr. S. K. Ghorai, Professor, Dept. of ECE | - | Member |
| 10. Dr. G. Sahoo, Professor, Dept. of CSE    | - | Member |
| 11. The Guide (s) of the candidates          | - | Member |

**Other important information**

1. Dr. P. R. Thakura chaired Session in Ist International Conference on Microelectronics Computing & Communicatins System, MCC-2015, Organised by Indian Socceity of VLSI Educations,Nov. 14-15, 2015
2. Dr. P.R. Thakura delivered invited lecture on High Power Semiconductor Converter in Hybrid Electric Vehicles in Inaugural Session of Green Energy Congregation-2016 [18-19-Feb.2016] organised by Dept. of Energy Engg., Central University Jharkhand.

## Department of Hotel Management and Catering Technology



Trainee Kitchen

Department of Hotel Management & Catering Technology of BIT MESRA was established in January-2003. Department offers 4 years (8 Semester) Bachelor's Degree in Hotel Management & Catering Technology (BHMCT). The program lays emphasis on practical application of theoretical lessons through training, laboratory work, hands on workshops, theme parties, project and study tour. The department has a well-qualified team of faculty members with a blend of sound industry experience in India and overseas, and academic excellence who are consistently involved in various training, consultancy and research activities. The faculty members put in immense effort for both academic and practical training of the students.

Department is well equipped with training kitchen and bakery, training restaurant, housekeeping laboratory, laundry laboratory, front office laboratory etc. which ensure practical training in a professional environment to students.

Department has its own bi annual double blind refereed, research journal JOHAR- Journal of Hospitality Application and Research published in association with Publishing India Group which is indexed in Proquest, i-scholar and Sci-Archives.

Department has its own departmental club 'Hospitality Club' solely managed by students which hones their managerial and entrepreneurial skills required in the hospitality industry. As a regular feature department organizes various workshops, theme parties, food festivals and outdoor caterings to cultivate skill among the students.

Among the branded and luxurious hotels in India our department has gained a very good image and students go on «Industrial Exposure Training» for 18 weeks in various star Hotels such as Taj group of hotels, Oberoi group of hotels, ITC, The Park hotels, Dominos, Specialty Restaurant Ltd. etc.

### Seminar / Conferences / Short – term Courses Conducted by the Department

S. No.	Title of Seminar / Conferences / Short – term Courses / Workshop	Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short – term Courses
1.	Workshop Basic Baking and Kebab	Chef Rajesh Langiya Prof. Pratima Ekka	Registration Fees	8 <sup>th</sup> June 2016 – 14 <sup>th</sup> June 2016

### Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1	Praveen Srivastava	National Seminar on Achieving organizational excellence through innovation and motivation	BIT Mesra	ISM, Ranchi	ISM, Ranchi	Feb -5 -6, 2016
2	Nishikant Kumar	Refresher Course in Commerce & Management	UGC	Ranchi University	Ranchi University	18 <sup>th</sup> May – 7 <sup>th</sup> June 2016.
3..	Praveen Srivastava	Use of ICT for online and blended education	Self	IIT Mumbai	BIT Mesra, Ranchi	2 <sup>nd</sup> May 2016 -10 <sup>th</sup> July 2016

### Publications

#### Published in International Journals

Srivastava, P., Satisfaction of internal customer in Higher Education - A case study of Jharkhand. International Journal on Customer Relations, 2015, 3(1), 31-34.

Jana, A., and Chandra, B., Mediating Role of Customer Satisfaction in the Mid-Market Hotels: An Empirical Analysis. Indian Journal of Science & Technology, 2016, 1-16.

Jana, A. & Chandra, B., Role of Brand Image and Switching Cost on Customer Satisfaction- Loyalty Dyadic in Mid-Market Hotel Sector. Indian Journal of Marketing, 2016, 46(9), 35-52.

#### Published in National Journals

1. Srivastava, P., Current Status of CSR: A case of Indian Hotel Industry. AVAHAN – A Journal of Hospitality and Tourism., 2015, 3 (1), 70-75.

**Book****Single Author**

Dr. Abhinav Kumar Shandilya, A textbook of Food Production Foundation, ISBN-9789385935169, 2015, Trinity Press (An imprint of Laxmi Publication Pvt. Ltd)

**Award / Recognition Bestowed on Faculty member (State / National / International)**

S. No.	Name of the Faculty	Title of the Award/ Honours	Organisation	Year / Duration
1.	Dr. Praveen Srivastava	SAP Award of Excellence	IIT Mumbai	2016

**Departmental Students' Activities**

S. No.	Name of the Activity	Students' co coordinator, if any	Date/Duration
1.	ZEAL	Mr Dewanshu	16 <sup>th</sup> August 2015
2	HM Cup	Mr Dewanshu	22 <sup>nd</sup> August 2015
3	Refreshment Stall in Pantheon	Mr Rana Vivek Mr Vaidhyanath Singh	13 <sup>th</sup> October
4.	Food Festival – "Tharnival"	Mr. Rana Vivek Mr. Vikas Kumar	31 <sup>st</sup> March – 2 <sup>nd</sup> April '16

**Board of Studies(UG/PG)****UG**

1. Head/ In charge, HMCT	Chairman (Ex Officio)
2. Dr. Praveen Srivastava, Asst. Professor	Member
3. Mr. Nishikant Kumar, Asst. Professor	Member
4. Dr. Abhinav Kr. Shandilya, Asst. Professor	Member
5. Mr. Abhisek Jana, Asst. Professor	Member
6. Mr. Gautam Shandilya, Asst. Professor	Member
7. Dr. Rajeshwari Chateerjee, Asst. Professor	Member
8. Mr. Sanjiv Kr. Srivastava, Asst. Professor	Member
9. Dr. Amit Saran, Asst. Professor	Member
10. Dr. S.K. Bose, Prof. & Head, Dept. of Management	Member
11. Dr. B. N. Sinha, Professor, Dept. of Pharmacy	Member
12. Dr. Saswati Ghosh, Assistant Professor, Dept. of Biotechnology	Member

**External Members (Any Two): -**

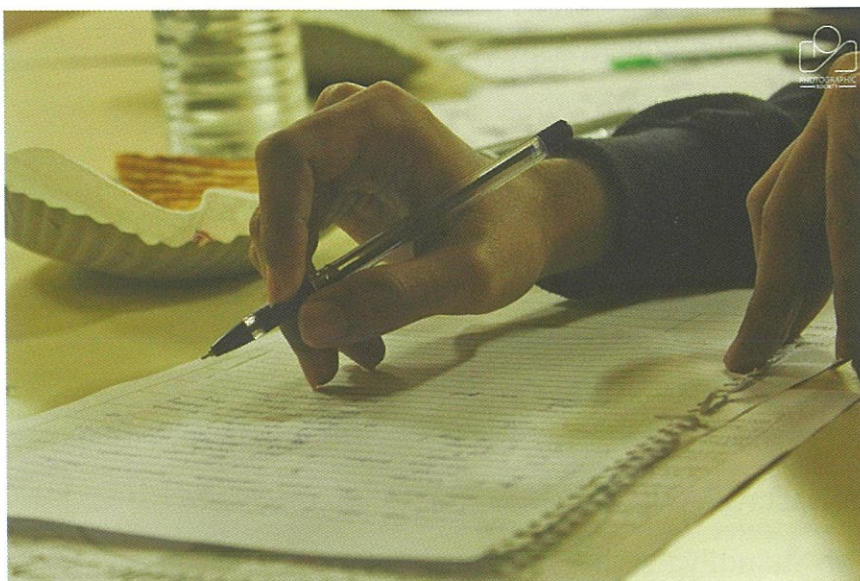
1. General Manager, Hotel Radisson Blu
2. General Manager, Hotel Ranchi Ashok
3. Principal, IHMCTAN, Hazipur
4. Principal, NSHM, Durgapur
5. General Manager, JTDC, Ranchi.
6. Front Office Manager, Hotel Golden Tulip

**Departmental Academic Committee**

- |   |                       |
|---|-----------------------|
| 1. Head/ In charge, HMCT                      | Chairman (Ex Officio) |
| 2. Dr. Praveen Srivastava, Asst. Professor    | Member                |
| 3. Dr. Abhinav Kr. Shandilya, Asst. Professor | Member                |



## Department of Management



Taking Notes

The Department of Management was founded in 1979 to impart holistic management education to potential young managers and has completed 35 glorious years of its existence. The programmes offered by the department are characterized by academic excellence, extensive networking with the corporate world and emphasis on nurturing personal integrity & social responsibility among students.

### Programmes offered

The department offers the following programmes

Ph. D in Management

Master of Business Administration

### Sponsored projects

#### Project Sanctioned

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1	Attitude towards Female Role Portrayal in Advertising and its Impact on Brand Image and Purchase Intention; A Study of Linkages with Feminine Role orientation	Dr Shradha Shivani	Indian Council for Social Science Research, New Delhi	January 2016	Rs 12 Lakhs	2 yrs

## Ongoing Projects

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Main Phase of Pedagogy project of NMEICT, MGRD, GOI	Dr S Shivani (Institute Coordinator)	MHRD, GOI	October, 2013	RS 44 lacs	4 years

## Seminar / Conferences / Short – term Courses Conducted by the Department/Campus

S. No.	Title of Seminar / Conferences / Short – term Courses / Workshop	Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short – term Courses
1.	Training Program on Total Dealership Management	Dr. Utpal Baul	Indian Oil Corporation	21 <sup>st</sup> Sept.'15 – 23 <sup>rd</sup> Sept.'15

## Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S. No.	Name of the Faculty	Title of the Conference/Seminar	Funding Agency	Organizers	Venue	Date
1.	Shelly Srivastava	Use of ICT for online and blended education	Self	IIT Mumbai	BIT Mesra, Ranchi	2 <sup>nd</sup> May 2016 -10 <sup>th</sup> July 2016
2.	Dr. Rohini Jha	Orientation Programme	BIT	Staff Acedemic College- Ranchi University		12 <sup>th</sup> May 2015- 12 <sup>th</sup> June 2015

## Publications

### Published in International Journals

1. Choudhury,S. & Ghosh,A., Economic Development and 'KHADI': An Analysis. Journal of Rural Development, 2016, 35 (2), 255-262.
2. Ghosh,A., Singh,A. & Bharti, S., Finding an Ethical Foundation of Corporate Social Responsibility (CSR) in Jharia Coalfields (India). Global Virtue Ethics Review, Southern Public Administration Education foundation, Harrisburg, Pennsylvania, USA, 2016, 7(2), 118-136.
3. Debnath, S. & Bose, S.K., Integrated Waste Management Framework: A Business Case from Hospitality Industry. International Journal of Business Excellence, Inderscience Publishers, Genève, Switzerland, 2015.
4. Gulati. T., Bose, S. K., & Roy, S."Price behaviour of IPOs introduced into futures and options markets", Afro- Asian Journal of Finance and Accounting. ISSN online: 1751-6455 ISSN print: 1751-6447.

5. Paul, P., Bose, S.K. & Roy, S., Multidimensional Benchmarking of Indian PSBs' Basis of Efficiency and Service Quality: DEA and Co-plot Analysis. *International Journal of Applied Engineering Research*, 2015, 10(19) 39934-39939.
6. Roy, S. & Singh S.N., Strategic Planning for Management of Technology - an Empirical Study with Indian Steel Sectors. *Vision - The Journal of Business Perspective*, published by SAGE on behalf of Management Development Institute (MDI - Gurgaon), 2015, 19(2) 112-131.
7. Paul, P., Bose, S.K. & Roy, S., Inefficient Resources Utilization Effects Negative on Indian PSBs' Profit : DEA and Multiple Regression Analysis. *International Journal of Applied Environment Sciences*, 2015, 10(5), 1533-42.
8. Roy, S. & Kumar, K., Genetic Algorithm Based Optimization for Decision Making on Process Parameters: A Soft Computing Approach. *International Journal of Applied Engineering Research*, 2015, 10(55), 3662-3667.
9. Pattanaik, S. & Roy, S., Synergizing Business Process Reengineering with Enterprise Resource Planning in the Capital Goods Industry. *Procedia - Journal of Social and Behavioral Sciences* – Elsevier Ltd., 2015, 189, 471-487.
10. Rudrabhatla, R., Roy, S. & Kumar, K., Role of Microfinance for Improving Quality of Life by Providing Financial Services to Low-income Group: A Critical Review. *International Journal of Applied Engineering Research*, 2015, 10(55), 4136-4142.
11. Rudrabhatla, R., Roy, S. & Bose, S.K., Role of Micro Finance Institutions Models in Improving Quality of Life- A Critical Review. *International Journal of Engineering, Business and Enterprises Application (IJEBA)*, USA, 2015, 1(12), 70-76.
12. Vyas, R.K., Roy, S. & Kumar, K., Management of Micro Irrigation System in Arid Areas of India: A Conceptual Framework. *International Journal of Applied Engineering Research*, 10(55), 3689-3693.
13. Sinha, A.P. & Roy, S., Strategic Planning towards Effective Management of New Technology in Open Cast Mines. *International Journal of Emerging Techniques in Computational and Applied Sciences (IJETCAS)*. International Association of Scientific Innovation and Research, USA, 2015, 11(3), 247-254.
14. Paul, P., Bose, S.K. & Roy, S., Measurement of Service Quality: Indian PSU Bank. *International Journal of Applied Engineering Research*, 2015, 10(19), 39940-39943.
15. Gulati, T., Bose, S. K. & Roy, S., Short selling restrictions in 2005-2009 in Indian market and underpricing of initial public offerings. *Journal of Economics and Finance*, Springer, New York, 2015, 39(4), DOI 10.1007/s12197-015-9336-4.

### **Published in National Journals**

1. Ramesh, B., Baul U. & I, Srinivasan, V., An Approach to Bolster Up the Logistic Link of Supply Chain in Cement Industries through Value Engineering Techniques. *The Indian Concrete Journal*, Published by ACC Limited, 2016, 90(7), 79.

### Board of Studies(UG/PG)

1.	HOD/In-charge	-	Chairman (Ex-Officio)
2.	Dr. Utpal Baul	-	Professor
3.	Dr. S.K. Bose	-	Professor
4.	Dr. Manju Bhagat	-	Professor
5.	Dr. Shraddha Shivani	-	Professor
6.	Dr. R.N. Bhagat	-	Professor
7.	Mr. S.C. Mishra	-	Associate Professor
8.	Dr. Supriyo Roy	-	Associate Professor
9.	Dr. Anupam Ghosh	-	Assistant Professor
10.	Dr. Amitabh Verma	-	Assistant Professor
11.	Dr. Munish Makkad	-	Professor & Director, BIT, Noida off Campus
12.	Dr. A.N. Jha	-	Professor, Incharge BIT, Lalpur off Campus
13.	Dr. Shraboni Dutta,	-	Assistant Professor, BIT, Kolkata off Campus
14.	Dr. Vinay Sharma	-	Professor, Production Engineering, BIT, Mesra
15.	Dr. G. Sahoo,	-	Professor, Computer Science & Engineering BIT, Mesra
16.	Dr. S. K Chakraborty	-	Professor, Mathematics BIT, Mesra
17.	One student representative PG	-	Final year having good academic record and no backlog

### Departmental Academic Committee

Department/ Centre: Management, BIT, Mesra, Ranchi		
Academic Committee		
S. No.	Name of Member	Designation (DAC/AC)
1	HoD, Management	Chairman (Ex-Officio)
2	Dr. S.K. Bose, Professor, Dept. of Management	Member
3	Dr. Utpal Baul, Professor, Dept. of Management	Member
4	Dr. Manju Bhagat, Dept. of Management	Member
5	Dr. S. Shivani, Dept. of Management	Member
6	Dr. R.N. Bhagat, Dept. of Management	Member
7	Dr. Supriyo Roy, Associate Professor, Dept. of Management	Member

## Book

### Single Author

1. Roy, S. A text book on TOTAL QUALITY MANAGEMENT, Standard Publishers, Delhi, ISBN 978-81-8014-234-5.

### Edited Books

#### Chapter(s) in Edited Book

1. Roy, S. & Kumar, K., Optimization of inventory for Optimal Replenishment Policies and Lead time with Time varying Demand: a Genetic Algorithmic Approach. In Optimal Inventory Control and Management Techniques (eds. Shah, N. & Mittal, M), IGI Global, New Jersey, USA. 2016, pp. 215-235,
2. Roy, S. & Kumar, K., Strategic Planning of Cold Supply Chain towards Good Manufacturing Practices: Issues and Challenges in Indian Market. Accepted for Publication after revision as chapter for the forthcoming International book title 'Maximizing Business Performance and Efficiency through Intelligent Systems' (Eds. O.P. Rishi and Anukrati Sharma) from IGI Global, New Jersey, USA. (Paper ID: 140715-113212)
3. Tiwari, A. & Roy, S., Sustainable Non Traditional Manufacturing Processes - A Case with Electrochemical Machining (ECM). In forthcoming International book title 'Handbook of Research on Strategic Management of Sustainable Manufacturing Operations' (eds. Gunasekaran, A. & Dubey, R.), IGI Global, New Jersey, USA, 2015, pp. 229-273.
4. Kumar, A., Roy, S. & Kumar, K., Strategic Designing and Optimization of Mixed Flow Impeller Blades for Maritime Applications. In Handbook of Research on Military, Aeronautical and Maritime Logistics and Operations (eds. Ochoa, A., Cedillo, G., Sánchez, J. & Margain, L., Mexico) IGI Global, New Jersey, USA, 2016, pp. 479-520.
5. Vikas, Roy, S., Kumar, K., Sustainable Operation Planning and Optimization in Manufacturing - a case with Electro-Discharge Machining. In Handbook of Research on Managerial Strategies for Achieving Optimal Performance in Industrial Processes (eds. Hernández, G. A., Sánchez-Ramírez, C., & García-Alcaraz, J. L., México) IGI Global, New Jersey, USA, 2015, pp. 514-54.

### Departmental Students' Activities

S. No.	Name of the Activity	Date/Duration
1.	Conandrum Inter College Mgmt Games	19 <sup>th</sup> Feb. 2016
2.	B-Trix'15 (Inter College Business Quiz).	19 <sup>th</sup> August 2015
3.	Summer Internship Project Presentation Competition.	12 <sup>th</sup> August 2015
4.	Industrial Visit to Brahmputra Metalics Ltd. (BML), Ramgarh.	10 <sup>th</sup> August 2015
5.	ICICI SECURITIES -STOCKMIND GAME	

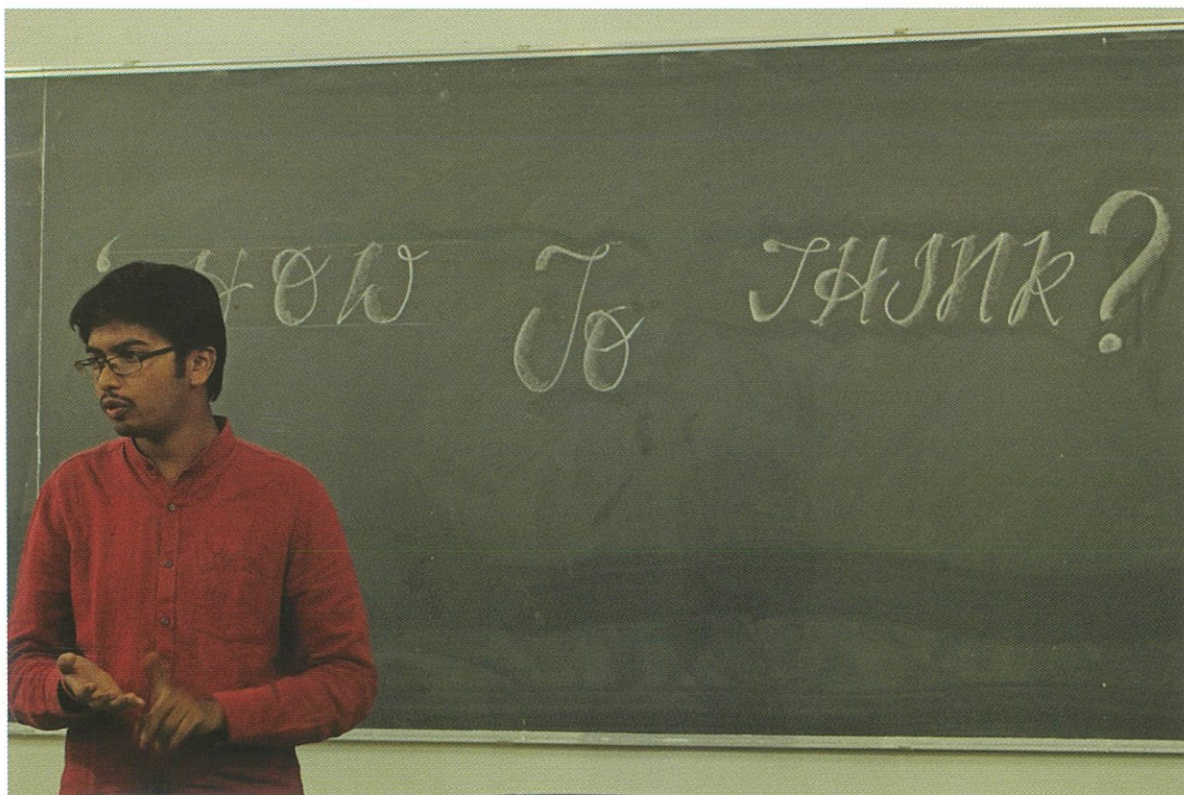


8	Dr. Dharmendra Kumar Chand, Assistant Professor, Dept. of Management	Member
9	Dr. Anupam Ghosh, Assistant Professor, Dept. of Management	Member
10	Dr. Rohit Kumar Pandey, Assistant Professor, Dept. of Management	Member
11	Dr. Rohini Jha, Assistant Professor, Dept. of Management	Member
12	The Guide(s) of the Candidate (As applicable)	Member (s)
13	Dr. S.K. Chakraborty, Professor, Dept. of Applied Mathematics	Member
14	Dr. Vinay Sharma, Prof. & Head, Dept. of Production Engg.	Member

#### **Other important information**

1. Dr. Supriyo Roy is a reviewer in Inderscience / Francis Taylor Journals.
2. Dr. Supriyo Roy delivered a lecture in FDP on Research Methodology.
3. Winning Title being awarded to Vedika Bagri of Dept. of Management, BIT Mesra for Paper Presentation on "Technological Solutions for Swacch Bharat" along with Certificate, Memento and greetings from Chief Minister of Jharkhand Mr. Raghuvar Das.

## Department of Mathematics



The Mathematics Department offers facilities for research work leading to Ph.D. degree in different areas of mathematics. Besides this, the department not only teaches various topics in mathematics to undergraduate and post graduate students of different departments of the institute, but also runs its own M.Sc. and Integrated M.Sc. courses. The Department also has its own state of the art Computational Laboratory. The faculties of the Department are actively engaged in research in the areas of Differential Equations, Mathematical Modelling, Seismology, Fuzzy Logic, Optimisation Techniques, Combinatorial Topology, Numerical Analysis, Quantum Information Theory and many more.

### Programmes Offered

- Integrated MSc. (Mathematics & Computing) - 5years
- M.Sc. (Mathematics) - 2 years
- Ph.D. (Mathematics)

## Sponsored Projects

### Projects Completed

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Date of completion of the Project
1.	A Decision Support System for Vendor Selection Problem under intuitionistic fuzzy environment	PI: Dr. P. Kaur Co. PI: Dr. S. K. Jain	UGC	April 2013	11, 50, 800	31.3.2016

### Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1	Dr. A.P. Ghorai	Short-term course on Dynamical Systems: Theory and Applications (DSTA 2016)	DST & IUCAA, Pune	Department of Mathematics	ISM Dhanbad	26-30, June, 2016
2.	Dr. Abhinav Tandon	Summer School (Refresher Course)	UGC	HRDC	University of Lucknow, Lucknow	8th June, 2016 – 29th June, 2016

## Publications

### Published in International Journals

1. Kumar, C., Dutta, S., and Chakraborty, S., Hiding Messages using Musical Notes: A Fuzzy Logic Approach, International Journal of Security and Its Applications, Vol. 9.1, 2015, 237-248.
2. Kumari, A., Singh, N. K., and Chakraborty, S., A Statistical Comparative Study of Some Sorting Algorithms, International journal in Foundations of Computer Science and Technology, Vol.5, No. 4, July 2015, 21-29.
3. Priyadarshini, P. and Chakraborty, S., Signal processing for Music Analysis, American International Journal of Research in Science, Technology, Engineering and Mathematics, Vol. 2, issue 9, 2015, 150-163.
4. Kumar, C., Dutta, S., Chakraborty, S., A Hybrid Polybius-Playfair Music Cipher, International Journal of Multimedia and Ubiquitous Engineering, Vol.10, No. 8, 2015, 187-198
5. Priyadarshini, P., and Chakraborty, S., A Statistical Study of Artist Style from Raga performance, International Journal of Applied Engineering Research, Vol.10, No. 14, 2015, 34813-34819.

6. Pal, J. and Ghorai, A, P., Propagation of Love Wave in Sandy Layer Under Initial Stress Above Anisotropic Porous Half-Space Under Gravity, *Transport in Porous Media*, Vol. 109, 2015, 297–316.
7. Pal, J. and Ghorai, A, P., Comparison and analysis of surface waves propagation in initially stressed dry sandy layer using conventional and time dependent finite difference scheme, *International Journal of Applied Engineering Research*, Vol. 11, No. 10, 2016, 7119-7124.
8. Tandon, A. and Jyotsna, K., Modeling the effects of environmental pollution intensified by urbanisation on human population, *International Journal of Modeling, Simulation and Scientific Computing*, Vol. 7, No. 3, 2016, 1650013(13 Pages).
9. Tandon, A. and Jyotsna, K., A mathematical model to study the simultaneous effect of pollutants emitted from wood and non-wood industries on forest resources, *World Journal of Modeling and Simulation*, Vol. 12, No.1, 2016, 34 – 47.
10. Bimal Kumar Mishra, Kaushik Haldar, Durgesh Nandini Sinha, Impact of Information based classification on network epidemics -, *Scientific Reports*, Nature Publishing Group, 6: 28289, DOI: 10.1038/srep28289, 2016
11. Neha Keshri, Anurag Gupta, Bimal Kumar Mishra, Impact of reduced scale free network on wireless sensor network, *Physica A*, Elsevier, 463 (2016), 236-245
12. Kaushik Haldar, Bimal Kumar Mishra, Mathematical Model on Vulnerability Characterization and its Impact on Network Epidemics, *International Journal of Systems Assurance Engineering and Management*, Springer, DOI: 10.1007/s13198-016-0441-3, 2016
13. Kaushik Haldar, Bimal Kumar Mishra, Mathematical Model on Malicious Attacks in a Mobile Wireless Network with Clustering, *Chaos Solitons and Fractals*, Elsevier, doi : 10.1016/j.chaos.2015.07.013, Vol. 78, (2015), pp. 76-85
14. Kaushik Haldar, Bimal Kumar Mishra, A Mathematical Model for a Distributed Attack on Targeted Resources in a Computer Network, *Communications in Nonlinear Science and Numerical Simulations*, Elsevier, doi: 10.1016/j.cnsns.2014.01.028
15. Sounak Paul, Bimal Kumar Mishra, Worm Propagation with Differential Infectivity under Quarantine Control Strategy, *International Journal of Security and its Applications*, 10(8), 2016, 201-214
16. AK Keshri, BK Mishra, DK Mallick, Library Formation of Known Malicious Attacks and their Future Variants, *International Journal of Advanced Science and Technology*, 94, 1-12, 2016
17. M Kumar, BK Mishra, TC Panda, Predator-Prey Models on Interaction between Computer Worms, Trojan Horse and Antivirus Software Inside a Computer System, *International Journal of Security and its Applications* 10 (1), 173-190, 2016

### **Published in National Proceedings**

18. Tiwary, R. and Ghorai, A, P., Effect of Propagation of Torsional Surface Waves in Earthquake, *Proceedings of National Conference On Recent Innovation in Earthquake Resistant Techniques: 9-10th November, 2015 at RVSCET, Jamshedpur*, 51-63, 2015.

19. Pal, J. and Ghorai, A. P. Comparison study of surface waves propagation in initially stressed dry sandy layer using numerical methods, 7th WMVC 2015, National conference on Wave Mechanics and Vibrations, ISM- Dhanbad, Dhanbad, 21-23 Dec, 2015.

### Books:

1. Singh, S.B., Chakraborty, S., Jha, K. M., Chandra, S., Prakash, S., and Tewari, S., Music and Medicine: Healing Brain Injury Through Ragas, CBH publications, 2016, ISBN 978 93 – 838-1129 -8.
1. Sarkar, B. K. and Chakraborty, S. K., Combinatorics and Graph Theory (Book), PHI Learning Private Ltd., ISBN 978-81-203-5173-8.

### Award / Recognition Bestowed on Faculty Member ( State / National / International )

S. No.	Name of the Faculty	Title of the Award/ Honours	Organisation	Year / Duration
1.	Dr. Soubhik Chakraborty	Best Educationist Award	International Institute of Education and Management, New Delhi	2015 (October 08)

### Board of Studies(UG/PG)

Internal Members		
1	HOD/ In-Charge	Chairman ( Ex- Officio)
2	Dr. Saral Kumar Jain	Professor
3	Dr. S.K. Chakraborty	Professor
4	Dr. Bimal Kumar Mishra	Professor
5	Dr. Seshadev Padhi	Professor
6	Dr. Soubhik Chakraborty	Professor
7	Dr. ( Mrs.) Anjana Pradhan Ghorai	Associate Professor
8	Dr. Abhinav Tandon	Assistant Professor
9	Dr. Satyabrata Adhikari	Assistant Professor
10	Dr. G. Sahoo	Professor, Department of CSE, B.I.T., Mesra
11	Dr. S. Konar	Professor, Department. of Physics, B.I.T., Mesra
External Members		
1	Prof. D. K. Gupta	Professor, Dept. of Mathematics, IIT Kharagpur



2	Prof. Satyajit Roy	Professor, Dept. of Mathematics, IIT Madras
3	Prof. K. C. Prasad	Retired Professor, Dept. of Mathematics, Ranchi University
4	Prof Vijay Gupta	Professor and Head, Dept. of Mathematics, NSIT, Delhi
5	Prof. S. Chakraborty	Professor& Head, Dept. of Mathematics, N.I.T. Rourkela

### Departmental Academic Committee

1. Dr. S. K. Jain
2. Dr. S. K. Chakraborty
3. Dr. B. K. Mishra
4. Dr. S. Padhi
5. Dr. S. Chakraborty
6. Dr. (Ms.) A. P. Ghorai
7. Dr. (Ms.) P. Kaur
8. Dr. Abhinav Tandon
9. Dr. Satyabrata Adhikari
10. Dr. Randhir Singh
11. Dr. (Ms.) S.D. Jabeen
12. Prof. Ashok Kumar Roy (External Member)
13. Prof. A. K. Sinha (External Member)

### Other Important Information

Prof. B. K. Mishra became Associate Editor of International Journal of Information Technology and Computer Sciences, Korea, <http://www.mecs-press.org/ijitcs/board.html>

## Department of Mechanical Engineering



**Autonomous Training Kit**



**Indoor Photovoltaic Training Kit**

Since its inception in 1955, the Department of Mechanical Engineering has gained a very good reputation for the quality of teaching and research it offers. It has been awarded top grades for both teaching and research activities from independent and government bodies. The excellent laboratory facilities, modern computer clusters, systematically designed curriculum, and dedicated faculty members make this Department a dynamic place of study. Mechanical Engineering Graduates of this Institute are recruited by many reputed national as well as multinational companies.

The Department of Mechanical Engineering offers the following programs at undergraduate/postgraduate and Doctoral level:

- I) B.E. (Mechanical Engineering), sanctioned strength: 90
- II) M.E. (Mechanical Engineering), sanctioned strength: 42

### **Specialization:**

- a) Heat Power Engineering (12)
- b) Design of Mechanical Equipment (12)
- c) Computer Aided Analysis & Design (18)
- III) M.Tech. (Energy Technology): 18
- IV) Ph.D. in Mechanical and Interdisciplinary field.

Mechanical Engineering Department has extended its research facilities by establishing new laboratories like Autonomous System Laboratory, Renewable Energy Laboratory, Computational Laboratory etc.

## Seminar / Conferences / Short – term Courses Conducted by the Department/Campus

S. No.	Title of Seminar / Conferences / Short – term Courses / Workshop	Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short – term Courses
1	ICAES2016 (International Conference on Alternative Energy Sources 2016)	Dr. D.B. Lata (coordinator)	DHTE, JCST Jharkhand	29-30 Jan 2016

## Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S. No.	Name of the Faculty	Title of the Conference/Seminar	Funding Agency	Organizers	Venue	Date
1.	Dr. Dhaneshwar Mahto	Use of ICT in Education for Online and Blended Learning	AICTE	IIT Mumbai	BIT Mesra Ranchi	June 16 to July 16
2.	S K Dhiman	Int. conf. on Alternative Energy Sources 2016	DHTE, JCST Jharkhand	BIT Mesra	BIT Mesra	29-30 Jan 2016
3.	S K Dhiman	Int. conf. on Trends in Mechanical Engineering	TEQIP	MANIT Bhopal	MANIT Bhopal	4-6 Feb 2016
4.	Arun Dayal Udai	Rural Technology Action Group, IIT Delhi Regional Workshop	IIT Delhi	Society for Rural Industrialization, Bariatu, Ranchi and IIT Delhi	SRI, Ranchi	19 – 20 <sup>th</sup> November, 2015
5.	Arun Dayal Udai	Robot Modelling and Control, and Applications to Aerial Robots	IIT Jodhpur	IIT Jodhpur, GIAN	IIT Jodhpur	22 – 28 <sup>th</sup> December, 2015
6.	Dr. S. Bhaduri	National workshop on intelligent computational technique applications	Jharkhand council of science & technology	Electrical & Electronics Engg. Dept., B.I.T., Mesra	B.I.T., Mesra	23-27 November, 2015

S. No.	Name of the Faculty	Title of the Conference/Seminar	Funding Agency	Organizers	Venue	Date
7.	Dr. S. Bhaduri	Short term training programme on "Building maintenance and preservation"	Department of Tourism, Art culture, Sports and Youth affairs	Architecture, Dept., B.I.T., Mesra	B.I.T., Mesra	29th Feb- 4 <sup>th</sup> March, 2016
8.	Dr. S. Bhaduri	National workshop on High performance computing	TEQIP-II	Computer science Department, B.I.T., Mesra	B.I.T., Mesra	02-06 May, 2016
9.	Rajeev Kumar	KIC-TEQIP Short-Term Course on Solar Energy Conversion and Management	TEQIP	IIT Guwahati	IIT Guwahati	23rd - 27th Nov. 2015
10.	Rajeev Kumar	International Conference on Alternative Energy Sources	Deptt. of Higher and Technical Education Jharkhand	BIT Mesra, Ranchi	BIT Mesra, Ranchi	29.01.16- 30.01.16
11.	Rajeev Kumar	Seminar on Human Resource for Metal Component and Manufacturing	MHRD Govt. of India	NIFFT, Hatia	NIFFT, Hatia	10.03.16- 11.03.16

## Publications

### Journals

1. Prasad, S., Prasad, A., Kumar, A., Development of instant interface temperature at time = 0 at low melting temperature cylindrical solid additive bath system, Metallurgy and Material Transaction B, 2015, 46B, 2616-2617.
2. Prakash, Om, Laguri, V., Pandey, A, Kumar, A., Review on various modelling techniques for the solar dryers, Renewable and Sustainable Energy Reviews, 2016, 62, 396-417.
3. Kumar, A., High rate Anodic dissolution of stainless steel 316 using nano zero valent iron as reducing agent, Journal of Applied Science and Engineering, 2015, 19(1), 69-74.
4. Kumar, A., Experimental investigation of catalytic effect of Cu<sup>2+</sup> during anodic dissolution of iron in NaCl electrolyte, 2016 (in press).
5. Om Prakash et al., Environomical Analysis and Mathematical Modelling of Potato Drying in Modified Solar Greenhouse Dryer. Heat Transfer Research. Accepted. Vol. 48, 2016, (Accepted).

6. Om Prakash, Anil Kumar, Vinod Laguri, Performance of Modified Greenhouse Dryer with Thermal Energy Storage. *Energy Report*, Elsevier 2016, 2, 155–162.
7. Om Prakash et al., Solar Stills System Design: A Review. *Renewable and Sustainable Energy Reviews*, Elsevier, 2015, 51, 153–181,
8. Om Prakash, Anil Kumar, Annual Performance of Modified Greenhouse Dryer under Passive Mode in No-Load Conditions, *International Journal of Green Energy*, 2015, 12, 1091–1099.
9. Om Prakash et al., Prediction of Moisture Evaporation Rate from Jaggery in Green House Drying Using Fuzzy Logic. *Heat transfer research*, 2015, 46(10), 923–935.
10. Utkarsh,,Enam A., Mahto, D., Kumar A. Mahua (*Madhuca Indica*) oil: A potential source for biodiesel production in India, *Carbon – Sci. Tech.*,2016,8,68-73.
11. Kumar ,R., Mahto, D., Singh, J., Meshless Analysis of Functionally Graded Plate with Different Algebraic Shear Deformation Theories,*International Journal for Innovative Research in Science & Technology*, 2016 (in press).
12. S. K. Dhiman, Jai Prakash, Arbind Kumar, Performance study of four stroke S.I. engine using upgraded biogas fuel, *Carbon – Science & Technology*, 2016, 8(3), 33-46.
13. Mishra, D.P., Numerical Investigation of Heat Transfer and Fluid Flow Characteristics of an Internally Ribbed Tube. *Journal of Mechanical Engineering*, 2015, 12(2), 85-103.
14. Sarangi, S. K. and Mishra, D. P., Numerical Analysis of Winglet Type Fin-and-Tube Heat Exchanger. *Carbon Science and Technology*, 2016, 8(3), 129-138.
15. Mishra, D.P., CFD Supported Performance Estimation of a Louvered Funnel. *International Journal of Interdisciplinary Research Centre*, 2016, II (2), 9-21.
16. Nabadavis, A. and Mishra, D. P., Numerical Investigation of Jet Impingement Heat Transfer on a Flat plate. *Carbon Science and Technology*, 2016, 8(4), 1-12.
17. Sahu, S.R. and Mishra, D.P., Maximum Air Suction into Horizontal Open Ended Cylindrical Louvered Pipe. *Journal of Engineering Science and Technology*, 2015 (in press).
18. Nandi, A., Neogy, S., Bhaduri, S., Performance analysis of a non-contact vibration damper made up of a piezoelectric stack and an electromagnet, *Journal of Vibration Engineering & Technologies*,2015,3(4),401-118.
19. Sumit Banerjee, Krishanu Ganguly, Bhushan Dewangan, Rajeev Kumar, Performance testing of a gamma type Stirling Engine for different cooling medium”, *IPASI International Journal of Mechanical Engineering (IIJME)*,2016, 4 (3), 56-61.
20. Sumit Banerjee, Krishanu Ganguly, Bhushan Dewangan, Rajeev Kumar, Performance Characteristics of a Gamma type Stirling Engine using Fresnel Lens”, *IPASI International Journal of Mechanical Engineering (IIJME)*, 2016, 4(3), 30-34.
21. Sumit Banerjee, Krishanu Ganguly, Bhushan Dewangan, Rajeev Kumar, Performance analysis of a gamma type Stirling Engine using three different solar concentrators”, *IPASI International Journal of Mechanical Engineering (IIJME)*, 2016, 4(3), 1-7.



22. Prashant, G.K., Lata, D.B., Joshi, P.C., Investigations on the effect of methanol blend on the combustion parameters of dual fuel diesel engine. *Applied Thermal Engineering*, 2016, 103, 187-194.
23. Dhole A.E., Yarasu, R.B., Lata, D.B., Effect of hydrogen and producer gas as secondary fuels on combustion parameters of a dual fuel diesel engine. *Applied Thermal Engineering*, 2016, 108, 764-773.
24. Jindal Prakhar, Sharma R. P., Numerical Study of Film Cooling For Various Coolant Inlet Geometries, *IJET*, 2015, 7(5).
25. Jindal Prakhar, Sharma R. P., A brief review on experimental film cooling, *Carbon Science and Technology*, 2016, 8(2), 72-82.
26. Brar L S, Sharma R. P., The Effect of the Cyclone length on the performance of stairmand high-efficiency Cyclone, *Powder Technology*, 286:668-677.
27. Brar L S, Sharma R. P., Effect of varying diameter on the performance of industrial scale gas cyclone dust separators, *Materials Today: Proceedings*, 2015, 2:3230-3237
28. Vaish K, Brar LS, Roy AK, and Sharma R. P, Effect of Changing Height Ratios of Cylinder to Cone on Performance of Industrial Gas Cyclone Dust Separator, *Int. J. of App. Eng. Research*, 2015, 10(8):6117-6121.

### **Books / Edited Books**

1. Om Prakash et. al. Chapter 10: Energy Security and Sustainability through Wind Energy. *Energy Security and Sustainability* Edited by Amritanshu Shukla Atul Sharma Taylor & Francis Group, 6000 Broken Sound Parkway NW, Suite 300, Boca Raton, FL 33487-2742 CRC Press Print ISBN: 978-1-4987-5443-9, eBook ISBN: 978-1-4987-5444-6
2. Mishra D.P. and Mohapatra K., *Thermo-fluid Performance of Internal Finned Tube*. LAMBERT Academic Publishing, Germany, 2016, pp. 1-125.
3. Sharma, R.P., *Principles of Mechanical Engineering*, Global Academic Publishers & Distributors, 2015, USA. ISBN: 978-93-81695-82-1.

### **Proceedings**

1. Om Prakash et al., Prediction of Water Temperature of Scheffler Reflector Water Heater from using Fuzzy Logic, *International Conference on Alternative Energy Sources (ICAES-2016)*, Birla Institute of Technology, Mesra, Ranchi, Jharkhand, January 2016.
2. Om Prakash et al., Solar Air Heater in India: A Review, *International Conference on Alternative Energy Sources (ICAES-2016)*, Birla Institute of Technology, Mesra, Ranchi, 2016.
3. Om Prakash et al., Review Of Solar Water Heater In India, *International Conference on Alternative Energy Sources (ICAES-2016)*, Birla Institute of Technology, Mesra, Ranchi, 2016.
4. Om Prakash et al., A Review on Biogas Plant, 3rd International Conference on Recent Trends in Engineering and Technology (ICRTET), Nagulapalli, Visakhapatnam, 18-19 October 2015.

5. S. K Dhiman and J. K. Prasad, A Computational study on k- $\epsilon$ - model for flow field and heat transfer on a cylinder in cross-flow, Int. conference on Alternate Energy Sources (ICAES 2016), Birla Institute of Technology, Mesra Ranchi, 29-30 January, 2016.
6. S. K. Dhiman and J K Prasad, Investigation of flow field and heat transfer on two dimensional cylinders placed side-by-side and tandem at subsonic speed, International Conference on Trends in Industrial and Mechanical Engineering (ICTIME - 2016), Maulana Azad National Institute of Technology, Bhopal, 4-6 February, 2016.
7. Hayat, A. A., Udai, A. D., Saha, S. K., Identifying and Updating the Kinematics of KUKA iiwa R800 in CAD for Accurate Simulation, 28th International Conference on CAD/CAM, Robotics and Factories of the Future (CARs & FoF 2016), Kolaghat, WB India, 6th – 8th January 2016, pp: 115-126.
8. Udai, A. D., Sinha, A. N., A Quantitative Error Map Generation for Modification of Manual Socket for Below Knee Amputee, International Conference on Computational Intelligence, BIT Mesra, 10 – 11th December, 2015.
9. Udai, A. D., Joshi R. P., and Saha, S. K., Depth-based Localization for Robotic Peg-in-Tube Assembly, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2015), Hamburg, Germany, 28th September - 2nd October, 2015
10. Pandey, R., Application of RE and CAD/CAM in the field of prosthetics- A make in India Concept, ICIDERT-2016, DSIIDC, Govt. of NCT of Delhi, 12-13 Feb 2016.
11. Pandey, R., A new proposed method to reverse engineer the limb for prosthetic socket paper, ICDEM-2016, Chennai, 25-26 April 2016.

## Award / Recognition Bestowed on Faculties ( State / National / International )

S. No.	Name of the Faculty	Title of the Award/ Honours	Organisation	Year / Duration
1	Dr. S. Bhaduri	Best paper award in oral presentation in national seminar in “Recent advances in civil and environmental engineering”	B.I.T., Mesra	25-26 <sup>th</sup> February, 2016

## Departmental Students’ Activities

S. No.	Name of the Activity	Students’ coordinator, if any	Date/Duration
1	Society of Automobiles Engineers (BAJA SAE INDIA)	Sarthak Sharma Final Year Mechanical Engineering Student Birla Institute of Technology Mesra	16-21 February 2016

## Board of Studies(UG/PG)

- |  |   |                       |
|--|---|-----------------------|
| 1. Head (Mech. Engg.)                            | - | Chairman (Ex-officio) |
| 2. Dr.Arbind Kumar I<br>(Professor, Mech. Engg.) | - | Member                |
| 3. Dr. Arbind Kumar II                           |   |                       |

4. Prof.A.K. Ray (Professor, Mech. Engg.)	-	Member
5. Dr. R.P. Sharma (Professor, Mech. Engg.)	-	Member
6. Dr.A.K.Roy (Associate Professor, Mech. Engg.)	-	Member
7. Dr. Rajeev Kumar (Associate Professor, Mech. Engg.)	-	Member
8. Dr. Praveen Mishra (Assistant Professor, Mech. Engg.)	-	Member
9. Dr. Dhaneswar Mahto (Assistant Professor, Mech. Engg.)	-	Member
10. Dr. Sudip Das (Assistant Professor, SER)	-	Member
11. Dr. Vijay Pandey (Associate Professor, Prod. Engg.)	-	Member

**Any two external Experts from the following:**

1. Dr. Sibnath Maity  
Chief Scientist, Head,  
Technology Enovation centre  
Central Mechanical Engineering  
Research institute (CMERI)  
M.G. Road, Durgapur (WB)
2. Mr. Satish Kumar Gupta  
Senior Manager, MECON Ltd., Ranchi.
3. Mr. Rakesh Kumar Singh  
GM, Bar Mill  
JSPL, Patratu, Ranchi.
4. Mr. Prabhas Kumar  
DGM (HOD, Energy Conservation)  
RDCIS, SAIL, Ranchi.
5. Dr. Bharat Bhusan  
GM (Process and Technology)  
Tata Consulting Engineers Ltd.  
Jamshedpur.
6. Dr. Shine S.R.  
Department of Aerospace Engineering  
IIST, Trivendrum, ISRO, Kerala.

### **Departmental Academic Committee**

1. Head of the Department	-	Chairman (Ex-officio)
2. Dr. Arbind Kumar I	-	Member
3. Dr. Arbind Kumar II	-	Member
4. Dr. R.P.Sharma	-	Member
5. Prof. A K. Ray	-	Member
6. Dr. Apurba Kumar Roy	-	Member
7. Dr. DhaneswarMahto	-	Member
8. Dr. Praveen Mishra	-	Member
9. Dr. R.C. Jha Professor& HOD, Deptt. of EEE	-	Member
10. Dr. Vijay Pandey Associate Professor, Prod. Engg.	-	Member

### **Major equipments purchased during the above mentioned period**

- Computerised petrol engine test rig
- Variable compression ratio test rig
- Brinell hardness tester
- Micro hardness tester
- Pneumatic kit with Allen Bradley PLC (MAP 200) by SMC
- Workstation PC with Intel Xeon processor
- HP Plotter
- 3D Printer (Alfatek)
- Evacuated Tube type solar collector

## Department of Pharmaceutical Sciences & Technology



Pharmaceutical Laboratory

The Department of Pharmaceutical Sciences and Technology was established in 1972, recognizing the potential of this emerging field of Technology. The Department has lively, stimulating and a robust scientific community with highly qualified and competent faculties with large number of undergraduate, postgraduate students, research fellows and visiting scientists. It is well equipped for both teaching and research activities, which are undertaken across the whole spectrum of Pharmaceutical Sciences. The Department encourages and supports studies involving a range of research strategies and have expertise and experience towards quality and innovative research.

The Department runs both B.Pharm. and M. Pharm in Pharmaceutical Sciences- Specializations offered are Pharmaceutics, Pharmaceutical Chemistry, Pharmacology Pharmacognosy, Clinical Research and Quality Assurance & Regulatory Affairs. The courses are recognized by both Pharmacy Council of India and AICTE. The Department also provides facilities for Doctoral Research in various fields of Pharmaceutical Sciences and has state of the art Instrumental facilities along with Molecular Modelling & Docking laboratory.

The Department is supported by two major projects namely FIST of DST and SAP of UGC.



## Sponsored projects

### Project Sanctioned

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1	Evaluation of Antiviral and Anticancer potentials of Lac exudate/ dye.	Dr. Manik (PI) & Dr BN Sinha (Co PI)	ICAR, New Delhi	Feb 2016	22.43 lacs	3 years
2	Development of Anticancer Formulations from lac based on in-vitro studies on selected Cancer cell lines	Dr. Manik (PI)	BIT Mesra	17.12.2015	0.80 Lakhs	1 Year
3	Evaluation of Apoptotic Mechanism of Deltamethrin as a promising candidate against cancer	Dr. Manik (PI)	Seed Money Scheme, BIT Mesra	17-12-2015	Rs. 80,000	1 year
4	Pharmacokinetic Study of cardiovascular drugs in combination with different antioxidants	Dr Kishanta Kumar Pradhan	BIT	13.11.2015	0.8LAKH	01 YR
5	"Development of different types of hair dyes using Myrobalan"	K. Jayaram Kumar	TRIFED		Rs. 9,83,250/-	2 Years

### Ongoing Projects

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Design and synthesis of potent dual inhibitors of Cdk4 and tubulin as anticancer agents	PI: Dr. B. N. Sinha Collaborator: Prof. Bob Chaudhuri, De Montfort University, UK	UGC-UKIERI	6 <sup>th</sup> Mar 2013	30.88 lakhs	2 years

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
2	Investigation of mechanism of antihyperglycemic properties of some indigenous medicinal plants of Jharkhand on various cellular assays,	Dr. Papiya Mitra Mazumder	AICTE under Research Promotion Scheme	FEB 28 2014)	Rs. 6.47059 lacs	3 years
3	Improvement of bioavailability of poorly water soluble drugs by micronization and establishment of Level A In vitro In Vivo correlation.	Dr. Animesh Ghosh	DRDO	2011	9.27lacs	3 years
4	Invitro characterization of microsphere loaded gel for wound healing-evaluation of safety and efficacy	Dr. Animesh Ghosh	UGC MRP	2012	6.42 lacs	3 years
5	Design, Development and Optimization of Self Nanoemulsifying and Solidified Self Nanoemulsifying Drug Delivery Systems of Anti-tubercular Drugs	Dr. Sandeep Kumar Singh, Dr. PRP Verma and Dr. S.M. Verma	(DBT)	2012	14.5 lacs	2 years
6	Antitubercular Drug Loaded Novel Cubosomes/Hexosomes Based Drug Delivery System Using Response Surface Methodology	Dr. Sandeep Kumar Singh	UGC-BSR	2013	6 lacs	2 years
7	In silico design, synthesis, and evaluation of newer azoles as HIV-1-RT inhibitors	Dr. Swastika Ganguly and Dr. Dr. A. Dev	UGC MRP	April 2013	13.839 lacs	3 years
8	Neutraceuticals and cosmaceuticals from Tamarind seeds, Sal Seed Oil and Karanj oil Using Low Cost Technology	Dr. K. Jayaram, Dr. S. Jha and Dr. Anima Pandey	DST TRIFED	2013	12.5 lacs	2 years

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
9	To determine molecular mechanism associated with Type 2 Diabetes associated cognitive impairment.	Dr Sugato Banerjee	DST-SERB	March 2013	25 lacs	3yrs

### Projects Completed

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Date of completion of the Project
1	Structure-based discovery of antivirals for the treatment of Chikungunya virus infections (Anti-Chick)	Co-PI: Dr. B. N. Sinha Collaborator: 1. Dr. D. Velmurugan, University of Madras, India 2. Dr. Rolf Hilgenfeld, University of Lubeck, Germany 3. Dr. Bruno Canard, Axis Marsielle University, France	DBT	4 <sup>th</sup> Feb 2011	34.62 Lakhs	2 Years (Extended for 3 <sup>rd</sup> year)
2	Structure-based design of Dengue virus protease inhibitors	Co-PI: Dr. B. N. Sinha Collaborator: 1. Dr. D. Velmurugan, University of Madras, India 2. Dr. Rolf Hilgenfeld, University of Lubeck, Germany	DBT	1 <sup>st</sup> Dec 2010	24.52 Lakhs	3 Years (Extension)

### Seminar / Conferences / Short – term Courses Conducted by the Department/Campus

S. No.	Title of Seminar / Conferences / Short – term Courses / Workshop	Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short – term Courses
1	Recent Advances in Formulation Techniques & Tissue Engineering	Dr. B. N. Sinha and Dr. Jayram Kumar	AICTE-QIP	November 13- 26, 2015
2	Challenges and Strategies in Natural Product Research	Dr. B. N. Sinha and Dr. Jayram Kumar	AICTE-QIP	November 26, 2015 to December 09, 2015

S. No.	Title of Seminar / Conferences / Short-term Courses / Workshop	Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short-term Courses
3	Innovative Drug Discovery Approaches & Emerging Trends in Neuropharmacology	Dr. B. N. Sinha and Dr. Jayram Kumar	AICTE-QIP	December 09 to 22, 2015.
4	National Level Symposium on Antiviral Research and Therapy (NLSART'2016)	Dr. B. N. Sinha Dr. Venkatesan J.	AICTE	March 18-19, 2016

### Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S. No.	Name of the Faculty	Title of the Conference/Seminar	Funding Agency	Organizers	Venue	Date
1	Kishanta Kumar Pradhan	Quality Improvement Program 2015	AICTE	Dept. of Pharm. Sci. & Technology, BIT, Mesra	BIT	26.11.15-09.12.15
2.	Dr. Venkatesan Jayaprakash	International Multidisciplinary Symposium on Drug Research & Development	ILARUD, Turkey	Anadolu University, Eskisehir, Turkey	Anadolu University Ataturk Culture and Arts Centre, Anadolu University, Eskisehir, Turkey	15th October 2015 to 17th October 2015
3.	S. Samanta	AICTE sponsored QIP	AICTE	Department of Pharmaceutical Sciences and Technology	Department of Pharmaceutical Sciences and Technology, BIT, Mesra, Ranchi	09th Dec to 22nd Dec, 2015
4	S.Samanta	Emerging techniques in bioinformatics and its application	BTISNet	Dept. of Bio-Engineering, BIT, Mesra	Dept. of Bio-Engineering, BIT, Mesra, Ranchi.	30th Nov-4th Dec 2015

### Publications

#### Published in International Journals

1. Sandeep Kumar Vats, Roop Narayan Gupta, Kalaiselvan Ramaraju and Romi Singh Systematic optimization of formulation and manufacturing method for preparing a rapid release

- nisoldipine dosage form, *Journal of Chemical and Pharmaceutical Research*, 2015, 7(12):96-107
- Agents, *International Journal of Pharmaceutical Research*, 2015, 7(4), 52-61.
2. Alavala, R. R., Kulandaivelu, U., Bonagiri, P., Boyapati, S., Jayaprakash, V., Subramaniam, A. T. Synthesis and Antiviral Activity of Dihydropyrimidines-Ciprofloxacin Mannich bases Against Various Viral Strains. *Anti-Infective Agents*, 2016, 14 (2), 154-165.
  3. Badavath, V. N., Baysal, I., Ucar, G., Mondal, S. K., Sinha, B. N., Jayaprakash, V. Monoamine Oxidase Inhibitory Activity of Ferulic Acid Amides: Curcumin-Based Design and Synthesis. *Arch. Pharm.* 2015, 348, 1-11.
  4. Badavath, V. N., Baysal, I., Ucar, G., Sinha, B. N., Jayaprakash, V. Monoamine Oxidase Inhibitory Activity of Novel Pyrazoline Analogues: Curcumin Base Design and Synthesis. *ACS Med. Chem. Lett.* 2016, 7, 56-61.
  5. Badavath, V. N., Baysal, I., Ucar, G., Sinha, B. N., Mondal, S. K., Jayaprakash, V. Monoamine oxidase-A inhibitory activity of novel curcumin analogues. *J. Pharm. Chem.* 2015, 2 (3-4), 12-17.
  6. Badavath, V. N., Sinha, B. N., Jayaprakash, V. Design, in-silico docking and predictive ADME properties of novel pyrazoline derivatives with selective human MAO inhibitory activity. *Int. J. Pharm. Pharm. Sci.* 2015, 7 (12), 277-282.
  7. Bagchi, S., & Jayaram Kumar, K., Studies on water soluble polysaccharides from *Pithecellobium dulce* (Roxb.) Benth. seeds. *Carbohydrate Polymers*, 2016, 138, 88-93.
  8. Bhakat, S., Delang, L., Kaptein, S., Neyts, J., Leyssen, P., Jayaprakash, V. Reaching beyond HIV/HCV: nelfinavir as a potential starting point for broad-spectrum protease inhibitors against dengue and chikungunya virus. *RSC Adv.* 2015, 5, 85938-85949.
  9. Biplab Debnath & Swastika Ganguly (2015): Synthesis of Some Novel (2-Oxo-3-(arylimino) indolin-1-yl)-N-aryl acetamides and evaluation as Antimicrobial Agents, *Toxicological & Environmental Chemistry*, DOI: 10.1080/02772248.2015.1061524
  10. Biplab Debnath & Swastika Ganguly, Biological Evaluation, in Silico Docking and Virtual ADME Studies of novel 2-(2-oxo-3-(arylimino) Indolin-1-yl)-N-aryl acetamides as Potent Anti-breast Cancer Agents, *Monatshefte für Chemie - Chemical Monthly* (accepted) DOI 10.1007/s00706-015-1566-9
  11. Biplab Debnath & Swastika Ganguly, Synthesis and Evaluation of Novel 2-oxo-3-
  12. Biplab Debnath & Swastika Ganguly Synthesis, Biological Evaluation, in Silico Docking and Virtual ADME Studies of Novel Isatin Analogs as Promising Antimicrobial Agents, *Antiinfective agents* 2015, 13, 1-15.
  13. Biplab Debnath & Swastika Ganguly, Synthesis, characterization, and anthelmintic activity of isatin analogs against *Pheretima posthuma*, *Asian J Pharm Clin Res*, Vol 8, Issue 2015, 5, 1-6
  14. Cagno, V., Cibra, A., Kumar, R., Pradhan, S., Donalisio, M., Sinha, B. N., Ghosh, M.\*, Lembo\*, D. *Ficus religiosa* L. bark extracts inhibit Human Rhinovirus and Respiratory Syncytial Virus infection in vitro. *Journal of Ethnopharmacology* 2015, 176, 252-257.
  15. Chacko, Shinu; Samanta, Subir. Novel Thiosemicarbazide Hybrids with Amino Acids and Peptides



- Against Hepatocellular Carcinoma: A Molecular Designing Approach Towards Multikinase Inhibitor, *Current Computer Aided Drug Design*, 2015, 11, 279-290.
16. Chakravarty, M., Sharma, R., Kumar A., Sharma, N., Kumar, A., Synthesis and bio-compatibility study of thermal-CVD grown graphene. *Int. J. Nanosci.*, 2016 (in press).
  17. Chopra, M. P., Mitra Mazumder, P., Sasmal, D., Evaluation of wound healing properties of *Salvia splendens* leaves in streptozotocin induced diabetic rats. *Journal of Chemical and Pharmaceutical Research*, 2015, 7(9), 836 – 842.
  18. Chopra, M. P., Mitra Mazumder, P., Sasmal, D., and Patro, S. K., Phytochemical, antioxidant and antimicrobial studies of *Salvia splendens* leaves. *Journal of Chemical and Pharmaceutical Research*, 2015, 7(10), 724-728.
  19. Das, M. K., Mitra Mazumder, P., Das, S., Antiepileptic Activity of Methanol Extract of *Butea monosperma* (Lam.) Kuntze and its Isolated Bioactive Compound in Experimentally Induced Convulsion in Swiss Albino Mice. *Journal of Pharmaceutical Sciences and Research*, 2015, 7(12), 1066-1072.
  20. Das, S., Dubey, R., Roychowdhury, S., Ghosh\*, S., Sinha, B. N., Pradhan, K. K., Bal, T., Muthukrishnan, V., Seijas, J. A., Pujari, A. A rapid and sensitive determination of hypoxic radiosensitizer agent nimorazole in rat plasma by LC-MS/MS and its application to a pharmacokinetic study. *Biomedical Chromatography* 2015, 29(10), 1575-1580.
  21. Das, S., Mitra Mazumder, P., and Das, S., Newer Approaches for Managing Gut-Brain Disorders In Functional Gastrointestinal Diseased Patients. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*, 2015, 6(5), 104 - 110.
  22. Divakar, D., Sasmal, D., Kumar, A., Sharma, N., Prophylactic role of piperine and curcumin in alloxan altered hematological and biochemical parameters in Swiss albino mice. *Pharmacologia*, 2015, 6, 396-412.
  23. Dubey, R., Ghosh\*, M. Simultaneous Determination and Pharmacokinetic Study of Losartan, Losartan Carboxylic Acid, Ramipril, Ramiprilat, and Hydrochlorothiazide in Rat Plasma by a Liquid Chromatography/Tandem Mass Spectrometry Method. *Sci. Pharm.* 2015, 83(1), 107–124.
  24. Dubey, R., Ghosh\*, M. Sinha, B. N., Muthukrishnan, V. Simultaneous Determination and Pharmacokinetics of Metolazone, Losartan and Losartan Carboxylic Acid in Rat Plasma by HPLC–ESI–MS–MS. *Journal of Chromatographic Science* 2015, 53(9), 1520-1527.
  25. Ganesh, M. S., Awasthi, P., Timiri, A. K., Ghosh\*, M. A novel approach for rationale selection of medicinal plants against viruses via molecular docking studies. *The Pharmstudent* 2015: 18-30.
  26. Jinu Isaac, Swastika Ganguly, Animesh Ghosh, Comilling of telmisartan with poly (vinyl alcohol) – an alkalizer free green approach to ensure its bioavailability, *European Journal of Pharmaceutics and Biopharmaceutics* 2016, 101, 43–52.
  27. Kumar, A., Dubey R. K., Kant, K., Sasmal, D., Ghosh, M., Sharma, N., Determination of deltamethrin concentration in mice plasma and primary immune organs by simple reverse phase HPLC. *Acta Chromatographi.*, 2016 DOI: 10.1556/1326.2016.28.2.4

28. Kumar, A., Sasmal, D., Sharma, N., Mechanism of immunoprotective effects of curcumin in dlm-induced thymic apoptosis and altered immune functions: an in silico and in vitro study. *J. Immunotoxicol. Immunopharmacol.*, 2015, DOI: 10.3109/08923973.2015.1091004.
29. Kumar, A., Sharma, N., Sasmal, D., Understanding of statistics in testing of pharmacological hypothesis. *Pharmawave*, 2015, 8, 64-72.
30. Maji D, Samanta S, "In Silico ADMET And Docking Studies of 2,4-Dioxothiazolidine-5-Carboxylic-Acid-Amino acid and Dipeptide Hybrid esters as Potent Antidiabetic and Cardioprotective Agents" using FlexX 2.1.3. *International Journal of Pharmaceutical Research* (ISSN -0975-2366), 2015, 7, (4), 16-23.
31. Mathew, B., Haridas, A., Suresh, J., Mathew, G. E., Ucar, G., Jayaprakash, V. Monoamine Oxidase Inhibitory Action of Chalcones: A Mini Review. *CNS Agents in Med. Chem.* 2016, 16, 120-136.
32. Mathew, B., Haridas, A., Ucar, G., Baysal, I., Adeniyi, A. A., Solimon, M. E. S., Joy, M., Mathew, G. E., Lakshmanan, B., Jayaprakash, V. Exploration of chlorinated thienyl chalcones: A new class of monoamine oxidase-B inhibitors. *Int. J. Bio. Macromol.* 2016, 91, 680-695.
33. Mathew, B., Haridas, A., Ucar, G., Baysal, I., Joy, M., Mathew, G. E., Lakshmanan, B., Jayaprakash, V. Synthesis, Biochemistry, and Computational Studies of Brominated Theinyl Chalcones: A New Class of Reversible MAO-B Inhibitors. *ChemMedChem* 2016, 11, 1-12.
34. Mathew, B., Mathew, G. E., Suresh, J., Ucar, G., Sasidharan, R., Anbazhagan, S. Vilapurathu, J. K., Jayaprakash, V. Monoamine Oxidase Inhibitors: Perspective Design for the Treatment of Depression and Neurological Disorders. *Curr. Enz. Inhib.* 2016, 12, 115-122.
35. Mittal A, Sardana S, Pandey A. Experimental wound healing aspects of *Jasminum grandiflorum* Linn: A Preclinical Study. *African Journal of Traditional and Complementary Medicine.* 2015, 12,3, 135-142.
36. Mittal A, Sardana S, Pandey A. Pharmacognostical Profiling of *Jasminum grandiflorum* Linn. Leaves. *International Journal of Phytomedicine.* 2015, 7,1.
37. Mittal A, Sardana S, Pandey A. Pharmacognostical Standardisation of *Jasminum sambac* Ait. (Oleaceae) Leaves. *Der Pharmacia Lettre.* 2015, 7,2,65-70.
38. Mittal Arun, Sardana Satish and Pandey Anima. Pharmacognostical and physio- chemical standardization of *Jasminum auriculatum* Vahl leaves. *Der Pharmacia Lettre*, 2015, 7,10,178-184.
39. Mittal Arun, Sardana Satish, Pandey Anima. Phyto Pharmacological Profile of *Jasminum grandiflorum* Linn. *Chinese Journal of Integrative Medicine.* Springer Indexed, 2015,4,1-10.
40. Mittal Arun, Sardana Satish, Pandey Anima. Evaluation of wound healing, antioxidant and antimicrobial efficacy of *Jasminum auriculatum* Vahl. Leaves. *Avicenna Journal of Phytomedicine*, May-Jun 2016, Vol. 6, No. 3.
41. Paramakrishnan, N., Jha, S., & Jayaram Kumar, K., Effect of carboxymethylation on physicochemical, micromeritics and release characteristics of *Kyllinga nemoralis* starch. *International Journal of Biological Macromolecules*, 2016, 92, 543-549.
42. Pradhan, K. K., Development of Validation Stability Indicating RP-HPLC Method for Estimation of Irbesartan in Bulk and Pharmaceutical Dosage Forms, Vol. 7(11), 2016, 1000-09.

43. Priya Ranjan, Mitra Mazumder, P., Parmaguru, R., Sasmal, D., Sinha, R. K., Aggarwal, Y., Das, J., Effect of Ethyl Acetate Fraction of the Aerial Parts of *Salvia splendens* Sellow ex Roem. and Schult on Diabetic Neuropathy. *Pharmacologia*, 2015, (8), 313 – 323. (DOI:10.5567/pharmacologia.2015.313.323 )
44. R. N. Gupta, Pharmacy Practitioner - A New Era for Patient Care *Pharmatimes* (Scopus), March'2016 page no. 19-20
45. Rishi Kumar, Parveen Kumar Goyal, Arun Mittal and Anima Pandey Evaluation of herbal formulation PACT for wound healing potential, *Der Pharmacia Lettre*, 2015, 7, 12, 89-93.
46. Samanta, R., Pattnaik, A. K., Pradhan, K. K., Mehta, B. K., Pattanayak, S. P., Banerjee, S., Wound Healing Activity of Silibinin in Mice, Vol 8, Issue 4, Oct-Dec, 2016, 298-302.
47. Sharma, R., Sharma, N., Parmar, R., Chatterjee, V., Kumar, A., Woehrl, N., Buck, V., Barhai, P. K., Nanocrystalline Diamond Films as A Protective Coating For Implantable Bio-devices. *Adv. Mat. Lett.* 2016, 7 (11), 903-909.
48. Singh, C., Sharma, P., Bal, T., Ghosh, M., Dubey, R., Das, S. Preparation and evaluation of Radiosensitizing agent Nimorazole in topical emulgel. *Der Pharmacia Lettre* 2015, 7(9), 132-142.
49. Sonali Biswas, Sunita Keshri, Sudipta Goswami, Jinu Isaac, Swastika Ganguly & Nikolai Perov (2016): Antibiotic loading and release studies of LSMO nanoparticles embedded in an acrylic polymer, *Phase Transitions*, DOI: 10.1080/01411594.2016.1156681
50. Sony Jacob K, Swastika Ganguly, Pravin Kumar, Raju Poddar & Anoop Kumar, Homology model, molecular dynamics simulation and novel pyrazole analogs design of *Candida albicans* CYP450 lanosterol 14 -demethylase, a target enzyme for antifungal therapy DOI:10.1080/07391102.2016.1185380
51. Swastika Ganguly, Sony Jacob K, Therapeutic outlook of pyrazole analogs: A mini review, *Mini Reviews in Medicinal Chemistry*, DOI: 10.2174/1389557516666151120115302
52. Timiri, A. K., Badavath, V. N., Sinha, B. N., Jayaprakash, V., Subasri, S., Vishwanathan, V., Velmurugan, D. Synthesis, spectral and crystal studies of 2-(4,6-diaminopyridin-2-ylthio)-N-m/p-tolyl/3,4-dimethylacetamides. *Form. Dev. Anal.* 2015, 1(1), 7-14.
53. Timiri, A. K., Sinha, B. N., Jayaprakash, V. Progress and prospects on DENV protease inhibitors. *Eur. J. Med. Chem.* 2016, 117, 125-143.
54. Timiri, A. K., Subasri, S., Kesharwani, M., Vishwanathan, V., Sinha, B. N., Velmurugan, D., Jayaprakash, V. Synthesis and Molecular modelling studies of novel sulphonamide derivatives as dengue virus 2 protease inhibitors. *Bioorg. Chem.* 2015, 62, 74-82.
55. Tripathi, A. S., Timiri, Ajay Kumar, Mitra Mazumder, P., Chandewar, A. V., Does glimepiride alter the pharmacokinetics of sildenafil citrate in diabetic nephropathy animals: investigating mechanism of interaction by molecular modeling studies. *Journal of Molecular Modeling*, 2015, 21, 1-10. (DOI 10.1007/s00894-015-2823-x)
56. Tripathi, A. S., Mitra Mazumder, P., & Chandewar, A. V., Sildenafil, A Phosphodiesterase Type 5 Inhibitor, Attenuates Diabetic Nephropathy in STZ Induced Diabetic Rats. *Journal of Basic and Clinical Physiology and Pharmacology*, 2016, 27(1), 57 – 62

57. VashishtDeepika, Pandey Anima, Kumar K. Jayaram "Physicochemical and release properties of carboxymethylated starches of Dioscorea from Jharkhand" International Journal of Biological Macromolecules, 2015, 0141-8130.
58. Yasmin, S., Jayaprakash, V. Design, in silico docking and predictive ADME properties of some thiazolidine-2,4-diones derivatives as PPAR modulators. Int. J. Pharm. Pharm. Sci. 2016, 8 (5), 143-150.

### **Published in International Proceedings**

1. Badavath, V. N., Baysal, I., Ucar, G., Sinha, B. N., Jayaprakash, V. Monoamine oxidase-A inhibitory activity of novel curcumin analogues. In the proceedings of International Multidisciplinary Symposium on Drug Research & Development, Anadolu University, Eskisehir, Turkey. 15-17<sup>th</sup> October 2015.

### **Published in National Proceedings**

1. Bhattacharjee, A., Timiri, A. K., Jayaprakash, V., Sinha, B. N. Small molecules containing imidazole scaffold as potential inhibitors of DENV2 NS2B-NS3 protease. In the proceedings of 67<sup>th</sup> Indian Pharmaceutical Congress, JSS College of Pharmacy, Mysuru, India. 19-21 December, 2015.
2. Ganta, N. M., Aparajay, P., Jayaprakash, V. Design, in-silico docking and predicative ADME parameters of pyronin B analogues against human respiratory syncytial virus small hydrophobic proteins. In the proceedings of National Level Symposium on Antiviral Research & Therapy (NLSART'2016), Pharmbit-Special Issue (NLSART'2016), Department of Pharmaceutical Sciences & Technology, Birla Institute of Technology, Mesra, Ranchi. 18-19<sup>th</sup> March, 2016.
3. Kumari, R., Sinha, B. N., Mohd Usman, M. S., Jayaprakash, V. High throughput virtual screening based discovery of chikungunya inhibitors. In the proceedings of National Level Symposium on Antiviral Research & Therapy (NLSART'2016), Pharmbit-Special Issue (NLSART'2016), Department of Pharmaceutical Sciences & Technology, Birla Institute of Technology, Mesra, Ranchi. 18-19<sup>th</sup> March, 2016.
4. Mohd Usman MS., Sinha, B. N., Jayaprakash, V., Ganta, N. M. Shape and electrostatic based discovery of CDK4 inhibitors: its in-vitro evaluation as anticancer agents. In the proceedings of National Level Symposium on Antiviral Research & Therapy (NLSART'2016), Pharmbit-Special Issue (NLSART'2016), Department of Pharmaceutical Sciences & Technology, Birla Institute of Technology, Mesra, Ranchi. 18-19<sup>th</sup> March, 2016.
5. Mohd Usman, M. S., Sinha, B. N., Jayaprakash, V., Kumari, R. High throuput virtual screening based discovery of Dengue protease inhibitor and in-silico ADMET calculation. In the proceedings of National Level Symposium on Antiviral Research & Therapy (NLSART'2016), Pharmbit-Special Issue (NLSART'2016), Department of Pharmaceutical Sciences & Technology, Birla Institute of Technology, Mesra, Ranchi. 18-19<sup>th</sup> March, 2016.
6. Pandit, R., Timiri, A. K., Jayaprakash, V., Sinha, B. N. Benzimidazole analogues as possible inhibitors NS2B-of DENV2 NS3 protease. In the proceedings of 67<sup>th</sup> Indian Pharmaceutical Congress, JSS College of Pharmacy, Mysuru, India. 19-21 December, 2015.

7. Shubham, S., Jayaprakash, V. Monoamine oxidase inhibition: A literature review on potent nucleus. In the proceedings of National Level Symposium on Antiviral Research & Therapy (NLSART'2016), Pharmbit-Special Issue (NLSART'2016), Department of Pharmaceutical Sciences & Technology, Birla Institute of Technology, Mesra, Ranchi. 18-19<sup>th</sup> March, 2016.
8. Yamin, S., Jayaprakash, V. In-silico design and ADMET prediction of some novel derivatives of 2,4 thiazolidinediones: a step towards development of powerful modulators of PPAR . In the proceedings of National Level Symposium on Antiviral Research & Therapy (NLSART'2016), Pharmbit-Special Issue (NLSART'2016), Department of Pharmaceutical Sciences & Technology, Birla Institute of Technology, Mesra, Ranchi. 18-19<sup>th</sup> March, 2016.
9. Bhattacharjee, A., Mishra, A. N., Ghosh, M. Purine Base Containing Small Molecules as Possible Potential Inhibitors of Herpes Simplex Virus-1 Thymidine Kinase, National Level Symposium on Antiviral Research and Therapy (NLSART' 2016) organized by Department of Pharmaceutical Sciences & Technology, Birla Institute of Technology, Mesra, Ranchi: March 18-19, 2016 (SART68)
10. Ghosh, M., Awasthi, P. "Antioxidant activity of the ethyl acetate extract of Oroxylum indicum leaves and its isolated compounds. 20th Annual Convention, APTICON-2015, Indore: Oct 9-11, 2015 (PD-07)
11. Ghosh, M.; Sinha, B. Central analgesic activity of Litsea polyantha Juss. bark extract. In Proceedings of the 19th Int. Electron. Conf. Synth. Org. Chem., 1-30 November 2015; Sciforum Electronic Conference Series, Vol. 19, 2015, b004
12. Kant, K., Murthy G. N., Behera, P. C., Lal, U. R., Ghosh, M. Molecular Docking & ADME-T Platforms for Exploring Pyrethroids as potential agents against Respiratory Syncytial Virus: A Comparative Study, National Level Symposium on Antiviral Research and Therapy (NLSART' 2016) organized by Department of Pharmaceutical Sciences & Technology, Birla Institute of Technology, Mesra, Ranchi: March 18-19, 2016 (SART57)
13. Kant, K.; Kumar, A.; Behera, P.; Rangra, N.; Lal, U.; Ghosh, M. Evaluation of in-silico anticancer potential of pyrethroids: a comparative molecular docking study. In Proceedings of the 19th Int. Electron. Conf. Synth. Org. Chem., 1-30 November 2015; Sciforum Electronic Conference Series, Vol. 19, 2015, e012
14. Naresh Kumar Rangra\*, Kishanta Kumar Pradhan, Subir Samanta, Molecular Docking Based In-Silico Approach for Screening of Lead Molecules Agents VP35 Ebola Virus, National Level Symposium on Antiviral Research and Therapy, 2016, 19.
15. Pal, P. P., Awasthi, P., Ghosh, M. "Docking studies of anti-cancer agents on estrogen receptor from Oroxylum indicum." 20th Annual Convention, APTICON-2015, Indore: Oct 9-11, 2015 (PB-20)
16. Pragya, P. P., Pradhan, S., Lembo, D., Ghosh, M. Studies on antiviral activities of Datura metel L. extracts, National Level Symposium on Antiviral Research and Therapy (NLSART' 2016) organized by Department of Pharmaceutical Sciences & Technology, Birla Institute of Technology, Mesra, Ranchi: March 18-19, 2016 (SART61)



## Books / Edited Books

1. Ghosh, M., Ganesh, S. M., Studies on Anticancer Agents from Natural Sources. The Tabernaemontana Divaricata (L.) R. Br. ex Roem. & Schult., GRIN Verlag GmbH, ISBN-10: 3668047588; ISBN-13: 978-3668047587
2. Ghosh, M., Sinha, B. N., Akhter, M., Studies on some semi-synthetic piperine analogous as Central Nervous System Depressants. GRIN Verlag GmbH, ISBN-10: 3656923892; ISBN-13: 978-3656923893
3. Ghosh, M., Pharmaceutical Regulatory Affairs (PRA): INTRODUCTION TO REGULATORY AFFAIRS (Module Book 1), Kindle Edition, PRANATI (Amazon Digital Services, Inc.), ASIN: B014DNO6OA
4. Ghosh, M., Pharmaceutical Regulatory Affairs (PRA): REGULATORY ACTS AND LAWS (Module Book 2), Kindle Edition, PRANATI (Amazon Digital Services, Inc.), ASIN: B014DMB60I
5. Sahu, A. N., Patra, A., Ghosh, M., Kumar, J., Plant Based Natural Products and Drug Discovery, Environmental & Health Research, SEDER, Varanasi, 17-23, ISBN-13: 978-81-909022-8-1

## Board of Studies (UG/PG)

Sl.No.	Name	
1	HOD/In-Charge	Chairman (Ex-Officio)
2	Dr. P.R.P. Verma	Professor (Internal) – Ex-Officio
3	Dr. B.N. Sinha	Professor and Head (Internal) – Ex-Officio
4	Dr. S. Samanta	Professor (Internal) – Ex-Officio
5	Dr. S. Jha	Professor (Internal) – Ex-Officio
6	Dr. R.N. Gupta	Professor (Internal) – Ex-Officio
7	Dr. (Ms.) S. Ganguly	Professor (Internal) – Ex-Officio
8	Dr. (Mrs.) P. M. Mazumder	Professor (Internal) – Ex-Officio
9	Dr. K. Jayaram Kumar	Professor (Internal) – Ex-Officio
10	Dr. (Mrs.) S.M. Verma	Professor (Internal) – Ex-Officio
11	Dr. Ashok Kr. Pattnaik	Associate Professor (Internal)
12	Dr. Manik	Assistant Professor (Internal)
13	Dr. G. Sarkhel (Dept. Of Chemical Engg. & Technology)	Professor & Head – Cognate Subject
14	Dr. Ashoke Sharon (Dept. Of Chemistry)	Associate Professor - Cognate Subject
External Member (Any two)		

S. No.	Name of Member, Designation, Institute/Company,	Full Address
1	Prof. (Dr.) B. Mishra, Professor, Dept. Pharmaceutics	IIT, BHU, Varanasi – 221 005
2	Prof. (Dr.) D. Pathak, Professor & Director	DIPSAR, New Delhi
3	Dr. Ajay Handa, Sr. Vice President	Wockardt Lab, Aurangabad
4	Dr. Arindam Mukhopadhyay, Dean	LCRA, Bangalore

### Departmental Academic Committee

S. No.	Name of Member	Designation (DAC/AC)
1	HOD/In-Charge	Chairman (Ex-Officio)
2	Dr. P.R.P. Verma	Professor
3	Dr. B.N. Sinha	Professor
4	Dr. S. Samanta	Professor
5	Dr. S.Jha	Professor
6	Dr. R.N. Gupta	Professor
7	Dr. (Ms.) S. Ganguly	Professor
8	Dr. (Mrs.) P. M. Mazumder	Professor
9	Dr. K. Jayaram Kumar	Professor
10	Dr. (Mrs.) S.M. Verma	Professor
11	Dr. Ashok Kr. Pattnaik	Associate Professor
12	Dr. Venkatesan J.	Associate Professor
13	Dr. Manik	Assistant Professor
14	Dr. Abhimanyu Dev	Assistant Professor
15	Dr. Shakti Prasad Pattanayak	Assistant Professor
16	Dr. (Mrs.) Usha Jha	Professor, Dept. Of Chemistry
17	Dr Kunal Mukhopadhyay	Professor, Dept. Of Bio Engg.

### Other important information

- Dr. R. N. Gupta was appointed Reviewer of Science Direct for Journal 'Colloids and Surfaces B: Biointerfaces'
- Nominated as Coordinator ( East Zone) of Association of Pharmaceutical Teachers of India
- Dr. R. N. Gupta nominated as Zonal Coordinator in 68th Indian Pharmaceutical Congress to be held in Dec.at Visakhapatnam
- Dr. R. N. Gupta felicitated by Indian Pharmaceutical Association in their Platinum Jubilee function for Ex-Vice President of IPA for 2008-2014



## Department of Physics



Physics Laboratory

The Department of Physics (previously known as Department of Applied Physics) since its inception in 1955 has played a pivotal role in the institute. A gamut of very motivated, well qualified and talented faculty members are actively engaged in teaching as well as research in areas of theoretical and experimental physics and technology. They have, to their credit, numerous research publications and several R&D projects. Faculty members have been awarded international fellowships from universities abroad, received BOYSCAST fellowship awarded by DST, Government of India and associate-ship of ICTP, Italy.

The vision of the Department is to achieve excellence in undergraduate and postgraduate education as well as in research for scholarly inquiry and development of new knowledge. The department is presently offering 5 year integrated M.Sc in Physics and M.Sc in physics. The prime objectives of the offered programmes are, (i) To impart high quality education in a vibrant academic ambience, (ii) Prepare students to take up challenges as researchers in academic and R & D organizations, (iii) Train students for participation in multidimensional academic activities, and (iv) Impart scientific knowledge and inculcate human values.

The department has well equipped R&D laboratories having several state-of-the art systems viz., RF magnetron sputtering, Plasma Enhanced Chemical Vapour Deposition (PECVD), thermal CVD, RF/DC magnetron co-sputtering, plasma nitriding, anodic vacuum arc deposition, polishing setup, Raman spectrometer, nanoindenter, solar simulator, D33 meter, PE loop-tracer, UV Visible Spectrometer, 10K cryostat etc.

The department has been executing R&D projects funded by the UGC, DST, AICTE, BRNS, ISRO, ARDB, DRDO, NRB and CSIR. In addition, the department has also completed an Indo-German and two

Indo-Russian projects. The Department has received “Fund for Improvement in Science & Technology Infrastructure (FIST)” from DST, New Delhi, as well as Special Assistance Programme (SAP) from UGC.

The current broad areas of research in the department include nanotechnology, condensed matter physics and photonics. Specific sub-areas are plasma processing of materials, carbon nanotubes, diamond-like carbon (DLC) films, solar cells, transparent conductive oxides, colossal magneto-resistive materials, dilute magnetic semiconductors, piezoelectric materials, electronic composite materials, magnetic composites, solitons and light propagation, optical communication, photonic crystal fibers, quantum wells etc.

During last one year, the department has completed one project, and received one new project while 7 projects are ongoing. During last one year the department has published 31 research papers in international journals and presented two research papers in different conferences and workshops.

### **Sponsored projects**

#### **Project Sanctioned**

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount (Rs)	Duration of the Project
1	Development of Bismuth Based Materials for Piezoelectric Microsystem in Robotic Applications	S K rout (PI) Ela sinha (CoPI) Babita Tiwari (PC)	BRNS, Mumbai	13-02 -16	35,00,000/-	3 years

#### **Ongoing Projects**

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	In-situ spectroscopic investigation of the growth mechanism of nitinol shape memory alloy (SMA) thin films and its correlation with mechanical, tribological, chemical and biological reliability of the films	PI: Dr. I.Banerjee	DST	April 2014	23.12 Lakhs	3 yrs.



S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
2.	Transferred Arc Plasma Modeling and Synthesis of Iron Oxide Nanoparticles for Biomedical Applications	PI: Dr. I.Banerjee CO-PI: Dr. S.K. Mahapatra	BRNS	April 2015	23.12 Lakhs	3 yrs
5.	Impact of Meteorological model grid and parameter change in a Chemical Transport Model in terms of aerosols concentration and distribution	Dr. Nishi Srivastava	SERB	Nov2013	Rs.20,50,000	3 Years
6.	Development of High Piezoelectric Bismuth Layered Perovskites Materials for Transducer Applications	S K Rout	NRB New Delhi	06-Sep -14	Rs.15,90,000/-	2 years
7.	Investigation on Photoluminescence and microwave dielectric properties of some tungstates and molybdates prepared by microwave assisted solid state reaction route	S K Rout	DST, India	06-May -13	Rs.24,00,000/-	3 years

### Projects Completed

S. No.	Project Title	PI / Co- PI/ Collaborator, if any	Funding Agency	Date of Sanction	Sanctioned Amount	Date of completion of the Project
1	Studies on microwave dielectric ceramics and their device applications.	PI: Dr. (Mrs.) S. Keshri CoPI: Dr. N. Gupta Dr. V. R. Gupta	DST	11/06/ 2013	31.72 Lacs	10/06/2016



Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S. No.	Name of the Faculty	Title of the Conference/Seminar	Funding Agency	Organizers	Venue	Date
2	Dr. S. Keshri	National Conference on Improvised Plasma Technologies for Nanomaterials Processing and Applications (NCIPT - 2016) (Invited talk).	Sponsored	BIT, Deoghar Extension Centre	Deoghar, India	25-26 Feb, 2016
3	Dr. S. Keshri	Third International Conference on Nanostructured Materials and Nanocomposites (ICNM -2014), (Invited talk).	TEQIP	HCST	Farah, Mathura, India	12th -14th Dec. 2015
4	Dr. S. Keshri	Asia-Pacific Conference on Engineering and Applied Science (Oral talk)	DST, CICS & BIT	APCEAS	Osaka, Japan	25-27 Aug. 2015.
5	Dr. Nishi Srivastava	National conference on Advancements in Applications of Remote Sensing and Geospatial Technology (AARSGT-2016),		Remotesensing	B.I.T.-Mesra	May 19-21, 2016
6	Dr. Nishi Srivastava	Recent Advances In Civil And Environmental Engineering (RACEE-2016)		Department of Civil and Environmental Engineering	B.I.T.-Mesra	February 25-26, 2016
7	S K Rout	Workshop on Thermal Analysis of Materials	TEQIP -II	IIT, Hyderabad.	IIT, Hyderabad	14.12.2015 to 19.12.2015

## **Publications**

### **Published in International Journals**

1. Nitu Borgohain, Milivoj Belic, Swapan Konar; Infrared supercontinuum generation in multiple quantum well nanostructures”, J. Optics 18, 115001 (2016)
2. Nitu Borgohain and S. Konar; The effects of control field detuning on the modulation instability in a three-level quantum well system; Journal of Applied Physics 119, 213103 (2016).
3. Mohit Sharma and S.Konar; Broadband supercontinuum generation in lead-silicate photonic crystal fibers employing optical pulses of 50 W peak power; Optics Communications 380, 310–319(2016).
4. NituBorgohain, MohitSharmaandS.Konar; Broadbandsupercontinuumgenerationinphotonic crystal fibers using cosh-Gaussian pulses at 835 nm wavelength; Optik 127, 1630-1634 (2016).
5. Mohit Sharma and Swapan Konar; Three octave spanning supercontinuum by red-shifted dispersive wave in photonic crystal fibers; Journal of Modern Optics 63, 501–510 (2016).
6. Nitu Borgohain, Milivoj Belic and S.Konar; Giant parabolic nonlinearities at infrared in lambda type three level multiple quantum wells, Annals of Physics 361, 107-119(2015)
7. Noushin Asif, Anjan Biswas, Z. Jovanoski and S.Konar; Interaction of Spatially Separated Oscillating Solitons in Biased Two-Photon Photorefractive Materials; Journal of Modern Optics 62, 1–10 (2015).
8. Mohit Sharma, Swapan Konar, Kaisar R. Khan; Supercontinuum generation in highly nonlinear hexagonal photonic crystal fiber at very low power, Journal of Nanophotonics 9, 093073-8 (2015)
9. S. Konar and Nitu Borgohain, Self-phase modulation dominated supercontinuum generation employing cosh-Gaussian pulses in photonic crystal fibers; Journal of Nanophotonics 9, 093098-1 (2015)
10. S. Konar and Vyacheslav A. Trofimov; Some Aspects of Optical Spatial Solitons in Photorefractive Media and Their Important Applications; Pramana-journal of Physics 85, 975–992 (2015).
11. Ruplata Kumari, Mohit Sharma and S. Konar; Lead silicate fiber with small dispersion and large nonlinearity at telecommunication wavelength; Optik 126, 2659–2662(2015)
12. Parthasarathi Mohanty, Sunita Keshri, Manish Kumar Sinha, Vibha Rani Gupta, Study on microwave dielectric properties of corundum type ( $X=0-0.6$ ) ceramics for designing a microwave low pass filter, Ceramics International (Elsevier Publication), 2016, 42, Pages 5911–5920.
13. Sunita Keshri, Sonali Biswas and Piotr Wisniewski, Studies on characteristic properties of superparamagnetic  $La_{0.67}Sr_{0.33-x}K_xMnO_3$  nanoparticles, Journal of Alloys and Compounds (Elsevier Publication) 2016, 656, 245-252.
14. S. Gopikishan, I. Banerjee, S. K. Mahapatra, RP and RQA analysis for floating potential fluctuations in a dc magnetron sputtering plasma, Fluctuation and Noise Letters, 16, 50011 (2016)

15. A.B. Panda, I. Banerjee, S. Gopikishan, S. K. Mahapatra, A. K. Das Bactericidal property of reactive magnetron sputtered Ag-TiO<sub>2</sub> composite thin films,, S S International Journal for Multidisciplinary research, Vol 1 Issue 6, pp1, (2015)
16. S. Gopikishan I. Banerjee, S. K. Mahapatra Experimental investigation of quasi periodic-chaotic-quasi periodic-chaotic transition in a DC magnetron sputtering plasma, Physics of Plasmas, 22, 082121 (2015)
17. Banerjee, Indrani ; Harris, Paul; Salimian, Ali; Ray, Asim Graphene oxide thin films for resistive memory switches,, IET Circuit Devices and Systems, (2015)
18. Tianyi Li, Trupti Patel, Indrani Banerjee, Ruth Pearce-Hill, John Gallop, Ling Hao, Asim K. Ray Plasma treated graphene oxide films: structural and electrical studies,, J Mater Sci: Mater Electron (2015) 26:4810-4815
19. Nishi Srivastava, S.K. Satheesh, Nadège Blond & K. Krishna Moorthy (2016) Anthropogenic aerosol fraction over the Indian region: model simulations versus multi-satellite data analysis, International Journal of Remote Sensing, 37:4, 782-804, DOI:10.1080/01431161.2015.1136445 (Impact Factor: 1.64)
20. S. K. Ghosh and S. K. Rout, Induced instability in local structure and ferroelectric polarization of rare earth modified BZT relaxor ceramics; Current Applied Physics, 16 (2016) 989-1000.
21. T. Badapanda, S.Parida, S.K.Rout, Structural and optical properties of dysprosium doped barium zirconium titanate ceramic, Materials Letters, 185 (2016) 415-419.
22. M. Reddy Prakash, S.K. Rout, AvishekSatapathy, T. P. Sinha, S. MdSariful,Dielectric and ferroelectric properties of samarium substituted BaBi<sub>4</sub>Ti<sub>4</sub>O<sub>15</sub>Aurivillius oxides, Ceramic International, 42 (2016) 8798-8803
23. Vidhi Chauhan, S. K. Ghosh, Ali Hussain, S. K. Rout Influence of niobium substitution on structural and opto-electrical properties of BNKT piezoelectric ceramics,, J. Alloys and Compds, 674 (2016) 413-424.
24. Kumar Mohit, Vibha Rani Gupta and S K Rout, Two Element Magneto-Dielectric Resonator Antenna for Angle Diversity, Frequenz, 70 (5-6) (2016) 203-210.
25. Kumar Mohit, V R Gupta and S K Rout, A CPW fed quad directional stacked magneto-dielectric resonator antenna for angle diversity application, Microwave and Optical Technology Letters, 58(1), (2016) 61-64.
26. Md Shahid, Deep Shikha, Sanjay Kumar Sinha, Corrosion and Thrombogenicity of Argon implanted HAP/alumina, Vol 55 (6), (2016) 54-58, Materials Performance (SCI)
27. Pankaj Kumar Singh, Arbind Kumar, Sanjay Kumar Sinha, Aman Aggarwal, Gajendra Prasad Singh, "Improvement in surface properties with TiN thin film coating on plasma nitride austenitic 316 stainless steel,"International Journal of Engineering and Technology (e-ISSN : 0975-4024), Vol 8 No 1 Feb-Mar 2016, 350-356

## Published in International Proceedings

1. Studies on  $La_{0.67}Sr_{0.33-x}K_xMnO_3$  Colossal Magnetoresistive Nanoparticles, in the proceeding of Asia-Pacific Conference on Engineering and Applied Science, held in Osaka, Japan during 25-27 Aug. 2015

## Published in National Proceedings

1. Studies on Ar+ Ion Implanted Tungsten Oxide Films, Sunita Keshri and Ashutosh Kumar, in the proceeding of National Conference on Improvised Plasma Technologies for Nanomaterials Processing and Applications (NCIPT - 2016), held at Birla Institute of Technology, Deoghar Extension Centre, 25-26 Feb, 2016.
2. Gas Sensing Behaviours of Ar+ and N+ Ion Implanted Tungsten Oxide Films, Sunita Keshri and Ashutosh Kumar, in the proceeding of Third International Conference on Nanostructured Materials and Nanocomposites (ICNM -2015), held at HCST, Farrah, Mathura during 12th –14th Dec. 2015.

## Book:

### Chapter(s) in Edited Book

1. Chapter21: Climate Change Mitigation: Collective Efforts and Responsibly, page no. 427-439, Handbook of Research on Climate Change Impact on Health and Environmental Sustainability, Information Science Reference (an imprint of IGI Global) 701 E. Chocolate Avenue Hershey PA, USA 17033, ISBN 978-1-4666-8814-8 (hardcover) -- ISBN 978-1-4666-8815-5 (ebook)

## Award / Recognition Bestowed on Faculty Member (State / National / International )

S. No.	Name of the Faculty	Title of the Award/ Honours	Organisation	Year / Duration
1	Dr. S. Keshri	Ph. D. Examiner	R. T. M. Nagpur University	2016
2	Dr. Nishi Srivastava	SERB-Overseas Post-Doctoral Fellowship 2016	SERB	1 Year
3	Dr S K Sinha	Reviewer of Applied Surface Science		
4	Dr S K Sinha	Reviewer of Nature Publishing Journal: Scientific Reports		

## **Board of Studies(UG/PG)**

### **Internal Member**

HOD, Ex-Officio	Chairman
Dr S Konar	Member
Dr S Keshri	Member
Dr S K Sinha	Member
Dr S K Rout	Member
Dr Nishi Srivastava	Member
Dr Usha Jha	Member
Dr S K Ghorai	Member

### **External Member**

1. Dr Anil Kumar Nirala, Professor, Department of Physics, Indian School of Mines, Dhanbad
2. Dr. B. S. Murty, Professor, Dept. of Materials and Materials Engineering, IIT, Madras, Chennai-600036, India
3. Dr. V. Subramanian, Professor, Dept. of Physics, IIT Madras, Chennai-600036
4. Dr. P K Datta, Professor, Department of Physics, Indian Institute of Technology, Kharagpur - 721 302, India
5. Dr. Prasanta K. Panigrahi, Professor, Department of Physical Sciences, Indian Institute of Science Education Research Kolkata, Mohanpur - 741 246, West Bengal, India
6. Dr.(Mrs.)S.K.Mishra, Scientist EII, MST Division, National Metallurgical Laboratory Jamshedpur, India-831007

## **Departmental Academic Committee**

Dr S Konar  
Dr (Mrs) S Keshri  
Dr S K Sinha  
Dr S K Rout  
Dr (Mrs) I Banerjee  
Dr Kingshuk Bose  
Dr Nishi Srivastava  
Dr S K Ghorai  
Dr (Mrs) Usha Jha



## Department of Production Engineering

Since its inception in 1964, The Department of Production Engineering has been imparting quality education to under graduate and post graduate students by training them to meet the demands of the manufacturing industry. The department has established links with the industry, R&D organizations, consultancy organizations and academic institutes of the nearby area in furtherance of the cause of manufacturing engineering. The department sees itself as the pathfinder of emerging technologies and techniques in the area of production engineering, develops students to be technologically and managerially sound to meet the challenges of the rapidly changing manufacturing scenario.

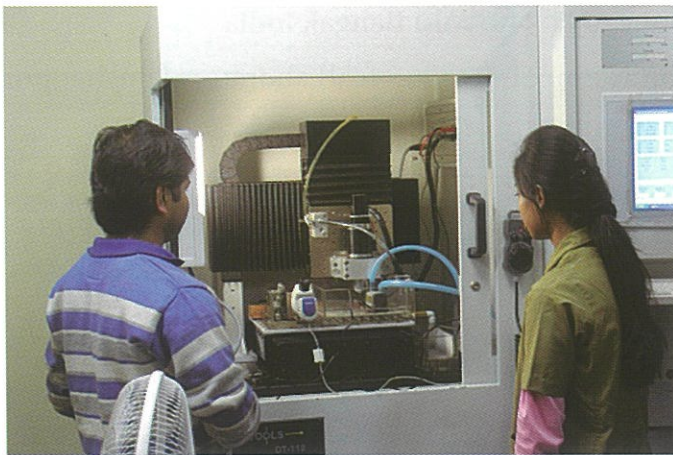
The major long- range goal of the Department is to develop itself as a centre of excellence in teaching, consultancy and research in various aspects of Production Engineering. An increasing number of institute-industry collaborations are shaping through sandwich training programmes, short term courses, workshops, and live projects for UG, PG and Doctor Level. In this respect, the Department has been able to establish well-equipped laboratories, upgrades the syllabi on regular basis and carries out its teaching and academic programme through its qualified and experienced faculty and visiting professors. Both our graduates and post-graduates have been doing well in industry and other Universities of higher learning in India and abroad.

### Programme Offered:

B.E. (Production Engineering)

M.E. (Automated Manufacturing System)

Ph.D.



Hybrid Micro Machining Center



5 - Axis Cnc Machining Center

## SPONSORED PROJECTS

### Ongoing Projects

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Microwave assisted welding	Dr. Vinay Sharma B. K. Singh Arpita Roychoudhary	UGC	01.04.2013	5.55	3 Years
2.	FIST-II	Dr. Vinay Sharma	DST	2007	110 lakhs	5 years

Conferences/ seminars/ workshops/ staff development programmes/ orientation programme/ refresher course etc. Attended:

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Organised by	Venue	Date, Month, Year
1.	Dr. Vijay Pandey	2 <sup>nd</sup> International Conference on Advancement and recent innovations in mechanical, production and industrial engineering	Department of Mechanical Engineering, I.T.S. Engineering college, Greater Noida.	I.T.S., Greater Noida	April 15-16, 2016
2.	Dr. Sanjay Kumar Jha	2nd International Conference on Advancement and recent innovations in mechanical, production and industrial engineering	Department of Mechanical Engineering, I.T.S. Engineering college, Greater Noida.	I.T.S., Greater Noida	April 15-16, 2016
3.	Dr. L. N. Pattanaik	National Seminar on Indigenous development and manufacturing of rolling mills (IDMR)	MECON, Ranchi.	MECON, Ranchi.	November 24-25, 2015
4.	Dr. Rajeev Agrawal	Decision Making Models in Operations & Supply Chain Management	Dept. of Management Studies, Indian Institute of Technology Delhi	Indian Institute of Technology Delhi	15-19 Feb. 2016.
5.	Dr. Somak Datta	One week workshop on Manufacturing of Advanced materials (MAM 2016)	Department of Mechanical engineering, VNIT Nagpur	VNIT Nagpur	27 June – 1 July 2016.

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Organised by	Venue	Date, Month, Year
6.	Dr. S.C. Srivastava	One week Workshop on "Manufacturing of Advanced Materials"(MAM-2016),	Department of Mechanical Engineering, VNIT, Nagpur	VNIT, Nagpur	June 27 <sup>th</sup> -1 <sup>st</sup> July 2016.
7.	Dr. J. Ghose	International Conference of Computational Intelligence (ICCI),,	Department of Computer Science and Engineering, BIT, Mesra	BIT, Mesra	10th -11th December, 2015.

## Publications

### Published in International Journals

1. Vijay Pandey, Puneet Saini, Joyjeet Ghose, Product development using modular design structure matrix and quality function deployment, International Journal of Production Research and Management, STM Publishers, Issue 5, Vol. 3, pp 5-19, 2015, ISSN: 2347 – 9930.
2. Randhir Kumar and Vijay Pandey, Job shop scheduling with alternate process plan by using genetic algorithm, International Journal of Research in advent technology, Issue 3, Vol. 9, pp. 91-98, 2015, ISSN: 2321-9637.
3. Mohd. Hassan, Sanjay Kumar Jha, Vijay Pandey, Metal foam by powder metallurgy routes: A review paper, International Journal of Production Research and Management, STM Publishers, Issue 6, Vol. 1, pp 9-15, 2016, ISSN: 2347 – 9930.
4. L. N. Pattanaik and Gaurav Yadav, (2015), "Decision Support model for Automated Railway Level Crossing System using Fuzzy Logic Control", Procedia Computer Science (Elsevier), Vol 48, pp.73-76.(ISSN 1877-0509).
5. L. N. Pattanaik and Himanshu Agarwal (2015), "Magnetorheological Finishing (MRF) of a Freeform Non-magnetic Work Material", Journal for Manufacturing Science and Production, Vol 15 (ISSN 2191-0375) De Gruyter.
6. Rajeev Kant, L. N. Pattanaik and V. Pandey (2015), "Framework for strategic implementation of cellular manufacturing in lean production environment", Journal of Manufacturing Technology Research, Vol 6, No. 3-4 (ISSN:1943-8095) Scopus Indexed.
7. Neha Verma, Vinay Sharma, "Energy value stream mapping a tool to develop green manufacturing" Procedia engineering, Science Direct, Elsevier (2016) 149 526-534
8. Subodh Kumar, Ajit Kumar Singh Choudhary, Vinay Sharma, "Optimization of process parameters in direct metal deposition techniques using Taguchi methods", (2016) international journal of Mechanical Engineering and Technology, Volume 7, issue 3
9. Arpita Roychoudhury, Vinay Sharma and B. K. Singh, "Microwave Welding: A New Tool For - Welding of Thermoplastics" Journal of Mechatronics and Intelligent Manufacturing, (2015) Volume 3, Number 3-4

10. Manoharan. P. K, Jha. S. K and Singh. B. K, " Analysis Of Load And Gradient Effect On Hand Force Responses During Brick Carrying In A Brick Kiln", International Journal of Applied Engineering Research, PP.35332-35336, Volume 10, No. 15, August 2015, ISSN: 0973-4562; Publisher: Research India Publications
11. Prasad. K. D, Jha. S. K and Singh. R. K, "Implementation Of Quality Improvement Tools In Brassware Manufacturing Unit To Improve Quality & Enhance Productivity", International Journal of Applied Engineering Research, PP. 3580-3590, Volume 11, No. 5, March 2016, ISSN: 0973-4562; Publisher: Research India Publications.
12. R K Singh, 2016, Facility Location Selection Using MAUT and CCSD Method, International Journal of Science, Engineering and Technology Research (IJSETR), Volume 5, Issue 2, pp 405-408.
13. SK Tiwari, RK Singh, SC Srivastava, 2016, Optimisation of green sand casting process parameters for enhancing quality of mild steel castings, International Journal of Productivity and Quality Management 17 (2), 127-141
14. R. K. Singh, 2016, Facility Location Selection Using Extent Fuzzy AHP, International Advanced Research Journal in Science, Engineering and Technology Vol. 3, Issue 2, pp. 47-51.
15. R. K. Singh, A MCDM Approach for Measuring Project Complexity, International Journal of Engineering and Management Research, Volume-6, Issue-1, January-February-2016, Page Number: 294-302.
16. SK Tiwari, RK Singh, SC Srivastava, Reduction of Reworks in Green Sand Casting Process: A Six Sigma Prospective, International Journal of Applied Engineering Research (IJAER), Volume 11, Number 5 (2016) pp 3141-3150.
17. N. Muralidaran, S.C.Srivastava, N.L.Sarda, "Ever changing Business and Technology Landscape: Transformation Alternatives" published in the journal International Journal of Advances in Computational Engineering and Networking (IJACEN) Vol. 3, No. 1, 2015 ISSN/ISBN No. 2320-2106 SJIF Impact factor 2.849.
18. N. Muralidaran, S.C.Srivastava, N.L.Sarda, "LFDS: Scalable and High Performance Logging for Mission critical Real Time Applications", IJSEIA, Australia (Scopus Index Journal), pp. 13-28, Vol. 9, No. 6, 2015, ISSN/ISBN No. 1738-9984.
19. N. Muralidaran, S.C.Srivastava, N.L.Sarda, "Implementation insight for High Performance Messaging Solution", International Journal of Computer Sciences and Engineering, pp. 165-174, Vol. 3, No, 5, 2015 ISSN/ISBN No.2347-2693 SJIF Impact factor 2.162.
20. N. Muralidaran, S.C.Srivastava, N.L.Sarda, "Lean and efficient Business Tier for Performance Scaling", International Journal of Computer Applications pp. 31-40, Vol. 118, No. 7, 2015 New York, USA ISSN/ISBN No 0975 – 8887 IJCA Impact factor 0.715.
21. Shamim Haidar, Sudipta Roy, Joyjeet Ghose. Software Simulation for Mechanical Properties of Aluminium MMC Foam. American Journal of Materials Synthesis and Processing. Vol. 1, No. 1, 2016, pp. 1-9. doi: 10.11648/j.ajmsp.20160101.11
22. Md Obaidullah Ansari, Joyjeet Ghose, Rajshree Samantray. Automatic Mould width Adjustments System of Slab Caster during Casting. Discovery, 2015, 45(209), 127-131



23. Haidar Shamim, Ghose, J and Sutradhar G., 2015, Synthesis and Compressive Characterization of Aluminium- SiCp Composite Foam by Stir - casting Technique Using Dual Foaming Agent, International Journal of Advanced Information Science and Technology (IJAIST), ISSN:2319:2682, Vol.36, No.36, pp 1- 6, April 2015
24. Md Obaidullah Ansari, Rajashree Samantray, Joyjeet Ghose, Neural Network Based Breakout Prediction System in Continuous Casting Shop, Applied Mechanics and Materials Vols. 813-814 (2015)pp550-556,ISBN-13:978-3-03835-664-6,doi:10.4028/www.scientific.net/AMM.813-814.550

### **Published in International Proceedings**

1. Rajeev Kant, Vijay Pandey, L.N. Pattanaik, Lean, Agile & Leagile Supply Chain: A Comparative Study, Proceeding of 2nd International Conference on Advancement and recent innovations in mechanical, production and industrial engineering, Department of Mechanical Engineering, I.T.S. Engineering college, Greater Noida, ELK Asia Pacific Journals – Special Issue, Vol. 1, pp. 102-106, 15-16 April, 2016, ISBN: 978-81-930411-8-5.
2. Mohd. Hassan, Sanjay Kumar Jha, Vijay Pandey, Analysis and Optimization of Parameters in Submerged Arc Welding Process using Taguchi Methods and Regression Analysis, Proceeding of 2nd International Conference on Advancement and recent innovations in mechanical, production and industrial engineering, Department of Mechanical Engineering, I.T.S. Engineering college, Greater Noida, ELK Asia Pacific Journals – Special Issue, Vol. 2, pp. 173-177, 15-16 April, 2016, ISBN: 978-81-930411-8-5.
3. Mohd. Hassan, Sanjay Kumar Jha, Vijay Pandey, Submerged Arc Welding: A Review Paper, Proceeding of 2nd International Conference on Advancement and recent innovations in mechanical, production and industrial engineering, Department of Mechanical Engineering, I.T.S. Engineering college, Greater Noida, ELK Asia Pacific Journals – Special Issue, Vol. 2, pp. 102-106, 15-16 April, 2016, ISBN: 978-81-930411-8-5.
4. L.N.Pattanaik, Rajeev Agrawal and Lakshmi Kumari, (2016), "Model of a fuzzy automation system for a steel wire roll mill", Proceeding of 3rd IEEE International Conference on Recent Advances in Information Technology, RAIT-2016, March 3-5, ISM Dhanbad. ISBN 978-1-4799-8578-4.
5. Rajeev Kant, V. Pandey and L. N. Pattanaik (2015), "An NSGA-II based approach for optimization of reconfigurable cellular manufacturing system", presented in International Conference on Computational Intelligence, 10-11 December, BIT-Mesra, Ranchi, India.
6. Rajeev Agrawal, Satyajit Mahato & Amit Rai Dixit, "Process excellence in IT sector in an emerging economic scenario", 3rd IEEE International Conference on Recent Advances in Information Technology (RAIT-2016), during March 03-05, 2016, at Indian School of Mines, Dhanbad, India. ISBN: 978-1-4799-8579-1/16, IEEE Explore, DOI: 10.1109/RAIT.2016.7507973, Page(s):636 – 640,
7. Nitesh Kumar, Binay Kumar, Lokesh C Pathak, (2015) "Preparation and mechanical properties of sintered ZRB2-Graphite composites by Spark Plasma sintering (SPS) method" ELK Asia Pacific Journals-Special Issue 2015 ISBN- 978-81-930411-4-7.



## **Published in National Proceedings**

1. L.N. Pattanaik, Rajeev Agrawal & Lakshmi Kumari, "Autonomation : Next Generation Automated Manufacturing in Rolling Mill", National Seminar on Indigenous Development and Manufacturing of rolling Mills A Make in India Approach, Organised by Jharkhand state Centre, Institution of Engineers (I) and MECON Limited, Ranchi, 24-25th novemner, 2015

## **BOOKS**

### **Book**

1. S.C. Srivastava, Umesh Chandra and S.Kumar, "A Textbook of Metrology & Measurement", Published by Axiom Books, Agra, ISBN:978-93-83229-91-8, July- Dec. 2015.

### **Book chapters**

1. L.N. Pattanaik, Rajeev Agrawal & Lakshmi Kumari, "Autonomation : Next Generation Automated Manufacturing in Rolling Mill", National Seminar on Indigenous Development and Manufacturing of rolling Mills A Make in India Approach, Organised by Jharkhand state Centre, Institution of Engineers (I) and MECON Limited, Ranchi, 24-25th novemner, 2015.
2. Rajeev Agrawal, Abhinav Goyal, Book chapter's entitled "Optimizing the Warehouse Location, Using Differential Evolution, in order to reduce the Overall Freight Cost". Supply Chain Management: Applications for Manufacturing and Service Industries, ISBN: 978-1-63484-987-6, Nova Science Publishers Inc., Page(s):183-202, 2016.

### **Books edited**

1. Dr. Rajeev Agrawal, Dr. D.K. Tripathy, Dr. G. S. Dangyach, & Dr. J. Ramkumar, Annual Technical Volume of Production Engineering Division board, Theme: Futuristic Manufacturing for equitable development of India, Published by Institution of Engineers India, Vol. 1, 2016

## **BOARD OF STUDIES (UG/PG)**

INTERNAL MEMBER		
S. No.	NAME	DESIGNATION, INSTITUTE/COMPANY, FULL ADDRESS
i.	HOD/In-Charge	Chairman (Ex-Officio)
ii.	Dr. Vinay Sharma	Professor
iii.	Dr. Bijay Kumar Singh	Professor
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v.	Dr. Joyjeet Ghose	Associate Professor
vi.	Dr. Arbind Kumar- 1	Professor, Mechanical
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viii.	Mr. Kapildeo Prasad	Assistant Professor, Production Engineering, Patna off centre
ix.	Dr. Bappa Acherjee	Assistant Professor, Production Engineering, BIT Deoghar off centre
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iv.	Dr. Niranjan Kumar Singh Professor	Department of Forge Technology, National Institute of Foundry & Forge Technology (NIFFT), Hatia - 834003, Ranchi, Jharkhand Mobile: +91-9431356823 Email: niranjanksingh@rediffmail.com
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vi.	Mr. Rana S Chakraborty DGM, (Alumni of Mechanical 1981-85)	DGM, In-charge, Corporate Services, MECON Ltd Ranchi- 834002 Mobile: +91-9431706979 Email: y2710@yahoo.com
vii.	Mr. Nitin Kumar, Deputy Manager (Alumni of Prod. Department, 2005-2009)	Powertrain Testing Design Development & Simulation Dept. Research and Development, Maruti Suzuki India Ltd., Gurgaon.Haryana. Mobile: +91-965434418 Email: nitin_04@yahoo.co.in

## DEPARTMENTAL ACADEMIC COMMITTEE

HEAD OF THE DEPARTMENT	-	Chairman
Dr. B. K. Singh, Professor	-	Member
Dr. Vinay Sharma, Professor	-	Member

Dr. S. K. Jha,, Associate Professor	-	Member
Dr. S. C. Srivastava, Associate Professor	-	Member
Dr. Joyjeet Ghose, Associate Professor	-	Member
Dr. Rajeev Agrawal, Assistant Professor	-	Member
Dr. Somak Datta, Assistant Professor	-	Member
Dr. Arbind Kumar Professor (Mech)	-	Member (Allied Department)
Dr. R. C. Jha, Professor (EEE)	-	Member (Allied Department)

### **Other Important Information**

#### **DEPARTMENTAL POLICY COMMITTEE**

Dr. B. K. Singh

Dr. Vinay Sharma

Dr. S. K. Jha

Dr. Joyjeet Ghose

Mr. Binay Kumar

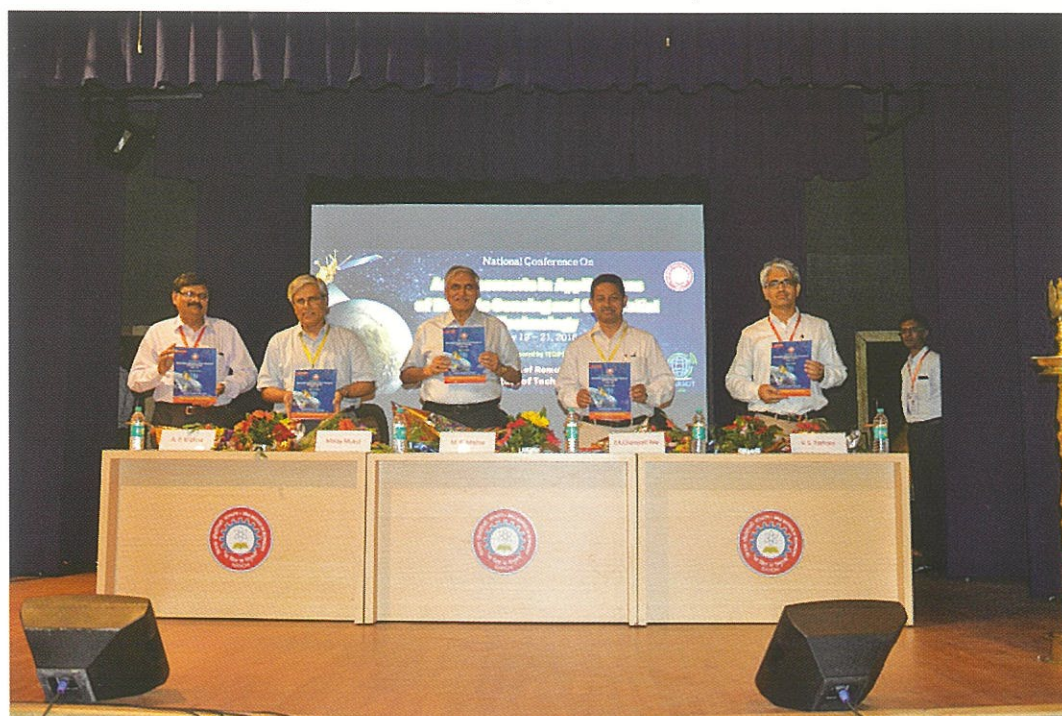
### **New Equipment / Software**

Induction Furnace, Stir Casting, NX software

## Department of Remote Sensing



Release of the Training Manual by the Vice-Chancellor and other dignitaries during the inauguration (26 November 2015) of International Workshop on "Time-Series Satellite Data Processing for understanding Space-Time Dynamics"



Release of the Compendium of abstracts by the Vice-Chancellor and other dignitaries during the inauguration (19 May 2016) of National Conference on "Advancements in Applications of Remote Sensing and Geospatial Technology (AARSGT-2016)"



Department of Remote Sensing was established in the year 1997 with an aim to meet the increasing demand of qualified human resources in this rapidly developing field. Application of Remote Sensing/ Geo-informatics techniques for various necessities such as resources evaluation, environmental monitoring and land use/land cover mapping etc., has grown considerably during the last few decades and RS data products as well as GIS/GPS are increasingly being used for plan formulation at all levels. This department strives to contribute in the building of indigenous capacities for the development and utilization of space science and technology. Availability of remote sensing (RS) data with varied resolutions in digital forms has increased the scope of identifying, mapping, monitoring, classifying and evaluating different forms of renewable and non-renewable earth resources using multi-spectral, multi scanner and multi-temporal data products. The benefits of space technology, both direct and indirect, have introduced new dimensions into the study and understanding of Earth system processes and improving the quality of life. This is now a FIST-DST sponsored Department and is also supported by UGC - SAP (Special Assistance Programme) as well as Technical Education Quality Improvement Programme (TEQIP). The Department offers highly amicable teaching-learning ambience and research environment, with modern computers, equipments and RS&GIS softwares. This Department has been a partner in national and international collaborations and projects.

### **Programmes offered**

M.Tech (Remote Sensing) – 2 Years/4 Semesters duration – 18 Seats

M.Sc (Geo-informatics) – 2 Years/4 Semesters duration – 20 Seats

Ph.D (Full time and Part time) – Admission held twice in a year (Monsoon and Spring Semesters)

### **Facilities/equipments available**

Digital Image Processing (DIP) Laboratory

Geographical Information System (GIS) Laboratory

Digital Photogrammetry Laboratory

Global Positioning Systems (GPS) & Differential GPS

Photogrammetry Laboratory with Stereoscopes

Ground Truth Radiometer (GTR)

GPS Enabled Digital Camera

A0 Size Scanner/Plotter

Other essential lab as well as field implements



## Sponsored Projects

### Ongoing Projects

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount (Lakhs)	Duration of the Project
1	IWMP, Kanke, Ranchi	Dr. T. Ghosh, Dr. G. Pathak, Dr. A.P. Krishna and Dr. V. S. Rathore	MoRD, DoLR, GoI and GoJ	30.06.11	594.00	5 Years up to 31.03.17
2	Ground Water Quality Mapping under RGNDWM- PH-IV in parts of M.P.	Dr. V. S. Rathore	NRSC, DoS, Hyderabad	11.5.11	45.25	up to 31.03.17

### Projects Completed

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Date of completion of the Project
1	Agriculture Ecosystem Products Development over Hindu-Kush-Himalaya (HKH) (Phase-I)	Dr. C. Jeganathan & Mr. Nitish Kr. Sinha	International Centre for Integrated Mountain Development (ICIMOD) under NASA-SERVIR Himalaya	24.07.14	25,000 US \$	November 2015
2	Drought Modelling And Software Development (Phase-I)	Dr. C. Jeganathan & Dr. Kirti Avisek	International Water Management Institute (IWMI), Sri Lanka	1st August 2014	9000 US \$	Feb 2016
3	Snow & Glaciers Mapping in Zaskar Basin (J&K)-Phase II	Dr. V. S. Rathore/ SAC, ISRO, Ahmedabad	SAC, ISRO, Ahmedabad	1.12.10	32.00	31.03.15

**Seminar / Conferences / Short – term Courses Conducted by the Department**

S. No.	Title of Seminar / Conferences / Short – term Courses / Workshop	Coordinator(s)	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short – term Courses
1	International Workshop on “Time-Series Satellite Data Processing for understanding Space-Time Dynamics”	Dr. A.P. Krishna (Convenor) Dr. C. Jeganathan (Organising Secretary)	ICIMOD, Kathmandu, Nepal	26-27 November 2015
2	National Conference on “Advancements in Applications of Remote Sensing and Geospatial Technology (AARSGT-2016)”	Dr. A.P. Krishna (Convenor) Dr. C. Jeganathan (Co-Convenor) Dr. V.S. Rathore (Organising Secretary)	TEQIP, BIT	19-21 May 2016
3	Workshop on “Application of Remote Sensing, GIS & GPS in Watershed Management”	Dr. A.P. Krishna (Convenor) Dr. V.S. Rathore (Organising Secretary)	IWMP, project, MoRD	3-5 July 2015
4	Training on “Remote Sensing & GIS Application in Forest Mapping”	Dr. A.P. Krishna, (Convenor) Dr. C. Jeganathan (Co-Convenor) Dr. V. S. Rathore (Coordinator)	Conservator of Forest, Working Plan Circle, Hazaribagh	8-10 March 2016
2	15th EDUSAT (Satellite Based Distance Education) Course on “Basics of Remote Sensing, GIS and GNSS”.	Dr. C. Jeganathan Nitish Kr. Sinha Ritesh Lakhra Siddharth Thakur	Indian Institute of Remote Sensing (IIRS, ISRO, Dehradun)	10 August 2015 to 27 November 2015
5	16th EDUSAT Outreach Programme on “Geospatial Technologies for Urban Planning”.	Dr. C. Jeganathan Nitish Kr. Sinha Ritesh Lakhra Siddharth Thakur	Indian Institute of Remote Sensing (IIRS, ISRO, Dehradun)	11 February to 15 March 2016

**Conferences/ Seminars/ Workshops/ Staff Development Programmes attended**

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1.	Dr. V.S. Rathore	Training course on Microwave Remote Sensing Application	TEQIP, BIT Mesra	NRSC, ISRO, Hyderabad	Hyderabad	11.04.16 to 22.04.16
2	Mrs. Richa N K Sharma	Remote Sensing Applications in Hydrology	TEQIP	IIT R	IIT Roorkee	27.1.2016 to 31.1.2016
3		15th EDUSAT (Satellite Based Distance Education) Course on "Basics of Remote Sensing, GIS and GNSS".	-----	IIRS Dehradun	BIT Mesra	10th August 2015 to 27th November 2015
4		National Conference on "Advancements in Applications of Remote Sensing and Geospatial Technology (AARSGT-2016)	-----	BIT Mesra	BIT Mesra	19-21 May 2016.
5	Dr. Mili Ghosh Nee Lala	Advances in GIS	TEQIP	NRSC, ISRO, Hyderabad	Hyderabad	6 -17th July, 2015
6		International Workshop on "Time-Series Satellite Data Processing for understanding Space-Time Dynamics"	TEQIP	Dept. of Remote Sensing, BIT Mesra	Dept. of Remote Sensing, BIT Mesra	26-27th November 2015
7		85th Orientation course	UGC	UGC. HRDC Ranchi University, Ranchi (Jharkhand)	Ranchi University	May 16th to June 12th, 2016

## **Publications**

### **Published in International Journals**

1. Chatterjee, S., Krishna, A.P, Sharma, A.P. (2016) Spatio-temporal runoff estimation using TRMM satellite data and NRSC-CN method of a watershed of Upper Subarnarekha River basin, India. *Arabian Journal of Geosciences*, 9 (5), 1-14, DOI: 10.1007/s12517-016-2376-z
2. Paul, K., Dutta, A. and Krishna, A.P. (2015). A comprehensive study on solid waste vehicle routing and tracking - a case study on Kolkata city, *KSCE Journal of Civil Engineering*: 20: 137. doi:10.1007/s12205-015-0214-6
3. Kour, R., Patel, N., Krishna, A.P. (2016). Assessment of temporal dynamics of snow cover and its validation with hydro-meteorological data in parts of Chenab Basin, western Himalayas. *Science China Earth Sciences*. 59(5), 1081-1094. doi: 10.1007/s11430-015-5243-y
4. Kour, R., Patel, N., Krishna, A.P. (2016). Development of a new thermal snow index and its relationship with snow cover indices and snow cover characteristic indices. *Arabian Journal of Geosciences*. 9:71, 1-11. doi:10.1007/s12517-015-2143-6
5. Jeganathan, C., Gnanasekaran, G. and Tanushree Sengupta (2015). Analysing the Spatio-Temporal link between Earthquake Occurrences and Orbital Perturbations induced by Planetary Configuration. *International Journal of Advancements in Remote Sensing, GIS and Geography*, 3(2), 123-146.
6. Suman Sinha, Jeganathan, C., L.K. Sharma, Nathawat M.S., (2015). A review of Radar Remote Sensing for Biomass Estimation. *International Journal of Environmental Science and Technology*, 12, 1779-1792.
7. Roy, P.S., et al. (2015). New vegetation type map of India prepared using satellite remote sensing: comparison with global vegetation maps and utilities. *International Journal of Applied Earth Observation and Geoinformation*, Netherlands. (Jeganathan, C.- Co-author in this paper, which is a prestigious work from India)
8. Peejush Pani, Jeganathan, C., Sharma, L.K. (2015). Extracting spatial pattern of Land Surface Moisture using time-series MODIS data in Jharkhand state, India. *International Journal of Advancements in Remote Sensing, GIS and Geography*, 3(2), 106-122.
9. Suman Sinha, L.K. Sharma, Jeganathan, C., Nathawat, M.S., Anup K. Das, Shiv Mohan (2015). Efficacy of InSAR Coherency for Tropical Forest Remote Sensing in context of REDD, *International Journal of Advancement in Remote Sensing, GIS and Geography*, 3(1a), 38-46.
10. Mushtaq F, Lala MGN, Pandey AC (2015) Assessment of Pollution Level in Himalayan Lake, Kashmir using Geomatics Approach. *International Journal of Environmental Chemistry*, 95(11); 1001-1013.
11. Nandi S, Ghosh M, Kundu A, Dutta D and Baksi M (2015). Shoreline shifting and its prediction using remote sensing and GIS techniques: a case study of Sagar Island, West Bengal (India). *Journal of Coastal Conservation*, vol 20, no-1, 61-80. DOI 10.1007/s11852-015-0418-4.

12. Singh Kartar, Ghosh M and Sharma S R (2016). WSB-DA: Water surface boundary detection algorithm using Landsat 8 OLI Data. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, VOL. 9, NO. 1, 363 – 368.
13. Mushtaq F, Lala MGN (2016) Remote Estimation of Water Quality Parameters of Himalayan Lake (Kashmir) using Landsat 8 Imagery. *Geocarto International*, DOI: 10.1080/10106049.2016.1140818
14. Mushtaq F, Lala MGN (2016) Assessment of climatic variability in the catchments of Himalayan Lake, Jammu & Kashmir. *Geocarto International*. DOI: 10.1080/10106049.2016.1188169
15. Tirkey, A. S, Ghosh M, Pandey A.C. (2016) Soil erosion assessment for developing suitable sites for artificial recharge of groundwater in drought prone region of Jharkhand state using geospatial techniques. *Arabian Journal of Geosciences* 9:362 DOI 10.1007/s12517-016-2391-0
16. Sharma, L.P., N. Patel, M. K. Ghose and P. Debnath, Development and Application of Shannon's Entropy Integrated Information Value Model for Landslide Susceptibility Assessment and Zonation in Sikkim Himalayas in India, *Natural Hazards (Springer)*, IF 1.719, 75:1555–1576, DOI 10.1007/s11069-014-1378-y, (2015).
17. Patel, N and A. Rawat, Comparative Assessment between Area Based and Patch Based Gibbs-Martin Diversification Index for Land Use Pattern Analysis, *Theoretical and Empirical Researches in Urban Management (TERUM) (SCOPUS Indexed)*, Volume 10, Issue 4, pp. 66-76, (2015).
18. Patel, N. and A. B. Mukherjee, Traffic Congestability Value (TCV): A New Index for Assessment of Network Traffic Congestion, *Bulletin of Geography: Socio-economic Series (Poland)*, SCOPUS Indexed, Volume 30, pp. 123-134, DOI 10.1515/bog-2015-0039, (2015).
19. Kar, Soumyashree, Rathore, V.S., Champati ray, P.K., Sharma, Richa, Swain, S.K. Classification of river water pollution using Hyperion data, 2016, *J Hydrology (Elsevier)*, 537 pp. 221–233

### **Published in International Proceedings**

1. Shweta, Bhattacharya, B.K., Krishna, A.P. (2016). Long-term Change Analysis of Satellite-based Evapotranspiration over Indian Vegetated Surface, In: *Land Surface and Cryosphere Remote Sensing III* (edited by Reza Khanbilvardi, Ashwagosh Ganju, A. S. Rajawat, Jing M. Chen) *Proc. of SPIE Vol. 9877*, 98771F-1 – 13, doi: 10.1117/12.2228065
2. Mukherjee, A.B, Krishna, A.P., Patel, N. (2016). Bayesian-Fuzzy GIS Overlay to Construe Congestion Dynamics. *Proceedings of Third International Conference, INDIA 2016. Advances in Intelligent system and computing (Springer)*, Vol. 1-433, pp. 397-411.
3. Giriraj A., Niranga, A., Pani, P., Vladimir, S., Jeganathan, C. and Kirti A., (2015). Developments in South Asia Drought Monitoring System (SADMS). *International Workshop on Beta Version of South Asia Drought Monitoring System*. Dhaka, Bangladesh, 20<sup>th</sup> April 2015.

### **Published in National Journals**

1. Beependra Singh and Jeganathan, C. (2016). Spatio-temporal forest change assessment using time series satellite data in Palamu district of Jharkhand, India. *Journal of Indian Society of Remote Sensing*, 44(4), 573-581



2. Kumar, V., Sharma, R and Krishna, A.P. (2015) "Spatio Temporal Variability Assessment of Biophysical parameters in the Tropical Deciduous Broadleaved Forest in Eastern India", J. of Remote Sensing & GIS. 6(2): 61-68

### **Published in National Proceedings**

1. Pakiza Samar, Jeganathan, C., Saptarshi Mondal and Harshit Rajan (2016). Bioprospecting of Butea Monosperma in Ranchi District using Remote Sensing and GIS. National Conference on Advancements in Remote Sensing and Geo-Spatial Technologies, 19-21st May, BIT, Mesra.
2. Alex Praveen P, Jeganathan, C. and Saptarshi Mondal (2016). Random Forest Algorithm (RF) for Land Cover Classification using Satellite Derived Time-series Vegetation Information. National Conference on Advancements in Remote Sensing and Geo-Spatial Technologies, 19-21st May, BIT, Mesra.
3. Abdur Rahaman Mirza, Jeganathan, C., V. S. Rathore and Saptarshi Mondal, (2016). Evaluating crop discriminating ability of Hyperspectral and Multispectral satellite data: A case study in Malda (West Bengal) and Pakur (Jharkhand) District. National Conference on Advancements in Remote Sensing and Geo-Spatial Technologies, 19-21st May, BIT, Mesra.
4. Omar Sarif, Md., Jeganathan, C. and Saptarshi Mondal (2016). Satellite based forest change analysis in the state of Jharkhand. National Conference on Advancements in Remote Sensing and Geo-Spatial Technologies, 19-21st May, BIT, Mesra.
5. Jeganathan, C., Giriraj, A., Kirti Avisek, Saptarshi Mondal, Peejush Pani, Salghuna, N.N., Niranga A., Harshit Rajan, Nitish K. Sinha, and Praveen Kumar (2015). Agriculture Drought Assessment and Monitoring Software Using ESRI ArcMap. ESRI Annual User Conference, New Delhi, 2-4 December.

### **Book:**

#### **Multiple Authored**

Diwakar, S.K., S. Kour and N. Patel, Hydrologic Modelling in Middle Narmada Basin, India using SWAT Model, Lambert Academic Publishing (2015)

### **Award / Recognition Bestowed on Faculty Members (State / National / International)**

S. No.	Name of the Faculty	Title of the Award/ Honours	Organisation	Year / Duration
1	Dr. A.P. Krishna	Reviewer, Current Science	Indian Academy of Sciences	2015
2	Dr. A.P. Krishna	Reviewer, Geomatics, Natural Hazards and Risk	Taylor & Francis	2016

S. No.	Name of the Faculty	Title of the Award/ Honours	Organisation	Year / Duration
3	Dr. C. Jeganathan	Indian National Geospatial Award	Indian Society of Remote Sensing (ISRO)	2015
4		Member, Board of Studies	Indian Institute of Remote Sensing, ISRO, Dehradun	Since 2015
5	Dr. V.S. Rathore	Reviewer	Journal of Hydrology	2016
6	Dr. N. Patel	Member, Editorial Board, Arabian Journal of Geosciences (Springer)	International	
7		Member, Editorial Board, International Journal of Sustainable Development and World Ecology	International	
8		Member, Editorial Board (Associate Editor), Journal of Forestry Research	International	
9		Member, Editorial Board, Journal of Earth Sciences and Climate Change	International	
10		Member, Editorial Board, Theoretical and Empirical Research in Urban Management	International	
11		Member, Editorial Board, International Journal of Agricultural and Statistical Sciences	International	
12		Member, Editorial Board, AMBIENCIA, Brazil	International	
13		Examiner of one Ph.D. thesis of the Tampere University of Technology, Pori, Finland.	International	
14		Examiner of one Ph.D. thesis of the North West University (Mafikeng Campus), South Africa.	International	
15		External Expert Member for Research Advisory Committee under the discipline FOREST GEOINFORMATICS of the Forest Research Institute (FRI) University, Dehradun, India.	National	
16		Member, Interview Board for the Ph.D. Research Programme of the Forest Research Institute (FRI) University, Dehradun, India.	National	

## **Board of Studies (UG/PG)**

### **Internal Members**

1. Head of the Department	Chairman, Ex-Officio
2. Dr. A.P. Krishna	Member
3. Dr. N. Patel	Member
4. Dr. C. Jeganathan	Member
5. Dr. V.S. Rathore	Member
6. Dr. Mili Ghosh	Member
7. Dr. Abhisek Santra	Member
8. Dr. G. Sahoo (IT - now CSE)	Member
9. Dr. S. Jha (Pharmaceutical Sc. & Technol.)	Member

### **External Members (Any Two)**

1. Dr. S. Sengupta, Advisor, Deptt. Of Science & Technology, West Bengal
2. Dr. D. Ramakrishna, Assoc. Professor, Deptt. Of Earth Sciences, IIT Bombay
3. Dr. M.K. Ghosh, Prof. & Head, Computer Science & Engg., SMIT, Majitar, Sikkim
4. Dr. R.N. Sahoo, ICAR, Pusa, New Delhi
5. Dr. V. Raghavaswamy, Group Director (LU & US Group), NRSC, Hyderabad

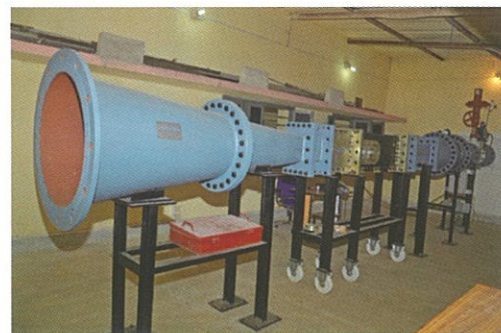
### **Departmental Academic Committee**

1. Head of the Department	Chairman, Ex-Officio
2. Dr. A.P. Krishna	Member
3. Dr. N. Patel	Member
4. Dr. C. Jeganathan	Member
5. Dr. V.S. Rathore	Member
6. Dr. Mili Ghosh	Member
7. Dr. A.K. Sinha (CEE)	Member
8. Dr. D.J. Biswas (Architecture)	Member
9. Guide (s) of the Candidate	Member

## Department of Space Engineering & Rocketry



Hybrid Rocket Test Firing



Supersonic Wind Tunnel

The Department was established in 1964 and initially it offered Post-graduate Diploma program. Later two- year Post Graduate Degree Programme was started in 1968, leading to M. E. in Space Engineering and Rocketry with two specializations, namely Aerodynamics and Rocket Propulsion.

The Department has its own administrative building, having Class Rooms and Seminar Halls, besides various Laboratories, housed in separate buildings.

The various Divisions under the Department are:

Aerodynamics Division

Rocket Propulsion Division

Propellant Technology Division

Combustion Division

The Department has endeavoured to develop a state-of-art infrastructure to train post graduate students and to support R & D work at Doctoral and Post-Doctoral levels, as also to carry out Grant-in-Aid Projects, sponsored by various agencies.

The Department has taken up sponsored R & D Projects from premier agencies, like UGC, AICTE, DST, Ministry of HRD, ISRO, DRDO, CSIR etc. It has successfully completed as many as 41 Projects and currently 04 sponsored projects are under progress. The Department has also been recognized under Special Assistance Programme of UGC and Fund for Improvement of S&T Infrastructure of DST. Liquid and Hybrid Rocket Propulsion facilities have been modernised and related instrumentation has been upgraded.

**The notable current research activities in the Department include:**

- Development of Hybrid Rocket Propulsion Systems
- Droplet Combustion Studies
- Development of High Regression Rate Hybrid Fuel
- Automization of Gel Propellants using specially
- Designed Injectors
- Development of New Energetic Binders
- Commissioning of Solid and Liquid Propulsion Lab
- High Sheare Rheometry of Metalized UDMH Gels
- Thermal Analysis of High Energy Materials
- Slender Body Aerodynamics at High Angles
- of Attack at Subsonic Speed
- Studies on Reusable Launch Vehicle and Delta/
- Double Delta Wing at Subsonic Speed
- Cavity and Protrusion Flow Field Studies at
- Supersonic Speeds
- Studies on Spiked Blunt Bodies at Supersonic
- Mach No.
- Supersonic Air- Intake Studies
- Development of Compressible Navier-Stokes Code



## Sponsored Projects

### Project Sanctioned

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Open Cavity Studies at Supersonic Speed	Dr. Sudip Das, PI Mr. Priyank Kumar, Co- PI Dr. Partha Mondal Co- PI	RESPOND ISRO	13/03/2016	24,46000/=	3Year
2.	Effect of nose bluntness on the axial force over spiked blunt nose body	Dr. Sudip Das	BIT, Mesra	13/11/2015	80,000/=	1Year
3.	Comparison of performance parameter of a hybrid fuel using gaseous oxygen and liquid nitrous oxide	Dr. Rajiv Kumar	BIT, Mesra	13/11/2015	80,000/=	1Year
4.	Development of a 3D unstructured compressible flow solver	Dr. Partha Mondal	BIT, Mesra	13/11/2015	80,000/=	1Years

### Ongoing Projects

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Open Cavity Studies at Supersonic Speed	Dr. Sudip Das, PI Mr. Priyank Kumar, Co- PI Dr. Partha Mondal Co- PI	RESPOND ISRO	13/03/2016	24,46000/=	3Year
2.	Effect of nose bluntness on the axial force over spiked blunt nose body	Dr. Sudip Das	BIT, Mesra	13/11/2015	80,000/=	1Year

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
3.	Comparison of performance parameter of a hybrid fuel using gaseous oxygen and liquid nitrous oxide	Dr. Rajiv Kumar	BIT, Mesra	13/11/2015	80,000/=	1Year
4.	Development of a 3D unstructured compressible flow solver	Dr. Partha Mondal	BIT, Mesra	13/11/2015	80,000/=	1Years

### Projects Completed

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Date of completion of the Project
1.	Investigation of Flow Behaviour on Winged body at Subsonic Speed	Dr. J. K. Prasad Dr. Sudip Das Mr. Priyank Kumar	AR&DB	01/2/2012	11.40 (Lakhs)	Sept. 28, 2015

### Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S. No.	Name of the Faculty	Title of the Conference/Seminar	Funding Agency	Organizers	Venue	Date
1.	Dr. Mohan Varma	24th National Conference on I. C. Engines and Combustion	BIT, Mesra	UPES	Dehradun	Oct. 30- Nov. 01, 2015
2.	Dr. Mohan Varma	High Energy Materials Conference & Exhibits (HEMCE)	HEMSI	High Energy Material Society of India Hyderabad Chapter and DRDO	Hyderabad	11-13th Feb, 2016

S. No.	Name of the Faculty	Title of the Conference/Seminar	Funding Agency	Organizers	Venue	Date
3.	Dr. Mohan Varma	National Workshop on Cryogenics	Jadavpur University	Jadavpur University, Kolkata	Kolkata	28/03/2016
4.	Dr. Sudip Das	8th AIAA Flow Control Conference, AIAA Aviation and Aeronautics Forum and Exposition 2016	Technion BIT Mesra	AIAA USA	Washington DC, USA	June 13-17, 2016
5.	Dr. Rajiv Kumar	10th International High Energy Material Conference and Exhibits, Hyderabad, Telangana, India	TEQIP-II	High Energy Material Society of India Hyderabad Chapter and DRDO	Hyderabad	11-13th Feb, 2016
6.	Dr. Rajiv Kumar	International Conference on Alternative Energy Sources, BIT Mesra, Ranchi, India	BIT Mesra	Department of Mechanical Engineering and Bio-engineering, BIT Mesra, Ranchi	BIT Mesra	29-30th January, 2016

## **Publications**

### **Published in International Journals**

1. Sahoo, D., Das, S., Kumar, P., Prasad, J. K., "Effect of spike on steady and unsteady flow over a blunt body at supersonic speed", Acta Astronautica, Vol. 128, 2016, pp. 521-533.
2. Vignesh, R. P. S., Das, S., Kim, H. D., "Influence of vortex generator on cylindrical protrusion aerodynamics at various Mach numbers", Aerospace Science and Technology, Vol. 58, 2016, pp. 267-274.
3. Kumar, P., Prasad, J. K. "Mechanism of Side Force Generation and its Alleviation over a Slender Body" Journal of Spacecraft and Rockets, Jan. 2016, 1, 53,195-208.
4. Agarwal S., Kumar, P. "Numerical Investigation of Flow Field and Effect of Varying Vortex Generator Location on Wing Performance" American Journal of Fluid Dynamics, Jan. 2016, 1, 6, 11-19.
5. Kumar, P., and Prasad, J. K., "Side Force over Slender Body with Rings at different Location at Subsonic Speed," Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering 2016

6. Kumar, R., Ramakrishna, P. A., "Studies on EVA Based Wax Fuel for Launch Vehicle Applications", Propellant, Explosive and Pyrotechnic, 2016, 2, 41, 295-30.
7. Kumar, Pratim, Joshi, P. C., Kumar, R. "Thermal Decomposition and Combustion Studies of Catalyzed AN/KDN Based Solid Propellants", Combustion and Flame, 2016, 166, 316-332.
8. Prashant, G. K., Lata, D. B., Joshi, P. C., "Investigations on the effect of methanol blends on the combustion parameters of dual fuel diesel engine" Applied Thermal Engineering, 2016, 103, 187-19.
9. Prashant, G. K., Lata, D. B., Joshi, P. C., "Investigations on the effect of ethanol blend on the combustion parameters of dual fuel diesel engine" Applied Thermal Engineering, 2016, 95, 623-631.
10. Garg, Prateek, Agrawal, Deepak and Varma, Mohan, Numerical Modeling of Liquid Oxygen and Kerosene Combustion at High Pressure Conditions (PPR-2016-0051), Propulsion and Power Research, 2016.

### **Published in International Proceedings**

1. Das, S., and Cohen, J. "Influence of Circular Rear Face Geometry on the Cavity Flow Oscillations at  $M=0.7$ ", 56th Israel Annual Conference on Aerospace Sciences (IACAS), Tel-Aviv & Haifa, Israel, March 9-10, 2016.
2. Das, S., and Cohen, J. "Effect of Rear Face Geometry on the Open Cavity Oscillatory Flow at  $M=0.9$ ", AIAA-2016-3175, 8th AIAA Flow Control Conference, Washington, D.C., USA, June 13-17, 2016., Cohen, J.
3. Mondal, P., Anup V. Kanale, N. Balakrishnan, Nikhil Vijay Shende and Rohan Pradeep Wadnerkar, "Optimization of Flap position using a Modified Discrete Vortex method", 34th AIAA Applied Aerodynamics Conference, AIAA 2016-3870, 2016.
4. Mondal, P., Munikrishna N., Nikhil V. Shende and Balakrishnan N., "Dynamic Ground Effect Analysis Using a Novel Sinking Grid Methodology", 34th AIAA Applied Aerodynamics Conference, AIAA 2016-4167, 2016.
5. Shukla, Harshit, Nandan, Rajesh G. Singh, Shukla Priyanka, Vinod N. K. and Varma, Mohan, Ignition Characterization of Energetic Materials for MEMS based Pyro-devices, Proc. 10<sup>th</sup> International High Energy Materials Conference and Exhibits, Hyderabad, 2016, Vol.1, pp. 152-156.
6. Shukla, Harshit, Nandan, Rajesh G. Singh, Shukla Priyanka, Vinod N. K. and Varma, Mohan, Development of a MEMS Pyrotechnic Thruster for Micro Propulsion Applications, 52nd AIAA/SAE/ASEE Joint Propulsion Conference, Propulsion and Energy Forum, UT, USA, AIAA 2016-4907, 2016.
7. Kumar Pratim, Kumar, Rajiv and Joshi P. C., "Thermal Decomposition and Kinetic Studies of AN Based Green Oxidizers", International Conference on Alternative Energy Sources, BIT Mesra, Ranchi, India, January 29-30, 2016.

8. Biswas Shelly, Sharma, D. K. and Kumar, Rajiv "Effect of ZSM-5 Catalyst on Co-cracking of Jatropha Oil with Bagasse", International Conference on Alternative Energy Sources, BIT Mesra, Ranchi, India, January 29-30, 2016.
9. Krishna, Talluri Vamsi and Kumar, Rajiv "Effect of Multi-Protrusion on Regression Rate in a Hybrid Rocket Motor", Proceeding of 10<sup>th</sup> International High Energy Material Conference and Exhibits, Hyderabad, February 11-13, 2016.

### **Published in National Proceedings**

1. B.V.S. Jyoti, Puroshothaman N. and Mohan Varma, Combustion Studies on UDMH-RFNA Gel Propellants, 24<sup>th</sup> National Conference on I. C. Engines and Combustion, Dehradun, 2015, Vol.1, pp. 243-246.
2. Manish Kr. Singh, Mondal, P., Sudip Das and Priyank Kumar, " Application of numerical lifting line theory for swept wings with different aspect ratios", 18th Annual AeSI CFD Symposium, Bangalore, India, August 10-11, 2016.
3. Shukla, Harshit, Nandan, Rajesh G. Singh, Shukla Priyanka, Vinod N. K, and Varma, Mohan, Analytical and Experimental Studies on a Micro-pyrotechnic System, Proc. 20<sup>th</sup> Symposium on Thermal Analysis, IIT BHU, Varanasi, 2016, pp. 218-222.

### **Book:**

### **Edited Books**

### **Chapter(s) in Edited Book**

Mohan Varma 'High Shear Rheometry of Unsymmetrical Dimethylhydrazine Gel' in Chemical Rocket Propulsion. Eds. Luigi T. Deluca, Toru Shimada, Valery P. Sinditskii and Max Calbro, Springer International Publishing Co., Switzerland, 2016, pp. 519-542.

### **Award / Recognition Bestowed on Faculty Member (State / National / International)**

S. No.	Name of the Faculty	Title of the Award/ Honours	Organisation	Year / Duration
1.	Dr. Mohan Varma	Member, National Advisory Committee	24th National Conference on I.C. Engines and Combustion, Dehradun, 2015	Sept. – Nov. 2015
2.	Dr. Mohan Varma	Invited Speaker 10th International High Energy Material Conference and Exhibits, Hyderabad	HEMSI, DRDO	Feb. 11-13, 2016



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S. No.	Name of the Faculty	Title of the Award/ Honours	Organisation	Year / Duration
3.	Dr. Mohan Varma	Invited Speaker and Panel Expert in National Workshop on Cryogenics	Jadavpur University, Kolkata	28/03/2016
4.	Dr. Sudip Das	Session Chair at the 46th AIAA Fluid Dynamics Conference of	AIAA Aviation and Aeronautics Forum and Exposition 2016, Washington, D.C., USA,	June 13-17, 2016.,
5.	Dr. Sudip Das	Invited as an Experimental Aerodynamics Expert for research collaboration activities	Faculty of Aerospace Engineering, Technion-Israel Institute of Technology, Haifa, Israel,	3rd May - 1st June 2016.

### Patents (Applied / Granted)

S. No.	Name of the Inventor	Title of the Invention	Application / Patent No. (As applicable)	Year
1.	Dr. Sudip Das	Suppression of cavity flow oscillations using curved rear face	USPTO 62289936	Feb. 2016

### Departmental Students' Activities

S. No.	Name of the Activity	Students' co ordinator	Date/Duration
1.	Departmental Seminar (36)		July 2015 – April 2016

### Board of Studies(UG/PG): PG

Internal Member		
S. No.	Name	Designation
1	HOD/In-Charge	Chairman (Ex-Officio)
2	Dr. Mohan Varma	Professor
3	Dr. Sudip Das	Associate Professor
4	Prof. Priyank Kumar	Asst. Professor
5	Dr. Rajiv Kumar	Asst. Professor
6	Dr. Arbind Kumar I	Professor
7	Dr. M. Mukherjee	Professor

## *Annual Report 2015-16*

External Member	
S. No.	Name of Member, Designation, Institute/Company, Full Address
1	Dr. Navtej Singh, Professor IIT, Kharagpur
2	Dr. B. Mazumdar, Professor, Jadavpur University, Kolkata
3	Dr. Subhash Chandran, Programme Director, DRDL, Hyderabad
4	Dr. D. P. Mishra, Professor IIT, Kanpur
5	Dr. S. R. Chakravarthy, Professor, Dept. of Aerospace Engg., IIT Madras

### Departmental Academic Committee

S. No.	Name of Member	Designation (DAC/AC)
1	HOD/In-Charge	Chairman (Ex-Officio)
2	Dr. Mohan Varma	Professor
3	Dr. Sudip Das	Associate Professor
4	Dr. Partha Mondal	Asst. Professor
5	Dr. Rajiv Kumar	Asst. Professor
6	Dr. Arbind Kumar	Professor
7	Dr. Usha Jha	Professor
8	Guide(s) of the Candidate	

## Off Campuses





## Allahabad



The Off Campus at Allahabad is located at the Raymond crossing on Allahabad-Mirzapur Road. This Centre was established in the session 1997-98 with the decision to start B. Tech. Degree programme in Civil, Mechanical and Electrical & Electronics Engineering for the working engineering diploma holders on part time basis. In course of its evolution and growth, it has succeeded in becoming a place of excellence in the country.

In view of demand of trained computer and management personnel and as also to provide job-oriented professional education and training to youth of the area, the Institute offers courses leading to Bachelor of Computer Application (BCA), Bachelor of Business Administration (BBA), Bachelor of Engineering in Computer Science & Engineering (BE-CSE), Integrated Master of Computer Application (IMCA), Integrated Master of Business Administration (IMBA), Master of Computer Application (MCA) and Master of Technology in Computer Science (M.Tech.-CS). Further, the Institute also enrolls students for PhD programme in various research areas. The Institute has qualified and experienced faculty members in various emerging areas such as Physical Chemistry, Functional Analysis, Data Mining, Image Processing, Pattern Recognition, Natural Computing, Soft Computing, Internet Computing, Web Services, Human Resource Management, Marketing and Economics.

At BIT Allahabad, we pride ourselves in having some of the most talented and dedicated faculty members who come from various best Institutions of the country. Further, the strength of our Institute includes computer laboratories with high end system configuration supported by LAN and internet



facility that facilitates Wi-Fi connectivity throughout the Campus, a Library with reasonably good number of text books and Technical Journals, a mix of experienced and young, energetic and dynamic faculty members, placement assistance, and research publication in reputed journals and conferences by our faculty members. Moreover, some of the engineering laboratories developed by the centre include Physics Laboratory and Chemistry Laboratory, Workshop, Electrical Machines Laboratory, Basic Electrical & Electronics Laboratory, Microprocessor Laboratory, Digital Electronics Laboratory, Power Electronics Laboratory, Digital Signal Processing Laboratory and IC Engines laboratory.

The centre has a moderate Play ground, Volleyball Court and Badminton Court. The centre encourages students to organize co-curricular and extracurricular activities such as Games and Sports meet, Cultural meet, Quiz, Debates & Essay competition, Plantation, Painting & Photographic competition, Technical events etc at periodic intervals.

#### **Seminar / Conferences / Short – term Courses Conducted by the Department / Campus**

<b>S. No.</b>	<b>Title of Seminar/Conferences/ Short-term Courses/Workshop</b>	<b>Coordinator</b>	<b>Funding/ Sponsoring Agency</b>	<b>Date of Seminar/ Conferences/Short-term Courses</b>
1.	One day Workshop on Soft Skill Development.	Mano Ashish Tripathi	none	21-08-2015
2.	Three weeks Training Programme of Network Management and Web Development	none	none	24-08-2015 to 11-09-2015

#### **Conferences/ Seminars/ Workshops / Staff Development Programmes attended**

<b>S.No</b>	<b>Name of the Faculty</b>	<b>Title of the Conference/Seminar</b>	<b>Funding Agency</b>	<b>Organizer</b>	<b>Venue</b>	<b>Date</b>
1.	Dr. Ashish Mohan Dubey	Symposium on Strategic Imperatives of Sustainability.	TEQIP-II	School of Management Studies, MNNIT, Allahabad	School of Management Studies, MNNIT, Allahabad	21-01-2016
2.	Dr. Ashish Mohan Dubey	74th Orientation Orientation Course	UGC	Human Resource Development Center, BHU, Varanasi	Banaras Hindu University, Varanasi	24-05-2016 to 20-06-2016
3.	Dr. Sunil Kumar Pandey	Challenges in e Security	Inititution Enginners India	IE India CSI Allahabad	MNNIT, Allahabad	14-02-2016

S.No	Name of the Faculty	Title of the Conference/Seminar	Funding Agency	Organizer	Venue	Date
4.	Prof. Ratnesh Mishra	Three-week technical Workshop on network management & ethical hacking	BIT, Mesra, Ranchi Allahabad Campus	BIT, Mesra, Ranchi Allahabad Campus, naini Allahabad	BIT, Mesra, Ranchi Allahabad Campus, naini Allahabad	24-08-2015 to 11-09-2015
5.	Prof. Ratnesh Mishra	International conference on Advances in computing, control & communication	University of Allahabad	Centre of computer education institute of professional studies	University of Allahabad	25-03-2016 to 27-03-2016
6.	Prof. Ratnesh Mishra	Seminar on challenges in e-security	Institution Engineers India	IE India CSI Allahabad	MNNIT, Allahabad	14-02-2016
7.	Prof. Aparna Shukla	Seminar on challenges in e-security	Institution Engineers India	IE India CSI Allahabad	MNNIT, Allahabad	14-02-2016
8	Dr. P. C. Srivastava	ATM Work shop on Geometry and Topology	Harish Chandra Institute Allahabad	Harish Chandra Institute Allahabad and Joint Centre of TIFR and IIT Bombay	Harish Chandra Institute Allahabad	02-11-2015 to 07-11-2015
9.	Dr. P. C. Srivastava	Short Term course on Modelling and simulation	MANIT Bhopal	MANIT Bhopal	MANIT Bhopal	22-06-2016 to 27-06-2016
10.	Dr. P.C. Srivastava	International conference on recent trends in mathematics held at university of Allahabad	University of Allahabad	University of Allahabad	University of Allahabad	10-07-2015 to 12-07-2015
11.	Dr. A.K. Mahanty	Research Methods and Data Analysis for social sciences and managements	ASS IIT, KGP	ASS IIT, KGP	ASS IIT, KGP	16-09-2015 to 30-09-2015

S.No	Name of the Faculty	Title of the Conference/Seminar	Funding Agency	Organizer	Venue	Date
12.	Dr. Kamta Nath Mishra	Attended one month Orientation Training Programme at University Grant Commission – Human Resource Development Centre.	University of Allahabad	University of Allahabad	University of Allahabad	27-11-2015 to 24-12-2015
13.	Dr. Subhash Chandra Pandey	Attended one month Orientation Training Programme at University Grant Commission – Human Resource Development Centre	University of Allahabad	University of Allahabad	University of Allahabad	27-11-2015 to 24-12-2015
14.	Prof. Shambhu Sharan Kumar	Summer School	UGC	UGC-HRD Centre/ Allahabad University	Allahabad University	8-06-2016 to 28-6-2016

## Publications

### Published in International Journals

S. No.	Authors	Title	International Journal name	Issue No. Vol. No. Pp	Year	ISSN
1.	Dr. S. Kanungo Somya jaiswal	A Framework for Mining Coherent Patterns using Particle Swarm Optimization based Biclustering	International Journal of Intelligent Systems and Applications.	Vol. 7 (11), 33-40	2015	2074-904x 2074-9058 (Online)
2.	Dr. Kamta Nath Mishra Anupam Agrawal	A Soft Computing Technique for Improving the Fidelity of Thumbprint based Identification Systems	International Journal of Intelligent Systems and Applications.	Vol. 8 (7), 14-27	2016	2074-9058 (online)

S. No.	Authors	Title	International Journal name	Issue No. Vol. No. Pp	Year	ISSN
3.	Dr. Kamta Nath Mishra, Deepak Srivastava, Rajan Kesharwani	Palatal Patterns Based RGB Technique for Personal Identification,	International Journal of Image Graphics and Signal Processing	Vol. 7 (10), 60-77	2015	2074-9074 (online)
4.	Dr. Kamta Nath Mishra, Kanderp N. Mishra, and Anupam Agrawal	Face Veins based MCMT Technique for Personal Identification	International Journal of Intelligent Systems and Applications	Vol. 7 (9), 57-72	2015	2074-9058 (online)
5.	Dr. R.S.Pandey Richa Pathak	Service Selection Based on Dominant Role of the Choreography	International Journal on Web Service Computing(IJWSC)	Vol.7 (1), 23-39	2016	0976-9811
6.	Dr. R.S.Pandey Anita Kushwaha	Artificial Reproduction System and Imbalanced Dataset-A Mendelian Classification	International Journal of Scientific & Engineering Research	Vol.7 (6),	2016	2229-5518
7.	Dr. R.S.Pandey Richa Pathak	An Adaptive Approach for Dynamic Recovery Decisions in Web Service Composition Using Space Based QOS Factor	International Journal on Web Service Computing(IJWSC)	Vol.6 (2/3), 11-26	Sep-2015	0976-9811
8.	Prof. Shambhu Sharan Kumar	Diversified Phases of Surface Coatings in Automobile Industries	Journal of research in engineering and applied sciences (Online), www.ijreas.com, www.mgijournal.com,	Vol.1 (2), 103-109	April 2016	2249-9210
9.	Prof. Shambhu Sharan Kumar	The Significance of the Ratio of Alkyd-Amino Resins on Curing Temperature and Performances of Stoving Paints	International Journal of Engineering & Technical Research; www.erpublication.org/IJETR, (online), 2454-4698 (print),	Vol.4 (1), 116-120	Jan. 2016	2321-0869

S. No.	Authors	Title	International Journal name	Issue No. Vol. No. Pp	Year	ISSN
10.	Prof. Shambhu Sharan Kumar, S.S. Narvi, N.D. Pandey	Study on Effects of Micron and Nano Zinc Oxide Pigments on Air-drying Property of Alkyd Paints	International journal of research in engineering and applied sciences (Online), www.ijreas.com, www.mgijournal.com	Vol. 1 (1), 25-29	Jan. 2016	2249-9210 2348-1862 (online)
11.	Prof. Shambhu Sharan Kumar	Development of Industrial/Automotive Paint with Natural Raw Material Castor Oil as a Substitute of Polymeric Plasticizer	International Journal of Engineering and Applied Sciences- IJEAS	Vol. 2 (12), 141-145	Dec. 2015	2394-3661
12.	Prof. Shambhu Sharan Kumar	Applications of Nano-Pigment Particles for the Development in Corrosion and Scratch Resistance Properties of Epoxy-Zeolite Coatings	International Journal of Engineering and Applied Sciences- IJEAS	Vol. 2 (11), 103-107	Nov. 2015	2394-3661
13.	Prof. Shambhu Sharan Kumar	Advances in High Performance Polymer Nano-Composite Coatings for Better Resistanceto Corrosion and Ultraviolet Rays	International Journal of Engg. and Applied Sciences- IJEAS	Vol. 2 (10), 3-7	Oct. 2015	2394-3661
14.	Dr. A. K. Mahanty	Employee Retention: A good investment for future	Zenith International Journal of business economics management research	Vol.5 (10), 27-33	Oct. 2015	2249-8826
15.	Dr. A.K. Mahanty	International trade the current scenario of India	International Journal of Technology, Management & humanities(IJTMA)	Vol. 2 3-13	June 2016	2454-566V



### Published in International Proceeding

S. No.	Authors	Title	International Journal name	Issue No. Vol. No. Pp	Year	ISSN
1	Dr. Kamta Nath Mishra Irish Singh	Authentication and Access Control Mechanism for Secure Cloud Based Transportation Services	IEEE International Conference on Innovative Mobile and Internet Services in Ubiquitous Computing (IEEE IMIS)	301 - 306	July 27 – 29, 2015	
2	Dr. Kamta Nath Mishra Irish Singh	A novel privacy and security framework for the cloud network services	IEEE International Conference on Advanced Communication Technologies (IEEE ICACT - 2015), Phoenix, South Korea	363-367	July 1-3, 2015	97814-67381-161

### Publication in National Proceedings

S. No.	Authors	Title	National Journal name	Issue No. Vol. No. Pp	Duration
1	Dr. P. C. Srivastava Shailendra kumar	Solution of 3rd order BVP by using exponential Quintic splines"	Proceeding of IAPS	71	22-12-2015 to 24-12-2015
2	Dr. P. C. Srivastava Shailendra kumar	Solution of 4th order BVP based on Non-polynomial quintic	Proceeding of IAPS	78	10-07-2015 to 12-07-2015

### Students' Activities

S. No.	Name of the Activity	Students' co-ordinator, (if any)	Date/Duration
(A)	Cultural fest(Swastika 2016) On – Stage		09-04-2016
1.	Song	Irashree Shivam Dwivedi	09-04-2016
2.	Dance	Khushboo Burman Mittul, Saransh	09-04-2016
3.	Drama / Skitt	Himanshu Shukla	09-04-2016
4.	Hasya Kavita	Saransh	09-04-2016
	Off – Stage		07-04-2016 to 08-04-2016

1.	Rangoli	Navin	08-04-2016
2.	Painting (T- shirts/Face)	Disha Singh	08-04-2016
3.	Collage / Mehendi	Dheeraj Jha	08-04-2016
4.	Dumb charades / . Antakshari	Frahim Siddhiqui	08-04-2016
5.	Nukad Natak	Disha Singh	08-04-2016
		Setu Sherya	
		Navin	
		Dheeraj Jha	
		Saurish Ganguly	
		Jariti Kasera	
		Asif Parvez	
		Amol Tandon	
		Vikash Kumar	
		Khusuboo Berman	
B	Republic Day	Kunnal Sharma Setu Sherya	26-01-2016
C	Saraswati Puja	Kunnal Sharma	12-02-2016
D	Blood Donation Camp	Dheeraj Jha	09-11-2015

## Students' Activities 2

S. No.	Name of the Activity	Student's co-ordinator,(if any)	Date/Duration
(A)	sports	Amol Tandon	12-02-2016 to 23-02-2016
1.	Track events		12-02-2016 to 23-02-2016
2.	100 meter race		12-02-2016 to 23-02-2016
3.	200 meter race		12-02-2016 to 23-02-2016
4.	400 meter race		12-02-2016 to 23-02-2016
	800 meter race		
5.	1500 meter race		12-02-2016 to 23-02-2016
6.	4*100 meter race		12-02-2016 to 23-02-2016
(B)	Field events	Parth Sarthi	12-02-2016 to 23-02-2016
1.	Long jump	Kumar Luv	12-02-2016 to 23-02-2016
2.	High jump		12-02-2016 to 23-02-2016
3.	Javelin throw	Ashif Parvez	12-02-2016 to 23-02-2016
4.	Discuss throw	Mangal Singh	12-02-2016 to 23-02-2016
5.	Short put	Abhishek Kumar	12-02-2016 to 23-02-2016
6.	Try of war	Md. Frahim Siddiqui	12-02-2016 to 23-02-2016
C.	Cricket	Dheeraj Kr. Jha	12-02-2016 to 23-02-2016
D.	Volley ball	Pranav Jaiswal	12-02-2016 to 23-02-2016
E.	Badminton	Animesh Kumar Aashu, Kunal Sharma, Snehlata, Oshin Banerjee	12-02-2016 to 23-02-2016

## Deoghar



The BIT campus at Deoghar is one of the AICTE approved off campuses of BIT, Mesra. So far, five batches of B.E. in ECE, EEE, CSE, Mechanical and Production engineering have graduated. (Total intake is currently 300 students per year). The campus was inaugurated on 3<sup>rd</sup> October 2007. It is spread over an area of about 25 acres and situated around 1.5 km away from the Jasidih Railway Station (Howrah-Patna-New Delhi main route). The institute campus contains an academic block, two boys' hostels, a girls' hostel, a canteen, a stationary shop, one SBI ATM counter, health centre, multi-gym facility, seminar hall, language lab etc. The institute provides a bus to the faculty and staffs during the office hours to facilitate transport connectivity in between the residential areas and the office. A few staff quarters are also available within the campus.

ECE department of the institute has well equipped laboratories including Analog & Digital Electronics lab, Instrumentation lab, Analog and Digital Communication lab, Microprocessor lab, VLSI lab, Microwave lab, Optical Fiber Communication lab, Wireless communication & networking lab.

The Laboratories of EEE department include Electric Machine Lab, Simulation Lab, Basic Electrical Lab, Power Electronics Lab & Applied Power Electronics Lab, Instrumentation Lab, Micro Processor Lab, Control Lab & Applied Control Lab, Power System Lab etc.

Computer Science & Engineering department has three spacious and well-designed computer laboratories, equipped with over 200-networked high-end P-IV personal computers. Cyber Roam™ is also available for controlling networking and distribution of bandwidth across the campus.

The Mechanical Engineering department of the institute has the following notable laboratories viz. Engineering Graphics Lab, Fluid & Hydraulics Machinery Lab, Measurement Lab, Mechanics of



Solid Lab, Mechanical Engineering Lab, Internal Combustion Engine Lab, Energy Engineering Lab, Heat Transfer Lab, CADD Lab, Thermal Engineering Lab, Dynamics of Machine Lab.

The department of production engineering has Pattern Making and Foundry Shop, Welding Shop, Machining Shop and Machine Tool Lab, Metal Forming and Fitting Shop, Metrology Lab, Metallurgy Lab, Tool Design Lab, Simulation Lab, etc.

At present the institute also has water quality and fuel testing facilities.

To improve the overall campus life the students get themselves involved in multifaceted activities including Sports, NSS, Creative Arts, dancing & singing, performing dramas, Literary activities etc. apart from their routine technical involvements.

The institute has a well maintained library with a large number of academic books, magazines and scientific journals (both in Print and e- copies).

### **Sponsored Projects**

#### **Ongoing Projects**

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Investigation on feedback based contention minimization techniques in optical burst switching WDM network: A simulation approach	Dr. M. K. Dutta	BIT Mesra	13.5.2016	30000/-	1yr

#### **Projects Completed**

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Date of completion of the Project
1.	Investigation of coupled optical beam propagation in nonlinear media for soliton pair and breather pair formation	Dr. Ram Krishna Sarkar	UGC	25/03/2013	10.56 Lakhs	3 Years

#### **Seminar / Conferences / Short – term Courses Conducted by the Department/Campus**

S. No.	Title of Seminar / Conferences / Short – term Courses / Workshop	Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short – term Courses
1.	National Conference on Improvised Plasma Technologies for Nanomaterials Processing and Applications (NCIPT-2016)	Dr. S. Karmakar (Convener) Dr. R. K. Sarkar (Co-Convener) Dr. M. K. Dutta (Co-Convener)	Department of Technical and Higher Education, Jharkhand Council on Science and Technology, Jharkhand Govt.	February 25-26, 2016
2.	National Workshop on Big Data Initiatives (BDI 2015)	Dr. Soumya Banerjee (Convenor)	Cognizant Tech & Business Brio Kolkata	4-5th September 2015

### Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1.	Dr. M. K. Dutta	Summer Course	UGC	UGC-HRDC	Ranchi University, Ranchi	10/6/16 – 30/6/16
2.	Dr. M. K. Dutta	3rd International Conference on “Opto-Electronics and Applied Optics” OPTRONIX 2016	BIT Mesra	University of Engineering & Management, University Kolkata 700160, India	UEM, Kolkata	18th-20th August, 2016
3.	Dr. S. Karmakar	85th Orientation Programme	MHRD-UGC	UGC-HRDC	Ranchi University, Ranchi	16/5/16 – 12/6/16
4.	Mr. Sanjiv Kumar Tiwari	One week short term course on “Internal Quality Enhancement Program Through Microteaching in the Area of Production Engineering”.	IQAC cell, B.I.T., Mesra-Ranchi	Department of Production Engineering, B.I.T., Mesra - Ranchi	B.I.T., Mesra – Ranchi.	7th - 11th July, 2015



S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
5.	Dr. Bappa Acherjee	28th International Conference on CAD/CAM, Robotics and Factories of the Future (28 CARS & FoF 2016)	Robotics Society of India, Association for Machines and Mechanisms, Institution of Engineers (India), Springer, MTAB	College of Engineering and Management, Kolaghat	Kolaghat, WB, India	6th – 8th January 2016
6.	Dr. Bappa Acherjee	Special Summer School 2016	MHRD, UGC	UGC HRDC, Ranchi University, Ranchi	UGC HRDC, Ranchi University, Ranchi, India	10th – 30th, June 2016
7.	Dr. S.S Majhi	Refresher course	Science academics refresher course on Recent advances in chemistry, 2015	IAS, Bangalore	A.S. College, Deoghar	14-12-2015 to 26-12-2015
8.	Dr. A.C. Singh	Orientation Program	UGC	HRDC Ranchi	Ranchi University, Ranchi	03/12/1515 to 30/12/1515
9.	Dr. A.C. Singh	Refresher Course	UGC	HRDC Ranchi	Ranchi University, Ranchi	12/07/1516 to 01/08/1516

## Publications

### Published in International Journals

1. Sarkar, R. K. and Mallick, S., Coupled soliton-breather, breather-breather and breather-soliton pair formation in Kerr type nonlinear media. Optics Communications, 2015, 356, 141–146.
2. Mallick, S. and Sarkar, R. K., Coupled Spatial Soliton Pair and Breather Pair Formation in Cubic Quintic Nonlinear Media. Nonlinear Optics and Quantum Optics, 2015, 47, 223–234.
3. Dutta, M.K., Comparative Performance Analysis of Fiber Delay Line Based Buffer Architectures for Contention Resolution in Optical WDM Networks. International Journal of Electrical, Computer, Energetic, Electronic and Communication Engineering., 2016, 10(1), 1-4.
4. Goldina Ghosh, Soumya Banerjee, Neil Yen State transition in communication under social network: An analysis using fuzzy logic and Density Based Clustering towards big data paradigm, Accepted in January 2016, Elsevier Future Generation Computer Systems Volume 65, December 2016, pp.207–220, Special Issue on Big Data in the Cloud.

5. Manash Sarkar, Soumya Banerjee, Intelligent Decision Technologies, Intelligent Decision Technologies An International Journal, IOS PRESS November, 2015.
6. Soumya Banerjee, Youakim Badr, Neil Yen, Investigating the Scope of Distributed Computing using Apache-Hadoop- MapReduce: An Initiative towards Big Data Analytics for Telecommunication Billing Process, Accepted in Journal of Medical and Bio-medical Engineering, Special issue on Big Data December 2015 Springer-Verlag.
7. Nishikant Kumar, Soumya Banerjee Analyzing Effect of Multi-Versioning for Software Updates on Reliability: An Utility following Pheromone Trail of Social Insects Int. J. of Advanced Intelligence Paradigms, Inderscience Publications, 2015.
8. Soumya Banerjee, Prasun Das, Robustness Performance of Artificial Neural Network Training Algorithms under Noisy Training Data: An Experience with Big Data Paradigm, Conditional acceptance in Elsevier Neural Network Special issue on Big Data, October 2015.
9. Goldina Ghosh, Soumya Banerjee Tracking of Experts across Social Network: Analysis of Collaborative Activity on Wikipedia Using Fuzzy Logic, Int. J. of Advanced Intelligence Paradigms, Inderscience Publications, 2015.
10. A. Prakash, K. Prasad, S. K. Jha, A. K. Singh, Productivity, Quality and Business Performance: An Empirical Study, International Journal of Productivity and Performance Management, 2016, 66(3).
11. B. Acherjee, D. Maity, and A. S. Kuar, An approach to select the optimal process parameters of laser transmission welding using firefly algorithm, International Journal of Innovative Computing and Applications, 2016, 7 (3), 163-178.
12. S. Prakash, B. Acherjee, A. S. Kuar, and S. Mitra, Robust parameters design and optimization of underwater Nd:YAG laser  $\mu$ -channelling process using Taguchi method, Laser in Engineering, 2016, 33 (1-3), 87-102.
13. B. Acherjee, Selection of optimal parameters for laser transmission welding of polycarbonate using desirability function analysis, Materials Today: Proceedings, 2016, accepted for publication.
14. S. K. Tiwari, R. K. Singh and S. C. Srivastava, Reduction of reworks in green sand casting process: a six sigma prospective. International Journal of Applied Engineering Research, 2016, 11(5), 3141-3150.
15. S. K. Tiwari, R. K. Singh and S. C. Srivastava, Optimization of green sand casting process parameters for enhancing quality of mild steel castings. International Journal of Productivity and Quality Management, 2016, 17(2), 127-141.
16. Anand Prakash, Kapildeo Prasad, Sanjay Kumar, Abhishek Kumar Singh, Productivity, Quality and Business Performance: An Empirical Study. International Journal of Productivity and Performance Management. 66(3). Emerald. (Scopus)
17. Majhi, S.S., Morphological orders of spherulitic crystal textures in Belousov-Zhabotinsky-type oscillatory reaction system. Chemical papers, 2015, 69, 604 – 615.
18. Majhi, S.S., Mechanism of Pink Colour band through frontal Polymrization under publication. Korean J. Chem. Engg. (2016)

19. Majhi, S.S., Mechanism of Brown Colour band through frontal Polymrization under publication. Korean J. Chem. Engg. (2016)
20. A.C. Singh., Catalytic co-pyrolysis of paper biomass and plastic mixtures (HDPE (high density polyethylene), PP (polypropylene) and PET (polyethylene terephthalate)) and product analysis. Energy (ELSEVIER) (2016) 0360-5442
21. Pankaj Mishra, T. Ghose "A direct method for assessment of overall voltage condition of power system", International Journal of Electrical Power & Energy Systems, Volume 81, Pages 232–238, Accepted 25 February 2016, Available online 9 March 2016.
22. Kumar, Amit., Kumar, Roushan., A domain of influence theorem for thermoelasticity with Three phase lag model. Journal of Thermal Stresses. Vol. 38, issue 07, p.p 744-755

### **Books / Edited Books**

1. Soumya Banerjee, V. Balas (Romania) Evolutionary Intelligence in Business Paradigms Trends and Tools, Submitted May 2016 Publication Date December 2016, Page Limit 160 pages, Springer –Verlag, Germany.
2. Abhishek Kumar Singh, Anand Prakash, Sanjay Kumar Jha, Practices of Green Manufacturing in Selected Indian Industries, LAP LAMBERT Academic Publishing, Germany. ISBN: 978-3- 659- 89805- 1

### **Published in International Proceedings**

1. Eiman Tamah Al-Shammari, Soumya Banerjee, Dana Timar Balas, Neil Y. Yen: Exploring the Cognitive Psychology Paradigm of a Programming Language and Identification of Emotion under Collective Intelligence: An Experience with an Ant Colony Metaphor. at 18<sup>th</sup> International Conference on Network-Based Information Systems, NBIS 2015, Taipei, Taiwan, September 2-4, 2015. IEEE Computer Society 2015, ISBN 978-1-4799-9942-2, pp. 218-225.
2. Gautam Mohapatra and Soumya Banerjee An Object-Oriented Implementation of Bacteria Foraging System for Data Clustering Application, IEEE 6<sup>th</sup> International conference and workshop on Computing and Communication (IEMCON 2015), University of British Columbia, Vancouver, Canada 15<sup>th</sup> to 17<sup>th</sup> OCTOBER, 2015.
3. Soumya Banerjee, Manash Sarkar, Valentina E- Balas Configuring Trust Model for Cloud Computing: Decision Exploration Using Fuzzy Reasoning IEEE 19<sup>th</sup> International Conference on Intelligent Engineering Systems, September 2015, Bratislava, Slovak Republic.
4. Soumya Banerjee and Hameed Al-Qaheri, Designing and implementation of Policy Recommender System using Hybrid Machine learning, 2<sup>nd</sup> Euro China Conference on Intelligent Data Analysis, Ostrava, Cz Republic, 29<sup>th</sup> June -1<sup>st</sup> July 2015, Springer-Verlag.
5. Soumya Banerjee and Hameed Al-Qaheri, Inspecting Distributive Cognitive Awareness Models for a Team- Using Foraging Metaphor of Social Insects The 2015 International Conference on, Advanced Information Technology and Services InfoTech 2015. Tokyo, Japan March 24-25, 2015, Organized by the Institute of Electronics, Information and Communication Engineers (IEICE), Japan.

6. B. Acherjee, Kunal Mishra, Selection of cryogenic storage tank materials using ELECTRE method, Proc. of 2nd International Conference on Science, Technology and Management (ICSTM-15), Delhi University, New Delhi, India, September 27, 2015, 1032-1039, ISBN: 978-81-931039-6-8.
7. B. Acherjee, D. Maity, A.S. Kuar, and S. Mitra, Optimal process parameters selection of laser transmission welding of polycarbonate using cuckoo search algorithm, Proc. of 2<sup>nd</sup> International Conference on Advancements and Recent Innovations in Mechanical, Production and Industrial Engineering (ARIMPIE 2016), I.T.S Engineering College, Greater Noida, India, April 15-16, 2016, 2, 1-5, ISBN: 978-81-930411-8-5.
8. Life Cycle Assessment of Polyethylene Terephthalate (PET) Bottles. Abhishek Kumar Singh, Sanjay Kumar Jha, Anand Prakash, Harsh Agarwal, Richa Sinha. ELK Asia Pacific Journals – Special Issue. pp:132-139. ISBN: 978-81-930411-8-5.
9. A Decision-Making Model for Green Manufacturing using Analytical Hierarchy Process and Grey Relation Grading. Abhishek Kumar Singh, Sanjay Kumar Jha, Anand Prakash, Shubhanshu Shekhar Shukla, ELK Asia Pacific Journals – Special Issue. pp:122-126. ISBN: 978-81-930411-8-5.

### **Published in National Proceedings**

1. Mallick, S. and Sarkar, R. K., Coupled Propagation of Solitonic Beams in Nonlinear Medium Under Influence of Initial Curvature of Beams and Absorption, In Proceedings of the NCIPT-2016, BIT, Mesra, Off-Campus Deoghar, Jasidih, Deoghar, India, 2016.
2. Kumar, Amit., Flow through porous media between permeable beds under exponentially decaying pressure gradient. Proceedings of workshop cum seminar on role of science and technology for sustainable development with focus on make in India. IGNT Univ., Amarkantak, MP, 2016

### **Book:**

### **Chapter(s) in Edited Book**

1. Y. Ould Yahia, Soumya Banerjee, S. Bouzeffrane, H. Boucheneb. Exploring Formal Strategy Framework for the Security in IoT in e-health using Computational Intelligence, Titre du livre: Internet of Things and Big Data Technologies in Next Generation Healthcare, Accepted in June 2016,, Springer Verlag, pp. to appear 2016. (<https://cedric.cnam.fr/index.php/labo/membre/view?id=2567>)
2. Nishikant Kumar, Soumya Banerjee, Measuring Software Reliability: A Trend Using Machine Learning Techniques, Complex System Modeling and Control through Intelligent Soft Computations Studies in Fuzziness and Soft Computing, Zhu, Quanmin, Azar, Ahmad Taher (Eds.) Springer, Volume 319, pp. 807-829, 2015.
3. Soumya Banerjee, Youakim Badr, Developing Modified Classifier for Big Data Paradigm: An Approach through Bio-Inspired Soft Computing” to the edited volume entitled Data Science and Big Data: An Environment of Computational Intelligence, Springer –Verlag, Accepted in June 2016. to appear in 2016

4. B. Acherjee, A.S. Kuar, S. Mitra and D. Misra, Study of laser transmission welding process using a volumetric heat source model and experimental analysis, In: CAD/CAM, Robotics and Factories of the Future, Editors: D. K. Mandal and C. S. Syan, Lecture Notes in Mechanical Engineering, Springer, 2016, 23-32, ISBN 978-81-322-2740-3 (eBook).
5. Dutta, M.K., Advanced Computing, Networking and Informatics Volume 43 of the series Smart Innovation, Systems and Technologies, chapter no: 40, 2015, pp 385-390

#### **Award / Recognition Bestowed on Faculty Member (State / National / International)**

S. No.	Name of the Faculty	Title of the Award/ Honours	Organisation	Year / Duration
1.	Dr. Soumya Banerjee	Invited as Visiting Professor at INSA Lyon with the laboratory d'InfoRmatique en Image Systemes d'informatio(LIRIS) CNRS France towards the project entitled as "Scalable Event Driven Load Balancer for the Internet of Things based on Service Computing and Hybrid Soft Computing"	INSA Lyon with the laboratory d'InfoRmatique en Image Systemes d'informatio(LIRIS) CNRS France	April 10th- 20th June 2016.
2.	Dr. Soumya Banerjee	Elevated as Senior Member IEEE USA in December 2015.	IEEE USA	2015-2017
3.	Dr. Soumya Banerjee	Member Task Force on Awareness Computing Under IEEE Computational Intelligence Society	IEEE Japan & USA	2015-Life Members

#### **MoUs/Collaborations**

S. No.	Name of Organisation / University	Purpose / Area	Year / Duration
1.	Indian Statistical Institute, Kolkata	Big Data & Disaster Management Analytics	2015-2016

#### **Other important information**

The institute conducted the following events during the specified period

The Annual Sports '16 of the campus were organized during 4-6<sup>th</sup> Feb. 2016.

The Annual Techno-Cultural fest UTTHAAN'16 was organized during 28-30<sup>th</sup> March 2016.

The Literary Fest of the institute AURORA '16 was conducted during 22-23 Jan. 2016.



## Jaipur



BIT Jaipur Campus was established in 1995. The focus of the institute is to provide quality education in Engineering, Applied Sciences and Management with technology and professional exposure through innovative programmes & practices. Driven by the mission that the technology and innovative management practices will be the gateway to the future growth, it is today one of the leading institutes of Rajasthan in the field of Engineering, Applied Sciences and Management.

### **Development Vision**

Development is an everending process and undoubtedly, knowledge spread, innovative concepts, innovative practices and technology breakthroughs are at core of this process. In the professional education domain, there is a two dimensional need for upgrading knowledge and infrastructure - one to understand the fast happening conceptual and technology breakthroughs and second to facilitate new breakthroughs to take place with more knowledge inputs and basic research. In the present competitive environment, it is now a compulsion for a capable and growth oriented organization to be a part of contemporary development process.

With excellent performance, progressive mind set and good will earned, the BIT Jaipur Campus has a long term vision to consolidate the strength and excel in engineering and management education and research in emerging areas. The BIT Jaipur Campus has good potential to be one of the leading technical institutes in western part of the country.

## **Academic Programmes**

### **Undergraduate**

B.E. in following branches of Engineering :

- i) Computer Science (CS)
- ii) Electronics and Communication Engineering (ECE)
- iii) Electrical & Electronics Engineering (EEE)

BBA, BCA & B.Sc. (Animation & Multimedia)

### **Postgraduate**

MBA, MCA, M.Sc. Animation Design, Integrated MBA and Integrated MCA

### **Doctoral**

Ph.D Programme in Computer Science Engineering, Electronics & Communication Engineering, Management, Animation and Basic Sciences (Physics, Chemistry & Mathematics)

## **Main Facilities and Equipment**

**Building & Campus :** The institute is built up in about 5 Acre land (20000 Sq M). The built up area is about 6000 Sq M consisting of 13 Class Rooms, 15 Lab Halls, Mechanical workshop, Seminar Hall (150 Capacity), Common Computer/Internet Access Centre (30 Computers), Library Hall, Indoor sports & Gymnasium hall, Canteen hall and Administrative block.

**Equipment :** All required lab equipment are available in the institute to conduct B.E. Course in ECE, EEE & CSE discipline along with equipment required for Mechanical Workshop and Animation courses. The institute has three Dell Power Edge servers and 430 computers for lab, internet and administrative requirement.

### **Software/Simulation Tools**

**For Electronics & Electrical Labs :** CADENCE VLSI simulation tool, ANSYS- HFSS RF Design Software, MATLAB, Xilinx ISE Foundation Tool, ComSim, MultiSim, Code Composer Studio, PCB Design Util Board, System View, Open IT Guru, SUSE-V10, Ethernet Network Analyzer, Network Simulator Lab View with ELVIS Hardware kit

**For Computer Science Labs :** AutoCAD, Rational Rose, Oracle and Visual Prolog

**For Animation Lab :** Coral Graphics, Maya, Adobe suit, Sound Forge, Toon Boom, Macro Media Flash and 3D Studio

**For Management Studies :** SYSTAT and Tally

**Online e-Journals & e-books :** IEEE, Science Direct, PROQUEST, ASTM digital Library

## Sponsored Projects

## Ongoing Projects

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	AERONET system and measurements: BITEC Jaipur	PI Dr. Swagata Payra Co-PI Dr. Sunita Verma	GSFC, NASA	In collaboration	Instrumental mode	Continuous

## Projects Completed

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Date of completion of the Project
1.	Satellite Database Preparation using CartoSAT-1 and IRS-IV Images	Dr. M. P. Punia	NRSC, ISRO	22.8.2012	75.24 lakhs	Completed in December 2015

## Seminar / Conferences / Short – term Courses Conducted by the Department/Campus

S. No.	Title of Seminar / Conferences / Short – term Courses / Workshop	Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short – term Courses
1.	Workshop on Story Building, Scripting And Visual Scripting By Eminent Animation Professional Prof. Ranjan De, Head-Dept. of Visual Communication, Sushant School of Design, Gurgaon)	Dr. Vibhuti Pandya	BIT Jaipur Campus	August 4-7, 2015
2.	Animation Film Screening and interactional workshop with a case study of a stop motion film “The Department of Misfortunes” By International acclaimed Film Experts: Mr. Emmanuel Tenenbaum, France Mr. Mohamed Hisham, Dubai Mr. Benoit Giscler, Switzerland	Dr. Vibhuti Pandya	Organized by JIFF India Ltd. At BIT Jaipur Campus	January 5, 2016



S. No.	Title of Seminar / Conferences / Short – term Courses / Workshop	Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short – term Courses
3.	Workshop on Visual Development for Animation By Eminent Animation Professional Prof. Prosenjit Ganguli National Institute of Design, Ahmedabad	Dr. Vibhuti Pandya	BIT Jaipur Campus	January 11 -14, 2016
4.	Lecture Presentation and workshop on “Role of Performing Art in Personality and Career Development” By Prof. Cara Hagan, Internationally acclaimed contemporary performing artist and an art academician from State University USA	Dr. Vibhuti Pandya	BIT Jaipur Campus	March 11, 2016
5.	Workshop for students on Microprocessor and Microcontroller Applications	Snehanshu Shekhar, Puneet Sharma, Kanika Joshi	BIT Jaipur Campus	May 09-13, 2016
6.	Workshop for students on Image Processing and its applications using Matlab	Dr. Shripal Vijayvargiya Dr. Vishwambhar Pathak Subhash Chand Gupta	BIT Jaipur Campus	May 16-18, 2016
7.	Workshop for students on Applications of HFSS and IE3D Simulation Software in Designing of RF Systems	Dr. Dheeraj Bhardwaj, Deepak Chaturvedi	BIT Jaipur Campus	May 16-18, 2016

### Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1.	R. K. Gothwal	National Conclave of State Science and Technology Councils	DST, Govt. of Rajasthan	DST, Govt. of Rajasthan	Hotel Clarks Amer, Jaipur	August 27-28, 2015
2.	R. K. Gothwal	One day workshop on Biotech Policy of Rajasthan	DST, Govt. of Rajasthan	DST, Govt. of Rajasthan	BISR, Jaipur	September 10, 2015

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
3.	R. K. Gothwal	One day workshop on Creation of Proposed National Level Oncology Institute at Jaipur	DST, Govt. of Rajasthan	DST, Govt. of Rajasthan	Secretariat, Jaipur	November 18, 2015
4.	Dr. Ritu Pareek	Evolving Facets of Translation: Comparative Perspectives, Adaptation, and Popular Culture (Presented a paper)	ELTAI, Jaipur Chapter	Central University of Rajasthan	Central University of Rajasthan	November 23-24, 2015
5.	Dr. Ritu Pareek	Effective Teaching (Workshop)	MNIT, Jaipur	MNIT, Jaipur	MNIT, Jaipur	December 14-18, 2015
6.	Ravindra Kumar	8th National Conference on Thermophysical Properties (NCTP-2015)	Thermophysical Society of India (TPSI)	Department of Physics, MNIT, Jaipur	MNIT, Jaipur	December 14-16, 2015
7.	Dr. Anand Kumar Srivastava	8th National Conference on Thermo-physical Properties (NCTP-8)	Thermo-physical society of India	Department of Physics, MNIT, Jaipur	MNIT, Jaipur	December 14-16, 2015
8.	Dr. Sunita Verma	FDP on Effective Teaching	NITTTR Chandigarh	Conducted by MNIT Jaipur	MNIT Jaipur	December 14-18, 2015
9.	Dr. Vivek Gaur	Image Information Processing (ICIIP 2015).	IEEE	Jaypee University of Information Technology	JUIT, Wagnaghat, Solan	December 21-24, 2015
10.	Mr. Gautam Goswami	Workshop on Comic Development for adolescent Children,	Save The Children (International Health Organization for Children)	Save The Children	Village-NayaGoan, Alwar Dist.	December 27 -30, 2015



S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
11.	Dr. Vibhuti Pandya	Workshop on Comic Development for adolescent Children	Save The Children (International Health Organization for Children)	Save The Children	Village-NayaGoan, Alwar Dist.	December 27 -30, 2015
12.	Dr. Vibhuti Pandya	Workshop on Animation Film Making During Jaipur International Film Festival	JIFF India	JIFF India	Golcha Cinema Theatre & BIT Jaipur Campus	January 1-6, 2016
13.	Mr. Gautam Goswami	Workshop on Animation Film Making During Jaipur International Film Festival	JIFF India	JIFF India	Golcha Cinema Theatre & BIT Jaipur Campus	January 1-6, 2016
14.	Dr. Rishika Sharma	Workshop on Animation Film Making During Jaipur International Film Festival	JIFF India	JIFF India	Golcha Cinema Theatre & BIT Jaipur Campus	January 1-6, 2016
15.	Mr. Manish Kumar	Workshop on Animation Film Making During Jaipur International Film Festival	JIFF India	JIFF India	Golcha Cinema Theatre & BIT Jaipur Campus	January 1-6, 2016
16.	Dr. Anand Kumar Srivastava	International conference on plasma science, technology and application (ICPSTA-2016)	DITC PSSI, DRDO	Amity University, Lucknow	Amity University Lucknow	20-21 January 2016
17.	Jyoti Sharma	One week academy training programme on VLSI DSP Systems	DeitY, Ministry of Communication and IT, Govt. of India	DeitY& MNIT, Jaipur	MNIT Jaipur	January 23-27, 2016

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
18.	Snehanshu Shekhar	One week academy training programme on VLSI DSP Systems	DeitY, Ministry of Communication and IT, Govt. of India	DeitY& MNIT, Jaipur	MNIT Jaipur	January 23-27,2016
19.	Dr. Anand Kumar Srivastava	103rd Indian Science Congress	ISCA, India	Mysore University, Mysore	Mysore University Mysore	February 3-7,2016
20.	Dr. Ranjana Agrawal	Sustainable Engineering Applications of Material Science and Physico-Chemical Innovations (NCSEAM-2016)"	Department of Science and Technology, Govt. Of Rajasthan	Swami Keshvanand Institute of Technology, Management and Gramothan, (SKITM) Jaipur.	SKITM, Jaipur.	February 16-17,2016
21.	Dr. Ritu Pareek	The Culture of Food (Presented a paper)	BITS-Pilani-Goa Campus	MES College, Goa	MES College, Goa	February 25-27,2016
22.	Ankur Agarwal	One week academy training programme on Adaptive Signal Processing: Theory and Applications	DeitY, Ministry of Communication and IT, Govt. of India	DeitY& MNIT, Jaipur	MNIT Jaipur	26 Feb-01 Mar,2016
23.	R. K. Gothwal	One day workshop on Patinformatics for Bioinformatics	DBT, Govt. of India	Kumaun University, Nainital	Kumaun University, Nainital	March 3-4, 2016
24.	A. K. Varshney	One day workshop on Patinformatics for Bioinformatics	DBT, Govt. of India	Kumaun University, Nainital	Kumaun University, Nainital	March 3-4, 2016

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
25.	Dr. Swagata Payra	Climate Change and Extreme Weather: Assessment of vulnerability for early warning	Department of Disaster Management, Govt. of West Bengal	Department of Disaster Management, Govt. of West Bengal	Kolkata	March 5, 2016
26.	R. K. Gothwal	One day training cum workshop on Geoportal for Developmnt Planning and E-Governance	ISRO, Govt. of India	ISRO, Govt. of India	BISR, Jaipur	April 12, 2016
27.	A. K. Varshney	One day training cum workshop on Geoportal for Developmnt Planning and E-Governance	ISRO, Govt. of India	ISRO, Govt. of India	BISR, Jaipur	April 12, 2016
28.	Dr. Vishwambhar Pathak	FDP on "Parallel Computing"	DIET	MNIT-EICT Academy	MNIT, Jaipur	April 8-12, 2016
29.	Dr. Vivek Gaur	FDP on "Parallel Computing"	DIET	MNIT-EICT Academy	MNIT, Jaipur	April 8-12, 2016
30.	Dr. Vishwambhar Pathak	National Workshop on Advances in Neuroimaging and Applications in Cognitive Disorders (ANACoD)	NBRC, Manesar	NBRC, Manesar	NBRC, Manesar	May 3-4, 2016
31.	Dr. Anand Kumar Srivastava	International Conference on Engineering Physics, Materials and Ultrasonics (ICEPMU)	SERB, MRSI, USI, DRDO	Northcap University, Gurgaon	Northcap University Gurgaon	June 3-4, 2016

## **Publications**

### **Published in International Journals**

1. Verma, S., D Yadav, P RicaudSwagataPayra, J-L Attié and M Soni., A New Classification of Aerosol Sources and Types as Measured over Jaipur, India, Aerosol and Air Quality Research, 2015, Vol 15, No. 3, pp. 985 – 993.
2. D Prakash, S Verma and SwagataPayra., Estimate on changes in aerosols properties during dust prevalence over Jaipur, India, International Journal of Applied Environmental Sciences.,2015, Volume 10, Number 3, pp. 1009-1018.
3. SwagataPayra, M Soni, A Kumar, D Prakash and S Verma., Intercomparison of Aerosol Optical Thickness Derived from MODIS and in Situ Ground Datasets over Jaipur, a Semi-arid Zone in India, Environmental Science and Technology, 2015, Vol 49(15), pp. 9237 – 9246.
4. Pradeep Kumar Sharma, Ritu Vijay, Punia MP, Geostatistical evaluation of groundwater quality distribution of Tonk district, Rajasthan, International Journal Of Geomatics And Geosciences, 2015, Volume 6, No 2, 1474-1485.
5. Sharma, P.K., Vijay, R.,Punia M.P., characterization of groundwater quality of tonk district, rajasthan, india using factor analysis, International Journal of Environmental Sciences,2015, volume 6, no 4, 454-466.
6. Mishra, U and Singh, G., Convection along Unsteady shrinking sheet with boundary slip and thermal jump in presence of radiation, ActaTechnica, 2016, 60(4), pp.405-416.
7. Singh, B. K., Estimating of accumulated soil organic carbon stock in tropical forest using geospatial strategy. The Egyptian Journal of Remote Sensing and Space Sciences – ELSEVIER (2016) 19, 109–123.
8. Sharma, P.K., Vijay, R.,Punia M.P, groundwater quality assessment using water quality index and gis in rajasthan, india, international journal of advancement in remote sensing, gis and geography, IJARSGG,2016, vol.4, no.2, 12-26.
9. Srivastava,A.K.,Observation ofself-organizedsquarelatticepatternformationinsurfacebarrier discharge plasma. J. Electrostatics, 2016, 82, pp.72-78.
10. Saurabh Singh,; Madhavi Sinha, Forensic sketch recognition using user specific facial region, International Journal of Biometrics (IJBM), 2016,Vol. 8, No. 2, pp.134 – 144.
11. Gaur, V., et. al., A Multi-Objective Optimization of Cloud Based SLA -Violation Prediction and Adaptation, I.J. Information Technology and Computer Science, 2016, 6, 60-65.
12. Sharma J., Sharma, A., Universal Filter Design using 45nm CMOS-based DDCC for Bluetooth/ Zigbee Applications. International Journal of Computer Applications Published by Foundation of Computer Science (FCS), NY, USA.January 2016,134(13), pp.36-40.
13. Sharma J., SharmaK., Performance Evaluation of Electronically Tunable Filter Using CCCII in 45nm CMOS Technology for Wi-Fi Applications. International Journal of Science and Research (IJSR),March 2016.Volume 5 Issue 3, pp.2053-2057.

14. SwagataPayra, P Kumar, S Verma, D Prakash and M Soni., Potential Source Identification for Aerosol Concentrations over a site in Northwestern India, Atmospheric Research, March 2016, Volume 169, Part A, Pages 65–72.
15. Sharma J., Jhalani, S., Dwivedi, L., Designing of Current-Mode Active Filter Using 45nm CMOS-Based CCII. IOSR Journal of VLSI and Signal Processing (IOSR-JVSP), Mar. -Apr. 2016, Volume 6, Issue 2, Ver.I, pp. 66-72.
16. Bhardwaj, D., Tangri, S., Sharma K., Modified stacked compact microstrip patch antenna for implantable medical devices, International Journal of Latest Trends in Engineering and Technology, May 2016, Vol 7, issue 1, pp724-730.
17. Joshi, K., Bhardwaj, D., Tiwari V., On radiation from convexo-concave microstrip patch antenna with impedance matching transformer, International Journal of Latest Trends in Engineering and Technology, May 2016, Vol 7, issue 1, pp731-735.
18. Bhardwaj, D., Sarashwat, S., Gulati, G., Sharma, K., Design of defected ground lowpass microstrip filters with enhanced performance characteristics, International Journal of Latest Trends in Engineering and Technology, May 2016, Vol 7, issue 1, pp736-741.
19. Joshi, K., Bhardwaj, D., Tiwari V., Review Paper on Modified Rectangular Shaped Microstrip Patch Antennas, International Journal of Electronics & Communication Technology, May 2016, Vol. 7, Issue 2, pp.-51-56.
20. Ritu Pareek, Terrorism and its psycho-social impact on society, Pune Research An International Journal in English, May 2016, 2, pp 1-5.
21. Ritu Pareek, Women in Indian Cinema : A Critical View”, Pune Research Discovery. June 2016, 1, pp1-4.

### **Published in International Proceedings**

1. Bhardwaj, D., Gulati, G., Saraswat, S., Sharma, K., Dual Band Multi Frequency Rectangular Patch Microstrip Antenna with Flyswatter Shaped Slot for Wireless Systems, Proceeding of International Conference on Communication Systems (ICCS-2015) Pilani, Rajasthan, India, published by the American Institute of Physics (AIP), 18–20 October 2015, 1715, 020033.
2. Bhardwaj, D., Gulati, G., Saraswat, S., Sharma, K., Bandwidth Enhancement of Electromagnetic Coupled Non-uniform H-Shaped Microstrip Patch Antenna for Higher Band of Wi-MAX Applications, Proceeding of International Conference on Communication Systems (ICCS-2015) Pilani, Rajasthan, India, published by the American Institute of Physics (AIP) 18–20 October 2015, 1715, 020044.
3. F Carminati, P Ricaud, J-P Pommereau, E Rivière, J-L Attié, SwagataPayra, L El Amraoui and R Abida, Role of saturation in the water vapor diurnal cycle in the South American Tropical Tropopause Layer, CT3LS open meeting July 20-23, 2015, Boulder, Colorado, USA.
4. Payra, S., Ricaud, P., Abida, R., J-L Attié, L El Amraoui, F Carminati, E Rivière, J-P Pommereau, S Khaykin, Assimilation of water vapour measurements in the tropical tropopause layer, WBTTL, Reims, France, July 1 – 3, 2015



5. Bhargava,D., Sinha M., and Poonia, R. C. Run-time performance analysis of non-agent based solution for Inter Process Synchronization problem. In Proceedings of 4th International Conference on Reliability, Infocom Technologies and Optimization (ICRITO) (Trends and Future Directions), Amity Institute of Technology, Noida, 2015.
6. Pathak,V.,Dhyani,P., Neuronal feature extraction through autonomous segmentation using density conscious artificial immune algorithm, Proceedings of 2015 Third International Conference on Image Information Processing (ICIIP),, pp. 326-329, 2015.
7. Agarwal,D.,Sharan,N., Raja, P., M, Agarwal, A., "PAPR Reduction Using Precoding and Companding Techniques for OFDM Systems", (ICACEA) IEEE, pp-18-23, 2015.
8. Gaur, V., et. al., A QoS-based service discovery using meta-heuristic optimization in federated cloud. International Conference on Image Information Processing, IEEE Xplore, 25 February, 2016.
9. Srivastava, A. K., Patenting in plasma technology: example of plasma TV development in India. In proceedings of International conference on plasma science, technology and application (ICPSTA-2016), Lucknow, India, 2016.
10. Srivastava,A.K.,Development of dielectric-controlled cold atmospheric pressure plasma source. In proceedings of International Conference on Engineering Physics, Materials and Ultrasonics (ICEPMU), NCU Gurgaon, India, 2016.
11. S.Verma, "Multi-year Measurements of Aerosols at Jaipur, a Site in Northwestern India" at NOAA Earth System Research Laboratory's Global Monitoring Annual Conference, May 17th and May 18th, 2016, at the David Skaggs Research Center in Boulder, Colorado,2016.
12. M Soni, S Verma and Swagata Payra., Impact of Spatial Resolution on Meteorological Parameters using WRF Model over Jaipur, India, IJERT, Volume 4 Issue 23, NCACE Conference Proceedings, Page No-83-85, 2016.

### **Published in National Journals**

1. Pathak, V., Prescriptive Data Mining: Neurative Genomics and Solutions for Neuropsychiatric Disorders, CSI Communications, 39(7),, pp 10-12, Oct 2015
2. Roopali Sharma, E-Commerce: An Analytical Study on its spread and its impact on Indian Economy", Productivity- A Quarterly Journal of The National Productivity Council, Vol. 56, pp 338-344, January-March 2016.

### **Published in National Proceedings**

1. Srivastava, A. K., Dielectric Erosion and Sub-micron Polymeric Particles Formation in Planar Dielectric Barrier Discharge Plasma. In proceedings of 8<sup>th</sup> National Conference on Thermo-physical Properties (NCTP-8), Jaipur, 2015.
2. Kumar, R., Srivastava, A. K., Konar, S., Evaluation of Surface Properties of Various Plasma Nitrided Low Alloy Steels. In proceedings of 8<sup>th</sup> National Conference on Thermo-physical Properties (NCTP-8), Jaipur, 2015.

3. Srivastava, A. K., Evaluation of dielectric barrier discharge plasma sources for industrial applications. In proceedings of 103<sup>rd</sup> Indian Science Congress, Mysore, India, 2016.
4. Sharma, R., MICE Tourism- An Emerging Prospect in Socioeconomic Development in South Asian Countries. In Proceedings of the National Seminar on India and its Neighbours: Emerging Issues & Challenges, University of Rajasthan, March 18-19, 2016.
5. Jhalani, S., Sharma K., Sharma, J., Comparison & Implementation of CCCII in 45nm CMOS for design of Oscillator, National Conference on New Vistas of Development in Communication Technology (NVDCT-2016), MAIET, Jaipur, 9-11, April, 2016.
6. Chakraborty, S., Sharma, J., Design of Universal filter using CDTA in 45nm CMOS Technology, National Conference on New Vistas of Development in Communication Technology (NVDCT-2016), MAIET, Jaipur, 9-11, April, 2016.
7. D Prakash, Payra S., Verma, S., The aerosol particle behavior during dust epochs over Jaipur. SSRG International Journal of Civil Engineering (SSRG-IJCE) – volume 3 Issue 5 – May 2016.

## Books

### Chapter(s) in Edited Book

1. D. Bhardwaj, G. Gulati, L. Bhardwaj, K. Sharma, Gain and Bandwidth Enhancement of Single Layered Slotted Triangular Shaped Microstrip Patch Antenna with Stub for WLAN Applications, Book chapter published in the Springer special issue. 2016, pp. 729-739.
2. D Bhardwaj, A Dwivedi, N Jain, K Sharma, Design of Dual Resonator Broadband Multilayer Electromagnetically Coupled Microstrip Antenna for X-Band Applications, Book chapter published in the Springer special issue. 2016, pp. 741-750.
3. Jyoti Sharma and Mohd. Samar Ansari, "Low THD  $\pm 0.75V$  32nm CNFET Quadrature VCO for PLL and Costas-Loop Applications," Advances in Intelligent Systems and Computing book series of Springer, Vol. 479 2017, ISBN: 978-981-10-1707-0 (Print) 978-981-10-1708-7.
4. Vibhuti Pandya, Chakshush Kalaon Me Animation: Bhavishya Avam Sambhavnayen, Book- Kala-Shiksha Aur Bhavi Pariprekshya, Page No. 189-192, Year 2016, Panchshil Publisher, ISBN NO. 978-81-7056-619-9.

### Award / Recognition Bestowed on Faculty Members (State / National / International)

S. No.	Name of the Faculty	Title of the Award/ Honours	Organisation	Year / Duration
1	Dr. Vibhuti Pandya	Jury Member of Jaipur International Film Festival	JIFF, Jaipur	Jan. 2016
2	Dr. Swagata Payra	Who's Who in the World	Marquis Who's Who, USA	2016

### MoUs / Collaborations with Academia/Industry

S. No.	Name of Organization / University	Purpose / Area	Year / Duration
1	GSFC, NASA (Collaboration/ MoU)	AERONET station. Climatology & Environmental Science	2009/Continuous

### Students' Activities

S. No.	Name of the Activity	Students' co coordinator	Date/Duration
1	Cavorts : (Sport Fest) An event to develop Physical, Mental, Competitive and Team Spirit strength. All these significantly contribute in professional career.	Deepak Kashyap BE-VII Sem Gaurav Gupta BE-VII Sem Amit Kumar BE-VII Sem Deepak Agarwal BE-VII Sem Ayush Choudhary BE-V Sem Shreyans Jain BE-V Sem Vijay Panwar MBA –III Sem Amit Sharma MCA-III Sem Kanwaldeep Singh IMBA-VII Sem	October 14-16, 2015
2.	Vibrations: (Cultural & Art Fest) An expression of vibrating enthusiasm and artistic talent of BIT Jaipur Campus students.	ShashankUttrani, BE- VIII Sem Shraiya Malik, BE- VIII Sem AnuPriya, BE- VIII Sem Meghna Sharma, B.Sc (A&M) IV Sem	March 30-31, 2015
3	TechVibes : (Technical Fest) An event that stimulate minds to innovate and practically realize knowledge and ideas. The rich technical legacy of BIT gets new expressions in TechVibes.	Shubham Bansal, BE- VIII Sem Monil Yadav, BE -VIII Sem Rohan Krishna Saxena, BE -VIII Sem Rohit Sharma, BE- VIII Sem Sahil Tangri, BE- VIII Sem Sanat Talwar, BE- VIII Sem Parth Bohra, IMBA- VIII Sem Meghna Sharma, B.Sc. (A&M)- IV Sem	March 15-16, 2015

### Board of Studies(UG/PG)

- I) Dr.Roopali Sharma, Associate Professor (Management Studies) was Member of BOS for department of humanities & social sciences at Suresh GyanVihar University, Jaipur
- II) Dr.Vibhuti Pandya, Asst. Professor (Animation & Multimedia) was a member of BOS of following
  - B.Sc. Animation & Multimedia (UG Programme of BIT Mesra)
  - M.Sc. Animation Design Programme (PG Programme of BIT Mesra)

## **Academic Committee for the centre**

### **Following are members of Academic Committee at Jaipur Centre**

1. Dr. Abhinav Dinesh, Director
2. Dr. S.K. Sharma, Professor, applied Chemistry
3. Dr. Madhavi Sinha, Associate Professor, Computer Science Engineering
4. Dr. Roopali Sharma, Associate Professor, Management Studies

Other important information

### **Doctoral Research at the Centre**

- a) Ph. D thesis submission : Mr. Vivek Gaur has submitted his thesis on topic: - "Development of an architectural framework for discovering and monitoring of cloud service" to Banasthali University, Rajasthan
- b) 24 Full Time/Part Time research Scholars at the centre have enrolled for the Ph.D Programme as on 30/06/16

### **Eminent persons visited our campus during the period**

<b>S. No.</b>	<b>Name of the person</b>	<b>Purpose</b>
1.	Dr. Chandan Chowdhury, Eminent Technocrat, Managing Director Dassault Systemes India	Chief Guest in Convocation Ceremony held on 22nd February 2016
2.	Dr. G. K. Chaturvedi, Eminent Technocrat, Managing Director of Logic Plus Plus India Ltd, Ex- R&D Head Hindustan Aeronautics Limited, Ex- Advisor Central Electronics Ltd, Govt. of India	Visited Jaipur Campus in December 2015 and delivered Invited Lecture on "prospects of academia interaction in industrial research "



## Kolkata



BIT Kolkata Campus was established in 1995. This Centre offers academic programmes in Computer Science and Business Management, Bioinformatics & Bio-Technology, and Electronics and Communication, Mathematics & Computing. The Centre, located in the southern part of the City, is well connected with the rest of Kolkata. The extensive 30,000 sq feet premises of the Centre includes spacious computer laboratories with dedicated server rooms, several lecture rooms, a seminar hall, and a well-equipped library with books, journals and subscription to various e-journals. Faculty members and the student community have free access to online journals through IEEE, H.W.Wilson database and SIAM. The centre also has a rich collection of e-books of World Scientific and IET. The whole Centre is networked and Internet facilities are provided through a 3 Mbps and 10 Mbps dedicated line.

The computer laboratory has 230+ modern HP, Dell and Compaq machines, out of which 100+ machines are with the latest architectural features. The network is well-protected through the latest Cyberoam 1000A Firewall Manager, and Quick Heal anti-virus software supporting both the computer labs. The latest software ranges from C, Turbo C++, Java, VisualStudio.Net, Microsoft Office suite, Oracle 10g, Photoshop 9, Adobe Writer, Macromedia Flash 8, Dreamweaver 8 and Rational Rose, and MATLAB and other high end softwares required for Electronics Lab. There was also an MOU with Texas Instruments and one lab. has been set up with their support.

The campus has a placement cell to guide students about their career plan, to train them and to facilitate their placement in reputed organizations. The focus of the Placement Cell is to train and equip students through regular Competency Development Programmes (CDP) in such a way that they are accepted by the best organizations. The cell operates in close guidance with the Placement Cell of our



main campus at Mesra, Ranchi.

Some of the recent placements for BBA/BCA batches were in reputed companies like : CTS, TCS, Satyam, Wipro Technologies, Reliance etc.

Students of MCA secured campus placements in reputed organizations such as Aricent, CTS, TCS, HP, Sapient, Tech Mahindra, I-Gate, Direct I, Oracle, Electra Design Automation, Birla Soft, IBM, Accenture, Tech Mahindra, Wipro, HeadStrong, Infosys, RS Software etc. All students are also encouraged to do in-house projects in their fifth/sixth semester under the guidance of the faculty members.

The faculty at the Centre have rich of teaching and research experience in Digital Image Processing, Mobile Computing, Distributed and Parallel Computing, Agile Programming, Data Warehousing and Mining, Industrial Marketing, Corporate Finance, HR and Organizational Behaviour, Entrepreneurship, and Industrial Relations. Many of them are also actively involved in training and development programmes. Guest lectures are also delivered regularly by eminent faculties from IIT Kharagpur, Jadavpur University, University of Calcutta, Burdwan University, B. E. College (Shibpur), WBUT etc.

**Programme offered:** 1. MTech (CS) 2. ME (Wireless Communication) 3. MTech (Biotechnology) 4. MCA 5. MBA 6. BBA 7. BCA

### Sponsored Projects

#### Project Sanctioned

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Early Detection of Microaneurysms and Hemorrhages from Fundus Image of Eye	PI (Dr. Ambar Dutta) Co-PI (Prof Rohit Kamal Chatterjee)	BIT, Mesra	02/02/2016		1 Year
2.	Algorithms for Coverage and Search by Swarm of Mobile Robots in Discrete Domain	P. I. (Srabani Mukhopadhyaya)	BIT, Mesra,	02/02/2016		1 Year
3	Development of Fault Tolerant Monitoring Framework in wireless Sensor Network	PI: Dr. Ajanta Das	BIT, Mesra	02-02-2016		1 year
4	Non-Invasive Bio-optical Measurement Device for Medical Application	PI: Dr. Sanchita Ghosh/ Co-PI: Dr. Bharat Gupta	BIT, Mesra	02.02.2016		1 Year

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
5	Sensing urban air pollutants and its effect on human skin health: A knowledge mining	PI: Dr. R Mukherjee/ Co-PI: Dr. Sanchita Ghosh	BIT, Mesra	02.02.2016		1 Year
6	Design and Analysis of Wearable UWB Antenna for Body Centric Communication	PI: Dr. Bharat Gupta/ Co-PI: Dr. Sanchita Ghosh	BIT, Mesra	02.02.2016		1 Year
7	Adoption of E-Commerce by Women Entrepreneurs as a tool of Empowerment: An Exploratory Study in West Bengal	PI (Dr. Srabani Dutta)	BIT, Mesra	02.02.2016		1 Year

**Conferences/ Seminars/ Workshops/ Staff Development Programmes attended**

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1	Ambar Dutta	57 <sup>th</sup> Orientation Programme	UGC	UGC-HRDC, Jadavpur University	Jadavpur University, Salt Lake Campus, Kolkata-700098	15/06/2015 - 11/07/2015
2	Srabani Mukhopadhyaya	59 <sup>th</sup> Orientation Programme	UGC	UGC-HRDC, Jadavpur University	Jadavpur University, Salt Lake Campus, Kolkata-700098	23/11/2015 - 21/12/2015
3	Srabani Mukhopadhyaya	10 <sup>th</sup> International Conference on Advanced Computing & Communication Technologies, 2015		Asia Pacific Institute of Information Technology Panipat, 132103, India	Asia Pacific Institute of Information Technology, Panipat, 132103, India	27/11/2015 - 29/11/2015

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
4	S. Chaudhuri	57 <sup>th</sup> Orientation Programme	UGC	UGC-HRDC, Jadavpur University	Jadavpur University, Salt Lake Campus, Kolkata-700098	15/06/2015 - 11/07/2015
5	Ajanta Das	59 <sup>th</sup> Orientation Programme	UGC	UGC-HRDC, Jadavpur University	Jadavpur University, Salt Lake Campus, Kolkata-700098	23/11/2015 - 21/12/2015
6	Sraboni Dutta	Emotional Intelligence of Teachers	MHRD	NITTTR, Kolkata	Kolkata	16.11.15 – 20.11.15
7	Soumendra Bhattacharjee	A National Seminar on “Make in India: Futuristic Perspective on Business & Society”.	MSME Development Institute, Govt. of India.	Biju Patnaik Institute of IT & Management Studies (BIITM), Bhubaneswar.	BIITM, Bhubaneswar.	12.03.16
8	Soumendra Bhattacharjee	A National Conference on “Redefining Business Vision: Issues and Challenges”.	UGC	Department of Commerce and Business Administration, St. Xavier's College, Kolkata.	St. Xavier's College, Kolkata.	19.03.16
9	Soumendra Bhattacharjee	A National Conference on “Advances in Engineering, Technology and Management (AETM)”.		Department of Management Studies, MM University, Sadopur, Ambala, Haryana.	MM University, Ambala.	03.04.16

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
10	Soumendra Bhattacharjee	57 <sup>th</sup> Orientation Programme	UGC	UGC-HRDC, Jadavpur University	Jadavpur University, Salt Lake Campus, Kolkata-700098	15/06/2015 - 11/07/2015
11	Sandip Kumar Sengupta	59 <sup>th</sup> Orientation Programme	UGC	UGC-HRDC, Jadavpur University	Jadavpur University, Salt Lake Campus, Kolkata-700098	23/11/2015 - 21/12/2015
12	Ruchira Mukherjee	Emotional Intelligence for Teachers	MHRD	NITTR, Kolkata	Kolkata	16.11.2015 to 20.11.2015
13	Ruchira Mukherjee	Life Sciences Symposium	Wellcome Trust India DBT Alliance	Presidency University, Kolkata	Kolkata	23.2.2016
14	Rohit Kamal Chatterjee	59 <sup>th</sup> Orientation Programme	UGC	UGC-HRDC, Jadavpur University	Jadavpur University, Salt Lake Campus, Kolkata-700098	23/11/2015 - 21/12/2015

## Publications

### Published in International Journals

1. Kumar, S. and Dutta, A., "Implementation of a Least Significant Bit (LSB) based Spatial Domain Watermarking Techniques", International Journal of Advanced Research in Computer Science and Software Engineering, Vol 5, Iss 12, 511 – 515, 2015.
2. Ghosh, A. and Dutta, A., "Comparative Study of Different Improvements of Apriori Algorithm", International Journal on Recent Trends in Computing and Communication, Vol. 4, Iss 3, 75-78, 2016.
3. Ghosh, A. and Dutta, A., "Improvement of Apriori Algorithm by Reducing Number of Database Scans and Generation of Candidate Keys", International Journal of Advanced Research in Computer Science (IJARCS), Vol. 7, Iss 2, 35 – 41, 2016.
4. Dutta, A., "A Novel Extension for Automatic Keyword Extraction", International Journal of Advanced Research in Computer Science and Software Engineering, Vol. 6, Iss 5, 160 – 163, 2016

5. Ganguly, K. S., Modak, S., Chattopadhyay, A. K., Ganguly, K. S., Mukherjee, T. K., Dutta, A., Biswas, D., "Forecasting Based On a SARIMA Model of Urban Malaria for Kolkata", American Journal of Epidemiology and Infectious Disease, Vol. 4, Iss. 2, 22 – 33, 2016
6. Basu, W., and Chaudhuri, S., "A Survey of Scheduling Algorithms in Real Time Systems", International Journal of Advanced Research in Computer Science and Software Engineering, Vol. 6, No. 2, 553 – 555, Feb. 2016.
7. Basu, W., and Chaudhuri, S., "Missed Deadlines Should be Considered – Proposals for Modifying Existing Real-Time Disk Scheduling Algorithms", International Journal of Advanced Research in Computer Science, Vol. 7, No. 3, 85 – 93, May-June 2016.
8. Prasad, S., Chaudhuri, S., and Ramkumar, B., "Passive Copy-Move Forgery Detection Using SIFT, HOG and SIFR features", International Journal of Advanced Research in Computer Science, Vol. 7, No. 3, 64 – 68, May-June 2016.
9. Paul, S., Chaudhuri, S., and Jana, D., "Increasing the Fault-Tolerance of NameNode: A Proposal for Using DataNode as a Secondary Backup Node", International Journal of Advanced Research in Computer Science and Software Engineering, Vol. 6, No. 6, 416 – 422, June 2016.
10. Biswas, S. Ghosh, Adaptive Power control scheme for Base Stations in a cellular network, International Journal of Electrical and Computer Engineering, Accepted for Publication 2016.
11. S. Majumdar, S. Ghosh, Cognitive Radio Based TVWS Sensing Framework- Designing The Algorithm And Network Setup, International Journal of Wireless Communications and Networking Accepted for Publication 2016. (Scopus)
12. M. Mallik, S. Ghosh, Optical Property of Dermis and Epidermis Layer, IJARSE Vol. 4 No.11 pp. 271-275, 2015.
13. S. Ghosh, On Hydromagnetic Channel Flow of a Rotating Oldroyds-B Fluid Induced by Tooth Pulses, International Journal of Applied Engineering Research, Vol. 10(22), pp. 42881-42891 2015. (Scopus)
14. S. SinhaRoy, S. Ghosh, An Evolutionary Location Update Model in Mobile Cellular Communication Network Sample, SSRG International Journal of Computer Science and Engineering, Vol. 2 No. 9, pp. 14-23, 2015.
15. Munshi, D. and Dutta, S. (2016). Sustainability Reporting Quality Of Indian and American Manufacturing Firms : A Comparative Analysis, Serbian Journal of Management, 11 (2), pp.245 – 260.
16. Ghosh, S. and Dutta, S., (2016) Mergers and Acquisitions: A Comparative Review Of Literature, Industrija, 44(1), pp 187-208
17. Goswami, A. and Dutta, S., (2015). Gender Differences in Technology Usage - A Literature Review in Open Journal of Business and Management (OJBM), 4, 51-59.
18. Bhattacharjee, S. "Safety Facilities in the Paper Mills under a Public Sector Enterprise in India", IOSR Journal of Business and Management, Vol 18 (2), February 2016, pp. 56 – 64
19. Bhattacharjee, S. "Intra – Mural Welfare Facilities at Cachar Paper Mill in Assam under Hindustan Paper Corporation Limited", International Journal for Research and Studies, Vol 02 (1) February – August 2016, pp. 68 – 84



20. Mukherjee S., Bhattacharjee, S. & Singha, Seema S, "Workplace Spirituality: A Paradigm Shift to Ethics from Business", IOSR Journal of Business Management, Vol 1 Special Issue (AETM'16), April 2016, pp. 5 – 11

### **Published in International Proceedings**

1. Kumar, S. and Dutta, A., "Performance Analysis of Spatial Domain Digital Watermarking Techniques", IEEE International Conference on Information Communication & Embedded System, Chennai, India, February 2016.
2. Kumar, S. and Dutta, A., "A Novel Spatial Domain Techniques for Digital Image Watermarking Using Block Entropy", IEEE International Conference On Recent Trends In Information Technology, Chennai, India, April 2016.
3. Kumar, S. and Dutta, A., "A Study on Robustness of Block Entropy Based Digital Image Watermarking Techniques with respect to Various Attacks", IEEE International Conference on Recent Trends in Electronics, Information & Communication Technology", Bangalore, India, May 2016.
4. Sinha, M. and Mukhopadhyaya, S., Classification of Robot Swarm Models in Discrete Domain. In Proceedings of the 9th ICACCT, 2015, Advanced Computing and Communication Technologies - 452, R. K. Choudhary et al. (eds), pp. 205-212, Springer, 2016. [ISBN 978-981-10-1023-1]
5. Das, D. and Mukhopadhyaya, S., Multi-robot Assembling Along a Boundary of a Given Region in Presence of Opaque Line Obstacles. In Proceedings of the 2nd International Conference on Intelligent Computing and Applications (ICICA-2015), Chennai, 2016, pp. 21 – 29, Springer, 2015. [DOI: 10.1007/978-981-10-1645-5-3]
6. Ajanta Das, Patralika Mitra and Debajyoti Basu, "Provisioning of Medical Analysis in Cloud", in the proceedings of 10th INDIA COM 2016, pp 995 – 999, 16-18th March, 2016.
7. Mridul Paul and Ajanta Das, "SLA Based E-Learning Service Provisioning in Cloud", in the Proceedings of "Information Systems Design and Intelligent Applications", (INDIA 2016), Advances in Intelligent Systems and Computing, Springer AISC series (435) vol: 3, pp: 49-57, 4th February 2016.
8. Angira Ghosh Chodhury and Ajanta Das "Importance of SLA in Cloud Computing" accepted and presented in the proceedings of 50th Golden Jubilee Annual Convention of CSI, held during 02nd - 05th December, 2015
9. Siba Mitra, Sarbani Roy, Ajanta Das, "Parent Selection Based on Link Quality Estimation in WSN" Book Chapter has been published in book "Proceedings of the Second International Conference on Computer and Communication Technologies" Springer AISC series (379) Volume 1. pp 629-637, 5th September 2015, 2015.
10. Sukalyan Goswami, Ajanta Das, "Resource Prioritization Technique in Computational Grid Environment", Book Chapter published in book "Proceedings of the Second International Conference on Computer and Communication Technologies" Springer AISC series (380), Volume 2, pp 765-772, 4th September 2015.

11. Goswami, A. and Dutta, S., Investigating the Barriers in Implementing ICT by Women Entrepreneurs. In Proceedings of Third International Conference on Business and Information Management, (IEEE Indexed) NIT Durgapur January, 2016

### **Published in National Journals**

1. Bhattacharjee, S. "Corporate Social Responsibility with Reference to the Paper Industry of Assam", Vanijya, Vol 25, July 2015, pp. 213 – 220, ISSN No: 0972 -6594.
2. Bhattacharjee, S. "Trade Union: Whether a Positive Player towards Labour Welfare Activity – A Micro Level Study", INSPIRA – Journal of Modern Management & Entrepreneurship, Vol 06 (01), January 2016, pp. 216 – 222, ISSN No: 2231 – 167X.

### **Published in National Proceedings**

1. Arnab Rakshit, Rimita Lahiri, Sayan Ghosal, Abhirup Sarkar, Sanchita Ghosh, Amit Konar, Robotic Link Position Control Using Brain Computer Interface, MicroCom 2016, NIT Durgapur, India.
2. Snehalika Lall, Arup Kumar Sadhu, Amit Konar, Kalyan Kumar Mallik, Sanchita Ghosh, Multi-agent Reinforcement Learning for Stochastic Power Management in Cognitive Radio Network, MicroCom 2016, NIT Durgapur, India.
3. Snehalika lall, Rimita Lahiri, Amit Konar, Sanchita Ghosh, An Improved Measure for Data Clustering in High Dimensional Space, MicroCom 2016, NIT Durgapur, India.
4. Dutta S., Analyzing Disclosure of Social Sustainability Parameters by Indian Manufacturing Firms. In Proceedings of JDBI Management Conference 2016, Kolkata on April 8, 2016
5. Bhattacharjee, S. & Mukherjee, S. "Start – Up: Its Prospects and Opportunities in West Bengal". In the Proceedings of the National Seminar on 'Make in India: Futuristic Perspective on Business & Society, Biju Patnaik Institute of IT & Management Studies (BIITM), Bhubaneswar, 2016.
6. Bhattacharjee, S. & Mukherjee, S. "Modern Trends and Practices in Training and Development". In the Proceedings of the National Conference on 'Redefining Business Vision: Issues and Challenges', Department of Commerce and Business Administration, St. Xavier's College, Kolkata, 2016.

### **Book**

#### **Chapter(s) in Edited Book**

1. **Srabani Mukhopadhyaya**

Handbook of Research on Design, Control and Modeling of Swarm Robotics

Chapter 27 : Techniques in Multi-Robot Coverage - A Comparative Survey, Publisher: IGI Global, Year : 2015 Pages : 770-791, DOI : 10.4018/978-1-4666-9572-6

2. **Sanchita Ghosh**

S. Ghosh, A. Desarkar Evolutionary Algorithm Based Techniques to Handle Big Data (Techniques and Environments for Big Data Analysis Parallel, Cloud, and Grid Computing) Springer International Publishing Switzerland. 2016 ISBN: 978-3-319-27518-5

### Award / Recognition Bestowed on Faculty Members (State / National / International)

S. No.	Name of the Faculty	Title of the Award/ Honours	Organisation	Year / Duration
1.	Dr. Ambar Dutta	Treasurer, Kolkata Chapter	Computer Society of India	Apr 2015 – March 2017
2	Prof. S. Chaudhuri	Secretary, Kolkata Chapter	Computer Society of India	Apr 2016 – March 2018
3	Prof. S. Chaudhuri	Member, Managing Committee of Kolkata Chapter	Computer Society of India	Apr 2015 – March 2016
4	Dr. Ajanta Das	Member, Managing Committee of Kolkata Chapter	Computer Society of India	Apr 2016 – March 2017
5	Dr. Ajanta Das	Member, Managing Committee of Kolkata Chapter	Computer Society of India	Apr 2015 – March 2016
6	Dr R. T. Goswami	Board of Studies Member	National Institute of Personnel Mgmt	2014-2016
7	Dr R. T. Goswami	Immediate Past Chairman, Kolkata Chapter	Computer Society of India	Apr 2015 – March 2016

### Students' Activities

S. No.	Name of the Activity	Students' coordinator	Date/ Duration
1	Industrial visit of IMBA/MBA students to Kolaghat Thermal Power Station	Sraboni Dutta, Soumendra Bhattacharjee	25.02.16
2	Cricket Team Visit of the Kolkata Campus to BIT, Mesra for Chetan Devraj Memorial Cricket Tournament	Sandip Kumar Sengupta	10.02.2016 – 14.02.2016
3.	Participated in the Seventeenth Eastern Regional Young IT Professional Awards Contest organized by Computer Society of India, presented their work on "Single Touch Braille Writer: BrailleOne" and stood third	Ambar Dutta, Soumya Ray	20.02.2016

### Departmental Academic Committee

S. No.	Name	Designation
1	Dr. R. T. Goswami	In-Charge
2	Prof. Subho Chaudhuri	Associate Professor
3	Dr. Srabani Mukhopadhyaya	Associate Professor
4	Dr. Ajanta Das	Associate Professor
5	Dr. Bharat Gupta	Associate Professor
6	Dr. Sraboni Dutta	Associate Professor

7	Dr. Sanchita Ghosh	Assistant Professor
8	Dr. Ambar Dutta	Assistant Professor
9	Dr. Ruchira Mukherjee	Assistant Professor
10	Dr. Sandip Kumar Sengupta	Assistant Professor
11	Dr. Tanmoy Banerjee	Assistant Professor

### Other important information

#### Lectures delivered in Conference/Workshop/Seminar

S. No.	Conference/ Workshop/ Seminar	Organized by	Title of the Lecture	Presenter	Duration
1.	Workshop ---FSIT Programme for Camelia Institute of Technology	Birla Institute of Technology, Mesra, Kolkata Campus	Data Structures and Algorithms	Dr Ambar Dutta	17/08/2015 – 25/08/2015
2.	Workshop --- FSIT Programme for Camelia Institute of Technology	Birla Institute of Technology, Mesra, Kolkata Campus	Systems Programming and Operating Systems	Prof. S. Chaudhuri	17/08/2015 – 25/08/2015
3.	Workshop	Student Branch, Computer Society of India, Kolkata	“Core Java Programming”	Dr. Ajanta Das	21/01/2016 – 22/01/2016
4.	Workshop --- FSIT Programme for Camelia Institute of Technology	Birla Institute of Technology, Mesra Kolkata Campus	Relational Database Management System	Dr. Ajanta Das	17/08/2015 – 25/08/2015
5.	Workshop --- FSIT Programme for Camelia Institute of Technology	Birla Institute of Technology, Mesra Kolkata Campus	Distributed Systems	Dr. Ajanta Das	17/08/2015 – 25/08/2015



## Lalpur



The BIT Extension Centre at Lalpur, Ranchi started initially with part-time postgraduate M.E. courses in the disciplines of Mechanical, Civil, Electrical and Electronics Engineering. The city being an important industrial and commercial hub, the primary objective of the centre was the benefit of officers working in various Ranchi based Public Sector Undertakings, Private industries, Banks, etc, who wished to upgrade their educational qualifications. The MBA, MCA, BCA and BBA courses were started subsequently with laboratory classes being conducted on Sundays and holidays at the Mesra campus.

Currently the Lalpur Extension Centre has over 1700 students on its rolls of which almost 510 are postgraduate students.

### Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1	Dr. Abhaya Ranjan Srivastava	2nd HR Summit & International Conference on Emerging Challenges in HR: VUCA Perspectives	BIT Lalpur	IIM Raipur	Hotel VW Canyon	Aug 20-21, 2015
2		Management Teacher's Program on Strategic Management	BIT Lalpur	IIM Indore	IIM INDORE	Dec 21-26, 2015



3	Dr. Arun Kumar Singh	MTP ON STRATEGIC MANAGEMENT (Foundation Course)	BIT MESRA, RANCHI	IIM INDORE	IIM INDORE	DEC 21 – 26 2015
4	Dr. Sanjay Kumar	SPECIAL SUMMER SCHOOL-16	UGC	UGC- HUMAN RESOURCE DEVELOPMENT CENTRE, RANCHI UNIVERSITY, RANCHI.	RANCHI	10.06.16 TO 30.06.16

## Publications

### Published in International Journals

1. J. Pal and V. Bhattacharjee, Fuzzy Rule based model for movie categorization, International research journal of emerging trends in multidisciplinary (IRJETM), ISSN 2395-4434 Vol. 1, Issue 9, 37-41, Nov., 2015
2. J. Pal and V. Bhattacharjee, Prediction of fine in accidents using fuzzy rule based mode, International journal of scientific engineering and applied science (IJSEAS), ISSN 2395-3470 Vol. 1, Issue 9, pp.109-114, Dec., 2015
3. J. Pal and V. Bhattacharjee, Software quality prediction using fuzzy rule based system, International Journal of current research (IJCR), ISSN 0975-833X Vol. 7, Issue 12, pp.24181-24185-41, Dec., 2015
4. J. Pal and V. Bhattacharjee, A modified entropy based fuzzy clustering for software quality data, Asian journal of science and technology (AJST), ISSN: 0976-3376, Vol.7, Issue 7, pp. 2260-2267, Jan., 2016
5. Sunita and Priyam,A., Mobile User Location Tracking System for Indoor Technologies Using Radar Application, 2016, 9(2), 129-136.
6. P.S. Bishnu, “decision: Statistical Decision Analysis”, <https://CRAN.R-project.org/package=decision>, R package version 0.1.0, 2016.
7. P.S. Bishnu, “gds: Descriptive Statistics of Grouped Data”, <https://CRAN.R-project.org/package=gds>, R package version 0.1.0, 2016.
8. P Biswas and P S Bishnu, Internet of things with big data infrastructure, Internet of things, IUP Publications, (A division of the ICFAI University), Vol. 1, Issue 1, pp. 42-47, April 2016.
9. P S Bishnu, Implementation of Friedman’s analysis in banking sector mediclaim insurance, COMPUSOFT, An international journal of advanced computer technology, vol. 5, issue 5, (ISSN:2320-0790), pp., pp. 2115- 2119, May-2016,
10. P S Bishnu, P Biswas, Internet of things with big data infrastructure, National conference on Internet of thing: Technology Trends and Applications, 23rd Sep 2015, Faculty of science and

technology, ICAI University Jharkhand, pp. 27-31, Sep 2015, P Biswas.

11. P S Bishnu and P Biswas, Implementation of Friedman's analysis in banking sector mediclaim insurance, COMPUSOFT, An international journal of advanced computer technology, vol. 5, issue 5, (ISSN:2320-0790), pp., pp. 2115- 2119, May-2016.
12. P S Bishnu, Knowledge Discovery: Internet of Things Governed by Big Data" International Journal of Engineering Technology Science and Research, vol. 2, Issue 8, pp. 46-50, August 2015.

### Published in National Journals

1. Dr. S N Sahdeo, Article title-Achieving inclusive growth in India through the globalized food retailing. Name of Journal-Imperial Journal of interdisciplinary research. Vol.-2, Year-2016. Co-author-1
2. Priyadarshani, Swati, Dr (Prof) Bhagat, Manju, Genesis of worklife balance: growth & importance for working women, journal purushartha september2016, ISSN NO. 0975-024X, indexed in Scopus, Elsevier and Google Scholar.

### Departmental Students' Activities

#### A

S. No.	Name of the Activity	Students' co ordinator	Date/Duration
1	Spark-O-Forea (R & D Wing)	Abhinav Kumar	22-10-2016
2	Gamer of the year	Prateek Jain	17-03-2016 & 18-03-2016

#### B

1.	The Debating Society	The Roar 2K15	Akarsh	July 30Th 2015
2.	Bizwit Society	Biz-Xotic	Ankita	Aug 6Th 2015
3.	Research & Development	Spark –O-Forea	Abhinav Kumar	Aug 5Th 2015
4.	News & Publishing Society	Biticon 2K15	Amit	Aug 18 & 19Th 2015
5.	It Society	Induction	Shilp Shikha	Aug 6Th & 7Th 2015
6.	The Debating Society	Desafio 2K16	Diviya Kabra	March 12Th 2016

### Other important information

Dr (Mrs.) V. Bhattacharjee

Invited lecture : On "Social Networking" at Yogada Satsang College, as part of Orientation programme for BBA students (28.08.15) and BCA students (08.09.15)

Invited as Guest Of Honour On Computer Literacy Day at Institution Of Engineers, Ranchi Chapter on 12<sup>th</sup> Dec 2015

## NOIDA



Birla Institute of Technology, Noida Campus is one of the leading Technical Institutions in the National Capital Region in the State of Uttar Pradesh. Established in the year 1998, the Institution has set bench marks every year, and grown into an Institution of Excellence in Technical Education. Located at the entrance of NOIDA, BIT Noida Campus has become a household name for its excellence in Discipline, Teaching, Training and Placement. Today, BIT Noida has total student strength of over 800, who are mentored by more than 75 Faculty Members.

Its rich academic tradition has always attracted the most talented students who later on went on to make important contributions to the society.

**Vision :** “The BIT Noida Campus will stimulate both the hearts and minds of scholars, empower them to contribute to the welfare of society at large; train them to adopt themselves to the changing needs of the economy; advocate them for cultural leadership to ensure peace, harmony and prosperity for all.”

Birla Institute of Technology, Noida Campus aims to become an Institution of excellence in imparting quality Outcome Based Education that empowers the young generation with Knowledge, Skills, Research, Aptitude and Ethical values to solve **Contemporary Challenging Problems**.

### Facilities Provided

- In order to nurture effective learning among students, all class rooms are well equipped with AC and LCD Projectors.

- The Institute has a well-stocked library with more than 5000 volumes on various subjects along with latest editions of prescribed books, several periodicals, journals and high value books to give the students a winning edge.
- The center believes in holistic personality development of students providing ample space for their recreational activities like – Canteen, Auditorium, Table Tennis space, and badminton, a centralised college computer center and fully equipped labs.
- The center is well equipped with e-journals (Emerald, ProQuest ABI Complete, Pro Quest Dissertations & Thesis, Science Direct), and research software like MATLAB and dedicated internet facility for the research scholars.

### **Department of Computer Science**

The Department of Computer Science and Engineering offers various UG & PG programme such as 2 yrs. M.Tech (CS) full time, 3 yrs. MCA and 3 yrs. BCA with the curriculum specifically designed to reflect the depth and breadth of latest technologies, research and innovations in computer science field. The department provides extensive computing resources for research and education. In order to build the intellectual capital of researchers, the department also offers Doctoral programme in Computer Science.

### **Department of Management**

BIT Noida Management department offers 3 yrs. BBA programme with two semesters in each year and 2 yrs. MBA Full time programme with both functional and sectoral specialisation. The department also offers Doctoral programme in Management on both full time and part time basis with mandatory residential requirement of 6 months in campus.

The curricula of all the credit based flexible programmes are carefully reviewed, updated, upgraded, diversified and in pace with the needs of the industrial scenario of this country, with the help of BIT main campus.

### **Department of Animation & Multimedia**

The Department of Animation & Multimedia started as a UGC Innovative Programme in the year 2005. BIT, Mesra, as a philanthropic Institute of Excellence in Higher Education in Science and Technology, made another proud beginning in the country by offering a novel B.Sc. Degree in the domain of Animation and Multimedia Studies. The curriculum and pedagogy here is a unique blend of creativity and state-of-the-art technology that is identified with the industry. The Board of Studies that brainstormed the syllabus was manned by august educationists and industry experts from. IIT, Bombay, IIMC, New Delhi, Jamia Milia Islamia University, New Delhi, and so on. Along with this, the dedicated faculty with their well-entrenched commitment and expertise in the domain; and latest & constantly updated infrastructure in terms of both the software and hardware has given this department the honour and privilege of being rated as the Best Animation School in the NCR and a top rung rating in the country alongside IIT, Bombay, NID, Ahmedabad etc. since 2010 by Hindustan Times.

Yet, the work is not over. With over 30 select students joining the department every year, the



future is to be painted with rainbow colours by the brave hearts and young minds that we proudly call BITIANS.

## Sponsored Projects

### Projects Completed

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Date of completion of the Project
1.	An informational film on Plasma Technology for purification of drinking water	Dr. Ram Prakash, Principal Scientist (CSIR) & Assoc. Prof. (AcSIR) Group Leader (Plasma Devices Laboratory) Microwave Tubes (MWT) Division, CSIR-Central Electronics Engineering Research Institute (CEERI)	CEERI Pilani		This project was done without any contractual and financial obligations.	12 Sep 2016
2.	Green Buildings in India: A study of Issues, Challenges & Prospects for Sustainable Development	Dr. Meenakshi Sharma	UGC	April 1, 2013	Rs.6,54,600/-	2 Years
3.	Smart use of Web Analytics and Data Mining technique for improving online Information Retrieval.	Dr Shruti Kohli	UGC	04/01/13	Rs.10,40,000	3 years

### Seminar / Conferences / Short – term Courses Conducted by the Campus

S. No.	Title of Seminar / Conferences / Short – term Courses / Workshop	Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short – term Courses
1.	Faculty Development Programme on “Structural Equation Modelling”	Dr. Meenakshi Sharma	BIT	19-23 March’16



**Conferences/ Seminars/ Workshops/ Staff Development Programmes attended**

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1.	Seema Sharma	FDP on.Net and Web Technologies	BIT, Noida	Gitarratan International Business School, New Delhi	Gitarratan International Business School, New Delhi	4-10 July'15
2.	Ritu Jain & Preety Bajaj	FDP on Advance Research & Consultancy	BIT	Gitarratan International Business school (affiliated to GGSIP University, Delhi)	Delhi	4-10 July'15
3.	Priti Sharma	Mobile Computing		Jaypee Institute Of Information And Technology Noida	Noida	13-18 July'15
4.	Charu Wahi	Short term course on "Web Hacking and Security"	BIT	NITTTR Chandigarh	Chandigarh	3-8 August' 2015
5.	Seema Sharma & Charu Wahi	National summit on 100 smart cities	None	Bharat Exhibitions	Shangri-La, New Delhi	11 September' 15
6.	Dr. Munish Makkad	28th Annual Convention on Achieving Growth Through Financial Sector Development: Vision 2020		Dept. of Financial Studies	Univ. of Delhi	19 September' 2015
7.	Seema Sharma & Charu Wahi	National Seminar on Advances in Big Data: Issues & Challenges	BIT, Noida	Gitarratan International Business School, New Delhi	Gitarratan International Business School, New Delhi	16 October' 15
8.	Pramila Joshi	50th Annual Jubilee Golden Convention		CSI(Computer Society of India)	Bharti Vidyapeeth, New Delhi	2-5 Dec 2015

9.	Preety Bajaj & Ritu Jain	FDP on Research in Social Sciences	Self	Kasturi Ram College of Higher Education (affiliated to GGSIP University, Delhi)	Delhi	18-22 December' 15
10.	Pramila Joshi	International Conference on M3HPCST-11 (Modern Mathematical Methods and High Performance Computing in Science and Technology)		RKGIT	Ghaziabad	27-29 December' 15
11.	Asha Prasad	4th Biennial IAM Conference		Academy of Management (AOM) at Indian Institute of Management (IIM) Lucknow	Noida	December, 2015
12.	Priti Sharma	Next Generation Wireless Systems And Standards	AKTU	JSS ACADEMY OF TECHNICAL EDUCATION NOIDA	Noida	29 Feb' 16 - 5 March' 16
13.	Pramila Joshi	International Conference on Computing for sustainable Global development (IEEE Conference ID 37465)		IndiaCom-2016	Bharti Vidyapeeth, New Delhi	16 – 18 March - 2016
14.	Smitha Jha	National seminar on Soft Computing	UGC	Deen Dayal Upadhyaya College, Delhi	Delhi	18-19 March 2016
15.	Seema Sharma	FDP on Intelligent Systems and Information Technology	Self	Jaypee Institute of Information Technology, Noida	Jaypee Institute of Information Technology, Noida	20-26 June' 16

## Publications

### Published in International Journals

1. Rana, A., Singh, S.P., Soni, R. and Jolly, A., Incremental Software Version Release Planning for Adaptive Maintenance, International Journal of Software Engineering and its Applications, vol. 9 No. 8 (September, 2015), pp. 217-228.

2. Gangoli, S. and Singh, S.P., Implement Hippocratic Database in Legacy Applications, International Journal of Advance Technology in Engineering and Science ISSN: 2348-7550, Vol. 3, Issue SI (d) September, 2015.
3. Kalkandha, P., Wahi, C., Sharma, S. and Sonbhadra, S.K., Current State of Art of Energy Efficient PEGASIS Routing Protocols in WSNs, International Journal of Advanced Research in Computer Science and Software Engineering, Volume 5, Issue 12, December 2015.
4. Kishore N. and Sharma, S., Secured Data Migration from Enterprise to Cloud Storage- Analytical Survey, BIJIT, January 2016, ISSN 0973-5658.
5. Naik, Yogesh N. & Bisht M., "Effectiveness Drivers for Indian Information Technology Managers: An Empirical Study", International Journal of Indian Culture and Business Management by Inderscience Publishers (ISSN online: 1753-0814, ISSN print: 1753-0806), Published Vol. 12, No. 1, January 2016 Pg 72 – 91
6. John, C. and Wahi, C., Vulnerabilities of Routing Protocols in Wireless Sensor Networks", International Journal of Advanced Research in Computer and Communication Engineering, Vol. 5, Issue 2, February 2016.
7. Kumari, P. and Sharma, S. Investigating MOOC's using Social Media Mining: A Survey, International Journal Of Advanced Research in Computer Science and Software Engineering., March 2016, ISSN:2277 128X.
8. John, C. and Wahi, C., Security analysis of routing protocols for Wireless Sensor Networks, International Journal of Applied Engineering Research ISSN 0973-4562 Volume 11, Number 6 (March 2016) pp 4235-4242 (Scopus Indexed).
9. Sharma, P. and Yadava, R.L., Study of a Multiband Rhombic Fractal Patch Antenna, International Journal of Innovations in Engineering and Technology (IJJET), Volume 6 Issue 4 April 2016, 607-617 ISSN: 2319 – 1058.
10. Gaurav, D. and Wahi, C., Performance Evaluation of AODV with and without Black hole Attack in MANETs, International Journal on Recent and Innovation Trends in Computing and Communication, ISSN: 2321-8169, Volume: 4 Issue: 6, pp 07-13, June 2016.
11. Kudeshia, C. Sikdar, P. Mittal, A., Spreading love through fan page liking: A perspective on small scale entrepreneurs, Computers in Human Behavior, ScienceDirect, 2016, 54, 257-270. (SCOPUS & SCI)
12. Paul, J., Mittal, A., Srivastav, G., Impact of service quality on customer satisfaction in private and public sector banks, International Journal of Bank Marketing, Emerald Insight, 2016, 34 (5), 606-622. (SCOPUS)
13. Jha, S. and Hansaria, V., Love on the Run: An Analysis of User Behavior in Online Dating, International Journal of Advanced Research in Computer Science and Software Engineering, Page no. 229, Volume 6, Issue 3, 2016, ISSN: 2277 128X.
14. Gupta, N. & Sharma, V. Exploring Employee Engagement- a way to better Business Performance. Global Business Review, (Scopus Indexed), 2016, 17, 3, 45-63, ISSN: 0972-7302.
15. Chakraborty, N. and Sharma, V. and Ranjan, J. A Perceptual study on Factors of Medical Data

security in Indian Organisations, Journal of Theoretical and Applied Information Technology (JATIT), (Scopus Indexed) 2016, 84. No.1, pp. ISSN: 1992-8645.

16. Tanwar K. & Prasad A. (2016), "The effect of employer brand dimensions on job satisfaction: gender as a moderator", Management Decision, Vol. 54 Iss: 4, pp.854 – 886 ISSN: 0025:1747.
17. Tanwar K. & Prasad A. (2016), "Exploring the relationship between Employer Branding and Employee Retention", Global Business Review (GBR), Sage Publications. Vol. 17 Issue 3. ISSN: 0972-1509.
18. Gupta, P. & Sagar, B.B., Discovering Interesting Weighted Temporal Relationship Rules, International Journal of Control Theory and Applications, Vol. 9(19), 2016, pp. 9091-9099.

### **Published in International Proceedings**

1. Kumar, A., Fuzzy Logic Based Framework For Measuring Strength Of Sentiments in Web Data, Proceedings of the International Conference on Business Management & Information Systems (ICBMIS-2015), NUS Singapore, Bloomsbury Publishing pp.102-117, 17 Nov-20 Nov 2015, vol. II, ISBN: 978-93-85436-89-5.
2. Tanwar K. & Prasad A. (2015) The Effect of Employer Brand Dimensions on Job Satisfaction: Gender as a Moderator. 4th Biennial IAM Conference organised by Academy of Management (AOM) at Indian Institute of Management (IIM) Lucknow, Noida Campus, December, 2015.
3. Puri, S. and Singh, S.P., Sentence Detection and Extraction in Machine Printed Imaged Document Using Matching Technique, Proceeding of 2015 RACS UIET Punjab University Chandigarh, 21-22<sup>nd</sup> December 2015.
4. Gupta, P. & Sagar, B.B., Discovering Weighted Time Varying Temporal Relationship, Advances in Intelligent Systems and Computing, Springer, December-2015.
5. Kumar, D. & Gupta, P., Fuzzy Software Release Problem with different Types of learning Functions for Fault Dictions and Correction Processes, Advances in Intelligent Systems and Computing, Springer, December-2015.
6. Puri, S. and Singh, S.P., A Technical Study and Analysis of Text Classification Techniques in N-Lingual Documents, International Conference on Computer Communication and Informatics (ICCI-2016), 07-09, January, 2016, Coimbatore, INDIA.
7. Tewari, P. & Surbhi, P., Evaluation of Some Recent Image Segmentation Method's, 3rd International Conference on Computing for Sustainable Global Development, 16th - 18th March, 2016, Proceedings of the 10th INDIACOM, ISSN 0973-7529, ISBN 978-93-80544-20-5, pp. 5052-5058.

### **Published in National Journals**

1. Srivastav, G., Mittal, A., Impact of Internet Banking on Customer Satisfaction in Private and Public Sector Banks. Indian Journal of Marketing, 2016, 46 (2), 36-49 (SCOPUS)

## Books

### Chapter(s) in Edited Book

1. Sharma, V. A perceptual study on Factors of Employee Empowerment in Indian Oil Sector, Proceedings of the International Conference on Business Management & Information Systems (ICBMIS-2015), NUS Singapore, Bloomsbury Publishing pp.233-244, 17 Nov-20 Nov 2015, ISBN: 978-93-85436-89-5.
2. Srivastava, N., Sharma, V. and Chaklader, B. A study to assess impact of Carbon Credit Trading into Costs and Prices of different Goods and Services- A study from Airline Industry, Proceedings of the International Conference on Business Management & Information Systems (ICBMIS-2015), NUS Singapore, Bloomsbury Publishing pp.47-54, 17 Nov-20 Nov 2015, ISBN: 978-93-85436-89-5.
3. Chakraborty, N. and Sharma, V. A Perceptual study on Factors of Medical Data security in Indian Organisations, Proceedings of the International Conference on Business Management & Information Systems (ICBMIS-2015), NUS Singapore, Bloomsbury Publishing pp.126-136, 17 Nov-20 Nov 2015, ISBN: 978-93-85436-89-5.
4. Pramila Joshi, "Big Data gets Cloudy: Challenges and Opportunities", Published as a Chapter in the Springer Book "Modern Mathematical Methods and High Performance Computing in Science and Technology", Series : "Springer Proceedings in Mathematics and statistics", Vol 171, December 2015, ISBN 978-981-10-1454-3.
5. Jangbhadur U. & Sharma V. and Factors Affecting Employee Development Practices and Sustainable Organizational performance in Indian Steel Industry, Social Media and organizational Sustainability, in R. R. Thakur et.al., Bloomsbury Publisher First Edition, 2016, pp.172-176.
6. Jangbhadur U. & Sharma V. Linking Employee Development Practices and Sustainable Organizational Performance: A study in Indian Steel Industries, Social Media and organizational Sustainability, in R. R. Thakur et.al., Bloomsbury Publisher First Edition, 2016, pp.143-148.
7. Sharma, K. & Sharma, V. Developing Knowledge Management Scales: An Overview, Imperatives of Global Business- Innovation & Knowledge Management, in A. K. Malhotra, P. C. Sharma, T. Shaw, I. Kaur, Bloomsbury Publisher First Edition, 2016, pp.317-334.
8. Mishra, Y. & Sharma, V. Assessing Impact of adoption of competency framework on firm performance :The holy grail of HR, Emerging Challenges in HR: VUCA Perspectives, in U.K. Bamel, A. Serigupta, P. Singh, 2016, Emerald Group Publishing (India) Private Ltd.

### Students' Activities

S. No.	Name of the Activity	Students' co ordinator	Date/Duration
1	Workshop on "Hum Honge Kam'yab"		23 July'2015
2	Guest Lecture on "Role Play- HR Specialization"		11 August'2015



3	Guest Lecture on "Importance of Soft skills at the time of Interview"		24 August'2015
4	Vigilance week was organised in association with KRIBHCO, BPCL, Indian Oil and GAIL	Nishant Ranjan	26-31 October'2015
5	Guest Lecture on "Social Media Marketing and Analytics"		6 November'2015
6	Industrial visit for BBA final year students	Kritika Pandit	15 November'2015
7	Invited Talk on "Development Communication" by Vikram Sarabhai for Animation Students		December'2015
8	Annual Sports-2016	Sidharth, Prasun, Harsh	27 January – 4 February' 2016
9	Blood Donation Camp by Rotary Blood Bank	Anupam Rastogi & Esha Dhir	February'2016
10	World Culture Fest Orientation		23 February'16
11	Guest Lecture on "Leader & Motivation – Creating Momentum" by Md. Khalid, Mobilous Gurgaon		17 March'2016
12	Cultural Fest-2016	Tanvi, Nishant, Sarthak, Anupam, Kshitij, Vineet, Divya, Radhika	31 March - 1 April'2016
13	Dhruva Club, Art of Living organised "YES" programme	Sarthak Mahajan and Avi Satija	8 April'16

## Departmental Academic Committee

- |  |                                  |
|--|----------------------------------|
| 1. Dr. Munish Makkad, Professor & Director   | - Ex Officio Chairman            |
| 2. Dr. Asha Prasad, Professor                | - Member (Management)            |
| 3. Dr. Meenakshi Sharma, Associate Professor | - Ph.D Coordinator (Management)  |
| 4. Dr. Vandana Sharma, Associate Professor   | - Member (Management)            |
| 5. Dr. Peeyush Tewari, Associate Professor   | - Member (Comp. Sc.)             |
| 6. Dr. Suparna Dutta, Associate Professor    | - Member                         |
| 7. Dr. B.B. Sagar, Assistant Professor       | - Member (Comp. Sc.)             |
| 8. Dr. Sanjiv Mittal, Professor (GGSIU)      | - External Member (Management)   |
| 9. Dr. Shampa Chakraverty, Professor (NSIT)  | - External Member (Computer Sc.) |

## Other important information

### Details of Placement 2015-16

Discipline	Branch	Total No. of Students	Total Eligible & Interested	Placed	% Placed	Average Salary	Highest Salary
MCA	MCA	48	35	23	65.71	3.5 LAC	6 LAC
IMCA	IMCA	10	06	06	100	3.35 LAC	6 LAC
IMBA	IMBA	51	41	28	68.29	3 LAC	5 LAC
M.Tech (CS)	M.Tech (CS)	10	02	-	-		
MAD	MAD	02	01	01	100	2.4 LAC	2.4 LAC
Animation	B.Sc. (A&M) (2013-16)	38	10 (Rest 28 opted for fourth year)	10	100	2 LAC	2.5 LAC
Animation	B.Sc.A&M (Hons.) (2012-16)	14	14	14	100	2 LAC	2.5 LAC
Animation	B.Sc A & M (2012-15)	32	06	06	100	2 LAC	2.20 LAC

- Software/Simulation Tools (newly installed):  
Animation Lab: Adobe Creative Cloud  
Computer Science Lab: MATLAB
- Amar Gupta – student of B.Sc (A&M) VI sem course won 1<sup>st</sup> prize for best animation film, and Shyama Anand– student of B.Sc (A&M) Hons won 1<sup>st</sup> prize for Stop Motion Animation at the India International Animation and Cartoon Film Festival 2015.

### Different working committees

- CAS Screening Committee – Dr. Munish Makkad, Dr. Asha Prasad, Dr. Vandna Sharma, Dr. Arun Mittal, Mr. Aruna Mallik
- Technical Society – Mr. Anil Kumar Singh, Mr. Aruna Malik, Mrs. S. Mallika, Mrs. Seema Sharma, Ms. Charu Wahi
- Discipline Committee - Dr. Peeyush Tewari, Dr. Vandna Sharma, Dr. Suparna Dutta, Mr. Anil Kumar Singh, Mr. Amit Nindrajog
- Canteen Committee - Dr. Peeyush Tewari, Mrs. Rachna Pratik, Ms. Charu Wahi, Mr. Anil Kumar Singh, Dr. Abhishek Singh, Mr. Kiran A. Shetti, Mr. Niket Mehta, Mr. Pavan Chandak, Mr. Amit Nindrajog
- Anti-ragging Committee – Dr. Asha Prasad, Dr. Vandna Sharma, Dr. Suparna Dutta, Mr. Anil Kumar Singh

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- Unfair Means Committee - Dr. Asha Prasad, Dr. Vandna Sharma, Dr. Suparna Dutta, Mr. Anil Kumar Singh, Dr. Meenakshi Sharma
- Sexual Harassment Committee – Dr. Asha Prasad, Dr. Peeyush Tewari, Dr. Suparna Dutta, Dr. Ila Sahay, Mrs. S. Mallika, Mr. Lalit M. Bhatt, Mr. Naveen Bandopadhyay, Mrs. Vandna Chadha

Students participated in IIT ROORKEE fest, Thomso 2015 which took place from 9-11 October'2015. Sarthak Mahajan and Avi Satija were the campus ambassadors who managed everything which included travelling, registrations, fooding, etc. In this fest the students participated in the events like Corporata, Foot loose, Food fiesta, Miss India Campus princess, Apocalypse, street football and Literati.



## Patna



Birla Institute of Technology, Mesra, Ranchi was founded by the industrialist and philanthropist Late Shri B.M. Birla in 1955. Birla Institute of Technology Patna Campus came into existence in the year 2006 along with the initiative of Government of Bihar with a vision to provide quality education for the students of Bihar who wish to pursue their career in technical education. By far, BIT Patna is one of the best equipped, technically sound professional colleges in the state of Bihar. It has a fully networked campus. The infrastructure includes 3.25 lacs sq. feet of academic space. In its establishment year, Institute was offering Bachelor of Engineering Degree in 3 branches namely Computer Science, Electrical & Electronics and Electronics & Communications. From the year 2007, Civil, Mechanical, Production and Information Technology are being offered. However in last one decade BIT Patna has successfully marked its presence in the field of Architecture and Management by commencing the courses like Bachelor of Architecture, Bachelor of Business Administration, and Bachelor of Computer Applications. BIT Patna also offers Ph.D. Programme in Science, Engineering and Management.

BIT Patna seeks to attract the best students from diverse backgrounds and offer them an excellent educational experience. It offers more flexibility and choice to the students in the academic programmes, an inviting and stimulating ambience for education and research, a rich suite of extra- and co-curricular activities, personality development, life-skills and career planning will be a part of the holistic development.

BIT Patna strives to achieve global standards and excellence in Teaching, Research and Consultancy by creating an environment in which the faculty and students share a passion for creating, sharing and applying knowledge to continuously improve the quality of education.

### **Facilities**

Following in- campus facilities are provided to the students/staffs of BIT Patna:

State-of-the-art Auditorium,	Seminar Hall,	Dispensary,
Ultramodern Laboratories,	Central Library,	Play Ground,
Well equipped Workshops,	Cafeteria,	Gymnasium,
Fully Networked Campus,	Staff- Canteen,	Language Lab,
Guest-House,	Staff Quarters,	ATM service,
Transport facility for students & staffs		

### **Central Library**

The Learning Resource Centre is the nerve centre of BIT Patna. The Institute takes pride in its state-of-the- art library infrastructure and resources. The full air-conditioned Lab., well furnished and spacious reading room forms part of it. The library is entirely devoted to the academic needs of the students and faculty.

It offers a wide range of books and national & international journals, periodicals on the subject areas & other research materials. Important local, regional and national dailies in English and Hindi are also an important part of Newspaper section of the library.

Library is well equipped with LIBSYS software and having 33,881 books (all bar-coded). The facility for video conferencing is established and E- library is being developed.

### **Online Resources**

EBSCO Art & Architecture (complete), IEEE, ASCE and ASME are accessible in E-library.

Print Journals : 39

Magazines : 18

### **Computer Laboratory**

The heart of the Institute is the large Computer Centre with Four Computer Labs with a DELL Server connected to LAN to support multi user software. At present, the students are using System Software's like C++, MSDN, ORACLE, Rational Rose & Application Software like Auto CAD 2009, Auto CAD Raster Design, Auto CAD Electrical, Auto CAD Inventor, MATLAB, STAAD PRO, FEKO, Multisim, Comsim, Xiling, Active HDL etc. Computers are on LAN and managed with Cyberoam security for Internet.

### **Training & Placement Cell**

The Training & Placement office at Patna is well equipped and designed to smoothly handle and support the Campus placement procedure at every stage. Arrangements for Interviews, Pre-placement



talks, Group discussions and Tests are handled by the T&P Cell staff and Student placement coordinators. We are equipped with the following facilities to aid the process:

- Four well furnished centrally air-conditioned cabins for Interviews and one room for Group discussions.
- The Training and Placement Cell round the year organizes Training & Career Development Programs for the students of BIT Patna who are aspiring to enter the corporate world and introduces them to the prospective employers according to their aspirations and background.
- The large number of students of 2011 batch of BE course has been successfully placed in reputed companies. The top most recruiters visited the main campus BIT Mesra as well as our campus last year were Wipro, Samsung R&D, IBM, Vedanta, Cognizant, Infosys, MuSigma, Sapient, Headstrong, Sapient, Excide, Havells, Cybage etc.
- The Seventh batch of BE course (2013 batch) are already going through the placement process.

## PLACEMENT REPORT OF 2016

Sl	Company	UG - BE							PG		
		CIVIL	CSE	EEE	ECE	IT	MECH	PROD	M.Tech-CSE	ME-ECE	MBA
1	Above Solutions		1								
2	Avanti							1			
3	Cognizant		4	9	10	1			1		
4	Cybage		3		6	2					
5	Developer Group	2									
6	Exide						1				
7	EXL			1							
8	Gmmco			1			2				
9	Havells			1			2				
10	Headstrong		4								
11	IBM		3		5			1	1		
12	Incture		2			1					
13	Infosys		7	5	8	4		1			
14	Janalakshmi Finance										1
15	Jindal Steel		1			1					
16	Karvy										1
17	Mahindra Com		2			1					
18	MuSigma		1	2	1		1				
19	Pinnacle Infotech			1			4				

Sl	Company	UG - BE							PG		
		CIVIL	CSE	EEE	ECE	IT	MECH	PROD	M.Tech-CSE	ME-ECE	MBA
20	Samsung R&D					1					
21	Sapient		13	2	2	2					
22	Vedanta						1				
23	Wipro			2	5	3			1		
Average CTC offered – 4.34 Lacs											

	BE/ ME/ M.Tech	MBA
Lowest CTC Offered:	3 Lacs	2.5
Highest CTC Offered:	7.2 Lacs	4

## Research & Development

BIT Patna is committed to make concerted efforts to basic long-term research in frontier areas. Faculty members conduct research projects in thrust areas of Science, Engineering and Management. The Institute has ongoing academic and research activities with the aid of UGC, AICTE, Govt. of Bihar etc. in order to keep pace with expanding frontiers of knowledge and global developments.

## IEEE Student's Chapter

IEEE's student's chapter at BIT Patna was established with a core purpose to foster technological innovation and excellence for the benefit of humanity. IEEE is being essential to the global technical community and to technical professionals everywhere, and be universally recognized for the contributions of technology and of technical professionals in improving global conditions.

## Sports Activities

BIT Patna harbours students who are recognised for their athletic skills at national and state level. Not only does BIT Patna provide the best training facilities for sports activities, but also induces the spirit of sportsmanship in the students. Sports here become one of the most cherished parts for the students. Though a cliché, but still very true is the fact that a healthy body hosts a healthy mind. BIT Patna provides the students with many opportunities to demonstrate their talent on a platform much wider than their immediate peer circle in the form of events like the INTER COLLEGE SPORTS MEET, ANNUAL ATHLETIC MEET and various inter/intra state sports meet. We regularly organize Cricket, Football, Soccer, Lawn- Tennis and Basketball Tournaments. BIT Patna Cricket Team won Social Premier League Tournament 2015.

## National Social Services (NSS)

NSS is a programme organized by the NSS group of BIT Patna for the uplift and empowerment of the underprivileged children belonging to 8-14 age groups. Around 15 NGOs like Kilkari, Umeed, Pratham and Diksha Foundation took part in the programme.

Hundreds of underprivileged children from slums and government schools got a chance to showcase their talent on the stage of BIT Patna campus on Saturday. Children of government schools along with the slum children took part in dance, drama, poem and speech reciting events on the inaugural function a two-day programme NSS organized by BIT Patna.

Aim behind organizing this event is to give a fair chance to the underprivileged kids of the government schools. They will learn and become more confident in presenting their talent in public after performing on this kind of platform.

## Sponsored Projects

### Ongoing Projects

S. No.	Project Title	PI / Co- PI/ Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount (In Rs.)	Duration of the Project
1	Energy Audit of 11 KV Sadakat Ashram feeder	Dept. of EEE	BREDA, Patna (Bihar Renewable Energy Development Agency)	03/12/2012	4.75 Lacs	2 Years

### Seminar / Conferences / Short – term Courses Conducted

S. No.	Title of Seminar / Conferences / Short – term Courses / Workshop	Coordinator	Funding / Sponsoring Agency	Date of Seminar / Conferences / Short – term Courses
1	Brick Workshop	Anamika Nandan, Dept. Of Architechure	BIT Patna	11 <sup>th</sup> January 2016
2	Workshop on Soft Skills	Anamika Nandan, Dept. Of Architechure	BIT Patna	8 <sup>th</sup> February 2016
3	Employability Oriented Workshop	Mr. Sanjay Asthana, Swaasthya Consulting LLP, Bangalore	Institute	18 to 26 JULY -2015
4	Workshop	Mr. Chandan James, Focus Academy For Career Enhancement	Focus Academy	21-Jul-15
5	Workshop	Prof. Ravi Kumar, Faculty- Wharton School of Management, University of Pennsylvania, USA	Wharton School of Management	09-Oct-15

6	Network Management Training	Netcamp, Kolkata	Netcamp	5 to 23 Jan -2016
7	Workshop	Dr. Praveen Srivastava, IBS Hyderabad	IBS	06-Nov-15
8	Employability Oriented Workshop	Mr. Sanjay Asthana, Swaasthya Consulting LLP, Bangalore	Institute	9 & 10 Dec-16
9	Seminar	Mr. Vaibhav Srivastava, Made Easy	Made Easy	20-Jan-16
10	Guest Lecture	Mr. Amrendra Kumar- CEO Of Telenoc	Telenoc	11-Mar-16

**Conferences/ Seminars/ Workshops/ Staff Development Programmes attended:**

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1	Kumar Nikhil (Dept. Of EEE)	Short Term Course on "Microwave wireless components for transmitter and receiver system".	NIT Patna	NIT Patna	NIT Patna	May 30 to June 03, 2016
2	Mayank Singh (Dept. Of EEE)	Short Term Course on "Recent Advances in Power Electronics for Smart Grid and Electrical Drives"	BIT Patna	IIT Patna	IIT Patna	From 3-5 March' 2016
3	Mayank Singh (Dept. of EEE)	Short Term course on "National Workshop on 'Intelligent Computational Technique Applications'"	BIT Mesra, Ranchi	BIT Mesra, Ranchi	BIT Mesra, Ranchi	From 23-27 Nov, 2015

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
5	Rajkumar Mishra (Dept. Of EEE)	Short Term course on "Recent Advances in Power Electronics for Smart Grid and Electrical Drives"	IIT Patna	IIT Patna	IIT Patna	From 3-5 March' 2016
6	Rajkumar Mishra (Dept. Of EEE)	Short Term course on "National Workshop on 'Intelligent Computational Technique Applications'"	BIT Mesra, Ranchi	BIT Mesra, Ranchi	BIT Mesra, Ranchi	From 23-27 Nov, 2015
7	M A Hassan (Dept. Of EEE)	GIAN lecture on Challenges and Opportunities in Renewable Energy: Role of the Smart Grid	MHRD		Delhi Technological	June 3-8 2016
8	Sheel Shalini (Dept. Of CSE)	FDP on "Effective Classroom Management"	BIT Patna	BIT Patna	BIT Patna	12th Sept'15
9	Sheel Shalini (Dept. Of CSE)	One week Faculty Development Program on Advance Pedagogy	BIT Patna	Swaasthya Consulting LLP, Bangalore	BIT Patna	Dec 14 -19, 2015
10	Sheel Shalini (Dept. Of CSE)	Short term course on "Foundation of Data Security".	ISEA Project Phase(II)	NIT Patna	NIT Patna	16-20th February, 2016
11	Dr. K. P. Tiwary (Dept. Of Physics)	One week Faculty Development Program on Advance Pedagogy	BIT Patna	Swaasthya Consulting LLP, Bangalore	BIT Patna	Dec 14 -19, 2015



S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
12	Dr. Rajnish Kumar (Dept. Of Math.)	One week Faculty Development Program on Advance Pedagogy	BIT Patna	Swaasthya Consulting LLP, Bangalore	BIT Patna	Dec 14 -19, 2015
13	Dr.Rajnish Kumar	ICEECMPE, Chennai		Institute of Research And Journals	Chennai	17th January 2016
14	Anamika Nandan (Dept. of Architecture)	FDP on "Effective Classroom Management"	BIT Patna	IBS	BIT Patna	12th Sept'15
15	Anamika Nandan (Dept. of Architecture)	Training	Bihar State Disaster Management Department	Bihar State Disaster Management Department	Secretariat, Patna	27 – 28 November 2016
16	Anamika Nandan (Dept. of Architecture)	One week Faculty Development Program on Advance Pedagogy	BIT Patna	Swaasthya Consulting LLP, Bangalore	BIT Patna	Dec 14 -19, 2015
17	Dr. K. Sharma (Dept. of Chemistry)	One week Faculty Development Program on Advance Pedagogy	BIT Patna	Swaasthya Consulting LLP, Bangalore	BIT Patna	Dec 14 -19, 2015
18	Dr. K. Sharma (Dept. of Chemistry)	Emerging trends in Chemistry-Fundamentals and applications.	Self	Patna University	Department of Chemistry	21st- 22nd April, 2016
19	Dr. K. Sharma (Dept. of Chemistry)	National Conference on Emerging Trends in Green Chemistry	Self	Lalit Narayantrihut college	Muzafarpur	19th oct 2015
20	Dr. K. Sharma (Dept. of Chemistry)	Impact of Colonial Rule in Bihar	Self	Ramkrishandwarika college	Patna	Sept. 18,19 -2015

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
21	Anubha Singh (Dept. of Chemistry)	One week Faculty Development Program on Advance Pedagogy	BIT Patna	Swaasthya Consulting LLP, Bangalore	BIT Patna	Dec 14 -19, 2015
22	Anubha Singh (Dept. of Chemistry)	Refresher course on Resent Advances in chemistry	B.I.T. Patna	department of Chemistry A.S. College Deoghar & BIT Deoghar	B.I.T. Deoghar	Dec 14 -26, 2015

## Publications

### Published in National Journals

1. Shahiruddin, Dharmendra K. Singh, Naman Agarwal, "Analysis of Single Polarization Single Mode Photonic Crystal Cladding with Hexagonal and Rectangular Lattice," Optik, vol.126, no.23, pp.4342–4346, December 2015
2. Rajnish Kumar, Radiation effect on MHD mixed convection flow of a nanofluid through a porous medium in the presence of chemical reactions, Nanotechnology Research and Practice 2016, Vol.(10) (Accepted)
3. Rakesh Kumar, Rajnish Kumar, Osei Ofosu. Investigation of heat transfer for extruded polymers cooled in water. Journal of Modern Chemistry & Chemical Technology. 2015; 6(3): 17–23p
4. Amit Kumar Gautam, Arun Kumar, Kaushlendra Sharma & B. K. Rai, Synthesis and Structural, Characterization of Schiff Base Ligand and their Metal Complexes (pp. 2) Vol. 32, 2016. Oriental Journal of Chemistry (ISSN No. 0970-020).
5. A. K. Tiwari and P. Singh; "Non-Darcy mixed convection between differentially heated vertical walls filled with a porous material: Application of new modified Adomian decomposition method" Open Journal of Fluid Mechanics, vol. 5 (2015), pp. 380-390.
6. A. K. Tiwari, A. K. Singh and H. S. Takhar; "Natural convection through a vertical pipe/wall saturated in a porous medium having ramped temperature" Heat Pipe and Science Technology, (2015).

### Published in National Proceedings

1. M.A. Hasan, S.K. Parida, An overview of solar photovoltaic panel modeling based on analytical and experimental viewpoint, Renewable and Sustainable Energy Reviews, Volume 60, July 2016, Pages 75-83, ISSN 1364-0321, <http://dx.doi.org/10.1016/j.rser.2016.01.087>.
2. Adhishree Shrivastava, J. M Tripathi, S.R Mohanty, Bhagbat Panda, "Optimal Overcurrent relay Coordination with DG grid using Hybrid PSOGSA", Electric Power Components and Systems, Taylor and Francis, Feb, 2016.

3. K.Lal, Learner Model for Automatic Detection of Learning Style Using FCM in Adaptive E-Learning System IOSR Journal of Computer Engineering (IOSR-JCE) e-ISSN:2278-0661, p-ISSN:2278-8727, Volume 18, Issue 2, Ver. IV (Mar-Apr. 2016), PP 18-24.
4. K. P. Tiwary, Cadmium sulfide nanoparticles: Synthesis, Characterization and Application. Presented in National Seminar on Emerging Trends in Green Chemistry, Department of Chemistry, Lalit Narayan Tirhut College, B.R. Ambedkar Bihar University, Muzaffarpur. 19 Oct, 2015.
5. K. Sharma, Psyllium: As an Explorer Material in the Synthesis of Biopolymer Presented in National Conference on Emerging Trends in Green Chemistry held at Lalit Narayan Trihut College, Muzaffarpur, Bihar. (Oct.19, 2015).
6. K. Sharm, Effect of Enviromental Pollutants on Historical Monuments Presented in National Seminar on Impact of Colonial Rule in Bihar held at Department of History, Ram Krishna Dwarika College, Patna Bihar (Sept. 18,19 -2015)

### **Published in International Journals**

1. K. Lal, Adaptive And Personalized Intelligent Learning Interface in e-learning System, International Journal of Applied Engineering Research (IJAER) Volume 10, Number 21 (2015) pp 42488-42492
2. K. Lal, Web Usages Mining in Automatic Detection of Learning Style in Personalized e-Learning System, Proceedings of the Fifth International Conference on Fuzzy and Neuro Computing (FANCCO - 2015).
3. K. Lal, Reconfiguration of systems implementing membership service to enhance reliability The International Journal Of Engineering And Science (IJES) || Volume || 5 || Issue || 3 || Pages || PP -01-04 || 2016 || ISSN (e): 2319 – 1813 ISSN (p): 2319 – 1805
4. K. Lal, Capturing Micro-expression and analysing it using Nlp International Journal of Computer Systems (ISSN: 2394-1065), Volume 03– Issue 04, April, 2016, pp-356-359
5. Sweta.S. and Lal Kanhaiya, Lerner Model for Automatic detection of Learning style using FCM in adaptive e-learning system. In IOSR Journal of computer engineering, March-2016, vol.18, Issue-2, 18–24
6. Sweta.S. and Lal Kanhaiya, Web usage mining in automatic detaction of learning style in personalized e-learning system. Advances in Intelligent systems and soft computing, Springer, Dec. 2015, 353-363.
7. Sweta.S. and Lal Kanhaiya, Adaptive and Personalized Intelligent Learning Interface in e-learning System. International Journal of applied engineering and research, RIP, Nov-Dec. 2015, 42488-92.
8. Ayan Kumar Das, Rituparna Chaki, Kashi Nath Dey, “Secure Energy Efficient Routing Protocol for Wireless Sensor Network”, in the journal of Foundation of Computing and Decision Sciences (FCDS), (SCOPUS Indexed free journal), Volume 41, Issue 1, Pages 3–27, ISSN (Online) 2300-3405, DOI: 10.1515/fcds-2016-0001, March 2016.

9. Ayan Kumar Das, Rituparna Chaki, Kashi, Nath Dey, "Cluster Based Energy Aware Routing Scheme (CBEARS) for wireless sensor network", accepted and in press in International Journal of Sensor Network (IJSNET), (SCI Expanded free journal), Inter science publisher, 2015.
10. S. K. Choubey & K. P. Tiwary, Structural, Morphological and Optical investigation of CdS nanoparticles synthesized by microwave assisted method. (pp. 33-37) Vol. 11, No. 1, 2016. Digest Journal of Nanomaterials and Biostructures.
11. Megha Dadel, Shweta Srivastava & K. P. Tiwary, Design of Substrate Integrated Waveguide (SIW) Fed Log Periodic Microstrip Array Antennas, Wireless Personal Communications, (DOI 10.1007/s11277-016-3388-4). Published online on June 6, 2016.
12. Mitra Pradip Kumar, Agrawal Vijay and Ghosh Aurobindo (2015), "Exploring the Factors for Effective Sustainability Reporting: A Survey of Indian Chemical Industry", in International Journal of Asian Social Science; Vol. 11, No. 3; 2015 ISSN 1911-2017 E-ISSN 1911-2025 Published by Canadian Center of Science and Education, pp.197-211. (ABDC Rated)
13. Mitra Pradip Kumar, Agrawal Vijay and Ghosh Aurobindo (2015), "Sustainability Reporting Framework for Indian Chemical Industry- A Simplified Approach Surveyed through Industry Participants", in Academy of Taiwan Business Management Review; Vol. 11, No. 1; 2015 ISSN: 1813-0534 E-ISSN 1911-2025 Published by Cabell's Directory of publishing opportunity, (ABDC Rated "B")
14. Singh Rakhi and Agrawal Vijay (2016), "An Overview of Reforms and Sustainability of Indian Public Sector Enterprises", in International Journal of Financial Management (IJFM): Vol 5 Issue (1) January 2016, Page 1-28. ISSN (Print): 2319-491X; Impact Factor (JCC) - 2015:1.8456; Index Copernicus Value (ICV) - 2015: 3.0; NAAS Rating: 2.25".
15. Singh Rakhi and Agrawal Vijay (2016), "Disinvestment Of Indian Public Sector Enterprises: A Global Perspective", in International Journal of Management Information Technology and Engineering (BEST): Vol 4 Issue (2) February 2016, Page 81-94. ISSN (P): 2348-0513.
16. Singh Rakhi and Agrawal Vijay (2016), "Disinvestment Pattern Of Pses; Exploring New Dimensions of Sustainability", in International Journal of Research in Business Management (IMPACT: IJRB) Vol 4 Issue (3) March 2016, Page 11-28. ISSN (P): 2347-4572.
17. Enhanced ferroelectric and piezoelectric properties in La-modified PZT ceramics P. Kour, S. K. Pradhan, Pawan Kumar, S. K. Sinha, Manoranjan Kar, Appl. Phys. A (2016) 122: 591. doi:10.1007/s00339-016-0122-8.
18. Enhanced ferroelectric and piezoelectric properties of Nd<sup>3+</sup> doped PZT nanoceramics, P. Kour, S. K. Pradhan, Pawan Kumar, S. K. Sinha, Manoranjan Kar, AIP Conf. Proc. 1728, 020490 (2016); <http://dx.doi.org/10.1063/1.4946541>.
19. Study of structural and dielectric properties of PZT ceramics modified By Sm ion substitution, K. Barik, R. Kumar & S.K. Sinha, International Journal of Research in Engineering and Technology Pg-199-202, Vol-4, Issue-12, (Dec.2015).
20. Spray dried -PVA assisted preparation of ferromagnetic doped lead zirconate titanate ceramics and its quality factor-impedance study. Neha Bala S K Sinha, Int. J. of Inte. Res. Centre (IJIRC) ISSN: 2455-2275(E) Volume II, Issue 1 January 2016
21. Structural, Morphological and Optical investigation of CdS nanoparticles synthesized by microwave assisted method. (pp. 33-37) Vol. 11, No. 1, 2016. Digest Journal of Nanomaterials and Biostructures. S. K. Choubey & K. P. Tiwary.

22. Design of Substrate Integrated Waveguide (SIW) Fed Log Periodic Microstrip Array Antennas, Wireless Personal Communications, (DOI 10.1007/s11277-016-3388-4). Published online on June 6, 2016. Megha Dadel, Shweta Srivastava & K. P. Tiwary.
23. "Synthesis, characterization and third-order nonlinear optical properties of polydiacetylene nanostructures, silver nanoparticles and polydiacetylene-silver nanocomposites" B. Bhushan, S S Talwar, T Kundu and B P Singh, Pramana – Journal of Physics, 87:56 (2016)
24. "Measurement of optical nonlinearity by antiresonant ring Interferometric nonlinear spectroscopic (ARINS) technique" B. Bhushan, Optics and Spectroscopy, 121, 276-282 (2016).

#### **Published in International Proceedings:**

1. Kumar Nikhil, Asst Professor EEE dept. BIT, Patna) Manish Gupta, Dinesh Chandra, Vijaya Laxmi, "Combining Krylov Subspace Method And Routh Approximation For Reduced Order Modelling", Proceedings of IRF International Conference, 17th April 2016, New Delhi, India, ISBN: 978-93-85973-93-2.
2. M.A. Hasan, S.K. Parida, "Performance of Single Phase Induction Motor Under Different Supply Quality", 6th IEEE International Conference on Power Systems (ICPS 2016), 4-6 March 2016, IIT Delhi.
3. Sheel Shalini, International Conference on "Computing Communication and Automation 2016 (ICCCA2016)" on 29-30th April, 2016 sponsored by IEEE at Galgotias University.
4. Dr. K. P. Tiwary, Structural and Optical Properties of CdSe Nanoparticles Prepared by Microwave Assisted Method. International conference on Computational Technologies (ICCT 2016) held at Poddar International College, Mansarovar, Jaipur, Rajasthan, India. March 26-27, 2016.
5. Dr. K. P. Tiwary, "Development of CdS Nanoparticles using Microwave assisted method to study its Optical and Structural properties as a Nanosensors and Solar cells" Presented in 1st International Conference on Human Implications of Biotechnology Centre for Biological Sciences held at Central University of South Bihar, BIT Campus Patna. (Feb 12-14, 2016).

#### **Books**

**Book chapters:** Ayan Kumar Das, Rituparna Chaki, Kashi Nath Dey, "The Design of Hierarchical Routing Protocol (HRP) for WSN", in Advances in Intelligent Systems and Computing series, vol-395, ISSN- 2194-5357, pp. 223-234, Springer, Aug, 2015.

#### **Award / Recognition Bestowed on Faculty Member (State / National / International)**

S. No.	Name of the Faculty	Title of the Award/ Honours	Organisation	Year / Duration
1	Kumar Nikhil (Dept. Of EEE)	IRAJ Excellent paper award entitled "Combining Krylov Subspace Method And Routh Approximation For Reduced Order Modelling"	IRF International Conference, New Delhi, India.	17th April 2016



### Students' Activities

S. No.	Name of the Activity	Students' coordinator	Date/Duration
1	"VASTYOU"	Anamika Nandan, Dept. of Architecture	From 20th Jan. to 20th Feb. 2016
2	Industrial Tour/Plant Visit	Mr. Ayush Anshumani Ms. Kritika Patel	An Industrial Tour to BTPS, Barauni was conducted on 14th March 2015
3	Abhivyakti 2014	Ms. Khushboo	10th – 12th August 2014
4	Tour of The Educational Trip of South India for 2012 Batch B. Arch students	Anamika Nandan, Dept. of Architecture	October 2015

### Other important information

- Sanjay Kumar, Asst. Professor, EEE Dept., Two day visit 28 June & 29 June 2016 to Bihar research society, Patna and Kashi Prasad Jayaswal research institute Patna to carryout study, translation of rich Buddhist literature from Tibbet. Particulrly Vasubandhu's & Asanga's Vigyapatimatrata siddhi.
- Dr K. Lal, PhD Scholar Mrs. Soni Sweta presented her Pre-PhD Seminar and submitted her thesis.
- Saurav Jena, a 8<sup>th</sup> semester ECE student selected in top 20 of the Renesas GR-Kaede Design Contest India 2015 and he represented the Institute in final.
- **Team Thunderbolt** from BIT Patna campus participated and secured 25<sup>th</sup> rank in the Virtual round of in SUPRA SAEINDIA 2015 which is scheduled to be held at Chennai from 15<sup>th</sup> July. SUPRA SAE is a formula 1 car Design and fabrication event which is organised every year by SAEINDIA.
- **Team Cyclone** from BIT Patna campus participated in the event HPVC INDIA 2015. The event was held at Delhi Technological University from 16<sup>th</sup> to 18<sup>th</sup> January. Human Powered Vehicle Challenge (HPVC) is organised by American Society of Mechanical Engineers (ASME). The team successfully cleared all the safety tests and stood at 12<sup>th</sup> position in the Design Event and finished 34<sup>th</sup> in Overall rankings.



## Off-Shore Campuses



## Muscat



Waljat College of Applied Sciences (WCAS) was founded by H.E. Dr. Omar Bin Abdul Muniem Al Zawawi in 2001 with an aim to promote high international quality education in Oman that prepares students for modern, high quality jobs. WCAS functions in academic partnership with Birla Institute of Technology, a reputed deemed university located in Mesra, Ranchi, India. BIT was founded by the Philanthropist and Industrialist, the Late Mr. B.M. Birla in 1955 and since then has been a pioneering institution in the fields of technical education and research

The WCAS vision is to impart affordable high quality professional education and to become a centre of academic excellence that is a preferred choice of talented students. Wisdom, Commitment, Achievement and Service are the core values to realize our vision. WCAS believes in the holistic development of its students and offers a content and activity rich curriculum with emphasis on knowledge development, communication & interpersonal skills, projects and training activities.

The WCAS campus is located in Knowledge Oasis Muscat, Rusayl with state-of-the art teaching facilities, laboratories, library and student services. All academic programs are conducted in English and admissions are open to all nationalities.

There are various departments in the college including Department of Biotechnology, Department of Computer Science & Applications, Department of Electronics & Communications Engineering, and Department of Management offer Graduate programs leading to Bachelor of



Engineering (BE), Bachelor of Computer Application (BCA), Bachelor of Business Administration (BBA) and Post Graduate Programs offering Master of Business Administration (MBA) and Executive MBA (EMBA) Degrees respectively.

To provide an opportunity to enhance the qualification and skills of employed individuals, the college offers BBA, BCA Degree Programs and the EMBA Post Graduate Degree Program with evening classes.

## The college offers the following academic programmes of the institute

1. Bachelor of Engineering in  
Biotechnology  
Computer Science  
Electronics and Communication
2. Bachelor of Business Administration\*
3. Bachelor of Computer Applications\*
4. Master of Business Administration
5. Executive MBA\*

\* Also offered with evening classes to working candidates.

## Seminar / Conferences / Short – term Courses Conducted by the Campus

S. No.	Title of Seminar / Conferences / Short – term Courses / Workshop	Coordinator	Date of Seminar / Conferences / Short – term Courses
1	Training on MS Word and MS Excel	CSE Department, WCAS	9.08.2015 to 12.08.2015
2	Workshop on Research Methodology and SPSS	Waljat College of Applied Sciences	15.08.2015 to 16.08.2015
3	International Conclave on Innovations in Engineering & Management (Oman vision 2020: opportunities & challenges	Waljat College of Applied Sciences	24.02.1016 to 25.02.2016
4	Risk Management and Bench Marking	Dr. Niraj Mishra, Waljat College of Applied Sciences	08.10.2015
5	Workshop on Self Assessment - Portfolio	Waljat College of Applied Sciences	17.10.2015
6	Internal Quality Audit Training	Waljat College of Applied Sciences	29.10.2015
7	How to write a Self assessment portfolio	Dr. S. Ramamoorthy Waljat College of Applied Sciences	17.12.2015
8	Self Assessment Portfolio	Waljat College of Applied Sciences	26.12.2015

S. No.	Title of Seminar / Conferences / Short – term Courses / Workshop	Coordinator	Date of Seminar / Conferences / Short – term Courses
9	Training Session on Guidelines for draft commentary report writing	Mr. Mithun Srivastava, Waljat College of Applied Sciences	24.01.2016 to 27.01.2016
10	Seminar on stress management	Health & Safety Club, WCAS	02.02.2016
11	How to prevent heart disease	Health & Safety Club, WCAS	01.03.2016
12	Your Decision Determines Your Destiny	Health & Safety Club, WCAS	17.03.2016
13	Tally ERP 9	Waljat College of Applied Sciences	04.04. 2016 to 07.04. 2016
14	Workshop on Benchmarking	Waljat College of Applied Sciences	07.04. 2016
15	Health awareness lecture for women	Waljat College of Applied Sciences	28.04.2016
16	Workshop on System Formatting & Booting	CSE dept., WCAS	23.11.2015
17	Workshop on Big Data Analytics	CSE dept., WCAS	3.3.2016
18	Orientation on Awareness on FOSS	CSE dept., WCAS	7.3.2016
19	Awareness and Orientation Program Related to Plagiarism	Mr. Mithun Shrivastava	16.3.2016
20	Awareness on Intellectual Property	Dr. G. P. Mishra	20.3. 2016
21	Internal Quality Audit Training	Quality Assurance Department, WCAS	29.10.15
22	Workshop on PSPP-Free Open Source Software	CSE dept., WCAS	1.5.2016
23	Workshop on SPSS	Management dept.,WCAS	6.4.2016

#### 4. Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S.NO	Name of the Faculty	Title of the Conference/Seminar	Organizers	Date
1	Dr. Sounak Paul	The 2015 International Conference on Advanced Informatics: Concepts, Theory and Application	Burapha University, Thailand, Toyohashi University, japan, Institu Teknologi Bandung, Indonesia	19.08.2015 to 22.08.2015
2	Dr. Mohammad Mohatram	Repair and Maintenance of Scientific Engineering Equipments in Universities and Research Institutions	National Training Workshop jointly organized by IESCO, COMSATS and MOHE (Oman), College of Applied Sciences, Rustaq	23.08.2015 to 27.08.2015

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S.NO	Name of the Faculty	Title of the Conference/Seminar	Organizers	Date
3	All academic staff members	FDP on Research Methodology and SPSS	Waljat College of Applied Sciences	30.08.2015
4	Ms. Vijaya Ms. Anasuya Ms. Vallikannu Ms. Alycia Ms. Anu Ms. Akrati Mr. Satish Mr. Sanjay Mr. Arvind Choudary	Big Data Seminar	Public Establishment for Industrial Estates (PEIE)	07.09.2015 to 08.09.2015
5	All academic staff members	Orientation for Class Advisors	Dr. A. Prakash, Waljat College of Applied Sciences	01.10.2015
6	Dr. A. Prakash Dr. Alok Kushwaha Mr. Jyoti Mr. Sounak Dr. Prashant Rastogi Mr. Syed Aulia Ms. Vijaya Ms. Sinumol Ms. Alycia Ms. Vallikannu Ms. Sharmila Ms. Priya Mr. Mithun Ms. Seema V. Ms. Seema Gupta Ms. Kusum Ms. Srilekha Mr. P.K Singh Mr. Sanjay Mr. A.K. Chaudary Dr. Sanjay Mohanty Mr. Roby Mr. Satish Mr. Mohtarram Mr. Prabal	Risk Management and Bench Marking	Dr. Niraj Mishra, Waljat College of Applied Sciences	08.10.2015
7	Dr. Arvind Hans	Study on Occupational Stress & Organizational commitment among nurses in govt. hospitals of Oman	12th Asian Business Research Conference, World Business Institute, Thailand.	08.10.2015 to 09.10.2015

S.NO	Name of the Faculty	Title of the Conference/Seminar	Organizers	Date
8	Dr. Alok Kushwaha Ms. Vijaya Dr Seema V. Mr P.K. Singh Dr. Niraj Mishra Mr. A.K Chaudary Dr.G.P. Mishra Ms. Seema Arora	Workshop on Self Assessment - Portfolio	Waljat College of Applied Sciences	17.10.2015
9	Mr. Arbind K Chaudhary Ms. Akarti Koul Ms. Anu Manchanda Dr. Nupur Ms. Sharmila	Prevention and Management of chronic ailments through Ayurveda	Waljat College of Applied Sciences	26.10.15
10	Ms. Smitha Felix Ms. Priya Ranjan Ms. Anasuya Patil Dr. Sadaf Zehra Ms. Sharmila Queenthy Dr.A.Hans Dr. David M. Mr. Sanjay Kumar Dr. Niraj M. Mr. Syed Aulia Mr. Kuldeep Gupta Dr. Sushil K. Ms. Kusum Mishra Ms. Blossom Christina Ms.Sameena Ms. Atiya Ms. Nabila Al Zadjali Mr. Vikas Sharma Dr. Prashant Mr. Sounak Paul Ms. Neelufar Aslam Dr. Seema V. Dr. Seema G. Dr. Nupur Sen Dr. Srilekha Mr. Roby V Dr. Mohatram Mr. Shahid Ali Mr. Jyoti Chandel Dr.Prabal	Internal Quality Audit Training	Waljat College of Applied Sciences	29.10.2015

S.NO	Name of the Faculty	Title of the Conference/Seminar	Organizers	Date
	Mr. Praveen S. Mr. Waadalla Mr. Akhilesh Mr. Satish Dr. A. Prakash Mr. Sultan Khan Mr. P. K. Singh Dr. G. P. Mishra Ms. Anu M. Ms. Vallikannu Ms. Sinymol Ms. Alycia Mr. Mithun			
11	Dr. Mohatram Ms. Nabila Suleiman Ali Al Zadjali	Microsoft Dev Camp 2015, Crowne Plaza Muscat	Microsoft	02.11.2015
12	Dr. Niraj Mishra	Entrepreneurship - Creativity & Innovation	Ministry of Higher Education, Oman Tourism College, Muscat	03.11.2015 to 05.11.2015
13	Mr. Mithun Srivastava	Benchmarking Workshop	Mazoon College, Muscat	05.11.2015
14	Dr. G.P. Mishra Dr. Seema Gupta	MOHE certified Entrepreneurship Educator Program	S.M.E.F, Oman	15.11.2015 to 17.11.2015
15	Dr. Alok Kushwaha Ms. Anasuya Patil Dr. Sadaf Zehra Dr. Seema V. Dr. Seema G. Dr. Srilekha Ms. Vijaya Ms. Alycia Ms. Cimi Ms. Sinymol Ms. Vallikannu Ms. Akрати Dr. Sanjay Mohanty Dr. A Hans Ms. Blossom Dr. David Mandipudi Dr. A. Prakash Mr. S. Purohit Mr. Akhilesh	Student Engagement for Prospective Learning & Development	TLC committee, Waljat College of Applied Sciences	19.11.2015



S.NO	Name of the Faculty	Title of the Conference/Seminar	Organizers	Date
	Dr. Rajeev Kumar Dr. Prabal Mr. Roby V. Mr. Monnir Mohammed Mr. Mithun Mr. Kuldeep Gupta Mr. Rajeev Ranjan Dr. Sushil Kumar Mr. Saunak Paul Mr. Satish Mr. Sultan Khan Dr. Rastogi Mr. Said Al Amri Ms. Kusum Dr. Nupur Sen Ms. Seema Arora Ms. Priya Ms. Muzna Al Bashardi Mr. Vikash Sharma			
16	Ms. Seema Arora	Parametric Representation and Modeling of Indoor Broadband Power Line Channel for data transmission	International Conference on Sustainable Mobility Applications, Renewables and Technology (SMART 2015), Kuwait	23.11.15 to 25.11.15
17	All academic staff members	How to write a Self assessment portfolio	Dr.S. Ramamoorthy Waljat College of Applied Sciences	17.12.2015
18	Dr. Alok Kushwaha	Institutional Standards Assessment External Reviewers Training Workshop	Oman Academic Accreditation Authority	21.12.2015 to 22.12.2015
19	1.Dr. Seema Varshney 2. Dr. Prakash 3. Dr. Prabal Datta 4. Dr. Sounak Paul 5. Shahid Ali 6. Vijaya P 7.Vikash Sharma 8. Binu Zachariah 9. Jyoti K Chandel 10.Kusum Lata Mishra	Self Assessment Portfolio	Waljat College of Applied Sciences	26.12.2015

S.NO	Name of the Faculty	Title of the Conference/Seminar	Organizers	Date
	11. Dr. Niraj Mishra 12. Dr. Arvind Hans 13. Praveen Sanga 14. Dr. David Mandepudi			
20	Dr. S.L. Gupta Sharmila Queenthy Arbind Kumar Choudhary Jyoti K Chandel Sadaf Zahra Sultan Khan Dr. Ganesh Prasad Mishra Neelufer Aslam Anu Manchanda Akrati Koul Priya. C. Rajan Sanjay Kumar Dr. Prashant Rastogi Syed Aulia Binu Zachariah Kusum Lata Mishra Mr. Rajeev Ranjan Srilekha Goveas Nupur Sen Satish Chander Thuraya Mohd Salim Al-Habsi Sushil Kumar Mohd Mohatram Mohammed Waadalla Prashant Kumar Singh Akhilesh Roy David Mandepudi Khawla Hassan Al Tamari Sinymol S. B Alycia Edwin Shahid Ali	Self Assessment Portfolio	Waljat College of Applied Sciences	7.1.2016
21	Self Assessment Portfolio Writing team members	Training Session on Guidelines for draft commentary report writing	Mr. Mithun Srivastava, Waljat College of Applied Sciences	24.01.2016 to 27.01.2016

S.NO	Name of the Faculty	Title of the Conference/Seminar	Organizers	Date
22	Dr. Arvind Hans Dr. G. P. Mishra Dr. Jyoti Chandel Dr. Mohd Mohtram Dr. Prabal Datta Dr. Prashant Rastogi Dr. Sadaf Zehra Dr. Sanjay Mohanti Dr. Seema Gupta Dr. Seema Varshney Dr. Sharmila Dr. Srilekha Dr. Sushil Kumar Mr. Arbind Chaudary Mr. El Amin Nur Mr. Krishnan Mr. Kuldeep Gupta Mr. Mithun S. Mr. Rajeev Ranjan Mr. Roby V. Mr. Said Al Amri Mr. Sanjay Kumar Mr. Satish Mr. Shahid Ali Mr. Sultan Khan Mr. Syed Aulia Ms. Akhila Rajan Ms. Alycia Ms. Anasuya Ms. Kusum Lata Ms. Anu Ms. Cimi Ms. ValliKannu Ms. Sinymol Ms. Priya Ms. Neelufar Ms. Omaina Al Riyami Ms. Khulood Al Ghadani Ms. Muzna Al Brashadi	Seminar on Stress Management	Health & Safety Club, WCAS	02.02.2016
23	Mr. Saeed Al Amri	Seminar on The Role of Universities in generating Technology-Based startups	Sultan Qaboos University	17.02.2016

S.NO	Name of the Faculty	Title of the Conference/Seminar	Organizers	Date
24	Ziyad Ali Al Shehhi Abdullah Yaqoub Al Rawahi	The English Language Teachers Professionals Network(ELTPN) Conference	British Council (Venue: Military Technological College)	19.02.2016 to 20.02.2016
25	All academic staff members	International Conclave on Innovations in Engineering & Management (Oman vision 2020: opportunities & challenges)	Waljat College of Applied Sciences	24.02.1016 to 25.02.2016
26	Dr. S L Gupta Dr. Alok Kushwaha Dr. Seema Gupta Dr. Nupur Sen Ms. Kusum Lata Dr. Anu Manchanda Ms. Cimi Thomas Ms. ValliKannu Ms. Sinymol Ms. Alycia Ms. Akрати Koul Ms. Aliya Abdullah Dr. Mohd Mohtram Dr. Arvind Hans Dr. Sounak Paul Ms. Rajshree Mr. Akhilesh Mr. Ashraf Mr. Shahid Mr. Syed Aulia Mr. Arbind Chaudary	How to prevent heart disease	Health & Safety Club, WCAS	01.03.2016
27	Dr. Jyoti Chandel	ITC Market Analysis Tools	The Public Authority for Investment Promotion and Export Development (WCAS)	07.03.2016 to 08.03.2016
28	Dr. David Mandepudi Mr. Arbind Chaudary	Your Decision Determines Your Destiny	Health & Safety Club, WCAS	17.03.2016

S.No	Name of the Faculty	Title of the Conference/Seminar	Organizers	Date
29	Ms.Sameena Begum Dr.Srilekha Goveas Mr.Said Al Amri Ms.Houda Al Quwaiti Ms.kusum Lata Ms.Neelufer Aslam Dr.Seema Varshney Mr.Ishaq Al Salmi Ms.Salima Ahmed	Tally ERP 9	Waljat College of Applied Sciences	04.04. 2016 to 07.04. 2016
30	Dr. Mohd Mohtram Dr. Prabal Datta Dr. Prashant Rastogi Dr. Sadaf Zehra Dr. Sanjay Mohanti Dr. Seema Gupta Dr. Seema Varshney Dr. Sharmila Dr. Srilekha Dr. Sushil Kumar Mr. Arbind Chaudary Mr. Kuldeep Gupta Mr. Mithun S. Mr. Rajeev Ranjan Mr. Roby V. Mr. Said Al Amri Mr. Sanjay Kumar Mr. Satish Mr. Shahid Ali Mr. Sultan Khan Mr. Syed Aulia Ms. Akhila Rajan Ms. Alycia Ms. Anasuya Ms. Akрати Ms. Kusum Lata Ms. Anu Ms. Cimi Ms. ValliKannu Ms. Sinyamol Ms. Atiya Ms. Priya Ms. Neelufar Ms. Omaima Al Riyami	Workshop on Benchmarking	Waljat College of Applied Sciences	7.4.2016



S.NO	Name of the Faculty	Title of the Conference/Seminar	Organizers	Date
	Ms. Khulood Al Ghadani Ms. Muzna Al Brashadi Ms. Kothar Mr. Said Ms. Houda Al Quwaiti			
31	Dr. G.P. Mishra Dr. Seema Gupta	MOHE certified training on Small Medium Entrepreneurship Development Fund Program	MOHE Oman	18.04.2016 to 20.04.2016
32	Mr. Roby Varghese Ms. Omaira Al Kiyumi Mr. Mounir Al Hussain	English Learning & Training Conference	Sultan Qaboos University	21.04.2016 to 22.04.2016
33	Dr. Nupur Dr. Srilekha Ms. Kusum Lata Ms. Neelofar Ms. Akrati Dr. Anu Ms. Cimi Ms. Sinymol Ms. Arti Dr. Namrata Dr. Sharmila	Health awareness lecture for women	Waljat College of Applied Sciences	28.04.2016
34	All the academic class advisers	Orientation for Class adviser/academic adviser	QAD, Waljat College of Applied Science	28.04.2016

## Publications

### Journals

1. Vikash Sharma and Dr. Sanjay Kumar, Sylvester Matrix Theorem: An Ideal Tool in MIMO Channel Estimation. IJAER, 2015, 10, 39803-39807.
2. Syed Aulia, Opportunities of Tourism in Sultanate of Oman, International Journal of Research in Tourism and Hospitality (IJRTH), 2015, 1.
3. Prashant Kumar Singh, Branch Banking to Virtual Banking –Utilization of Direct banking Channels, European Journal of Accounting Auditing and Financial Research, 2014, 2, 1-8.
4. Syed Aulia, Dr. Prashant Rastogi, A Conceptual Paper on Heritage Tourism in Sultanate of

- Oman, International Journal of Managerial studies and Research, 2015, 11, 99-101.
5. Neelufer, Assessment of service quality in insurance industry In Sultanate of Oman, International Journal of Research in Finance and Marketing, 2015, 5, 119-127.
  6. Praveen Dhyani, Kusum Lata Mishra & G.P. Mishra, Cross Cultural Leadership in Higher Educational Institutions – A study with special reference to Muscat, Sultanate of Oman, European Journal of Business and Management, 2015, 7, 188-192.
  7. Hans, A., Mubeen, S.A., Al Badi, A., H., H., Antecedents of organizational citizenship behavior (OCB) in banking sector of sultanate of Oman, IJMSS, 2015, 3, 152-164.
  8. Hans, A., Misha, N., Mubeen, S.A., Al Badi, A., H., H., A study on occupational stress and quality of work life (QWL) in private colleges of Oman (MUSCAT), Global Business and Management Research: An International Journal, 2015, 7, 55-68.
  9. M.Cimi Thomas, Paul Varghese, Secure Method for Embedding Plain Text on an Elliptic Curve using TDMRC Code and Koblitz Method, Journal of Theoretical and Applied Information Technology, 2016, 82, 298-304.
  10. Khan.S.A., Dhyani P., Data Mining: Using C++ to measure correlation between real valued and Nominal valued dataset, International journal of Innovative Research in Computer Science and Technology (IJIRCST), 2015, 3, 47-51.
  11. Satish Chander, P. Vijaya, MKF-Firefly: Hybridization of Firefly and Multiple Kernel-Based Fuzzy C-Means Algorithm, International Journal of Advanced Research in Computer & Communication Engineering, 2016, 5, 213-216.
  12. Satish Chander, P. Vijaya, Praveen Dhyani, Fractional Lion Algorithm – An Optimization Algorithm for Data Clustering, Journal of Computer Science, 2016, 12, 323-340.
  13. Sounak Paul, Bimal Kumar Mishra, Worm Propagation with Differential Infectivity under Quarantine Control Strategy, International Journal of Security and its Applications (IJSIA), 2016, 10, 201-214.
  14. Iman Bader Al Hosni, Philosophy of morals, Mowatin, 2015.
  15. Iman Bader Al Hosni, Fear of freedom, Al Roeya, 2015.

## **Proceedings**

1. Shah Jahan, Jawaher Said Saleem Al Daoudi, Mohammad Mohatram, Demulsification of Heavy Crude Oil Emulsions using Surfactants. In Proceedings of International Conclave On. Innovations in Engineering & Management (Oman Vision 2020: Opportunities & Challenges), Waljat College of Applied Sciences, Muscat, Sultanate of Oman, 2016.
2. Shah Jahan, Laila Al Bulushi, Mohammad Mohatram, Study on Pitting Corrosion of SS316, SS304, DSS2205 SS410 and CSA53 in HCl and  $\text{NH}_4\text{Cl}$ . In Proceedings of International Conclave on Innovations in Engineering & Management (Oman Vision 2020: Opportunities & Challenges), Waljat College of Applied Sciences, Muscat, Sultanate of Oman, 2016.
3. Shah Jahan, Salim Mohammed Salim Al-Mandhari, Mohammad Mohatram, Study of Corrosion

Inhibition in SS316, SS304 and SS410. In Proceedings of International Conclave On. Innovations in Engineering & Management (Oman Vision 2020: Opportunities & Challenges), Waljat College of Applied Sciences, Muscat, Sultanate of Oman, 2016.

4. Hans, A., Khan, S., Al-Subhi, A. K. M, Emotional Intelligence and Job Performance in Government Authorities in Sultanate of Oman. In Proceedings of International Conclave On. Innovations in Engineering & Management (Oman Vision 2020: Opportunities & Challenges), Waljat College of Applied Sciences, Muscat, Sultanate of Oman, 2016.
5. P. Vijaya, Satish Chander, FENN: Fuzzy Integrated Extended Nearest Neighbour Classification Algorithm for Web Page Retrieval. In Proceedings of International Conclave On. Innovations in Engineering & Management (Oman Vision 2020: Opportunities & Challenges), Waljat College of Applied Sciences, Muscat, Sultanate of Oman, 2016.

### Students' Activities

S. No.	Name of the Activity	Students' coordinator	Date/Duration
1	Volley Ball and Throw Ball	Sports club	21.10.2015-25.10.2015
2	Fire Mock Drill	Health and safety club	27.10.2015
3	Plantation & Clean Up drive	Environment Club	29.11. 2015
4	National Day	Cultural Club and Fine arts club & activity club	30.11.2015
5	Oman.45	Photographic club	30.11.2015
6	PDO Basketball Tournament	Sports club	4.12.2015
7	Paper Recycling Event,	Environment Club	14.12.2015
8	Sports Day	Sports club	16.12.2015
9	Mother's day	Cultural Club and Fine arts club & activity club	21.3.2016
10	Poster Making Competition,	Environment Club	21.3. 2016
11	Traditional Day	Cultural Club and Fine arts club & activity club	20.4 2016
12	College picnic	Social Club	21.4.2016
13	Open day -WCAS intercollegiate Fest 2016	Cultural Club and Fine arts club & activity club	9.5.2016
14	Tech Fest-2016	Tech Club	11.5. 2016
15	Annual Short Film Festival 2016	Photographic club	18.5.2016

## **Other Important Information**

### **(a) XI<sup>th</sup> Convocation**

The Eleventh Convocation of Waljat College of Applied Sciences was held on 9<sup>th</sup> February 2016 (Tuesday) at A' Noor Plaza, Medinat, As' Sultan Qaboos, under the patronage of H.E Sheikh Mohammed Bin Hamdan Al Tobi, Ministry of Education Adviser, Prof. (Dr.) Manoj Kumar Mishra, Vice Chancellor, Birla Institute of Technology, Dr. Zuhoor Abdullah Salim Al Khanjari, Chairperson and Member of the Trustee Council, Prof. (Dr.) Shankar Lal Gupta, Dean, Waljat College graced the august ceremony. Representatives from Ministry of Higher Education, Dr. A.P. Krishna, Registrar, B.I.T., Mesra, Dr. B.K. Singh, Dean Academic Coordination, Dr. S.K. Bose, Dean (Alumni & International Relations), Principals from various schools and distinguished guests from corporate also graced the occasion.

A total number of three hundred and twenty one students received the Degrees and Diplomas in their respective disciplines, of whom two hundred & ninety five were Bachelor Degree holders, forty two were Diploma holders and thirty five were Masters Degree Holders.

Dean, Prof. (Dr.) S. L. Gupta, congratulated the successful students on their achievements and wish them all the very best in their future endeavors. He also highlighted on the various laurels they won during their tenure in the College. He also focused on the accomplishments of the staff in their various fields of interest.

### **(b) WCAS Organised International Conclave on Innovations in Engineering and Management**

Waljat College of Applied Sciences offered a platform to educationists, IT professionals, policy makers and corporate professionals from various countries through a two day International Conclave on Innovations in Engineering and Management on 24-25 February 2016. Participants from 11 countries presented 68 research papers in 16 different sessions. Students from various colleges in Oman also got an opportunity to interact with the invited dignitaries. The conclave was supported by the Research Council of Oman, OMZEST Group and Muscat Pharmacy & Stores LLC.

On day one, Dr. Zuhoor Bint Abdullah Al Khanjari, Chairperson Trustee Council, WCAS, welcomed the invited dignitaries. Prof. (Dr.) S.L. Gupta, the Dean presented the theme of the conclave. H.E. Dr. Hilal Al Hinai, Secretary General, TRC, Oman was the Guest of honour.

### **(c) WCAS launched First Issue of Journal in Partnership with BIT**

Waljat College of Applied Sciences launched its maiden International Journal of Applied Sciences and Management (IJASM), an International E-Journal, with ISSN 2413 3396, in the month of August 2015. Dr. Zuhoor Abdullah Salim Al Khanjari, the Chairperson, Trustee Council of WCAS along with other members and the Editorial Board Members, IJASM released the first issue of the journal. The first issue of the Journal published online at <http://www.waljatcollege.edu.om/journal/ijasm.php>, and is available for viewing. Mr. M. M. Khan, Mr. Mohammed Bin Mirza Al Balushi, Mr. Salem Bin Nasser Al Bortmany and Mr. Saif Al Shmeli, the members of Trustee Council, WCAS along with the Chairperson congratulated and extended their support to Prof. S. L. Gupta, the Dean & Editor in Chief, and to Editorial Board, IJASM of WCAS for the initiative in contribution to the higher learning experience in Sultanate of Oman.

## (d) Students Academic Achievements -2016

- On 4<sup>th</sup> May, 2016, five students of BE 8<sup>th</sup> semester (Electronics & Communication Engineering) participated and won the Best Paper under Engineering category at Nizwa University. Final year Engineering students of Electronics & Communication and Computer Science Dept attended 6<sup>th</sup> NATIONAL SYMPOSIUM ON ENGINEERING FINAL YEAR PROJECTS (6<sup>th</sup> NSEFYP) Organized by College of Engineering and Architecture at University of Nizwa, along with Faculty member Mr.Satish Chander, Department of Computer Science & Engineering. A Total of 25 Students Participated in 6<sup>th</sup> NSEFYP.

S. No.	Name of the Student	Title	Awarding Authority	Year
1	Sushmita Kaushal	First	Nizwa University	2016
2	Mukesh Murugan	First	Nizwa University	2016
3	Vinayak Narayan	First	Nizwa University	2016
4	Mohd Omar Nayeem	First	Nizwa University	2016
5	Azzan Khan	First	Nizwa University	2016

- Zunaira Zubair Ahmed and Rachana Visavadiya of BE-CSE-6th semester presented paper on "Cloud Computing and its Security Issues" at National Conference on Information System Trends (NIST 2016), university of Nizwa on 11th Feb 2016.
- WCAS Baader Bil Atta Team wins Best Idea Award in Big Give Challenge Competition organized by Bal Al Attas. WCAS team consisted of Ms. Khaula Hassan Tamari, Student Affairs Department, Mr. Ibrahim Al Balushi, BE-ECE student and Ms. Muthala Al Siyabi, BCA student.
- CSE students participated in iTech Marathon 2016, organized by Ibri College of Technology on 7<sup>th</sup> March 2016. Kranthi Kiran and Gaurav T. Achrekar of BE-CSE-IV semester won II Prize in Trouble Shooting Contest.
- Computer Science & Engg students participated in ProWhiz competition held on 13<sup>th</sup> April 2016 at Modern College of Business and won first and second prizes.

### First Prize –Team Members

Avinash Ramkumar – BE-CSE-VIII

Sujeendran Menon – BE-CSE-VIII

Urvashi Kishnani – BE-CSE-IV

Avinash Gopal – BE-CSE-IV

### Second Prize- Team Members

Nimal Augustine – BE-CSE-VIII

Mriganka Harsh – BE-CSE-VI

Shannon DSouza – BE-CSE-VI

Zunaira Zubair Ahmed – BE-CSE-VI



- Computer Science & Engineering students participated in the Oman Collegiate Programming Contest in SQU on 26th & 27th April 2016.

Two teams are qualified for ACPC-2016-

**Team-I**

Avinash RamKumar- BE-CSE-VIII

Sujeendran Menon –BE-CSE-VIII

Nimal Augustine- BE-CSE-VIII

**Team II**

Urvashi - BE-CSE-IV

Avinash - BE-CSE-IV

Vignesh - BE-CSE-VI

- Computer Science & Engineering students won both 1st Prize and 2nd Prize in the National IT Quiz Bee competition held on 19th May 2015 in Oman College of Management & Technology.
- **Campus placement -2015**

Following students got placed through campus placement at BIT Mesra India

- i Avinash Ramkumar (BE-CS) - IBM
- ii Nimal Augustine K.P.(BE-CS)- Cognizant
- iii Habib Kunju Muhammed (BE-CS)- WIPRO
- iv Prameet Biswas (BE-CS)- WIPRO
- v Panavally Sujeendran Menon (BE-CS)- IBM
- vi Elton Victor Fernandes (BE-EC)- Infosys

## RAS AL KHAIMAH



BIT Offshore campus at Ras Al Khaimah, UAE started its operation from September 2005, where it imparts Under Graduate programs (as approved by Technical Council of BIT Mesra,) "B.E" in Electronics & Communication Engineering, Electrical & Electronics Engineering, Computer Science & Engineering, along with "B.Arch" in Architecture and "BBA" in Management. It also offers "Diploma" in Engineering after ten years of schooling. Apart from this, Post Graduate programs of "MBA" and "EMBA" are also offered in the Centre, where MBA is a regular program and EMBA is a week-end program. However, since 2013-14, the centre has also started offering three new courses i.e., BE and Diploma in Mechanical Engineering and B.Com/B.Com-Honours in commerce discipline. In order to facilitate Mechanical Engineering students, a new Workshop-cum-Laboratory is being set-up in the centre.

As per law of the country the campus is not allowed to own any property on permanent basis. Thus, the campus had started operating based on the agreement & License of "RCAST" in RAK. However, due to some acts of commission/omissions on part of RCAST, BIT had to start looking for the alternatives. In the process, with the support of "RAK Free Trade Zone" authority, BIT could associate with a new strategic partner i.e. "CORE international Institute of Higher Education FZE". Thus since February 2012, the International Center of BIT has been offering the same academic program, in the same premises but with a new name "**BIT Offshore Campus, RAK**" based on the agreement with BIT Mesra and License issued to the new strategic partner by RAK Free Trade Zone.

### Seminar / Conferences / Short – term Courses Conducted by the Campus

S. No.	Title of Seminar / Conferences / Short – term Courses / Workshop	Coordinator	Date of Seminar / Conferences / Short – term Courses
1.	Naturovation	Dept. of Architecture	22.11.15
2.	I-UP FORUM	Ar. Gayathri Viswanathan	09.12.15
3.	Naturovation	Ar. Surabhi Raizada	09.12.15
4.	Architectural Design workshop	Ar. Gayathri Viswanathan & Ar. Champa H S	20.04.16 & 21.04.16

### Conferences/ Seminars/ Workshops/ Staff Development Programmes attended

S. No.	Name of the Faculty	Title of the Conference/ Seminar	Organizers	Venue	Date
<b>Management Department</b>					
1.	Soofi Anwar	ICSET-2015 Presented a research paper on “Exploring Students Attitude towards E-learning”	Jagadamba College of Engineering, India	BIT RAK Campus	Nov. 2015
2.	Soofi Anwar	National Qualifications Assessment (NQA)- Orientation Program- RAK FTZ	RAK FTZ		13 Nov. 2014
3.	Rhoda Alexander	HR Summit & Expo Conference	Informa Middle East Limited	DWTC	16-18 Nov, 2015
4.	Rhoda Alexander	ATD Middle East Conference & Exhibition	Informa Middle East Limited	The Address, Dubai	30-05-16
5.	Rhoda Alexander	International Learning and Teaching Conference	WINC FZE, RAK	Univeristy of Bolton, RAK	18-06-16
6.	Dr.Kavita Tiwari	Promoting Multidisciplinary Academic Research & Practice to Meet the Global Challenges to economies and societies	International conference on -“Global issues in multidisciplinary academic research ” (GIMAR-2015) Best Research Paper + Best Paper Presentation Award	Dubai – UAE	5th July 2015



S. No.	Name of the Faculty	Title of the Conference/ Seminar	Organizers	Venue	Date
7.	Dr.Kavita Tiwari	Innovative Management Practices and Emerging Trends – Envisioning Global Challenges	2nd International Conference – Altius institute of Universal studies - Indore (India) Best Research Paper + Best Paper Presentation Award	Indore (India)	7th August 2015
8.	Dr.Kavita Tiwari	Innovations & IPR	Indian institute of corporate affairs, Ministry of corporate affairs, India, International Conference on Innovations & IPR	Delhi India	11th Oct 2015
9.	Dr.Kavita Tiwari	Gender Stereotyping	Mcraw 2016 International Conference On Media & Cultural Resistance: Beyond Gender Stereotyping.	Dubai (UAE)	11th Nov 2016
10.	O. N Mishra	National Seminar on 'Impact of Tourism on Income and Employment in Indian Economy'	PSIT College of Higher Education, Kanpur	Kanpur, Uttar Pradesh, India	April 9-10, 2016
COMPUTER SCIENCE AND ENGINEERING					
11	Ms. Archana Pandita	Attended one week workshop on Adobe Photoshop	BITOC, RAK	BITOC, RAK	June 2015

## Publications

### Journals

1. Sharma, R., Jain, P.K. Upadhyay, Spectroscopic Studies of Nanocomposites Based on Impact Modified PBT/PTT Blends Loaded by Organoclay. International Journal of Advanced Technology in Engineering and Science, 2016, Vol. 4 (5), 269-285. ISSN 2348-7550.
2. P. K. Upadhyay, Md. Towhidul Islam, Mechanical design and analysis of prototypal wave energy harvester system, Journal of Research in Engineering and Applied Sciences, Vol 01, Issue 02, pp 84-91, April 2016.

3. Chetna Nagpal, P.K Upadhyay, A review on sleep EEG events using Neuro-Fuzzy system, GE-International Journal of Engineering Research Vol. 4, Issue 2, Feb 2016 IF- 4.007 ISSN: (2321-1717).
4. Chetna Nagpal, P.K Upadhyay, "Sleep EEG Classification Using Fuzzy Logic" International Journal of Recent Development in Engineering and (ISSN 2347-6435, Volume 4, Special Issue 1, May 2015).
5. Champa, Nagendra, Exploring the Urban Design Elements to Refurbish the Identity of Mysore City, Global Journal of Engineering Science and Research Management, 2016, ISSN 2349-4506.
6. Champa H S, Nagendra H N, An Urban Design Intervention into the Development Paradigm of Mysore City, International Journal of Latest Trends in Engineering and Technology, 2016, Volume: 6 Issue: 3, 428-435.
7. R P Singh, Prashanth T, Irfan Shaikh, Ani Daniel, Vilas K Bhosle, "Evaluation of fatigue and corrosion, analysis and comparison with hardness for stainless steel – 304", a technical paper published in "International Journal of Engineering and Research", Vol4, Issue 1, Jan 2016.
8. Alister Gleason D'souza, Joel I. Concessao, Jaimon D. Quadros, "Study of Aerofoil Design Parameters for Low Speed Wind Tunnel", Journal of Mechanical Engineering and Automation, Vol. 5(3B), pp. 47-54, 2015.
9. Jaimon D. Quadros, Suhas, Vaishak N. L., "Thrust induced failure analysis of glass fiber reinforced epoxy composites for different service temperatures during drilling process", Journal of Machining and Forming Technologies, Nova Science Publishers, USA, Vol 7, No. 1-2, 2015.
10. Ani Daniel, "Analysis of the influence of gas during carbon di oxide laser cutting", International Journal of Mathematics, Engineering and IT, Vol 3, Issue 3, March 2016.
11. ShitalM Patil, AmitB Rajput, SachinD, "Effect of glass fiber length and their content on mechanical and thermal properties of FRP fastners", International journal of advanced technology in engineering and science, Vol 4, Issue 1, Jan 2016.
12. Jaimon D. Quadros, Vaishak N. L., Suhas and Manoj Kumar A. P., "Drilling analysis and process modeling of [0/90/0] oriented glass fiber reinforced epoxy plastic (GFRP) composite laminates", International Journal of Materials Science, Vol. 10, No. 2, pp. 183-193, 2016.
13. Abrar Ahamed, "Wear behavior of Al 6061-SiC-Gr Hybrid Composites" International Journal of Innovative Research in Science, Engineering and Technology, volume 4, Issue 9, 2015, pages 8220-8225.
14. Jaimon D. Quadros, Suhas and Vaishak N. L., "Investigation of thrust force and torque induced failure on stacking sequence of glass fibers in GFRP composite laminates during drilling process", International Journal of Advanced Manufacturing Materials and Characterization, Vol. 6, No. 1, pp.86-92, 2016.
15. Jaimon D. Quadros, Suhas, Vaishak N. L., "A numerical study for determining the ideal operating speed for a two wheeler rider on varying terrain amplitudes", Journal of Mechanical Science and Technology, Vol. 30, No. 6, pp. 2435-2442, 2016. [SCIE Indexed]



16. Jaimon D. Quadros, Vaishak N. L. and Suhas "Effect of burr height and surface roughness in drilling low alloy steels for different drill-point angles using design of Experiments and Artificial Neural Networks", International Journal of Material Science and Technology, Vol. 15, No. 2-3, pp. 109-133, 2016
17. Prashanth T, "Evaluation of wear and corrosion behaviour of heat treated stainless steel", Vol 10, Issue 3, pp 136-138, Sept 2015.
18. Sarthak Kapoor, Allan Kumar, Prashanth T, Vilas KBhosle, "Solar Cooking- Redefined", a technical paper published in "International Journal of Natural and Applied Sciences", Vol3, Issue, 5, May 2016.
19. Shital M Patil, " Effect of crack growth on the natural frequency and mode shapes of a cantilever beam", International Journal of IT and engineering, Vol 5, Issue 5, May 2016.
20. Shital M Patil, Kishori Mhalunge, Sujatha Khot, Amit B Rajput, " Technological advances in vehicle automation using PLC", International Journal of Engineering Research, Vol4, Issue 2, Feb 2016.
21. Deepa D.Shankar, Dr P.K.Upadhyay, Performance Analysis of various feature sets in Calibrated Blind Steganalysis, International Journal of Computer Science and Network Security, 2016, vol 16, No:8, 29-34.
22. Deepa D.Shankar, Dr P.K.Upadhyay, Separate Feature based steganalysis for calibrated JPEG images, International Journal of Computer Science and Information Security, 2016, vol 14, No:8, 229-234.
23. Archana Pandita, Dr. P.K. Upadhyay, "Reducing energy consumption of nodes using force based auto deployment of Wireless Sensor Networks", published in IEEE Xplore; DOI: 10.1109/IEMCON.2015.7344474.
24. Archana Pandita, Errol Xavier Lobo, The predator - prey approach to function optimisation", published in GE-International Journal of Engineering Research, Vol. 4, Issue 3, March 2016 IF-4.721, ISSN: (2321-1717) © Associated Asia Research Foundation (AARF) Publication.
25. Mishra, O.N., Forecasting Daily Spot Rate: Comparing Prediction Performance of Traditional Technical Methods. Invertis Journal of Management., 2016, 7 (2), 17-31.
26. Mishra, O.N & Tripathi, P.S., Pushed Out or pulled In?-Self Employment in Indigenous People. The IUP Journal of Entrepreneurship Development. 2016., 12 (4), 25-47.
27. Maurya, A., & Mishra, O.N., The Macro-economic Determinants of Corporate Bond Market in India. Pacific Business Review International., 2016, 163-176.

## Proceedings

1. Sharma, R., Jain, P.K. Upadhyay, Rheological Properties of Impact Modified PBT/PTT Blends Based Nanocomposites, 1<sup>st</sup> International Conference on Science, Engineering and Technology, 2015, CORE BIT RAK Campus, UAE. ISSN 2347-517.
2. Alister Gleason D'souza, Joel I. Concessao Jaimon D. Quadros, "Study of Aerofoil design

- parameters for Low Speed Wind Tunnel,” National Conference on Emerging Trends in Mechanical Engineering, St. Joseph Engineering College, Karnataka, India, August 7-8, 2015.
3. Jolene Shaina Vas, Suhas, Jaimon D. Quadros, Vaishak N. L., Aster Fernandes, “Development Of Mathematical Models For Ultimate Compressive Strength Based On The Experimental Observations By Drilling For Glass Epoxy Composites”, International Conference on Current Research in Electronics, Computer Science, Information Technology and Mechanical Engineering (ICECSITME-15), Goa, India, October 4, 2015.
  4. Jaimon D. Quadros, Suhas, Vaishak N. L., Shilpa B., “Effect of Tempering on the Mechanical Properties of AISI 52100 alloy steel”, International Conclave On Innovations in Engineering & Management, Al-Waljat College of Applied Sciences, Muscat, Sultanate of Oman, 24-25 February, 2016.
  5. Shilpa B., Vaishak N. L., Sadhana B., Jaimon D. Quadros, Suhas, “Design and Simulation of Robot Manipulator using MATLAB and Simulink”, International Conclave On Innovations in Engineering & Management, Al-Waljat College of Applied Sciences, Muscat, Sultanate of Oman, 24-25 February, 2016.
  6. Jaimon D. Quadros, S. A. Khan, Antony A. J. and Jolene S. Vas, “Experimental And Numerical Studies On Flow From Axisymmetric Nozzle Flow With Sudden Expansion For Mach 3.0 Using CFD”, International Symposium on Engineering and Technology, KJEI Trinity college of Engineering and Research, Pune, India, February 19-20, 2016.
  7. Vaishak N. L., Suhas, Jaimon Dennis Quadros, Shilpa B., “Processing municipal solid waste (MSW) using portable solid incinerator” National Conference on Green Energy- Potentials & Applications (NCGEPA-2016), Vivekananda College of Engineering and Technology, Puttur, India, 13-14, May, 2016.
  8. Shital M. Patil, Amit B. Rajput, Sachin D. Waigaokar, “Effect of glass fiber length and their content on mechanical and thermal properties of FRP-fasteners. 3rd international conference on Science technology and management, ICSTM-16, January 2016, New Delhi.
  9. Abrar Ahmed “A survey on Aluminium Matrix Composites”, Indian Journal of Scientific Research & Technology, Volume 3, Issue 4, 2015, Pages 34-42.

### **Books / Edited Books**

1. Champa H S and Gayathri Viswanathan., Spreading Planning Knowledge in General Education. In Urban and Regional Planning Education Learning for India (ed. Kumar, Meshram, Gowda), Springer, Singapore, 2016, pp.115-122
2. Mishra, O.N., Primary Education in Rural India: What determines Girls’ Enrolment. In Girls’ Education in India, (ed. Awasthi, D), Kalpaz Publication, New Delhi, 2016, pp. 61-75.
3. Mishra, O.N., Cyberspace, Choice and consumer Welfare: Linking the Triad. In Handbook of Research on promotional Strategies and consumer Influence in the Service Sector (ed. Panwar, U, Rajkumar, & Ray N.), IGI Global Publishing, Pennsylvania: USA, 2016, pp. 125-137. Doi 10.4018/978-1-5225-0143-5.ch007

## Award / Recognition Bestowed on Faculty Members (State / National / International)

S. No.	Name of the Faculty	Title of the Award/ Honours	Organisation	Year / Duration
1.	Dr. R.P Singh	Reviewer	International Journal of Engineering Research and Technology	2015-2016
2.	Dr. P.K Upadhyay	Distinguished Researcher Award	Jagadamba College of Engineering-ICSET-2015.	Nov. 2015
3.	Dr. Abrar Ahamed	Reviewer	International Journal of Engineering Research and Technology	2015-2016
4.	Jaimon Dennis Quadros	Reviewer	Indian Journal of Engineering and Material Sciences	2015-2016
5.	Jaimon Dennis Quadros	Editorial Board Member	International Journal of Engineering Trends and Technology	2015-2016
6.	Jaimon Dennis Quadros	Editorial Board Member	International Institute of Engineers, Singapore	2015-2016
7.	Dr. Ranjana Sharma	Best Research Paper	Ist International Conference on Science, Engineering and Technology, 2015	Nov. 2015
8.	Chetna Nagpal and Dr. P.K Upadhyay	Best Presentation Award at Third International Conference for paper, "Sleep EEG Classification Using Fuzzy Logic"	Modern Trends in Science, Engineering and Technology 2015 (ICMTSET 2015)	2015
9.	Soofi Anwar	Distinguished Researcher Award	Jagadamba College of Engineering-ICSET-2015	Nov. 2015
10.	Dr.Kavita	Eminent Research Award	Jagdamba Institute of Technology in association with CORE BIT – Ras Al Khaimah, UAE	2015
11.	Dr.Kavita	Best Research Paper & Best Paper Presentation	Altius institute of Universal studies - Indore (India)	2015

## Students' Activities

S. No.	Name of the Activity	Faculty Co-ordinator	Date/Duration
Architecture			
1	Landscape Design of UAE- Ar.Vaishali Hingmire,Landscape Architect, Dubai, UAE	Ar. Gayathri Viswanathan	08.10.2015/ 1 day
2	Visit to D3- Dubai Design District for the Dubai Design Week	Ar. Surabhi Raizada	29.10.2015 / 1 day
3	Design walk - " Architectural Heritage of the Middle East" in coordination with Ar. Subha Varma, Team leader & Senior Conservation Architect, Mr. Kamyar Kamyab, Engineer Ar. Sharjah Institute of Heritage, Government of Sharjah	Ar. Greeshma Mohandas	19.11.2015/ 1 day
4	Documentation of built heritage at Ras Al Khaimah in coordination with the department of antiquities and museum, Ras Al Khaimah	Ar. Champa H S	26.11.2015 to 28.11.2015/ 3 days
5	Site visit to Mina Al Arab, RAK	Er. Sivamalar Shijumon	14.12.15/ 1 day
6	Twinning studio (iStudio)- batch 2014 and batch 2013 students along with Sasi Creative School of Architecture, Coimbatore, Tamilnadu, India	Ar. Gayathri Viswanathan & Ar.Champa H S	30.01.16 to 02.02.16/ 4 days
7	Lighting & Ventilation (architectural design workshop)	Ar.Gayathri Viswanathan	03.02.16/ 1 day
8	Site visit to Al Nakheel	Er. Sivamalar Shijumon	08.03.2016/1 day
9	Visit to DANUBE, RAK	Ar.Bhavna Mody	03.04.16/ 1 day
10	Architectural Design Workshop "Selfie Point"	Ar. Gayathri Viswanathan & Ar. Champa H S	20.04.16 & 21.04.16/ 2days
11	Blu-prints as part of BIT Fest	Ar. Bhavna Mody	12.05.16/1 day
12	Project Award - Middle East Electricity Awards – Runners up	Dept. of Mechanical Eng.	March 2016
13	Industry Visit - Mazdar City	Dept. of Mechanical Eng.	16th Dec 2015 – 1 day
14	Industry Visit – Sharp Electronics	Dept. of Mechanical Eng.	25th May 2016 – 1 day
15	Industrial visit to "Pracsi Metas", RAK FTZ,RAK.	Dept. of EEE & ECE	26th April,2016

S. No.	Name of the Activity	Faculty Co-ordinator	Date/Duration
16	LED Workshop	Dept. of EEE & ECE	19th & 20th May, 2016
17	Industrial visit to "Sharp Middle East & Africa", Sharp Middle East FZE, Dubai.	Dept. of EEE & ECE	26th May, 2016
18	Guest lecture on SAP (Systems, Applications & Products in Data Processing)	Department of CSE	19th May 2016
19	Workshop on latest trends in technology	Department of CSE	22nd April 2015
20	Participated in the New Idea competition	Department of CSE	23rd March 2016
21	TECHNOTSAV	Ms Archana, Mr Shital, Ms Nisha	April 28th, 2016
22	Seminar on 15 C's to Success in Today's Corporate Business World", by Prof. Lekha Shista, PGP, IIM-Bangalore, a renowned Talent Strategist	Dept. of Management	17th Sept. 2015
23	Professional Traders Dubai- Exposure to Stock Market & Financial Trading	Ms. Rhoda Alexander	20th Oct 2015
24	HR Summit & Expo- 2015, Dubai WTC	Ms. Rhoda Alexander	17th Nov. 2015
25	ACCA-Dubai Business Game-First Prize-BBA& B.Com Students Team	Aamir Hussain	17th Nov. 2015
26	Hilton Resort & Spa, RAK-Visit by Hospitality Management Students	Ms. Deval Kartik & Shalini Bedi	8th Dec 2015
27	Industrial Visit-RAK Ceramics	Dr. Kavita Tiwari	14th Dec 2015
28	Industrial Visit- Julphar RAK	Mr. Mohd. Irfan	25th Dec 2015
29	CV Writing Workshop	Rhoda Alexander	10-11 Feb 2016
30	Industrial Visits-Nestle Techno Park Dubai	Nikhil VP Mohd. Irfan	24th April, 8th May & 16th May 2016
31	Blood Donation Campaign in association with Saqr Hospital, RAK	Soofi Anwar	25th May, 2016
32	Labour Camps-Food Distribution	Dept. of Management	13th May 2016
33	Essential Food Kit Distribution-Needy Families in RAK	Dept. of Management	15th May 2016
34	Community Service Awareness Campaign	Dept. of Management	19th May 2016



## UNIVERSITY POLYTECHNIC



University Polytechnic is a joint venture of Birla Institute of Technology, Mesra, and Department of Welfare, Govt. of Jharkhand. It was setup in the year 2001, with an objective to impart Diploma-level technical education to the youth of Jharkhand.

We offer Diploma in Engineering program in six different disciplines and three-year BMLT program.

With its growing popularity, University Polytechnic has become the first choice of students for Technical education at Diploma level.

Admission process for both Diploma in Engineering & Medical Lab Technology courses for 2016 batch was completed as per schedule and their regular classes started off in July, 2016.

### Programmes offered

S. No.	Programme Offered	Year of Introduction	Sanctioned Strength
1.	Diploma in Automobile Engineering	2001	60
2.	Diploma in Electronics Engineering	2001	30
3.	Diploma in Computer Engineering	2003	30
4.	Diploma in Manufacturing Engineering	2003	30
5.	Diploma in Electrical & Electronics Engineering	2010	30
6.	Diploma in Mechanical Engineering	2010	30
7.	BMLT	2005	60

## Registration Details

### MO-15

Diploma	Branch	No. of students	Total
1st semester	Automobile+ Mechanical + EEE + Computer + Manufacturing + Electronics		196
3rd semester	Automobile	56	195
	Computer	24	
	Electronics	27	
	EEE	28	
	Manufacturing	27	
	Mechanical	33	
5th semester	Automobile	55	193
	Computer	23	
	Electronics	29	
	EEE	30	
	Manufacturing	29	
	Mechanical	27	
1st semester	BMLT	53	53
3rd semester	BMLT	32	32
5th semester	BMLT	39	39

### SP-16

Diploma	Branch	No. of students	Total
2 <sup>nd</sup> semester	Automobile+ Mechanical + EEE + Computer + Manufacturing + Electronics		193
4 <sup>th</sup> semester	Automobile	55	194
	Computer	24(01 Permanent withdrawal)	
	Electronics	27	
	EEE	28	
	Manufacturing	27	
	Mechanical	33	

## Annual Report 2015-16

6 <sup>th</sup> semester	Automobile	51	186
	Computer	23	
	Electronics	28	
	EEE	29	
	Manufacturing	29	
	Mechanical	26	
2 <sup>nd</sup> semester	BMLT	53	53
4 <sup>th</sup> semester	BMLT	32	32
6 <sup>th</sup> semester	BMLT	39	39

### Admissions

During the year 2015-16, total of 258 students were admitted in various programmes. The program-wise details are:

S.No.	Programme	No. of students Admitted
1.	Diploma	202
2.	BMLT	56

### Training and Placement

Number of students placed in various companies through campus selection process is as follows:

S.No.	Name of Company	No of students placed
1.	Tata Motors	02
2.	Gmmco Ltd., Chennai	07
3.	L&T Frenchise	03
4.	Toyota Toplink, Ranchi	01
5.	Hundai Fairdeal	01
6.	Ziqitza Health Care Centre, Ranchi	11
7.	Shine Institute(APOLLO Group), Ranchi	01

Students were taken to following organizations for Industrial/ Institutional visits:

1. MSME Tool Room, Tatisilwai, Ranchi
2. Transgeitz, Ranchi
3. Jharkhand Government Power Sub-station
4. Bharat-Benz Service Center, Ranchi



**Conferences/ Seminars/ Workshops/ Staff Development Programmes attended**

S. No.	Name of the Faculty	Title of the Conference/Seminar	Funding Agency	Organizers	Venue	Date
1.	Dr. Satish Kumar	2-Week Quality Improvement Program on 'Innovative Drug Discovery approaches & emerging trends in neuropharmacology	AICTE	Department of Pharmaceutical Sciences, BIT, Mesra	BIT, Mesra, Ranchi.	Dec. 09-22, 2015
2.	Dr. G.M.Ansari	Winter school	UGC	Ranchi Univ. Ranchi	Resource development centre, Ranchi Univ., Ranchi	Jan. 05-25, 2016
3.	Dr. G.M.Ansari	FACULTY DEVELOPMENT PROGRAM"	NUSRL, Ranchi	NUSRL, Ranchi	NUSRL, Ranchi	Jan. 25-31, 2016
4.	Dr.(Mrs.) Neeru Singh	Antiviral Research and Therapy	AICTE	Department of Pharmaceutical Sciences and Tech., BIT Mesra	BIT, Mesra, Ranchi.	Mar. 18-19, 2016
5.	Dr.(Mrs.) Sumana Kumari	Faculty Development Programme on "Use of ICT in Education for Online and Blended Learning"	AICTE	IIT Bombay under the NMEICT, MHRD, Govt. Of India.	Online activity with B.I.T. Mesra as Remote center	May 02-Jul. 10, 2016
6.	Dr.(Mrs.) Sandhya Rani	Faculty Development Programme on "Use of ICT in Education for Online and Blended Learning"	AICTE	IIT Bombay under the NMEICT, MHRD, Govt. Of India.	Online activity with B.I.T. Mesra as Remote center	May 02-Jul. 10, 2016
7.	Mrs. Nirupam	Faculty Development Programme on "Use of ICT in Education for Online and Blended Learning"	AICTE	IIT Bombay under the NMEICT, MHRD, Govt. Of India.	Online activity with B.I.T. Mesra as Remote center	May 02-Jul. 10, 2016

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S. No.	Name of the Faculty	Title of the Conference/Seminar	Funding Agency	Organizers	Venue	Date
8.	Mr. Niraj Kumar	Faculty Development Programme on "Use of ICT in Education for Online and Blended Learning"	AICTE	IIT Bombay under the NMEICT, MHRD, Govt. Of India.	Online activity with B.I.T. Mesra as Remote center	May 02-Jul. 10, 2016
9.	Mr. Manoj Kumar	Faculty Development Programme on "Use of ICT in Education for Online and Blended Learning"	AICTE	IIT Bombay under the NMEICT, MHRD, Govt. Of India.	Online activity with B.I.T. Mesra as Remote center	May 02-Jul. 10, 2016
10.	Mr. Chanchal Kr. Mishra	Faculty Development Programme on "Use of ICT in Education for Online and Blended Learning"	AICTE	IIT Bombay under the NMEICT, MHRD, Govt. Of India.	Online activity with B.I.T. Mesra as Remote center	May 02-Jul. 10, 2016
11.	Mr. Shankar Kumar	Faculty Development Programme on "Use of ICT in Education for Online and Blended Learning"	AICTE	IIT Bombay under the NMEICT, MHRD, Govt. Of India.	Online activity with B.I.T. Mesra as Remote center	May 02-Jul. 10, 2016
12.	Mr. Ramkesh	Orientation Program	UGC	Ranchi University, Ranchi	Ranchi University, Ranchi	May 16-Jun. 12, 2016
13.	Dr.(Mrs.) Meena Singh	Orientation Program	UGC	Ranchi University, Ranchi	Ranchi University, Ranchi	May 16-Jun. 12, 2016
14.	Mr. Rajendra Mahto	Orientation Program	UGC	Ranchi University, Ranchi	Ranchi University, Ranchi	May 16-Jun. 12, 2016
15.	Dr.(Mrs.) Neeru Singh	Orientation Program	UGC	Ranchi University, Ranchi	Ranchi University, Ranchi	May 16-Jun. 12, 2016



## Publications

### Published in International Journals

1. Satish Kumar, J.P. Pandey, A.K. Sinha Systematic Study of Iron Removal from Water by Traditional Method, Physical & Environmental Science Bulletin,, 2015, Volume 3, Number 1, 19-24. (ISSN: 2347 – 4866)
2. Rani S., Deformation potential mechanism of stress induced electromagnetic radiation effect. J.Chemtracks, 2016, 18(1), 35-38.
3. Rani S., Does Le Chatelier's principle require any modification? J.Chemtracks, 2016, 18(1), 43-46.
4. Afzal Hussain, Sandeep Kumar Singh, Priya Ranjan Prasad Verma, Neeru Singh, Farhan Jalees Ahmad, Experimental design based optimization of lipid nanocarrier as delivery system against Mycobacterium species: In vitro and in vivo evaluation – Pharmaceutical Development and Technology- 2016, doi.org/10.1080/10837450.2016.1212879, (Impact factor: 1.526)

### National Journal

Abhay Kumar etl "Aadhar Enabled Biometric Voting system in India", Biospectra, March 2016  
Page No. 77-82.

### Book

1. Rani, S., Study Resource in Chemistry. S.K. Publishing Company, 2016.
2. Fundamentals of Computer by Abhay Kumar, February 2016. ISBN : 978-81- 86845-39-

## Special Recognition

S. No.	Name of the Faculty	Title of the Award/ Honours	Organisation	Year / Duration
1	Dr. Satish Kumar	Jury Member	State level INSPIRE, Deptt. of Science & Technology, Govt. of India & Education Deptt., Govt. of Jharkhand	3-4 November, 2015
2.	Dr. Satish Kumar	MEMBER of EDITORIAL BOARD	International Journal 'Physical and Environmental Science Bulletin' (ISSN: 2347 – 4866)	December, 2015
3.	Mr. Chanchal Kr. Mishra	Top performer in Faculty Development Programme on "Use of ICT in Education for Online and Blended Learning"	IIT, Bombay	May-June, 2016

## Students' Activities

S. No.	Name of the Activity	Faculty Co-ordinator,	Date/Duration
1.	ANVESHAN-2015 (Technical Fest)	Dr. Satish Kumar	14-15 October, 2015
2.	Personality Development Classes for the students of Diploma in Engineering (6th semester) and BMLT (4th semester)	Dr. Sandhya Rani and Mr. Abhay Kumar	SP/16
3.	Art-and-craft exhibition	Dr. (Mrs.) Sandhya Rani, Dr. (Mrs.) Neeru Singh and Mohd. Neyaz Ahsan	Feb. 12, 2016.
4.	Cultural programme "Unifesto '16"	Dr. (Mrs.) Sandhya Rani, Dr. (Mrs.) Neeru Singh and Mohd. Neyaz Ahsan	Feb. 21, 2016.

## Academic Committees

1. Examination: Mr. Ramnish Sinha (Coordinator), Mr. N. K. Mukherjee (Jt. Coordinator), Dr. Sumana Kumari (Jt. Coordinator)
2. Admission: Mr. Rakesh (Coordinator), Mr. Niraj Kumar (Jt. Coordinator), Mr. N. K. Mukherjee (Jt. Coordinator)
3. Semester & Registration: Mr. Niraj Kumar (Coordinator), Mr. Rajender Mahto (Jt. Coordinator), Mr. P.R. Mahto (Member)
4. Training & Placement: Mr. Ramnish Sinha (Coordinator), Mr. Niraj Kumar (Jt. Coordinator), Dr. Satish Kumar (Jt. Coordinator), Mr. Chanchal Kumar Mishra (Member)
5. Cultural Committee: Dr. (Mrs) Sandhya Rani (Coordinator), Mrs. Neeru Singh (Jt. Coordinator), Mohd. Neyaz Ahsan (Member)
6. Engineering Society: Mr. Pradeep Toppo (Coordinator), Dr. Satish Kumar (Jt. Coordinator), Dr. T. K. Parashar (Jt. Coordinator)
7. Annual Report: Mr. Ramnish Sinha (Coordinator), Dr. Sandhya Rani (Jt. Coordinator)
8. AICTE, NBA- approval/ accreditation committee: Mr. Rakesh (Coordinator), Mr. Niraj Kumar (Jt. Coordinator)
9. Scholarship/ Stipend for Students: Mr. Abhay Kumar (Coordinator), Dr. (Mrs) Meena Singh (Jt. Coordinator), Mr. Shankar Kumar (Member)
10. Time-table cum Classroom Committee: Mr. Niraj Kumar (Coordinator), Mrs. Rekha Mehta (Jt. Coordinator)
11. Souvenir Committee: Dr. B. N. Sanyal (Coordinator), Dr. G. M. Ansari (Jt. Coordinator), Mr. Rajendra Mahto (Jt. Coordinator)



## *Annual Report 2015-16*

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12. Department Purchase Committee: Mr. Ramkesh, Mr Rakesh, Mr N.K.Mukherjee, Dr(Mrs) Sumana Kumari & Mr Niraj Kumar
13. Departmental CAS/UGC Scrutiny Committee: Dr(Mrs) Sumana Kumari(Coordinator), Mr Ramkesh, Dr(Mrs) Sandhya Rani, Mr Ramnish Sinha, Mr Rakesh, Mr Niraj Kumar

### **Annual Sports:**

- IX Annual Sports was held on 4<sup>th</sup> and 5<sup>th</sup> Feb 2016. Prof. G. Sahoo, Dean, Admissions and Academic Coordination was the Chief Guest. Electronics branch was the overall champion. Among individual champions was Mr. Payal Prakash Tirkey from Mechanical branch in the men's category and Ms. Nisha Kumari from Electronics branch in the women's category.
- Inter-semester Football Tournament was organized in August 2015.
- Inter-hostel Volleyball Match was organized in September 2015.

## **TEQIP**

### **(Technical Education Quality Improvement Programme Phase –II)**

The objectives of The Technical Education Quality Improvement Programme Phase-II (TEQIP-II) of Government of India (GOI) are to Strengthening Institutions to produce high quality engineers for better employability, Scaling-up postgraduate education and demand-driven Research & Development and Innovation, Establishing Centers of Excellence for focused applicable research, Training of faculty for effective Teaching, and Enhancing Institutional and System Management effectiveness.

Birla Institute of Technology, Mesra, Ranchi has been selected in TEQIP-II under sub-component 1.2 and subcomponent 1.2.1 (March 2013).

Under sub-component 1.2 the Institute will receive Rs. 12.5 crores for Scaling-up Post Graduate Education and demand driven Research & Development and Innovation. The Project is extended upto March 2017. Institute has received Rs. 9.50 crores till now for various activities of the project in four installments.

Under subcomponent 1.2.1 the institute will receive Rs. 5 Crores for establishment of Center of Excellence on Bioresources and Bioprospecting. MHRD & SPFU Government of Jharkhand has released total Rs. 4 crores to the institute under this subcomponent in 2 installments.

### **DETAILS OF ACTIVITIES CARRIED OUT UNDER SUBCOMPONENT 1.2**

#### **1. Improvements in teaching, training and learning facilities**

- a) **New laboratories developed:**
  - Electric Drive Lab – Department of Electrical Engineering
- b) **Up gradation of Existing laboratory facilities**
  - GIS Lab – Remote Sensing
  - Aerodynamics Lab (Flow visualization)
  - Computer Lab for CFD
  - MAT Lab
  - Renewable energy lab
  - Theory of Machine lab
  - Foundry Lab
  - Material Lab
  - Structural Lab
- c) **Softwares procured for PG programs & research:**
  - Software Comp Sc. (Mathematica) for Computer Sci & Engg.
  - ARC GIS MLK Software for Remote Sensing
  - ANSYS CFD Research for SE&R
  - ENVI Software for Remote Sensing
  - Lab view software for EEE
- d) **Modernization and strengthening of Libraries:**

5-year subscription of about 1.25 lakhs of book titles and perpetual license for 234 book titles.

## 2. Teaching and Research Assistantships

Under CoE assistantship to 23 M. Tech. student (10 Bioengineering & 13 Remote Sensing) (3<sup>rd</sup> Semester) has already been started.

## 3. Faculty and Staff Development (FSD)

Faculty and Staff Development is an important component of TEQIP. Training need analysis (TNA) of faculty and staff members is conducted in the beginning of every year. Training Plan for the year was prepared on the basis of TNA analysis. Following activities are conducted under head FSD during the period:

- One hundred eighty-two faculty members were financially supported for attending conference, workshop, seminar, training program etc.
- Eleven faculty members under CoE attended Conference/Workshop/Seminar outside institute.

### Workshop/Training program/Conferences organized under TEQIP:

S. No.	Title of Programme	Duration Of Programme	Participants
	One-day workshop on "Capacity Building for writing Research Proposal under different schemes of DST, New Delhi	18.09.15	Faculty members attended
	National conference on Biotechnology for sustainable development	17.12.15 to 19.12.15	100 participants attended
	International Conference on Computational Intelligence	10.12.15 to 11.12.15	Faculty members & Research scholars
	Workshop on "Funding Opportunities for availing sponsored Project from ISRO"	29.04.16	Faculty members attended
	National workshop on High Performance Computing (HPC-2016)	02.05.16 to 06.05.16	Internal participants: 24 External participants: 6 Total: 30
	National Conference on advancements in applications of Remote Sensing and Geospatial Technology	19.05.16 to 21.05.16	Faculty members & Research scholars

## 4. Institutional Management Capacity Enhancement

Details of institute officials sent for administrative training and training in their functional areas:

i) Programme for Leadership in University Management (PLUM) from 28.09.15 to 02.10.15 at National University of Singapore (Organised by NPIU):

- Dr. M.K Mishra (Vice Chancellor)
- Dr. Ritesh Kr. Singh (TEQIP Coordinator)



## **5. Academic support to weak students**

a) Remedial classes where conducted for weak students. The details are as follows:

- Spring & Monsoon 2015: 168

b) Finishing school:

- 5 days' workshop on "Way to Success" has been conducted in 9.02.16-13.02.16 in T&P section. 50-60 UG PG students attended the workshop.
- CDP programme for 2017 passing batch has been conducted in 24 sessions in T&P Section. 61 students attended the classes.
- CDP address areas like:
  - Communication skills
  - English language
  - Other soft skills
  - Input from industry experts
- P.Sindhuja, Manager Strategic leadership development, Wipro Chennai visit the institute for course on interpersonal & soft skills, facing GD & interview and creativity & innovation for BE, ME students on end of July 2015.

## **6. Development of research interest among students:**

- From IOC head of TEQIP-II provision has been made to provide financial support to UG/PG/PhD students for attending seminar, conference, workshops etc.

Total number of students supported in this period is: 95

## **DETAILS OF ACTIVITIES CARRIED OUT UNDER SUBCOMPONENT 1.2.1 (CoE)**

### **Thematic areas:**

- Medicinal Plants
- Microbial Resources
- Microbial Transformation
- Bio-fuel Production
- Plant Derived Chemicals

Peer reviewed Publication: 53

Number of external R&D projects: 03

International Exchange programmes: Established collaboration with Dr. Reinhard Jahn of Max Planks Institute for Biophysical Chemistry, Gottingen, Germany

## **NATIONAL CADETS CORPS 3 JHARKHAND COMPOSITE TECHNICAL COMPANY NCC BIT MESRA**



National Cadets Corps of B.I.T. Mesra is one of the important components of the institute which impart military training to include technical and physical subjects for first 6 semesters. Technical Council has approved the duration of NCC training for 3 years (6 semesters) starting from 2013-14 batch. NCC has 200 cadets on its roll who are given basic knowledge in Corps EME, Corps Engineers and Corps Signals. In session 2015-16, NCC has conducted apart from classes, activities like firing, blood donation, adoption of village tree plantation to name a few. The cadets put up impressive parade during Republic Day and Independence Day which was lauded by all. The Army band brought more colour and fanfare to the parade. The following major activities were conducted by the NCC.

- (i) Live firing of .22 Rifle by cadets.
- (ii) Participation in Republic Day and Independence Day Parade.
- (iii) Tree Plantation by cadets inside the B.I.T. Campus.
- (iv) Blood Donation by the entire NCC Team incl the cadets.

The unit is commanded by Lt Col CD Sahoo and has Associate NCC Offr Major Subir Samanta, Lt K K Senapati as caretaker Ms Swati Prasad and other staff from Army and Civil.



## NATIONAL SERVICE SCHEME



NSS provides opportunities to the students to play their role in planning and executing development projects which would not only help in creating durable community assets in rural areas but also result in the improvement of quality of life of the economically and socially weaker sections of the community. It encourages youth to participate enthusiastically in the process of national development and promote national integration, through corporate living and cooperative actions.

### Last Year's our Achievements:

1. NSS Student President Prashant Kumar has been nominated for NATIONAL AWARDS (IGNSS) Awards, Selected as Best volunteer by NSS, Jharkhand.
2. Four Students participated in NATIONAL INTEGRATION CAMP-2016 (NIC): NSS Student President Prashant Kumar, Nitin Agarwal, Gaurav Jha, Sagrika Singh.
3. NSS Student President Prashant Kumar was also Nominated for INTERNATIONAL YOUTH EXCHANGE Program by Regional directorate of NSS, Patna.

Birla Institute of Technology, Mesra offers NSS as an elective subject in all undergraduate programs for 1<sup>st</sup> and 2<sup>nd</sup> year students. The NSS Cell, BIT Mesra organises regular and special activities in the ten adopted villages namely Rudhia, Pancholi, Bhattatoli, Humbai, Mesra East, Mesra West, Neori, Vikash, Kedal and Navatoli. The major programs conducted by NSS are:

**Swachh Bharat Abhiyan:** Taking the cue from our honourable Prime Minister, NSS Cell, BIT Mesra organized various cleanliness drive within the university campus as well as community assets of adopted villages like temples, Police out post, Anganwadi Kendras, Samudayik bhawans and Panchayat bhawans.

**Blood Donation Camps:** NSS Cell, BIT Mesra organized two blood donation camps in both semesters in University health centres in association with Blood Banks of reputed medical agencies like RIMS, Sevasadan etc. The Cell was felicitated by present Health Minister, Govt. of Jharkhand for its remarkable service to the mankind on the International Blood Donation Day 2015.

**Eye Check-up Camps:** NSS Cell, BIT Mesra also organized Eye Check-up Camp for Poor Villagers in Adopted village in February 2016.

**Plantation:** NSS Cell, BIT Mesra is also sensitive to the environment at large. It has planted hundreds of saplings in the adopted villages and University campus.

**Pulse Polio Immunization:** NSS Cell, BIT Mesra in association with Block Public Health Centre, Kanke, organized pulse polio immunization camp at University health centre where children of sub age group from adopted villages and residents of campus were immunized. NSS volunteers campaigned in these villages to eradicate this deadly disease and to make the area a polio free zone.

**Literacy Program:** NSS volunteers extend their service by teaching the school dropouts and deprived children of adopted villages at community centres. They also assist the teachers in nearby government schools.

**Awareness program:** Various awareness programs were organized for NSS volunteers to make them socially responsible and vigilant citizens like Legal awareness programs on RTI, Consume rights and financial literacy programs.

**Rallies:** Various rallies were taken out on the issue of national and social interests like energy conservation, forestation, health and hygiene, sanitation, road safety, water conservation etc.

**Collaboration with BIT CSR:** NSS Cell BIT Mesra also collaborate with BIT CSR (Corporate Social Responsibility) and giving free Computer Education, Skill Development training etc.

**International Yoga Day:** To commemorate International Yoga Day, NSS Cell, BIT Mesra organized Yoga Camp on 21<sup>st</sup> June 2016. NSS volunteers, faculty and staff of the University participated in the camp and were benefited.

**Support to Old age home, Orphanage and Cheshire home:** NSS volunteers regularly visit old age homes, Orphanage and Cheshire home

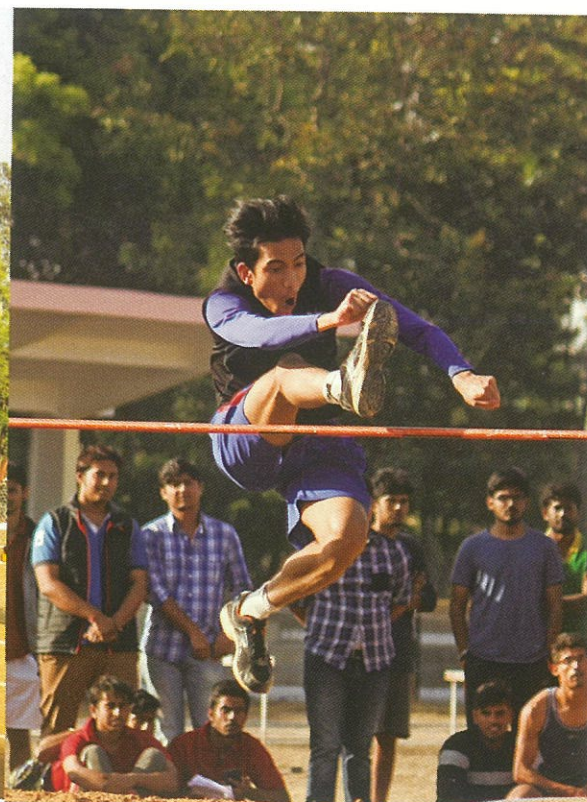
**Prabhat Pheri:** NSS volunteers take out Prabhat pheri on Independence Day and Republic Day to give social message and instil a sense of patriotism among the fraternity.

**Support to langar:** NSS Volunteers Supports in food preparation and distribution in Langar.

After the month of July 2016 the Ministry of Youth Affairs and Sports, Govt. of India has allocated Ten units of NSS to the University. NSS Cell, BIT Mesra is officiated by Dr. B.K. Mishra, Dean(SW), Chairperson, Prof. O. P. Pandey, Programme Coordinator and ten programme officers – Dr. Abhijit Nag, Dr. Anjani Tiwari, Dr. Shashank Puskar, Dr. Pranjal, Dr. Gautam Shandilya, Dr. Amit Sharan, Dr. Manoj Jha, Dr. Abhay, Dr. G.M. Ansari and Dr. Yogendra Aggarwal.



## PHYSICAL EDUCATION AND SPORTS



### Results of Inter Hostel Tournament (Boys)

Volleyball	1st Position	2nd Position	3rd Position
Institute Captain Shreesh Nayak 9570091132	Hostel No. 2 & 3 Shreesh Nayak 9570091132	Hostel No. 11 Yogesh Kr. Sharma 9471317525	Hostel No. 10 Vijay Kr. Mahto 7250849497
Badminton	1st Position	2nd Position	3rd Position
Institute Captain Kumar Gaurav 8092687188	Hostel No. 13 Devrath Gupta 776182273	Hostel No. 10 Pushpendra Kr. 8877157276	Hostel No. 05 H. Chiranth 8002239081
Basketball	1st Position	2nd Position	3rd Position
Institute Captain Ravin Nandle 9905825694	Hostel No. 2 & 3 Akshay Meena 8002226127	Hostel No. 05 Achal Tigga 9905825694	Hostel No. 10 Suprio Dubey 8252751608
Football	1st Position	2nd Position	3rd Position
Institute Captain Uma Shankar Mahto 9523738383	Hostel No. 2 & 4 Kuljeet Keshav	Hostel No. 05 Bhim Sen Deogan 7870605473	Hostel No. 13 Amber Saurav Kunal 9546339454
Table Tennis	1st Position	2nd Position	3rd Position



Volleyball	1st Position	2nd Position	3rd Position
Institute Captain Hostel No. 10 Joel Paulson M. 8002241653	Hostel No. 10 Joel Paulson M. 8002241653	Hostel No. MD. Faraaz 8002241653	Hostel No. Sarathik Sharma
Chess	1st Position	2nd Position	3rd Position
Institute Captain Salunke Durgesh (c) 9955915327	Hostel No.10 Mohineesh Chennamsetti 9494687387	Hostel No.13 Saurabh Sinha 9801150095	Hostel No. 13 Devbrath Gupta 7761827873

### Results of Inter Hostel Tournament (Girls)

Volleyball	1st Position	2nd Position	3rd Position
Institute Captain Aparna Thakur (C) 9100200137	2K12 Aparna Thakur (C) 9100200137	2K14 Praneeta Banerjee 9955884052	-
Badminton	1st Position	2nd Position	3rd Position
Institute Captain Dhriti Nadir (C) 8986652715	Hostel 8 Shrishti Singh 8294498704	Hostel 9 Ankeeta Shriya 9801161418	Hostel 9 Dhriti Nadir 8986652715
Basketball	1st Position	2nd Position	3rd Position
Institute Captain Anu Kispotta (C) 9199259760	2K13 Sonam Singh 8986216962	2K12 Kumari Shyama 9973916883	2K14 Nikkhita 8809081104
Chess	1st Position	2nd Position	3rd Position
Institute Captain Salunke Durgesh (C) 9955915327	2K13 Tanisha Srivastava 9199379879	2K14 Sarita Kumari 9471743429	2K13 Akanksha Singh 8757647363

Report on participation of students in “INTER TECHNICAL SPORTS FEST, MST – 16” organized by MNIT – JAIPUR, during the period of 19<sup>th</sup> Feb. to 21<sup>st</sup> Feb. 2016.

The following is the details our teams participated and their result

S. No.	Team	Name of Team Captain	Members	Result
1.	Cricket	Rahul Anand	16	Runners up
2.	Badminton (F)	Dhriti Nadir	04	Winners
3.	Badminton (M)	Kumar Gaurav	05	
4.	Volleyball (M)	Brajesh Ranjan	12	Reached to semi finals
5.	Volleyball (F)	Aparna Thakur	06	

## IIT – BHU

Report on participation of students in “Inter technical sports fest, spardha – 15” organized by IIT – BHU, Varanasi during the period of 30<sup>th</sup> October to 01<sup>st</sup> November 2015.

The following is the details our teams participated and their result:

S. No.	Team	Name of Team Captain	Members	Result
1.	Athletics (M)	Wainbait Shylla	05	1 Gold Medal in High Jump
2.	Athletics (F)	Apurwa Nidhi Hassa	04	1 Gold Medal in Shot Put Throw
3.	Badminton (M)	Kumar Gaurav	05	
4.	Badminton (F)	Dhriti Nadir	03	Gold Medal, Best Shuttler award
5.	Basketball (M)	Ravin Nandle	08	
6.	Basketball (F)	Kumari Shyma	08	
7.	Cricket	Rahul Anand	14	
8.	Football	Uma Shankar Mahto	14	
9.	Volleyball	Shreesh Nayak	08	Quarterfinal

## IIT – Kanpur

Report on participation of students in “UDGHOSH 2015, IIT Kanpur during 30<sup>th</sup> September 2015 to 06<sup>th</sup> October 2015.

S. No.	Team	Name of Team Captain	Members	Result
1.	Basketball (M)	Ravin Nandle	10	
2.	Basketball (F)	Kumari Shyma	10	
3.	Badminton (M)	Kumar Gaurav	05	
4.	Badminton (F)	Dhriti Nadir	03	Gold Medal, Best Shuttler award

30<sup>th</sup> Annual Athletic Meet 2015-16 start from 29<sup>th</sup> January 2016 to 31<sup>st</sup> January 2016, Individual Winner (Boys) Saroj Lakra from Hostel No. 13 and Individual Winner (Girls) Apurwa Nidhi Hassa 2k12 Batch.

24<sup>th</sup> Chetan Devraj Memorial East Zone Technical Institute/College Cricket Tournament 2015-16 start from 10.02.2016 to 14.02.2016, Winner BIT, Mesra and Runner-up IGIT, SARANG.

Ms. Shrishti Singh Chemical Engg declared Best Sports Person for the year 2015-16.

Cross Country Race was organized on 25.01.2016, Mr. Suraj Oraon Hostel No. 06 on 1<sup>st</sup> place in Men section & Ms. Amrita Kumari Hostel No.09 1<sup>st</sup> place in women section.

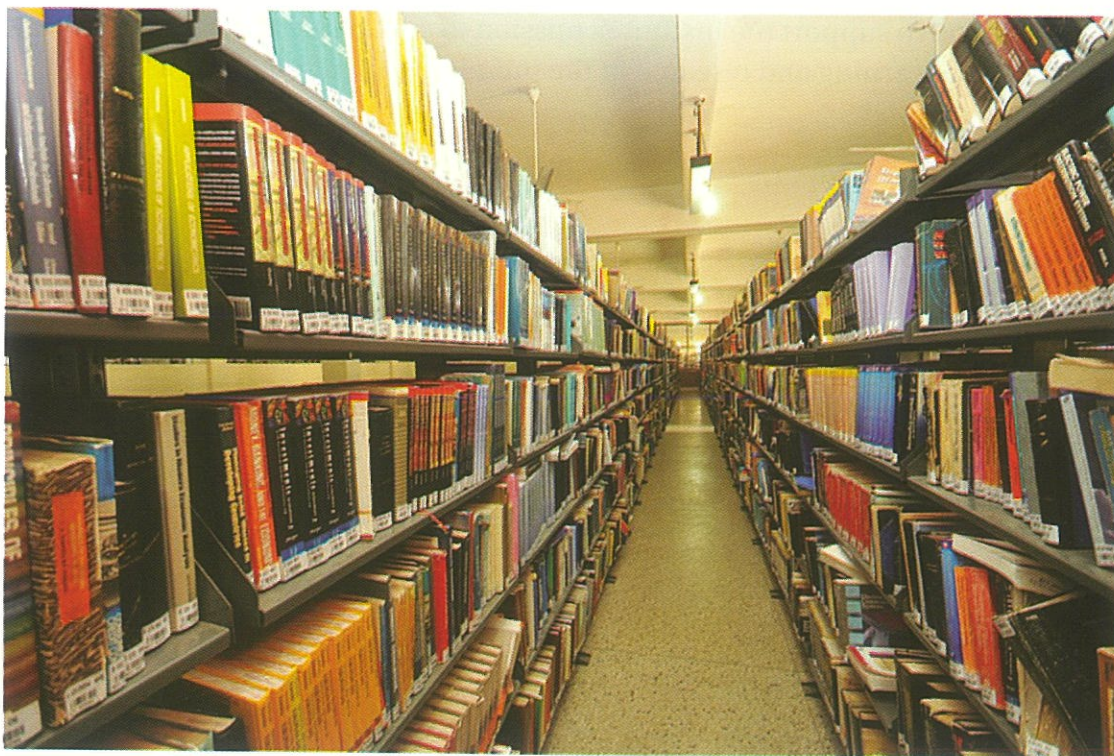
### **Award/ Honour**

Dr. Mahendra Kumar nominated member of AIU (Association of Indian University) Sports Board of Indian Universities New Delhi for the session 2016-17.

Dr. Mahendra Kumar Audited JRD TATA Sports Complex and TFA Football Academy by IRQS (Indian Registered Quality System) under act 2009.

Dr. Mahendra Kumar nominated as expert by Vinoba Bhave University Hazaribagh and visited R.K. Mahila College Hazaribagh, Bokaro Steel City Bokaroo and Chass College Chass.

## CENTRAL LIBRARY, BIT MESRA



Central Library, BIT-Mesra

(Let knowledge cherish from BIT-Central library to end-user; and so be human life enhanced)

### Introduction

The Central Library strives to evolve into a model and leading technical university library. The library contributes and supports BIT in building an internationally top ranked academic & research driven institution by establishing a knowledge hub.

Library automation has been completed through LibSys software. The collection comprises of print and electronic documents in the field of basic science, engineering, pharmacy, management and hotel management. Online journals like IEEE, Science Direct, Springer, IOP, ASME, ASCE and others subscribed through Institute fund & UGC-INFONET consortium. E-Library section consisting of a number of networked terminals to access e-journals, e-books and other e-reference resources to the library users under Intranet and Internet environment.

### Library Vision

BIT Central Library makes certain that its collections remain forward-looking, diverse in girth and form, unlock to browsing with internationally renowned quality. Through promotion, the Library makes its users aware of the resources available to them, and through innovation, it makes access to these resources easier. To serve as potential users, the Library conserves information across all formats and ensures effectual storage and deliverance scheme. The Library's cooperation with expanding circles of associate yields unified access, broadening knowledge, and enhanced services.

## **Library Mission**

The mission of our central Library is to provide comprehensive information to fulfill the needs of the BIT community and to support the Institute's mission to contribute to society through the pursuit of education, teaching, learning and research at the premier levels of excellence.

## **Print Books**

Total Volumes	:	1,45,329
Total Titles	:	45,582
Online Books	:	1,35,882

## **Online Journals, Conference,**

Proceedings & Standards	:	26,228
Online Thesis & Dissertation	:	1.5 millions
Print Journals/ Magazine	:	246
Print Journals	:	177
Magazine	:	69
CD/ DVD	:	3,200
Bound Volumes	:	18,834
Library home page	:	<a href="http://bitmesra.ac.in/library/default.asp">http://bitmesra.ac.in/library/default.asp</a>
Library Services	:	Bibliographic services Document Lending Services E Document Delivery Services Inter Library Loan Language Laboratory Literature search New arrivals News clippings Off Campus Service ON/Off line database search Reference Referral Reprographic Workshop/ Training



Department	Title	Volume
CSE	9343	31114
EEE	2670	10501
HMCT	637	3325
Management	2610	12655
Mechanical Engineering	5348	16489
Pharmacy	2930	6774
Chemical Engineering	650	3891
Production Engineering	2478	3418
Remote Sensing	610	1125
Space Engg. & Rocketry	686	1178
Others	676	1917
Total	45,582	1,45,329

**Details of Print Journals/ Magazines:**

S. No.	Titles of Journals	JR/MAG
1	Current Science	JR
2	Journal of Scientific & Industrial Research	JR
3	Indian Journal of Chemistry Section: A	JR
4	Indian Journal of Chemistry Section: B	JR
5	Indian Journal of Experimental Biology	JR
6	Indian Journal of Pure & Applied Physics	JR
7	Indian journals of Chemical Technology	JR
8	Indian Journals of Engineering and Materials Science	JR
9	Indian Journal of Biochemistry and Biophysics	JR
10	Indian Journal of Radio & Space Physics	JR
11	Journal of Intellectual Property Rights	JR
12	Medicinal & Aromatic Plants Abstracts	JR
13	Indian Journal of Geo Marine Sciences	JR
14	Indian Journal of Biotechnology	JR
15	Indian Journal of Fibre & Textile Research	JR
16	Indian Journal of Traditional Knowledge	JR

## Library Working Hours

Monday to Friday	: 08.00 AM to 08.00 PM
Saturday	: 09.00 AM to 04.00 PM
Sunday	: 09.00 AM to 04.00 PM

## Library Membership

The library serves more than 5000 members, including students, research scholars, faculty, project engineers, and staff.

Description	No. of Books	Period of Loan
Teaching Faculty	08	One Month
Non Teaching Staff	04	One Month
All Under Graduate and Post Graduate students	05	15 Days
All Under Graduate and Post Graduate SC/ST students	10	One Semester
All Under Graduate and Post Graduate OBC student	05	One Semester
Research Scholars	05	One Month
Books from Textbook Section for All Categories	01	1 Day

## Library Consortium

Central library enrolled its membership for following consortium

- UGC-INFONET

Institutional Membership

- DELNET, New Delhi
- American Library, Kolkata

## Department wise Books as on March 2016

Department	Title	Volume
Applied Chemistry	2081	8350
Applied Mathematics	2152	9403
Applied Physics	2719	7360
Architecture	1852	2709
Biotechnology	1875	3438
Civil & Env. Engg.	3334	8823
ECE	2931	12859

17	Indian Journal of Natural Products and Resources	JR
18	Annals of Library and Information Studies	JR
19	Indian Science Abstracts	JR
20	CSIR News	JR
21	ABACUS	JR
22	ACE Dialogues	JR
23	Akshay Urja	JR
24	Annals of Library and Information Studies	JR
25	Anvesha: The Journal of Management	JR
26	Arunoday	JR
27	AURA: Annamalai University Radiance	JR
28	Banking chintan-Anuchintan	JR
29	BFT International	JR
30	Bulletin of the Calcutta Mathematical Society	JR
31	Business for all	JR
32	Cambridge Journals	JR
33	Careers360:2015 B-School Almanac	JR
34	Chintan- Srajan	JR
35	cMtM: Coal Mining Technology & Management	JR
36	Corpotate Citizen	JR
37	CSI Communications	JR
38	CSI communicatios	JR
39	CSIR News	JR
40	Current Science	JR
41	Dalal Street Investment Journal	JR
42	Dataquest	JR
43	DeshKaal Samprada	JR
44	Dialogue: A Journal of Astha Bharati	JR
45	Digital Learning	JR
46	DREAM 2047	JR
47	Education World	JR
48	Electrical India	JR
49	Electronic for you	JR
50	Forward Press	JR
51	Germen Research	JR

52	Growth journal of management training institute SAIL,Ranchi	JR
53	Gyan-Vigyan	JR
54	H.R. Journal of Management	JR
55	Health Screen	JR
56	Hello Hindustan	JR
57	Helpage India Research & Development Journal	JR
58	Hindustan Journal	JR
59	IAMR Manpower Journal	JR
60	IASLIC Bulletin	JR
61	ICTACT Journal on Communication Technology	JR
62	ICTACT Journal on Image and Video Processing	JR
63	IEEE Rransactions on Engineering Management	JR
64	IEEE: Engineering Management Review	JR
65	India Legal	JR
66	India Today	JR
67	Indian Journal of Geo Marine Sciences	JR
68	Indian Architect & Builder	JR
69	Indian Journal of Biochemistry and Biophysics	JR
70	Indian Journal of Biotechnology	JR
71	Indian Journal of Chemistry Section: A	JR
72	Indian Journal of Chemistry Section: B	JR
73	Indian Journal of Experimental Biology	JR
74	Indian Journal of Fibre & Textile Research	JR
75	Indian Journal of Natural Products and Resources	JR
76	Indian Journal of Pure & Applied Physics	JR
77	Indian Journal of Radio & Space Physics	JR
78	Indian Journal of Traditional Knowledge	JR
79	Indian journals of Chemical Technology	JR
80	Indian Journals of Engineering and Materials Science	JR
81	Indian Judgement Reporter	JR
82	Indian Management	JR
83	Indian Science Abstracts	JR
84	Indian Times	JR
85	INFOLIB	JR
86	International Journal of Health & Allied Sciences	JR

87	International Journal of Information Dissemination and Technology	JR
88	International Journal of Management & Social Sciences	JR
89	ISST: Journal of Applied Physics	JR
90	ISST: Journal of Mathematics & Computing System	JR
91	Jangal Gatha	JR
92	Japqr Transactions: Journal of the Indian Association for Productivity, Quality & Reliability	JR
93	JOHAR : Journal of Hospitality Application & Resarch	JR
94	Journal of Human Values	JR
95	Journal of Intellectual Property Rights	JR
96	Journal of Law and Social Policy	JR
97	Journal of Management and Entrerpreneurship	JR
98	Journal of Management Research	JR
99	Journal of Northeast Indian Cultures	JR
100	Journal of Science, Technology & Management	JR
101	Journal of Scientific & Industrial Research	JR
102	Journal of the Indian Institute of Architects	JR
103	Journal of the National Human Rights Commission, India	JR
104	Journal of the Indian Institute of Architects	JR
105	Kaleido Scope	JR
106	Kaziranga University	JR
107	KIIT Review	JR
108	Kiran: A Bulletin of the Indian Laser Association	JR
109	Kisan World	JR
110	Lakshya: Journal of Seience & Management	JR
111	Laser Live	JR
112	Ligate:A Monthly, Dedicated to being and becoming of humanity	JR
113	LT Journal of Analog Innovation	JR
114	M.A.C. Krishi Jagran	JR
115	Machinery Lubrication	JR
116	Manufacturing Technology & Research an International Journal	JR
117	Medicinal & Aromatic Plants Abstracts	JR
118	Mobility Enginering	JR
119	Mother News	JR
120	Nachiketajjali	JR



121	National Seminar on Role of Informatics in Uttaranchal June 25-27, 2004	JR
122	National University of Education Planning and Administration : Annual Report	JR
123	New India Digest	JR
124	News Reach	JR
125	OORJA: IIIM Journal of Management & IT	JR
126	OPSEARCH: Quarterly Journal of the Operational Research Society of India	JR
127	Outlook Business	JR
128	Pakistan Journal of Applied Economics	JR
129	Parikalpana: KIIT Journal of Management	JR
130	Paropkari	JR
131	Poets International	JR
132	Prithwe:Earth and us	JR
133	Purushartha: A Journal of Management, Ethics & Spirituality	JR
134	Radiance views weekly	JR
135	Rajagiri Pallikkutam	JR
136	Ranchi Life Style	JR
137	Realising Research	JR
138	Research Revolution	JR
139	Safety & Reliability: The Journal of the Safety and Reliability Society	JR
140	Samayik Saraswati	JR
141	Sankalpa: Journal of Management & Research	JR
142	Scitech Nepal: A Journal of Scientific & Technical Studies	JR
143	Screener	JR
144	SEBI Bulletin	JR
145	SGI	JR
146	Sibaca Management Review	JR
147	Sidha System of Life	JR
148	Social Defence	JR
149	SPAN	JR
150	Straightpath Qur'an Education	JR
151	Student Bar Journal of Law	JR
152	Synergy: ITS Journal of IT & Management	JR
153	The Alternative: Journal of Management Studies & Research	JR
154	The Association of Commonwealth Uni. Bulletin	JR

155	The Chartered Accountant	JR
156	The Chartered Accountant Journal	JR
157	The Chartered Accountant:Student	JR
158	The Economist	JR
159	The Global Analyst	JR
160	The Great Lakes: Herald	JR
161	The Gujarat: an English Quarterly Magazine	JR
162	The Indian Journal of Technical Education	JR
163	The Journal of CPRI	JR
164	The Mathematics Education	JR
165	The Observer of Management Education	JR
166	The Practical Lawyer	JR
167	The Review of Religions	JR
168	The Vedanta Kesari	JR
169	Third Concept	JR
170	Third Concept: An International Journal of Ideas	JR
171	University News	JR
172	Viewpoint: An International Journal of Management and Technology	JR
173	Vyayam Setu: International Journal of Physical Edu. & Sports Sci.	JR
174	WCRC Leaders Asia	JR
175	We Care: Socially Relevant	JR
176	World Veg Digest	JR
177	ZKG: International	JR
178	The Economist	MAG
179	Electrical India	MAG
180	Electronic for you	MAG
181	ACE Dialogues	MAG
182	Akshay Urja	MAG
183	Arunoday	MAG
184	AURA: Annamalai University Radiance	MAG
185	Banking chintan-Anuchintan	MAG
186	BFT International	MAG
187	Business for all	MAG
188	Careers360:2015 B-School Almanac	MAG
189	Chintan- Srajan	MAG

190	Corpotate Citizen	MAG
191	CSI communicatios	MAG
192	Dalal Street Investment Journal	MAG
193	DeshKaal Samprada	MAG
194	Digital Learning	MAG
195	DREAM 2047	MAG
196	Education World	MAG
197	Electrical India	MAG
198	Electronic for you	MAG
199	Forward Press	MAG
200	Germen Research	MAG
201	Gyan-Vigyan	MAG
202	Health Screen	MAG
203	Hello Hindustan	MAG
204	India Legal	MAG
205	India Today	MAG
206	Indian Architect & Builder	MAG
207	Jangal Gatha	MAG
208	Kaleido Scope	MAG
209	Kaziranga University	MAG
210	Laser Live	MAG
211	Ligate:A Monthly, Dedicated to being and becoming of humanity	MAG
212	M.A.C. Krishi Jagran	MAG
213	Machinery Lubrication	MAG
214	Mobility Engineering	MAG
215	Mother News	MAG
216	Nachiketajjali	MAG
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241	The Vedanta Kesari	MAG
242	Third Concept	MAG
243	WCRC Leaders Asia	MAG
244	We Care: Socially Relevant	MAG
245	World Veg Digest	MAG
246	ZKG: International	MAG

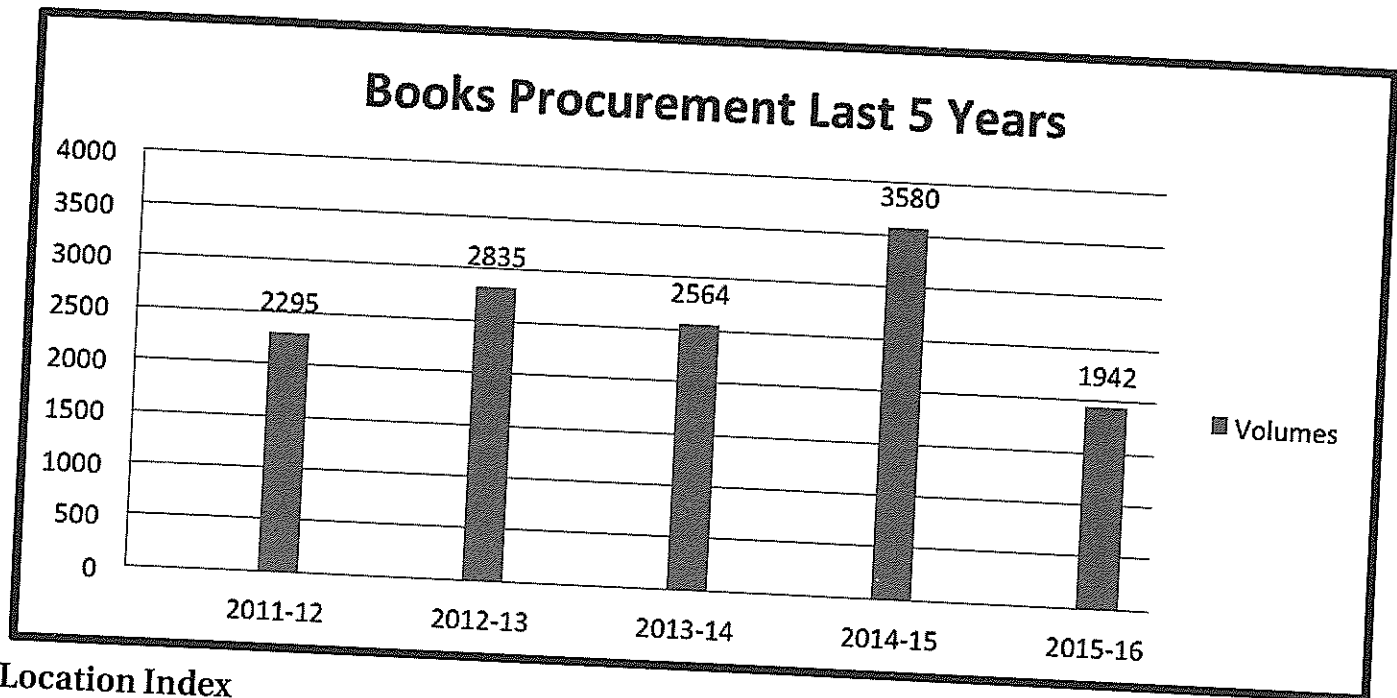
#### Details of Online Journals/books/thesis & dissertations

S. No.	Publishers	Web Link
1	ABI/Inform (Management Collection)	<a href="http://search.proquest.com">http://search.proquest.com</a>
2	American Chemical Society	<a href="http://pubs.acs.org">http://pubs.acs.org</a>
3	American Institute of Physics	<a href="http://www.aip.org">http://www.aip.org</a>
4	American Physical Society	<a href="http://www.aps.org">http://www.aps.org</a>
5	Annual Reviews	<a href="http://www.annualreviews.org">http://www.annualreviews.org</a>
6	ASCE Journals	<a href="http://ascelibrary.org/">http://ascelibrary.org/</a>
7	ASME (including AMR)	<a href="http://asmedigitalcollection.asme.org/">http://asmedigitalcollection.asme.org/</a>
8	Bentham Science	<a href="http://benthamscience.com//ben">http://benthamscience.com//ben</a>
9	Cambridge Online Books	<a href="http://ebooks.cambridge.org">http://ebooks.cambridge.org</a>

S. No.	Publishers	Web Link
10	Cambridge University Press	<a href="http://journals.cambridge.org">http://journals.cambridge.org</a>
11	EBSCO Databases(Art & Architecture, Hospitality & Tourism Complete	<a href="http://web.ebscohost.com">http://web.ebscohost.com</a>
12	Economic & Political Weekly	<a href="http://www.epw.in">http://www.epw.in</a>
13	Elsevier's Science Direct	<a href="http://www.sciencedirect.com">http://www.sciencedirect.com</a>
14	Emerald (Management)	<a href="http://www.emeraldinsight.com">http://www.emeraldinsight.com</a>
15	Grammarly (Online Grammar & Spell checker)	<a href="http://www.grammarly.com/edu">http://www.grammarly.com/edu</a>
16	IEEE/IEL Online	<a href="http://ieeexplore.ieee.org/Xplore">http://ieeexplore.ieee.org/Xplore</a>
17	Institute of Physics	<a href="http://iopscience.iop.org/journals">http://iopscience.iop.org/journals</a>
18	ISID (Bibliographic Database)	<a href="http://isid.org.in">http://isid.org.in</a>
19	JCCC (Bibliographic Database)	<a href="http://www.jccc-ugcinfonet.in">http://www.jccc-ugcinfonet.in</a>
20	McGraw Hills Access Engineering	<a href="http://www.digitalengineeringlibrary.com">www.digitalengineeringlibrary.com</a>
21	Oxford University Press	<a href="http://www.oxfordjournals.org">http://www.oxfordjournals.org</a>
22	Project Muse	<a href="http://muse.jhu.edu/browse">http://muse.jhu.edu/browse</a>
23	ProQuest Dissertation & Theses	<a href="http://search.proquest.com">http://search.proquest.com</a>
24	Royal Society of Chemistry	<a href="http://www.rsc.org">http://www.rsc.org</a>
25	SciFinder Scholar (Bibliographic Database)	<a href="http://cas.org/products/scifindr/index.html">http://cas.org/products/scifindr/index.html</a>
26	SIAM	<a href="http://epubs.siam.org">http://epubs.siam.org</a>
27	Springer Link	<a href="http://www.springerlink.com">http://www.springerlink.com</a>
28	Taylor & Francis	<a href="http://www.tandfonline.com">http://www.tandfonline.com</a>
29	Turnitin Ant plagiarism Tools	<a href="http://www.turnitin.com">http://www.turnitin.com</a>
30	Web of Science (Bibliographic Database)	<a href="http://apps.webofknowledge.com">http://apps.webofknowledge.com</a>
31	Wiley-Blackwell	<a href="http://onlinelibrary.wiley.com">http://onlinelibrary.wiley.com</a>
32	Ebrary online Books	<a href="http://site.ebrary.com/lib/bitranchi/home.action">http://site.ebrary.com/lib/bitranchi/home.action</a>

Year wise Books Procurement (including Book Bank)





#### Location Index

Name of the resource, service, section	Location
Bindery Section	Second floor
Book Acquisition Section	Ground floor
Book Bank	Second floor
Book display	Ground floor
Book stacks (All disciplines)	First floor and Second floor
CD ROM workstations	Ground floor
Issue of Library Card	Ground floor
Circulation counter /section	Ground floor
Claimed Books and Books processed urgently	Ground floor
Faculty publications display	Ground floor
Fine Details	Ground floor
Indexing and Abstracting Journals (Back Volumes)	Ground floor
Issue counter (for Journals / Reference Books / Pamphlets)	Ground floor
Journals (Bound volumes)	Ground floor
Journals Section / current journals display	Ground floor
Librarian's Office	Ground floor
Digital Library	Ground floor

Newspapers and Light Reading Material	Ground floor
OPAC (Online catalogue)	Ground, First & Second floor
Pamphlets Section (Standards, Patents, Reports, Photocopies, Theses and dissertations)	Ground floor
Photocopying facility for faculty	Ground floor & First floor
Reference Section	Ground floor
Reading Hall	First floor
Text Book	Ground floor and First floor
Technical Processing Section	First floor
	Ground floor

### **Library Team**

Name	Designation	Ext. No.
Dr. B.K.Singh	Dean (AP) Prof. In-Charge Library	4563
Dr. Rita Sinha	Asst. Librarian (I/C Library)	4452
Mr. Debojyoti Nath	Information Scientist	4507
Ms. Shamida Lakra	Assistant Librarian	4505
Mr. Mohan Mahto	Senior Library Assistant	4505

### **Library Statistics of 2015-16**

Total Books Added	: Title - 506 & Volumes – 1,942
Total Journals Procured	: Print – 177 & Online – 26,228
Total Online books Procured	: 1,35,882
Total Number of Membership enrolled	: 1,311
Total Number of Books Issued	: 60,530
Total Number of Books Returned	: 60,201
<b>New Implementation : 10 New Computers procured for Digital Libraries.</b>	

## TRAINING & PLACEMENT DIVISION

Total number of recruiters visited till date is 109 from across different sectors of the industry.

Major recruiters ranging from Investment Banks to Consulting and Analytics, Automobile to Heavy Engineering and Infrastructure, IT Product to IT Services companies visited the campus and recruited from the BIT talent pool.

29 recruiters visited BIT campus for the first time this year and the process yield satisfactory results.

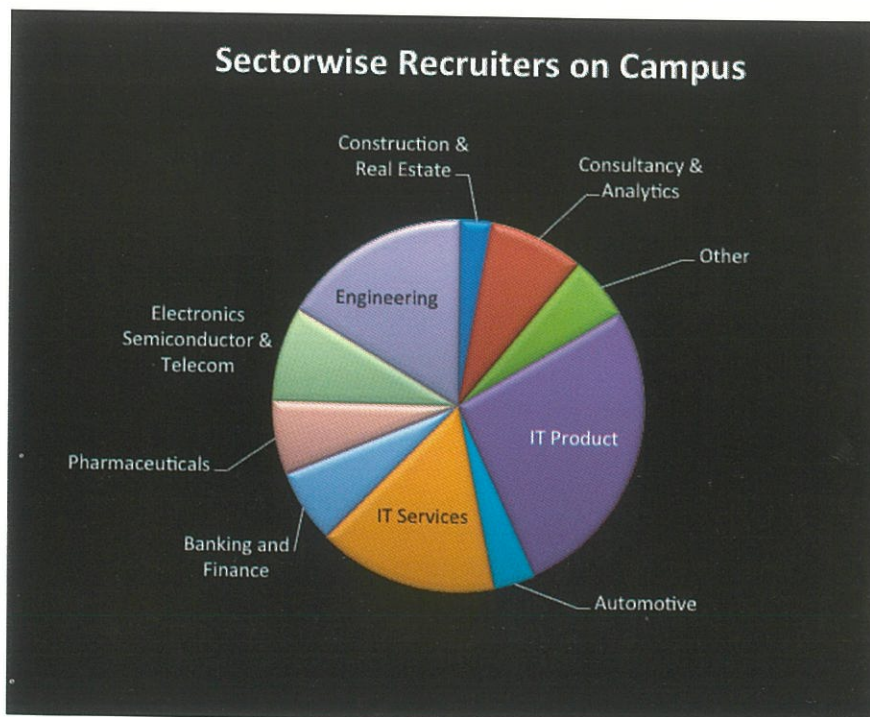
Total number of eligible candidates is 1835 and total of 1375 offers generated this year and several meritorious students have received multiple offers.

The BE students of Mesra Campus, a total of 542 eligible students, received a total of 573 offers. 88% students from Comp. Sc., 82% from Electronics & Comm. & 85% from Information Technology have got placed in high-end Consulting & Analytical and IT Product & Services companies. 81% of the Mechanical Engineering, 88% of Production Engineering and 80% of Electrical Engineering students got offers from different Core Engineering companies and high-end Consulting-Analytical & IT companies. Likewise, 60%, 59%, 58% and 73% of students from Chemical & Polymer, Chemical, Civil and Bio-Engineering respectively opted for jobs in different Core & IT sectors.

### Compensation

This year as of now the Salary Details is:

Minimum Salary:	3.00 Lac per annum
Maximum Salary:	26.73 Lac per annum
Average Salary:	6.66 Lac per annum



**List of Company and Number of Offers (sector-wise)**

S. No	Company Name	Company Sector	No. of Offer
1	Fiat India	Automotive	2
2	Hyundai motors	Automotive	5
3	Maruti Suzuki Ltd.	Automotive	6
4	Tata Motors	Automotive	9
5	AXIS Bank	Banking and Finance	18
6	DHFL	Banking and Finance	1
7	HDFC Bank	Banking and Finance	10
8	ICICI Bank	Banking and Finance	19
9	ICICI Securities	Banking and Finance	11
10	Janalakshmi	Banking and Finance	11
11	Mahindra Fiance	Banking and Finance	7
12	*Developer Group	Construction & Real Estate	2
13	L&T Construction	Construction & Real Estate	10
14	*Olympeo Infrastructure	Construction & Real Estate	3
15	Accenture	Consultancy & Analytics	6
16	Blueocean ltd.	Consultancy & Analytics	3
17	EXL Services	Consultancy & Analytics	19
18	*KPMG	Consultancy & Analytics	7
19	MuSigma	Consultancy & Analytics	22
20	Nomura RI	Consultancy & Analytics	5
21	PwC	Consultancy & Analytics	15
22	*Thorogood	Consultancy & Analytics	1
23	ZS Accociates	Consultancy & Analytics	7
24	Vediocon	Electronics Semiconductor & Telecom	3
25	Freescall	Electronics Semiconductor & Telecom	3

S. No	Company Name	Company Sector	No. of Offer
26	NVIDIA	Electronics Semiconductor & Telecom	1
27	Sankalp	Electronics Semiconductor & Telecom	1
28	Airtel	Electronics Semiconductor & Telecom	8
29	Ericsson India	Electronics Semiconductor & Telecom	6
30	Idea Cellular	Electronics Semiconductor & Telecom	3
31	Verizon	Electronics Semiconductor & Telecom	14
32	Vodafone	Electronics Semiconductor & Telecom	10
33	Avtec Ltd	Engineering	2
34	Bajaj Electricals	Engineering	4
35	Exide Ltd.	Engineering	6
36	Fastenal	Engineering	15
37	Gmmco Ltd.	Engineering	9
38	Havells	Engineering	5
39	JCAPC	Engineering	2
40	*Jindal InfoSolution	Engineering	12
41	NBC Bearings	Engineering	3
42	Reliance Industries Ltd.	Engineering	3
43	Saint Gobain	Engineering	1
44	SNL Bearing	Engineering	2
45	*STRYKER	Engineering	1
46	*Tata Metaliks	Engineering	1
47	Tata Steel	Engineering	4
48	Trident	Engineering	8
49	Vedanta	Engineering	13
50	Visa Steel	Engineering	5
51	Amazon	IT Product	5



S. No	Company Name	Company Sector	No. of Offer
52	Amazon AM	IT Product	3
53	*CouponDunia	IT Product	2
54	Flipkart	IT Product	5
55	*MakeMyTrip	IT Product	10
56	*Snapdeal	IT Product	7
57	*Walmart	IT Product	8
58	*Above Solutions	IT Product	2
59	*Amadeus	IT Product	8
60	Amdocs	IT Product	6
61	*Arcesium	IT Product	2
62	*Autodesk	IT Product	1
63	*Call Health	IT Product	2
64	DE Shaw	IT Product	1
65	Directi	IT Product	13
66	Goldman Sachs	IT Product	11
67	*GreyOrange	IT Product	8
68	*Kronos	IT Product	3
69	*Kuliza	IT Product	4
70	Microsoft	IT Product	4
71	OracleAppDev	IT Product	15
72	OracleGBU	IT Product	2
73	OracleOFSS	IT Product	11
74	Pinnacle	IT Product	3
75	Samsung R&D	IT Product	2
76	SAP Lab	IT Product	2
77	Sasvat Network	IT Product	6

S. No	Company Name	Company Sector	No. of Offer
78	Stellium	IT Product	4
79	Tejas Networks	IT Product	5
80	Cognizant	IT Services	286
81	Cybage	IT Services	17
82	*Daffodil	IT Services	3
83	Headstrong	IT Services	19
84	IBM	IT Services	79
85	*Incture	IT Services	5
86	Infosys	IT Services	189
87	Mahindra Comviva	IT Services	15
88	*New Digital	IT Services	1
89	NSE INFOTECH	IT Services	1
90	Sapient	IT Services	50
91	Unisys	IT Services	2
92	Wipro	IT Services	136
93	*Yourown Rooms	IT Services	3
94	*Zomato	IT Services	1
95	*Zopper	IT Services	4
96	*Zostel	IT Services	5
97	*Aakash Institue	Other	3
98	*Avanti Learning	Other	5
99	Jaro Education	Other	1
100	Think and Learn	Other	20
101	ITC	Other	1
102	Pantaloons	Other	3
103	Dr. Reddys	Pharmaceuticals	3

S. No	Company Name	Company Sector	No. of Offer
104	FTF Pharma	Pharmaceuticals	2
105	Macleods Pharma	Pharmaceuticals	3
106	Mylan Lab	Pharmaceuticals	9
107	Nestle india	Pharmaceuticals	3
108	SUN Pharma	Pharmaceuticals	1
109	*Torrent Pharma	Pharmaceuticals	6

\* These companies were the "First time" participants in the Campus Recruitment Programme of BIT.

### Internship Generated (Engineering Students) 2015-16

Sr. No	Company Name	No. of Offer
1	Zoya Engineering	3
2	NVIDIA	4
3	INSTAREM	6
4	Oracle RGBU	5
5	Books Eventz	1
6	Hero MotoCorp Ltd.	1
7	Flipkart	2
8	Kronos	2
9	Tata Steel (Mind Over Matter)	2
10	OYO Rooms	4
11	Tata Housing	5
12	Amazon	6
13	Microsoft	7
14	Tata Motors	8
15	Tata Steel	8
16	Goldman Sachs	9

### Internship Generated (MBA Student) 2015-16

S. No	Company Name	No. of Offer
1	Airtel	1
2	Axis Bank	1
3	Bharati Airtel Ltd.	2
4	Birla Gold	3
5	BSE	1
6	CCL Ranchi	1
7	DLF	1
8	General Electrical	1
9	HDFC Bank	4
10	Honda Motors	1
11	ICICI Securities	7
13	Mahindra Finance	1
14	NJ Invest	13
15	Reliance Communications Ltd.	1
16	Sail, Bokaro	5
17	Sail, Ranchi	1
18	SBI India	2
19	Shapoorji Pallonji Co. Ltd.	1
20	T&P Division	2
21	Tata Steel	2
22	Tata Utilities	1

### Workshop and Training Programme Details

#### Google APAC 2016 & Microsoft Internship

- Four students have so far taken the APAC 2016.
- They are Prateek Kesarwani (CSE), Yuvraj Chesetti (CSE), Vinay Lodha (CSE), and Aditya Vivek (ECE).
- Of these, Prateek has had 2 rounds, Vivek had 3 rounds and Chesetti has all 5 rounds.
- A total of 31 students were shortlisted this year for Microsoft Internship.
- Their interviews are slated to occur this January.
- Workshop-Training & Other Activities
- Workshop by IBM conducted by Ms. Anjana Dixit (IBM Client Innovation) for preparing

campus recruitment and to be aware what are the technology trends and their readiness level.

- Infosys HR Talk by Mr. Biswa Bhushan (Talent Acquisition, Infosys) in the form of an HR Talk.
- Seminar on Internet-a-Thing delivered by Mr. Arijit Mukherjee (Senior Scientist R&D; Innovation Lab) Tata Consultancy Services'.
- Placement Workshop by Wipro conducted by Ms. Sindhuja (Strategic Leadership Development Team in Wipro)
- Placement Workshop by Cognizant conducted by Ms. Unnati (HR, Cognizant)
- IIT Madras Outreach Programme was conducted in which Dr. Nandita Das Gupta, Professor, Dept. of Electrical Engg., Prof. Dhiman Chatterjee, Dept. of Mech. Engg., Prof. Somnath Chanda Roy, Dept. of Physics visited BIT Mesra to Explain pre final and final year students about various research programme of IIT, Madras and, in particular, the new research avenues that have opened up in recent times.
- GD and PI sessions along with a resume building workshop by Swashtya Consulting, Bangalore.
- GD and PI sessions for MBA final year by Mr. Chandan James (associate Trainer, FACE).
- Competency Development Sessions were organized by the T&P Division in association with B-Factory, Ranchi
- A PAN-BIT assessment process AMCAT was conducted by Aspiring Minds for all final year UG & PG Students
- Allen Gate Series: An MoU was signed between ALLEN Career Institute and BIT, Mesra for a GATE Online Test Series. A total of 154 students registered from BIT Mesra and its extension centers.
- Ericsson: Initial round of discussion with Ericsson for MoU.
- In-House Development of customized software - student's portal for sharing of information, announcements and notices and online resume submission.
- Gandhi Fellowship: Programme conducted on 11<sup>th</sup> January 2015.
- The Gandhi Fellowship Program is designed to provide youth with the opportunity for personal transformation through self-discovery and thereby, contribute to the causes surrounding them. It creates a legitimate space for young people to engage with social issues in a real manner and devote their energies to bring about school change through their tenure and effectively lead complex public systems in the future.
- Leadership talk by Mr. Abhishek Rathore (Associate director Product management at Snapdeal, India)

### From January 2016 onwards

- Recruitment presentation by Teach for India by Mr. Abhimanyu Gehlot (Lead Manager, Fellowship Recruitment) for all Final year UG and PG Students.
- Workshops on Aptitude Training Programme by DUENORTH INDIA ACADEMICS PRIVATE



LIMITED for all PG Pre Final Year students. 19 sessions covered during the workshop.

- GD and PI sessions along with a resume building workshop by Swaashtya Consulting, Bangalore for all Pre Final and Final Year Students. 52 sessions covered during the work shop.
- Competency Development Programme (CDP) by B-Factory, Ranchi for all Pre Final Year Students. 19 sessions covered during the workshop.
- Expert Talk by Mr. Roy Saurabh (Founder/ CEO (Zosher) for all Pre Final Year UG and PG Students. 3 sessions covered during the programme.
- Recruitment presentation by Teach for India by Mr. Sanjana (HR, Fellowship Recruitment) for all Final year UG and PG Students.
- Competency Development Programme (CDP) by B-Factory, Ranchi for all Pre Final Year Students from 16th July to 17th July. 48 sessions covered during the workshop.
- GD and PI sessions along with a resume building workshop by Swaashtya Consulting, Bangalore for all Pre Final and Final Year Students from 21st July to 28th July 2016. 52 sessions covered during the work shop.
- A PAN-BIT assessment process AMCAT was conducted by Aspiring Minds for all final year UG & PG Students on 23rd and 24th July 2016.
- Expert Lecture conducted on 26th July, 2016 by Mr. Dwijendra Sriwastav (IMS Learning) for final year students

## STUDENTS' ACTIVITIES





Birla Institute of Technology, Mesra Ranchi has 18 clubs and societies. These clubs/societies organize events through out the year. Some of the activities are mentioned below:

In a proverbial return to the roots, EPAC takes the initiative to inculcate a drive for environment protection and initiate the advent of a research based approach in technical interactions. Adhering to the exacting standards of modern education, a holistic individual is the need of the hour. In the **Jharkhand Science and Environment Festival**; via debates, projects, exhibitions and quizzes, students are given a chance to prove their mettle at the state level. The JSEF science exhibition provides a renowned stage to enact the slew of changes that plague the thoughts of proactive school goers. It provides critical advice regarding pragmatic

Applications, optimizations and financial feasibility. The most thought provoking projects get huge acclaim along with certificates, trophies and cash awards. The

**Environments quiz** channels the competitive fierceness inherent in today's youth and channels it towards a thirst for environmental awareness. This makes for fun filled, highly educational and ethical events that purvey a culture of sustainable growth. **Ad Sense**, a tribute to creativity focuses on vivid representation of unheard plights that surrounds us. Children are provided with paint and paper. The most obscure of topics come to life in vibrant impactful images. **Debates** since the days of early democracy in Greece have been a staple of conflict resolution. There is no greater conflict than the toil incurred upon our habitat. EPAC's initiative allows verbal, peaceful resolutions of great concerns. Amongst that chaos of many ideas colliding, children come up with the most innovative solutions.

**Disaster Management and Training Program:** On brave mountains we conquer, the woes and foes of our own making. Disasters, natural or otherwise are seldom expected and even less frequently encountered prepared. EPAC organized the two day Disaster Management Training Program, to encourage mental and physical fortitude, enhance reflexive instincts and instill in the participants, a sense of respect and awe towards the vastness and strength of our environment. The event, spread across a wide sample space, constituted various exercises to limber the body, and ingrain lifesaving reflexes. Furthermore, it demonstrated a variety of methods that are regularly used in case of rescue operations and usage of locally sourced items and equipment in case of unfortunate circumstances.

**Dustbin:** Ease of access is one of the preliminary requirements for use, most often in situations where individuals would properly dispose waste; they choose to discard it just because there are no readily available dustbins. In an initiative to aid EPAC made dustbins out of waste cartons, serving the bilateral purpose of proper disposal of waste and utilizing locally available resources.

### FIREBOLT RACING

Firebolt Racing is the official off road racing team of Birla Institute of Technology, Mesra. It participates annually in BAJA SAE India and BAJA Student India. Firebolt Racing, in its 6<sup>th</sup> season (2015-16), achieved what they had never been achieved in the previous seasons under the captaincy of Yash Raj Khuro.

The team was 1<sup>st</sup> in the Qualification Round of both BAJA SAE INDIA and BAJA STUDENT INDIA. 2<sup>nd</sup> in the Presentation Event at BAJA SAE INDIA, cash prize of INR 40,000

6<sup>th</sup> position in the Design Event is also some achievements that highlight our phenomenal performance in the last year.

Over all Position 13 out of 180 teams that participated in BAJA STUDENT India and 21 out of 280 teams in BAJA SAE INDIA

### EVENTS AND WORKSHOPS ORGANIZED FOR THE ACADEMIC YEAR 2015 -16.

- **C/C++ and Data Structures workshop**

C/C++ is the biggest and the most important workshop of the year. Data Structures is also included to enhance your coding skills and take them to the next level. The certificates of C/C++ and DS workshop for those who took the tests will be distributed.

Date: 6th & 7th September'15.

- **Big Data and HADOOP Analysis**

Big Data analytics is the process of examining large datasets to uncover hidden patterns, unknown correlations market trends, customer preferences and other useful business information. Starting with the month of January we are organizing for the very first time in BIT, "The Big Data Analysis Workshop". The workshop is of three days 15th-17th January, 2016 and that for a fee of Rs.1200/-.

- **Solid Works in association with Team Srijan.**

Software which makes 2D and 3D modelling user friendly. IEEE in association with Team Srijan conducted a workshop on Solid works.

Date: 19/02/2016-21/02/2016

- **Node.js**

JavaScript lets the website do things like validating forms and create visual effects. Node.js allows developers to use JavaScript everywhere instead on just in the browser. JavaScript let the website do things like validating forms, create visual effects etc. Node.js allows developers to use JavaScript everywhere instead on just in the browser. Right now very few people are aware of this technology which makes this a key point in various aspects as your internships and placements.

Date: 8/04/2016-10/04/2016

- **TESLA - Online Event.**

Test for electronics and logical aptitude or you can say TESLA is a joint attempt of IEEE BIT Mesra Student Chapter along with EEE SOC to give you the exposure of GATE level Electronics, Electrical and Logical Aptitude. Starting from the basics and step by step going to deeper concepts of core and tricky logical reasoning is what you can expect from this platform.

- PLC workshop (Flagship Event): Automation in the industry by the use of programmable logic control was taught.
- CLD workshop: This was mainly conducted for first year students to strengthen their concepts in electronics and electrical by hands on experience.
- Circuital Aptitude Test (CAT): CAT is an innovative platform which provides online competitions and plenty of practice tests. It is a weekly event which is usually held every Friday. It is a 45 minutes test and questions are objective which cover a range of topics in the field of electrical, electronics as well as aptitude and basic mathematics.
- Dandiya Nite
- Blood Donation Camp
- Paintball
- Mentorship Drive
- Participation in Formula Student India 2016

A Part from the above many other Cultural, Technical and Social Events organised by various club & Societies.





# ANNEXURES



## **ANNEXURE – I**

### **Members of THE General Council**

#### **I Founder Members**

**Shri C.K. Birla**

Chairman, Board of Governors

Birla Tower (9<sup>th</sup> Floor)

25, Barakhamba Road

New Delhi- 110 001

**Shri S.L. Bhatner**

C/o Hindustan Motors Ltd.

10<sup>th</sup> Floor, Birla Building

9/1, R.N. Mukherjee Road

Kolkata- 700 001

**Dr. A. K. Chatterjee**

9/11, Moore Avenue

Kolkata

**Shri Sarosh Ghandy**

45, Museum Road

Bangalore-560 025

H. E. Dr. A. R. Kidwai

Government of Haryana

Raj Bhavan

Chandigarh

**Shri D. N. Patodia**

45, Akash Neem Marg

DLF City Phase-II

Gurgaon- 122 001

**Dr. Karan Singh**

3, Nyaya Marg

Chanakyapuri

New Delhi

#### **II Life Members**

**Dr. H. C. Pande**

1/97, Vijay Khand-I

Gomti Nagar

Lucknow-226 010

**Shri Mohammed Yousif Jalal**  
Mohammed Jalal & Sons WLL  
P.O. Box: - 113, Manama  
Kingdom of Bahrain

**H. E. Dr. Oman Bin Abdul Muniem Al-Zawawi**  
Oman Zawawi Establishment (OMAFST)  
P.O. Box. – 879  
P.C. 113, MUSCAT  
Sultanate of Oman

### **III Corporate Members**

**Shri Rohit Saboo**  
M/s National Engineering Industries Ltd.  
Khatipura Road  
Jaipur- 302 006

**Shri M. L. Pachisia**  
9/1, R. N. Mukherjee Road  
Kolkata- 700 001

**Dr. P Ghosh**  
M/s Birla Science & Technology Centre  
Statue Circle  
Jaipur- 302 005

**Shri P. C. Agarwal**  
9/1, R. N. Mukherjee Road  
Kolkata- 700 001  
**Shri T. E. S. Vardhan**  
Birla Tower (8<sup>th</sup> Floor)  
25, Barakhamba Road  
New Delhi- 110 001

### **Members by Representative**

**Director (Central University)**  
(Nominee of MHRD, Govt. of India)  
Dept. of Higher Education  
Shastri Bhawan  
New Delhi- 110 001

**Prof. R. P. Kaushik**  
(Nominee of UGC)  
G-19/19, DLF, Phase-I  
Gurgaon- 124 022



**Shri H. K. Mittal**

Adviser & Head (NEB)  
Department of Science & Technology  
Govt. of India  
New Delhi- 110 016

**Dr. Pradipta Banerjee**

Director  
IIT, Roorkee- 247 667

**Shri L. Khiangtae, IAS**

Principal Secretary  
Department of Science & Technology  
Govt. of Jharkhand  
Nepal House, Doranda  
Ranchi

**Shri S. S. Jajodia Ji**

78, Syed Amir Ali Avenue  
Kolkata – 700 019

**Dr. M. K. Mishra**

Vice-Chancellor  
B.I.T, Mesra, Ranchi

**Alumni Members**

**Dr. H. S. Sagar**

Director  
Sant Baba Bhag Singh  
Institute of Engineering & Technology  
Padhiana (Near Adampur Doaba)  
Jalandhar \_ 144 033

**Shri D. Sahay**

27, Kali Babu Street  
Ranchi – 834 001

## ANNEXURE - II

### MEMBERS OF BOARD OF GOVERNORS

1. **Shri C. K. Birla** Chairman  
Birla Tower (9<sup>th</sup> Floor)  
25, Barakhamba Road  
NEW DELHI – 110 001
2. **Director (Central University)** Nominee of MHRD  
Nominee of MHRD, Govt. of India Govt. of India  
Dept. of Higher Education  
Shastri Bhawan  
NEW DELHI – 110 001
3. **Dr. (Mrs.) Renu Batra** Nominee of UGC  
Joint Secretary  
University Grants Commission  
Bahadur Shah Zafar Marg  
NEW DELHI - 110 002
4. **Dr. Pradipta Banerjee** Nominee of AICTE  
Director  
Indian Institute of Technology  
Roorkee - 247 667
5. **Shri L. Khiangtae, IAS** (Ex-Officio)  
Principal Secretary  
Dept. of Science & Technology  
Government of Jharkhand  
Nepal House  
Doranda  
RANCHI – 834 002
6. **Mrs. Aradhana Patnaik, IAS** (Ex-Officio)  
Principal Secretary  
Department of Human Resource Development  
Government of Jharkhand  
Project Bhawan  
Dhurwa  
RANCHI – 834 002

7. **Dr. K. K. Khandelwal, IAS** (Ex-Officio)  
Commissioner  
South Chhotanagpur Division,  
Jharkhand  
RANCHI – 834 001
8. **Dr. Nitin Madan Kulkarni, IAS** Nominee of the Chancellor  
Principal Secretary to the Governor  
Hon'ble Governor of Jharkhand  
Raj Bhawan  
RANCHI – 834 001
9. **Shri M.L. Pachisia** Nominee of HCT  
9/1, R.N. Mukherjee Road  
KOLKATA – 700 001
10. **Shri Rohit Saboo** Nominee of HCT  
M/s. National Engineering Industries Ltd.  
Khatipura Road  
JAIPUR – 302 006
11. **Dr. Manoj Kumar Mishra** Vice Chancellor  
Vice Chancellor  
BIT, Mesra  
RANCHI – 835 215
12. **Dr. J. K. Prasad** Institute Faculty  
Professor  
BIT, Mesra  
RANCHI – 835 215
13. **Dr. (Ms.) Prabjot Kaur** Institute Faculty  
Assistant Professor  
BIT, Mesra  
RANCHI – 835 215
14. **Shri D.N. Patodia** Nominee of General Council  
45, Akash Neem Marg  
DLF City, Phase II  
GURGAON – 122 001
15. **Dr. P. Ghosh** Nominee of the General Council  
M/s. B.M. Birla Science & Technology  
Statue Circle  
JAIPUR – 302 005

**16. Dr. Arup Roy Choudhury**  
Chairman and Managing Director  
NTPC Ltd.  
NTPC Bhawan, Core – 7,  
SCOPE Complex, 7 – Lodi Road  
NEW DELHI – 110 003

Nominee of the General Council

**17. Shri S. N. Agarwal**  
Chairman  
Bhoruka Power Ltd.  
48, Lavelle Road  
Bangalore – 560 001

Nominee of HCT

## **ANNEXURE - III**

### **MEMBERS OF THE FINANCE COMMITTEE**

1. **Shri C. K. Birla**  
Birla Tower (9<sup>th</sup> Floor)  
25, Barakhamba Road  
NEW DELHI – 110 001
2. **Dr. M. K. Mishra**  
Vice Chancellor, BIT, Mesra  
RANCHI
3. **Prof. Jose Varghese**  
Professor of Eminence  
Christ University  
(Deemed University) Hosur Road  
BANGALORE – 560 029
4. **Dr. Nitin Madan Kulkarni, IAS**  
Principal Secretary to the Hon'ble Governor  
Governor Secretariat  
Raj Bhawan  
RANCHI
5. **Shri P. C. Agarwala**  
9/1, R. N. Mukherjee Road  
KOLKATA – 700 001
6. **Shri Rohit Saboo**  
M/s National Engineering Industries Ltd.  
JAIPUR – 302 017
7. **Shri S. S. Jajodia**  
Honorary Treasurer, BIT, Mesra  
78, Syed Amir Ali Avenue  
KOLKATA – 700 019



## **ANNEXURE - IV**

### **BUILDING & WORKS COMMITTEE**

Vice Chancellor	-	Chairman
HoD (Architecture)	-	Member
HoD (Civil Engg.)	-	Member
Addl. Registrar (Fin.)	-	Member
Dy. Comptroller	-	Member
In-Charge (Constr.)	-	Member Secretary

## ANNEXURE - V

### ACADEMIC COUNCIL

S. No.	Members of the Academic Council
1.	Dr. M.K. Mishra, Vice Chancellor
2.	Dr. D. Sasmal, B.M. Birla Distinguished Service Professor
3.	Dr. Mohan Varma, Professor, Space Engg. & Rocketry
4.	Dr. G. Sahoo, Dean (Admn. & Acad. Coord.)
5.	Dr. (Mrs.) Mandira Mukherjee, Professor, CE&T
6.	Dr. Gopal Pathak, HoD, Civil & Environmental Engg.
7.	Dr. R. Suresh Kumar, Dean (Faculty Affairs)
8.	Prof. A.K. Ray, Professor, Mech. Engg.
9.	Dr. (Mrs.) Usha Jha, Prof. Chemistry
10.	Dr. (Mrs.) M. Chakraborty, Professor, Architecture
11.	Dr. P.R.P. Verma, Prof. Pharm. Sciences & Technology
12.	Dr. S.K. Bose, Dean (Alumni & International Relations)
13.	Dr. (Mrs.) Nisha Gupta, Professor, Electronics & Comm. Engg.
14.	Dr. S.K. Ghorai, Professor, Electronics & Comm. Engg.
15.	Dr. Swapan Konar, Professor & Head, Physics
16.	Dr. Nilanchal Patel, Director, STEP
17.	Dr. Balram Singh, Prof. In-charge, Water Resource Management
18.	Dr. S.K. Chakraborty, Professor, Mathematics
19.	Dr. B.N. Sinha, Professor & HoD, Pharm. Science & Tech.
20.	Prof. Anand Kumar Sinha, Prof. Dept. of Civil & Environmental Engg.
21.	Dr. Arbind Kumar-I, Prof. Mechanical Engg.
22.	Dr. T. Ghose, Dean (Sponsored Research)
23.	Dr. Bijay Kr. Singh, Dean (Academic Programme)
24.	Dr. S.K. Jain, Professor & HoD, Mathematics
25.	Dr. D. J. Biswas, Professor & HoD, Architecture
26.	Dr. Kunal Mukhopadhyay, Professor & HoD, Bio-Engineering
27.	Dr. A.P. Krishna, Professor & HoD, Remote Sensing

28. Dr. Utpal Baul, Professor & HoD, Management
29. Dr. Amar Nath Jha, I/c. Lalpur Off campus
30. Dr. Subir Samanta, Prof. Pharm. Sciences & Technology
31. Dr. S. Jha, Prof. Pharm. Sciences & Technology
32. Dr. D.K. Mohanta, Professor, Electrical & Electronics Engg.
33. Dr. Manju Bhagat, Professor, Management
34. Dr. Shradha Shivani, Professor, Management
35. Dr. R.C. Jha, Professor & HoD, Electrical & Electronics Engg.
36. Dr. Jeganathan Chockalingam, Professor, Remote Sensing
37. Dr. Vinay Sharma, Professor & HoD, Prod. Engg.
38. Dr. (Mrs.) Sunita Keshri, Professor, Physics
39. Dr. R.N. Gupta, Professor, Pharm. Science & Tech.
40. Dr. Sreekanta Paul, Professor, Electronics & Comm. Engg.
41. Dr. Vibha R. Gupta, Professor & HoD, Electronics & Comm. Engg.
42. Dr. Sudeshna Chakraborty, Professor, Civil & Env. Engg.
43. Dr. (Mrs.) Padmini Padmanabhan, Professor, Bio-Engineering
44. Dr. Arvind Kumar-II, Professor & HoD, Mech. Engg.
45. Dr. Gautam Sarkhel, Professor & HoD, Chemical Engg. & Tech.
46. Dr. Sandip Dutta, HoD, Computer Sc. & Engg.
47. Dr. S. Padhi, Controller of Examinations
48. Dr. R.N. Bhagat, Professor, Management
49. Dr. J.P. Pandey, HoD, Chemistry
50. Dr. Bimal Kumar Mishra, Dean (Students Welfare)
51. Mr. Praveen Srivastava, In-charge, HMCT
52. Dr. R.K. Sinha, Professor, Bio-Engineering
53. Dr. Ramesh Chandra, Professor, Bio-Engineering
54. Dr. R.P. Sharma, Professor, Mechanical Engg.
55. Dr. Souvik Chakraborty, Professor, Mathematics
56. Dr. Sudipta Goswami, Professor, CE&T
57. Dr. Swastika Ganguly, Professor, Pharm. Sciences & Technology

## ANNEXURE – VI

### HEAD OF THE DEPARTMENTS

S. No	Name	Department
1	Dr. D. J. Biswas	Architecture
2	Dr. J. P. Pandey	Chemistry
3	Dr. Saral Kumar Jain	Mathematics
4	Dr. Arbind Kumar - II	Mechanical Engineering
5	Dr. Swapan Konar	Physics
6	Dr. Kunal Mukhopadhyay	Bio-Engineering
7	Dr. Gopal Pathak	Civil & Environmental Engineering
8	Dr. Gautam Sarkhel	Chemical Engineering & Technology
9	Dr. Sandip Dutta	Computer Science & Engineering
10	Dr. (Mrs.) Vibha Rani Gupta	Electronics & Communication Engg
11	Dr. R. C. Jha	Electrical & Electronics Engineering
12	Sri Praveen Srivastava *	Hotel Management & CT
13	Dr. Utpal Baul	Management
14	Dr. B. N. Sinha	Pharmaceutical Science & Technology
15	Dr. Vinay Sharma	Production Engineering
16	Dr. A. P. Krishna	Remote Sensing
17	Dr. Mohan Varma	Space Engineering & Rocketry

\* In-charge

## ANNEXURE – VII

### COMMITTEE FOR WOMEN CELL

Dr. Usha Jha Dept. of Applied Chemistry	-	Chairwoman
Dr. S.G. Panpalia Dept. of Pharmaceutical Sciences & Technology	-	Member
Dr. Papiya Mazumdar Dept. of Pharmaceutical Sciences & Technology	-	Member
Dr. Bindhu Lal Dept. of Civil Engineering	-	Member
Dr. Vibha Rani Gupta Dept. of ECE	-	Member
Mrs. Nidhi Jauswal Asst. Registrar (Legal) General Office	-	Member secretary

\* As per Women Cell records (1.7.2015 to 30.6.2016)  
Total number of complaint – 3 (Three)



## ANNEXURE - VIII

## ADDRESS OF THE CAMPUSES

S. No.		S. No.	
1	BIT Off Campus, Allahabad B-7, Industrial Area P.O. TSL, Naini Allahabad – 211 010 (U.P) Phone :0532- 2686668/2687363 Fax: 2687554	6	BIT Off Campus, NOIDA A-7, Sector-1 Noida-201301 Phone : 0120-2543484/2553661/ 3662 Fax: 2554146
2	BIT Off Campus, Deoghar Jasidih Deoghar- 814132 Fax : 06432- 292565	7	BIT Off Campus, Patna Near Patna Airport, P.O. Bihar University College Patna -800014 Phone : 0612- 2223545 /3200853 Fax: 2223545
3	BIT Off Campus, Jaipur B.S.I.R. Campus 27, Malviya Industrial Area Jaipur – 302017 Phone : 0141- 4019798/4019812 Fax : 2751614	8	BIT Off-Shore Campus, Muscat Waljat College of Applied Science P.O. Box No. 197, Rusayal Postal Code – 124 MUSCAT, Sultanate of OMAN Phone : 00968-24449193 Fax : 00968 - 24449196
4.	BIT Off Campus, Kolkata Southend Conclave (4th Floor) 1582 Rajdanga Main Road (on Gariahat-EM bypass connector) Opp. Siemens Building Kolkata-700107 Phone: 033-24414542/24414456 Fax:24414299	9	BIT Off-Shore Campus, UAE C/O Royal College of Applied Science & Technology Knowledge Centre RAK Free Zone Ras Al Khaimah, U.A.E. Phone : +971504862900 (M) +97172272203
5	BIT Off Campus, Lalpur Lalpur Chowk Ranchi-834001 (Jharkhand) Phone: 065- 2531817/2531676 Fax : 2531658 /2531676		

