

ANNUAL REPORT

2017-2018



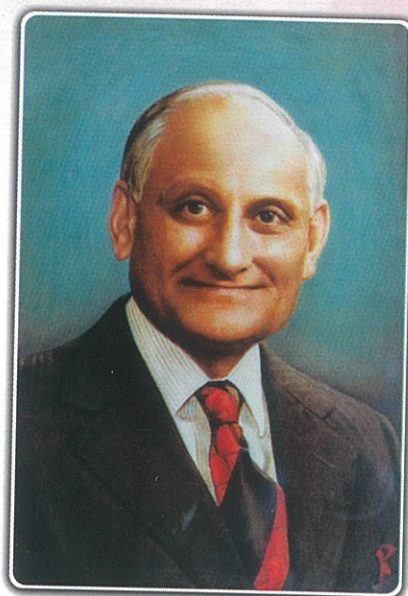
BIRLA INSTITUTE OF TECHNOLOGY

(Deemed to be University)

Mesra, Ranchi- 835215, Jharkhand, India



Shri B.M. Birla
Founder of the Institute



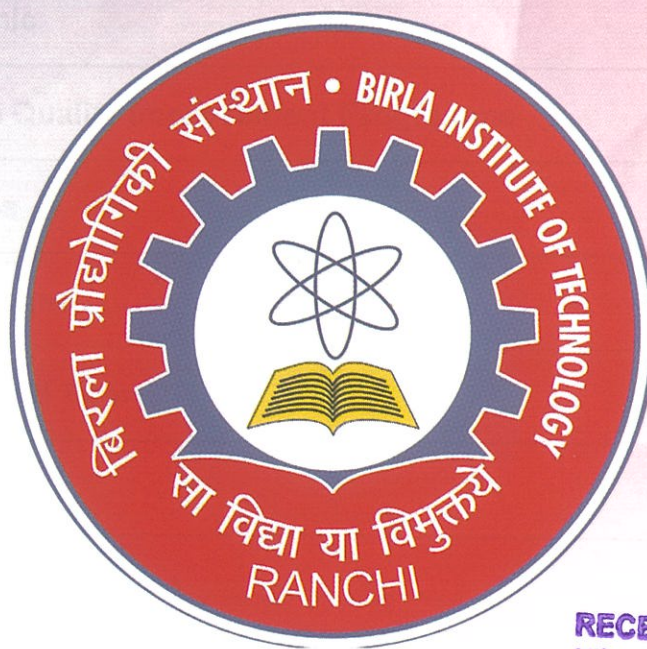
Shri G.P. Birla
Former Chairman of the
Board of Governors



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

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The Vice Chancellor's Report

Birla Institute of Technology, Mesra, Ranchi founded by the philanthropist, industrialist Late Shri B.M. Birla in 1955, attained the status of a Deemed to be University in the year 1986. The rich legacy of the founder has been carried forward by his son Padma Bhushan Late Shri. G. P. Birla and his grandson, the present Chairman of our Board of Governors, Shri C. K. Birla through continued emphasis on academic excellence and contribution to nation building.

BIT Mesra, by virtue of the quality of its academic programmes, has consistently been ranked amongst the leading technical Institutes of the country. The Institute offers academic programmes in 17 disciplines with 626 faculty members and over 12,000 students spread across various campuses

The Institute has taken many initiatives to strengthen and expand the Teaching – Learning environment and to generate career opportunities for the students in reputed organizations. Some of these initiatives are the G P Birla Scholarship Scheme, Best Student's Project Award, Inter Hostel Indoor Sports Award and a strong campus placement programme.

A brief report on salient activities of the Institute, undertaken during the year 2017-18 follows.

1.0 Board of Governors

- Recommendation of the 7th pay commission have been implemented as per decision taken by the Board of Governors. 50% of arrear has been paid to all employees.
- An expert UGC team led by Prof. Yogesh Singh, Vice Chancellor, Delhi Technological University visited the Institute during September 25-26, 2017 with the mandate of inspection of BIT as a Deemed to be University. The report of the Expert team, extending the status of Deemed to be University, has been received.
- Shri Kewal Kumar Sharma, Secretary, Department of Higher Education, MHRD, Government of India visited the Institute on 25th September 2017. After his tour through the campus and interactions and presentation by BIT officials, he expressed his deep appreciation of BIT in his meetings with state officials. The

visit was widely covered by the press & media.

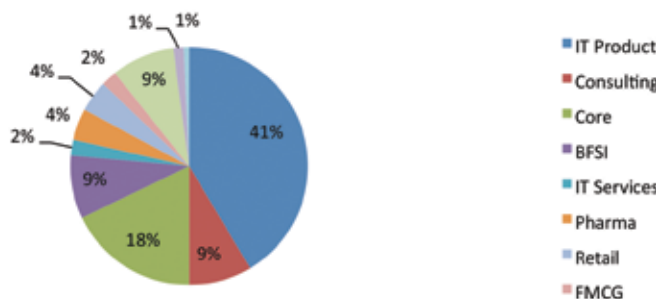
- The Training & Placement division and all the classrooms situated within the main building have been modernized and refurbished.
- Recruitment/promotion/regularization in various academic departments as well as interviews by Selection Committees for various departments were held during March-April, 2017.
- Ten departments of the Institute have been provided with additional 72 faculty members directly recruited by NPIU on contractual basis for a period of 3 years with their salary supported by TEQIP-III.

2.0 Student Placements

The Campus Recruitment Programme for students demonstrates the confidence of the Industry in the quality of graduates of BIT Mesra. In Academic Year 2017-18, as many as 161 recruiters visited the campus and generated a total of 1039 offers including 341 offers for internship made by different companies. This year 59 new companies visited BIT Mesra Campus for placement activities. A total of 564 offers were given to BE students of Mesra Campus.

This year the recruiter on Campus were a good blend from all major sectors of the Industry including, FMCG, Automobile, Core Engineering, Semiconductor, Telecom, E-Commerce, Consulting-Analytics, IT Product & Services, Financial Services and Pharmaceuticals etc. The highest salary offered in BE programme was INR 34 lacs and the average salary for all programmes including all campuses was INR 7.26 lacs.

Sector Wise Distribution of Recruiters



2.1 GP BIRLA SCHOLARSHIP AND OTHER INITIATIVES

During the year 2017-18, GP BIRLA Scholarships worth Rs. 2.19 Crore were awarded and Rs. 26 Lakhs have been provided to fund the best BE and ME projects

3.0 ACADEMIC ACHIEVEMENTS

- The Department of Architecture has been ranked 4th among all Colleges of Architecture in India as per the survey of TOI in 2018
- The Departments of CSE, ECE and EEE have been identified for development as Centres of Excellence (COE).
- ME-Power Electronics Programme of Department of EEE and the B. Pharm Programme of the Pharmaceutical Sciences and Technology department have been granted five years Accreditation from NBA during November 2017. As on date, most of the BE and ME programs of the University stand accredited by NBA
- The Department of Remote Sensing has been identified for support under FIST programme of DST, Govt. of India in level I, UGC-SAP Level I.
- The Department of Space Engineering & Rocketry has been identified for support under Special Assistance Programme (SAP, DRS) of UGC, Govt. of India in Level - I & II and has also been supported under FIST Programme of DST, Govt. of India in Level - I
- Department of Animation and Multimedia, BIT Off campus NOIDA became the Academic Partner of 8th National Science Film Festival, organised by Vigyan Prasar, Ministry of Science and Technology, Dept. of Science & Technology, Govt. of India held at Guwahati University:

3.1 R&D Activities

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

Seven faculty members have received Seed Money Grant of Rs. 12.25 lakh during 2017-18 to carry out their research work in different thrust areas. Additional grant has also been sanctioned to some of the Principal Investigators based on evaluation of

their progress.

Research proposal submitted by the faculty members have been supported by grants from National/ 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 research achievements of the University during the year 2017-18 are reflected by the following data:

Publication in International Journals	:	418
Publication in International Proceedings	:	123
Publication in National Journals	:	35
Publication in National Proceedings	:	36
R&D Projects sanctioned	:	39
On-going R&D Projects	:	77
R&D Projects Completed	:	23
Books Authored & chapters contributed	:	128
Patent Granted / Filed	:	02

During the last few years there has been a lot of thrust on improving the quality of research by faculty members of the institute. This has resulted in an improvement in the number of citations of our publications. This improvement is reflected in the data presented below

CITATION IN SCI-EXPANDED, SSCI, A&HCI, ESCI

Year	Total No. of citations per year	No of citations per paper
2015	2477	10.54
2016	3319	11.06
2017	3726	13.40

3.2 INFRASTRUCTURE DEVELOPMENT

To support the expansion of its academic programmes, the Institute continues its efforts to consolidate teaching & research infrastructure in the form of equipment, learning resources and space. The salient initiatives taken during the year are the following :

- The Department of Architecture procured Weather Station, Acmas Technologies- ACM-52303-J. (Davies Brand, USA).
- The Department of Architecture procured Temperature & Humidity Data Loggers. Metravi (DL-TH-01).

- The Department of Bio Engineering procured Bio-Safety Cabinet Class II, Computer Controlled Heat Exchanger, Dual Axis System with 3 mm Mirror, ALAZAR DAQ CARD, Power Lab Teaching system, Gel Doc system.
- The Department of Chemical Engineering procured Electrospinning, Membrane Filtration unit and Tubular Furnace.
- The Department of Civil & Environmental Engineering procured Bentley Academic Perpetual Offering Solution including STAAD Pro Latest version with 3 years Select Subscription -18 users and Total Station Nikon DTM 322 + TBC post-processing software.
- The Department of Computer Science and Engineering is in the process of establishing Intelligent System, Machine Learning and Internet of Things laboratory.
- The Department of Computer Science and Engineering procured Mat TAH License, LDRA Software, IoT kit and accessories and Fujitsu Tower Server.
- The Department of ECE procured Comsol software, Xilinx Vertex, VCU108 Evaluation Kit, Gun Oscillator, Multisim Software, VisSim Software.
- The Department of EEE procured Phasor Measurement Unit, Grid Tied Solar Photovoltaic, FPGA Based Smart GRID Control Unit.
- The Department of EEE is working on 700 kWp Rooftop solar power plant. BIT Mesra already has an operational 300 kWp Roof top power plant.
- Substation with supply of the 33kV/11kV is going to be installed in the Institute behind Hostel No. 7 to cater to the increasing demand for power supply.
- 31 Classrooms have been renovated as modern classrooms which calls for enhancement of power supply from 11kV to 33kV GIS power plant in campus. Dept. of EEE is working shoulder to shoulder with Energy Management section of the institute to fulfill this requirement.
- The Department of Mechanical Engineering procured Fatigue Testing Machine, Cross Flow Heat Exchanger, Water Tunnel, Radiation conduction module, Conduction heat transfer module unit, Humidity Measurement Unit, Exhaust Gas Analyser, Computerized VCR diesel and petrol Engine, Horizon material testing software, 3 D Printer and 3 D Laser Scanner
- The Department of Production Engineering procured CNC Offline Simulation Software, CNC Trainer, Ecnc Programming e-learning software, Ericsson Cupping Testing Apparatus, IR Camera, Stir Casting Accessories and Metallurgical microscope
- The Department of Remote Sensing procured UAV (Drone): Quadcopter with thermal sensor, optical camera and day night surveillance camera
- The Department of Space Engineering & Rocketry procured Double Planetary Mixture, Bomb Calorimeter, Rocket Motor ICP Pressure Sensor, 1000 Psi, Water cooled, Model No. 124A24
- The Department of EEE, BIT Off campus Deoghar procured NI ELVIS II Design Bundle
- BIT Off campus Jaipur procured Spectrum Analyzer 3GHz with Tracking generator (Keysight Technologies) Large scale plantation was carried out in which hundreds of saplings of Gulmohar, Ashok and Amaltas trees were planted in the Sports Complex
- Renovation of wooden badminton floor with installation of badminton poles was carried out
- Complete revamp of electrification system of the sports complex which was initiated two years ago was completed with installation of electric poles and LED Flood lights in the athletics ground..

3.3 MOUS/ COLLABORATIONS/ CONSULTANCY

- Under the Erasmus+ Programme (KA107), an Inter Institutional Agreement between BIT, Mesra and University of Padova, Italy

was signed for A.Y. 2017-2018 and 2018-19 for mobility of student and staff.

- A Research Agreement was signed between BIT, Mesra and IMCB, Singapore (Institute of Molecular and Cell Biology) A*STAR Institute, Singapore.
- BIT off campus Patna signed an MoU with Sapient Consulting Private Limited for mentoring and up skilling the students of BIT Patna by providing hands on training on latest technologies.

The Department of Civil & Environmental Engineering is actively involved in Consultancy projects with Western coal fields, Southern Coal fields, Adani Enterprises, CINI (Tata Trust), Gujrat Mine Development Corporation, Monnet Ispat, PMGSY, JSRRDA, Ramgarh Nagar Parishad, Department of Rural Development, ENV DAS India, CCL, and EDMAC Engineering Consultants.

- Dr. A Sharon was consultant of CobexB2B for Synthesis during 2017 – 18.
- Dr. Soumya Banerjee of BIT Off Campus Deoghar was consultant to OT Morpho, Paris for Development of Computational Intelligence in IoT security with Dr. Samia Bouzebrane, CNAM Paris during April 2017-Jan 2018.

4.0 INTERNATIONAL EXCHANGE PROGRAMMES WITH UNIVERSITIES/RESEARCH ORGANIZATIONS

- Nitin Agrawal, Jyotiraditya Veldurthy and Manish Kumar of Department of Civil & Environmental Engineering had Immersive Summer Research Experience at Illinois Institute of Technology, Chicago.
- Two students namely Venkata Swaroop Matte and Pulkit Chawla of Department of Computer Science and Engineering went to Illinois Institute of Technology, Chicago, for summer internship, under Immersive Summer Research Experience (2017) initiative of Institute for academic enrichment of students.
- Asawari Singh and Neeharika Valluri went for Immersive Summer Research

Experience (2017) at Illinois Institute of Technology, Chicago.

- Mr. Prabhat Kumar Tripathy, Ph.D. scholar Department of EEE has been working as visiting researcher in Cambridge University, London.
- Mr. Dominick Weckmuller from University of Heidelberg, which is one of the top German Universities, has chosen to carry out his DAAD-RISE summer internship learning with Dr. C. Jeganathan in the Department of Remote Sensing during May-June 2018.

5.0 Technical Education Quality Improvement Programme (TEQIP) Phase -III

The ongoing third phase of Technical Education Quality Improvement Programme (TEQIP-III) is aimed at improving the quality of Engineering Education in existing institutions with a special focus on Low Income States and Special Category States of the country. TEQP -III extends support to strengthen few affiliated technical universities to improve their academic and management practices. Based on satisfactory performance of BIT Mesra in TEQIP-I and TEQIP-II and on the strength of the Institutional Development Proposal (IDP) submitted by the Institute, BIT Mesra has been selected to participate in TEQIP-III. Under sub-component 1.1 of TEQIP-III, the Institute will receive Rs. 15 crores for strengthening the quality of teaching learning environment in the institution.

6.0 ALUMNI EVENTS

An Alumni Relation Group (ARG) consisting of Deans, HoDs and senior officials, has been created to manage the Alumni related activities of the Institute. The ARG is actively engaged in initiating necessary actions to organise different Alumni event. A Students Alumni Relation Cell (SARC), has also been constituted to support the ARG.

The alumni are involved in supporting our Training and Placement division for internships and placement. ARG and SARC organise talks under Alumni Lecture series & the alumni are invited to share their experiences with our students. The following Alumni Events were organised during the period 2017-18:

- Silver Jubilee Reunion, Batch of 1989-93 was organised on February 3, 2018.
- The Institute hosted the Golden Jubilee Alumni Reunion for the batch of 1968-73 on the 24th of Feb.'18
- Guest Lecture were delivered by Shri. A.K. Ghosh, and Shri. Kapil Dev Jhavarwas on 16th January 2018 and 10th Feb.'18 respectively.
- An interactive session was held between our alumnus, Dr Randeep Agarwal, an Adjunct Professor with the School of Chemical Engineering at the University of Queensland, and students from various societies such as the Entrepreneurship Development Cell, Team Srijan, Firebolt, Aveon and Robolution. Robolution.



Introduction



Birla Institute of Technology, Mesra 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. It was launched as an affiliated college of the erstwhile Bihar University and later in 1960 upon creation of the new university 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 excellence of its academic programs led to its attaining the status of a Deemed to be University under section 3 of the UGC act in August 1986.

The institute has continuously strived to strengthen its academic infrastructure, teaching learning processes and campus amenities in order to keep pace with the fast-changing world of education and technology, thereby acquiring a place of pride amongst the institutions offering technical education in the country.

Institute Vision

To become a Globally Recognised Academic Institution in consonance with the social, economic and ecological environment, striving continuously for

excellence in education, research, and technological service to the National needs.

Institute Mission

- To educate students at Under Graduate, Post Graduate, Doctoral, and Post-Doctoral levels to perform challenging engineering and managerial jobs in industry.
- To provide excellent research and development facilities to take up Ph.D. programmes and research projects.
- To develop effective teaching learning skills and state of art research potential of the faculty.
- To build national capabilities in technology, education, and research in emerging areas.
- To provide excellent technological services to satisfy the requirements of the industry and overall academic needs of society.

Governance

BIT Mesra functions under the overall supervision & direction of a Board of Governors (BOG), comprising representatives of the Ministry of Education, Government of India, the UGC, the State Government, the Chancellor, the A.I.C.T.E, the Hindustan Charity Trust and the institute Faculty. Shri C K Birla is the chairman of the BOG. The composition of the BOG is given in Annexure II. The Governor of the state of Jharkhand is the Chancellor of the Institute. The General Council is the general body of the institute

comprising of the Founder Members, Life members, Members by representation & Alumni members (Annexure I). The general council reviews the broad policies and programmes of the institute and suggests measures for improvement. The Finance committee scrutinizes the Annual Budget of the Institute and makes recommendations to BOG (Annexure III).

The Academic Council decides the academic policies of the institute. It approves the course curriculum and the examination results. It appoints various committees to regulate other academic processes of the institution (Annexure IV). The Vice Chancellor of the institute is the chairman of the Academic Council. The Building and Works committee extends advice to the institute on Physical infrastructure and construction related matters. Its structure is given at Annexure V

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 laboratory, administrative offices and few

classrooms.

The workshop annexe has built up area of 4,000 sq. mtrs. The laboratory and the offices of Department of Space Engineering and Rocketry are situated for security reason in a sub campus, about half a kilometre away from the main building. The campus is self-contained amidst well laid lawns with its own water supply system, marketing centre, dispensary, bank and schools. A description of other campus facilities is given below.



The G.P. Birla Auditorium

Institute Building		(Sq Mtrs.)
❖	Main building & Administration block	3700
❖	Classroom and laboratory, Drawing halls, Staff room's etc	19300
❖	Library block	2600
❖	Mini-Auditorium	450
❖	Space Engg. And Rocketry block (including Explosive, Fuel cell and 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-1	1143
❖	Lecture Theatre-2	1535
❖	Hotel Management Building	2835

❖ Pharmacy Building	3220
❖ Golden Jubilee Auditorium	3280

Residential Complex

Staff quarter in different categories 422

Residential complex for supporting services

Guards, Dairy Shopkeepers, Washer man etc. 116



Residential Block



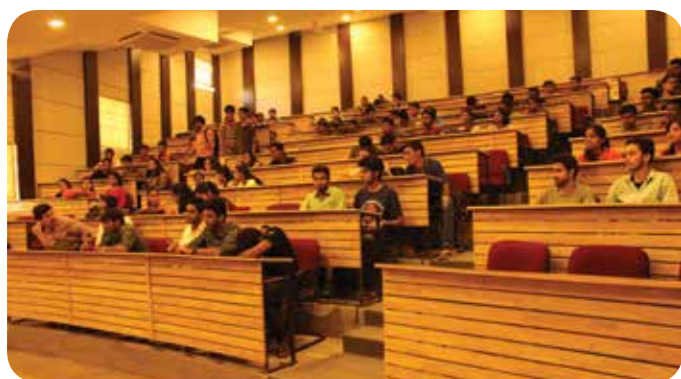
Student Hostel



The NCC Office



The State Bank of India



Lecture Hall



IC Arena

Others

❖ Consumer's co-operative stores

- ❖ NCC Block
- ❖ Rifle Firing Range
- ❖ NCC Parade ground

Guest Houses

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

Auditorium

The institute building houses an auditorium having capacity of 350 persons. Larger scale events are organized at Golden Jubilee Auditorium having capacity of about 3000 persons.

Games and sports complex

The institute has High Class structure sports facilities for Indoor as well as outdoor games. These are as follows:

■	Gymnasium including Multi Gym	1
■	Stadium for track and field for sports/athletics	1
■	Cricket ground including net	2
■	Football ground	2
■	Hockey ground	2
■	Basketball courts	4
■	Volleyball courts	6
■	Tennis courts	6
■	Badminton courts	8
■	Kho - Kho ground	1
■	Kabaddi Ground	1



The Volley Ball Court



The Indoor Stadium

Dispensary Cum Health Centre

Facilities available

❖	OPD services	8 A.M to 12.00 Noon
		4.00 P.M to 8.00 P.M
❖	Emergency services	Round the Clock
❖	Total number of Beds	12 (Male-9, Female-4)
❖	X-Ray	
❖	ECG	
❖	Oxygen Facility	
❖	Suction Machine Facility	
❖	Medical Officers	04
❖	Pharmacists	03
❖	Dressers	03
❖	X-Ray Technician	01
❖	Pathological Technician	01
❖	Staff Nurse	07
❖	Ambulance Facility	
❖	Pathological Lab Facility	
❖	Immunization	



Visiting specialist clinics

- ❖ Physiotherapy
- ❖ Dentistry
- ❖ Pediatric Clinic
- ❖ Homeopathic Clinic
- ❖ Eye and Skin Clinic

- ❖ Anti Natal Clinic

Other Dispensary Related Activities

- ❖ Blood donation cam, eye camp, geological camp, gynecological are organized at frequent intervals.
- ❖ During emergency patients are referred to RIMS or to any private Nursing Homes depending upon the situations as per necessity and convenience of the patient / attendants of patients.
- ❖ Permanent facilities ; staff members and students are covered by Group Medclaim Policy in case of hospitalization.
- ❖ Proposed- Ultrasound Machine Facility and ICU facility, isolation ward and Pathological Lab.
- ❖ Community Health Services are also carried out by organizing medical camp in villages.
- ❖ National Health Service 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 today sundry needs.

Hostel Facilities for Students

Since the Institute is completely residential, it has

11 boys and 2 girls hostel for their accommodation. All rooms of the hostel 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.

Hostel Accomodation

Hostel Nos.	Nos. of Students	Total
Boys Hostel		
1	107	2936
2	126	
3	85	
4	137	
5	291	
6	281	
7	285	
10	710	
11	420	
12	224	
13	189	
14	81	
Girls Hostel		
8	651	1278
9	627	
Grand Total		4114

Academic Programmes

The Institute is offering several programmes, introduced at different point of times, as discussed below:

Programme	Year of Introduction of the Programme	Duration of the Programme	Intake capacity
BIT, MESRA (MAIN CAMPUS)			
Bachelor of Engineering Programmes			
Biotechnology	2002	4 Years	60
Chemical Engineering	2011	do	60

Programme	Year of Introduction of the Programme	Duration of the Programme	Intake capacity
Chemical Engineering (Plastics & Polymer)	2011	do	60
Civil Engineering	1957	do	60
Computer Science and Engineering	1983	do	120
Electrical and Electronics Engineering	1955	do	60
Electronics and Communication Engineering	1960	do	120
Information Technology	2001	do	60
Mechanical Engineering	1955	do	120
Production Engineering	1964	do	60
Other Bachelor Programmes			
Pharmacy	1972	4 Years	60
Architecture	1993	5 Years	40
Hotel Management and Catering Technology	2003	4 Years	60
Masters of Engineering (M.E.) Programmes			
Electrical Engineering Specializations:			
i. Control System	1964	2 Years	12
ii. Power System	1964		12
iii. Power Electronics Engineering	2010		18
Mechanical Engineering Specializations:			
i. Heat Power Engineering	1964	2 Years	12
ii. Design of Mech. Equipments	1976		12
Civil Engineering Specializations:			
Soil Mechanics and Foundation Engineering	1967	2 Years	12
Structural Engineering	1967		12
Electronics & Communication Engineering Specializations:			
i. Instrumentation	1965	2 Years	12
ii. Microwave engineering	1965		12
iii. Wireless Communication	2005		18
Automated Manufacturing System	1992	2 Years	25
Software Engineering	2000	2 Years	15
Space Engineering & Rocketry Specializations:			
i. Rocket Propulsion	1968	2 Years	12
ii. Aerodynamics	1968		12

Programme	Year of Introduction of the Programme	Duration of the Programme	Intake capacity
Chemical Engineering	2013	2 Years	18
Computer aided Analysis and Design	1999	2 Years	18
Master of Technology (M.Tech.) Programmes			
Bio-medical Instrumentation	2013	2 Years	18
Biotechnology	2010	2 Years	18
Computer Science and Engineering	1999	2 Years	16
Energy Technology	2010	2 Years	18
Environmental Science and Engineering	2002	2 Years	18
Information Security	2010	2 Years	18
Information Technology	2012	2 Years	18
Remote Sensing	1997	2 Years	18
Master of Pharmacy Specializations:			
i. Pharm. Chemistry	1983	2 Years	15
ii. Pharmaceutics	1983		15
iii. Pharmacology	2006		15
iv. Pharmacognosy	2002		15
v. Pharmaceutical Quality Assurance	2013		15
Masters of Urban Planning (MUP)	2006	2 Year	12
Master of Science Programmes			
Geo-informatics	2006	2 Years	20
Biotechnology	2014	2 Years	30
Chemistry	2009	2 Years	15
Mathematics	2009	2 Years	15
Physics	2009	2 Years	15
Master of Business Management (MBA) Specializations:			
i. Marketing	1980	2 Years	120
ii. Finance			
iii. System			
iv. Human Resource			
Master of Computer Applications (MCA)	1984	3 Years	60

Programme	Year of Introduction of the Programme	Duration of the Programme	Intake capacity
Integrated M.Sc. Specializations:			
i. Chemistry	2011	5 Years	40
ii. Mathematics and Computing	2011		80
iii. Physics	2011		60
iv. Food Technology	2014		30

Courses / Programme Offered at Off / Offshore Campuses

Courses/ Programmes	Off Campuses				
	Deoghar	Jaipur	Lalpur	Noida	Patna
BBA		*	*	*	*
BCA		*	*	*	*
B.Sc (A&M)		*		*	
MBA		*	*	*	
MCA		*	*	*	
M.Tech- CS				*	*
ME -WC					*
BE	*	*			*

Admission during 2017-18

During the academic year 2017-18, total number of students admitted at BIT Mesra (Main campus) was **1420**. The branch wise breakup is given below.

Admission in UG Programme (Mesra Campus)

Sl.No.	Course		No. of Seats	Numbers
1	B.E.	JOSAA	750	690
		NRI		
		EBC/OBC		
		GOI(J&K)		
2	B.Arch	JOSAA	40	29
		NRI		
		EBC/OBC		
3	B.Pharm.		60	51
4	HMCT		40	38
5	Integrated M.Sc. Chemistry		40	20
6	Integrated M.Sc. Physics		60	45
7	Integrated M.Sc. Mathematics		80	84
8	Integrated M.Sc. Food Tech.		30	09
	Total:		1100	966

Admissions in PG Programmes

Sl.No.	Course		No. of Seats	Received Application Forms	Numbers
1	MBA		120	603	95
2	MCA		60	838	57
3	ME Automated Manufacturing Systems		25	08	06
4	ME Chemical Engineering		18	06	02
5	ME Civil Engineering	Soil Mechanics	12	60	10
		Structural Engg.	12		10
6	ME Electrical Electronics & Engineering	Control System	12	65	09
		Power System	12		11
		Power Electronics	18		13
7	ME Electronics & Communication	Microwave	12	76	05
		Instrumentation	12		07
		Wireless Comm.	18		13
8	ME Mechanical Engineering	Design of Mech.	12	61	09
		Heat Power Engg.	12		11
9	ME Space Engineering & Rocketry	Aerodynamics	12	29	04
		Rocket Propulsion	12		08
10	ME Computer Aided Analysis & Design		18	04	06
11	ME Software Engineering		15	02	00
12	M.Tech Bio-Technology		18	22	05
	M.Tech Bio Medical Instrumentation		18	02	00
13	M.Tech Computer Science & Engineering		16	74	13
	M.Tech Information Security		18	06	05
	M.Tech Information Technology		18	03	10
14	M.Tech Energy Technology		18	12	11
15	M.Tech Env. Sc. & Engineering		18	29	09
16	M.Tech Remote Sensing		18	18	11
17	M.Sc. Chemistry		15	11	05
18	M.Sc. Mathematics		15	14	05
19	M.Sc. Physics		15	17	12
20	M.Sc. Biotechnology		30	36	21
21	M.Sc. Geo-Informatics		20	23	11
22	M.Pharm		74	131	54
23	MUP		12	21	06
	Total		735	2171	454

Student Enrolment (Mesra Campus)

During spring session of 2018 (academic year 2017-18), a total number of students registered in various courses are:

Sr.No.	Course	No. of students
1	Bachelor of Engineering	2668
2	Bachelor of Architecture	174
3	Bachelor of Pharmacy	200
4	Bachelor of Hotel Management & Cat. Tech	111
5	I.M.Sc (Chemistry)	72
6	I.M.Sc (Maths)	220
7	I.M.Sc (Physics)	128
8	MBA	187
9	MCA	127
10	Master of Pharmacy	88
11	Master of Engineering	335
12	Master of Technology	114
13	M.Sc. (Applied Chemistry)	NIL
14	M.Sc. (Applied Physics)	NIL
15	M.Sc. (Mathematics)	5
16	M.Sc. (Bio Technology)	31
17	M.Sc. (Bio Informatics)	NIL
18	M.Sc. (Geo-Informatics)	16
19	MUP	18
	Total	4494

PhD Admissions:

S.No.	Department	Numbers
1	Chemistry	3
2	Physics	5
3	Bio-Engineering	11
4	Civil & Environmental Engg.	6
5	Chemical Engg. & Tech.	1
6	Computer Sc. & Engg.	23
7	Electronics and Communication Engg.	15
8	Electrical and Electronics Engg.	2
9	Management	8
10	Mechanical Engineering	10
11	Pharmaceutical Sciences & Tech	8
12	Remote Sensing	6

Convocation, Results, Degrees / Diplomas Awarded

1	Doctor of Philosophy				Total	
	i	Architecture			2	
	ii	Engineering			11	
	iii	Management			9	
	iv	Pharmacy			13	
	v	Science			9	
	vi	Technology			9	
	Total				53	
2	Post-Graduate Degrees					
			1D*	1st	2nd	Total
	Integrated Master of Business Administration		30	48	30	108
	Integrated Master of Business Economics		0	4	1	5
	Integrated Master of Computer Applications		21	37	25	83
	Master of Animation Design		1	2	1	4
	Master of Business Administration		32	52	26	110
	Master of Computer Applications		50	39	7	96
	Master of Engineering					
	i	Automated Manufacturing System	5	5	0	10
	ii	Computer Aided Analysis and Design	0	1	0	1
	iii	Civil	17	0	1	18
	iv	Electrical	24	11	0	35
	v	Electronics and Communication	41	10	1	52
	vi	Mechanical	13	3	0	16
	vii	Software	0	1	0	1
	viii	Space Engineering and Rocketry	8	0	0	8
	Master of Pharmacy		34	8	0	42
	Master of Science Integrated					
	i	Chemistry	0	3	0	3
	ii	Mathematics and Computing	4	7	2	13
	iii	Physics	3	2	0	5
	Master of Science					
	i	Chemistry	1	3	0	4
	ii	Mathematics	5	0	0	5
*First Class With Distinction						

			1D*	1st	2nd	Total
	iii	Physics	6	1	0	7
	iv	Biotechnology	6	8	1	15
	v	Geoinformatics	5	4	0	9
	vi	Bioinformatics	1	2	0	3
	Master of Technology					
	i	Biotechnology	11	1	0	12
	ii	Biomedical Instrumentation	2	0	0	2
	iii	Computer Science	33	8	0	41
	iv	Energy Technology	1	0	0	1
	v	Environmental Science and Engineering	5	1	0	6
	vi	Information Security	14	2	0	16
	vii	Information Technology	5	0	0	5
	viii	Nano Science & Technology	3	0	0	3
	ix	Remote Sensing	7	1	0	8
	Master of Urban Planning		1	2	1	4
					Total	751
3	Under-Graduate Degrees					
			1D*	1st	2nd	Total
	Bachelor of Architecture		42	18	2	62
	Bachelor of Business Administration		180	82	12	274
	Bachelor of Business Economics		14	8	1	23
	Bachelor of Computer Applications		172	110	18	300
	Bachelor of Engineering					
	i	Biotechnology	15	9	0	24
	ii	Chemical	39	15	0	54
	iii	Chemical and Polymer	17	10	0	27
	iv	Civil	61	27	7	95
	v	Computer Science	189	85	10	284
	vi	Electrical and Electronics	114	74	25	213
	vii	Electronics and Communication	176	84	13	273
	viii	Information Technology	53	19	3	75
	ix	Mechanical	123	76	9	208
*First Class With Distinction						

	x	Production	23	18	5	46
	Bachelor of Hotel Management and Catering Technology		7	8	1	16
	Bachelor of Pharmacy		27	26	3	56
	Bachelor of Science					
	i	Animation and Design	18	7	1	26
	ii	Animation and Design (Hons)	25	8	0	33
	iii	Chemistry	2	2	0	4
	iv	Physics	1	3	0	4
	v	Mathematics and Computing	7	0	0	7
	vi	Medical Laboratory Technology	17	11	2	30
Total						2134
4	Diploma in Technology					
			1D*	1st	2nd	Total
	i	Automobile Engineering	21	23	3	47
	ii	Computer Science	9	9	2	20
	iii	Electrical & Electronics Engineering	19	10	0	29
	iv	Electronics Engineering	16	11	3	30
	v	Manufacturing Engineering	5	9	1	15
	vi	Mechanical Engineering	13	8	0	21
	Diploma in Medical Laboratory Technology		0	3	0	3
Total						165
Grand Total						3102
*First Class With Distinction						

GOLD MEDAL AWARDEES

Sl.No.	Name of Programme	ROLL NO.	Name
1	Bachelor of Architecture	BARCH/10008/12	Neha Kumari
2	Bachelor of Engineering (Biotechnology)	BE/10586/13	Roshni Kedia
3	Bachelor of Engineering (Chemical)	BE/10523/13	Poonam Gupta
4	Bachelor of Engineering (Chemical & Polymer)	BE/10740/13	Raunil Raj
5	Bachelor of Engineering (Civil)	BE/10421/13	Pawas Trivedi
6	Bachelor of Engineering (Computer Science)	BE/10406/13	Aman Jhunjhunwala

7	Bachelor of Engineering (Electrical & Electronics)	BE/25015/13	Dikshant Jeswani
8	Bachelor of Engineering (Electronics & Communication)	BE/25044/13	Ashish Sinha
9	Bachelor of Engineering (Information Technology)	BE/10167/13	Sneha Varma
10	Bachelor of Engineering (Mechanical)	IR/2K1305/13	Poonam Kumari Saha
11	Bachelor of Engineering (Production)	BE/10604/13	Anhad Malhotra
12	Bachelor of Hotel Management and Catering Technology	BHMCT/10005/13	Kumari Nikita
13	Bachelor of Pharmacy	BPH/10042/13	Dharmik Joshi
14	Bachelor of Science (Animation & Multimedia)	BAM/25010/14	Aanchal Kedia
15	Bachelor of Science (Medical Laboratory Technology)	BMLT/15/14	Kumari Sumita
16	Bachelor of Business Administration	BBA/40089/14	Nilakshi
17	Bachelor of Computer Applications	BCA/40537/14	Vinod Kumar

Faculty Strength and Details

Sr. No	Designation	Numbers
1	Professor	76
2	Associate Professor	56
3	Assistant Professor	461
4	Senior Lecturer	1
5	Associate Lecturer	33
	Total	626



Department of Architecture

SECTION 1

PROFILE



1. About the Department

The Department of Architecture was established at BIT Mesra in the year 1993, in keeping with the multifarious scope of Architecture as the art and science of designing spaces and adding value to a meaningful, built environment. It is a subject which is a combination of faculties of engineering, science as well as arts. The programme is a balanced combination of all these streams yet follows a unique pedagogical methodology that is its hallmark.

Department of Architecture, BIT Mesra, a leading center for research and teaching in architecture, urban design, and sustainable design, is one of the top-ranking Architecture Department in the country. The department is noted for its meticulous teaching leading to fundamental, applied research and collaboration with leading experts from practice and industry. Since its inception in 1993, the Department has made substantial contribution in national and international arena by rendering academic and professional services.

The course structure is poised between theoretical knowledge and its practical application with ample application-based lab subjects evenly distributed throughout the syllabus. The practical orientation of working in an actual office is also taken care of in the

Practical Training subject in the final year of the course.

Students also get a scope to exercise the applicability of the entire course learning in the final year thesis dissemination.

Architecture students find rewarding employment in planning, design and construction industries.

Many pursue higher studies in India and abroad in City Planning, Urban Design, Landscape Architecture, Conservation, Construction Management - to name a few.

Programmes Offered

1. The department offers a five year Bachelor of Architecture course, admission to which is in conformation with the Regulations of Council of Architecture, India.
2. The department also offers the degree of Master of Urban Planning, approved by AICTE and the **Institute of Town Planners, India (ITPI)**.
3. The Department of Architecture invites research applications twice a year and currently eight scholars are enrolled in its Ph.D. programme.

SECTION 2**RESEARCH PROJECTS****2. Sponsored Projects and Consultancy****a) Project Sanctioned**

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Renovation & Construction of 50 Govt. Schemes Toilets in Khunti, Hazaribagh and Devghar.	PI – Dr. Kirti Avishek Co PI – Mr. Apurv Ashish	Collectives for Integrated Livelihood Initiative, Tata Trust.	06.03.2018	Rs 3 Lacs +GST	30.04.2018

b) Projects Completed

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Date of completion of the Project
1.	Renovation & Construction of 50 Govt. Schemes Toilets in Khunti, Hazaribagh and Devghar.	PI – Dr. Kirti Avishek Co PI – Mr. Apurv Ashish	Collectives for Integrated Livelihood Initiative, Tata Trust.	06.03.2018	Rs 3 Lacs+GST	30.04.2018

SECTION 3**SEMINAR / CONFERENCE****3. Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members:**

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1.	Mrs. Ritu Agrawal	Domestic Water Demand Modelling for Ranchi: A Multivariate Econometric Approach	BIT Mesra	Dept. Of Botany, St. Xavier College, Ranchi	Ranchi	28.03.2017-29.03.2017
2.	Mr. Mrinal Pathak	Indian Classical Music		IHD Negeri Denpasar Program Pascasarjana	Bali Indonesia	21.08.2017-25.08.2017
3.	Dr. Bimal C. Roy	FSSM	NIUA	NIUA/CEPT	Ahmedabad	05.03.2018
4.	Dr. Bimal C. Roy	Standard Protocol for Integrated Urban Infrastructure Development	Govt. of Jharkhand	JUIDCO	Ranchi	03.08.2018

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
5.	Miss. Anila S. Surin	Vernacular Architecture and Traditional Constructional Practices in Hot and Dry Climate Region	BIT Mesra	COA	MNIT, Jaipur	21.05.2018 25.05.2018
6.	Mr. Apurv Ashish	Architecture and Planning of Urban Spaces for the Elderly	BIT Mesra	COA	DY. Patil, Lohegaon, Pune	17.07.2018 20.07.2018
7.	Dr Janmejy Gupta. (attended as Resource person)	Research in Architecture- A 5-day training programme.	(COA-Council of Architecture)	COA-TRC Training Program, conducted by ABIT-PMCA, Cuttack and COA-TR. (COA-Council of Architecture)	Ajay Binay Institute of Technology, (PilooMody College of Architecture), Cuttack.	09.04.2018 13.04.2018

SECTION 4**RESEARCH PUBLICATIONS****4. Publications in Journals:****Published in International Journals**

- Chandra G., Chakraborty M., Sinha A.K. (2018), WSIOC: The Water Sustainability Index for Office Complexes; Asian Journal of Water, Environment and Pollution, 15(2), 223.
- Chandra G., Chakraborty M., Sinha A.K. (2017), Framework for Assessing Efficient water consumption attributes and their relative importance in Office Complexes; Asian Journal of water, environment and pollution, 14(3), 65.
- Gupta J. and Chakraborty M., Paul A., Korrapatti V(2017), A comparative study of thermal performances of three mud dwelling units with courtyards in composite climate.; Journal of Architecture and Urbanism, 41(3);184.
- Sinha, R.C., Sarkar, S. and Mandal, N.R. (2017), An Overview of key indicators and evaluation tools for assessing housing quality: A literature Review, Journal of institution of engineers (India) series A, 98 (3), 337.
- Sinha, R.C., Sarkar, S. and Mandal, N.R. (2018), 'Development of quality indicators for multi-family residential buildings in India – a Delphi analysis', Int. J. Sustainable Society, 10(2), 96.

SECTION 5**ACTIVITIES/ DAC/ BOS****5. Student Activities**

Sr. No.	Name of the Activity	Students' Co-Ordinator	Faculty Co-ordinator	Date / Duration
1.	Design of Inclusive Streets	None	Dr. Smriti Mishra	06.11.2017 – 07.11.2017

6. Board of Studies

Sr. No.	Name of the Member	Designation	Role
1.	Dr. Satyaki Sarkar	Associate Professor & HOD	Chairman (Ex-Officio)
2.	Dr. M. Chakraborty	Professor	Member
3.	Dr. D. J. Biswas	Professor	Member
4.	Mrs Ritu Agrawal	Asst. Prof.	Member
5.	Head Dept. of CEE, BIT, Mesra	Professor	External Member
6.	Head Dept. of Remote Sensing, BIT, Mesra	Professor	External Member
7.	In-charge Dept. Architecture, BIT, Patna	Prof. In-charge	External Member
8.	Prof. Swati Saha	Professor, IEST Shibpur	External Member
9.	Ar. Sandeep Jha	Chief Architect, AXIS Ranchi	External Member

7. Departmental Academic Committee

Sr. No.	Name of the Member	Designation	Role
1.	Dr. Satyaki Sarkar,	Associate Professor & HOD	Chairman (Ex-Officio)
2.	Dr. M. Chakraborty	Professor	Member
3.	Dr. D. J. Biswas	Professor	Member
4.	Dr. Smriti Mishra	Asst. Professor	Member
5.	Dr. Janmejoy Gupta	Asst. Professor	Member
6.	Dr. Bimal C. Roy	Asst. Professor	Member
7.	Dr. B.K. Singh	Professor, Dept. of Civil & Env. Engg.	External Member
8.	Dr. V.S. Rathore	Asst. Professor, Dept. of Remote Sensing	External Member

SECTION 6**OTHER INFORMATION****8. Student Entrepreneurship activities/Start-ups**

Sr.No	Name of Student	Source of Funding	Title of Startup	Short Description
1.	Ajit Kr. Upadhyay, R. Rushwath, Chaitanya Ganesh	Self	LOMOS Enterprises Pvt. Ltd	Involved with software training and development

9. Achievements of Students

Sr. No	Name of Student	Achievement/ Position/ Award etc	Organised by	Date and Venue
1.	Ms. Mounika Maddipatla	1 st Prize	HOSMAC	October 2017 Mumbai
2.	Vallary Gupta	1 st Prize	HOSMAC	October 2017 Mumbai



Department of Bio- Engineering

SECTION 1

PROFILE



1. About the Department

The Department of Bio-Engineering was established in 2002 with financial support from the Department of Agriculture, Government of Jharkhand, with objectives like providing education and training facilities, carrying out application oriented research, developing in-house technologies and promoting consultancy services in various areas of Biotechnology.

Programs offered at a Glance

- BE Biotechnology (4 years) - Accredited by The National Board of Accreditation (NBA)
- M.Sc. Biotechnology (2 years)
- M.Tech. Biotechnology (2 years) - Accredited by The National Board of Accreditation (NBA)
- M.Tech. Biomedical Instrumentation (2 years)
- Ph.D.

Infrastructure for Research

12 well equipped high end research laboratories dedicated to Molecular Biology, Genetic Engineering and Cell Biology, Plant and Animal Biotechnology, Microbiology, Biochemistry, Proteomics, Bioinformatics, Bioprocess Engineering, Chemical Engineering, Environmental Biotechnology, Biomedical Instrumentation and Imaging

The new 'state-of-the-art' instrumentation facilities include: GC-Mass Spectrophotometer, Real Time PCR, FPLC, HPLC, UPLC-QTOF, UPLC-MS/MS, Spray dryer, Rotary evaporator, Ultra water purification system, Typhoon Laser imager, Lypholizer, Thermal cyclers, Gene pulser, Microplate reader, 2D electrophoresis system, SCF extraction system, Spectrophotometers, Fluorimeters, Modern microscope with digital imaging system, Stereo microscope with colony counter, Fluorescence microscope, Lab and Pilot scale Bioreactors.

SECTION 2

RESEARCH PROJECTS

2. Sponsored Projects and Consultancy

a) Project Sanctioned :

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Adsorption of proteins on various surfaces	Muthu Kumar Sampath	BIT Mesra	22/09/2017	Rs 45000	1 Year

2.	Identification of the most active cocoonase of sericigenous insects through molecular characterization	Dr D. M. Pandey (PI)	DBT, GOI, New Delhi	February 21, 2018	71.23 Lacs (CTR&TI Ranchi Rs. 24.43 Lacs + IISER Pune Rs. 23.87 Lacs; + BIT Mesra Rs. 22.93 Lacs)	3 Years
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b) Ongoing Projects :

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	To Study the Structure and Blood Flow of Chorioretinal Complex in Human Using Optical Coherence Angiography	Dr. Raju Poddar (PI) Dr. Anand Rajendran (Co-PI, Arvind Eye Hospital, Madurai)	Indian council of Medical research (ICMR), ICMR-EMR (5/20/21 (Bio)/2014-NCD-I)	05/04/2017	37.06 lacs	3 yrs (05/04/2017 -04/05/2020)
2.	Towards development of a novel high resolution and high contrast in-vivo imaging technique based on Swept Source Optical Coherence Tomography (SSOCT) and unique Upconversion Nanoparticles (UCNPs)	Dr. Raju Poddar (PI) Dr. Poulomi Sarkar (Co-PI, Dept. of Chemistry, BIT-Mesra)	DST-SERB, Govt. of India, (EMR/2015/001757)	25/03/2017	30.42 lakhs	3 yrs (25/03/2017 – 25/03/2020)
3.	Identification and Molecular Characterization of SNARE Genes in Wheat (<i>Triticum aestivum</i> L.) in Response to Leaf Rust Disease	Dr. Kunal Mukhopadhyay (PI) Dr. Manish Kumar (Co-PI)	DST-SERB	06/02/2017	34.37 Lakhs	06/02/2017 – 05/02/2020
4.	Bioprocess Development for efficient Triclosan Degradation	Dr. Shashwati G. Sachan	CSIR	July 2016	13.68 Lakhs	July 2016- June 2019

c) Projects Completed

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Date of completion of the Project
1.	Biotransformation of eugenol into value-added methoxyphenols	Dr. Shashwati G. Sachan	DST-SERB	Sept 2014	24.34	March 2018

SECTION 3

SEMINAR / CONFERENCE

3. Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members:

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1.	Dr. M K Sampath	Biosimilar Workshop 2017	TEQIP III	ICT MUMBAI	MUMBAI	DEC 11-15, 2017
2.	Dr. V K Nigam	Bioprocess Instrumentation and Control in Bioreactor Design	AICTE-QIP, IIT BHU, Varanasi	School of Biochemical Engg, IIT BHU	School of Biochemical Engg, IIT BHU	Nov, 7-13 2017
3.	Dr. V K Nigam	Industrial Process Simulation	Teqip III, BIT, Mesra Ranchi	Dept. Of Chemical Engg, BIT, Mesra, Ranchi	R&D Building, BIT, Mesra, Ranchi	May, 16-20 2018
4.	Dr. Raju Poddar	Foundation Program in ICT for Education (FDP101x 2018)	TEQUIP -III	IIT, Bombay	BIT-Mesra	08 March to 12 April 2018
5.	Dr. Koel Mukherjee	Chemcon, 2017	BIT Mesra	IICChE in association with the Department of Chemical Engineering and supported by Department of Biotechnology & Food technology	Haldia Institute of Technology, West Bengal	December 27 to 30th 2017
6.	Dr. Soham Chattopadhyay	Summer Training Program on Active Learning	TEQIP	IIT Gandhinagar	IIT Gandhinagar	18-06-2018 to 22-06-2018
7.	Dr. Sheela Chandra	Cyber crime & investigations	TEQIP	Department of Computer Science and Eng.	BIT Mesra, Ranchi	18-22 Dec. 2017

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
8.	Dr. Sheela Chandra	National Seminar On Challenges & Opportunities In Life Sciences.	Central University Of Jharkhand	Centre For Life Sciences School Of Natural Sciences Central University Of Jharkhand	CUJ, Brambe Ranchi	20 April 2018
9.	Dr Shubha R Sharma	National Seminar On Challenges & Opportunities in Life Sciences.	Central University of Jharkhand	Centre For Life Sciences School Of Natural Sciences Central University Of Jharkhand	CUJ, Brambe Ranchi	20 April 2018
10.	Dr Sashwati G Sachan	National Seminar On Challenges & Opportunities n Life Sciences.	Central University of Jharkhand	Centre For Life Sciences School of Natural Sciences Central University of Jharkhand	CUJ, Brambe Ranchi	20 April 2018
11.	Dr Sashwati G Sachan	AICTE approved Foundation Program in ICT for Education	TEQIP III	IIT Bombay	Online course	March 8-April 12, 2018
12.	Dr D. M. Pandey	TEQIP - Summer Training Program on Active Learning Batch -2	TEQIP-BIT MESRA	IIT Gandhinagar	IIT Gandhinagar	June 18-22, 2018
12.	Dr. Anjana Dwivedi	Foundation Program in ICT for Education	MHRD, GOI	IIT BOMBAY	MOOC	August 3, 2017 to September 7, 2017
13.	Dr. Anjana Dwivedi	Cyber Crime and Investigations	TEQIP-III	Dept. Of Computer Science and Engg., BIT, Mesra	Dept. Of Computer Science and Engg., BIT, Mesra	Dec18, 2017 to Dec 22, 2017
14.	Dr. Anjana Dwivedi	ACADEMIC WRITING: Grants, Consultancy and Research Articles	TEQIP-III	BIT, Mesra	LH-I, BIT, Mesra	Dec13-Dec15, 2017
15.	Dr. Ramesh Chandra	Twinning Programme of BIT - ICT	TEQIP III	ICT Mumbai	ICT Mumbai	31/10/2017 - 01/11/2018

SECTION 4

RESEARCH PUBLICATIONS

4. Publications in Journals:

Published in International Journals

1. Muthukumar, S., Muralikrishnan, T., Mendhe R. & Rathore A., (2017) Economic benefits of membrane chromatography versus packed bed column purification of therapeutic proteins expressed in microbial and mammalian hosts. *Journal of Chemical Technology & Biotechnology*, 1 (92), 59.
2. Pandey, A., Nigam, V. K., & Balani, K. (2018). Multi-length scale tribology of hydroxyapatite reinforced with ceria and silver. *Wear*, (404-405), 12.
3. Kumar P., Kumari P., Sachan S.G., Poddar R., (2018) Mutational analysis of phenolic acid decarboxylase from *Enterobacter* sp. Px6-4. towards enhancement of binding affinity: A computational approach, *Computational biology and chemistry* 76, 245.
4. Poddar R. and Werner J. S., (2018). Implementation of three OCT angiography (OCTA) methods with 1.7 MHz A-scan rate OCT system on imaging of human retinal and choroidal vasculature, *Journal Optics and Laser Technology*, 102, 130.
5. Kumar A., Mondal I., Roy P., Poddar R., (2018), TiO₂ nanoparticles as exogeneous contrast agent for 1µm swept source optical coherence tomography: an in-vitro study, *Laser Physics*, 28 (3), 035601.
6. Kumar R., Poddar R., (2018), Imaging of stratified media using high speed swept source optical coherence tomography, *Current Science*, (00113891) 114 (2).
7. Poddar R., Mondal I., , (2018), Imaging of human finger nail-fold with MHz A-scan rate swept source optical coherence tomography, *Laser Physics*, 28 (7), 075601.
8. Poddar R., Migacz J., Schwartz D., Werner J, Gorczyńska I, (2017), Challenges and advantages in wide-field optical coherence tomography angiography imaging of the human retinal and choroidal vasculature at 1.7-MHz A-scan rate, *Journal of Biomedical Optics*, 22(10), 106018.
9. Kumar P., Sachan S.G., Poddar R., (2017), Mutational analysis of microbial hydroxycinnamoyl-CoA hydratase-lyase (HCHL) towards enhancement of binding affinity: A computational approach, *Journal of Molecular Graphics and Modelling* 77, 94.
10. Mondal I., Raj S., Roy P., Poddar R., (2017) Silver nanoparticles (AgNPs) as contrast agent for imaging of animal tissue using swept source optical coherence tomography (SSOCT), *Laser Physics* 28 (1), 015601.
11. Chandra, S., Pathak, J., Kumari, Poddar, R., Mukhopadhyay, K., 2017, SNP discovery from next-generation transcriptome sequencing data and their validation using KASP assay in wheat (*Triticum aestivum* L.), *Molecular Breeding* 37,7.
12. Sarkar B., Verma S.K., Akhtar J., Netam S.P., Gupta S.K., Panda P.K., (2018), Koel Mukherjee. Molecular aspect of Silver nanoparticles regulated embryonic development in Zebrafish (*Danio rerio*) by Oct-4 expression. *Chemosphere*, 206, 560.
13. Singh S., Banerjee M., Kumar M. (2018). Gas Chromatography analysis of different plant parts of *Phlogacanthus thyrsoiflorus* Nees. *Res. J. Biotech.* 13 (3):66.
14. Satapathy L., Kumar D., Kumar M., Mukhopadhyay K. (2018). Functional and DNA-protein binding studies of WRKY transcription factors and their expression analysis in response to biotic and abiotic stress in wheat (*Triticum aestivum* L.). *3 Biotech.* 8(1) 40.
15. Singh S., Sarkar B., Mukhopadhyay K., Banerjee M., Kumar M. (2018) Antioxidants, DNA Damage Protective Properties and Antibacterial Activity of Leaf Extract of *Phlogacanthus thyrsoiflorus* Nees. *Asian Jr. of Microbiol. Biotech. Env. Sc.* 20: S145.
16. Singh D., Kumar D., Satapathy L., Pathak J., Chandra S., Riaz A., Bhaganagre G., Dhariwal R., Kumar M., Prabhu K. V.,

- Balyan H.S., Gupta P. K., Mukhopadhyay K. (2017) Insights of Lr28 mediated wheat leaf rust resistance: Transcriptomic approach. *Gene*. 637:72-89.
17. Dutta S., Kumar D., Jha S. Prabhu K. V., Kumar M. and Mukhopadhyay K. (2017) Identification and molecular characterization of a trans-acting small interfering RNA producing locus regulating leaf rust responsive gene expression in wheat (*Triticum aestivum* L.). *Planta*. 246(5):939.
 18. Chandra S., Singh D., Pathak J., Kumari S., Kumar M., Poddar P., Balyan H. S., Prabhu K.V., Gupta P. K. and Mukhopadhyay K. (2017) SNP discovery from next-generation transcriptome sequencing data and their validation using KASP assay in wheat (*Triticum aestivum* L.). *Mol Breeding*. 37:92-1.
 19. Shukla, R. S. & Aggarwal, Y. (2018) Pseudo-Myocardial Infarction and Ischemic Heart Diseases ECG in Lung Cancer. *Journal of Clinical Engineering*, 43(1), 48.
 20. Shukla, R. S. & Aggarwal, Y. (2018) Nonlinear Heart Rate Variability based artificial intelligence in lung cancer prediction. *Journal of Applied Biomedicine*, 16(2), 145.
 21. Shukla, R. S. & Aggarwal, Y. (2018) Time-domain heart rate variability-based computer-aided prognosis of lung cancer. *Indian Journal of Cancer*, 55, 61-5.
 22. Pandey, J. P., Sinha, A. K., Jena, K., Gupta, V. P., Kundu, P., Pandey, D. M. (2018), Prospective utilization of *Antheraea mylitta* cocoonase and its molecular harmony with nature. *International Journal of Advance Research* 6(6): 1014.
 23. Khan, F. & Chandra, R. (2017) Effect of physiochemical factors on fruiting body formation in mushroom. *Int J Pharm Pharm Sci*. 9(10):33.
 24. Khanam, B. & Chandra, R. (2018). Comparative analysis of prodigiosin isolated from endophyte *Serratia marcescens*. *Lett Appl Microbiol*. 66(3):194.

Published in National Journals

1. Kumar, S., & Nigam, V. K. (2017), Production and characterization of alkaline protease from *Halobacillus dabanensis*. *Indian Journal of Biotechnology*, 16 (04), 601.
2. Choudhary R., Padmanabhan P., and Mukherjee K., 2018, Study and Evaluation of Pathway Process of Polyol Producing Microorganisms And Their Enzymes through In Silico Approaches. *RJPBCS* 9(3) 365.
3. Shukla, R.S. & Aggarwal, Y. (2017). Heart Rate Variability Time-domain Analysis in Pulmonary Metastasis to assess performance status. *Indian Journal of Science and Research*, 14(2), 540.
4. Shukla, R.S. & Aggarwal, Y. (2017). Spectral Analysis to Evaluate the Effect of Treatment on Autonomic Nervous System in Pulmonary Metastasis. *International Journal of Engineering Technology Science and Research*, 4(6), 501.

5. Publications in Proceedings:

Published in International Proceedings

1. Gorczynska I., Migacz J.V., Jonnal R., Zawadzki R.J., Poddar R., Werner J.S., Imaging of the human choroid with a 1.7 MHz A-scan rate FDML swept source OCT system, *SPIE BIOS, Ophthalmic Technologies XXVII* 10045, 1004510, 2017.
2. Ram M. K., Mukherjee K. and Pandey D. M., Identification of Groundnut miRNA and their targets, *Canadian Journal of Biotechnology*, Volume 1, Special Issue, Page 194.
3. Singh, A., Mukhopadhyay, K. and Ghosh Sachan, S. Isolation and screening of microorganisms capable of eugenol biotransformation to other valuable compounds. In *Proceedings of the 58th Annual Conference of Association of Microbiologist in India on Microbes for Sustainable Development: Scope and Applications*, Babasaheb Bhimrao Ambedkar University, Lucknow, 2017.
4. Singh, A., Mukhopadhyay, K. and Ghosh Sachan, S. Biotransformation of eugenol to vanillin by *Bacillus safensis* SMS 1003.

In Proceedings of the National Seminar on Challenges and Opportunities in Life Sciences, Centre for Life Sciences, Central University of Jharkhand, Ranchi, 2018.

Published in National Proceedings

1. Singh, A., Mukhopadhyay, K. and Ghosh Sachan, S. Isolation and screening of microorganisms capable of eugenol biotransformation to other valuable compounds. In Proceedings of the 58th Annual Conference of Association of Microbiologist in India on Microbes for Sustainable Development: Scope and Applications, Babasaheb Bhimrao Ambedkar University, Lucknow, 2017.
2. Singh, A., Mukhopadhyay, K. and Ghosh Sachan, S. Biotransformation of eugenol to vanillin by *Bacillus safensis* SMS 1003. In Proceedings of the National Seminar on Challenges and Opportunities in Life Sciences, Centre for Life Sciences, Central University of Jharkhand, Ranchi, 2018.

6. Books:

Edited Books

1. K Mukhopadhyay, A Sachan, M Kumar (2017). Applications of Biotechnology for Sustainable Development. Eds: Springer Nature Singapore Pte Ltd. ISBN 978-981-10-5537-9

Chapter(s) in Edited Book

1. Ekta, Shubham Choudhury, Priyam Rout, Santosh Kumar, Pravin Kumar, Raju Poddar , Applications of Biotechnology for Sustainable Development, Pages 203-209, 2017/10/6.
2. Jain A, Yadav S, Nigam VK, Sharma SR. (2017), Fungal-Mediated Solid Waste Management: A Review. In: Mycoremediation and Environmental Sustainability. Springer International Publishing, (pp.153–70). Springer Nature, Singapore Pte Ltd, Singapore.
3. Kumar G., Prajapati G.K., Mishra A.N., Pandey D. M. (2018) Recent

Biotechnological Approaches to Produce Climate-Ready Crops and Enhancing Crop Productivity. In: Senger R.S., Singh A. (Eds) Eco-friendly Agro-Biological Techniques for Enhancing Crop Productivity. (pp. 24-46). Springer Nature Singapore Pte Ltd., Singapore. Yadav,

4. A. N., Verma, P ., Ghosh Sachan, S ., Kaushik, K. & Saxena A.K. (2018). Psychrotrophic Microbiome: Molecular Diversity and Beneficial Role in Plant Growth Promotion and Soil Health. In: D. G. Panpatte, Y. K. Jhala, H. N. Shelat, & R. V. Vyas (eds), Microorganisms for Green Revolution (pp. 197-240). Springer Singapore, Singapore.
5. Panjiar, N., Ghosh Sachan, S. & Sachan, A. (2017). Biosurfactants: A Multifunctional Microbial Metabolite. In: V.C. Kalia (ed.), Microbial Applications Vol.2 (pp. 213-229). Springer International Publishing.
6. Mishra, S., Panjiar, N., Sachan, A., Vidyarthi, A. S. & Ghosh Sachan, S. (2017). Ferulic Acid Decarboxylase from *Bacillus cereus* SAS-3006: Purification and Properties. In: K. Mukhopadhyay et al. (eds.), Applications of Biotechnology for Sustainable Development (pp. 169-179). SpringerNature.
7. Panjiar, N., Ghosh Sachan, S. & Sachan, A. (2017). Biosurfactant production by *Pseudomonas fluorescens* NCIM 2100 forming Stable Oil-in-Water Emulsions. In: K. Mukhopadhyay et al. (eds.), Applications of Biotechnology for Sustainable Development (pp. 97-107). SpringerNature.
8. Bushra Khanam and Ramesh Chandra. (2017) Optimization of Surface Sterilization Process of Selected Dye-Yielding Plants for Isolation of Bacterial Endophytes. In K Mukhopadhyay, Manish Kumar & Ashish Sachan (eds), Applications of Biotechnology for Sustainable Development (pp:45-50). ISBN 978-981-10-5537-9 Springer Nature, Singapore.

SECTION 5**AWARD / PATENT / COLLABORATIONS****7. Award / Recognition Bestowed on Faculties**

Sr. No.	Name of the Faculty Member	Title of the Award / Honour	Organisation	State / National / International Level	Year / Duration
1.	Muthu Kumar Sampath	Young scientist award	VIRA	State	2017

8. MoUs / Collaborations

Sr. 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

SECTION 6**ACTIVITIES / / DAC/ BOS****9. Student Activities**

Sr. No.	Name of the Activity	Students' Co-ordinator	Faculty Co-ordinator	Date / Duration
1.	Resilience'18 – the amalgamation of ardour	Riya Debbarma	Dr. D. M Pandey	7.04.18

10. Board of Studies

Sr. No.	Name of the Member	Designation	Role
1.	Dr. Ramesh Chandra	Professor & Head	Chairman (Ex-Officio)
2.	Dr. T. R. Sharma	Director, ICAR, Garhkhatanga, Ranchi	External Expert
3.	Dr. Sudipta Goswami	Professor & Head, Chemical Engineering	External Member
4.	Dr. S. Samanta	Professor & Head, Pharm. Sc. & Technology	External Member
5.	Dr. Kunal Mukhopadhyay	Professor, Bio-Engineering	Member
6.	Dr. Rakesh Kumar Sinha	Professor, Bio-Engineering	Member
7.	Dr. Padmini Padmanabhan	Professor, Bio-Engineering	Member
8.	Dr. Vinod Kumar Nigam	Associate Professor, Bio-Engineering	Member
9.	Dr. Raju Poddar	Assistant Professor, Bio-Engineering	Member

11. Departmental Academic Committee


Sr. No.	Name of the Member	Designation	Role
1	Dr. Ramesh Chandra	Professor & Head	Chairman (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. D. M. Pandey	Asso. Prof., Bio-Engineering	Member
7	Dr. Surendra Kumar	Asst. Prof., Bio-Engineering	Member
8	Dr. Santosh Kumar Jha	Asst. Prof., Bio-Engineering	Member
9	Dr. R. N. Gupta	Prof., Pharmaceutical Sciences & Technology	External Member
10	Dr. Gautam Sarkhel	Prof., Chemical Engineering	External Member
11	Guide(s) of the Candidate	-	Member

SECTION 7**OTHER INFORMATION****12. Publication by students**

- Choudhary R., Padmanabhan P., and Mukherjee K., 2018, Study and Evaluation of Pathway Process of Polyol Producing Microorganisms And Their Enzymes through In Silico Approaches. RJPBCS 9(3) 365-378.
- Shrivastava, S., Singh, A., Kumari, R., Akansha, K. and Ghosh Sachan, S. Microbial decolorization of azo dyes (Reactive Black and Direct Blue). In the Proceedings of the National seminar on challenges and opportunities in life sciences. Centre for Life Sciences, Central University of Jharkhand, 2018.
- Singh, A. K., Misra, M., Singh, A. and Ghosh Sachan, S. Optimization of selected culture conditions for decolorization of methyl orange dye by *Pseudomonas denitrificans*, In the Proceedings of the National seminar on challenges and opportunities in life sciences. Centre for Life Sciences, Central University of Jharkhand, 2018.

13. Distinguished Visitors

Sr. No	Name of Visitor with Affiliation	Date of Visit	
1.	Dr. Prasun Kumar Research Professor, Department of Chemical Engineering, Chungbuk National University, Cheongju, South Korea	13.03.2018	
2.	UGC and AICTE Visit	25.09.2017 & 26.09.2017	



Department of Chemical Engineering

SECTION 1

PROFILE



1. About the Department:

The Department of “Chemical Engineering” with well qualified faculty provides high standard of education in the diversified fields of Chemical Engineering. The Department has immense strength in the area of Chemical and Polymer Engineering. The Department received national recognition by winning the Gold Trophy for Plasticon Award 2012 in the category of Best Educational Institution Contributing to Plastics. The Plasticon Award was conferred on 1st February 2012, at 8th International Plastics Exhibition and conference. The programme was supported by Ministry of Chemicals and Fertilizers, Department of Chemicals and Petrochemicals, Government of India.

Faculty members are working on sponsored projects and collaborative research with various organizations. The Department is also recognized under DST-FIST.

The Department has modern and sophisticated laboratories and workshop facilities such as Chemical Engineering Unit Operation laboratory, Chemical Reaction Engineering Laboratory, Process Control Laboratory, Synthesis Laboratory, Energy Engineering Laboratory, Polymer Characterization Laboratory etc.

The Department has excellent facilities in Polymer Processing Workshop and Product Development Laboratory. The various materials Characterization facilities include Instron Universal Testing Machine, ATLAS accelerated weathering testing system,

HAAKE Rheometers. The students are trained in various CAE applications in the field of product and process design with various software such as ASPEN PLUS, Accelrys, MATLAB, PROENGINEER, ANSYS, CATIA, FLUENT, POLYFLOW, and MOLDFLOW.

There are several Projects sponsored by DRDL, DST, Ministry of New and Renewable Energy, Coir Board etc. to the credit of the Department. Major research areas are: Nanotechnology, Advanced Polymer Composites, Alternative Energy, Bioresources Utilization, 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.

Doctoral Programmes:

- Doctoral Programme in the fields of Chemical Engineering, Polymer Science and Engineering, Food Processing Technology etc.

The Department of Chemical Engineering offers Undergraduate four-year Programmes, and Postgraduate Programmes as well as Doctoral Programmes. The department also runs one five-year Integrated M.Sc. Food Technology Programme.

UG Programmes:

- BE (Chemical Engineering)
- BE (Chemical Engineering (Plastics and Polymer))

PG Programme:

- M.E. (Chemical Engineering)
- Integrated M.Sc. Food Technology (10 Semesters)

SECTION 2

RESEARCH PROJECTS

2. Sponsored Projects and Consultancy

a) Project Sanctioned:

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Development of One-Shot Integrated Thick Sectioned Composite Parts using Semi-Cured Composite Laminates	Dr. Raghu Raja Pandiyan K	DST-SERB	07.08.2017	Rs. 27.84 Lakhs	Three Years

b) Ongoing Projects:

Sr. No.	Project Title	PI / Co PI / Collaborator,	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1	Development of Organophosphorus flame retardant for Epoxy and Vinyl ester Resin	PI- Dr. Akhil Sen	NRB, DRDO	28.11.2014	Rs. 24.95 Lakhs	Four Years
2.	Development of advanced polybenzimidazole based nanocomposite materials for potential defense applications	PI- Dr. Arup Choudhury Co-PI Dr. Gautam Sarkhel	DRDO	24.02.15	Rs 23.71 Lakhs	Three Years

Sr. No.	Project Title	PI / Co PI / Collaborator,	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
3.	Development of Electronic Nose for detection of biomarker vapor blends using conductive polymer nanocomposite sensors	PI- Dr. G. T. Mohanraj	DST-SERB	30.06.2017	Rs. 39.64 Lakhs	Four Years

SECTION 3**SEMINAR / CONFERENCE****3. Seminar / Conferences / Short – Term Courses Conducted by the Department:**

Sr. No.	Title of Seminar/ Conference/ Short Term Courses/ Workshop	Coordinator	Funding/ Sponsoring Agency	Date of Event
1.	One-week Workshop on Industrial Process Simulation	Dr. Raghu Raja Pandiyan & Dr. Arnab Karmakar	TEQIP III	16 – 20th May 2018

4. Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members:

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1	Dr G Sarkhel Dr A K Sen Dr Arup Choudhury Dr P Dutta Dr A Roy, Dr C Dass Dr A Karmakar Dr B Ruidas Dr D Pandey Dr. A. K. Tiwari	Active Learning	TEQIP	IIT Gandhinagar	IIT Gandhinagar	18 th -22 nd June 2018
2.	Dr. Arnab Karmakar	CHEMCON-2017	TEQIP III	IICHe	Haldia Institute of Tech, India.	December 27-30, 2017
3.	Dr. Arnab Karmakar	ESMOC-2017	TEQIP III	NIT Durgapur, India	NIT Durgapur, India.	December 11-13, 2017
4.	Dr. Sumit Kumar Jana	CHEMCON-2017	TEQIP III	IICHe& Haldia Institute of Technology	Haldia Institute of Technology, India.	December 27-30, 2017
5.	Dr. Arnab Karmakar	CHEMCON-2017	TEQIP III	IICHe& Haldia Institute of Technology	Haldia Institute of Technology, India.	December 27-30, 2017

SECTION 4**RESEARCH PUBLICATIONS****5. Publications in Journals:****Published in International Journals:**

1. Choudhury, A., Dey, B., Mahapatra, S. S., Kim, D. W., Yang, K. S., & Yang, D. J. (2018). Flexible and freestanding supercapacitor based on nanostructured poly (m-aminophenol)/carbon nanofiber hybrid mats with high energy and power densities. *Nanotechnology*, 29(16), 165401.
2. Jadhav, A., Mohanraj, G. T., Gokarn, A., & Mayadevi, S. (2018). Synthesis of biomass waste derived activated carbon-NBR composites for automobile application. *Chemistry & Chemical Technology*, 12(2), 236-243.
3. Shree, V., & Sen, A. K. (2018). Study of thermal and flame behavior of phosphorus-based silica for epoxy composites. *Journal of Sol-Gel Science and Technology*, 85(2), 269-279.
4. Magar, S., Kamble, S., Mohanraj, G. T., Jana, S. K., & Rode, C. (2017). Solid-Acid-Catalyzed Etherification of Glycerol to Potential Fuel Additives. *Energy & Fuels*, 31(11), 12272-12277.
5. Goswami, S., Bal, T., Dutta, D., Swain, S. (2017). Fabrication and Evaluation of Physically crosslinked stimuli Responsive Polymeric Blend of PVA-Gelatin as Drug

Delivery System by Freeze Thaw Cycles. *Iranian Journal of Pharmaceutical Sciences*, ID:IJPS-1709-1360(R3), , Accepted in November 2017

6. Kuppusamy, R. R. P., & Neogi, S. (2017). Simulation of Air Entrapment and Resin Curing During Manufacturing of Composite Cab Front by Resin Transfer Moulding Process. *Archives of Metallurgy and Materials*, 62(3), 1839-1844.
7. Ranjan, J. K., Kuppusamy, R. R. P., & Goswami, S. (2017). Studies on Viscoelastic, Thermal and Morphological Properties of Vinyl Ester-Mixed Diluents System. *Archives of Metallurgy and Materials*, 62(3), 1845-1850.
8. Jana, S. K., & Das, S. K. (2017). Tapered bubble column using pseudoplastic non-newtonian liquids—empirical correlation for pressure drop. *Chemistry & Chemical Technology*, 3 (11), 2017, 11(3), 327-332.

6. Books:**Chapter(s) in Edited Book:**

1. Jayapalan, S. (2018). A Review of Chemical Treatments on Natural Fibers-Based Hybrid Composites for Engineering Applications. In. K. Kumar & J. P. Davim (Eds.), *Composites and Advanced Materials for Industrial Applications* (pp. 16-37). IGI Global.

SECTION 5**ACTIVITIES/ DAC/ BOS****7. Student Activities:**

Sr. No.	Name of the Activity	Students' Co-ordinator	Faculty Co-ordinator	Date / Duration
1.	COALESCENCE 2018, National Students Technical Events organized by IICHe, BIT Mesra Students Chapter	BIT Mesra Students Chapter	Coordinator -IICHe	6 th – 8 th April, 2018

8. Board of Studies:

Sr. No.	Name of the Member	Designation	Role
1.	Dr. S. Goswami	HOD/In-Charge	Chairman (Ex-Officio)

2.	Dr. M. Mukherjee	Professor	Member
3.	Dr. Gautam Sarkhel	Professor	Member
4.	Dr. S. Goswami	Professor	Member
5.	Dr. G.T. Mohanraj	Assistant Professor	Member
6.	Dr. Bidhan C. Ruidas	Assistant Professor	Member
7.	Dr. A.K. Sinha, Dept. of Civil Engg., BIT Mesra	Professor	External Member
8.	Dr.D.P. Mishra, Dept. of Mech.Engg., BIT Mesra	Professor	External Member
9.	One student representative of UG programme	Student	Member
10.	One Student representative of PG programme	Student	Member
11.	Dr.Pallab Ghosh Dept. of Chemical Engineering, IIT, Guwahati	Professor	External Member
12.	Dr. Siddhartha Datta Dept. of Chemical Engineering, Jadavpur University	Professor	External Member
13.	Dr.Pinakpani Biswas Environment Research Group, Tata Steel Ltd.,Jamshedpur	Principal Scientist	External Member
14.	Dr. H.N. Mishra Department of Food and Agr. Engineering, IIT Kharagpur	Professor	External Member
15.	Prof. Priyabrata Sarkar Department of Poly Sci &Tech, University of Calcutta	Professor	External Member
16.	Dr.Suddhasatwa Basu Chemical Engineering, IIT Delhi	Professor	External Member

9. Departmental Academic Committee:

Sr. No.	Name of the Member	Designation	Role
1.	Dr. S. Goswami	HOD/In-Charge	Chairman (Ex-Officio)
2.	Dr. M. Mukherjee	Professor	Member
3.	Dr. Gautam Sarkhel	Professor	Member

4.	Dr. (Mrs.) S. Goswami	Professor	Member
5.	Dr. Akhil Kumar Sen	Associate Professor	Member
6.	Dr. Dharmendra Pandey	Assistant Professor	Member
7.	Dr. Chandan Das	Assistant Professor	Member
8.	Dr. Pulak Datta	Assistant Professor	Member
9.	Dr. Dipti Prasad Mishra, Dept. of Mech. Engg. BIT Mesra	Professor	External Member
10.	Dr. Sudip Das, Department of Space Engg. & Rocketry BIT Mesra	Professor	External Member

SECTION 6**OTHER INFORMATION****10. Publication by students**

1. Vibha Shree, Nitish Kumar, Gyan Vardhan and A. K. Sen, "Preparation of phosphorous containing fire retardant silica for vinyl ester resin", in International conference on Advancements in Polymeric Materials, APM-2018, held at CIPET- Bhubaneswar, from 2nd to 4th February 2018.

11. Achievements of Students:

Sr. No	Name of Student	Achievement/Position/ Award etc	Organised by	Date and Venue
1.	Niharika Singh and Kayenat Farheen	First Prize Mind over Matter Season 4	TATA Steel	August, 2017
2.	Sankalp Sachdev and Kislay Jha	Third Prize Mind over Matter Season 4	TATA Steel	August, 2017
3.	Ms. Kousumi Mukherjee, Ms Samiksha Gupta and Mr. Roshan Kumar	First prize in VORTEX Senior Industrial Design Problem event	Institute of Chemical Technology (ICT), Mumbai	October, 2017

12. Other Information

1. 24 Students along with two teachers attended Petrochemical Investor Conclave, Organized by IOCL and Ministry of Petroleum and Natural Gas Govt. of India, Bhubaneswar, 16th November, 2017.
2. Niharika Singh, Megrandra Narayan along with other members of Team Srijan secured first position in the event of Business Plan presentation of Formula Bharat 2018, Coimbatore, Tamilnadu
3. BE final year students visited Central Mine and Fuel Research Institute and Project and Development Industry Limited, Dhanbad on 7th November 2017.
4. Food Technology Students visited Mother Dairy Fruit & Vegetable Pvt.Ltd. and Ashirwad Developers ITC, on 13.10.2017.
5. Prof Siddhartha Dutta, Professor and Ex Pro-VC Jadavpur University and Prof Priyabrata Sarkar, Kolkata University visited the department to attend BOS meeting for new

UG curriculum.

6. Prof. S S Bag, IIT Guwahati visited the department as Examiners of PhD Viva-Voce.
7. Prof D. Chakraborty, Calcutta University visited the department as External Examiner during BE project presentation.
8. Dr T K Das, Ex GM (SAIL R&D) visited the department as External Examiner during BE project presentation.
9. Prof S Das, Calcutta University visited the department to give an invited talk in the COALESCENCE programme organised by Annual Student Technical Fest of IChE BIT Mesra Chapter.
10. Prof K. Naskar IIT Kharagpur visited the department as Examiners of PhD Viva-Voce.



Department of Chemistry

SECTION 1

PROFILE



1. About the Department:

From the time of its inception the department of Chemistry is pursuing an important role of nurturing the young brains in academics through teaching and research by a pool of qualified and dedicated faculty members. The department now offers the 2 Yrs. MSc. in Chemistry, 5 Yrs. Integrated MSc. in Chemistry and PhD. in Chemistry programme along with its support for the Chemistry course for the B. Tech Programme in all disciplines of engineering. The department has state of the art laboratories which conduct research in various topics in Chemistry e.g., Organic Synthesis, Coordination Chemistry, Electrochemistry, Medicinal

Chemistry, Water Chemistry, Environmental Chemistry, Nano Chemistry, Material Chemistry and Renewable Energy. The department is well equipped with advance instruments e.g., UV-Vis-NIR spectrophotometer, Spectrofluorometer, Polarimeter, Electrochemical Workstation, Solar Simulator, Cryogenic reaction chamber etc. The department always has numbers of research projects from major funding agencies e.g., DST, CSIR, UGC, DBT, BRNS etc, which have been successfully completed by the faculty members of the department. Research collaborations with foreign Universities have also been accomplished or persued by the faculty members.

SECTION 2

RESEARCH PROJECTS

2. Sponsored Projects and Consultancy

a) Project Sanctioned :

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Development of compounds that selectively destroy HIV-1-infected cells	Dr. A. Sharon (PI) Dr. C. Bal (Co-PI)	Kagoshima University, Japan	May 26, 2018	3.70 Lacs	1 Year
2.	Synthesis and development of novel HSP90 inhibitors as potential anti-HIV candidate molecules and elucidation of their mechanism of inhibition	Dr. A. Sharon (PI)	DST-SERB	May 08, 2018	25.7 Lacs	3 Years

b) Ongoing Projects:

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount (Lacs)	Duration of the Project
1.	Influence of functionalized nanomaterial on electrochemical bio-sensing of biotin-avidin couple	Dr. Pradip KAR (PI)	DST Nano-mission	09.06.2016	40.78	3 years
2.	Development of highly porous nano structure metal/ mixed metal oxide spheres for removal of arsenic"	Dr. S.Swain/Dr. Usha Jha	Board of Research in Nuclear Sciences (BRNS)	15.04 2016,	30.02	3 years
3.	One-dimensional Nanostructured Si-based Electrodes for High-Performance Energy Storage Devices"	Dr. S.S. Mahapatra (PI)	Board of Research in Nuclear Sciences (BRNS)	17/11/2016	30.02	3 yrs

c) Projects Completed:

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount (Lacs)	Date of completion of the Project
1.	Development of polymer - ceramic nanocomposites with high dielectric constant	Dr. Barnali Dasgupta Ghosh	SERB	30/06/2014	22.90	14/09/17
2.	Microwave based synthesis of Poly-2-hydroxyethyl methacrylate / Cinnamic acid grafted guar and its applications	Dr Sumit Mishra	AICTE	16/03/2015	14.11	15/03/2018

SECTION 3**SEMINAR / CONFERENCE****3. Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members:**

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1.	Dr. Barnali Dasgupta Ghosh	Orientation Programme	--	UGC	UGC-Human resource development centre, Ranchi University , Ranchi	4/7/17-31/7/17
2.	Dr. G. K. Agarwal	AICTE-QIP Short Term Course on Novel Technologies for Food Product Manufacturing and Shelf Life Extension at IIT Kharagpur	All India Council for Technical Education	Indian Institute of Technology, Kharagpur	Indian Institute of Technology, Kharagpur	4/12/17-8/12/17

SECTION 4**RESEARCH PUBLICATIONS****4. Publications in Journals****Published in International Journals:**

- Shalu, S., Kar, P., Krupka, J. & Ghosh, B. D. (2018). Synthesis, characterization, dynamic mechanical and dielectric studies of Ba_{0.7}Sr_{0.3}TiO₃/ polystyrene composites. *Polymer Composites*, 39, E1714.
- Raj, S., Dong, Y., Kar, P., Mai, L., Jin, S. & Roy, P. (2018). Hybrid NiCo₂O₄-NiCo₂S₄ nanoflakes as high performance anode materials for Li-ion batteries. *Chemistry Select*, 3(8), 2315.
- Bhuyan, M., Samanta, S. & Kar, P. (2018) Selective sensing of methanol by poly(m-aminophenol)/copper nanocomposite. *Electronic Materials Letter*, 14, 161..
- Raj, S., Kumar, S., Srivastava, S. K., Kar, P. & Roy, P. (2018) Deposition of tin oxide thin films by successive ionic layer adsorption reaction method and its characterization. *Journal of Nanoscience and Nanotechnology*, 18, 2569.
- Verma, S. K., Choudhury, A. & Kar, P. (2017). Selective sensing of ethanol poly(m-aminophenol)/amine groups functionalized multi-walled carbon nanotube composite. *Sensor Letters*, 15, 448.
- Verma, S. K., Choudhury, A. & Kar, P. (2017). Synthesis, characteristics and aliphatic alcohol sensing behavior of poly(m-aminophenol)/sulfonic acid functionalized multi-walled carbon nanotube composite. *Chemistry Select*, 2, 3917.
- Kumari, B Dasgupta Ghosh, (2017). Enhancement of dielectric properties of nanocomposite thin films prepared from polyimide and nickel doped barium titanate ceramic, *Journal of Indian Chemical Society*, 95, 129.
- Kumari, A. & Dasgupta Ghosh B., (2017). Preparation and dielectric properties of polyimide/Ba_{0.7}Sr_{0.3}TiO₃ nanocomposite film, *Materials Today: Proceedings* 4, 10479.
- Thombare, N., Jha, U., Mishra, S & Siddiqui, M. Z. (2017). Borax cross-linked guar gum hydrogels as potential adsorbents for water purification. *Carbohydrate Polymers*. 168, 274.

10. Thombare, N., Mishra, .S, Siddiqui, M.Z., Jha U., Singh D. & Mahajan G.R. (2018) Design and development of guar gum based novel, superabsorbent and moisture retaining hydrogels for agricultural applications. *Carbohydrate Polymers*. 185, 169.
11. Dhar, J., Sil, S.; Hoque, N. A.; Dey, A.; Das, S.; Ray, P. P.; & Sanyal, D. (2018). Lattice Defect Induced Piezo Response in Methylammonium Lead Iodide Perovskite Based Nanogenerator. *Chemistry Select*, 3(19), 5304.
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22. Pal, P., Pandey, J.P., & Sen, G. (2017). Synthesis, Charecterization and flocculation studies of a novel graft copolymer towards destabilization of carbon nano-tubes from effluent. *Polymer*, 112, 159.
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5. Books:

Chapter(s) in Edited Book:

1. Kumari, A., Shalu, S., Dasgupta Ghosh, B., (2018). Barium Strontium Titanate: Preparation, Dielectric, Ferroelectric and Microscopic Studies, In: Microscopy applied to materials sciences and life sciences, Apple academic press., Chapter 3, April 2018
2. Mishra, S., Thombare, N., Ali, M. & Swami, S. (2018) V. K. Thakur et al. (eds.), Polymer

Gels, Gels Horizons: From Science to Smart Materials, Chapter 8: Applications of Biopolymeric Gels in Agricultural Sector, pp 185-228 Springer Nature Singapore Ltd.

3. Pal, P., Pandey, J.P., & Sen, G. (2017). Synthesis and application as programmable water soluble adhesive of polyacrylamide grafted gum tragacanth (GT-g-PAM). In V. K. Thakur (Eds.), Biopolymer Grafting: Application (pp. 153-203). Amsterdam, Netherlands.
4. Rani, P., Pal, P., Mishra, S., Pandey, J.P., & Sen, G. (2017). Grafted Cinnamic Acid: A Novel Material for Sugarcane Juice Clarification. In C.O. Mohan, E.C. Millan & C.N. Ravishankar (Eds.), Research methodology in food sciences integrated theory and practice (pp. 267-292), Apple Academic Press, USA.

SECTION 5

AWARD/ PATENT/ COLLABORATIONS

6. MoUs / Collaborations :

Sr. No.	Name of Organisation / University	Purpose / Area	Year / Duration
1.	Institute of Molecular and Cell Biology, Biomedical Sciences Institutes, Singapore	Medicinal Chemistry & Drug Discovery	2018-Continue

SECTION 6

ACTIVITIES/ / DAC/ BOS

7. Board of Studies

Sr. No.	Name of the Member	Designation	Role
1.	Dr. P. K. Srivastava	Professor & Head	Chairman (Ex-Officio)
2.	Dr. Usha Jha	Professor	Member
3.	Dr. J. P. Pandey	Professor	Member
4.	Dr. B. Verma	Associate Professor	Invited Member
5.	Dr. A. Sharon	Associate Professor	Member
6.	Dr. S. Naskar	Assistant Professor	Member
7.	Dr. Mohan Verma	Professor	Invited Member

Sr. No.	Name of the Member	Designation	Role
8	Dr. R.N. Gupta	Professor	Invited Member
9	Dr. D. Tiwary	Professor	External Member
10	Dr. R.K. Dey	Professor	External Member

8. Departmental Academic Committee:

Sr. No.	Name of the Member	Designation	Role
1.	Dr. P. K. Srivastava	Professor & Head	Chairman (Ex-Officio)
2.	Dr. Usha Jha	Professor	Member
3	Dr. J. P. Pandey	Professor	Member
4	Dr. B. Verma	Associate Professor	Member
5	Dr. A. Sharon	Associate Professor	Member
6	Dr. S.S. Mahapatra	Assistant Professor	Member
7	Dr. S. Mishra	Assistant Professor	Member
8	Dr. S. Naskar	Assistant Professor	Member
9	Dr. P. Kar	Assistant Professor	Member
10	Dr. G. Agarwal	Assistant Professor	Member
11	Dr. R. N. Gupta	Professor	Member
12	Dr. R. P. Sharma	Professor	Invited Member

SECTION 7


OTHER INFORMATION

9. Achievements of Students

Sr. No	Name of Student	Achievement/Position/Award etc	Organised by	Date and Venue
1.	Nandkishore Thombare	IPNI Scholar Award- 2017 which includes certificate of honor and cash prize US \$ 2000 (≈INR 1,20,000/-) for the part of the PhD research on 'Novel, super absorbent bio-hydrogels for controlled nutrient release and soil moisture retention'.	International Plant Nutrient Institute, USA	2017,BAU Ranchi

Sr. No	Name of Student	Achievement/Position/Award etc	Organised by	Date and Venue
2.	Nandkishore Thombare	Received ' Best Oral Presentation Award ' for presentation of paper entitled 'Guar gum based moisture retaining hydrogels for water stress management in agriculture'.	3rd International Conference on Bioresource and Stress Management organised by the Society for Bio-resource and Stress Management	8-11th Nov. 2017 at Jaipur, Rajasthan, India.

10. Distinguished Visitors

Sr. No	Name of Visitor with Affiliation	Date of Visit	
1.	Dr. Sufal Swaraj, Synchrotron SOLEIL, France	18/08/18	



Department of Civil and Environmental Engineering

SECTION 1

PROFILE



1. About the Department

The Department of Civil Engineering was established in 1957. It was renamed as Department of Civil and Environmental Engineering in 2014. The Department has well established laboratory facilities on:

1. Concrete and Road Materials
2. Geology
3. Hydraulics
4. Soil Mechanics
5. Structural Engineering
6. Surveying Laboratory
7. Computer Laboratory
8. Environmental Engineering

The faculty members are well qualified and are having qualifications from reputed Institutes. Faculty members also possess work experience from reputed organizations from outside India. They are actively involved in research and consultancy. The department had contributed a lot in the infrastructural and industrial growth of Jharkhand by providing technical expertise and consultancy of worth two crores INR. Students from the Department have pursued internship from universities of International repute such as the Illinois Institute of Technology, Chicago.

The Department has facilities for:

1. Field-testing in Geotechnical Engineering
2. Transportation Engineering
3. Non-Destructive Testing Equipment for Structural Engineering.

The department offers the following programs:

Sr. No.	Program	Year of Starting	Intake	NBA Accreditation
1	B.E. (Civil Engineering)	1957	60	2002, 2009, 2016
2	M.E. (Structural Engineering)	1967	12	2009, 2016
3	M.E. (Soil Mechanics and Foundation Engineering)	1967	12	2002, 2009, 2018
4	M. Tech. (Environmental Science and Engineering)	2002	18	2016

SECTION 2**RESEARCH PROJECTS****2. Sponsored Projects (Research and Consultancy)****a) Project Sanctioned:**

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Mobility, Bio-accessibility and Source Apportionment Study of Toxic Heavy Metals in Indoor and Outdoor Dust Environment: An Isotope Fingerprinting Approach'	Dr. Tanushree Bhattacharya	Science and Engineering Research Board	July 2017	Rs. 41.907 Lakhs	3 years
2.	Slope stability study of Navin Kunada	Dr. Indrajit Roy (PI), Dr. Anand Kumar Sinha (Co-PI), Dr. Bindhu Lal (Co-PI), Dr. Sudeshna Chakravarty (Co-PI), Dr. Siddhartha Sengupta (Co-PI), Dr. Virendra Singh Rathore (Co-PI)	Western Coalfield Limited (WCL)	Dec, 2017	Rs. 4.20 Lakhs	3 months
3.	Slope stability study of Ballarpur	Dr. Indrajit Roy (PI), Dr. Anand Kumar Sinha (Co-PI), Dr. Bindhu Lal (Co-PI), Dr. Sudeshna Chakravarty (Co-PI), Dr. Siddhartha Sengupta (Co-PI)	Western Coalfield Limited (WCL)	Dec, 2017	Rs. 3.50 Lakhs	3 months

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
4.	Slope stability study of Kolarpimpri	Dr. Indrajit Roy (PI), Dr. Anand Kumar Sinha (Co-PI), Dr. Bindhu Lal (Co-PI), Dr. Sudeshna Chakravarty (Co-PI), Dr. Siddhartha Sengupta (Co-PI)	Western Coalfield Limited (WCL)	Dec, 2017	Rs. 3.50 Lakhs	3 months
5	Top Soil study for recovery and restoration of Open cast Mines at PARSA and KantaBasan mines, Chattisgarh	Dr. Kirti Avishek	Adani Enterprises	Dec, 2017	Rs. 5.68 Lakhs	4 months
6.	Slope stability study of Makardhokra - III	Dr. Indrajit Roy (PI), Dr. Anand Kumar Sinha (Co-PI), Dr. Bindhu Lal (Co-PI), Dr. Sudeshna Chakravarty (Co-PI), Dr. Siddhartha Sengupta (Co-PI)	Western Coalfield Limited (WCL)	Jan, 2018	Rs. 3.50 Lakhs	3 months
7.	Slope stability study of Rajmahal	Dr. Indrajit Roy (PI), Dr. Anand Kumar Sinha (Co-PI), Dr. Bindhu Lal (Co-PI), Dr. Sudeshna Chakravarty (Co-PI), Dr. Siddhartha Sengupta (Co-PI)	Eastern Coalfield Limited (ECL)	Feb, 2018	Rs. 3.50 Lakhs	3 months

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
8.	Technical assessment and estimates for renovation, reconstruction of 50 school toilets & handwash units across khunti, Hazaribagh and Deoghar districts of Jharkhand.	Dr. Kirti Avishek	CINI-Tata trust, Tatanagar	March, 2018	Rs. 3.54 Lakhs	2 months
9.	Development of Guidelines for design of all tiers of shovel dumper dump above dragline dump with delineation of phreatic surface within dragline dump, throughout the year and validation study of two dragline mines of Coal India Limited.	Dr. Indrajit Roy (PI), Dr. Anand Kumar Sinha (Co-PI), Dr. Bindhu Lal (Co-PI), Dr. Sudeshna Chakravarty (Co-PI)	Ministry of Coal, Government of India	April, 2018	Rs. 75.30 Lakhs	3 Years
10.	Slope stability study of Fly Ash in Kargali OCP	Dr. Sudeshna Chakravarty (PI), Dr. Anand Kumar Sinha (Co-PI), Dr. Bindhu Lal (Co-PI), Dr. Indrajit Roy (Co-PI), Dr. Siddhartha Sengupta (Co-PI)	Damodar Valley Corporation (DVC)	April, 2018	Rs. 2.00 Lakhs	3 months
11.	Slope stability study of GMDC, Tadkeshwar Surat.	Dr. Indrajit Roy (PI), Dr. Anand Kumar Sinha (Co-PI), Dr. Bindhu Lal (Co-PI), Dr. Sudeshna Chakravarty (Co-PI), Dr. Kirti Abhishek (Co-PI)	Gujarat Mineral Development Corporation (GMDC)	June, 2018	Rs. 4.50 Lakhs	3 months

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
12.	Slope stability study of Vastan, Valia	Dr. Indrajit Roy (PI), Dr. Anand Kumar Sinha (Co-PI), Dr. Bindhu Lal (Co-PI), Dr. Sudeshna Chakravarty (Co-PI), Dr. Siddhartha Sengupta (Co-PI)	Gujarat Industrial Power Corporation Limited (GIPCL)	June, 2018	Rs. 4.50 Lakhs	3 months

b) Ongoing Projects

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	National Carbonaceous Aerosols Programme (NCAP): Working Group III – Emissions, sources apportionment and climate effects.	Dr. R. Naresh Kumar (PI) Dr. Jawed Iqbal (Co-PI)	MoEFCC	31/3/2017	Rs. 1.06 Crores	5 Years

c) Projects Completed

Sr. 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 PEKB, Adani Enterprise	Dr. Indrajit Roy (PI), Dr. Anand Kumar Sinha (Co-PI), Dr. Bindhu Lal (Co-PI), Dr. Sudeshna Chakravarty (Co-PI), Dr. Siddhartha Sengupta (Co-PI)	Adani Enterprise	July, 2017	Rs. 5.07 Lakhs	3 months

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Date of completion of the Project
2.	Slope stability study of Navin Kunada	Dr. Indrajit Roy (PI), Dr. Anand Kumar Sinha (Co-PI), Dr. Bindhu Lal (Co-PI), Dr. Sudeshna Chakravarty (Co-PI), Dr. Siddhartha Sengupta (Co-PI), Dr. Virendra Singh Rathore (Co-PI)	Western Coalfield Limited (WCL)	17th Dec, 2017	Rs. 4.20 Lakhs	3 months
3.	Slope stability study of Ballarpur	Dr. Indrajit Roy (PI), Dr. Anand Kumar Sinha (Co-PI), Dr. Bindhu Lal (Co-PI), Dr. Sudeshna Chakravarty (Co-PI), Dr. Siddhartha Sengupta (Co-PI)	Western Coalfield Limited (WCL)	1st Dec, 2017	Rs. 3.50 Lakhs	3 months
4.	Slope stability study of Kolarpimpiri	Dr. Indrajit Roy (PI), Dr. Anand Kumar Sinha (Co-PI), Dr. Bindhu Lal (Co-PI), Dr. Sudeshna Chakravarty (Co-PI), Dr. Siddhartha Sengupta (Co-PI)	Western Coalfield Limited (WCL)	Dec, 2017	Rs. 3.50 Lakhs	3 months
5.	Slope stability study of Makardhokra - III	Dr. Indrajit Roy (PI), Dr. Anand Kumar Sinha (Co-PI), Dr. Bindhu Lal (Co-PI), Dr. Sudeshna Chakravarty (Co-PI), Dr. Siddhartha Sengupta (Co-PI)	Western Coalfield Limited (WCL)	Jan, 2018	Rs. 3.50 Lakhs	3 months

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Date of completion of the Project
6.	Slope stability study of Rajmahal	Dr. Indrajit Roy (PI), Dr. Anand Kumar Sinha (Co-PI), Dr. Bindhu Lal (Co-PI), Dr. Sudeshna Chakravarty (Co-PI), Dr. Siddhartha Sengupta (Co-PI)	Eastern Coalfield Limited (ECL)	Feb, 2018	Rs. 3.50 Lakhs	3 months
7	Top Soil study for recovery and restoration of Open cast Mines at PARSA and KantaBasan mines, Chattisgarh	Dr. Kirti Avishek	Adani Enterprises	Dec, 2017	Rs 5.68 Lakhs	March, 2018
8	Technical assessment and estimates for renovation, reconstruction of 50 school toilets & handwash units across khunti, Hazaribagh and Deoghar districts of Jharkhand.	Dr. Kirti Avishek	CINI-Tata trust, Tatanagar	March 6, 2018	Rs. 3.54 Lakhs	May 2018

SECTION 3**SEMINAR / CONFERENCE****3. Seminar / Conferences / Short – Term Courses Conducted by the Department/Campus**

Sr. No.	Title of Seminar/ Conference/ Short Term Courses/ Workshop	Coordinator	Funding / Sponsoring Agency	Date of Event
1.	Mine slope stability and Mine Environment safety	Dr. Indrajit Roy & Dr. Kirti Avishek	CEE Department	21.03.18 to 22.03.18

4. Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members:

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1.	Dr. B.K. Singh, Dr. Arun Kumar, Dr. Sudeshna Chakravarty, Dr. I. Roy, Dr. S. Sengupta, Dr. K Paul, Dr. K. Avishek, Dr. R. Naresh Kumar, Dr. S. Chakraborty, Dr. T. Bhattacharya, Dr. J. Iqbal	Summer Training Program on Active Learning	TEQIP III	IIT Gandhinagar	IIT Gandhinagar	18/06/18 to 22/06/18
2.	Dr. Sukalyan Chakraborty	Short Course on "Nanotechnology: Basics and Bio-Chemical Applications"	TEQIP	IIT Roorkee	IIT Roorkee	21.05.18 to 25.05.18
3.	Dr. Anand Kr. Sinha	Workshop on 'Outcome based Accreditation'	NPIU, TEQIP-III, New Delhi	NPIU, TEQIP-III, New Delhi	Birla Institute of Technology, Mesra	18/03/18 to 19/03/18
4.	Mr. Vikky Masih, Mr. Sajal,	AICTE-QIP Short Term Course on Advanced Computing Tools in Civil Engineering	AICTE-QIP	Department of Civil Engineering, IIT Kharagpur	IIT Kharagpur	05.03.18 to 09.03.18
5.	Mr. Manoj Kumar Diwakar, Mr. Vikky Masih, Mr. Sajal,	Faculty Induction Workshop	TEQIP III	NPIU	IIT Madras	31/01/18 to 4/02/18
6.	Ms. Jyotsna Pandey	Faculty Induction Workshop	TEQIP III	NPIU	IIT Kharagpur	31/01/18 to 4/02/18

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
7.	Dr. Koushik Paul, Dr. Bindhu Lal	Workshop on Academic Writing: Grants, Consultancy & Research Articles	TEQIP-III	BIT Mesra	BIT Mesra	13.12.17 to 15.12.17
8.	Dr. Indrajit Roy	7 th Asian Mining congress	RPG fund	Mining Geological and Metallurgical Institute	Kolkata	8 th – 10 th November, 2017

SECTION 4

RESEARCH PUBLICATIONS

5. Published in International Journals

- Mrityunjay Jaiswal and Bindhu Lal, (2017), Stabilization of Clayey Soil with Garlic Skin and Rice Husk Ash for Flexible Pavement Construction, Geotechnical Testing Journal, 40(6), 1071.
- Yaduvanshi, A., Srivastava, P., Worqlul, A. W., & Sinha, A. K. (2018). Uncertainty in a Lumped and a Semi-Distributed Model for Discharge Prediction in Ghatshila Catchment. Water, 10(4), 381.
- Chandra, G., Chakraborty M., and Sinha A. K. (2018), WSIOC: The Water Sustainability Index for Office Complexes, Asian Journal of Water, Environment and Pollution, 15(2), 223
- Yaduvanshi, A., Sharma, R. K., Kar, S. C., & Sinha, A. K. (2018). Rainfall–runoff simulations of extreme monsoon rainfall events in a tropical river basin of India. Natural Hazards, 90(2), 843
- Gautam, R. and Sinha, A.K. (2017), Simulation of Temporal Reference Crop Evapotranspiration under Humid Subtropical Climate Region, Interciencia Journal, 42 (10), 139.
- Chandra, G., Chakraborty M., and Sinha A. K. (2017), Framework for Assessing Efficient Water Consumption Attributes and their Relative Importance in Office Complexes, Asian Journal of Water, Environment and Pollution, 14(3), 65.
- Sengupta, S., Krishna, A. P., & Roy, I. (2018). Slope failure susceptibility zonation using integrated remote sensing and GIS techniques: A case study over Jhingurdah open pit coal mine, Singrauli coalfield, India. Journal of Earth System Science, 127(6), 82.
- Paul, K., Dutta, A., & Krishna, A.P. (2017). Using GIS to locate waste bins - a case study of Kolkata City, India. Journal of Environmental Science and Management, 20(1), 95.
- Mondal, N. K., Samanta, A., Chakraborty, S., & Shaikh, W. A. Enhanced chromium (VI) removal using banana peel dust: isotherms, kinetics and thermodynamics study. Sustainable Water Resources Management, 1
- Tripta Narayan, Tanushree Bhattacharya, Soubhik Chakraborty, Swapan Konar (2018). Long-Term Statistical Characteristics of Air Pollutants in a Traffic-Congested Area of Ranchi, India. Communications in Mathematics and Statistics. 6, 141.
- Shikha Pandey, Tanushree Bhattacharya (2018). Effect of two biodegradable chelates on metals uptake, translocation and biochemical changes of Lantana

- Camara growing in fly ash amended soil. *International journal of phytoremediation*, 20 (3), 214.
12. Kamakshi Singh, Poonam Tirkey and Tanushree Bhattacharya (2018). Removal of selenium from drinking water by adsorption. *J. Indian Chem. Soc.*, 95, 1.
 13. Tirkey, P., Bhattacharya, T., & Chakraborty, S. (2018). Optimization of fluoride removal from aqueous solution using Jamun (*Syzygium cumini*) leaf ash. *Process Safety and Environmental Protection*, 115, 125.
 14. Poonam Tirkey, Tanushree Bhattacharya, Sukalyan Chakraborty, Suman Baraik (2017). Assessment of groundwater quality and associated health risks: A case study of Ranchi city, Jharkhand, India. *Groundwater for Sustainable Development*. 5, 85.
 15. Singh B.K. (2018), Determination of Mean Depth of Flow Using Finite Difference Method for the Equation Obtained with Respect to Maximum Value of Manning's Roughness Coefficient, *International Journal of Research and Scientific Innovation (IJRSI)*, 5(5), 20.
 16. Singh B.K. (2018), Comparison of Adam's Bashforth Method and Finite Difference Method, *International Journal of Research and Scientific Innovation (IJRSI)*, 5(4), 251
 17. Banu, R.J., Ushani, U., Rajkumar, M., Naresh Kumar, R. & Karthikeyan, O.P. (2017). Impact of mild alkali dosage on immobilized *Exiguobacterium* spp. mediated cost and energy efficient sludge disintegration. *Bioresource Technology*, 245, 434.
 18. Verma, M. & Naresh Kumar, R. (2018), Coagulation and electrocoagulation for co-treatment of stabilized landfill leachate and municipal wastewater. *Journal of Water Reuse and Desalination*, 8 (2), 234.
 19. Singh, M., Verma, M. & Naresh Kumar, R. (2018), Effects of open dumping of MSW on metal contamination of soil, plants, and earthworms in Ranchi, Jharkhand, India. *Environmental Monitoring and Assessment*, 190, 139.

6. Publications in National Journals

1. Rahman, Md. A., Sengupta, S. (2017). Uplift capacity of inclined under reamed piles subjected to vertical load. *Journal of The Institution of Engineers (India): Series A.*, 98 (4), 533
2. Mandal, S., & Sengupta, S. (2017). Experimental Investigation of Eccentrically Loaded Piled Raft Resting on Soft Cohesive Soil. *Indian Geotechnical Journal*, 47(3), 314.
3. Sengupta, S., Debnath, S. (2018). Compressibility of oil contaminated cohesive soil subjected to different compactive efforts. *The Masterbuilder*, MB Publishers Pvt. Ltd., Chennai, May, 90.
4. Sengupta, S. (2018). An analogy construction chemical and their implication. *The Masterbuilder*, MB Publishers Pvt. Ltd., Chennai, Feb, 62.
5. Sengupta, S. (2017). Determination of liquefaction susceptibility of sand by cyclic triaxial test. *The Masterbuilder*, MB Publishers Pvt. Ltd., Chennai, Nov, 84.

7. Publications in National Proceedings:

1. Kumar, D., Sengupta, S. Liquefaction potential of fibre reinforced and fines containing sand: A review. In proceedings of the National Conference on Civil Engineering and Sustainable Urban Development, BIT Patna, 2018, 85.
2. Roy, I, Roy Abhishek and Dutta Som, Prediction of safe and economic slope angles of external dumps of western coalfields limited, In proceedings of the 7th Asian mining congress, MGMI, Kolkata, 2017.
3. Md. Osaid Alam, Wasim Akram Shaikh, Sukalyan Chakraborty, Arsenic Contamination and its Associated Health Risks in Groundwater of Sahibganj District of Jharkhand. In proceedings of the National Conference on Biogeochemical Cycles and Climate Change (BCCC-2018), 2.
4. Wasim Akram Shaikh, Sukalyan Chakraborty, Rafique UI Islam,

- Photocatalytic Degradation of Rhodamine B under UV radiation using Shorea robusta leaf extract mediated bio-synthesized silver nano particles. In proceedings of the National Conference on Biogeochemical Cycles and Climate Change (BCCC-2018). 29.
5. T. Bhattacharya. Heavy Metal Contamination in Water Resources: A Case Study of Ranchi. In proceedings of the One Day State Level Seminar Cum Discussion on Water Resources: Issues, Challenges and Sustainability, Ranchi Women's College. June 2017
 6. K. Singh, T. Bhattacharya, P. Tirkey. Removal of Selenium from Drinking Water by Adsorption. In proceedings of the National conference on Sustainable Advanced Technology for Environmental Management, IEST, Shibpur, June 2017
 7. T. Bhattacharya, P Tirkey, S. Chakraborty. Characterization and Optimization Study of Calcium Based Biosorbent for Fluoride Removal. In proceedings of the National conference on Sustainable Advanced Technology for Environmental Management, IEST, Shibpur, June 2017.
 8. Reshu Singh, Kirti Avishek (2018). Enhancement of Bituminous Pavement using Scrap tyres. In proceedings of the International Conference on Advances in Environmental and Agricultural Biotechnology. St Xaviers College, Ranchi and Indo global chambers of commerce, industries and agriculture. Feb, 2018
 9. Madhu Rani, Kirti Avishek (2018). Heavy metal contamination in the waste dumping sites of Ranchi. In proceedings of the International Conference on advances in environmental and agricultural Biotechnology (ICAEA-2018). St Xaviers College, Ranchi and Indo global chambers of commerce, industries and agriculture. 2018.
 10. Nishant G., Kirti Avishek (2018). Assessment of Indoor and outdoor carbon dioxide concentrations using NDIR sensor method in a Technical Institute. In proceedings of the 5th Annual International Conference on Challenges and solutions for a sustainable environment. SGVU Jaipur. 2018.

8. Chapter(s) in Edited Book

1. Dr. Sukalyan Chakraborty (2017), Land Degradation and its Management Practices in Coal Mining Industries in Proceedings of the seminar "Environmental Degradation, Prevention, conservation and Management in India", (pp. 28-32), Kolkata: Progressive Publishers, ISBN – 978-81-8064-253-1.
2. Dr. Sukalyan Chakraborty (2017), A study on effect of coal mining on the vegetation community structure in Charhi and Kuju, (pp. 73-86) Proceedings of the conference Sustainable Mining Practices, Jharkhand: Narosa Publication, ISBN-978-81-8487-604-8
3. Dr. Sukalyan Chakraborty (2017), Removal, Speciation and Metabolism of Arsenic in Microalgae. Progress of Biotechnology in India, (pp. 44-62), ENVIS Centre on Environmental Biotechnology. ISBN - 978-93-5267-783-2

SECTION 5

AWARD/ PATENT/ COLLABORATIONS

9. Award / Recognition Bestowed on Faculties

Sr. No.	Name of the Faculty Member	Title of the Award / Honour	Organisation	State / National / International Level	Year / Duration
1	Dr. Kirti Avishek	Indo Global Chambers of Commerce award for Excellence in Environmental Science	Indo Global chambers of Commerce, Agriculture and Biotechnology, Pune	National	Feb 2018

SECTION 6**ACTIVITIES/ / DAC/ BOS****10. Departmental Students' Activities**

Sr. No.	Name of the Activity	Students' Co-Ordinator	Faculty Co-ordinator	Date / Duration
1.	AAROHAN 2018	Ankit Kumar Agrawal, Naman Srivastava, IEI Civil, Students Chapter, BIT Mesra	Dr. Indrajit Roy, Dr. Sukalyan Chakraborty	23.03.18 to 25.03.18
2.	AUTOCAD Workshop 2017	IEI Civil, Students Chapter, BIT Mesra	Dr. Indrajit Roy	06.11.17 to 10.11.17
3.	Industrial visit to the under-construction sites of High Court and Vidhan Sabha	5th and 7th Semester Civil Engineering UG students	Dr. Indrajit Roy, Dr. Arun Kumar	19.08.17

11. Board of Studies

Sr. No.	Name of the Member	Designation	Role
1.	Prof. Anand Kr. Sinha	Head of the Department	Chairman
2.	Prof. Sudeshna Chakravarty	Professor	Member
3.	Prof. Bindhu Lal	Professor	Member
4.	Prof. Birendra Kr. Singh	Professor	Member
5.	Dr. Indrajit Roy	Associate Professor	Member
6.	Dr. Kirti Avishek	Assistant Professor	Member
7.	Prof. D. J. Biswas	Professor (Architecture)	Member
8.	Prof. Jeganathan C.	Professor and Head (Remote Sensing)	Member
9.	Prof. S. K. Maity	Professor (ESE), IIT (ISM), Dhanbad	Member
10.	Prof. Rajesh Kumar	Professor (CE), IIT(BHU), Varanasi	Member
11.	Dr. Rakesh Pratap Singh	Associate Professor (CE), NIT Jamshedpur	Member
12.	Mr. Sujib Chatterjee	Chief Manager (Civil), CMPDIL, Ranchi	Member
13.	Mr. Rammohon Chatterjee	Head (Structural Div), CET, SAIL, Ranchi	Member
14.	Mr. Suwendu Basu	Head, Redimix, Health and Safety, Lafarge, Kolkata	Member

12. Departmental Academic Committee

Sr. No.	Name of the Member	Designation	Role
1.	Prof. Anand Kr. Sinha	Head of the Department	Chairman
2.	Prof. Sudeshna Chakravarty	Professor	Member
3.	Prof. Bindhu Lal	Professor	Member
4.	Dr. Indrajit Roy	Associate Professor	Member
5.	Dr. Siddhartha Sengupta	Associate Professor	Member
6.	Dr. Kirti Avishek	Assistant Professor	Member
7.	Dr. R. Naresh Kumar	Assistant Professor	Member
8.	Prof. D. J. Biswas	Professor (Architecture)	Member
9.	Prof. Jeganathan C.	Professor and Head (Remote Sensing)	Member
10.	Respective Guide(s)		Members

SECTION 7**OTHER INFORMATION****13. Publication by students**

1. Reshu Singh, Kirti Avishek (2018). Enhancement of Bituminous Pavement using Scrap tyres. Int. Conf on advances and environmental and agricultural Biotechnology) ICAEA-2018). St Xaviers College, Ranchi and Indo global chambers of commerce, industries and agriculture. Feb, 2018
2. Madhu Rani, Kirti Avishek (2018). Heavy metal contamination in the waste dumping sites of Ranchi. Int. Conf on advances in environmental and agricultural Biotechnology (ICAEA-2018). St Xaviers

College, Ranchi and Indo global chambers of commerce, industries and agriculture. Feb, 2018.


3. Nishant G., Kirti Avishek (2018). Assessment of Indoor and outdoor carbon dioxide concentrations using NDIR sensor method in a Technical Institute. 5th Annual International Conf. on "Challenges and solutions for a sustainable environment". SGVU Jaipur. Feb 2018.
4. Kamakshi Singh, Poonam Tirkey and Tanushree Bhattacharya (2018). Removal of selenium from drinking water by adsorption. J. Indian Chem. Soc., 95, 1.



14. Achievements of Students

Sr. No	Name of Student	Achievement/Position/ Award etc	Organised by	Date and Venue
1.	Neeraj Kumar Sharma UG course (2008-2012)	Named as one of the ten new faces in Civil Engineering for the year 2018	American Society of Civil Engineering (ASCE)	March 15, 2018, in Arlington, VA, US

2	Ankit Kumar Agrawal UG Course (2015-2019)	Jharkhand foundation citizen honour for art and social service	Jharkhand Foundations	Feb 2017, Ranchi
3	Ankit Kumar Agrawal UG Course (2015-2019)	Personal Art Sponsorship- Self You tube Channel	Kokuyo Camelin	Feb 2018.
4.	Shrishti Singh UG Course (2015-2019)	Silver Medal, Badminton	IIT Roorkee sports fest (Spardha)	2018
5	Nitin Agrawal, Jyotir Aditya Veldurthy Manish Kumar UG Course (2014-2018)	Summer Internship	Illinois Institute of Technology, Chicago	2018
6	Shaurya Gupta, Anushk Kamilla UG Course (2015-2019)	Summer Internship	Carnegie Mellon University, Pittsburgh	2018

15. Distinguished Visitors

Sr. No	Name of Visitor with Affiliation	Date of Visit	
1.	Mr. Randip Singh, Chief Manager, CMPDI, Ranchi	21.03.18 to 22.03.18	
2.	Mr. V.K.Pandey, Chief Manager CMPDI, Ranchi	21.03.18 to 22.03.18	

Sr. No	Name of Visitor with Affiliation	Date of Visit	
3.	Dr.S.Choudhary, Chair Professor, Department of IIT ISM Dhanbad. Director: Ministry of Coal, Former CMD: CMPDI.	21.03.18 to 22.03.18	
4.	Dr. Devendra Mohan, Professor, Department of Civil Engineering, IIT-BHU.	21.03.18 to 22.03.18	



Department of Computer Science and Engineering

SECTION 1

PROFILE



1. About the Department

The Department of Computer Science & Engineering was established in the year 1983 and is now recognized as one of the leading Computer Science 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 has academic collaborations with University of New Brunswick, Canada, University of Melbourne, Australia and University of Manitoba, Canada.

Undergraduate Programme

B. Tech in Computer Science and Engineering
(4 years: 8-semesters)

B. Tech in Information Technology
(4 years: 8-semesters)

Postgraduate Programmes

M. Tech in Software Engineering

(2 years: 4-semesters)

M. Tech in Computer Science

(2 years: 4-semesters)

M. Tech in Information Technology

(2 years: 4-semesters)

M. Tech in Information Security

(2 years: 4-semesters)

Master of Computer Application

(3 years: 6- semesters)

Doctoral Programmes

The Department of Computer Science and Engineering offers PhD programmes in various branches of the subject.

Laboratory Details

Sl. No.	Facility/Laboratory No	No of System	Configuration
1	Lab- I (Visual Processing Lab)	90	Dell optiplex 3010 Operating system:- windows 7 Processor: Intel ® Core™ i5-3470@ 3.20 GHz 3.20 GHz Installed Memory (RAM): 4 GB, HDD: 500GB

Sl. No.	Facility/Laboratory No	No of System	Configuration
2	Lab-II (IOT Lab)	21	HP Compaq DX 7400 Operating system:- windows XP Processor: Intel Core2 Duo Installed Memory (RAM): 1 GB HDD: 160GB SATA Wi-Fi Modes-25, Bluetooth-25, Zigbee-25 WSN Gateway
3	Lab-III (Software Design Lab)	60	HP Elite Desk 800 G1 SFF Operating system:-Windows 7 Professional Processor: Intel Core i5- 4570 @ 3.20 GHz Installed Memory (RAM):4 GB HDD: 500GB SATA
4	Lab-IV (Programming Lab 1)	80	Dell optiplex 3010 Operating system:- windows 8 Processor: Intel ® Core™ i5-3470@ 3.20 GHz 3.20 GHz, Installed Memory (RAM): 4 GB HDD: 500GB
5	Lab-V (Computer Networking Lab)	55	HP Compaq DX 7400 Operating system:- windows XP Processor: Intel Core2 Duo Installed Memory (RAM): 1 GB, HDD: 160GB SATA
6	Lab-VI (Programming Lab 2)	70	HP Compaq dx2280 MT Operating system:- windows XP Processor: Intel PentiumD Installed Memory (RAM): 1 GB, HDD: 160GB SATA
7	Lab-VII (Computational Intelligence Lab)	80	HP Compaq dx 2280 MT Operating system:- windows XP Processor: Intel Pentium D Installed Memory (RAM): 1 GB, HDD: 160GB SATA

Sl. No.	Facility/Laboratory No	No of System	Configuration
8	HPC Server (High Performance Computing)	01	<p>Master Node- 2 no of Intel Xeon E5-2630 v3 2.4GHz processors with 8 core and 64 GB memory, 2*1 TB HDD</p> <p>CPU Compute Node-2 no of Intel Xeon processor E5 2630 V3@ 2.4 GHz with 8 core in each processor and 64 GB memory, 500 GB Disk capacity FDR infiniband</p> <p>GPU Compute Node- 1 no of GPU node with 2 no of Nvidia K20 GPU with node specifications of 2 processor(Each 8 core) and 64 GB memory. 2 Nos 500 GB HDD, FDR InfiniBand</p> <p>Cloud Node- 1 processors E5-2620 V3@2.4 GHz,6 core and 64 GB Memory, 1 TB HDD, Dual Port FC HBA</p> <p>Storage(for HPC and Cloud)- 48 TB of RAW capacity to be shared via NFS over infiniband for the entire cluster from Master node.The same storage in partition mode will be used for cloud also</p>
9	HP Proliant ML 370 Server	01	<p>HP Proliant ML 370</p> <p>Operating system:- Windows Server 2003</p> <p>Processor: Intel ® Xeon Processor</p> <p>Installed Memory (RAM): 4 GB</p>
10	Dell Power edge Sever	02	<p>Dell Poweredge 1800</p> <p>Operating system:- Windows Server 2003</p> <p>Processor: Intel ® Xeon Processor</p> <p>Installed Memory (RAM): 4 GB</p>
11	Intelligent System Lab	01	<p>DELL WORKSTATION</p> <p>Drone Kit, Robotic, Nikkon Camera</p>
12	Machine Learning Lab	01	<p>Dell Tower Server: PowerEdge T430</p> <p>Desktop Computer: Lenovo AIO700-24ISH</p> <p>HP Probook 430 G4: Laptop</p>

SECTION 2**RESEARCH PROJECTS****2. Sponsored Projects and Consultancy****a) Ongoing Projects**

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Development of Basic Natural Language Processing Tools and Resources for Maithili.	Dr. Sujan Kumar Saha (PI)	SERB (GOI)	02 March 2017	Rs. 17,98,000/-	3 years

SECTION 3**SEMINAR / CONFERENCE****3. Seminar / Conferences / Short – Term Courses Conducted by the Department**

Sr. No.	Title of Seminar/ Conference/ Short Term Courses/ Workshop	Coordinator	Funding / Sponsoring Agency	Date of Event
1.	Short Term Training Programme (STTP) on Automata Theory, Formal Languages and Compiler Design	Dr. G. Sahoo, & Dr. B.K. Sarkar	TEQIP-III	19.01.2018 - 25.01.2018
2.	Cyber Crime and Investigation	Dr. K. K. Senapati	TEQIP	18.12.2017 - 22-12-2017
3	Big data analytics	Ritesh Jha, Dr.I.Mukherjee	TEQIP	4.11. 2017

4. Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members:

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1.	Dr. Shashank Pushkar, Dr. Akriti Nigam, Dr. Amritanjali, Dr. B.K. Sarkar, Dr.Niraj Kumar Singh, Dr.I. Mukherjee	TEQIP Phase - III: Summer Training Program on Active Learning at IIT, Gandhinagar.	TEQIP-III	IIT Gandhi Nagar	IIT, Gandhinagar	18-22 June, 2018

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
2.	Dr. Shashank Pushkar	National workshop on Cyber Crime and investigation at BIT, Mesra.	TEQIP-III	Dept. of CSE, BIT Mesra, Ranchi	BIT, Mesra	18-22 Dec 2017
3	Dr. Sanchita Paul (As Participant)	One-week workshop on Cyber Crime and Investigation.	TEQIP-III, BIT Mesra, Ranchi	Dept. of CSE, BIT Mesra, Ranchi	BIT Mesra, Ranchi.	18-22 Dec 2017
4	Dr. Sanchita Paul (As Participant and As Session Chair)	3 rd International conference on Microelectronics Computing and Communication Systems (MCCS-2018)	NA	IETE and ISVE at Advance Regional Telecom Training Centre, BSNL, Ranchi.	Advance Regional Telecom Training Centre, BSNL, Hazaribag Road, Ranchi	May 12-13, 2018
5	Dr. Sanchita Paul (As Participant and As Session Chair)	3 rd International conference on Nanoelectronics Circuits and Communication Systems (NCCS-2017)	NA	IETE and ISVE at Advance Regional Telecom Training Centre, BSNL, Ranchi.	Advance Regional Telecom Training Centre, BSNL, Hazaribag Road, Ranchi	Nov. 11-12, 2017
6	Dr. G. Sahoo	National workshop on Cyber Crime and investigation at BIT, Mesra.	TEQIP-III	BIT, Mesra	BIT, Mesra	18-22 Dec 2017
7	Sabina Priyadarshini	Cyber-crime and investigation	TEQIP III	Dept. of CSE, BIT Mesra, Ranchi	BIT Mesra	18 to 22 Dec, 2017
8	Sabina Priyadarshini	Workshop on Automata theory, Formal languages and compiler design	TEQIP III	Dept. of CSE, BIT Mesra	BIT Mesra	19 to 25 Jan, 2018
9	Ritesh Jha	Automata theory, formal languages and compiler Design	TEQIP	BIT Mesra	BIT Mesra	19th to 25th Jan 2018
10	Ritesh Jha	Cyber-crime and investigation	TEQIP	BIT mesra	BIT Mesra	18th to 22th Dec 2017

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
11	Ritesh Jha	Data Analytics for Engineers -2017	NA	Institute of Engineers, Ranchi	Engineer Bhawan Ranchi	26-27th Aug 2017
12	Dr. Kumar Rajnish	Automata theory, formal languages and compiler Design	TEQIP	BIT Mesra	BIT Mesra	19th to 25th Jan 2018
13	Dr. Kumar Rajnish	Cyber-crime and investigation	TEQIP	BIT Mesra	BIT Mesra	18th to 22th Dec 2017
14	Dr. V. K. Jha	Automata theory, formal languages and compiler Design	TEQIP	BIT Mesra	BIT Mesra	19th to 25th Jan 2018
15	Dr. V. K. Jha	Cyber-Crime and investigation	TEQIP	BIT Mesra	BIT Mesra	18th to 22th Dec 2017
16	Dr. Niraj Kumar Singh	Automata Theory, Formal Languages and Compiler Design	TEQIP-II	BIT Mesra	BIT Mesra	Jan 19-25, 2018
17	Dr. Niraj Kumar Singh	Cyber Crime and Investigation	TEQIP-II	BIT Mesra	BIT Mesra	Dec. 18-22, 2017
18	Dr. S.K. Sahana	Cyber Crime and Investigation	TEQIP	B.I.T, Mesra,	Ranchi	18-22 Dec 2017
19	Dr. S. K. Sahana	Second International Conference on Microelectronics, Computing & Communication Systems (MCCS 2018).	TEQIP	BSNL, India	Ranchi	May 12-13, 2018
20	Dr. Bhaskar Karn	Fifth International Conference on Advances in Computing, Communication and Information Technology- CCIT	NA	Institute of Research Engineers and Doctors, USA	Zurich, Switzerland	Sep 2 – 3. 2017

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
21	Dr. Aruna Jain	Summer Training Program on Active Learning	TEQIP	IIT Gandhinagar	Ahmedabad	18 – 22 June 2018
22	Dr. Akriti Nigam	Training on Biomedical imaging and image processing	TEQIP III	ECE Department, NIT Silchar	NIT Silchar	28July- 1 Aug, 2018
23	Dr. Akriti Nigam	One-week short term training program on Automata theory, Formal languages and Compiler design	TEQIP III	CSE Department, BIT MESRA, RANCHI	BIT MESRA, RANCHI	19- 25 Jan, 2018
24	Dr. Akriti Nigam	One-week workshop on Cyber-Crime and investigation	TEQIP III	CSE Department, BIT MESRA, RANCHI	BIT MESRA, RANCHI	18- 22 Dec, 2017
25	Dr.Shamama Anwar	3rd International Conference on Nanoelectronics Circuits & Communication Systems (NCCS)	NA	IETE and ISVE at Advance Regional Telecom Training Centre, BSNL, Ranchi.	Advanced Regional Telecom Training Centre, Ranchi	11 – 12th Nov, 2017.
26	Dr.Shamama Anwar	Workshop on Cyber Crime and Investigations	TEQIP	Department of CSE, BIT Mesra	BIT Mesra	18 - 22 Dec, 2017
27	Dr. I.Mukherjee	Automata theory, formal languages and compiler Design	TEQIP	BIT Mesra	BIT Mesra	19 - 25 Jan 2018
28	Dr. I.Mukherjee	Cyber-Crime and investigation	TEQIP	BIT Mesra	BIT Mesra	18- 22 Dec 2017
29	Dr. V. Bhattacharjee	Automata theory, formal languages and compiler Design	TEQIP	BIT Mesra	BIT Mesra	19 - 25 Jan 2018
30	Dr. V. Bhattacharjee	Cyber-Crime and investigation	TEQIP	BIT Mesra	BIT Mesra	18-22 Dec 2017

SECTION 4**RESEARCH PUBLICATIONS****5. Publications in Journals:****Published in International Journals**

1. Bhushan. B, Sahoo. G, "Recent advances in attacks, technical challenges, vulnerabilities and their countermeasures in wireless sensor networks", *Wireless Personal Communications*, Springer, 1-41.
2. Sharma. K.B, Gautam .V, Tiwari. SP and Bhattacharjee. V (2017). On fuzzy multiset regular languages, *Journal of Fuzzy Set Valued Analysis* (1), 50.
3. Khatoon, N. and Amritanjali (2017), Adaptive Load Balanced Scheme for Mobile Ad-Hoc Networks, *International Journal of Computer Engineering and Applications*, 11(9), 1.
4. Khatoon, N. and Amritanjali (2018), Retaliation based Secured Model for Enhanced Weighted Clustering Algorithm for MANET, *International Journal of Wireless and Mobile Computing (IJWMC)*, 14(2), 164.
5. Khatoon, N. and Amritanjali (2017), Mobility Aware Energy Efficient Clustering for MANET: A Bio-Inspired Approach with Particle Swarm Optimization, *Wireless Communications and Mobile Computing*, 1-12.
6. Mukherjee, I., Sahana, S., Mahanti, P.K., (2017), "An Improved Information Retrieval Approach to Short Text Classification", *International Journal of Information Engineering and Electronic Business (IJIEEB)*, 9(4), 31.
7. Mustafi D. and Sahoo.G (2018), A Hybrid Approach using Genetic Algorithm and Differential Evolution Heuristic for Enhanced Initialization of the K-Means Algorithm with Applications in Text Clustering, *Soft Computing*, 1.
8. Anwar. S (2018), "Text Recognition using Difference Ratio", *Smart Innovation, Systems and Technologies*, 77, 691..
9. Anwar.S and Rajamohan. G (2018), "A rough sets based edge detector and its performance verification", *International Journal of Engineering Sciences & Emerging Technologies*, 10(3), 58.
10. Sarkar B.K. (2017): Improving disease diagnosis by a new hybrid model.- *New Horizons in Translational Medicine*, 4(37):31.
11. Kumar A. and Sarkar B.K. (2017): Performance analysis of GA-based Iterative and Non-iterative Learning Approaches for Medical Domain Datasets.- *International Journal of Intelligent Decision Technologies (IJIDT)* 11: 321.
12. Sarkar B.K. (2017): Big Data and Healthcare Data: A Survey.- *International Journal of Knowledge-Based Organizations (IGI-global publ.)*, 7(4):50.
13. Kumar A. and Sarkar B.K. (2018): A Hybrid Predictive Model Integrating C4.5 and Decision Table Classifiers for Medical Datasets.-*Journal of Information Technology Research (IGI Global, ESCI and Scopus indexed)*, 11(2):150.
14. Mahto. S, Paul. S(2018), "Detection of major depressive disorder using linear and non-linear features from EEG signals", *Microsystem Technol*, 1.
15. Paul. S, Choubey. K. D and Dhandhenia. K. V (2017), "Rule based diagnosis for diabetes", *Biomedical Research: An International Journal of Medical Science*, 28 (12), 5196.
16. Choubey. K. D, Paul. S (2017), "GA_RBF NN: A Classification System for Diabetes", *International Journal of Biomedical Engineering and Technology (IJBET)*, Inderscience, 23 (1), 71-93.
17. Patra, H.P. and Rajnish.K (2017), "A New Empirical Model to Increase the accuracy of Software Cost Estimation." *International Journal of Engineering, Transaction A, Basics*, 30(10), 1463.
18. Jain, V and Rajnish, K (2018), Comparative Study of Software Automation Testing Tools:

Open Script and Selenium, Int. Journal of Engineering Research and Application 8(2), 29.

6. Publications in Proceedings:

• Published in International Proceedings

1. Bhushan. B, Sahoo. G "Attacks and Countermeasures in Wireless Sensor Networks using Intrusion Detection Systems", *INDIACom 2018*, 05th International Conference on Computing for Sustainable Global Development.
2. Bhushan. B, Sahoo. G, Detection and Defense Mechanisms against Wormhole Attacks in Wireless Sensor Networks, 23rd International Conference on Advances in Computing, Communication & Automation (ICACCA), Dehradun, India, 2017.
3. Bhushan. B, Sahoo. G, Rai. K. A, Man-In-The-Middle Attack in Wireless and Computer Networking- A review, 3rd International Conference on Advances in Computing, Communication & Automation (ICACCA), Dehradun, India, 2017.
4. Gupta. U, Bhattacharjee. V and Bishnu. S. P, A New Neighborhood Based Outlier Detection Technique, International conference on Microelectronics, Computing and Communication Systems, May, 2018.
5. Atish, Bhattacharjee. V, Brain Tumor Detection Using MRI images By K-means Clustering Technique Proceedings of International Conference on Engineering Management Industrial Technology, Ranchi, 23-24, December 2017.
6. Gupta. S, Bhattacharjee. V, Intrusion Detection System using Outlier Analysis, Proceedings of International Conference on Engineering Management Industrial Technology 2017, Ranchi, 23-24 December 2017.
7. Kumar. R, Bishnu. S. P and Bhattacharjee. V, K-Means Algorithm to identify k1 most Demanding Products Pre-Mi 2017, ISI Kolkata, pp. 451-457, December 2017.
8. Bhaskar. K, Kumar. S. P, Manuj. D "Social Perception Grading of Hospitals using Fuzzy Knowledge Base Systems" Proc. of the Fifth Intl. Conf. Advances in Computing, Communication and Information Technology- CCIT 2017.
9. Sahana, S.K., Khowas, M. and Sinha, K, "Budget Optimization and Allocation: An Evolutionary Computing Based Model", Bentham Science, UAE, 2018.
10. Amit. K and Sarkar B.K, GA_DTNB: A Hybrid Classifier for Medical Data Diagnosis International Conference on Frontiers of Intelligent Computing: Theory and Applications (FICTA, KIIT University, Bhubaneswar-751024 (14.10.2017-15.10.2017), Springer Publ., 2017
11. Mahato. S, Paul. S, "Electroencephalogram (EEG) signal analysis for diagnosis of Major Depressive Disorder (MDD): a review", 3rd International Conference on Nanoelectronics, Circuits & Communication Systems (NCCS-2017), ARTTC, BSNL, Ranchi, 11-12 Nov., 2017, Pages 323-335, Springer -Lecture Notes in Electrical Engineering book series (LNEE, Volume 511).
12. Saxena. K. V and Pushkar. S, "Enhancing the Privacy Preserving Data Mining Techniques by using Anatomisation with Slicing Approach for Multiple Susceptible Attributes without Loss of Accuracy", International Conference on Applied Sciences, Engineering Technology and Management (ICASETM 2017), 2-3 November 2017, Hyderabad.
13. Mishra.A, Ranjan.R, Neelansh and Saha.S.K, BIT Mesra @ SAIL CodeMixed-2017: Majority Voting of SVM and NB classifiers for Sentiment Analysis of Hindi-English Code-Mixed Text. In International Conference on Natural Language Processing (ICON 2017) 2nd Prize in NLP tool contest. Jadavpur University. Dec 18-21, 2017.
14. Pannu. S, Krishna. A, Kumari.S, Patra. R and Saha. K. S. Automatic Generation of Fill-in-the-blank Questions from History Books for School Level Evaluation. In International Conference on Computing Analytics and Networking (ICCAN 2017),

- KIIT Bhubaneswar. Book Chapter in "Progress in Computing, Analytics and Networking", pages 461-469. Dec 15-16, 2017.
15. Patra. R and Saha. K. S. Automatic Generation of Named Entity Distractors of Multiple Choice Questions using Web Information. In International Conference on Computing Analytics and Networking (ICCAN 2017), KIIT Bhubaneswar. Book Chapter in "Progress in Computing, Analytics and Networking", pages 511-518. Dec 15-16, 2017.
 16. Ranjan. H, Agarwal. S, Prakash. A and Saha . S. K, Automatic Labelling of Important Terms and Phrases from Medical Discussions. In Conference on Information and Communication Technology (CICT 2017), ABV-IITM Gwalior, Nov 3-5, 2017.
- 7. Edited Books**
- i. Sahana, S.K., and Saha, S.K., (2017), "Book Title: Advances in Computational Intelligence -Proceedings of International Conference on Computational Intelligence 2015" , Series: 509, Series ISSN: 2194-5357 , ISBN: 978-981-10-2524-2(Print), 978-981-10-2525-9(E-book) , DOI:10.1007/978-981-10-2525-9.
 - ii. Priya, A., and Sahana, S.K, (2018), "De-noising of Image using Enhanced Singular Value Decomposition", Advance Academic Publishers, New Delhi, India, ISBN:978-9384698-35-5.
- 8. Chapter(s) in Edited Book**
1. Bharat Bhushan, G. Sahoo, "Routing protocols in Wireless Sensor Networks", Book: Computational Intelligence in Sensor Networks, pp: 215-248, Publisher: Springer Berlin Heidelberg.
 2. Madhumita Singh Neogi, V. Bhattcharjee (2018), VOSDM4S: A Framework for Sustainable Software Development Model in A. Ekka, H. Sinha (Ed.) Leadership, Innovation and Management for a Sustainable World, Chapter 6, Xavier Institute of Social Service, Ranchi, 2018.
 3. Amritanjali, A New 2-D Mesh Topology with Optical Interlinks, Progress in Intelligent Computing Techniques: Theory, Practice, and Applications, Springer, pp. 437-442, Aug 2017
 4. Srivastava, S., Sahana, S, K., (2017), "The Insects of Nature-Inspired Computational Intelligence", Handbook of Research on Soft Computing and Nature-Inspired Algorithms, IGI Global, Pennsylvania (USA), pp 398-428,.
 5. Srivastava, S. and Sahana, S. K. (2017), "The Insects of Innovative Computational Intelligence", International Conference on Computational Intelligence Dec10-12, 2015, In: Advances in Computational Intelligence, Springer, Series: 509, Vol 1, pp.177-186.
 6. Jhunjhunwala, A and Sahana, S. K. (2017), "Scalable Framework for Developing Adaptive and Personalized User Interfaces" , International Conference on Computational Intelligence Dec10-12, 2015, In: Advances in Computational Intelligence, Springer, Series: 509, Vol 1, pp.289-298.
 7. Kumari P., Sahana S.K. ,(2019), "An Efficient Swarm-Based Multicast Routing Technique—Review". In: Behera H., Nayak J., Naik B., Abraham A. (eds) Computational Intelligence in Data Mining. Advances in Intelligent Systems and Computing, vol 711, pp 123-134, Springer, Singapore.
 8. Priya A., Sinha K., Darshani M.P., Sahana S. (2019) A Novel Multimedia Encryption and Decryption Technique Using Binary Tree Traversal. In: Nath V., Mandal J. (eds) Proceeding of the Second International Conference on Microelectronics, Computing & Communication Systems (MCCS 2017). Lecture Notes in Electrical Engineering, vol 476, pp163-178. Springer, Singapore.
 9. Ankita, Sahana S.K. (2019) A Comprehensive Survey on Computational Grid Resource Management. In: Nath V., Mandal J. (eds) Proceeding of the Second International Conference on Microelectronics, Computing &

Communication Systems (MCCS 2017). Lecture Notes in Electrical Engineering, vol 476, pp 97-108. Springer, Singapore.

10. Anwar. S, Sinha. K. S, Vivek. S, Ashank. V (2018), Hand Gesture Recognition: A Survey, Lecture Notes in Electrical Engineering, 511, pp- 365-371.
11. Paul. S (2017), "A Brief insight into Nanorobotics", Book Chapter: Handbook of Recent Developments in Intelligent Communication Applications, IGI Global, pp.421-470.
12. Paul. S, Choubey. K. D (2017), "GA_SVM: A Classification System for Diagnosis of Diabetes", Book Chapter: Handbook of Research on Soft Computing and Nature-Inspired Algorithms, IGI Global, pp.359-397.
13. Bala. K, Paul. S, Choubey.K.D, Ghosh. M (2018), "Classification Techniques for Thunderstorms and Lightning Prediction- A Survey", Book Chapter: Soft Computing-Based Nonlinear Control Systems Design, IGI Global, pp. 1-17.
14. Choubey. K. D, Paul. S, Bala. K, Kumar. M, Singh. P. U (2018), "Implementation of a Hybrid Classification Method for Diabetes", Book Chapter: Intelligent Innovations in Multimedia Data Engineering and Management, IGI Global, pp. 201-240.
15. Pal. J, Bhattacharjee. V (2018), Analysis of Complete-Link Clustering for Identifying Multi-attributes Software Quality Data In Advances in Intelligent Systems and Computing (AISC), 2018.

SECTION 5

ACTIVITIES/ DAC/ BOS

9. Student Activities

Sr. No.	Name of the Activity	Students' Co-Ordinator	Faculty Co-ordinator	Date / Duration
1.	Workshop on Bigdata	NA	CSE Department	04-11-2017
2.	Workshop on Bigdata and IoT	NA	CSE Department	05-11-2017

10. List of Adjunct Faculty

Sr. No.	Name	Designation	Affiliation
1.	Dr. Rama Govind Raju	Senior staff Software Engineer	Google Inc, 3101 Silver land Drive, San Jose, CA 95135 (USA)
2.	Mr. Atul Chadha	Chief Technology and Operations Officers	Affinity Solutions, Mackin Woods Lane, San Jose, CA 95135 (USA)

11. Board of Studies

Sr. No.	Name of the Member	Designation	Role
1	Dr. V. Bhattacharjee	Professor & Head	Chairman (Ex-Officio)
2.	Dr. G. Sahoo	Professor	Member
3	Dr. S. Dutta	Professor	Member
4	Dr. K. Rajnish	Associate Professor	Member
5	Dr. A. Mustafi	Associate professor	Member

6	Dr. B. K. Sarkar	Assistant Professor	Member
7	Dr. P. Paul	Assistant Professor	Member
8	Dr. I. Mukherjee	Assistant Professor	Member
9	Dr. S. Pal	Professor	Member
10	Dr. C. Jeganathan	Professor	Member
11	Dr. P. K. Reddy (IIIT, Hyderabad)	Professor	External Member
12	Dr. Chiranjeev Kumar (IIT-ISM Dhanbad)	Associate professor	External Member
13	Mr. A. Bhattacharjee Mecon, Ranchi	Deputy General Manager	Invited Member

12. Departmental Academic Committee

Sr. No.	Name of the Member	Designation	Role
1.	HOD/In- Charge	Professor	Chairman
2.	Dr. G. Sahoo	Professor	Member
3	Dr. S. Dutta	Professor	Member
4	Dr. K. Rajnish	Associate Professor	Member
5	Dr. A. Mustafi	Associate Professor	Member
6	Dr. B. K. Sarkar	Assistant Professor	Member
7	Dr. P.Paul	Assistant Professor	Member
8	Dr. C. Jeganathan	Professor	Member
9	Dr. S.Pal	Professor	Member
10	Guide(s) of the Candidate		

SECTION 6

OTHER INFORMATION

13. Achievements of Students

Sr. No	Name of Student	Achievement/Position/ Award etc	Organised by	Date and Venue
1.	Saakshi Srivastava Siddhau Jain Sree Aslesh Penisetty Dhiriti Kumari Pamireddy Sucharitha Ankit Kumar Singh	SMART INDIA HACKATHON (won KPIT award)	Ministry of Telecommunication	2018

2.	Sayed Bilal bari Prasant Singh Abhijeet Pandey Mayank Mishra Atul Kumar Gaurav Kumar	HACK IN THE NORTH (Developed an app Docker as Service)	IIIT Allahabad	2018, IIIT Allahabad
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14. Distinguished Visitors

Sr. No	Name of Visitor with Affiliation	Date of Visit
1.	Mr. Rajeev Ranjan, Indian Railway	26/4/18
2.	Mr. Rajeev Ranjan, National Information Centre	25/4/18
3	Mr. Shani Gautam, Schneider Electric	24/4/18
4	Mr. Prabhakar Banerjee, GOOMO.Com	23/4/18
5	Mr. Shishir Kumar, Accenture	22/4/18
6	Mr. Mayank Kumar, CDAC Bangalore	04/4/18
7	Mr. Naresh Kumar, CDAC Bangalore	03/4/18
8	Mr. Leo Paulose, AmDocs	16/1/18
9	Mr. Sanjay D`Costa, AmDocs	16/1/18
10	Mr. Thomas Santosh, Tctcos Pvt.Ltd	12/1/18
11	Mr. Saurabh Sharama, Syngient_Technologies	12/1/18
12	Ms. Vishakha Dudani, SAP Labs	30/11/17
13	Ms. Suparna Kanti Dav, DRDO	16/11/17



Department of Electronics and Communication Engineering

SECTION 1

PROFILE



1. About the Department

The Department of Electronics and Communication Engineering is one of the largest departments of the institute having largest student and faculty strength. Due to its modern infrastructure and exposure given to the students, it is one of the elite departments in India. The Department has modern laboratories and support facilities in all major areas of Electronics and Communication.

The Communication laboratories are well equipped with Analog Communication kits and Digital Communication Kits. COMSIM Software is also available in the laboratory for designing of wired, wireless and mobile communication systems.

The Fiber Optic Laboratory is well-equipped with He-Ne Laser Source, Argon-ion Laser Source, Tunable Laser Source, Optical Spectrum Analyzer, Optical Time Domain Reflectometer, Monochromator, Multiplexers, CCD camera, BSO crystal, Vibration Isolation Table, Newport Kit, Falcon Kits and various types of fibers. Recently, Beam Prop software has been installed in the laboratory.

Department also has an Advanced Instrumentation Lab which includes Data Acquisition Cards (DAC) from National Instruments and Lab View software for real time calibration and measurement experiments. This lab also has acquired a new PLC of Mitsubishi make.

The Department has a well-equipped VLSI Design lab. Primary area of research in VLSI lab consists of full-custom Application Specific Integrated Circuits (ASIC) and processors involving analog, digital and mixed signal processing. For this purpose the Cadence software is available which provides full custom with front end and back end facility. Industry compatible design libraries like UMC90nm, SCLPDK180nm are available with us. Our design has selected for fabrication in SCL Chandigarh and final product going to utilize by SAC ISRO Ahmedabad. VLSI Design has latest VCU108 FPGA kit for IoT based applications. Number of R&D Projects are running in this lab such as DST (Dr. Vijay Nath), DRDO (Dr. Vijay Nath), MHRD (Dr. Vijay Nath), ISRO (Dr. Vijay Nath), SERB (Dr. S. Kundu), SERB-EMR (Dr. A. Islam). Project outcomes are national and social welfares. Number of UG, PG and PhD. Students are using this lab for academic and research purposes.

The Advanced Communication Lab is equipped with GPS Trainer Kit, Satellite Communication Trainer Kit, Mobile Communication Trainer Kit and CDMA Trainer Kit. This Laboratory also has Scalar Network Analyzer with Plotter (22 GHz), Spectrum Analyzer, Sweep Oscillators for, Pattern Generator and Sweamer Generator. The Antenna Lab is equipped with most sophisticated and modern equipments such as Vector Network Analyzer (N5230A, 10

MHz - 20 GHz), R & S Signal Generator (SMR20, 1 GHz - 20 GHz), R & S Spectrum Analyzer (FSP, 9 KHz - 30 GHz), MIC Kit for s-parameter characterization of Microwave Integrated Circuits, Antenna measurement facility and a small Anechoic Chamber. The Lab also has design software such as IE3D, Fidelity, and MD Spice.

The MIC Fabrication Lab has been setup with Ultra

Violet exposure, Ovens, Spinners, all required for fabrication of high precision microwave integrated circuits. The laboratory is also supplemented with software Sonnet used for simulation of all kinds of microwave circuits.

An International Center for Wireless and Mobile Communication has been incorporated to the Department of Electronics & Communication Engineering, BIT Mesra, under ASIA-LINK programmer.

SECTION 2

RESEARCH PROJECTS

2. Sponsored Projects & Consultancy

a) Project Sanctioned

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Study in HEMT and its performance in Amplifier circuit	Dr. Aminul Islam & Dr. S. Kundu	SERB New Delhi	4 th July 2017	23.0 lakhs	3yrs

b) Ongoing Projects

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1	Design of Ultra Low Power CMOS Temperature Sensor for Aerospace Applications	Dr. Vijay Nath	RESPOND ISRO Bangalore	Sept. 2015	25 lakhs	3yrs
2.	Speech based Access of Agricultural commodity prices and Weather Information in 12 Indian Languages- Dialects (Automatic Speech Recognition (ASR) Consortium Phase-II	Dr. M. Chandra	Meity New Delhi	Sept. 2014	31.82 lakhs	5yrs
3.	MEMS Based Piezoelectric energy harvester for implanted medical devices	Dr. S. Kundu & Dr. N. Chattoraj	SERB New Delhi	24 th March 2017	38.86 lakhs	3yrs

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
4.	Computational identification and Validation of genome wide protien-protien interaction network in rice & rice blast	Dr. S. S. Sahu	SERB New Delhi	3 rd March 2017	21.62 lakhs	3yrs
5.	Towards disbursement of Micro grant for implementation of projects under the Foldscape scheme	Dr. S.S. Tripathi	MST, Dept of Biotechnology	20-03-2018	8.0 lakhs	1yr
6.	Development of Low-Cost Cryptography Approach for Cyber Security	Dr. S.S. Sahu	JCST, Jharkhand Govt.	09-10-2017	2.0 lakhs	2yrs

SECTION 3**SEMINAR / CONFERENCE****3. Seminar / Conferences / Short – Term Courses Conducted by the Department**

Sr. No.	Title of Seminar/ Conference/ Short Term Courses/ Workshop	Coordinator	Funding / Sponsoring Agency	Date of Event
1.	Foundation Programme for ICT in Education (Rerun FDP101x)	Dr. Sanjeet Kumar	IIT Bombay	(08 March- 12 April 2018) Two-week equivalent course.
2.	Pedagogy for Online and Blended Teaching-Learning Process (Rerun FDP201x)	Dr. Sanjeet Kumar	IIT Bombay	(03 May-31 May 2018) Two-week equivalent course.
3.	FOUNDATION PROGRAM IN ICT FOR EDUCATION under Pandit Madan Mohan Malaviya National Mission for Teachers and Teaching (PMMMNMTT),	Dr. M.K. Mukul	IIT Bombay	19, 20 August 2017
4.	Pedagogy for Online and Blended Teaching Learning Process under Pandit Madan Mohan Malaviya National Mission for Teachers and Teaching (PMMMNMTT),	Dr. M.K. Mukul	IIT Bombay	3 August- 10 Nov. 2017.
5.	Workshop on Speech Representation, Perception & Recognition	Dr. S.K. Das & Dr. M. Chandra	Ministry of CIT, New Delhi	3-7 th July 2017

4. Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty

Members:

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1.	Dr. Nisha Gupta	Summer Training Program on Active Learning	TEQIP-III	IIT GandhiNagar	IIT GandhiNagar	18 th June to 22nd June 2018
2.	Dr. V R Gupta	Summer Training Program on Active Learning	TEQIP-III	IIT GandhiNagar	IIT GandhiNagar	18 th June to 22nd June 2018
3	Dr. N Chattoraj	Summer Training Program on Active Learning	TEQIP-III	IIT Gandhi Nagar	IIT Gandhi Nagar	18 th June to 22nd June 2018
4	Dr. S. K. Ghorai	Summer Training Program on Active Learning	TEQIP-III	IIT Gandhi Nagar	IIT Gandhi Nagar	18 th June to 22nd June 2018
5	Dr. R. K. Lal	Summer Training Program on Active Learning	TEQIP-III	IIT Gandhi Nagar	IIT Gandhi Nagar	18 th June to 22nd June 2018
6	Dr. Sanjeet Kumar	Summer Training Program on Active Learning	TEQIP-III	IIT Gandhi Nagar	IIT Gandhi Nagar	18 th June to 22nd June 2018
7	Dr. Somnath Sengupta	Summer Training Program on Active Learning	TEQIP-III	IIT Gandhi Nagar	IIT Gandhi Nagar	18 th June to 22nd June 2018
8	Dr. Sanjeet Kumar	Two-week AICTE approved FDP course (FDP101x) on “Foundation Program in ICT for Education	AICTE	IIT Bombay	B.I.T. Mesra	August 3, 2017, to September 7, 2017
9	Dr. Sanjeet Kumar	Two-week AICTE approved FDP course (FDP201x) on “Pedagogy for Online and Blended Teaching-Learning”	AICTE	IIT Bombay	B.I.T. Mesra	Sept 14, 2017, to October 12, 2017
10	Dr. Rajeev Sharma	Foundation Program in ICT for Education (AICTE approved Faculty Development Program)	BIT Mesra	IIT Bombay	Remote center ID 1331, BIT Mesra	Mar 08, 2018, to April 12, 2018

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
11	Dr. Vijay Nath	Summer Training Program on Active Learning	TEQIP-III	IIT Gandhi Nagar	IIT Gandhi Nagar	18 th June to 22nd June 2018
12	Dr. M.K. Mukul	Summer Training Program on Active Learning	TEQIP-III	IIT Gandhi Nagar	IIT Gandhi Nagar	18 th June to 22nd June 2018
13	Dr. K. Mahto	Summer Training Program on Active Learning	TEQIP-III	IIT Gandhi Nagar	IIT Gandhi Nagar	18 th June to 22nd June 2018
14	Dr. S. S. Sahu	Summer Training Program on Active Learning	TEQIP-III	IIT Gandhi Nagar	IIT Gandhi Nagar	18 th June to 22nd June 2018
15	Dr. P.P. Dash	6 th International Conference on Engineering Technology, Science and Management Innovation (ICETSMI-2017).		IETE	IETE	11 th June 2017.
16	S. Prasad	IEEE conference on Multimedia, Signal Processing and Communication Technologies (IMPACT 2017)		Aligarh Muslim University (AMU)	Aligarh Muslim University (AMU)	November, 24- 26 ,2017
17.	Dr. S. Kumar	Summer Training Program on Active Learning	TEQIP-III	IIT Gandhi Nagar	IIT Gandhi Nagar	18 th June to 22nd June 2018
18.	Dr. P.P. Dash	Summer Training Program on Active Learning	TEQIP-III	IIT Gandhi Nagar	IIT Gandhi Nagar	18 th June to 22nd June 2018
19	Dr. S. Sidheshwari	Summer Training Program on Active Learning	TEQIP-III	IIT Gandhi Nagar	IIT Gandhi Nagar	18 th June to 22nd June 2018
20	Dr.Dileep Kumar Upadhyay	Summer Training Program on Active Learning	TEQIP-III	IIT GandhiNagar	IIT GandhiNagar	18 th June to 22nd June 2018

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
21	Dr. A K Tiwary	Summer Training Program on Active Learning	TEQIP-III	IIT Gandhi Nagar	IIT Gandhi Nagar	18 th June to 22nd June 2018
22	Dr. Aminul Islam	Summer Training Program on Active Learning	TEQIP-III	IIT Gandhi Nagar	IIT Gandhi Nagar	18 th June to 22nd June 2018
23	Dr. S.S. Tripathi	Summer Training Program on Active Learning	TEQIP-III	IIT Gandhi Nagar	IIT Gandhi Nagar	18 th June to 22nd June 2018
24	Dr. Vijay Nath	Annual Progress Presentation On Going Project "Design of Ultra Low Power CMOS Temperature Sensor for Aerospace Applications"	RESPOND ISRO Bangalore	SAC, ISRO Ahmedabad	SAC, ISRO Ahmedabad	2-3 Nov2017

SECTION 4

RESEARCH PUBLICATIONS

5. Publications in Journals:

• Published in International Journals

- Kumari, Bibha & Gupta, Nisha (2017), Impact of Sensing Element coupled to Lamda Diode based Chaotic Circuit, Sensor Letters 15(7), 570-574.
- Appasani, Bhargav, Verma, V.K., Pelluri, Rahul., & Gupta, Nisha (2017), Genetic Algorithm Optimized Electromagnetic Band Gap Structure for Wide Band Noise Suppression, Progress in Electromagnetics Research Letters 71,109-115
- Appasani, Bhargav, & Gupta, Nisha (2017), A Novel Segmentation Approach in GA and its Application in Antenna Array, Microwave Review, 23(2), 8-12.
- Appasani, Bhargav, Pelluri, Rahul & Gupta, Nisha (2018), Detection and correction of errors in linear antenna arrays, International Journal of Numerical Modelling Electronic Networks Devices and Fields 1-12.
- Suraj, P., Gupta, V. R. & Saxena, M. (2017), CPW Fed Dual Notched Band UWB Antenna for Indoor Communication Systems, National Academy of Science letters, 40 (6), 415-419.
- Saxena, P. & Kumar, R. S. (2017). An Effective Filter for Noise Removal in Magnetic Resonance Images Using Multilevel Fuzzy Reasoning Concept. Journal of Clinical Engineering, 42(3), 121-135
- Kumari, S., Sahu, SS, & Gupta, B. (2018) Efficient SSHI circuit for piezoelectric energy harvester uses one shot pulse boost converter. Journal of Analog Integrated Circuits and Signal Processing, 1-11.
- Sinha, R. K. & Sahu, S.S. (2018) Secure Image Encryption Based on Improved Bat Optimized Piecewise Linear Chaotic Map through Integrated Permutation-Confusion and Double diffusion", Journal of Intelligent & Fuzzy Systems- Applications in Engineering and Technology, 35(2), 1567-1578.
- Barik, R. C., Sahu S.S. & Changder S. (2018). A Novel Smooth texture based visual cryptography approach for secure communication" Journal of Electronic

- Security and Digital Forensic, 10(2), 109-137.
10. Pandey, C., Sandeep, R., Priyam, A., Mahapatra, S., & Sahu, S. S. (2017). Predicting Protein-RNA Interaction Using Sequence Derived features and Machine Learning Approach International Journal of Data Mining and Bioinformatics, 2018, 19(3), 270-282,
11. Priyam, A., Pandey, C., Sandeep, R., and Sahu, S.S. (2017). Predicting RNA-Protein Interaction using Machine learning Approach, Journal of Advances in Computer Science and Information technology, 4(3), 106-110.
12. Prasad, D., Nath V. (2018) An ultra-low power high-performance CMOS temperature sensor with an inaccuracy of $-0.3^{\circ}\text{C}/+0.1^{\circ}\text{C}$ for aerospace applications, Microsystem Technologies, Vol.24, Issue-3, pp-1553-1563, Springer Berlin Heidelberg.
13. Priyadarshi, R., Soni, S. K., Bhadu, R., Nath, V. (2017) Performance analysis of diamond search algorithm over full search algorithm, Microsystem Technologies, pp-1-9, Springer Berlin Heidelberg.
14. Priyadarshi, R., Soni, S.K. & Nath V. (2018) Energy Efficient Cluster Head Formation in Wireless Sensor Network, Microsystem Technologies, pp1-10, Springer Berlin Heidelberg.
15. Chakraborty, S., Pandey, A., Prasad, D., Vedam, V., Nath V. (2018) Linearity improvement of gain enhanced op-amp using cross-coupled architecture, Microsystem Technologies, pp1-10, Springer Berlin Heidelberg.
16. Verma, V.K., Ranjan, R.K., Gupta P., Priyadarshini, B., Nath, V. (2018) A Series Expansion Method Aided Design of CCII Controller for TITO System, Microsystem Technologies, pp1-10, Springer Berlin Heidelberg.
17. Nidhi, N., Prasad, D., Nath, V. (2018) Internet of Things/ Everything: An Overview, International Journal of Pure and Applied Mathematics, Volume 119, no.12.
18. Bhattacharyya, S. and Mukul, M.K. (2018) Reactive Frequency Band Based Movement Imagery Classification, Journal of Ambient Intelligence and Humanized Computing, PP-1-14.
19. Kundu, S., Mandal, P. (2018) An Efficient Method of Pareto-Optimal Front Generation for Analog Circuits, Analog Integrated Circuits and Signal Processing, Springer, Volume 94, Issue 2, pp 289–316.
20. Sinha, R. K. and Sahu, S.S, (2018) Secure Image Encryption Based on Improved Bat Optimized Piecewise Linear Chaotic Map through Integrated Permutation-Confusion and Double diffusion, Journal of Intelligent & Fuzzy Systems- Applications in Engineering and Technology, vol. 35, no. 2, pp. 1555-156.
21. Kumari, R. R., Kartik M. (2017) A Review: A Singer Identification and Analysis of Musical Performance, International Journal of Latest Engineering Research and Applications, vol. 02, pp-11-16.
22. Kumar, S. (2017) Model based on marten process for ICI mitigation in multi cell cooperation, Radio electronics and Communications Systems (Springer), 60(8), pp. 350-357.
23. Kumar, S. (2017) Novel expressions for CEP/BEP under GGD noise for nano communication system, International Journal of Electronics Letters (Taylors and Francis), pp. 1-12.
24. Dash, P.P. (2017) Efficient visual tracking using multi-feature regularized robust sparse coding and quantum particle filter-based localization, Journal of Ambient Intelligence and Humanized Computing, pp.1-14.
25. Parikh, C., Ranjan, R., Khan Aaquib, Jain, R., Mahto R., Chakraborty, D., Pal, S., Surjya K., Pal (2017), Volumetric defect analysis in friction stir welding based on three dimensional reconstructed images, Journal of Manufacturing Processes (Elsevier), 29, 96-112.
26. Roy, R. B., Ghosh, A., Bhattacharyya

- S., Mahto, R., Kumari, P. K., Pal, K., Pal, S. (2018) Weld defect identification in friction stir welding through optimized wavelet transformation of signals and validation through X-ray micro-CT scan, *The International Journal of Advanced Manufacturing Technology*, 98(470), 1–11.
27. Ghazali, A.N., Sazid, M. Pal, S. (2017) A compact broadside coupled dual notched band UWB-BPF with extended stopband, *AEU-International Journal of Electronics and Communications*, Elsevier, 82, 502-507
 28. Ghazali, A.N., Sazid, M. Pal, S. (2018) Dual band notched UWB-BPF based on hybrid microstrip-to-CPW transition, *AEU-International Journal of Electronics and Communications*, Elsevier, 86, 55-62.
 29. Upadhyay, D. K., (2017) A Highly Compact ZOR based on CRLH TL, *Journal of Electrical and Electronics Engineering*, 10(2), 61-66.
 30. Upadhyay, D. K., (2018) Development of ZOR using Via-less CRLH-TL, *Microwave Review*, 24(1), 3-7.
 31. R., Guduri, M., Islam, A., Mehra, R., Srivastava, P., Islam, A. (2017) Current-Mode Circuit-Level Technique to Design Variation-Aware Nanoscale Summing Circuit for Ultra-Low Power Applications,” in *Microsystem Technologies-Micro-and Nanosystems-Information Storage and Processing Systems*, 23(9), 4045–4056.
 32. Kumar A., Islam, A. (2017) Multi-Gate Device and Summing-Circuit Co-design Robustness Studies @ 32-nm Technology Node,” in *Microsystem Technologies-Micro-and Nanosystems-Information Storage and Processing Systems*, 23(9), 4099–4109.
 33. Sinha, A., Islam, A. (2017) Low-Power Half-Select Free Single-Ended 10 Transistor SRAM Cell, in *Microsystem Technologies-Micro-and Nanosystems-Information Storage and Processing Systems*, 23(6), 4133–4144.
 34. Roy, C., Islam, A. (2017) Power-aware source feedback single-ended 7T SRAM cell at nanoscale regime, *Microsystem Technologies-Micro-and Nanosystems-Information Storage and Processing Systems*, Springer, 1-9.
 35. Kumar V., Islam, A. (2017) Study of Variability Performance of CMOS Active Inductors, *Microsystem Technologies-Micro-and Nanosystems-Information Storage and Processing Systems*, Springer, 1–11 .
 36. Mehra, R., Kumar V., Islam, A. (2018) Floating active inductor based Class-C VCO with 8 digitally tuned sub-bands, in *International Journal of Electronics and Communications (AEÜ)*, 83, 1-10
 37. Bharti, D. and Islam, A. (2018) Optimization of SiC UMOSFET Structure for Improvement of Breakdown Voltage and ON-Resistance, *IEEE Transactions on Electron Devices*, 65(2). 615-621.
 38. Dokania, V., Verma, R., Guduri, M., Islam, A. (2018) Minimum Energy Solution for Ultra-low Power Applications, *Microsystem Technologies-Micro-and Nanosystems-Information Storage and Processing Systems*, Springer, 1-9.
 39. Mehra, R., Islam, A. (2018) A Low Power, Temperature Compensated, Robust Design of CS Amplifier in Nanoscale Regime, *Microsystem Technologies-Micro-and Nanosystems-Information Storage and Processing Systems*, Springer, 1-12.
 40. Divedi, A., Tyagi, S., Islam, A. (2018) Compact versatile noise suppressed programmable trigger pulse generator for Industrial applications,” *National Academy Science Letters*, 41(2), 97-101
 41. Sengupta, A., Islam, A. (2018) Comparative analysis of AlGaIn/GaN high electron mobility transistor with sapphire and 4H-SiC substrate,” *Microsystem Technologies-Micro-and Nanosystems-Information Storage and Processing Systems*, Springer, 1-9.
 42. Ranjan, N., S. Islam, A. (2018) Compact design of an MTJ-based non-volatile CAM cell with read/write operations, *Microsystem Technologies-Micro-and Nanosystems-Information Storage and Processing Systems*

Systems, Springer,1-12.

43. Pal, I., Islam, A. (2018) Circuit-Level Technique to Design Variation- and Noise-Aware Reliable Dynamic Logic Gates, IEEE Transactions on Device and Materials Reliability, 18(2), 224-239.
44. Roy, C., Islam, A. (2018) Design of differential TG based 8T SRAM cell for ultralow-power applications, Microsystem Technologies-Micro-and Nanosystems-Information Storage and Processing Systems Springer,1-12.

• **Published in National Journals**

1. Das, M. and Lal, R. K. (2017), Modeling of Quantum Well Infrared Photodetector for Long Wavelength Infrared Detection, IETE Journal of Research, 63 (5), 719-727.
2. Kumari, S., Srivastava, S., Mittal, A., Lal, R. K. (2017), Designing of a Fractal Annular Array Antenna with Use of Power Divider. Indian Journal of Science and Technology, 10 (30), 1-5.

6. Publications in Proceedings:

• **Published in International Proceedings**

1. Kumari, Neha & Gupta, Nisha, Broadband polarization insensitive and angle independent metamaterial absorber, Innovations in Power and Advanced Computing Technologies (i-PACT), 2017.
2. Tiwari, S., Ghosh, T., & Sahay, J., Miniaturization of Vivaldi Antenna for different wireless communication applications, International Conference on Recent Advances in Information Technology (RAIT'18), ISM-IIT Dhanbad, March 15 & 16, 2018.
3. Ghosh, T., Tiwari, S., & Sahay, J., Enhanced Rate of WLAN using different protocols in infrastructure and ad-hoc mode, IEEE 2017 International Conference on Signal processing and Communication (ICSPC'17), Coimbatore Karunya University, July 28 & 29, 2017.
4. Ghosh, T., Tiwari, S., & Sahay, J., On-building remote controlled system for several home appliances using zigbee, International

Conference on Smart technologies and management for computing, communication, controls, energy and materials (ICSTM), Vel Tech Rangarajan Dr. Sagunthala R & D Institute of Science and technology, Chennai, August 2-4, 2017.

5. Kumar, Ajit and Ghorai, S. K., BER performance Analysis of Indoo MIMO-VLC System for Multipath Reflection, International Conference for Smart City Energy Security and Power, C.V. Raman College of Engg., Bhubaneswar, Odisha, 2018.
6. Singh, P., Mukul, M.K., and Prasad R., Enhancement of Bone Conducted Speech Signal by Wavelet Transform, International Conference on Signal Processing and Communications (SPCOM 2018), IISC Bangalore, 2018.
7. Chatterjee, S, Sengupta A., Kundu S., Islam, A., Analysis of AlGaIn/GaN High Electron Mobility Transistor for High Frequency Application, International Conference on Devices for Integrated Circuit (DevIC 2017), IEEE Conference, Kalyani, West Bengal, India.
8. Chaudhuri, D., Kundu S. and Chatteraj N., Energy Harvester for Medical Implanted Devices, ISSS International Conference on Smart Materials Structures & Systems (ISSS 2017), IISc., Bangalore.
9. Chaudhuri, D. and Kundu, S. MEMS Piezoelectric Energy Harvester to power Wireless Sensor Nodes for Machine Monitoring application, International Conference on Devices for Integrated Circuit (DevIC 2017), IEEE Conference, Kalyani, West Bengal, India.
10. Sinha, R. K., Asha, B., San, N., Prasad, S., Sahu, S.S. Chaotic Image Encryption Scheme Based on Modified Arnold Cat Map and Henon Map, IEEE International Conference on Current trends towards Converging Technologies (ICCTCT 2018), Coimbatore, India.
11. Gupta, S., Upadhyay, M. D. & Pal, S. A Distributed MEMS Based Biosensor

for Detection of Staphylococcus Aureus, International Conference on Advances in Communication and Computing Technology (ICACCT2018), Amrutvahini College of Engineering, Sangamner, Dist: Ahmednagar, Maharashtra.

12. Sidhant Gupta, Madhur Deo Upadhyay, Srikanta Pal., Graphene Based Monopole Terahertz Antennas on Polyimide Substrate, International Conference on Advances in Communication and Computing Technology (ICACCT2018), February 2018, Amrutvahini College of Engineering, Sangamner, Dist: Ahmednagar, Maharashtra.
13. Gupta, Nikita, Thakur, Pragati, Dubey, Kumar, Shashank and Islam, Aminul, Design of Nonvolatile MRAM BitCell, 7th International Symposium on Embedded Computing & System Design (ISED-2017), NIT, Durgapur, India
14. Oraon, Alisha, Shreya, Shradha, Kumari, Renuka Islam, Aminul, A Double Trench 4H - SiC MOSFET as an Enhanced model of SiC, 7th International Symposium on Embedded Computing & System Design (ISED-2017), NIT, Durgapur, India

7. Books:

1. Kumar S. (2017) Shiksha Aur Shikshan: Ek Chintan This book is an effort to present my own perspective on what is teaching and education. Educreation Publication, Delhi.

• Edited Books

1. Nath, V. (Eds) (2017) Proceedings of the International Conference on Nano-electronics, Circuits & Communication Systems (NCCS-2015), Lecture Notes in Electrical Engineering, Springer Nature Singapore Pte Ltd. Springer Singapore, ISBN: 978-981-10-2999-8.
2. Nath, V. (Eds) (2018) Proceedings of the International Conference on Microelectronics, Computing & Communication Systems (MCCS-2015), Lecture Notes in Electrical Engineering, Springer Nature Singapore Pte Ltd. Springer Singapore. ISBN:978-981-10-5565-2.

3. Nath, V. & Mandal, J.K. (Eds) (2018) Proceedings of the Second International Conference on Microelectronics, Computing & Communication Systems (MCCS-2017), Lecture Notes in Electrical Engineering, Springer Nature Singapore Pte Ltd. Springer Singapore. ISBN: 978-981-10-8234-4.

• Chapter(s) in Edited Book

1. Pandey, S., Gupta, V.R. (2018) Implantable Antenna for Blood Glucose Monitoring, Gnanagurunathan G., Sangeetha R., Kiran K. (eds), Optical and Microwave Technologies. Lecture Notes in Electrical Engineering (pp. 65-70). Springer, Singapore.
2. Bhowmik, W., Gupta, V. R., Srivastava, S., Prasad, L. (2017) Butler Matrix Fed Exponentially Tapered H-Plane Horn Antenna Array System Using Substrate Integrated Folded Waveguide Technology. In: Bhaumik J., Chakrabarti I., De B., Bag B., Mukherjee S. (eds) Communication, Devices, and Computing. Lecture Notes in Electrical Engineering (pp. 25-37), Springer, Singapore
3. Bhowmik, W., Mukherjee S., Gupta, V. R., Srivastava S., Prasad L. (2017) Improvement of Radiation Performances of Butler Matrix-Fed Antenna Array System Using 4×1 Planar Circular EBG Units. In: Bhaumik J., Chakrabarti I., De B., Bag B., Mukherjee S. (eds) Communication, Devices, and Computing. Lecture Notes in Electrical Engineering (pp. 103-113), Springer, Singapore
4. Hosain, M.M., Kumari, S., Tiwary, A.K. (2018), Design of Circular Disc Monopole Antenna for UWB Application. In: Nath V. (eds) Proceedings of the International Conference on Microelectronics, Computing & Communication Systems. Lecture Notes in Electrical Engineering (pp. 339-352). Springer, Singapore.
5. Kumar, V., Lal, R.K. (2018) Effect of Temperature on Dark Current in QWIP for Unmanned Aerial Vehicles. In: Nath V. (eds) Proceedings of the International Conference on Microelectronics, Computing

- & Communication Systems. Lecture Notes in Electrical Engineering (pp. 327-337), Springer, Singapore.
6. Nayan, N., Kumar S., Sahu S.S. (2018) Accidental Event Detection Based on Optical Flow Analysis. In: Bera R., Sarkar S., Chakraborty S. (eds) Advances in Communication, Devices and Networking. Lecture Notes in Electrical Engineering (pp. 607-614), Springer, Singapore.
7. Parashar, T.K., Lal, R.K. (2019) Analytical Modelling of Room-Temperature GaAs/InAs_{0.3}Sb_{0.7} Detector for H₂S Gas Detection. In: Nath V., Mandal J. (eds) Proceeding of the Second International Conference on Microelectronics, Computing & Communication Systems (MCCS 2017). Lecture Notes in Electrical Engineering (pp. 451-467), Springer, Singapore.
8. Tiwari, S., Ghosh, T., & Sahay, J. (2018), Minimization of the size of antipodal Vivaldi Antenna for WiMax and WLAN application, A. Kumar and S. Mozar (Eds), Lecture Notes in Electrical Engineering (pp 327-338), Springer, Singapore.
9. Ghosh, T., Tiwari, S., & Sahay, J (2018), Miniaturized MIMO wideband antenna with L-shaped DGS for wireless communication, A. Kumar and S. Mozar (Eds), Lecture Notes in Electrical Engineering (pp 241-249), Springer, Singapore.
10. Ghosh, T., Tiwari, S., & Sahay, J. (2017), MIMO wideband antenna technique in DGS for enhanced wireless communication, V. Nath and Jyotsna Kumar Mandal (Eds), Lecture Notes in Electrical Engineering (pp 483-491), Springer, Singapore.
11. Prasad, D., Nath V. (2018) Design of CMOS Integrator Circuit for Sigma Delta ADC for Aerospace Application. In: Bhattacharyya S., Sen S., Dutta M., Biswas P., Chattopadhyay H. (eds) Industry Interactive Innovations in Science, Engineering and Technology. Lecture Notes in Networks and Systems, Vol 11, pp 377-383. Springer, Singapore.
12. Pooshkar, R., Raj R., Singh, R., Nagarkar, R., Kumar, A., Agarwal, S., Nath, V. (2018) An Ultra-Low-Power Internet-Controlled Home Automation System. In: Nath V. (eds) Proceedings of the International Conference on Microelectronics, Computing & Communication Systems. Lecture Notes in Electrical Engineering, Vol 453, pp271-280 Springer, Singapore.
13. Yadav, N., Khan Mohd. J., Singh, J., Pandey, A., Kumar, M., Nath, V. (2018) A 0.533 dB Noise Figure and 7 mW Narrowband Low Noise Amplifier for GPS Application. In: Nath V. (eds) Proceedings of the International Conference on Microelectronics, Computing & Communication Systems. Lecture Notes in Electrical Engineering, vol 453, pp 305-315. Springer, Singapore.
14. Singh, J., Agarwal, M., Mardi V., Ray M., Prasad, D., Nath, V. (2018) Design of Ultra-Low-Power CMOS Class E Power Amplifier. In: Nath V. (eds) Proceedings of the International Conference on Microelectronics, Computing & Communication Systems. Lecture Notes in Electrical Engineering, vol 453, pp 317-326. Springer, Singapore.
15. Yadav, N., Prasad, D., Nath, V., Kumar, M. (2018) An Ultra Low Power CMOS RF Front-End-Based LNA and Mixer for GPS Application. In: Nath V. (eds) Proceedings of the International Conference on Microelectronics, Computing & Communication Systems. Lecture Notes in Electrical Engineering, vol 453, pp 375-385. Springer, Singapore.
16. Mukul, M.K. (2018), DWT Based Source Localization Using Microphone Array. In: Abraham A., Cherukuri A., Madureira A., Muda A. (eds) Proceedings of the Eighth International Conference on Soft Computing and Pattern Recognition (SoCPaR 2016). SoCPaR 2016. Advances in Intelligent Systems and Computing, vol 614. Springer, Cham.

SECTION 5**ACTIVITIES/DAC/BOS****8 Student Activities**

Sr. No.	Name of the Activity	Students' Coordinator	Faculty Co-ordinator	Date / Duration
1.	Gate Grooming Classes	Surbhi Sinha (President IEI-ECE) Ankit Kumar (General Secretary) Rohan Kumar (Member) Om Prakash (Member) Nikita Gupta (Member) Nilay (Member) Pragati Thakur	Dr. Vijay Nath	July-2017 to Dec-2017

9. Board of Studies

Sr. No.	Name of the Member	Designation	Role
1.	Dr. Srikanta Pal	Professor & Head	Chairman (Ex- Officio)
2.	Prof. Mahesh Chandra	Professor	Member
3.	Prof. Nisha Gupta	Professor	Member
4.	Prof. R. Sukesh Kumar	Professor	Member
5.	Prof. S. K. Ghorai	Professor	Member
6.	Prof. S. S. Solanki	Professor	Member
7.	Prof. S. Pal	Professor	Member
8.	Prof. Vibha Rani Gupta	Professor	Member
9.	Dr. N. Chattoraj	Associate Professor	Member
10.	Dr. M. K. Mukul	Assistant Professor	Member
11.	Dr. D. Mohanta	Professor (EEE)	Member
12.	Dr. S. Konar	Professor (Physics)	Member
13.	Prof. Debatosh Guha	Calcutta University	External Member
14.	Prof. Gautam Saha	IIT, KGP	External Member
15.	Prof. ItiSaha Mishra	Jadavpur University	External Member
16.	Prof. Rowdra Ghatak	NIT, Durgapur	External Member
17.	Prof. Sajal Kumar Paul	IIT-ISM Dhanbad	External Member
18.	Mr. Atish Dipankar Mitra	Retd, AGM, BEL	External Member
19.	Dr. Tapas Chakraborty	TCS, Kolkata	External Member

10. Departmental Academic Committee

Sr. No.	Name of the Member	Designation	Role
1.	Dr. Srikanta Pal	Professor & Head	Chairman (Ex- Officio)
2.	Dr. R. Sukesh Kumar	Professor	Member
3	Dr. Nisha Gupta	Professor	Member
4	Dr. Vibha Rani Gupta	Professor	Member
5	Dr. S. K. Ghorai	Professor	Member
6	Dr. Mahesh Chandra	Professor	Member
7	Dr. Sandeep Singh Solanki	Professor	Member
8	Dr. Rajesh Kumar Lal	Associate Professor	Member
9	Dr. S SSahu	Assistant Professor	Member
10	Dr. A K Tiwary	Assistant Professor	Member
11	Dr. D.K. Upadhyay	Assistant Professor	Member
12	Dr. S. Kundu	Assistant Professor	Member
13	Dr. D. K. Mahanta	Professor	External Member
14	Dr. S. Konar	Professor	External Member

SECTION 6**OTHER INFORMATION****11. Publication by students:**

- Published in International Journals**

- Appasani, Bhargav, Verma, V.K., Pelluri, Rahul., & Gupta, Nisha (2017), Genetic Algorithm Optimized Electromagnetic Band Gap Structure for Wide Band Noise Suppression, Progress in Electromagnetics Research Letters 71,109-115
- Appasani, Bhargav, & Gupta, Nisha (2017), A Novel Segmentation Approach in GA and its Application in Antenna Array, Microwave Review, 23(2), 8-12.
- Appasani, Bhargav, Pelluri, Rahul & Gupta, Nisha (2018), Detection and correction of errors in linear antenna arrays, International Journal of Numerical Modelling Electronic Networks Devices and Fields,1-12.
- Pandey, C., Sandeep, R., Priyam, A., Mahapatra, S., & Sahu, S. S. (2017).

Predicting Protein-RNA Interaction Using Sequence Derived features and Machine Learning Approach International Journal of Data Mining and Bioinformatics, 2018, 19(3), 270-282,

- Priyam, A., Pandey, C., Sandeep, R., and Sahu, S.S. (2017). Predicting RNA-Protein Interaction using Machine learning Approach, Journal of Advances in Computer Science and Information technology, 4(3), 106-110.
- Chakraborty, S., Pandey, A., Prasad, D., Vedam, V., Nath V.(2018) Linearity improvement of gain enhanced op-amp using cross-coupled architecture, Microsystem Technologies, pp1-10, Springer Berlin Heidelberg.
- Nidhi, N., Prasad, D., Nath, V.(2018) Internet of Things/ Everything: An Overview, International Journal of Pure and Applied Mathematics, Volume 119, no.12.

8. Kumari, R. R., Kartik M. (2017) A Review: A Singer Identification and Analysis of Musical Performance, *International Journal of Latest Engineering Research and Applications*, vol. 02, pp-11-16.
 9. Parikh, C., Ranjan, R., Khan Aaquib, Jain, R., Mahto R., Chakraborty, D., Pal, S., Surjya K., Pal (2017), Volumetric defect analysis in friction stir welding based on three dimensional reconstructed images, *Journal of Manufacturing Processes* (Elsevier), 29, 96-112.
 10. Roy, R. B., Ghosh, A., Bhattacharyya S., Mahto, R., Kumari, P. K., Pal, K., Pal, S. (2018) Weld defect identification in friction stir welding through optimized wavelet transformation of signals and validation through X-ray micro-CT scan, *The International Journal of Advanced Manufacturing Technology*, 98(470), 1–11.
 11. Ghazali, A.N., Sazid, M. Pal, S. (2017) A compact broadside coupled dual notched band UWB-BPF with extended stopband, *AEU-International Journal of Electronics and Communications*, Elsevier, 82, 502-507
 12. Ghazali, A.N., Sazid, M. Pal, S. (2018) Dual band notched UWB-BPF based on hybrid microstrip-to-CPW transition, *AEU-International Journal of Electronics and Communications*, Elsevier, 86, 55-62.
 13. R., Guduri, M., Islam, A., Mehra, R., Srivastava, P., Islam, A. (2017) Current-Mode Circuit-Level Technique to Design Variation-Aware Nanoscale Summing Circuit for Ultra-Low Power Applications,” in *Microsystem Technologies-Micro-and Nanosystems-Information Storage and Processing Systems*, 23(9), 4045–4056.
 14. Sinha, A., Islam, A. (2017) Low-Power Half-Select Free Single-Ended 10 Transistor SRAM Cell, in *Microsystem Technologies-Micro-and Nanosystems-Information Storage and Processing Systems*, 23(6), 4133–4144.
 15. Mehra, R., Kumar V., Islam, A. (2018) Floating active inductor based Class-C VCO with 8 digitally tuned sub-bands, in *International Journal of Electronics and Communications (AEÜ)*, 83, 1-10
 16. Bharti, D. and Islam, A. (2018) Optimization of SiC UMOSFET Structure for Improvement of Breakdown Voltage and ON-Resistance, *IEEE Transactions on Electron Devices*, 65(2). 615-621.
 17. Dokania, V., Verma, R., Guduri, M., Islam, A. (2018) Minimum Energy Solution for Ultra-low Power Applications, *Microsystem Technologies-Micro-and Nanosystems-Information Storage and Processing Systems*, Springer, 1-9.
 18. Mehra, R., Islam, A. (2018) A Low Power, Temperature Compensated, Robust Design of CS Amplifier in Nanoscale Regime, *Microsystem Technologies-Micro-and Nanosystems-Information Storage and Processing Systems*, Springer, 1-12.
 19. Divedi, A., Tyagi, S., Islam, A. (2018) Compact versatile noise suppressed programmable trigger pulse generator for Industrial applications,” *National Academy Science Letters*, 41(2), 97-101
 20. Sengupta, A., Islam, A. (2018) Comparative analysis of AlGaIn/GaN high electron mobility transistor with sapphire and 4H-SiC substrate,” *Microsystem Technologies-Micro-and Nanosystems-Information Storage and Processing Systems*, Springer, 1-9.
 21. Ranjan, N., S. Islam, A. (2018) Compact design of an MTJ-based non-volatile CAM cell with read/write operations, *Microsystem Technologies-Micro-and Nanosystems-Information Storage and Processing Systems*, Springer, 1-12.
 22. Pal, I., Islam, A. (2018) Circuit-Level Technique to Design Variation- and Noise-Aware Reliable Dynamic Logic Gates, *IEEE Transactions on Device and Materials Reliability*, 18(2), 224-239.
- **Published in National Journals**
1. Das, M. and Lal, R. K. (2017), Modeling of Quantum Well Infrared Photodetector for Long Wavelength Infrared Detection, *IETE*

Journal of Research, 63 (5), 719-727.

2. Kumari, S., Srivastava, S., Mittal, A., Lal, R. K. (2017), Designing of a Fractal Annular Array Antenna with Use of Power Divider. Indian Journal of Science and Technology, 10 (30), 1-5.

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• Published in International Proceedings

1. Kumari, Neha & Gupta, Nisha, Broadband polarization insensitive and angle independent metamaterial absorber, Innovations in Power and Advanced Computing Technologies (i-PACT), 2017.
2. Tiwari, S., Ghosh, T., & Sahay, J., Miniaturization of Vivaldi Antenna for different wireless communication applications, International Conference on Recent Advances in Information Technology (RAIT'18), ISM-IIT Dhanbad, March 15 & 16, 2018.
3. Ghosh, T., Tiwari, S., & Sahay, J., Enhanced Rate of WLAN using different protocols in infrastructure and ad-hoc mode, IEEE 2017 International Conference on Signal processing and Communication (ICSPC'17), Coimbatore Karunya University, July 28 & 29, 2017.
4. Ghosh, T., Tiwari, S., & Sahay, J., On-building remote controlled system for several home appliances using zigbee, International Conference on Smart technologies and management for computing, communication, controls, energy and materials (ICSTM), Vel Tech Rangarajan Dr. Sagunthala R & D Institute of Science and technology, Chennai, August 2-4, 2017.
5. Kumar, Ajit and Ghorai, S. K., BER performance Analysis of Indoo MIMO-VLC System for Multipath Reflection, International Conference for Smart City Energy Security and Power, C.V. Raman College of Engg., Bhubaneswar, Odisha, 2018.
6. Premjeet Singh, Manoj Kumar Mukul and Rajkishore Prasad: Enhancement of Bone Conducted Speech Signal by Wavelet

Transform, International Conference on Signal Processing and Communications (SPCOM 2018), IISC Bangalore, 2018.

7. Chatterjee, S, Sengupta A., Kundu S., Islam, A. (2017), Analysis of AlGaIn/GaN High Electron Mobility Transistor for High Frequency Application, International Conference on Devices for Integrated Circuit (DevIC 2017), IEEE Conference, Kalyani, West Bengal, India.
8. Chaudhuri, D., Kundu S. and Chatteraj N., (2017) Energy Harvester for Medical Implanted Devices, ISSS International Conference on Smart Materials Structures & Systems (ISSS 2017), IISc., Bangalore.
9. Chaudhuri, D. and Kundu, S. (2017) MEMS Piezoelectric Energy Harvester to power Wireless Sensor Nodes for Machine Monitoring application, International Conference on Devices for Integrated Circuit (DevIC 2017), IEEE Conference, Kalyani, West Bengal, India.
10. Sinha, R. K., Asha, B., San, N., Prasad, S., Sahu, S.S. (2018) Chaotic Image Encryption Scheme Based on Modified Arnold Cat Map and Henon Map, IEEE International Conference on Current trends towards Converging Technologies (ICCTCT 2018), Coimbatore, India.
11. Gupta, S., Upadhyay, M. D. & Pal, S. (2018) A Distributed MEMS Based Biosensor for Detection of Staphylococcus Aureus, International Conference on Advances in Communication and Computing Technology (ICACCT2018), Amrutvahini College of Engineering, Sangamner, Dist: Ahmednagar, Maharashtra.
12. Sidhant Gupta, Madhur Deo Upadhyay, Srikanta Pal (2018) Graphene Based Monopole Terahertz Antennas on Polyimide Substrate, International Conference on Advances in Communication and Computing Technology (ICACCT2018), February 2018, Amrutvahini College of Engineering, Sangamner, Dist: Ahmednagar, Maharashtra.
13. Gupta, Nikita, Thakur, Pragati, Dubey,

Kumar, Shashank and Islam, Aminul (2018) Design of Nonvolatile MRAM BitCell, 7th International Symposium on Embedded Computing & System Design (ISED-2017), NIT, Durgapur, India.

14. Oraon, Alisha, Shreya, Shradha, Kumari, Renuka Islam, Aminul (2018) A Double Trench 4H - SiC MOSFET as an Enhanced model of SiC, 7th International Symposium on Embedded Computing & System Design (ISED-2017), NIT, Durgapur, India

Books:

• Chapter(s) in Edited Books



1. Pandey, S., Gupta, V.R. (2018) Implantable Antenna for Blood Glucose Monitoring, Gnanagurunathan G., Sangeetha R., Kiran K. (eds), Optical and Microwave Technologies. Lecture Notes in Electrical Engineering (pp. 65-70). Springer, Singapore.
2. Bhowmik, W., Gupta, V. R., Srivastava, S., Prasad, L. (2017) Butler Matrix Fed Exponentially Tapered H-Plane Horn Antenna Array System Using Substrate Integrated Folded Waveguide Technology. In: Bhaumik J., Chakrabarti I., De B., Bag B., Mukherjee S. (eds) Communication, Devices, and Computing. Lecture Notes in Electrical Engineering (pp. 25-37), Springer, Singapore
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4. Hosain, M.M., Kumari, S., Tiwary, A.K. (2018), Design of Circular Disc Monopole Antenna for UWB Application. In: Nath V. (eds) Proceedings of the International Conference on Microelectronics, Computing & Communication Systems. Lecture Notes in Electrical Engineering (pp. 339-352). Springer, Singapore
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6. Nayan, N., Kumar S., Sahu S.S. (2018) Accidental Event Detection Based on Optical Flow Analysis. In: Bera R., Sarkar S., Chakraborty S. (eds) Advances in Communication, Devices and Networking. Lecture Notes in Electrical Engineering (pp. 607-614), Springer, Singapore
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9. Ghosh, T., Tiwari, S., & Sahay, J (2018), Miniaturized MIMO wideband antenna with L-shaped DGS for wireless communication, A. Kumar and S. Mozar (Eds), Lecture Notes in Electrical Engineering (pp 241-249), Springer, Singapore.
10. Ghosh, T., Tiwari, S., & Sahay, J. (2017), MIMO wideband antenna technique in DGS for enhanced wireless communication, V. Nath and Jyotsna Kumar Mandal (Eds), Lecture Notes in Electrical Engineering (pp 483-491), Springer, Singapore.
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- 12 Pooshkar, R., Raj R., Singh, R., Nagarkar, R., Kumar, A., Agarwal, S., Nath, V. (2018) An Ultra-Low-Power Internet-Controlled Home Automation System. In: Nath V. (eds) Proceedings of the International Conference on Microelectronics, Computing & Communication Systems. Lecture Notes in Electrical Engineering, Vol 453, pp271-280 Springer, Singapore.
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12. Achievements of Students

Sr. No	Name of Student	Achievement/Position/Award etc.	Organised by	Date and Venue
1.	Shashank Kumar Dubey	Best Paper Award Micro-2018	CCSN-2018 ISTM Kolkata	19-20 th May-2018
2.	Neha Nidhi	Second Position in Innovation Meet-2018	IETE & ISVE Ranchi at ARTTC BSNL Ranchi	13-14 th May-2018

13. Distinguished Visitors

Sr. No	Name of Visitor with Affiliation	Date of Visit	Picture
1.	Dr. D.K. Jain Professor & Director NIT Patna	12-03-2018	
2.	Dr. S.R.M. Prasanna Professor, IIT Guwahati	04-07-2017	
3	Dr. Rohit Sinha Professor, IIT Guwahati	03-07-2017	



Department of Electrical and Electronics Engineering

SECTION 1

PROFILE



1. About the Department

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 and Ph.D. in Electrical Engineering. Recently, NBA has accredited one of the ME programmes, ME Power Electronics for five years, BE in EEE for three years and other two ME programmes ME Control System and ME Power System for two years. Thirty research scholars are currently pursuing their doctoral degree on different concepts related to Micro grid, Reliability, Hybrid Electric Vehicles, Multi-level inverters, Robotics, fault tolerant multi phase drives, Image Processing, magneto-optic sensors, Power System Voltage Stability, System Identifications, Soft Computing Techniques, applications etc.

Department of EEE is presently utilizing the grants received from DST (FIST), UGC (SAP), MODROB, TEQIP and Institute grant to strengthen the research and post graduate lab facility. The department is continuously working in the direction of elevating the standard of 13 labs for laboratory-based research and teaching. Major equipments like 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 CRIO, LabVIEW, 5kW solar photovoltaic system, smart energy meter and NAO Humanoid Robot and Machine Fault Simulator are available in the key laboratories like Control System, Power System, Power Electronics, Measurement and Process Control and Machines, Power Electronic, Smart Grid, Measurement, and Drive labs. In the financial year 2017-18, department has procured Phasor Measurement Unit (PMU), Wind Simulator, Spectrum analyser, two area network, PLC-HMI-VFD Panel with 3 phase Induction motor, Digital Trainer Kit, Matlab based Control System and Sensor and Transducer Lab, MyRIO Embedde Device and dSPACE kit-ACE1104PCIC (Dyna Fusion).

SECTION 2**SEMINAR / CONFERENCE****2. Seminar / Conferences / Short – Term Courses Conducted by the Department**

Sr. No.	Title of Seminar/ Conference/ Short Term Courses/ Workshop	Coordinator	Funding / Sponsoring Agency	Date of Event
1.	Two Week ISTE STTP on 'Electric Power System'	Mr. P. Prakash	NMEICT	10 th -15 th July, 2017
2.	GIAN Course titled "Synchronized Phasor Measurement for Enhancing Situation Awareness in Smart Grid" (Course ID 175024D01)	Prof. D. K. Mohanta Prof. R. C. Jha Local Coordinator for GIAN: Prof. Sandip Dutta	MHRD Govt. of India	9 th – 13 th October, 2017

3. Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members:

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1.	Dr. R.C.Jha, Dr. T.Ghose, Dr. D. Ghosh, Mr. B.M.Prasad, Mr. G.S.Gupta, Dr. Deepak Kumar, Mr. A. Prasad	Two Week ISTE STTP on 'Electric Power System'	NMEICT	BIT, Mesra	BIT, Mesra	10 th -15 th July, 2017
2.	Mrs. S.S.Kamlu, Dr. S.K.Mishra, Dr. D.Ghosh, Mr. P. Prakash	GIAN Course titled "Synchronized Phasor Measurement for Enhancing Situation Awareness in Smart Grid" (Course ID 175024D01)	MHRD, Govt. of India	BIT, Mesra	BIT, Mesra	October 9 th – 13 th , 2017
3.	Subrat Kumar Swain	Workshop on Emerging Trends in Advance Control System Applications in Intelligent Transport System			Delhi Technological University, New Delhi, India	December 4 th -8 th , 2017

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
4.	Subrat Kumar Swain	Real Time Implementation of Optimized I-PD Controller for the Magnetic Levitation System Using Jaya Algorithm (Third IFAC International Conference on Advances in Control and Optimization of Dynamical Systems (ACODS))			Leonida Holistic Destination at Hyderabad organized by Dr. APJ Abdul Kalam Missile Complex (DRDO) in Hyderabad	February 18th – 22nd, 2018
5.	S. K. Mishra	Workshop on Cyber Crime and Investigation	TEQIP		BIT, Mesra	18-22 December, 2017
6.	Ms. Nishtha Bajoria	Faculty Induction Workshop for Newly Engaged Faculty under TEQIP-III	TEQIP-III		IIT, Kharagpur	February 6th-10th 2018
7.	Dr. Tarkeshwar Mahto Mr. K. Vamshi Kumar Mr. D.V. Siva Krishna	Faculty Induction Workshop for Newly Engaged Faculty under TEQIP-III	TEQIP-III		IIT, Madras	Jan 31st –Feb 4th 2018
8.	Dr. V. Laxmi Dr. S. Chakraborty Mr. P. Prakash Dr. S. Kumar Dr. S. K. Mishra Dr. D. Ghosh Mr. B. M. Prasad Mr. S. K. Swain Mr. Aftab Alam Dr. S. Shiva Kumar	Summer Training Program on Active Learning	TEQIP-III		IIT, Gandhinagar	18-22 June, 2018

SECTION 3**RESEARCH PUBLICATIONS****4. Publications in Journals:**

- **Published in International Journals**

- Appasani, B., & Mohanta, D. K. (2018). Co-optimal Placement of PMUs and their Communication Infrastructure for Minimization of Propagation Delay in WAMS. *IEEE Transactions on Industrial Informatics*, 14(5), 2120.
- Gopakumar, P., Reddy, M. J. B., & Mohanta, D. K. (2018). Phasor Measurement Sensor-Based Angular Stability Retention System for Smart Power Grids with High Penetration of Microgrids. *IEEE Transactions on Industrial Informatics*, 18(2), 764.
- Pal, D., Meyur, R., Menon, S., Reddy, M. J. B., & Mohanta, D. K. (2018). Real Time Condition Monitoring of Substation Equipment Using Thermal Cameras. *IET Generation, Transmission & Distribution*, 12(4), 895.
- Malkhandi, A., & Ghose, T. (2017). A Fourier based single phase PLL algorithm: design, analysis and implementation in FPGA. *International Transaction on Electrical Energy System John-Wiley*, 27 (10), 1.
- Ghosh, S., Ghosh, D., & Mohanta, D. K. (2017). Situational awareness enhancement of smart grids using intelligent maintenance scheduling of phasor measurement sensors. *IEEE Sensors Journal*, 17(23), 7685.
- Ghosh, S., Ghosh, D., & Mohanta, D. K. (2017). Functional uncertainty analysis of phasor measurement unit using fuzzy hidden Markov model. *IETE Journal of Research– Taylor and Francis*, 64 (01), 100.
- Mahto, T., & Mukherjee, V. (2017). A novel scaling factor based fuzzy logic controller for frequency control of an isolated hybrid power system. *Energy*, 130, 339.
- Mahto, T., & Mukherjee, V. (2017). Fractional order fuzzy PID controller for wind energy based hybrid power system using quasi-oppositional harmony search algorithm. *IET Generation, Transmission & Distribution*, 11(3), 3299.
- Neogi, N., Mohanta, D. K., & Dutta, P. K. (2017). Defect Detection of Steel Surfaces with Global Adaptive Percentile Thresholding of Gradient Image. *Journal of the Institution of Engineers (India): Series B*, 98(6), 557.
- Appasani, B., & Mohanta, D. K. (2017). Optimal Placement of Synchro Phasor Sensors for Risk Hedging in a Smart Grid. *IEEE Sensors Journal*, 17(23), 7857.
- Somalwar, Rahul, Kadwane, S. G., & Mohanta, D. K. (2017). Harmonics Based Enhanced Passive Islanding Method for Grid Connected System. *Electric Power Components & Systems*, 45(14), 1554.
- Pal, D., Mallikarjuna, B., Reddy, R. J., Reddy, M. J. B., & Mohanta, D. K. (2017). Synchrophasor Assisted Adaptive Relaying Methodology to Prevent Zone-3 Mal-Operation During Load Encroachment. *IEEE Sensors Journal*, 17(23), 7713.
- Kumar, M., & Mishra, S. K. (2018). A Comprehensive Review of Nature Inspired Neural Network based Adaptive Filter for Eliminating Noise in Medical Images. *Current Medical Imaging Reviews*. Bentham Science, 14(06).
- Kumar M., & Mishra, S. K. (2018). Jaya based Functional Link Multilayer Perceptron adaptive filter for Poisson and Impulse Noise Suppression from X-ray Images. *Multimedia Tools and Applications (SCI)*, 77(01), 1.
- Kumar, D., Singh, A., Mishra, S. K., Jha, R. C., & Samantaray, S.R. (2018). A coordinated planning framework of electric power distribution system: Intelligent Reconfiguration. *International Transaction on Electrical Energy System*, 28(6), 1.
- Kumar, M., & Mishra, S. K. (2018). Teaching Learning Based Optimization-Functional Link Artificial Neural Network Filter for Mixed Noise Reduction from Magnetic Resonance Image. *Bio-Medical Materials and Engineering*, 28(6), 643.

17. Swain, S. K., Sain, D., Mishra, S. K., & Ghosh, S. (2018). Real Time Implementation of Fractional Order PID Controllers for a magnetic Levitation Plant. *International Journal of Electronics and Communications (AEU)*, 78, 141.
 18. Sain, D., Swain, S. K., & Mishra, S. K., (2017). Real-time implementation of Robust Set-point Weighted PID Controller for Magnetic Levitation System. *International Journal on Electrical Engineering and Informatics*, 9(2).
 19. Kumar, M., & Mishra, S. K. (2017). Jaya-FLANN based adaptive filter for mixed noise suppression from ultrasound images. *Biomedical Research*, 28 (8), 1.
 20. Mahato, B., Jana, K. C., & Thakura, P. R. (2018). Constant V/f control and Frequency Control of Isolated Winding Induction Motor Using Nine-Level Three-Phase Inverter. *Iranian Journal of Science and Technology, Transaction of Electrical Engineering*, 3(9), 1.
 21. Kumari, M., Thakura, P. R., Badodkar, & Deepak N. (2018). Transient Analysis of Three-Phase High-Power Voltage Source Inverter with Nonlinearities in Hybrid Electric Vehicles. *IEEE Transactions on Power Electronics*, 33(04), 3672.
 22. Jha, S. K., Kumar, D., & Kamwa, I. (2018). Smart Demand Response Management of Islanded Microgrid using Voltage-Current Droop Mechanism. *International Journal of Emerging Electric Power Systems*, 19(1).
 23. Kumari, S., & Chakraborty, S. (2018). Study of different magneto-optic materials for current sensing applications. *J. Sens. Sens. Syst., (JSSS)*, 7, 421.
- 5. Publications in Proceedings:**
- **Published in International Proceedings**
 1. Tripathi, P. R., Barwar, M. K. and Thakura, P. R., Stand-alone Batteryless Water Pumping System using Single Phase Boost Inverter fed Induction Motor. In *Proceedings of the IEEE 3rd International Conference for Convergence in Technology*, Pune, 2018.
 2. Ojha, P. K., Barwar, M. K., Tripathi, P. R. and Thakura, P. R., Hardware Implementation of Three-Phase Single Stage Boost Inverter For Higher Frequency. In *Proceedings of the 2nd IEEE International conference on Electronics, Communication and Aerospace Technology*, Coimbatore, 2018.
 3. Barwar, M. K., Tripathi, P. R. and Thakura, P. R., Boost Inverter Fed Three Phase Induction Motor for Off Grid PV Based Water Pumping System. In *Proceedings of the Advances in Electrical, Electronics, Information, Communication and Bioinformatics*, Chennai, 2018.
 4. Barwar, M. K., Tripathi, P. R. and Thakura, P. R., Reduced THD Model of Single Stage Three-Phase Boost Inverter. In *Proceedings of the 4th International Conference on Electrical Energy Systems*, Chennai, 2018.
 5. Murthy, C., Swain, K. B., Meher, M. and Mohanta, D. K., Optimal Placement of PMU for Enhancing Situational Awareness. In *Proceedings of the IEEE International Conference on Electrical, Electronics, Computers, Communication, Mechanical and Computing (EECCMC-2018)* Vaniyambadi, Tamilnadu, 2018.
 6. Sain, D., Swain, S. K. and Mishra, S. K., Real Time Implementation of Optimized I-PD Controller for Magnetic Levitation System using Jaya Algorithm. In *Proceedings of the Advanced in Control and Optimization of Dynamical System*, Hyderabad, 2018.
 7. Raj, R., Swain, S. K. and Mishra, S. K., Optimal Control for Magnetic Levitation System using H-J-B Equation based LQR. In *Proceedings of the 2nd IEEE International Conference on Energy, Power & Environment*, Shillong, 2018.
 8. Seth, R., Swain, S. K. and Mishra, S. K., Single Object Tracking using Estimation Algorithm. In *Proceedings of the 2nd IEEE International Conference on Energy, Power & Environment*, Shillong, 2018.
 9. Kumar, R. and Shiva Kumar, S., PFC using Bridgeless SEPIC Converter. In *Proceedings of the 2nd IEEE International Conference on Electronics, Communication and Aerospace Technology (ICECA 2018)*,

Coimbatore, 2018.

10. Verma, M., and Shiva Kumar, S., Hardware design of SEPIC converter and ripple analysis. In Proceedings of the IEEE International Conference on Current Trends Towards Converging Technologies (ICCTCT), Coimbatore, 2018.
11. Verma, M., Shiva Kumar, S., Singh, S., Kumari, N., and Laxmi, V., Hardware design of SEPIC converter for battery charging application through PV using P&O MPPT algorithm. In Proceedings of the International Conference on Microelectronics Computing and Communication System (MCCS), Ranchi, 2018.
12. Verma, V. K., Kumar, V., Bhargav, A. and Mohanta, D. K., Risk assessment of wireless communication network for PMUs. In Proceedings of the IEEE International Conference on Power Control Signals and Instrumentation Engineering, Saveetha

Engineering College, Chennai, 2017.

13. Murthy, C., Meher, M. and Mohanta, D. K., A Clustering Based Approach for Observability and Controllability Analysis for Optimal PMU Placement. In Proceedings of the International Conference on Advanced Material Technologies (ICAMT), Visakhapatnam, 2017.
14. Roy, S., Malkhandi, A. and Ghose, T., Modeling of 5 kW single phase grid tied solar photovoltaic system. In Proceedings of the International Conference on Computer, Electrical & Communication Engineering (ICCECE-2016), Kolkata, 2017.
15. Chakravarty, S. P., and Chakraborty, S., Fractal Analysis Related to Tumour Growth in Lungs: A Review. In the Proceedings of 4th IEEE ICIIP (International Conference on Image Information Processing), Himachal Pradesh, 2017.

SECTION 4

AWARD/ PATENT/ COLLABORATIONS

6. Award / Recognition Bestowed on Faculty members

Sr. No.	Name of the Faculty Member	Title of the Award / Honour	Organisation	State / National / International Level	Year / Duration
1.	Dr. P.R. Thakura	Vice - Chairman	IETE Ranchi	State	2018
2.	Prof. (Dr) D K Mohanta	Associate Editor, IEEE Access (Impact Factor: 3.244)	IEEE	International	2017-18
3.	Prof. (Dr) D K Mohanta	Associate Editor, IET Generation, Transmission and Distribution (Impact Factor: 2.213)	IET	International	2017-18
4.	Prof. (Dr) D K Mohanta	Guest Editor-in-Chief, IET Generation, Transmission and Distribution Special Issue on Special Integrity Protection Schemes (SIPS) (Impact Factor: 2.213)	IET	International	2017-18

Sr. No.	Name of the Faculty Member	Title of the Award / Honour	Organisation	State / National / International Level	Year / Duration
5.	Prof. (Dr) D K Mohanta	Editor, Electric Power Components & Systems (Taylor & Francis Publications) (Impact Factor: 1.22)	Taylor & Francis	International	2017-18
6.	Prof. (Dr) D K Mohanta	Outstanding reviewer - International Journal of Electrical Power and Energy Systems (Elsevier) for 2017	Elsevier	International	2017-18
7.	Prof. (Dr) D K Mohanta	Outstanding reviewer - Journal of Advanced Research (Elsevier) for 2017	Elsevier	International	2017-18

SECTION 5**ACTIVITIES/ DAC/ BOS****7. Student Activities**

Sr. No.	Name of the Activity	Students' Co-Ordinator	Faculty Co-ordinator	Date / Duration
1	Industrial Visit to Bokaro Thermal Power Plant	Promit Kumar Saha	Mr. G. S. Gupta	07.04.18
2.	Industrial Visit to Tata Motors, Jamshedpur	Promit Kumar Saha	Mr. G. S. Gupta Mr. Prem Prakash	31.03.18

8. Board of Studies

Sr. No.	Name of the Member	Designation	Role
1.	Prof. P. R. Thakura	Professor & Head	Chairman (Ex-Officio)
2.	Prof. Amitava Chatterjee	Prof., EE Dept. Jadavpur Univ.	External Member
3.	Dr. Anup Kumar Panda	NIT Rourkela	External Member
4.	Mr. Sujit Kumar	DGM, MECON, Ranchi	External Member
5.	Dr. Nirbhar Neogi	Ex-Executive Director, SAIL Ranchi: Member	External Member
6.	Mr. Deepak Kumar	AGM, Electrical, MECON	External Member
7.	Prof. T. Ghose	Dept. of EEE	Member

Sr. No.	Name of the Member	Designation	Role
8.	Dr. D.K. Mohanta	Dept. of EEE	Member
9.	Prof. (Mrs.) Vijaya Laxmi	Dept. of EEE	Member
10.	Prof. (Mrs.) S. Chakraborty	Dept. of EEE	Member
11.	Dr. (Mrs.) Debomita Ghosh	Dept. of EEE	Member
12.	Mr. Prem Prakash	Dept. of EEE	Member
13.	Prof. Mahesh Chandra,	Dept. of ECE	Member
14.	Prof. G. Sahoo,	Dept. of CSE	Member
15.	Mr. Shivam Priya	BE Student	Member
16.	Mr. Rahul Raj	ME Student	Member
17.	Mr. Vijay Kumar Karan	Ph.D. Scholar	Member

9. Departmental Academic Committee

Sr. No.	Name of the Member	Designation	Role
1.	Prof. P. R. Thakura	Professor & Head	Chairman (Ex-Officio)
2.	Prof. (Mrs.) Vijaya Laxmi	Member	Member
3.	Prof. (Mrs.) S. Chakraborty	Member	Member
4.	Dr. Surendra Kumar	Member	Member
5.	Dr. Debomita Ghosh	Member	Member
6.	Dr. S. Shiva Kumar	Member	Member
7.	Dr. Aftab Alam	Member	Member
8.	Prof. S. Konar, Dept. of Applied Physics	Member	External Member
9.	Prof. Mahesh Chandra, Dept. of ECE	Member	External Member

SECTION 6


OTHER INFORMATION

10. Achievements of Students

Sr. No	Name of Student	Achievement/Position/Award etc	Organised by	Date and Venue
1.	Divyansh Saurabh, BE, EEE, VII Sem Rajarshi Mukherji, BE, EEE, V Sem (Team Aveon Racing)	2nd Position in Virtual Presentation	SaeIndia, Mahindra in E-Baja	13-14 July 2018.

2.	Dr. Ch. Murthy, Ph.D scholar	Power System Award (PPSA-2016) under the Doctoral category for the year 2016 The prize comprises of Rs. 60,000/- and a certificate of merit. It was awarded by Power System Operation Corporation Limited (POSOCO), a wholly owned subsidiary company of POWERGRID of India.		
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11. Distinguished Visitors

Sr. No	Name of Visitor with Affiliation	Date of Visit	Picture
1.	Dr. Innocent Kamwa, Head-Power Systems and Mathematics Hydro-Quebec Research Institute, Quebec, CANADA	09.10.17-13.10.17 in the GIAN Short Term Course on Synchronized Phasor Measurement for Enhancing Situation Awareness in Smart Grid	

12. Other Information

- Prof. D K Mohanta- Program Committee Member for IEEE International Conference on Recent Developments, Control, Automation, Power Engineering, 26-27 October 2017, Amity University, Noida, India.
- Prof. D K Mohanta- Program Committee Member for INTELLI 2018, The Seventh International Conference on Intelligent Systems and Applications, July 23-27, 2017, Nice, France.
- Prof. D K Mohanta - Program Committee Member for 14th IEEE India Council International Conference 2017 (INDICON-2017), Dec 15-17, IIT Roorkee, India.
- Prof. D K Mohanta - Technical Program Committee Member, 31st Canadian Conference on Computer and Electrical Engineering (CCCE18), Quebec City, Canada, held during May 13 – 16, 2018.
- Prof. D K Mohanta - Resource Person for Faculty Development Program (FDP) in School of Electrical Engineering, KIIT, Bhubaneswar held during 25 - 29 June 2018



Department of Hotel Management and Catering Technology

SECTION 1

PROFILE



1. About the Department

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" in India and abroad for 18 weeks in various star Hotels such as Taj group of hotels, Oberoi group of hotels, ITC, The Park hotels, Specialty Restaurant Ltd. etc.

SECTION 2**SEMINAR / CONFERENCE****2. Seminar / Conferences / Short – Term Courses Conducted by the Department**

Sr. No.	Title of Seminar/ Conference/ Short Term Courses/ Workshop	Coordinator	Funding / Sponsoring Agency	Date of Event
1.	Transforming communities through sustainable tourism in and around Jharkhand: Trends & Challenges.	Dr. Nishikant Kumar	Dept. of Tourism, Govt. of Jharkhand	15 th -16 th Feb.'18

3. Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members:

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1.	Dr. Abhinav Kr. Shandilya	Pedagogy for online and blended teaching – learning process	MHRD, GoI	IIT Bombay	BIT Mesra	2.5.18 to 18.06.18
2.	Dr. Abhinav Kr. Shandilya	Foundation Program in ICT for Education	MHRD, GoI	IIT Bombay	BIT Mesra	8.3.18 to 12.04.18
3.	Dr. Abhisek Jana	Workshop on NBA	TEQIP-III	NPIU	BIT, Mesra	18.3.18 to 19.3.18
4.	Dr. Amit Saran	Workshop on NBA	TEQIP-III	NPIU	BIT, Mesra	18.3.18 to 19.3.18
5.	Dr. Abhinav Kr. Shandilya	Workshop on NBA	TEQIP-III	NPIU	BIT, Mesra	18.3.18 to 19.3.18
6.	Dr. Praveen Srivastava	AICTE Approved Short Term Course on Consumer Behaviour: Role of Market Research	IIT KGP	VGSOM, IIT Kharagpur	VGSOM, IIT Kharagpur	19.02.18-23.02.18
7.	Mr. Sanjiv Kr. Srivastava	AICTE Approved Short Term Course on Consumer Behaviour: Role of Market Research	IIT KGP	VGSOM, IIT Kharagpur	VGSOM, IIT Kharagpur	19.02.18-23.02.18
8.	Mr. Gautam Shandilya	AICTE Approved Short Term Course on Consumer Behaviour: Role of Market Research	IIT KGP	VGSOM, IIT Kharagpur	VGSOM, IIT Kharagpur	19.02.18-23.02.18
9.	Mr. Sanjiv Kumar Srivastava	3 rd International Conference on Nanoelectronics Circuits & communication System (NCCS-2017)	Self	IETE & ISVE	Advance Regional Training Centre, Ranchi	11.11.17-12.11.17

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
10.	Mr. Sanjiv Kumar Srivastava	International Management Conference (IMC), 2017. 'A Dynamic Shift of 4G-Good Governance & Global Growth'	Self	GLA University, Mathura in collaboration with California State University San Bernardino.	GLA University, Mathura.	15.12.17-16.12.17
11	Mr. Gautam Shandilya	International Management Conference (IMC), 2017. 'A Dynamic Shift of 4G-Good Governance & Global Growth'	Self	GLA University, Mathura in collaboration with California state University San Bernardino.	GLA University, Mathura.	15.12.17-16.12.17

SECTION 3

RESEARCH PUBLICATIONS

4. Publications in Journals:

- **Published in International Journals**

1. Srivastava, S.K., Chandra, B. & Shandilya, G. (2018). Customer Relationship Management (CRM) on Customer Loyalty and Retention in Hotel Industry of Jharkhand. International Journal of Civil Engineering and Technology (IJCIET), 9(1), 784-796.
2. Shandilya, G., Singh, S. & Srivastava, A.R. (2018). Impact of Consumer's Perception on the Service Quality of Fast Food Sector. International Journal of Mechanical Engineering and Technology (IJMET), 9(2), 74-87.
3. Srivastava, S.K., Srivastava, P. & Chandra, B. (2018). An Impact of Customer Relationship Management (CRM) variables on Customer Satisfaction in the Mid-Market Segment of Hotel Sector in the State of Jharkhand. International Journal of Research in Management & Social Science, 6 (2), ed.1, 5-14.
4. Srivastava, P. & Srivastava, S.K. (2018). Emotional Labour within Hotel Industry- A Case Study of Hotels in Ranchi. International Journal of Management Studies, V, 3(3),

38-43.

5. Chatterjee, R. & Mukherjee, S.K, (2018). Spectroscopic Analysis and Performance Studies of Jatropha Extracted Bio-diesel. Waste Biomass Valor. 9,1579–1585.

5. Publications in Proceedings:

- **Published in International Proceedings**

1. Srivastava, S.K., Chandra, B. & Srivastava, P., The Impact of knowledge management and Data Mining on CRM in the Service Industry. In proceedings of 3rd International Conference on Nanoelectronics, Circuits & Communication Systems (NCCS-2017), ARTTC BSNL, Ranchi, 2017.

- **Edited Books**

1. Shandilya, Kr. Abhinav, Shandilya, Gautam, Kumar, Nishikant and Srivastava, Praveen. (Eds.). (2018). Transforming communities Through sustainable tourism in and around Jharkhand: trends And Challenges, Disha International Publishing House, New Delhi.

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

1. Kumar, A. & Kumar, Nishikant. (2018). Transforming Communities through Home Stay start up- a case study of Itkhor, Chatra, Jharkhand. In Shandilya, Kr. Abhinav,

- Shandilya, Gautam, Kumar, Nishikant, Srivastava, Praveen (Eds.), Transforming communities Through sustainable tourism in and around Jharkhand: trends And Challenges (pp.185-90). New Delhi: Disha International Publishing House.
2. Verma Vijay & G., Nishikant. (2018). Transforming Communities through Gastronomy incubation centre in the sustainable livelihood - a case study of Jidu village, Ranchi, Jharkhand. In Shandilya, Kr. Abhinav, Shandilya, Gautam, Kumar, Nishikant, Srivastava, Praveen (Eds.), Transforming communities Through sustainable tourism in and around Jharkhand: trends And Challenges (pp.180-84). New Delhi: Disha International Publishing House.
 3. Kumar, A. & Saran, Amit (2018). Impact of GST bill on Accommodations and Fooding located in the Tourist Destinations of Ranchi. In Shandilya, Kr. Abhinav, Shandilya, Gautam, Kumar, Nishikant, Srivastava, Praveen (Eds.), Transforming communities Through sustainable tourism in and around Jharkhand: trends And Challenges (pp. 92-98). New Delhi: Disha International Publishing House.
 4. Mishra, S., & Jana, Abhisek (2018). A Green customer loyalty framework for upscale hotels sector of Eastern India. In Shandilya, Kr. Abhinav, Shandilya, Gautam, Kumar, Nishikant, Srivastava, Praveen (Eds.), Transforming communities Through sustainable tourism in and around Jharkhand: trends And Challenges (pp. 191 - 200). New Delhi: Disha International Publishing House.

SECTION 4

AWARD/ PATENT/ COLLABORATIONS

6. Award / Recognition Bestowed on Faculties

Sr. No.	Name of the Faculty Member	Title of the Award / Honour	Organisation	State / National / International Level	Year / Duration
1.	Dr. Praveen Srivastava	Mentor in the AICTE approved Faculty Development Program (FDP 101X) on "Foundation Program in ICT for Education" under the aegis of Pandit Madan Mohan Malviya National Mission for Teachers and Training (PMMMNMTT), MHRD, Govt. of India.	IIT, Bombay	National	3.08.2017 – 7.09.2017
2.	Dr. Praveen Srivastava	Mentor in the AICTE approved Faculty Development Program (FDP 201X) on "Pedagogy for Online and Blended Teaching – Learning Process" under the aegis of (PMMMNMTT), MHRD, Govt. of India.	IIT, Bombay	National	14.09.2017 – 12.10.2017

SECTION 5**ACTIVITIES/ DAC/BOS****7. Student Activities**

Sr. No.	Name of the Activity	Students' Co-Ordinator	Faculty Co-ordinator	Date / Duration
1.	Sorcier De L' Hospitalite	-----	Dr. Amit Saran Mr. Pranjal Kumar	7.4.18 & 14.4.18
2.	Visit to Travel Mart, Khelgaon, Hotwar, Ranchi organized by Dept. of Tourism, Govt. of Jharkhand.	Aditya Kumar Singh and Puja Parul	Dr. Nishikant Kumar.	23.03.18 – 25.03.18
3.	Industrial visit to Itkhori, Chatra.	Samridhi Mishra Gaurav Vijay Verma	Dr. Nishikant Kumar Dr. Praveen Srivastava Mr. Gautam Shandilya.	10.03.18
4.	Workshop on Career opportunities in Hospitality Industry by Industry expert Mr. Akash Kumar, MT, ITC Group of Hotels	Aastha Shaily Yuvraj Kumar	Dr. Nishikant Kumar	21.07.17
5.	Tourism Quiz at Tagore Hill, Morahbadi, Ranchi, organized by Dept. of Tourism, Govt. of Jharkhand.	Samridhi Mishra Yuvraj Kumar	Dr. Nishikant Kumar	14.10.17
6.	Fiesta de Mexicano – Theme Festival	-----	Dr. Abhishek Jana	11.10.17

8. Board of Studies

Sr. No.	Name of the Member	Designation	Role
1.	Dr. Abhinav Kr. Shandilya	Asstt. Professor & HOD (I/c)	Chairman (Ex-Officio)
2.	Dr. Praveen Srivastava	Asst. Professor, Dept. of HMCT	Member
3.	Dr. Abhinav Kr. Shandilya	Asst. Professor, Dept. of HMCT	Member
4.	Dr. Nishikant Kumar	Asst. Professor, Dept. of HMCT	Member
5.	Dr. Abhishek Jana	Asst. Professor, Dept. of HMCT	Member
6.	Mr. Sanjiv Kr. Srivastava	Asst. Professor, Dept. of HMCT	Member
7.	Dr. Amit Saran	Asst. Professor, Dept. of HMCT	Member
8.	Mr. Gautam Shandilya	Asst. Professor, Dept. of HMCT	Member
9.	Dr. Rajeshwari Chateerjee	Asst. Professor, Dept. of HMCT	Member

Sr. No.	Name of the Member	Designation	Role
10.	Dr. S.K. Bose	Professor, Dept. of Management	Member
11.	Dr. B. N. Sinha	Professor, Dept. of Pharmaceutical Sciences and Technology	Member
12.	Dr. Saswati Ghosh	Asst. Professor, Dept. of Bioengineering	Member

External Members (Any Two)

Sr. No.	Name of the Member	Designation	Role
13.	General Manager, Hotel Radisson Blu, Ranchi	General Manager, Hotel Radisson Blu, Ranchi	External Member (Ex-Officio)
14.	General Manager, Chanakya BNR Hotel, Ranchi	General Manager, Chanakya BNR Hotel, Ranchi	External Member (Ex-Officio)
15.	Principal, IHM Hazipur, Bihar	Principal, IHM Hazipur, Bihar	External Member (Ex-Officio)
16.	DGM, JTDC, Ranchi	DGM, JTDC, Ranchi	External Member (Ex-Officio)
17.	General Manager, Capitol Residency, Ranchi	General Manager, Capitol Residency, Ranchi	External Member (Ex-Officio)
18.	Convenor, INTACH, Jharkhand	Convenor, INTACH, Jharkhand	External Member (Ex-Officio)
19.	Director, Airport, Ranchi	Director, Airport, Ranchi	External Member (Ex-Officio)

9. Departmental Academic Committee

Sr. No.	Name of the Member	Designation	Role
1.	Dr. Abhinav Kr. Shandilya	HOD (I/c) - (Ex-Officio)	Chairman
2.	Dr. Praveen Srivastava	Asst. Professor, Dept. of HMCT	Member
3.	Dr. Abhinav Kr. Shandilya	Asst. Professor, Dept. of HMCT	Member

SECTION 6**OTHER INFORMATION****10. Publications by students**

1. Kumar, A. & Kumar, Nishikant. (2018). Transforming Communities through Home Stay start up- a case study of Itkhor, Chatra, Jharkhand. In Shandilya, Kr. Abhinav, Shandilya, Gautam, Kumar, Nishikant, Srivastava, Praveen (Eds.), Transforming communities Through sustainable tourism in and around Jharkhand: trends And

Challenges (pp.185-90). New Delhi: Disha International Publishing House.

2. Verma Vijay & G., Nishikant. (2018). Transforming Communities through Gastronomy incubation centre in the sustainable livelihood - a case study of Jidu village, Ranchi, Jharkhand. In Shandilya, Kr. Abhinav, Shandilya, Gautam, Kumar, Nishikant, Srivastava, Praveen (Eds.), Transforming communities



Through sustainable tourism in and around Jharkhand: trends And Challenges (pp.180-84). New Delhi: Disha International Publishing House.




3. Kumar, A. & Saran, Amit (2018). Impact of GST bill on Accommodations and Fooding located in the Tourist Destinations of Ranchi. In Shandilya, Kr. Abhinav, Shandilya, Gautam, Kumar, Nishikant, Srivastava, Praveen (Eds.), Transforming communities Through sustainable tourism in and around Jharkhand: trends And Challenges (pp.

92-98). New Delhi: Disha International Publishing House.

4. Mishra, S., & Jana, Abhisek (2018). A Green customer loyalty framework for upscale hotels sector of Eastern India. In Shandilya, Kr. Abhinav, Shandilya, Gautam, Kumar, Nishikant, Srivastava, Praveen (Eds.), Transforming communities Through sustainable tourism in and around Jharkhand: trends And Challenges (pp. 191 - 200). New Delhi: Disha International Publishing House.

11 Distinguished Visitors

Sr. No	Name of Visitor with Affiliation	Date of Visit	Picture
1.	Mr. Akash Kumar Manager – ITC Green Centre, Gurgaon	21.07.17	
2.	Chef Michael Swamy Celebrity Chef, Chief mentor of India's first Latin American Restaurant "NUEVA" owned by Cricketer Virat Kohli, Delhi.	15.02.18	
3.	Chef Aks Raj Jodha Executive Chef, ITC Welcom Jodhpur	16.02.18	

Sr. No	Name of Visitor with Affiliation	Date of Visit	Picture
4	Dr. Kumar Ashutosh HOD, Dept. of Tourism, Vocational Studies, Delhi University, Delhi	16.02.18	
5	Dr. Ashish Dahiya Director, IHTM, Maharishi Dayanand University, Rohtak	15.02.18	
6	Mr. Amitava Ghose Co-convenor, INTACH, Jharkhand	16.02.18	



Department of Management

SECTION 1

PROFILE



1. About the Department

The Department of Management at BIT Mesra was conceptualised in 1979 with a focus on creation of exceptional manpower to meet the dynamic needs of the corporate world in the ever-changing economic environment. BIT refines its management enthusiasts into thoroughbred professionals and this fact is well accepted by all recruiting organizations that visit the campus year after year. Apart from this department has a state of the art Language Lab for the benefit of all the students from various departments. The department has maintained its academic leadership in Eastern India through its ambitious plans and commitment to requirements of the professional world. The Department is currently ranked 44th as per NIRF Ranking 2018.

Programmes

1. Postgraduate Programme

The department offers a two-year full-time. Master of Business Administration. It aims at developing world-class managers capable of solving complex and managerial problems.

2. Doctoral Programmes

A Doctoral programme (Ph.D) in management is also offered by the department. Admission to the Ph.D. programme is done twice a year.

SECTION 2

RESEARCH PROJECTS

2. Sponsored Projects and Consultancy

a) Ongoing Projects

Sr. 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	ICSSR	Dec 2015	12 lakhs	2.5 yrs

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
2.	Dynamics of Change in Urban Informal Employment: Insights from Panel Data of two Indian Cities	Dr. Manju Bhagat (Collaborative Project with Institute for Human Development, New Delhi)	ICSSR	2017	45 lakhs	2.6 years

SECTION 3**SEMINAR/CONFERENCE****3. Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members:**

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar/ FDP	Funding Agency	Organizers	Venue	Date
1.	Dr. Rohini Jha	Cyber Investigation and Cyber Crime	TEQIP-III	BIT Mesra	BIT Mesra	18 th - 22 nd December 2017
2.	Dr. Rohini Jha	Foundation Programme in ICT for Education (FDP101x) and pedagogy for online and blended Teaching and Learning process"	MHRD, GOI	IIT Pawai, Bombay	Online	16 th March to 19 th April, 2017
3.	Mrs. Sujata Priyambada Dash	"Strategic Role of Human Capital towards Organizational Performance: A Critical Review"	IMI Bhubaneswar and EGADE Business School, Mexico City, Mexico	IMI Bhubaneswar and EGADE Business School, Mexico City, Mexico	IMI Bhubaneswar	8 th -9 th December, 2017

SECTION 4**RESEARCH PUBLICATIONS****4. Publications in Journals :**

- Published in International Journals**

- Ghosh, A. & Dasgupta A.S. (2017), Environmental Corporate Social Responsibility and Sustainability Strategies in India.", Journal of Academy of Business

and Economics, 17(2), 79-92.

- Ghosh, S. and Dutta, S., (2017). M&A Deals and Corporate Governance Framework: A Study in Indian Telecom Sector accepted for publication in International Journal of Asian Business and Information Management (IJABIM).

3. Jha, Rohini & Shivani S, (2018) E-Governance Assessment of States and UTs of India through EAF “, International Journal of Arts and Commerce, 7 (3), 135-147.
4. Baral M M, Verma A, Mishra PK, (2018), Improving the Service Level to Customers with Special Reference to Cement Industry in India, International Journal of Research and Scientific Innovation; V(IV), 12-117.
5. Baral Manish Mohan, Verma Amitabh, Mishra Pramod Kumar. (2018) A Cloud Base Solution for Improving the Efficiency of Supply Chain Management, International Journal of Mechanical Engineering and Technology; 9(5), 259-266.

• **Published in National Journals**

1. Malpani, R. & Ghosh, A. (2017). Analysing Corporate Social Responsibility Activities of some polluting industries in India, The IUJ Journal of Management, 5 (1), 70-74.

5. **Publications in Proceedings:**

• **Published in International Proceedings**

1. Baral, Manish Mohan, Verma, Amitabh (2017). „Cloud based intelligent system for Supply Chain management: A Future Roadmap for SCM technologies” , 3rd International Conference on Nano-circuits, Circuits & Communication Systems (NCCS-2017) in ARTTC, BSNL, Ranchi.

• **Published in National Proceedings**

1. Sodhi, S. and Ghosh, A. (2018). ”Sustainable Product Life Cycle: A Review”, 4th Management Doctoral Colloquium and VGSOM Research Scholar day, IIT Kharagpur.
2. Baral, M M, Verma, A (2018). „Quality Tools for Continuous Improvement of Supply Chain for Customer’s Satisfaction” , ARISCOM National Conference on Contemporary Issues related to Social Sciences, Commerce and Management.

6. **Books:**

• **Chapter(s) in Edited Book**

1. Goswami, A. and Dutta, S., (2017). Empowering Women Entrepreneurs in India With ICT Applications in Handbook of Research on Women’s Issues and Rights in the Developing World (ed. Mahtab, N., Haque, T., Khan, I., Islam, M. and Wahid, I.). IGI Global , Hershey PA, USA, pp. 269-280. eISSN: 2326-9111.
2. Dash, Sujata Priyambada (2017), ‘Strategic View of Retention towards Human Capital Management’ on the titled ‘Corporate Business Strategies-The Present Scenario’, Archer and Elevators, Bengaluru, India, Edition 1, 56-60.
3. Roy, Supriyo, Kumar, Kaushik (2017). Chapter as “Strategic Planning of Cold Supply Chain Towards Good Manufacturing Practices: Issues and Challenges in Indian Market”. Published in International Book Title as Maximizing Business Performance and Efficiency Through Intelligent Systems (Eds. O.P. Rishi and Anukrati Sharma), IGI Global, New Jersey, U.S.A., Chap 11, 200-215.
4. Roy, Supriyo, J, Paulo Davim, K, Kumar (2017) Chapter as “Optimization of Process Parameters Using Soft Computing Techniques: A Case With Wire Electrical Discharge Machining” Published in International Book Title as Handbook of Research on Soft Computing and Nature-Inspired Algorithms (Eds. Shishir and Smita Shandilya, Kusum Deep, Atulya Nagar) IGI Global, U.S.A, Chap 6, 177-220.
5. Baral, M. M. Verma, A. (2018). Chapter as “Cloud based intelligent system for Supply Chain management: A Future Roadmap for SCM technologies”. Published in Scopus Book series LNEE by Springer, Singapore; Nano-electronics, Circuits and Communication Systems; Proceeding of NCCS 2017; Vol. 511, Edition 1, 13-24.

SECTION 5**AWARD/ PATENT/ COLLABORATIONS****7. Award / Recognition Bestowed on Faculties**

Sr. No.	Name of the Faculty Member	Title of the Award / Honour	Organisation	State / National / International Level	Year / Duration
1.	Dr. Manju Bhagat	Vice-Chairperson, East Chapter Jharkhand, Chhattisgarh	Association of Indian Management Schools, (Executive Board)	National	2018
2.	Dr. Supriyo Roy	Awarded "Best Faculty" in the area of Supply Chain Management by SCMpro and ISCM-India for the year 2017 by process of nomination and evaluation by elite International jury members.	SCMPro (The Supply Chain Management Professional) and (Institute of Supply Chain Management) ISCM-India	National	2017
3.	Dr. Anupam Ghosh	Joint Secretary	IIT Alumni Association: Ranchi Chapter	National	2018-2020
4.	Dr S Shvani	AICTE Nominee on UGC Expert committee for review of Deemed Universities	AICTE	National	2016 onwards

SECTION 6**ACTIVITIES/ DAC/BOS****8. Departmental Students' Activities**

Sr. No.	Name of the Activity	Students' Co-ordinator	Faculty Co-ordinator	Date / Duration
1.	SEBI Visit	Abhishek Kumar	Dr. Anand Pd. Sinha	21.08.2017
2.	Mass Awareness campaign on e- waste	Shweta and Vivek kumar	Dr. R N Bhagat	27.08.2017

9. List of Adjunct Faculty

Sr. No.	Name	Designation	Affiliation
1.	Dr. Alok R. Chaturvedi (Adjunct Faculty)	Professor	Krannert School of Management, Purdue University, USA
2	Mr. Pawan Kumar Bhageria (Adjunct Fellow)	President	Tata Motors Group, SBU, Tata Technologies

10. Board of Studies

Sr. No.	Name of Member	Designation	Role
1.	Dr. Manju Bhagat	Professor & Head	Chairman (Ex-Office)
2.	Dr. Swapan Kumar Bose	Professor	Member
3.	Dr. Utpal Baul	Professor	Member
4.	Dr. Manju Bhagat	Professor	Member
5.	Dr. Shraddha Shivani	Professor	Member
6.	Mr. Shubh Chandra Mishra	Associate Professor	Member
7.	Dr. Supriyo Roy	Associate Professor	Member
8.	Dr. Anupam Ghosh	Assistant Professor	Member
9.	Dr. Munish Makkad	Professor	Member
10.	Dr. Amar Nath Jha	Professor	Member
11.	Dr. Sraboni Dutta	Associate Professor	Member
12.	Dr. Vinay Sharma	Professor	External Member
13.	Dr. Gadadhar Sahoo	Professor	External Member
14.	Dr. Swapan Kumar Chakraborty	Professor	External Member
15.	Mr. Ajit Kumar	Student	External Member

11. Departmental Academic Committee

Sr. No.	Name of the Member	Designation	Role
1.	Dr. Manju Bhagat	Professor & Head	Chairman (Ex-Office)
2.	Dr. Swapan Kumar Bose	Professor	Member
3.	Dr. Utpal Baul	Professor	Member
4.	Dr. Manju Bhagat	Professor	Member
5.	Dr. Shraddha Shivani	Professor	Member

Sr. No.	Name of the Member	Designation	Role
6.	Dr. Rabindra Nath Bhagat	Professor	Member
7.	Mr. Shubh Chandra Mishra	Associate Professor	Member
8.	Dr. Supriyo Roy	Associate Professor	Member
9.	Dr. Dharmendra Kr. Chand	Assistant Professor	Member
10.	Dr. Rohit Kr. Pandey	Assistant Professor	Member
11.	Dr. Rohini Jha	Assistant Professor	Member
12.	Dr. Swapan Kumar Chakraborty	Professor	External Member
13.	Dr. Vinay Sharma	Professor	External Member

SECTION 7**OTHER INFORMATION****12. Extra-Curricular Achievements of Students**

Sr. No	Name of Student	Achievement/Position/Award etc	Organised by	Date and Venue
1.	Pragya Singh	Secured 1 st Position in capital market quiz	ICFAI Ranchi	16 th Feb 2018 ICFAI Ranchi Campus
2	Silky Kumari	Inter college Volleyball women's Runner up	Annual Sports events of BIT Mesra	3 rd November 2017,BIT Mesra
3	Priyanka Kumari	Miss Divine Thought	Khadi and village industries commission under MSME govt. of India	15 th November,2017 Miss India khadi state level was organized in BIT,Mesra
4	Adya singh	Secured 1 st Position in Senate Inter College Debate	Amity University Jharkhand	9 th July 2017, organised by Amity University Jharkhand
5	Siddarth Arya & Vineet kumar	2 nd Runner up at B-plan-BITOTSAV-2018	BIT Mesra	17 th February 2018, Lecture Hall, BIT Mesra



Department of Mathematics

SECTION 1

PROFILE

1. About the Department

The Department of Mathematics was founded in 1956, under the name Department of Applied Mathematics. It started with only undergraduate program offering to engineering students. Mathematics play an important role in engineering and it is clearly reflected from the fact that it conducts all the mathematics courses offered in different branches of engineering, management, pharmaceutical sciences, architecture and the University polytechnic.

Currently, Department of Mathematics consists of 10 regular faculty members with expertise in both pure and applied mathematics. In addition to the regular faculty members, the department has 11 other faculty members who have joined through TEQIP. They are all well qualified, highly motivated towards teaching and always attempt to cooperate students inside and outside the classroom. Faculties are also involved in research activities and have published their articles in high impact journals. They are also skilled in writing books on Optimization, Mathematical Modeling, Differential Equations, Operations Research, Vedic Mathematics, Discrete Mathematics, Music and Mathematics and Algorithmic Complexity.

The Department runs Ph.D programme, 2-year M.Sc. programme in Mathematics and 5-year Integrated M.Sc. programme (Mathematics and Computing). It has also been actively engaged in organizing conferences, workshops, summer and winter schools, invited lecture series. It also has initiated organizing seminars (two seminars in each month) aiming at distribution of knowledge about research areas among graduate and Ph.D students.

The Department is equipped with a modern computer laboratory with latest scientific software such as Matlab, Mathematica, Mathcad, Minitab, SPSS, LINGO etc.

Many of the graduate students have gone for higher studies in reputed academic institution within India and abroad. Students are getting selected for internship and in-campus/off-campus placement at IIT Bombay, infosys, Wipro, Capital Float, Intutent Incl., Pricewaterhouse coopers, Mu Sigma, Deloitte, TCS, Azim Premji foundation, SAP Labs, Blackberry, Tredence, Hangout Store to name a few.

SECTION 2

SEMINAR / CONFERENCE

2. Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1.	Dr. Seshadev padhi	Orissa Mathematical Society	Orissa mathematical Society	PMEC, Berhampur, Odisha	PMEC, Berhampur, Odisha	Prof. Ramanath Mohanty Memorial Lecture, February 4-5, 2018.
2	Dr. Prabjot kaur	Workshop on Swarm and Evolutionary Algorithms: Theory and Applications	TEQIP, BIT, Mesra	IIT Roorkee	IIT Roorkee	17-18 th March 2018

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
3.	Dr. Dhriti Sundar Patra	Faculty Development Programmes	TEQIP-III	Teaching Learning Centre IIT Madras	IIT Madras	Jan 31, 2018 to Feb 04, 2018
4.	Dr. Manish Kumar	Faculty Development Programmes	TEQIP-III	Teaching Learning Centre IIT Madras	IIT Madras	Jan 31, 2018 to Feb 04, 2018
5.	Mr. Pawan Kumar Shaw	Faculty Development Programmes	TEQIP-III	Teaching Learning Centre IIT Madras	IIT Kharagpur	Feb 19, 2018 to Feb 23, 2018
6.	Dr. Pradip Kundu	Faculty Development Programmes	TEQIP-III	Teaching Learning Centre IIT Madras	IIT Madras	Jan 31, 2018 to Feb 04, 2018
7.	Mr. Tanmay Choudhury	Faculty Development Programmes	TEQIP-III	Teaching Learning Centre IIT Madras	IIT Madras	Jan 31, 2018 to Feb 04, 2018
8.	Dr. Ankur Kanaujiya	Faculty Development Programmes	TEQIP-III	Teaching Learning Centre IIT Madras	IIT Madras	Jan 31, 2018 to Feb 04, 2018
9.	Dr. V.V.P.R.V.B Suresh Dara	Faculty Development Programmes	TEQIP-III	Teaching Learning Centre IIT Madras	IIT Madras	Jan 31, 2018 to Feb 04, 2018
10.	Dr. Arti Mishra	Faculty Development Programmes	TEQIP-III	Teaching Learning Centre IIT Madras	IIT Kharagpur	Feb 06, 2018 to Feb 10, 2018
11.	Dr. Raghwendra Singh	Faculty Development Programmes	TEQIP-III	Teaching Learning Centre IIT Madras	IIT Madras	Jan 31, 2018 to Feb 04, 2018
12.	Dr. Shashikant	Faculty Development Programmes	TEQIP-III	Teaching Learning Centre IIT Madras	IIT Madras	Jan 31, 2018 to Feb 04, 2018

SECTION 3

RESEARCH PUBLICATIONS

3. Publications in Journals

- Published in International Journals

- Narayan, T., Bhattacharya, T., Chakraborty, S. and Konar, S., (2018) Long-Term Statistical Characteristics of Air Pollutants,

in a Traffic-Congested Area of Ranchi, India Communications in Mathematics and Statistics, 6(2), 141-

- Priyadarshini, P. and Chakraborty, S. (2017), Using Statistical Modeling, Rate of Change of Pitch and Inter Onset Interval to

- Distinguish Between Restful and Restless Ragas, *Communications in Mathematics and Statistics*, 5(2), 199-212
1. Priyadarshini, Chakraborty, S. and Kumari, A.,(2018). Parameterized Complexity of Quick Sort, Heap Sort and K-sort Algorithms with Quasi Binomial Input, *International Journal on Future Revolution in Computer Science & Communication Engineering* 4(1), 117-123.
2. Jyotsna Kumari and Tandon Abhinav (2017). A Mathematical Model Studying the Survival of Forest Resource Dependent Wildlife Population in the Presence of Population Pressure Induced Mining Activities, *Natural Resource Modeling (NRM)*, 30 (4).
3. Tandon, Abhinav, Jyotsna Kumari and Susanto Dey (2018). A Mathematical Model to Investigate the Impact of Overgrowing Population Induced Mining on Forest Resources, *Environment, Development and Sustainability*, 20 (4), 1499 -1516.
4. Tandon Abhinav and Banerjee Sankha (2018). Modelling the Impact of Migrated Population on Human-to-Human transmission of Ebola Virus Disease, *International Journal of Modeling, Simulation and Scientific Computing*, 9 (1), 1850008.
5. Jyotsna Kumari and Tandon Abhinav (2018). A Nonlinear Mathematical Model Investigating the Sustainability of an Urban System in the Presence of Haphazard Urban Development and Excessive Pollution, *Natural Resource Modeling (NRM)*, 31(2), DOI: 10.1111/nrm.12163.
6. R. Singh, H. Garg, V. Guleria (2018). Haar wavelet collocation method for Lane-Emden equations with Dirichlet, Neumann and Neumann-Robin boundary conditions. *Journal of Computational and Applied Mathematics*, 346, 151-160.
7. R. Singh (2018). Analytical approach for computation of exact and analytic approximate solutions to the system of Lane-Emden-Fowler types equations arising in astrophysics. *The European Physical Journal Plus*, 133(8), 320.
8. R. Singh, A.M. Wazwaz (2018). Optimal Homotopy Analysis Method for Oxygen Diffusion in a Spherical Cell with Nonlinear Oxygen Uptake Kinetics. *MATCH Communications in Mathematical and in Computer Chemistry*, 80(2), 369-382.
9. Smita Pati and Seshadev Padhi; (2017) Positive solutions of n -th order boundary value problems with nonlinear nonlocal boundary conditions, *Turkish Journal of Mathematics* 41(2017), 350-360.
10. Smita Pati, Seshadev Padhi and P.D.N. Srinivasu; (2017) Conditions for existence of positive solutions of n -th order boundary value problems with delay and nonlinear nonlocal boundary conditions and application to Hematopoiesis, *Communications in Applied Analysis*, 21(1)(2017), 39-55.
11. Smita Pati, Seshadev Padhi and VijayaLakshmi Saraju; (2017) Dynamics of Periodic Nicholson's Blowflies Model with Delay and Harvesting, *Functional Differential Equations*, 24(1-2)(2017) 45-55.
12. Seshadev Padhi and Smita Pati, (2017) Positive solutions of a fractional differential equation with nonlinear Riemann-Stieltjes type boundary conditions, *PanAmerican Mathematical Journal*, 27(4)(2017), 100-107.
13. Seshadev Padhi, P.K.Kar and Smita Pati. (2017) Positive periodic solutions of a coupled functional differential system with two parameters, *Functional Differential Equations*, 24(3 and 4) (2017), 87-93.
14. Seshadev Padhi, John R. Graef and Smita Pati. (2018) Multiple positive solutions for a boundary value problem with nonlinear nonlocal Riemann-Stieltjes integral boundary conditions, *Frac. Calc. Appl. Anal.* 21(3), 716-745.
15. Kumar, M. and Vishwakarma, G. K. (2017). A generalized class of regression-cum-ratio estimators of population mean in simple random sampling. *International Journal of Mathematics and Statistics*, 18(1), 87-95.
16. Kumar, M. and Vishwakarma, G. K. (2017). Estimation of mean in double sampling using

exponential technique on multi-auxiliary variates. Communications in Mathematics and Statistics, 5(4), 429-445.

17. Ankur Kanaujiya & Siddhartha P. Chakrabarty (2017). Pricing European passport option with radial basis function. International Journal of Applied and Computational Mathematics 3(3), 1589-1604.

- **Published in National Journals**

1. Singh, S. B., Chakraborty, S., Jha, K. M., Chandra, S. and Prakash, S., (2017). Therapeutic Impact of Hindustani Ragas on the mood of patients with cerebrovascular accident and diffuse head injury, The Journal of Acoustical Society of India, 44(4), 223-231.

4. Publications in Proceedings

- **Published in International Proceedings**

1. Kumar, C., Dutta, S. and Chakraborty, S., Cryptographic Key Extraction from Music, included in S. K. Sahana and S. K. Saha (Eds.), Advances in Computational

Intelligence, Advances in Intelligent Systems and Computing 509, Springer Science + Springer Business Media Singapore 2017, pp. 309-317

2. Prabjot Kaur, Meeta Ghosh and Aditi Basu Bal, A triangular Fuzzy Number Approach to Multiobjective Vendor selection Problem, IEEE, International Conference on Intelligent Sustainable Systems (ICISS, 2017).

5. Books

- **Co-Authored**

1. Datta, A. K., Solanki, S. S., Sengupta, R., Chakraborty, S., Mahto, K. and Patranabis, A., Signal Analysis of Hindustani Classical Music, Springer Nature Singapore, 2017, ISBN 978-981-10-3958-4
2. Chakraborty, S., Pranav, P., Rizvi, N., Tewari, S. and Patra, M., A Treatise on Statistical Computing and its Allied Areas, Notion Press, 2018, ISBN 978-164249-310-8

SECTION 4

AWARD/ PATENT/ COLLABORATIONS

6. Award / Recognition Bestowed on Faculty members

Sr. No.	Name of the Faculty Member	Title of the Award / Honour	Organisation	State / National / International Level	Year / Duration
1.	Dr. Seshadev Padhi	Felicitated by Orissa Mathematical Society for his contributions to mathematics	Orissa Mathematical Society	National Level	February 2018
2.	Dr. Prabjot Kaur	VIVA-2017	Venus International Foundation	International	2017
3.	Dr. Soubhik Chakraborty	Invited Lecture	Society for Natural Language Technology Research (Dept. of IT & Electronics, Govt. of West Bengal)	National	2017

4.	Dr. Soubhik Chakraborty	Invited Lecture	Faculty Development Program on Research Methodology and Documentation 2018	National	2018
5.	Dr. Seshadev Padhi	Invited Talk in The 7th International Conference on Functional Differential Equations and Applications	Ariel University, Israel	International	2017
6.	Dr. Seshadev Padhi	Invited Talk in The 2nd joint 7th joint meeting of Czech-Israeli Conference on Functional Differential Equations and Applications	Ariel University, Israel	International	2017
7.	Dr. Seshadev Padhi	Invited Talk on The Ramanujan Day Seminar	Vinoba Bhave University, Hazaribagh	State	2017

SECTION 5**ACTIVITIES/ DAC/BOS****7. Board of Studies**

Sr. No.	Name of the Member	Designation	Role
1.	Prof. Soubhik Chakraborty	Professor & Head	Chairman (Ex-Officio)
2.	Prof. S. K. Jain	Professor	Member
3.	Prof. S. K. Chakraborty	Professor	Member
4.	Prof. S. Padhi	Professor	Member
5.	Dr. (Mrs.) A.P. Ghorai	Associate Professor	Member
6.	Dr. Abhinav Tandon	Assistant Professor	Member
7.	Dr. Vandana	Assistant Professor	Member
8.	Prof. S. Konar	Prof. Deptt of Physics	Member
9.	Dr. Abhijit Mustafi	Asso. Prof. Deptt of CSE	Member
10.	Dr. D.K. Gupta	Prof, Deptt of Math, IIT Kharagpur	External Member
11.	Dr. D. Kundu	Prof, Deptt of Stat, IIT Kanpur	External Member
12.	Dr. K. C. Prasad	Retd Prof, Deptt of Math, Ranchi University	External Member

13.	Dr. S. Chakraborty	Prof, Deptt of Math, NIT Rourkela	External Member
14.	Dr. S. B. Singh	Asso. Prof. PSM Deptt, RIMS, Ranchi	External Member (Alumni)

8. Departmental Academic Committee

Sr. No.	Name of the Member	Designation	Role
1.	Prof. Soubhik Chakraborty	Ex-Officio Prof & Head, Deptt of Math	Chairman
2.	Prof. S. K. Jain	Professor	Member
3.	Prof. S. Padhi	Professor	Member
4.	Dr. (Mrs.) A.P. Ghorai	Associate Professor	Member
5.	Dr. Abhinav Tandon	Assistant Professor	Member
6.	Dr. Randhir Singh	Assistant Professor	Member
7.	Dr. S. D. Jabeen	Assistant Professor	Member
8.	Dr. Vandana	Assistant Professor	Member
9.	Dr. Abhijit Mustafi	Asso. Prof. Deptt of CSE	Invited Member
10.	Prof. Sarbani Chakraborty	Prof., Deptt of EEE	Invited Member

SECTION 6

OTHER INFORMATION

9. Distinguished Visitors

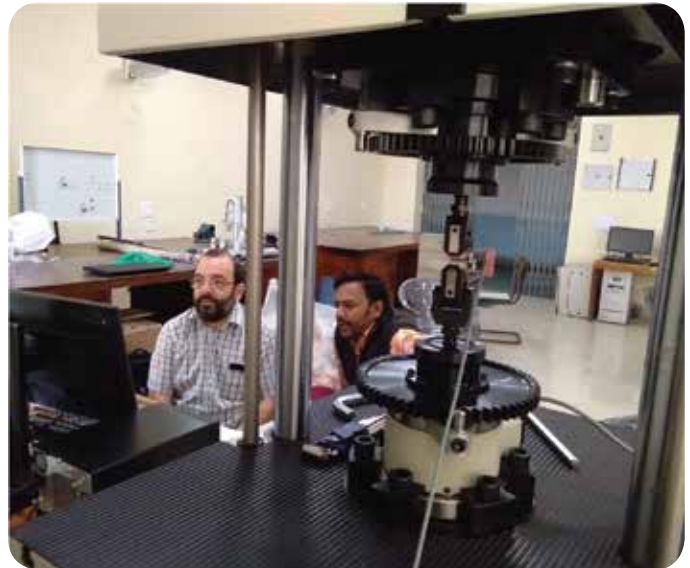
Sr. No	Name of Visitor with Affiliation	Date of Visit	Picture
1.	Prof. M. K. Ghosh Deptt of Mathematics IISC, Bangalore	Talk delivered on 12.10.2017	



Department of Mechanical Engineering

SECTION 1

PROFILE



1. About the Department

Since its inception in 1955, the Department of Mechanical Engineering has a wide 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 to study.

Programmes Offered

Under Graduate Programme (4 years):

1. B. E. in Mechanical Engineering

Post Graduate Programmes: (2 Years)

1. M.E Heat Power Engineering
2. M.E Design of Mechanical Equipments
3. M.E Computer Aided Analysis and Design
4. M.Tech. Energy Technology

PhD. Programme

Laboratory Facilities:

1. Drawing Office
2. Mechanics of Solids Lab
3. Fluid Mechanics and Hydraulic Machines Lab
4. Renewable Energy Lab
5. Central CAD Lab
6. Theory of Machines Lab
7. Autonomous Systems Lab
8. Computational Lab (For Research)
9. Heat Transfer and RAC Lab
10. I.C Engines Lab

SECTION 2**RESEARCH PROJECTS****2. Sponsored Projects and Consultancy****a) Ongoing Projects**

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Nodal Officer of Unnat Bharat Abhiyan project	Dr. Rajeev Kumar	MHRD Govt. of India, of Jharkhand state for technical interventions in Rural areas	2 June 2017	3.50 Lacs	3 years
2.	Design and Development of Solar Collector and Concentrator for power generation through Stirling engine	Dr. Rajeev Kumar	Jharkhand council of Science and Technology	22.04.2017	2.0 Lacs	02 year

SECTION 3**SEMINAR / CONFERENCE****3. Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members:**

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1.	Dr. Rajeev Kumar	Renewable Energy and Environmental Challenges) NCREEC 2018	Organizers	NIT Jamshedpur	NIT Jamshedpur, Jharkhand	26-27 Feb 2018
2.	Dr. S.K Dhiman	Theoretical, Applied, Computational and Experimental Mechanics	Organizers	IIT Kharagpur	Department of Aerospace Engineering IIT Kharagpur (INDIA)	Dec. 28-30 2017
3.	Dr. Dhaneshwar Mahto	International conference on Energy Materials and Information Technology, ICEMIT-2017	Organizers	AMITY University	AMITY University, Ranchi, Jharkhand	2017

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
4.	Dr. Dhaneshwar Mahto	Recent Advances in PCM Based Cooling Technology, (GIAN Course),	Organizers	IIT Bhubaneswar	School of Mechanical Sciences IIT Bhubaneswar	11 th Dec - 15 th Dec 2017
5.	Prof. Sujeet Kumar Mishra	Summer Training Program on Active Learning Under TEQIP – III Initiative	TEQIP III	MHRD, Govt. of India	IIT Gandhinagar	June 18-22, 2018
6.	Prof. Sujeet Kumar Mishra	Workshop on Academic Writing: Grants, Consultancy & Research Articles	TEQIP – III	TEQIP – III	BIT Mesra, Ranchi	December 13-15, 2017
7.	Prof. Sujeet Kumar Mishra	Workshop for Faculty-Mentors on Induction Programme for New Students	TEQIP – III	TEQIP – III	IIT (BHU) Varanasi	September 15-17, 2017
8.	Dr. Arun Dayal Udai	Advances in Robotics (AIR 2017)	Organizers	IIT Delhi	IIT Delhi, New Delhi, India	28th June - 2nd July, 2017
9.	Dr Richa Pandey	Kumbh Conclave India Think Council	Organizers	India Think Council	Allahabad	27-29 July 2018
10.	Dr Richa pandey	18 th IEEE International conference on Advanced Learning Technology	TEQIP	IIT Mumbai	Mumbai	8-12 July 2018
11.	Dr Richa Pandey	National Seminar on Energy Efficiency in HVAC & Industries and Air Pollution Control Equipment	Organizers	ISHRAE Ranchi Chapter IEI Jharkhand State Centre	Ranchi	10 -11 Feb 2018
12.	Dr Richa Pandey	National Conference for Transforming Communities through sustainable tourism in and around Jharkhand – Trends and Challenges	Organizers	HMCT BIT Mesra	HMCT BIT Mesra	15-16 Feb 2018
13.	Dr. Om Prakash	One week workshop on Industrial Process Simulation	TEQIP III	TEQIP III	Department of Chemical Engg., BIT Mesra, Ranchi	16th to 20th May, 2018

SECTION 4**RESEARCH PUBLICATIONS****4. Publications in Journals :****Published in International Journals**

1. Sahu, S.R., & Mishra, D.P. (2017). Maximum Air Suction into Horizontal Open Ended Cylindrical Louvered Pipe. *Journal of Engineering Science and Technology*. 12(2), 388.
2. Sarangi, S.K., & Mishra, D.P. (2017). Effect of Winglet Location on Heat Transfer of a Fin-and-tube Heat Exchanger. *Applied Thermal Engineering*. 116, 528.
3. Roy, A.K. et al. (2018). Assessment and Response of Functionalized Cocos Nucifera Reinforced Toughened Epoxy Composite Towards Fracture and Viscoelastic Properties. *Journal of Polymers and the Environment*. 26 (6), 2522.
4. Roy, A.K. et al. (2018). 3D Printing of Biomaterials: A Review. *Biointerface Research in Applied Chemistry*. 8 (1), 3023.
5. Roy, A.K. et al. (2018). Mechanical and Tribological Behaviour of Nano Scaled Silicon Carbide Reinforced Aluminium Composites. *Journal of Experimental Nanoscience*. 13 (1), S1.
6. Kumar, K. et al. (2018). Design and Analysis of Powered Ankle Foot Prosthesis Mechanism Using Hydraulic System. *Applied Mechanics and Materials, Trans Tech Publications*. 877, 384-390.
7. Kumar, K. et al. (2018). Application of Composites in Orthotic Calipers and its Experimental Validations, *Applied Mechanics and Materials, Trans Tech Publications*. 877, 44.
8. Kumar, K. et al. (2017). Analysis of Sheet Metal Forming of Interstitial-Free Steel and Extra-Deep-Drawing Steel Using ABACUS, *International Journal of Advanced Materials Manufacturing & Characterization*, 7 (2), 66.
9. Kumar, K. et al. (2017). *Effect of Process Parameters on MRR and Surface Roughness in ECM of EN 31 Tool steel Using WPCA: MRR and Surface Roughness in ECM of EN 31 steel. International Journal of Materials Forming and Machining Processes*. 4(2), 45.
10. Upadhyaya, R. et al. (2017). Microstructure and Mechanical Properties of Thin Wall Ductile Iron, *Journal of Automobile Engineering and Applications*. 4(2), 35.
11. Tiwari, S., & Bhaduri, S. (2017). Dynamic analysis of rotor-bearing system for flexible bearing support condition. *International Journal of Mechanical Engineering and Technology*. 8(7), 1785.
12. Brar L.S. & Elsayed K. (2018). Analysis and optimization of cyclone separators with eccentric vortex finders using large eddy simulation and artificial neural network, *Separation and Purification Technology*. 207, 269.
13. Wasilewski M. & Brar L.S. (2017). Optimization of the geometry of cyclone separators used in clinker burning process: A Case Study. *Powder Technology*. 313, 293.
14. Brar L.S. & Elsayed K. (2017). Analysis and optimization of multi-inlet gas cyclones using large eddy simulation and artificial neural network, *Powder Technology*. 311, 465.
15. Dhiman S. K., Prasad, J.K. & Kumar, A. (2017). Unsteady convective heat transfer in cross flow past two tandem cylinders: an inverse heat conduction approach. *Heat and Mass Transfer*. 53(10), 1761.
16. Dhiman S. K., Kumar, A. & Prasad, J.K. (2017). Unsteady computation of flow field and convective heat transfer over tandem cylinders at subcritical Reynolds numbers, *Journal of Mechanical Science and Technology*. 31 (3), 1241.
17. Kumar, R. et al. (2017). Surface Integrity analysis of abrasive water jet cut surface of Friction stir welded Joint. *International Journal of Advanced Manufacturing Technology*. 88 (5), 1687.

18. Kumar, R. et al. (2017). Effect of laser power and welding speed on Microstructure and Mechanical properties of Fiber laser welded Inconel 617 thin sheet. *Journal of Brazilian Society of Mechanical Sciences and Engineering*. 39 (11), 4579.
 19. Kumar, R. et al. (2017). Characterization of Friction Surfaced Coatings of AISI 316 Tool over High-Speed-Steel Substrate. *Transactions of FAMENA*. 41 (2), 61.
 20. Kumar, R. et al. (2018). Experimental and mathematical evaluation of thermal and tensile properties of friction stir welded joints. *International journal of materials and product technology*. 57, 204.
 21. Kumar, R. et al. (2018). Investigation of microstructure and mechanical properties of titanium alloy sheet using low power Nd-YAG laser welding process. *Metallic Materials*. 56, 121.
 22. Lanjekar, R. D. & Deshmukh, D. (2017). Biofuel pure components spray characteristics at engine-relevant conditions. *Energy & Fuels*. 31(9), 9438.
 23. Mahata, P. & Das, S. L. (2017). Generation of Wavy Structure on Lipid Membrane by Peripheral Proteins: A Linear Elastic Analysis. *FEBS Letters*. 591(10), 1333.
 24. Patel, C., Ghatule, P. & Kore, S.D. (2017). Finite element analysis of effect of process parameters on electromagnetic free expansion of aluminium tube. *International Journal of Materials and Product Technology*. 54(1-3), 165.
 25. Patel, C. & Kore, S.D. (2017). Finite element analysis of crowbarring effect during electromagnetic forming, *International Journal of Manufacturing Technology and Management*. 31 (4), 288.
 26. Prakash, O. et al. (2017). A Review on Progress of Concentrated Solar Power in India. *Renewable & Sustainable Energy Reviews*. 79, 304.
 27. Prakash, O. et al. (2017). A Comprehensive Review of Scheffler Solar Collector. *Renewable & Sustainable Energy Reviews*. 77, 890.
 28. Prakash, O. (2018). Wind Energy Potential, Development and Current Trends in India: A Review. *International Journal of Ambient Energy*. 39(5), 521.
 29. Prakash, O. et al. (2018). A Review on Technology and Promotional Initiatives for Concentrated Solar Power in World. *International Journal of Ambient Energy*. 39(3), 397.
- 5. Publications in Proceedings:**
- Published in International Proceedings**
1. Upadhyaya, R., Singh, K.K. & Kumar. R. Microstructure and Mechanical Properties of Thin Wall Ductile Iron. In *Proceeding of the 3rd International conference on Advances in Steel, Power and Construction Technology*. O.P. Jindal University Raipur, 2017.
 2. Upadhyaya, R., Singh, K.K. & Kumar. Effect of Heat Treatment Parameters on the Characteristics of Thin Wall Austempered Ductile Iron Casting. In *Proceeding of the International Conference on Recent Advances in Materials, Mechanical and Civil Engineering*, Hyderabad, 2017.
 3. Upadhyaya, R., Singh, K.K. Kumar, & Chandran, S. M. Study on the effect of austempering temperature on the Structure-Properties of Thin Wall Austempered Ductile Iron. In *Proceeding of the International Conference on Materials Manufacturing and Modelling*, VIT Vellore, 2017.
- 6. Book**
1. Kumar, K., Roy, A.K. & Dash, N. (2018). *Material Science and Engineering*. New Delhi: I.K. International, ISBN No: 9789385909641.
 2. Kumar, K., Roy, A.K. & Kumari, N. (2018). *Understanding CREO Parametric Through Examples*. New Delhi: I.K. International, ISBN No: 9789385909825.
 3. Kumar, K., Zindani, D., & Davim, J. P. (2018). *Advanced Machining and Manufacturing Processes*. Switzerland: Springer, ISBN No: 9783319760742.

4. Kumar, K., Roy, A.K. & Ranjan, C. (2018). *Engineering Graphics and Design*. New Delhi: Vikas, ISBN No: 9789352718726.
5. Kumar, K., Roy, A.K. & Ranjan, C. (2017). *Basic Mechanical Engineering*, New Delhi: I.K. International, ISBN No: 9789385909689.

Edited Books

1. Prakash O. & Kumar O. (Eds.). (2017). *Solar Drying Technology: Concept, Design, Testing, Modeling, Economics, and Environment*. Singapore: Springer Nature.
2. Kumar, K. et al (Eds.). (2018). *Recent developments in Micro and Nano Machining of Engineering Materials*. Switzerland: Springer Nature.
3. Kumar, K., Kumari, N., Davim, J.P. (Eds.). (2018). *Non-Conventional Machining in Modern Manufacturing Systems*. Pennsylvania: IGI Global Press.
4. Kumar, K. & Davim, J.P. (Eds.). (2018). *Design and Optimization of Engineering Products*. Pennsylvania: IGI Global Press.
5. Kumar, K. & Davim, J.P. (Eds.). (2018). *Hierarchical Composite Materials*. Berlin: De Gruyter Press.
6. Kumar, K. & Davim, J.P. (Eds.). (2018). *Composites and Advanced Materials for Industrial Applications*. Pennsylvania: IGI Global Press.

Chapter(s) in Edited Book

1. Sahu, S. R. & Mishra, D. P. (2018). CFD-Supported Designing of a Louvered Cylindrical Mixing Pipe for Maximum Air Entrainment. In K. Kumar & J. P. Davim (Eds.), *Design and optimization of engineering products* (pp. 105-131). Pennsylvania: IGI Global Press.
2. Kumar, K. et al. (2017). Design of Impeller Blade of Mixed Flow Pump: A Comparative Analysis. In Kumar, K. and Davim, J.P. eds. In K. Kumar & J. P. Davim (Eds.), *Design and optimization of engineering products* (pp. 37 – 66). Pennsylvania: IGI Global Press.
3. Kumar, K. et al. (2017). Lower Body

Orthotic Calipers with Composite Braces. In K. Kumar & J. P. Davim (Eds.), *Design and optimization of engineering products* (pp. 133 – 151). Pennsylvania: IGI Global Press.

4. Kumar, K. et al. (2018). Industrial Applications of Polymer Composite Materials. In K. Kumar & J. P. Davim (Eds.), *Composites and Advanced Materials for Industrial Applications* (pp. 1– 15). Pennsylvania: IGI Global Press.
5. Kumar, K. et al. (2017). Efficacy of Composites for Fabrication of Orthotic Calipers. In R. Somashekar, and U. G. Thejas (Eds.), *Emergent Research on Polymeric and Composite Materials* (pp. 267 – 286). Pennsylvania: IGI Global Press.
6. Kumar, K. et al. (2017). Strategic Planning of Cold Supply Chain towards Good Manufacturing Practices: Issues and Challenges in Indian Market. In O.P. Rishi, and A. Sharma (Eds.), *Maximizing Business Performance and Efficiency through Intelligent Systems* (pp. 200 – 215). Pennsylvania: IGI Global Press.
7. Kumar, K. et al. (2017). Strategic Best-in-Class Performance For Voice To Customer: Is Big Data in Logistics a Perfect Match? In S.K. Trivedi, S. Dey, A. Kumar, and T.K. Panda (Eds.), *Advanced Data Mining Techniques and Applications for Business Intelligence* (pp. 287 – 299). Pennsylvania: IGI Global Press.
8. Kumar, K. et al. (2017). Optimization of Process Parameters Using Soft Computing Techniques: A Case with Wire Electrical Discharge Machining. In S. K. Shandilya, S. Shandilya, A.K.N. Kusumdeep (Eds.), *Handbook of Research on Nature-Inspired Soft Computing and Algorithms* (pp. 177 – 220). Pennsylvania: IGI Global Press.
9. Kumar, K. et al. (2017). Process Optimization in Non-Conventional Processes: Experimentation with Plasma Arc Cutting. In R. Das, and M.K. Pradhan (Eds.), *Manufacturing Process Modelling and Optimization Strategies*. (pp. 82–119). Pennsylvania: IGI Global Press.

10. Kumar, K. et al. (2018). CFD-Supported Designing of a Louvered Cylindrical Mixing Pipe for Maximum Air Entrainment. In S. R. Sahu and D. P. Mishra (Eds.), *Design and Optimization of Engineering Products*, (pp. 105-131). Pennsylvania: IGI Global Press.
11. Prakash, O. et al. (2018). Fundamentals and Performance Evaluation Parameters Solar Dryer. In A. Sharma, A. Shukla & A. Aye (Eds.), *Recent Trends in Low Carbon Energy Supply Technologies & Management* (pp. 35-50). Singapore: Springer Nature.
12. Prakash, O. et al. (2018). Design and selection criteria of bio-gas digester. In A. Sharma, A. Shukla, & A. Aye (Eds.), *Recent Trends in Low Carbon Energy Supply Technologies & Management* (pp. 91-112). Singapore: Springer Nature.
13. Prakash, O. et al. (2017). Solar Drying. In J. Bundschuh, G. Chen, D. Chandrasekharam & J. Piechocki (Eds.), *Geothermal, wind and solar energy applications in agriculture and aquaculture* (pp. 235-255). Florida: CRC Press.
14. Prakash, O. et al. (2017). Advancement in Greenhouse Drying System. In O. Prakash & A. Kumar (Eds.), *Solar Drying Technology: Concept, Design, Testing, Modeling, Economics, and Environment* (pp. 177-196). Singapore: Springer Nature.
15. Prakash, O. et al. (2017). Exergy Analysis of Solar Dryer. Prakash, O. & Kumar, A (Eds.), *Solar drying technology: concept, design, testing, modeling, economics, and environment* (pp. 239-262). Singapore: Springer Nature.
16. Prakash, O. et al. (2017). Applications of Soft Computing in Solar Drying Systems. Prakash, O. & Kumar, A. (Eds.), *Solar drying technology: concept, design, testing, modeling, economics, and environment* (pp. 419-438). Singapore: Springer Nature.
17. Prakash, O. et al. (2017). Economic Analysis of Various Developed Solar Dryers. Prakash, O. & Kumar, A. (Eds.), *Solar drying technology: concept, design, testing, modeling, economics, and environment* (pp. 495-513). Singapore: Springer Nature.
18. Prakash, O. et al. (2017). Energy Analysis of the Direct/Indirect Solar Drying System O. Prakash & A. Kumar (Eds.), *Solar drying technology: concept, design, testing, modeling, economics, and environment* (pp. 529-542). Singapore: Springer Nature.
19. Prakash, O. et al. (2017). Energy security & sustainability through wind energy. In A. Shuka & A. Sharma (Eds.), *Energy security and Sustainability* (pp. 255-272). Florida: CRC Press

SECTION 5

AWARD/ PATENT/ COLLABORATIONS

7. Award / Recognition Bestowed on Faculty members

Sr. No.	Name of the Faculty Member	Title of the Award / Honour	Organisation	State / National / International Level	Year / Duration
1.	Dr. Kaushik Kumar	Award for Research Excellence	The Indus Foundation Inc., New Jersey, USA	International	2017

Sr. No.	Name of the Faculty Member	Title of the Award / Honour	Organisation	State / National / International Level	Year / Duration
2.	Dr. Kaushik Kumar	Indo Global Education Excellence Award 2017 in the field of Technical Education	Indo Global Chamber of Commerce, Industries and Agriculture; International Benevolent Research Foundation and Confederation of Indian Universities, New Delhi	International	2017
3.	Dr. Kaushik Kumar	Resource Person	TEQIP-III Sponsored Short Term Course On Advances in Computer Aided Design and Manufacture (ACADM-2018), National Institute of Technology, Rourkela, Odisha, India.	National	May 21–25, 2018
4.	Dr. Kaushik Kumar	Resource Person	AICTE Sponsored QIP 2018 organised by Department of Production Engineering, , Veer Surendra Sai University of Technology, Odisha.	National	25 th June – 7 th July, 2018
5.	Dr. Kaushik Kumar	Conference Technical Committee Member	International Conference on Material Engineering and Manufacturing (ICMEM2017)	International	2017
6.	Dr. Kaushik Kumar	Conference Technical Committee Member	International Conference on Material Engineering and Advanced Manufacturing Technology (MEAMT 2017)	International	2017
7.	Dr. Kaushik Kumar	Conference Technical Committee Member	International Conference on Emerging Technology in Structural Engineering (ICETSE-2017)	International	2017
8.	Dr. Kaushik Kumar	Conference Technical Committee Member	International Conference on Innovations & Developments for Future Smart Cities (ICIDSC-17)	International	2017
9.	Dr. Kaushik Kumar	Conference Technical Committee Member	International Conference on Advances in Mechanical Engineering (ICAMES-2017)	International	2017

Sr. No.	Name of the Faculty Member	Title of the Award / Honour	Organisation	State / National / International Level	Year / Duration
10.	Dr. Kaushik Kumar	Conference Technical Committee Member	International Conference on Process of Electrical Power and Energy Systems (ICEPES-2017)	International	2017
11.	Dr. Kaushik Kumar	Nodal Officer of Unnat Bharat Abhiyan of Jharkhand State,.	Launched by MHRD, Govt. of India and co-ordinating institute IIT Delhi.	National	2017
12.	Dr. Rajeev Kumar	Session chair	2nd International Conference on Microelectronics, Computing, and Communication System (MCCS-2017)	International	2017
13.	Dr. Om Prakash	Member Editorial Board	International Journal Series in Engineering Science (IJSES) (ISSN: 2455-3328)	International	2017
14.	Dr. Om Prakash	Member Editorial Board	International Journal of Innovative Research in Technology and Management (IJRTM)	International	2017
15.	Dr. Om Prakash	Speaker at National Seminar on Energy Efficiency in HVAC & R Industries and Air Pollution Control Equipment	IEI	National	2018

8. Patents (Applied / Granted)

Sr. No.	Name of the Inventor	Title of the Invention	Application / Patent No. (As applicable)	Year
1.	Dr. Kaushik Kumar	Method of Synthesis of Functionally Graded Composite Materials Using an Electro Chemical Setup	201631001502	2017
2.	Dr. Kaushik Kumar	Prosthetic Heart Valve	201631009267	2017

9. MoUs / Collaborations

Sr. No.	Name of Organisation / University	Purpose / Area	Year / Duration
1.	Unnat Bharat Abhiyan	Cluster and formulation of project/ Gram Panchayat Development Plan	2017
2.	AVTEC Limited	R&D, Student Project	2017

SECTION 6**ACTIVITIES/ DAC/BOS****10. Student Activities:**

Sr. No.	Name of the Activity	Students' Co-Ordinator	Faculty Co-ordinator	Date / Duration
1.	Firebolt Racing	Aluru Nirmal Teja	Dr. Nirmal Kumar	2017
2.	Team Srijan activity	Mrigendra Narayan Singh	Dr. Nirmal Kumar	2017

11. List of Adjunct Faculty

Sr. No.	Name	Designation	Affiliation
1.	Dr. Randeep Agarwal	Associate Professor	Department of Mechanical Engineering, University of Queensland, Australia
2	Mr. Pawan Kumar Bhageria	Adjunct Fellow	President, Tata Motors Group Strategic Business Unit at Tata Technologies Ltd

12. Board of Studies

Sr. No.	Name of the Member	Designation	Role
1.	Dr. R.P.Sharma	Professor & Head	Chairman (Ex-officio)
2.	Dr. R.P.Sharma	Professor	Member
3.	Dr. A.K.Roy	Associate Professor	Member
4.	Dr. Kaushik Kumar	Associate Professor	Member
5.	Dr. Rajeev Kumar	Associate Professor	Member
6.	Dr. Praveen Mishra	Assistant Professor	Member
7.	Dr. Dhaneshwar Mahto	Assistant Professor	Member
8.	Dr. Anand Kumar Sinha	Professor, Civil Engg.	Member
9.	Dr. Sanjay Kumar Jha	Associate Professor, Prod. Engg	Member
Two external experts (Any two from attached list as per Their availability).			

Sr. No.	Name of the Member	Designation	Role
1.	Dr. Sibnath Maity	Chief Scientist, Head, Technology Innovation Centre Central Mechanical Engineering Research institute (CMERI), Durgapur West Bengal	External Member
2.	Dr. S.K. Dash	Professor Department of Mechanical Engineering IIT Kharagpur	External Member
3.	Mr. Deepak Mishra	Head – Supplier Quality Tata Motors Limited, Jamshedpur–	External Member
4.	Dr. Kailash Agarwal	Associate Director, Outstanding Scientist Nuclear Recycling Group BARC, Trombay,	External Member
5.	Sri Alok Mukherjee	Scientist G & Head Robotics DRDO R & DE, Pune	External Member
6.	Prof. Subir Kumar Saha	Head, Mechanical Engineering IIT Delhi,	External Member
7.	Mr. Rakesh Kumar Singh	GM, Bar Mill JSPL, Patratu, Ranchi	External Member
8.	Mr. Prabhas Kumar	DGM(HOD, Energy Conservation) RDCIS, SAIL, Ranchi	External Member
9.	Dr. Bharat Bhusan	GM (Process and Technology) Tata Consulting Engineers Ltd. Jamshedpur	External Member
10.	Dr. Shine S.R.	Department of Aerospace Engg. Indian Institute of Space Science & Technology (IIST) Trivandrum, ISRO, Kerala	External Member

Sr. No.	Name of the Member	Designation	Role
11.	Mr. Richie Mittal	National Secretary Indian Society of Heating Refrigeration and Air-Conditioning Engineers K-43(Basement), Kailash Colony New Delhi	External Member
12.	Dr. Shailendra Kumar	Professor, Department of Mechanical Engineering N.I.T., Jamshedpur,	External Member
13.	Sri Amit Kumar Pandey	Sr. D.G.M. Usha martin Tati silawai, ranchi	External Member

13. Departmental Academic Committee

Sr. No.	Name of the Member	Designation	Role
1.	Dr. R.P.Sharma	Professor & Head	Chairman (Ex-Officio)
2.	Dr. R.P.Sharma	Professor	Member
3.	Dr. D.P. Mishra	Professor	Member
4.	Dr. Kaushik Kumar	Associate Professor	Member
5.	Dr. A. K. Roy	Associate Professor	Member
6.	Dr. Rajeev Kumar	Associate Professor	Member
7.	Dr. Dhaneshwar Mahto	Assistant Professor	Member
8.	Dr. Praveen Mishra	Assistant Professor	Member
9.	Dr. P.R. Thakura	Professor , Dept. of EEE	Member
10.	Dr. Sanjay Kr. Jha	Associate Professor, Dept. of Production Engg.	Member

SECTION 7**OTHER INFORMATION****14. Student Entrepreneurship activities/Start-ups**

Sr.No	Name of Student	Source of Funding	Title of Startup	Short Description
1.	Law Lasyap	Govt. Of Jharkhand	NGO(state livelihood mission project)	To enhance and diversify household income in select farm and non-farm sectors for targeted beneficiaries in project areas.

15. Publication by students**International Journal**

- Kumari, N., & Kumar, K. (2018). Design and Evaluation of Adjustable Calipers Using CAD Tools. *Materials Today: Proceedings*. 5 (2), 13658.
- Sanghamitra, D. & Kumar, K. (2018). Static Structural Analysis of a Powered Ankle Foot Prosthesis Mechanism. *Materials Today: Proceedings*, 5(2), 11616.
- Dash, N., Roy, A.K. & Kumar, K. (2018). Design and Optimization of Mixed Flow Pump Impeller Blades with Hydrostatic Loading and Varying Semi-cone Angle. *Materials Today: Proceedings*, 5 (2), 11608.
- Faisal, N. & Kumar, K. (2018). Optimization of Machine Process Parameters in EDM for EN 31 Using Evolutionary Optimization Techniques. *Technologies*. 6 (54), 1.
- Faisal, N. & Kumar, K. (2018). Utilization of Particle Swarm Optimization Technique for Process Parameter Optimization in Electrical Discharge Machining. *International Journal of Advanced Materials Manufacturing & Characterization*. 8 (1), 58.
- Dey, M., Jindal, P., Roy, A.K. & Kumar, K. (2018). Maximization of Cooling Effectiveness of Turbine Blade Surfaces Using Different Arrangement of Cooling Holes and Various Blowing Ratios. *Journal of Engineering Science and Technology*. 13 (4), 909.
- Faisal, N. & Kumar, K. (2018). Mechanical and Tribological Behavior of Nano Scaled Silicon Carbide Reinforced Aluminium Composites. *Journal of Experimental Nanoscience*. 13 (Sup 1), S1.
- Kumari, N. & Kumar, K. (2018). Mechanical Behavior of Graphene and Carbon fibre Reinforced Epoxy Based Hybrid Nano Composites for Orthotic Calipers. *Journal of Experimental Nanoscience*. 13 (Sup 1), S14.
- Dash, N., Roy, A.K. & Kumar, K. (2018). Design and Optimization of Mixed Flow Pump Impeller Blades by varying Semi-cone Angle. *IOP Conf. Series: Materials Science and Engineering*. 330, 12.
- Kumari, N., Pradhan, S.K & Kumar, K. (2018). Suitability of Composite Material for Orthotic Calipers – Tribological Study. *Materials Today: Proceedings*. 5, 5608.
- Srivastava, S., Roy, A.K. & Kumar, K. (2018). Design validation & stress analysis of mixed flow pump impeller blades under applied uniformly distributed and uniformly varying loads. *Materials Today: Proceedings*, 5, 4446.
- Dash, N., Roy, A.K. & Kumar, K. (2018). Design and Optimization of Mixed Flow Pump Impeller Blades – A Review. *Materials Today: Proceedings*. 5, 4460.
- Sanghamitra, D., & Kumar, K. (2018). Biomedical Design of Powered Ankle- Foot Prosthesis – A Review. *Materials Today: Proceedings*. 5, 3273.
- Sanghamitra, D., & Kumar, K. (2018). Design and Analysis of Powered Ankle Foot Prosthesis Mechanism Using Hydraulic Systems. *Applied Mechanics and Materials*, Trans Tech Publications. 877, 384.

15. Kumari, N. & Kumar, K. (2018). Application of Composites in Orthotic Calipers and its Experimental Validations. *Applied Mechanics and Materials*, Trans Tech Publications. 877, 44.
16. Bhuyan, D. & Kumar, K. (2018). Static Structural Analysis of Piston Valve of Twin Tube Dampers. *IEEE Explore Digital Library*. 9.
17. Kumari, N. & Kumar, K. (2018). Mechanisms and Materials of Orthotic Calipers for Polio Infected Patients – A Review. *IEEE Explore Digital Library*. 12..
18. Faisal, N. & Kumar, K. (2017). Polymer and metal nanocomposites in biomedical applications. *Biointerface Research in Applied Chemistry*. 7 (6), 2286.
19. Bhuyan, D. & Kumar, K. (2017). 3D CAD modelling and computational fluid analysis of piston valve of twin tube shock absorbers. *Materials Today: Proceeding*. 4 (8), 7420..
20. Bhowmik, S., Kumar, R. & Kumar, K. (2017). Establishment and effect of constraint on different mechanical properties of bamboo filler reinforced epoxy composite. *International Polymer Processing*. 32 (3), 308.
21. Bhuyan, D. & Kumar, K. (2017). Computational Fluid Flow Analysis of Base Valve for Twin Tube Shock Absorbers. *Materials Today: Proceedings*. 4 (4/A), 2308.

International Conference Publications by UG/PG students

1. Udai, A. D., Salunkhe, D. H., Dutta, A., Mukherjee, S. Force/Position Control of 3 DOF Delta Manipulator with Voice Coil Actuator. In *Proceedings of the Advances in Robotics*, New Delhi, 2017.
2. Kunal, Roy, A.K. & Kumar, Kaushik. Adiabatic Film Cooling Effectiveness over a Flat Plate: A Computational Approach. In *Proceedings of 2nd International Conference on Emerging Trends in Mechanical Engineering*, March, Bhopal, 2018.



National Conference Publications

1. Tiwari, S. and Bhaduri, S. Dynamic analysis of rotating machineries using application software Ansys. In *Proceeding of the National conference on construction management, mechanization and environmental sustainability*, Ranchi, 2017.
2. Mohanty, S. & Pandey, R. Design and Analysis of small Horizontal Axis wind turbine blade for low wind speed characteristics. In *Proceeding of the National Conference on Renewable Energy and Environmental Challenges (NCREEC)*, National Institute of Technology, Jamshedpur, 2018.
3. Gupta, U., Anas, A., Dubey, P., & Pandey, R. (2018). Development and Real time Simulation of all Wheel Steer on a Rear Wheel Drive car. In *Proceeding of the National Conference on Renewable Energy and Environmental Challenges (NCREEC)*, National Institute of Technology, Jamshedpur, 2018.
4. Kumar, V., Das, N., Kant, M., Kumar, S., & Pandey, R. (2018). Design and Fabrication of Solar Powered Electric Bicycle. In *Proceeding of the National Conference on Renewable Energy and Environmental Challenges (NCREEC)*, National Institute of Technology, Jamshedpur, 2018.
5. Raj, D., Nehru, J. L., & Kumar, R. (2018). Power generation through rural Challenges. In *Proceeding of the National Conference on Renewable Energy and Environmental Challenges (NCREEC)*, National Institute of Technology, Jamshedpur, 2018.
6. Prakash, O., & Deep, H. (2018). ANFIS Model for Prediction of Water Temperature for Scheffler Solar Reflector. In *Proceeding of the National Conference on Renewable Energy and Environmental Challenges (NCREEC)*, National Institute of Technology, Jamshedpur, 2018.

16. Achievements of Students

Sr. No	Name of Student	Achievement/ Position / Award etc	Organised by	Date and Venue
1.	Roshan Kumar	East Zone Finalist, Tata Crucible campus Hackathon 2018	Tata	27 March 2018/ Ranchi
2.	Anurag Gupta	Best Paper Award NCREEC 2018	NIT Jamshedpur	26-27 Feb, NIT Jamshedpur
3.	Firebolt Racing Team	Best team in East India. It stood 4th in GO GREEN Event BAJA SAE. The team secured the 6th position in SALES Event and 15th in the DESIGN Event BAJA SAE.		2017
4.	Team Srijan	In Formula Bharat 2017, the team was 7th in Business Plan Presentation, 7th in Design Event, 10th in Cost Presentation and 6th in Static Events with an overall position of 12		2017

17. Distinguished Visitors

Sr. No	Name of Visitor with Affiliation	Date of Visit	Picture
1.	Dr. Ramesh Kumar (Associate Prof. IIT Bombay)	1 st & 2 nd Feb 2018	
6.	Malcom Mehta, Director , CAC Japan	9.04.18	
2.	Aneemesh P.A. Dy. Manager RDCIS, SAIL	10.07.2017	

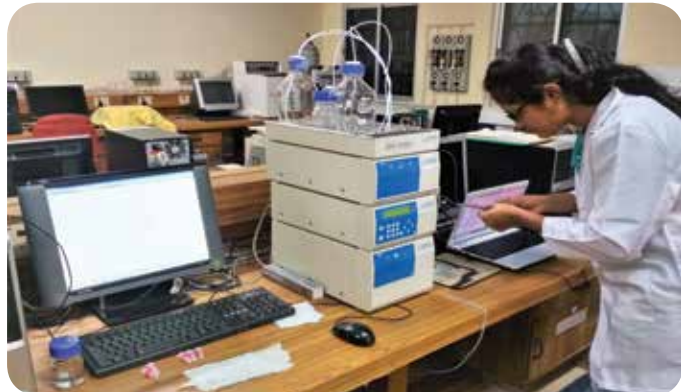
3.	Rajesh Choudhary, Product Area Manager, LG India	15.07.17	
4.	Jitendra Singh Rawat, Zonal Manager, LG India	24.07.17	
5.	Jugal Kishor, Project Manager, NTT DATA Pvt. Ltd. USA	1.11.17	



Department of Pharmaceutical Sciences and Technology

SECTION 1

PROFILE



1. About the Department

The Department of Pharmaceutical Sciences and Technology was established in 1972. It boasts of a robust scientific community comprising of qualified and competent faculties, undergraduate & postgraduate students and research fellows.

1. Highlights of the Department:

1. B. Pharm. and M. Pharm. courses are recognized by both Pharmacy Council of India and AICTE.
2. Ranked 10th in TLR and RPC and 13th in Overall by National Institutional Ranking Framework (NIRF) 2018, Ministry of HRD, GOI in category of Pharmacy.
3. B. Pharm. Programme is accredited by NBA for Five Years (2017-2022).
4. Recognized amongst the 10 centres in the country for AICTE- Quality Improvement Program (QIP) in Pharmacy, since 2007.
5. One of the Nodal Centre for the award of prestigious AICTE- National Doctoral Fellowship.
6. Average Teaching Experience of the faculty is 18 Years.

● Facilities:

Total Built up area	: 36000 Sq. ft.
Total number of Labs	: 17
Central Instrumentation Laboratory:	02

Library/ Reading room	: 01
Animal House	: 01
Medicinal Plant Garden	: 01

Academics: The department offers following UG, PG courses:

1. B. Pharm (Seats: 60; Duration: 4-year; 8-semester)
2. M. Pharm (Seats: 15/ Specialization; Duration: 2-year, 4-semester)
 - a. Pharmaceutical Chemistry
 - b. Pharmaceutics
 - c. Pharmacology
 - d. Pharmaceutical Quality Assurance
 - e. Pharmacognosy
3. M. Pharm. Programme under AICTE Q.I.P (offered to academia sponsored candidates only).
4. Ph. D. (in Pharmaceutical Sciences and allied research applications).

7. Research:

- An array of research strategies is being encouraged in the field of:
 - a. Novel Drug Delivery Systems
 - b. Natural Products Chemistry

- c. Development of Synthetic Medicinal Agents
- d. Biochemical Pharmacology & Toxicology
- e. Computer Aided Drug Design
- Total Research Grants of 390.36 Lacs during 2013-2018, from National and International funding agencies like DST, UGC, AICTE, DRDO, CSIR, ICAR, ICMR,

BMBF (Germany), UGC-UKIERI etc.

- No. of SCI publication/ faculty/year: 2.40
- Contemporary state of the art laboratories for Instrumental Analysis, Molecular Biology and Molecular Modelling supporting high end research.

Major recruiters:

Dr. Reddy's Lab, Sun Pharma, Torrent Pharma

Ltd., Mylan Labs, MacLeods Pharma Ltd., Leutis Pharma Ltd., Associated Capsules Group Ltd., Cipla etc.

SECTION 2

RESEARCH PROJECTS

2. Sponsored Projects & Consultancy

a) Projects Sanctioned :

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount (Lacs)	Duration of the Project
1.	Phyto-chemical characterization of polyphenols in <i>Ocimum tenuiflorum</i> and investigation on its protective potentials against oxidative stress and DNA damage	Dr. Biswatrish Sarkar (PI)	DST-SERB	15.03.2018	34.232	3 Years
2.	Design and Synthesis of Substrate Based Peptide Inhibitors of DENV Protease for the treatment of dengue viral infection	Dr. B. N. Sinha (PI) Dr. Biswatrish Sarkar (Co PI) Dr. Venkatesan J. (Co PI)	DST-SERB	07.08.2017	45.6	3 Years
3.	Design & development of inhibitors of DENV methyl transferase for the treatment of dengue viral infection	Dr. Venkatesan J. (PI)	AICTE-RPS	04.08.2017	17.38	3 Years

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount (Lacs)	Duration of the Project
4.	Evaluation of Anticancer Potential of few Coumarin Derivatives with Plasmonic up Conversion Luminescent Nanomaterials; A Non-Invasive Theranostic Approach for Breast Cancer	Dr. Shakti Prasad Pattanayak (PI)	AICTE-RPS	04.08.2017	23.47	3 Years

b) Ongoing Projects

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Prophylactic Transdermal Patch Against Neurotoxin Poisoning Biological Warfare Situations	Dr. Animesh Ghosh	BIRAC-SRISTI (PMU) (Society for Research)	11.03.2017	7.5 Lacs	2 years
2.	Phenyloxazoline Synthetase Inhibitors as Antitubercular Agents (POSIAA)	Dr. Venkatesan J.	DST-SERB	29.11.2016	53.73	3 years
3.	Development of Different Types of Hair Dyes Using Myrobalan	Dr. K. Jayaram Kumar	GOI-TRIFED	30.03.2016	9.83	2 years

c) Projects Completed

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount (Lacs)	Date of completion of the Project
1.	Evaluation of Antiviral and Anticancer potentials of Lac exudate/ dye.	Dr. Manik Ghosh (PI) Dr. B.N. Sinha (Co-PI)	Indian Council of Agricultural Research (ICAR), New Delhi	March 2015	22.43	31. 03. 2018

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount (Lacs)	Date of completion of the Project
2.	Study on hepatoprotective properties and expression of antioxidant enzymes by anthocyanins from <i>Ocimum tenuiflorum</i>	Dr. B. Sarkar	Seed Money Scheme, BIT, Mesra	17.12.2015	0.8	08.09.2017
3.	Development of analytical profiles of Amritarista and Rohitakarista	Dr. U. R. Lal	Seed Money Scheme, BIT, Mesra	17.12.2015	0.78	September 2017
4.	Pharmacokinetic study of cardiovascular drugs in combination with different antioxidants	Dr. K. K. Pradhan	Seed Money Scheme, BIT, Mesra	17.12.2015	0.8	September 2017
5.	Green synthesis of silver nanoparticles in cancer targeted drug delivery	Dr. Abhimanyu Dev	Seed Money Scheme, BIT, Mesra	17.12.2015	0.8	September 2017
6.	Development of anticancer formulations from lac based on in vitro studies on selected cancer cell lines	Dr. Manik Ghosh	Seed Money Scheme, BIT, Mesra	17.12.2015	0.55	September 2017
7.	Preparation and evaluation of nutritional product from Bael powder	Dr. Anima Pandey	Seed Money Scheme, BIT, Mesra	17.12.2015	0.8	September 2017
8.	Evaluation of apoptotic mechanism of deltamethrin as a promising candidate against cancer	Dr. Neelima Sharma	Seed Money Scheme, BIT, Mesra	17.12.2015	0.75	23.11. 2017

SECTION 3**SEMINAR / CONFERENCE****3. Seminar / Conferences / Short – Term Courses Conducted by the Department/Campus**

Sr. No	Title of Seminar/ Conference/ Short Term Courses/ Workshop	Coordinator	Funding / Sponsoring Agency	Date of Event
1.	Patient Safety - Current scenario and Ways Forward	Dr. M. P. Chopra	Indian Pharmaceutical Association. (Jharkhand Branch)	24th Sept'17

4. Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members:

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1.	Dr. Biswatrish Sarkar	Skill Development Programme in "Molecular Cloning & Protein Expression"	CSIR-CCMB, Hyderabad	CSIR-CCMB, Hyderabad	CSIR-CCMB, Hyderabad	June 18- July 14, 2018
2.	Dr. Manik Ghosh	Mentoring Educators in Educational Technology – FDP301x	Pandit Madan Mohan Malaviya National Mission for Teachers and Teaching (PMMMNTT), MHRD, GoI	IIT Bombay	Online	May 17- June 27, 2018
3.	Dr. Sandeep Kumar Singh	KSBB Fall meeting and International symposium, "Integrated Biotechnology for Human Well-being"	Pukyong National University, Busan, Korea	Korean Society of Biotechnology	BEXCO, Busan, Republic of Korea	October 11-13, 2017
4.	Dr. Biswatrish Sarkar	Foundation Program in "ICT for Education" [Faculty Development Program]	TEQIP	IIT Bombay (FDP101x & FDP201x)	Online	August 03 - September 07, 2017
5.	Dr. Sandeep Kumar Singh	The Gastroplus DMPK Workshop	Pukyong National University, Busan, Korea	Chungnam National University, Drug Research & Development, College of Pharmacy	Daejeon, Republic of Korea	July 10-12, 2017

SECTION 4

RESEARCH PUBLICATIONS

5. Publications in Journals:

Published in International Journals

1. Viswanathan, S., Verma, P. R. P., Ganesan, M., Manivannan, J. (2017). A novel liquid chromatography/tandem mass spectrometry (LC-MS/MS) based bioanalytical method for quantification of ethyl esters of Eicosapentaenoic acid (EPA) and Docosahexaenoic acid (DHA) and its application in pharmacokinetic study. *Journal of Pharmaceutical and Biomedical Analysis*, 141, 250.
2. Ahsan, Md. N, Verma, P.R.P. (2017). Solidified self nano-emulsifying drug delivery system of rosuvastatin calcium to treat diet-induced hyperlipidemia in rat: in vitro and in vivo evaluations. *Therapeutic Delivery*, 8, 125.
3. Kumari, S., Samanta, S. (2018). Computational Prediction of Structural Hybrid Oxindole Analogues as Cyclin-Dependent Kinases 2 (CDK2) Inhibitors, *Asian Journal of Biochemical and Pharmaceutical Research (Special Issue)*, 43.
4. Singh, R & Ganguly, S. (2018). Design, Synthesis and Evaluation of some novel 1-phenyl-3-(5-phenyl-1H-imidazol-1-yl) thiourea derivatives as anti-HIV agents. *Indian Journal of Pharmaceutical Education and Research*, 52(4), 655.
5. Singh, R & Ganguly, S. (2018). Synthesis and antimicrobial evaluation of some 1-phenyl-3-(5-phenyl-1H-imidazol-1-yl) thiourea derivatives. *Indian Journal of Heterocyclic Chemistry*, 28(2), 1.
6. Singh, R. & Ganguly, S. (2017). Molecular docking studies of novel imidazole analogs as HIV-1-RT inhibitors. *International Journal of Pharmaceutical Sciences and Research*, 8 (9). 1000.
7. Singh, R & Ganguly, S. (2017). Synthesis, Antimicrobial Evaluation and structure activity relationship (SAR) studies of some 1-phenyl-3-(5-phenyl-1H-imidazol-1-yl) thiourea derivatives. *Antiinfective Agents*, 15, 1.
8. Kumar Varma, C. A. & Jayaram Kumar, K. (2017). Structural, functional and pH sensitive release characteristics of water-soluble polysaccharide from the seeds of *Albizia lebbeck* L. *Carbohydrate Polymers*, 175, 502.
9. Kumar Varma, C. A. & Jayaram Kumar, K. (2018). Formulation and optimization of pH sensitive drug releasing O/W emulsions using *Albizia lebbeck* L. seed polysaccharide. *International Journal of Biological Macromolecules*, 116, 239.
10. Jha, D., & Mitra Mazumder, P. (2018). Biological, chemical and pharmacological aspects of *Madhuca longifolia*. *Asian Pacific Journal of Tropical Medicine*, 11(01), 9.
11. Sharma, N., Banerjee, S., & Mitra Mazumder, P. (2018). Evaluation of the mechanism of anticancer activity of deltamethrin in Jurkat-J6 cell line. *Pesticide Biochemistry and Physiology*, 149, 98.
12. Jana, S. N., Mitra Mazumder, P. & Mohapatra, L. (2018). Development of Pre-Clinical Diabetic Model Using Partial Pancreatectomy in Swiss Albino Mice - A Brief Update. *Pharmacologyonline*, 1, 143.
13. Kasthuri, J. K., Jadav, S. S., Thripuram, V. D., Gundabolu, U. R., Ala, V. B., Kolla, J. N., Jayaprakash, V., Ahsan, M. J., Bollikolla, H. B. (2017). Synthesis, characterization, docking and study of inhibitory action of some novel C-alkylated chalcones on 5-LOX enzyme. *Chemistry Select*, 2, 8771.
14. Graser-Loescher, G., Schoenhuber, A., Ciglenec, C., Eberl, S., Krupitza, G., Mader, R. M., Jadav, S. S., Jayaprakash, V., Fritzer-Szekeres, M., Szekeres, T., Saiko, P. (2017). Thiosemicarbazone derivatives, thiazolyl hydrazones, effectively inhibit leukemic tumor cell growth: Down-regulation on ribonucleotide reductase activity and synergism with arabinofuranosylcytosine. *Food and Chemical Toxicology*, 108, 53.

15. Yasmin, S., Capone, F., Laghezza, A., Dal Piaz, F., Loiodice, F., Vijayan, V., Devadasan, V., Mondal, S. K., Atli, O., Baysal, M., Pattnaik, A. K., Jayaprakash, V., Lavecchia, A. (2017). Novel benzylidene thiazolidinedione derivatives as partial PPAR agonists and their antidiabetic effect on type 2 diabetes. *Scientific Reports*, 7: 14453, 1.
16. Nath, C., Badavath, V. N., Thakur, A., Ucar, G., Acevedo, O., Siddique, M. U. M., Jayaprakash, V. (2018). Curcumin-based pyrazoline analogues as selective inhibitors of human monoamine oxidase A. *MedChemComm*, 9, 1164.
17. Choudhury, M., Vishwanathan, V., Timiri, A. K., Sinha, B. N., Jayaprakash, V., Devadasan, V. (2018). 2-[(4,6-diaminopyrimidin-2-yl) sulfanyl]-N-(4-methoxyphenyl) acetamide. *IUCrData*, 3: x180600, 1.
18. Choudhury, M., Vishwanathan, V., Timiri, A. K., Sinha, B. N., Jayaprakash, V., Devadasan, V. (2018). Crystal structures and Hirshfeld surface analyses of 2-[(4,6-diaminopyrimidin-2-yl) sulfanyl]-N-(pyridin-2-yl)acetamide and 2-[(4,6-diaminopyrimidin-2-yl)-sulfanyl]-N-(pyrazin-2-yl)acetamide. (2018). *Acta Crystallographica*, E74, 718.
19. Deb, N., Hansda, A., Dutta, S., Pattanaik, A., Besra, S. E. (2018). *Lawsonia alba* leaves induced apoptosis and cell cycle arrest in B16F10 melanoma cells. *International Journal Pharmacy and Pharmaceutical Sciences*, 10(5), 96.
20. Behera, P. C. & Ghosh, M. (2018). Evaluation of antioxidant, antimicrobial, and antiurolithiatic potential of different solvent extracts of *Aerva lanata* Linn flowers. *Pharmacognosy Magazine*, 14 (53), 53.
21. Donalisio, M., Cagno, V., Civra, A., Gibellini, D., Musumeci, G., Rittà, M., Ghosh, M. & Lembo, D. (2018). The traditional use of *Vachellia nilotica* for sexually transmitted diseases is substantiated by the antiviral activity of its bark extract against sexually transmitted viruses. *Journal of Ethnopharmacology*, 213, 403.
22. Kant, K., Lal, U. R., Ghosh, M. (2017). In silico prediction and wet lab validation of *Arisaema tortuosum* (Wall.) schott extracts as antioxidant and anti-breast cancer source: A comparative study. *Pharmacognosy Magazine*, 13(52), 786.
23. Kant, K., Lal, U. R., Ghosh, M. (2017). Computational breakthrough of natural lead hits from the genus of *Arisaema* against human respiratory syncytial virus. *Pharmacognosy Magazine*, 13(52), 780.
24. Mandal, B., Rameshbabu, A. P., Soni, S.R., Ghosh, A., Dhara, Pal, S. (2017). In Situ Silver Nanowire Deposited Cross-Linked Carboxymethyl Cellulose: A Potential Transdermal Anticancer Drug Carrier. *ACS Applied Material Interfaces*, 9, 36583.
25. Soni, S. R., Ghosh, A. (2017). Exploring pullulan-poly(vinyl alcohol) interpenetrating network microspheres as controlled release drug delivery device. *Carbohydrate Polymers*, 174, 812.
26. Venkatesan, J., Singh, S. K., Sukumaran, A., Kim S.K., & Shim M.K (2018), Preparation, characterization and biological applications of Biosynthesized Silver Nanoparticles with Chitosan-Fucoidan Coating, *Molecules*, 23 (6), 1429.
27. George, J. K., Verma, P. R. P., Venkatesan, J., Lee, J.Y., Yoon, D.H., Kim, S.K., & Singh S.K. (2017). Studies on core-shell nanocapsules of felodipine: In vitro in vivo evaluations. *AAPS PharmSciTech*, 18(8), 2871.
28. Ali, H. & Singh, S.K. (2018). Preparation and Characterization of Solid Lipid Nanoparticles of Furosemide Using Quality by Design. *Particulate Science and Technology*, 36(6), 695.
29. Ali, H., Verma, P. R. P., Dubey, S.K., Venkatesan, J., Seo, Y., Kim, S.K., & Singh, S. K. (2017). In vitro-in vivo and Pharmacokinetic Evaluation of Solid Lipid Nanoparticles of Furosemide Using Gastroplus™, *RSC Advances*, 7, 33314.
30. Thakur, A., Roy, A., Ghosh, A., Chabra, M., Banerjee, S. (2018). Abiraterone acetate in the treatment of prostate cancer. *Biomed*

Pharmacother, 101, 211.

31. Kumar, A. Sunita, P., Jha, S., Pattanayak, Shakti P. (2018). 7,8-dihydroxycoumarin exerts antitumor potential on DMBA induced mammary carcinogenesis by inhibiting ER α , PR, EGFR and IGF1R: involvement of MAPK1/2/JNK1/2-Akt pathway. *Journal of Physiology and Biochemistry*, 74 (2), 223.
 32. Haque, Md.W., Bose, P., Siddique, M. U.M., Sunita, P., Lapenna, A., Pattanayak, S. P. (2018). Taxifolin binds with LXR (α & β) to attenuate DMBA-induced mammary carcinogenesis through mTOR/Maf-1/PTEN pathway. *Biomedicine & Pharmacotherapy*, (105), 27.
 33. Haque, Md.W., Pattanayak, S. P. (2017). Taxifolin inhibits 7, 12-dimethylbenz[a]anthracene-induced mammary carcinogenesis by regulation gAhR/CYP1A1 signalling pathway. *Pharmacognosy Magazine*, (13), S749.
 34. Haque, Md.W., Bose, P., Siddique, M. U.M., Sunita, P., Pattanayak, S. P. (2018). Taxifolin Possesses AntiCancer Activity on the 7,12Dimethylbenz(a)anthraceneInduced Breast Cancer in the Sprague Dawley Rats by Remodeling Nuclear Factor Erythroid 2KelchLike ECHAssociated Protein 1Heme Oxygenase 1 and AntiOxidant Pathways. *Pharmacognosy Magazine*, 14(55), 110.
 35. Singh, S., Sarkar, B., Mukhopadhyay, K., Banerjee, M., Kumar, M. (2018). Antioxidants, DNA damage protective properties and antibacterial activity of leaf extract of *Phlogacanthus thyriflorus* Nees. *Asian Journal of Microbiology Biotechnology and Environmental Sciences*, 20, S145.
- Published in National Journals**
1. Jana, S. N., Mitra Mazumder, P., & Nagaraju, G. (2018). *Momordica charantia* Linn as a medicinal plant: A Review. *World Journal of Pharmacy and Pharmaceutical Sciences*, 7(01), 440.
 2. Jana, S. N., & Mitra Mazumder, P. (2018). Pre-clinical studies on diabetes mellitus using partial pancreatectomy in swiss albino mice. *International Journal of Pharmacy and Pharmaceutical Sciences*, 10(01), 71.
 3. Jha, D., & Mitra Mazumder, P. (2018). Effect of high fat diet on prevalence of metabolic diseases in murine model. *Asian Journal of Biochemical and Pharmaceutical Research*, Special Issue, 21.
 4. Siddique, M. U. M., Sinha, B. N., Jayaprakash, V. (2018). Comparative shape and electrostatic study of highly potent and selective CYP1B1 inhibitors: Assessment of active site of CYP1B1 by binding mode analysis using site map tool. *Indian Journal of Pharmaceutical Education and Research*, 52(1), 159.
 5. Mukherjee, A., Mehta, B. K., Sen, K. K., Banerjee, S. (2018). Metabolic syndrome associated cognitive decline in mice: Role of minocycline. *Indian J. Pharmacol*, 50(2), 61.
 6. Mukherjee, A., Sen, K. K., Banerjee, S. (2018). Effect of Metabolic syndrome on anxiety in mice Indian J. Pharm. Sci, 80(3), 453.
 7. Mukherjee, A., Banerjee, S. (2018). Effect of Metabolic syndrome on depression in mice. *Indian Journal of Pharmaceutical Education & Research*, 51(4s), s645.
 8. Mehta, B. K., Banerjee, S. (2017). Characterization of Cognitive impairment in Type 2 Diabetic Rats. *Indian J. Pharm. Sci*, 79(5), 785.
 9. Heba, M., Faraz, S., Banerjee, S. (2017). Effect of shankpushpi on alcohol addiction in mice, *Pharmacognosy Magazine*, 13(49), 148.
 10. Krishna, C. P., Rangra, N. K., Samanta, R., Pradhan, K. K. (2018). Formulation, Development and Stability of Granisetron Sustained Release Oral Dispersible Tablets. *Indian Journal of Pharmaceutical Sciences*, 80(02), 342.
- 6. Publications in Proceedings:**
- Published in International Proceedings

1. Das, S. S., Singh, S. K., Verma, P. R. P., Formulation and Evaluation of Capecitabine loaded Eudragit S 100 Polymeric Nanoparticles. In proceedings of 7th International Conference on Translational Cancer research, Department of Biotechnology, Bhupat and Jyoti Mehta School of Biosciences, IIT Madras, Chennai, 2018.
 2. Das, S. S., Kumar, G.P., Ali, H., Singh, S. K., Verma, P. R. P. Hybrid Resealed Erythrocytes: A novel Approach for Targeted Nanoparticulate Drug Delivery. In proceedings of 1st World Congress of Non-Communicable Diseases, World Non communicable Federation, PGIMER, Chandigarh, Punjab, 2017.
 3. Kumar Varma, C. A., & Jayaram Kumar, K., Impact of carboxymethylation on the physicochemical, morphological and thermal characteristics of yellow pinciana seed polysaccharide. In Proceedings of the International Conference on Recent Trends in Science & Technology, S.S.S.K.R. Innani Mahavidyalaya, Karanja (Lad), 2018.
 4. Deshkar, D., Bose, S., Jayaram Kumar, K., Physicochemical characterization and drug release profile of carboxymethylated starches prepared from pink potato. In Proceedings of the International Conference on Recent Trends in Science & Technology, S.S.S.K.R. Innani Mahavidyalaya, Karanja (Lad), 2018.
 5. Mavuduru, S.; Kriti, K.; Mishra, A.; Ghosh, M. Isolation of anticancer agents from *Tabernaemontana divaricata* (L.) R. Br. ex Roem. & Schult. The 21st International Electronic Conference on Synthetic Organic Chemistry, 1–30 November 2017; Sciforum Electronic Conference Series, V21, 2017.
 6. Shah, S.; Dey, S.; Basak, S.; Kant, K.; Behera, P.; Ghosh, M. A high-performance liquid chromatographic method for determination of praziquantel in rat plasma: Optimization and application to pharmacokinetic study. The 21st International Electronic Conference on Synthetic Organic Chemistry, 1–30 November 2017; Sciforum Electronic Conference Series, V 21, 2017.
 7. Shah, S.; Dey, S.; Kant, K.; Behera, P.; Ghosh, M. Simultaneous determination of albendazole and praziquantel in rat plasma by HPLC-UV. The 21st International Electronic Conference on Synthetic Organic Chemistry, 1–30 November 2017; Sciforum Electronic Conference Series, V 21, 2017.
- 7. Book:**
- Chapter(s) in Edited Book
1. Soni, S. R., & Ghosh, A. (2017). Grafting Onto Biopolymers: Application in Targeted Drug Delivery. In Vijay Kumar Thakur Eds. *Biopolymer Grafting: Applications* (pp.335-389). Elsevier, Amsterdam, Netherlands.
 2. Venkatesan, J., Anil, S., Singh, S. K and Kim S. K. (2017). Preparation and Applications of Alginate Nanoparticles. In Venkatesan, J., Anil, S & Kim S. K. Eds. *Seaweed Polysaccharides* (pp. 251-268)., Elsevier Inc, USA.
 3. Joshi, D., Roy, S., Banerjee, S. (2018). Prebiotics: A Functional Food in Health and Disease. In Mandal S, Mandal V, Konishi T. Eds. *Natural Products and Drug Discovery* (pp 507-523). Elsevier.
 4. Tikariha, S., Banerjee, S., Dev, A., Singh, S. (2017). Growth Phase-Dependent Synthesis of Gold Nanoparticles using *Bacillus Licheniformis*. In K. Mukhopadhyay, Asish Sachan & Manish Kumar (Eds.), *Application of Biotechnology for Sustainable Development* (pp. 121-128). Springer Nature Scientific Publishing Services (P) Ltd., Singapore.
 5. Anand, A. & Sarkar, B. (2017). Phytochemical screening and antioxidant property of anthocyanins extracts from *Hibiscus rosa-sinensis*. In K. Mukhopadhyay, Asish Sachan & Manish Kumar (Eds.), *Application of Biotechnology for Sustainable Development* (pp. 139-147). Springer Nature Scientific Publishing Services (P) Ltd., Singapore.
 6. Sarkar, B., Kumar, M. & Mukhopadhyay, K (2017). A rapid method for detection and characterization of anthocyanins from *Hibiscus*, *Ocimum* and *Syzygium* species and evaluation of their antioxidant potential. In K. Mukhopadhyay, Asish Sachan &

Manish Kumar (Eds.), Application of
Biotechnology for Sustainable Development

(pp. 129-137). Springer Nature Scientific
Publishing Services (P) Ltd., Singapore.

SECTION 5

AWARD/ PATENT/ COLLABORATIONS

8. Award / Recognition Bestowed on Faculties

Sl. No.	Name of the Faculty Member	Title of the Award / Honour	Organisation	State / National / International Level	Year / Duration
1.	Dr. R. N. Gupta	Elected as National Vice-President (Hospital Pharmacy Division)	Indian Pharmaceutical Association, Mumbai	National	April 2018 – March 2020
		Eminent Pharmacist Award 2017	Indian Pharmaceutical Congress 2017	National	December 2017
		Jharkhand Pharmacy Gaurav Award 2017	Indian Pharmacy Graduates Association	State	September 2017
2.	Dr. M. P. Chopra	Elected as Joint-Secretary (Hospital Pharmacy Division)	Indian Pharmaceutical Association, Mumbai	National	April 2018 – March 2020
		Elected as Secretary	Indian Pharmaceutical Association, Jharkhand	State	April 2018 – March 2020
3.	Dr. Manik Ghosh	Associate Faculty, AICTE approved FDP on “IITBombayX: FDP201x Pedagogy for Online and Blended Teaching-Learning Process	IIT Bombay	National	September 14 October 12, 2017
4.	Dr. Manik Ghosh	Associate Faculty, AICTE approved FDP on “IITBombayX: FDP101x Foundation Program in ICT for Education”	IIT Bombay	National	August 03 -September 12, 2017

Sl. No.	Name of the Faculty Member	Title of the Award / Honour	Organisation	State / National / International Level	Year / Duration
5.	Dr. Trishna Bal	Third Best Paper in UDPS Pharmacon 2018 - International Conference on "Nanomedicine in Diagnostics & Theranostics in Cancer"	Utkal University, Odisha	International level	March 9-11, 2018

SECTION 6**ACTIVITIES/ DAC/BOS****9. Student Activities**

Sr. No.	Name of the Activity	Students' Co-ordinator	Faculty Co-ordinator	Date / Duration
1.	"Public Speaking" organized by Indian Pharmaceutical Association (Jharkhand Branch)	Vishnu Chinnamsetti, Ashutosh Sen Gupta, Dipan Roy, Abhikriti Sharma, Mrinal Arav, Vandana Rathaur	Dr. R.N. Gupta Dr. K. Jayaram Kumar Dr. Animesh Ghosh	March 22, 2018
2.	"Pharma Cup Cricket Tournament" organized by Indian Pharmaceutical Association (Jharkhand Branch)	Vishnu Chinnamsetti, Ashutosh Sen Gupta, Harish Singh, Manas Kumar, Rajdeep Dey	Dr. R.N Gupta, Dr. S. Samanta	Feb-March 2018
3.	"Dr. Jhon Kapoor's Prof. M. L. Khorana Memorial Lecture" 2018 organized by Indian Pharmaceutical Association (Jharkhand Branch)	Vishnu Chinnamsetti, Ashutosh Sen Gupta, Harish Singh, Yashaswee Raman, Dharmik Joshi, Abhikriti Sharma, Dipan Roy, Harsh Deo, Deepika Kumari, Devanshu Deshkar, Manas Kumar, Vandana Rathaur	Dr. R.N Gupta, Dr. K. JayaramKumar, Dr. M.P. Chopra	February 18, 2018
4.	Quiz competition 2018 organized by Indian Pharmaceutical Association (Jharkhand Branch)	Vishnu Chinnamsetti, Ashutosh Sen Gupta, Dipan Roy, Dharmik Joshi, Ishaan Moitra, Monika Mishra, Abhikriti Sharma	Dr. R.N Gupta	January 18, 2018

Sr. No.	Name of the Activity	Students' Co-ordinator	Faculty Co-ordinator	Date / Duration
4.	National Pharmacy Week organized by Indian Pharmaceutical Association (Jharkhand Branch)	Dipan Roy, Dharmik Joshi, Mrinal Arav, Riya Ghosh	Dr. R.N Gupta Mrs. S. G. Panpalia, Dr. K.K Pradhan Dr. A.K Pattnaik Dr. M.P Chopra	November 21, 2017
6.	State Level NEC 2017 organized by Indian Pharmaceutical Association (Jharkhand Branch)	Vishnu Chinnamsetti, Abhikriti Sharma	Dr. M.P Chopra Dr. Trishna Bal	October 30, 2017
7.	World Pharmacist Day at Ranchi organized by Indian Pharmaceutical Association (Jharkhand Branch)	Lovely Arya, Prerna	Dr. R.N Gupta, Dr. M.P Chopra	September 25, 2017
8.	One Day Seminar at B.I.T Mesra organized by Indian Pharmaceutical Association (Jharkhand Branch)	Sonam Gupta, Mahima Prasad	Dr. M.P Chopra	September 24, 2017
9.	TB Control Programme organized by Indian Pharmaceutical Association (Jharkhand Branch)	Vishnu Chinnamsetti, Ashutosh Sen Gupta, Dipan Roy	Mrs S.G. Panpalia Dr. R. N. Gupta Dr M. P. Chopra	September 2017

10. Board of Studies

Sr. No.	Name of the Member	Designation	Role
1.	Dr. S. Samanta	Professor & Head	Chairman (Ex-Officio)
2.	Dr. P. R. P. Verma	Professor	Member
3.	Dr. B. N. Sinha	Professor	Member
4.	Dr. S. Jha	Professor	Member
5.	Dr. R. N. Gupta	Professor	Member

6.	Dr. (Ms.) S. Ganguly	Professor	Member
7.	Dr. (Mrs.) Papiya Mitra Mazumder	Professor	Member
8.	Dr. K. Jayaram Kumar	Professor	Member
9.	Dr. (Mrs.) S. M. Verma	Professor	Member
10.	Dr. Ashok Kumar Pattnaik	Associate Professor	Member
11.	Dr. Manik Ghosh	Assistant Professor	Member
12.	Dr. G. Sarkhel	Professor	External Member
13.	Dr. Ashoke Sharon	Associate Professor	External Member
14.	Dr. B. Mishra	Professor, Dept. of Pharmaceutics. IIT-BHU, Varanasi	External Member
15.	Dr. D. Pathak	Professor & Director, DIPSAR, New Delhi	External Member
16.	Dr. Ajay Handa	Sr. VP, Wockhardt Lab, Aurangabad	External Member
17.	Dr. Arindam Mukhopadhyay	Dean, LCRA, Bangalore	External Member

11. Departmental Academic Committee

Sr. No.	Name of the Member	Designation (Kindly mention Ex-Officio, where applicable)	Role (Chairman/ Internal or External Member)
1.	Dr. S. Samanta	Professor & Head	Chairman (Ex-Officio)
2.	Dr. P. R. P. Verma	Professor	Member
3.	Dr. B. N. Sinha	Professor	Member
4.	Dr. S. Jha	Professor	Member
5.	Dr. R. N. Gupta	Professor	Member
6.	Dr. (Ms.) S. Ganguly	Professor	Member
7.	Dr. (Mrs.) Papiya Mitra Mazumder	Professor	Member
8.	Dr. K. Jayaram Kumar	Professor	Member
9.	Dr. (Mrs.) S. M. Verma	Professor	Member
10.	Dr. A. K. Pattnaik	Associate Professor	Member
11.	Dr. Venkatesan J.	Associate Professor	Member
12.	Dr. Manik Ghosh	Assistant Professor	Member

Sr. No.	Name of the Member	Designation (Kindly mention Ex-Officio, where applicable)	Role (Chairman/ Internal or External Member)
13.	Dr. Abhimanyu Dev	Assistant Professor	Member
14.	Dr. S. P. Pattanayak	Assistant Professor	Member
15.	Dr. (Mrs.) Usha Jha	Professor, Dept. of Chemistry	External Member
16.	Dr. K. Mukhopadhyay	Professor, Dept. of Bio-Engineering	External Member

SECTION 7**OTHER INFORMATION****12. Publication by students**

Sr. No	Name & Roll No. of student	Publication details
1.	Akancha Anand (MPH/10010/2014)	Anand, A. & Sarkar, B (2017). Phytochemical screening and antioxidant property of anthocyanins extracts from Hibiscus rosa-sinensis. In K. Mukhopadhyay, Asish Sachan & Manish Kumar (Eds.), Application of Biotechnology for Sustainable Development (pp. 139-147). Springer Nature Scientific Publishing Services (P) Ltd., Singapore.
2.	Maheen Hiba (MPH/10018/14) Sana Faraz (BPH/10043/2013)	Heba, M., Faraz, S., Banerjee, S. (2017). Effect of shankhapushpi on alcohol addiction in mice, Pharmacognosy Magazine, 13(49), 148-53
3.	Somdatta Roy (MPH/10027/2015) Dharmik Joshi (BPH/10042/2013)	Joshi, D., Roy, S., Banerjee, S. (2018). Prebiotics: A Functional Food in Health and Disease. In Mandal S, Mandal V, Konishi T. Eds. Natural Products and Drug Discovery (pp 507-523). Elsevier. Amsterdam.
4.	Sayantan Banerjee (MPH/10029/2015)	Sharma, N., Banerjee, S., & Mitra Mazumder, P. (2018). Evaluation of the mechanism of anticancer activity of deltamethrin in Jurkat-J6 cell line. Pesticide Biochemistry and Physiology, 149, 98 – 103.

Sr. No	Name & Roll No. of student	Publication details
5.	Shibu Narayan Jana (MPH/10038/2014)	<ol style="list-style-type: none"> 1. Jana, S. N., Mitra Mazumder, P., & Mohapatra, L. (2018). Development of pre-clinical diabetic model using partial pancreatectomy in swiss albino mice - A Brief Update, Pharmacologyonline, 1, 143-147. 2. Jana, S. N., & Mitra Mazumder, P. (2018). Pre-clinical studies on diabetes mellitus using partial pancreatectomy in swiss albino mice. International Journal of Pharmacy and Pharmaceutical Sciences, 10(01), 71 – 76. 3. Jana, S. N., Mitra Mazumder, P., & Nagaraju, G. (2018). Momordica charantia Linn as a medicinal plant: A Review. World Journal of Pharmacy and Pharmaceutical Sciences, 7(01), 440-459.
6.	Divya Patra (MPH/10031/2016)	Presented a Poster entitled “Formulation and Evaluation of fast dissolving sublingual films of Rizatriptan benzoate in combination with ginger extract” in 69 th Indian Pharmaceutical Congress- 2017, Chitkara Univesrsity, Rajpura, Punjab.
7.	Suvendu Nandi (MPH/10027/2017)	Presented a Poster entitled “Brain targeted improvised nanoliposomes for effective meningitis therapy” in UDPS PHARMACON 2018, International conference on “Nanomedicines in Diagnostics and Theranostics in Cancer” organized by Utkal University, Bhubaneswar, Orissa. Dated- 9 th March 2018
8.	Tathagata Chakraborty (MPH/10004/2016)	Presented a Paper entitled “In silico analysis and molecular docking studies of prospective N-substituted Benzimidazole Hydrazide Analogues for anticancer activity” in REACH 2018, National Conference on “Role of Technology in transforming Healthcare”, organized by GD Goenka School of Medical and Allied Sciences, Delhi, Dated- 18 th March 2018.

13. Achievements of Students

Sr. No	Name of Student	Achievement/Position/Award etc	Organised by	Date and Venue
1.	Mr. Chekuri Ashok Kumar Varma (PHD/ PH/10002/16)	Best Paper Award at International conference on “Recent Trends in Science & Technology	S.S.S.K.R. Innani Mahavidyalaya, Karanja (Lad), Maharashtra	March 22-23, 2018 S.S.S.K.R. Innani Mahavidyalaya, Karanja (Lad), Maharashtra

14. Distinguished Visitors



Date of Visit : 18 th Feb.'18	Dr. Rao V. S. V. Vadlamudi, President, CPA & President IPA	Dr. T. V. Narayana Vice President, IPA	Mr. Kaushik Desai, Gen. Secretary, IPA
	Dr. B. Prabhashankar, MD, Leads Pharma, Hyderabad	Dr. Naresh Sharma, Assistant Drugs Controller CDSCO, New Delhi	Mr. Pradip Mallik, General Manager, Burnet Pharmaceuticals Pvt. Ltd, Kolkata



Department of Physics

SECTION 1

PROFILE



1. About the Department

The Department of Physics has a strong pool of highly qualified and motivated faculty members. The Department is well supported financially through “Fund for Improvement in Science & Technology Infrastructure” (FIST) programme of the Department of Science and Technology, New Delhi twice and under Special Assistance Programme (SAP) of the UGC. The Department has also received significant funds under TEQIP-I & II phases. The Department has been funded by agencies, viz. UGC, DST, BRNS, ARDB, ISRO, DRDO and CSIR for pursuing different research projects. Recently the Department has completed several international (Indo-German, Indo-Russian, Indo-Israeli) projects as well.

The main thrust of the Department of Physics is the 5year Integrated M. Sc. Programme which has been offering since 2011. The course aims to train the young students with the following objectives:

To impart high quality Science education in a vibrant academic ambience.

To prepare students to take up challenges as a researcher in diverse areas of theoretical and experimental physics.

Excellent lab, library and internet facilities.

Opportunity of pursuing high end research as project work.

Exit option available after completion of three years with a B.Sc. Degree that enables students to take admission in the Integrated M.Sc. plus Ph.D. programs of different prestigious research organizations.

During 9th and 10th semester, students may opt special papers for the following areas:

Condensed Matter Physics, Electronics, Photonics and Plasma Sciences.

Achievements of alumni

Availing exit option, some of the previous students have been admitted to the Integrated Ph.D. programs of Tata Institute of Fundamental Research, Bombay; Indian Institute of Science, Bangalore; Harish-Chandra Research Institute, Allahabad; etc.

Some students have excelled in the GRE and TOEFL for higher studies in US universities whereas some others have made their way to German and Canadian Universities.

SECTION 2**RESEARCH PROJECTS****1. Sponsored Projects & Consultancy****a) Project Sanctioned:**

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Dynamics of dense colloidal suspensions under steady shear	Dr. Madhu Priya PI	Seed Money, BIT Mesra	01-12-2017	Rs. 100000/-	15 months
2.	Nonlinear rheology of dense colloidal suspensions	Dr. Madhu Priya PI	ECR-SERB grant	27-04-2018	Rs. 2241000/-	3 years
3.	Growth of diamond thin films with Silicon- vacancy centers for Heralded photon emission	Dilip Kumar Singh	BIT Mesra Seed Money Scheme	01/12/2017	02 Lakhs	02 Years
4.	Study of stochastic heat engines using active particles	Dr. Sourabh Lahiri PI	Science and Engineering Research Board	April 27, 2018	23,00,000/-	3 years
5.	Development of environment friendly perovskite materials for self-powered vibrational energy harvesting device applications	Dr. S K Rout PI	DST	July 2017	Rs 51,00,000/-	3 years
6.	Investigation on Optical Pulse and Beam Propagation in Semiconductor Quantum Well and Quantum Dot Nanostructures with Emphasis to the Development of Photonic Device	Dr. S Konar	DRDO	05.01.2018	24,60,000/-	3 Years

b) Ongoing Projects

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Defect Engineered Fluorescence from "Nano-Diamond" for Nano-photonics and Bio-Imaging.	Dilip Kumar Singh	DST, Govt. of India	30.01.2014	35 Lakhs	05 Years (2014-2019)

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
2.	Development of rare earth modified Zirconate as an efficient proton conducting material at intermediate temperature.	Ela Sinha PI	DST, India	14.03.2017	29,68,295/-	3 years
3.	Development of Bismuth Based Materials for Piezoelectric Microsystem in Robotic Applications	S K Rout PI Ela Sinha Babita Tiwari	BRNS	13- Feb -16	Rs.33,72,900/-	3 years

c) Projects Completed

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Date of completion of the Project
1.	Investigation on Photoluminescence and microwave dielectric properties of some tungstates and molybdates prepared by microwave assisted solid state reaction route	S K Rout	DST	06-May-13	Rs.24,00,000/-	31.12.2017

SECTION 3**SEMINAR / CONFERENCE****3. Seminar / Conferences / Short – Term Courses Conducted by the Department**

Sr. No.	Title of Seminar/ Conference/ Short Term Courses/ Workshop	Coordinator	Funding / Sponsoring Agency	Date of Event
1.	Refresher Course on Experimental Physics of Indian National Science Academy	S. K. Mukherjee & R. Sharma	INSA	14 - 29th June 2018.

4. Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members:

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1.	Dr. Nishi Srivastava	European Aerosol Conference, Zurich, Switzerland (Paper id: T201N4d5)	University of Strasbourg, France	Association for Aerosol Research, Germany	Zurich University, Zurich, Switzerland	27 August – 1 September 2017

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
2.	Dr. Nishi Srivastava	The 14th International conference on Atmospheric Sciences and Applications to Air Quality.	SERB	University of Strasbourg	University of Strasbourg, Strasbourg, France,	29 – 31 May 2017
3.	Dr. Sourabh Barua	Faculty Development Program	NPIU-TEQIP	TLC, IIT MADRAS	TLC, IIT MADRAS	31 Jan - 4 Feb 2018
4.	Dr. Dilip Kumar Singh	National Conference on Advances in Spectroscopic Techniques and Materials (ASTM-2018). (Invited talk)	DST	Indian Institute of Technology (ISM) Dhanbad, India	Indian Institute of Technology (ISM) Dhanbad, India	March 14-16, 2018
5.	Dr. Dilip Kumar Singh	5th International Conference on Advanced Nanomaterials and Nanotechnology (ICANN 2015) (Contributed presentation)	DST	IIT Guwahati, Guwahati, India.	IIT Guwahati, Guwahati, India.	18-21st Dec, 2017
6.	Dr. Dilip Kumar Singh, Ela Sinha, Kingshuk Bose, S K Raut	Science Academies' Refresher course in Experimental Physics-99th	Science Academies of India.	BIT Mesra	BIT Mesra	14th -29th June, 2018
7.	Dr Ela Sinha	International school on crystallography and workshop, Aug 30th –Sept 4th, 2017, NIT Rourkela.	IUCr	Department of Physics and Astronomy, NIT Rourkela.	NIT Rourkela.	Aug 30th –Sept 4th 2017
8.	Sourabh Lahiri	Frontiers of Statistical Physics	ISI Kolkata and Presidency University	ISI Kolkata, and Presidency University	ISI Kolkata and Presidency University	Feb. 26-28, 2018
9.	S K Rout	Recent Progress in Materials Issues for Piezoelectric Energy Harvesting	Govt College, Rourkela	Govt College, Rourkela	Govt College, Rourkela	02-03, Sept, 2017

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
10.	S K Rout	Characterization of dielectric materials	ISM, Dhanbad	ISM, Dhanbad	ISM, Dhanbad	19-24, March, 2018
11.	Dr Laxmi narayan Tripathi	Faculty development programme at IIT Kharagpur	NPIU, MHRD Govt of India	IIT Kharagpur,	IIT Kharagpur	19 th Feb to 23 rd Feb 2018
12.	Dr. Dhirendra	Faculty development programme at IIT Chennai	NPIU, MHRD Govt of India	IIT Chennai	IIT Chennai	31st Jan to 4th Feb 2018

SECTION 4

RESEARCH PUBLICATIONS

5. Publications in Journals:

• Published in International Journals

- J. Feng, D. Biswas, A. Rajan, M. D. Watson, F. Mazzola, O. J. Clark, K. Underwood, I. Markovic, M. McLaren, A. Hunter, D. Michael Burn, L. Duffy, S. Barua, G. Balakrishnan, F. Bertran, P. Le Fevre, T. Kim, G. van der Laan, T. Hesjedal, P. Wahl, and Phil D.C. King (2018). Electronic structure and enhanced charge density wave order of monolayer VSe₂. Nano Lett. 18, 7, 4493-4499.
- Keshri Sunita, Mohanty Parthasarathi, Gupta Vibha Rani, (2017), Study on microwave dielectric properties of corundum type (x = 0-0.6) ceramics for designing a microstrip branch-line coupler, Journal of Materials Science: Materials in Electronics (Springer publication), 28, , 14436–14445.
- Keshri Sunita, Singh Khushboo, 2017, Temperature stable ZnTa₂O₆ dielectric ceramic with 2% W⁶⁺ ion substitution in Ta⁵⁺ site: Phase Transitions (Taylor & Fransis Publitions), 90, 1121-1127.
- Barvat, A., Prakash, N., Kumar, G., Singh, D., Dogra, A., Khanna, S., Pal, P. (2018), Electronic structure of the PLD grown mixed phase MoS₂/GaN interface and its thermal annealing effect. Current Applied Physics 18, 170–177.
- Barvat, A., Prakash, N., Singha, S., Kumar, G., Singh, D. K., Dogra, A., Khanna, S., Singha, A., and Pal, P. (2017) Emerging photoluminescence from bilayer 2H-MoS₂ films grown by pulsed laser deposition on different substrates. Journal of Applied Physics 122, 015304.
- Gupta A., Dhakate, S. R., Pal, P., Dey, A., Iyer, P. K., Singh, D. K. (2017) Spectroscopic Study of Effect of Graphitization Temperature on Crystallinity and Electrical Conductivity of Poly-acrylonitrile based Carbon Nano-fibers. Diamond and Related Materials 78, 31-38.
- Sreeja Loho Choudhury, R. K. Paul, (2018), “A new approach to the generalization of Planck's law of black-body radiation”, Annals of Physics Vol 395, 317-325.
- E. Sinha and P. Yadav (2017) Study of structural and optical properties of CaMoO₄ ceramic synthesized by solid state reaction route, Ferroelectrics, 517(1-7)
- P. Yadav, S. K. Rout and E. Sinha, (2017) Correlation between optical properties and environmental parameter of ZnWO₄ ceramic using complex chemical bond theory, JALCOM 726, 1014-1023.
- Lee, H. K. & Lahiri, S. & Park, H. (2017). Nonequilibrium steady states in Langevin thermal systems, Physical Review E 96, 022134 .
- Lahiri, S. & Nghe, P. & Tans, S. J. &

- Rosinberg, M. L. & Lacoste, D. (2017) Information-theoretic analysis of the directional influence between cellular processes, *PloS ONE* 12 (11), e0187431.
12. S. K. Rout, Aks Raj & S. K. Ghosh, (2017), Compositional effect on dielectric and ferroelectric properties of lead free Zr modified BNT ceramic, *Ferroelectrics*, 518(1), 66-72.
 13. P. Yadav, S. K. Rout and Ela Sinha, (2017) Correlation between optical properties and environmental parameter of ZnWO₄ ceramic using complex chemical bond theory, *Journal of Alloys and Compounds*, 726 1014-1023.
 14. S. K. Ghosh, V. Chauhan, Ali Hussain and S. K. Rout, (2017) Phase transition and energy storage properties of BaTiO₃-modified Bi_{0.5}(Na_{0.8}K_{0.2})_{0.5}TiO₃ ceramics, *Ferroelectrics*, 517(1), 97-103.
 15. Sabyasachi Parida and S. K. Rout, (2017), Effect of zirconia on the structural and optical properties of strontium titanate ceramic, *Ferroelectrics*, 517(1), 81-89.
 16. Prabal Dev Bhuyan, Deobrat Singh, Shivam Kansara, Pritam Yadav, Sanjeev K. Gupta, Yogesh Sonvane, Sanjeeb K. Rout, and Ela Sinha, (2017), Experimental and theoretical analysis of electronic and optical properties of MgWO₄, *J Mater Science*, 52 (9), 4934-4943.
 17. S. K. Ghosh, S. K. Deshpande and S. K. Rout (2017), Concentration-driven structural stability and dielectric dispersion in lead free (Ba_{1-x}Sc_{2x/3})Zr_{0.3}Ti_{0.7}O₃ ceramics, *J Mater Science: Materials in Electronics*, 28(2), 1336–1351.
 18. Kumar Amit and Rishi Sharma, (2018), The role of pressure to quantify the defects and its effect on the morphology of graphene layers, *Surface Review and Letters*, Vol. 25, No. 4 1850055-1 1850055-14.
 19. Tripathi, L. N.; Oliver Iff, Simon Betzold, Monika Emmerling, Kihwan Moon, Young Jin Lee, Soon-Hong Kwon, Sven Höfling, Christian Schneider (2018). Spontaneous emission enhancement in strain-induced WSe₂ monolayer based quantum light sources on metallic surfaces *ACS Photonics*, 5 (5), pp 1919–1926.
- **Published in National Journals**
 1. Lahiri, S. & Jayannavar, A. M. (2018). Fluctuation Theorems of Work and Entropy in Hamiltonian Systems, *Resonance* 23(5), 573.
6. **Publications in Proceedings:**
 - Published in International Proceedings
 1. Nishi Srivastava and Nadège Blond, Modeling Approach to Study Air Pollution Scenario over Indian Continent, The 14th International Conference on Atmospheric Sciences and Applications to Air Quality, Strasbourg, France, 29 – 31 May 2017
7. **Books:**
 - Chapter(s) in Edited Book
 1. Rishi Sharma, Kumar Amit, P. K. Barhai and R. L. Boxmann, Evaluating the performance of Dye Sensitized Solar Cell with the various key components like Electrodes, Dyes & Electrolytes, Book Title: Proceedings of the International Conference on Nano-electronics, Circuits & Communication Systems, Editors: Vijay Nath, Series Volume 403, eBook ISBN 978-981-10-2999-8, DOI 10.1007/978-981-10-2999-8, 2017, Springer Nature.

SECTION 5**ACTIVITIES/ DAC/ BOS****8. Board of Studies**

Sr. No.	Name of the Member	Designation	Role
1.	Dr. (Mrs.) S. Keshri	Professor & Head	Chairperson (EX- Officio)
2.	Dr. S. Konar	Professor, Dept. of Physics	Member
3.	Dr. (Mrs.) S. Keshri	Prof. & Head, Dept. of Physics	Member
4.	Dr. S. K. Sinha	Professor, Dept. of Physics	Member
5.	Dr. R. K. Paul	Assoc. Prof, Dept. of Physics	Member
6.	Dr. S. K. Rout	Asso. Prof. Dept. of Physics	Member
7.	Dr. Nishi Srivastava	Asst. Prof., Dept. of Physics	Member
8.	Dr. (Mrs.) Usha Jha	Professor, Dept. of Chemistry	Member
9.	Dr. S. K. Ghorai	Professor, Dept. of ECE	Member
10.	Dr. P. K. Datta	Professor, Dept of Physics Indian Institute of Technology Kharagpur – 721302	External Member
11.	Dr. Anil Kumar Nirala	Professor, Dept. of Physics Indian Institute of Technology, Dhanbad	External Member

9. Departmental Academic Committee

Sr. No.	Name of the Member	Designation	Role
1.	Dr. (Mrs.) S. Keshri	Professor & Head	Chairperson (Ex- Officio)
2.	Dr. S. Konar	Professor, Dept. of Physics	Member
3.	Dr. (Mrs.) S. Keshri	Professor, Dept. of Physics	Member
4.	Dr. S. K. Sinha	Professor, Dept. of Physics	Member
5.	Dr. R. K. Paul	Assoc. Professor, Dept. of Physics	Member
6.	Dr. Ela Sinha	Asst. Professor, Dept. of Physics	Member
7.	Dr. Rishi Sharma	Asst. Professor, Dept. of Physics	Member
8.	Dr. Sanat Kumar Mukherjee	Asst. Professor, Dept. of Physics	Member
9.	Dr. Nisha Gupta	Professor, Dept. of ECE	Member
10.	Dr. S. K. Jain	Professor, Dept. of Mathematics	Member

SECTION 6**OTHER INFORMATION****10. Achievements of Students**

Sr. No	Name of Student	Achievement/ Position/ Award etc	Organised by	Date and Venue
1.	Akriti	Summer School	Joint Science Panel (IASc, NASI, INSA)	4 th June to 3 rd August 2018, IIA, Bangalore
2.	Astha	Summer School	IPR, Gandhinagar	28 th May to 6 th July 2018
3.	Preet	Summer Internship	Centre for Urban Ecology & Sustainability, Govt of Delhi	8 th May to 13 th July, Ambedkar University, New Delhi
4.	Sneha Shree Guha	Summer Internship	R&D, Tata Steel	29 th May to 10 th July 2018 Tata Steel
5.	Akriti	Summer Internship	ICTS	ICTS
6.	Gaurav Pransu	Winter internship	Shiksha Sopan (Dr H C Verma)	8 th Dec to 26 th Dec 2017, Kanpur
7.	Gaurav Pransu	Summer Internship	Centre for ISRO GNSS Studies	13 th May to 15 th June 2018, Chirala, A P
8.	Moulika Hazra	Summer Project	IUAC New Delhi	4 th June to 29 th June 2018, IUAC New Delhi


11. Publication by students:






1. Sreeja Loho Choudhury, R. K. Paul, (2018), "A new approach to the generalization of Planck's law of black-body radiation",



Annals of Physics Vol 395, 317-325.

2. Gaurav Pransu, Kumar Amit, Rishi Sharma, Corrosive behaviour of AZO thin film under different chemical conditions, ICTF 2017, NPL, New Delhi.

12. Distinguished Visitors

Sr. No	Name of Visitor with Affiliation	Date of Visit	Picture
1.	Prof. Ramaswami Srinivasan Fellow, Indian Academy of Sciences, Bangalore	14.06.2018	
2.	Prof. G. Umesh NITK, Surathkal	15.06.2018	

Sr. No	Name of Visitor with Affiliation	Date of Visit	Picture
3.	Dr. Rajesh Kumar Dwivedi Christ Church College, Kanpur	15.06.2018	
4.	Prof. S. K. Samdarshi CUJ, Brambe, Jharkhand	25.06.18	
5.	Prof. P. K. Datta IIT, Kharagpur (WB)	27.06.18	
6.	Prof. Ram Anjore Yadav Professor, Dept. of Physics, Institute of Science, BHU, Varanasi - 221005	19.06.2018	
7.	Dr. Subroto Mukherjee Professor, Dean – Academic Institute for Plasma Research, Bhat, Gandhinagar, Gujarat - 382428	01.05.2018	

Sr. No	Name of Visitor with Affiliation	Date of Visit	Picture
8.	Dr. (Mrs.) Rita Paikaray Professor, Dept. of Physics Ravenshaw University Cuttack-753003, Odisha	06.03.2018	
9.	Prof. K. Niranjan Professor, Department of Physics Andhra University Visakhapatnam-530003	26.02.2018	



Department of Production Engineering

SECTION 1

PROFILE



1. About the Department

Department of Production Engineering since its inception in 1964 has been trying to impart quality education to undergraduates and train them to meet the demands of the manufacturing industry. The main objective of production engineering is integration of technology with management in planning and controlling the design, development and operation of manufacturing system. The department offers two courses: B.Tech. in Production Engineering and M.Tech. in Automated Manufacturing Systems.

Rapid advances in manufacturing technology, e.g., computer-controlled processes and management information systems, ERP and new

manufacturing concepts like lean manufacturing, agile manufacturing, sustainable manufacturing etc., are reinforcing the recognition of technological, organizational, economic and human factors.

Furthermore, specialized training in manufacturing technology is necessary for industries in India and abroad. Central workshop and laboratories have been established to impart the state of art knowledge to the students in the field of production engineering. A number of sophisticated equipment are available in these laboratories/ workshops, which are being utilized for the training of undergraduate and postgraduate students and other Research activities of the Department and Institute.

SECTION 2

RESEARCH PROJECTS

2. Sponsored Projects and Consultancy

a) Project Sanctioned

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Thixoforming of Aluminum based alloys and composites (Part-A)	Dr. S. V. S. K. Deepak Kumar (PI) Ananya Chattree (Co-PI)	TEQIP-III (SEED Money Scheme)	20-06-2018	Rs. 2,00,000/-	July-2018-June-2019

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
2.	Thixoforming of Aluminum based alloys and composites (Part-B)	Ananya Chattree (PI) Dr. S. V. S. K. Deepak Kumar (Co-PI)	TEQIP-III (SEED Money Scheme)	20-06-2018	Rs. 1,00,000/-	July-2018-June-2019
3.	Improvement the quality of Micro holes machining of Inconel 600 by using Micro EDM	Dr. Shailesh Kumar Dewangan (PI) Dr. Prakash Kumar (Co PI)	TEQIP-III (SEED Money Scheme)	20-06-2018	Rs. 2,00,000/-	July-2018-June-2019
4.	Some studies on the effect of evolution of intermetallic phases during ageing and their effect on room temperature mechanical properties	Dr. Prakash Kumar (PI) Dr. Shailesh Kumar Dewangan (Co PI)	TEQIP-III (SEED Money Scheme)	20-06-2018	Rs. 2,00,000/-	July-2018-June-2019
5	A Decision Framework for Sustainable Supplier Selection in Strategic Sourcing	Dr. Sonu Rajak (PI) Dr. Sagar Nikam (Co-PI)	TEQIP-III (SEED Money Scheme)	20-06-2018	Rs. 1,00,000/-	July-2018-June-2019
6	Development of Wire Metal Inert Gas (WMIG) based deposition process for Additive Manufacturing Applications	Dr. Sagar Nikam (PI) Dr. Sonu Rajak (Co-PI)	TEQIP-III (SEED Money Scheme)	20-06-2018	Rs. 2,00,000/-	July-2018-June-2019

SECTION 3**SEMINAR / CONFERENCE****3. Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members:**

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1.	Dr. L.N. Pattanaik	One week summer training programme on active learning,	TEQIP III BIT Mesra	IIT Gandhi-nagar	IIT Gandhi-nagar	18 th June 2018 to 22 nd June 2018.
2.	Dr. S.C. Srivastava					
3.	Dr. J. Ghose					
4.	Prof. B. Kumar					
5.	Dr. Somak Datta					
6.	Dr. Bappa Acharjee					
7	Dr. S.V.S.K Deepak Kumar	Workshop on "Faculty Development Program" (FDP-2018)	TEQIP III	IIT, Madras	TLC, IIT Madras, Chennai.	31st Jan- to 4th Feb 2018
8	Dr. S.K. Dewangan					
9	Dr. Sonu Rajak					
10	Dr. Prakash Kumar					
11	Prof. Ananya Chattree					
12	Prof. Vivek Prabhakar					
13	Sagar Nikam	Workshop on "Faculty Development Program" (FDP-2018)	TEQIP -III	IIT, Kharagpur	CEC, IIT Kharagpur.	19th Feb- to 23rd Feb 2018
14	Dr. S. V. S.K. Deepak Kumar	International Conference ICEMIT-2017	Self	AMITY University-Ranchi,	AMITY University-Ranchi,	23-24 th Dec (2017).
15	Dr. S.V.S.K. Deepak Kumar	International Conference IC-SMART-2017	Self	CMERI-Durgapur	CMERI-Durgapur,	15-16 th Dec-(2017).
16	Dr. S.K. Dewangan	Workshop on "Outcome based Accreditation"	NPIU	BIT Mesra	BIT Mesra Ranchi	18th - 19th March 2018

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
17	Dr. S.K. Dewangan	International Conference on Mechanical and Production Engineering (ICMPE)	Self financed	World Research Forum for Engineering and Research	New Delhi	23rd Dec. 2017
18	Dr. Sagar Nikam	Advanced Technologies in Manufacturing and Materials Engineering (ATMME 2018)	IIT Indore	Harbin Institute of Technology, China	Harbin Institute of Technology, China	4 May 2018 to 8 May 2018

SECTION 4

RESEARCH PUBLICATIONS

4. Publications in Journals:

• Published in International Journals

- Acherjee, B. (2018) Hybrid laser arc welding: State-of-art review, Optics & Laser Technology, 99, 60.
- Acherjee, B. (2017). Selection of optimal parameters for laser transmission welding of polycarbonate using desirability function analysis, Materials Today: Proceedings, 4 (8), 7161.
- Maity, D., Acherjee, B. & Kuar, A.S. (2017). Quality improvement of electrochemical discharge machining process using firefly algorithm: A case study, International Journal of Swarm Intelligence, 3 (2/3), 238.
- Dewangan, S. K., Tiger, C., & Nayak, N. (2018). Optimization of EDM Process Parameters by using PCA based Grey Relation Analysis, International Journal of Mechanical and Production Engineering, 6 (2), 1.
- Rajak, S., Parthiban, P., & Dhanalakshmi, R. (2018). Selection of Transportation Channels in Closed-Loop Supply Chain using Meta-Heuristic Algorithm, International Journal of Information Systems and Supply Chain Management, 11 (3), 64.
- Rajak, S., Parthiban, P., Dhanalakshmi, R., & Sujith. S (2018). Multi-Objective Optimization for the Vehicle Routing Problem using Metaheuristics, International Journal of Enterprise Network Management, 09 (2), 117.
- Kumar, P., Kumar, A. & Erlicher S. (2017). A modified hybrid Van der Pol-Duffing-Rayleigh oscillator for modelling the lateral walking force on a rigid floor, Physica D: Nonlinear Phenomena, 358, 1.
- Kumar, P., Kumar, A. & Racic., V. (2018) Modelling of longitudinal human walking force using self-sustained oscillator, International Journal of Structural Stability and Dynamics, Vol. 18(6) 1850080.
- Nikam, S. H., & Jain, N. K. (2018). 3D-Finite element simulation and image processing-based prediction of width and height of single layer deposition by micro-plasma transferred arc process, International Journal of Advanced Manufacturing Technology, 95(9-12), 3679.
- Nikam, S. H., & Jain, N. K. (2017). Three-dimensional thermal analysis of multi-layer metallic deposition by micro-plasma transferred arc process using finite element simulation, Journal of Materials Processing

Technology, 249, 264.

11. Srivastava, A.K., Aroraa, P.K. & Srivastava, S.C. (2017) Determination of Fracture Parameters for Multiple Cracks of Laminated Composite Finite Plate, *Applied Composite Materials Applied Composite Materials*, Springer 0929-189X. (Published Online 01 August 2017)
12. Kumar, B. Singh, R.K. & Kumar, S. (2018) Genetic Algorithm-based Multi-criteria Approach to Product Modularization, *International Journal of Technology*, 9(4), 775.
13. Kumar, P., Parhi, S. & Datta, S. (2017) Comparative Study of Al-TiB₂ Composite Fabricated by Different Powder Metallurgical Methods, *International Journal of Emerging Research in Management & Technology*, 6(7), 178.
14. Datta, S., Deepanshu, Pratihari, D.K. (2017) Modelling of input-output relationships of metal inert gas welding process using soft computing-based approaches, *International Journal of Computational Intelligence Studies*, 6(1), 1
15. Pandey S, Jha. S. K, & Parhi S, (2017), Effect of the Mould Rotational Speed on the Quality of Bimetallic Pipe Fabricated by Centrifugal Casting Process, *International Journal of Emerging Research in Management & Technology*, 6 (7), 215.
16. Prakash. P, Jha. S. K & Lal. S. P, (2018), Effect of Tool-Pin Profile on Weld Zone and Mechanical Properties in Friction Stir Welding of Aluminium Alloy, *Pertanica Journal of Science and Technology*, 26 (2), 853.

5. Publications in Proceedings:

Published in International Proceedings

1. Abhilash, J., Apeksha, Kumar, V. S., Acherjee, B., Jha, S.K. & Deepak Kumar, S., Simulation of friction stir welding process using ANSYS, In *Proc. of International Conference on Emerging Technologies, Systems and Applications (ICETSA-2018)*, (International Journal of Advance and Innovative Research (Conference Special).

2. Rajak, S., Parthiban, P., & Dhanalakshmi, R., Vehicle Routing Problem with Simultaneously Pick-Up and Delivery Based on Customer Satisfaction, *Proceedings of International Conference on Contemporary Design and Analysis of Manufacturing and Industrial Engineering Systems*, 2018.
3. Rajak, S., Parthiban, P., & Dhanalakshmi, R., A Hybrid Optimization Approach for the Multi-Depot Pollution-Routing Problem with Simultaneous Deliveries and Pickups, *Proceedings of International Conference on Contemporary Design and Analysis of Manufacturing and Industrial Engineering Systems*, 2018.
4. Nikam, S. H. and Jain, N. K., Finite element simulation of pre-heating effect on melt pool size during micro-plasma transferred arc deposition process, *IOP Conference Series: Materials Science and Engineering Harbin, China*, 2018.

6. Books:

Co-Authored

1. Donaldson, C., LeCain, G.H., Goold, V. C. & Ghose, J. (2017). *Tool Design*, SIE, 5th Edition, McGraw-Hill Education, ISBN 9789352605798
2. Kalpakjian, S., Schmid, S.R. & SI Edition Contributions By Joyjeet Ghose (2018) *Manufacturing Processes for Engineering Materials*, Sixth Edition, SI Edition, Pearson, ISBN 978-93-530-6291-0

• Chapter(s) in Edited Book

1. Acherjee, B. (2018). Laser Arc Hybrid Welding. J. Lawrence (Ed.), *Advances in Laser Materials Processing 2e* (pp. 203-234), Woodhead Publishing, ISBN: 978-0-08-101252-9 (print), 978-0-08-101253-6 (online).
2. Saw, S.K., Ghose, J. and Sarkhel, G., Jawaid, M. (2017), *Potentiality of Luffa Fiber Used as Reinforcement in Polymer Composites, Green Biocomposites, Green Energy and Technology*, Springer International Publishing AG 2017.
3. Ansari, M.O., Ghose, J. & Kumar, R. (2017)

Neural Network Based Breakout Predicting System for All Four Strands of Caster in a Continuous Casting Shop—A Case Study (pp 89-100) Advances in Computational Intelligence: Proceedings of International Conference on Computational Intelligence 2015, Springer Science+Business Media Singapore. ISBN 978-981-10-2524-2 ISBN 978-981-10-2525-9 (eBook).

4. Nikam, S. H & Jain, N. K. (2017) Laser-Based Repair of Damaged Dies, Molds, and Gears, Advanced Manufacturing Technologies: Modern Machining, Advanced Joining, Sustainable Manufacturing (pp. 137-159), Springer International Publishing AG, Switzerland, , ISBN (print): 978-3-319-56098-1, ISBN (online): 978-3-319-56099-1. (DOI: 10.1007/978-3-319-56099-1_6)

SECTION 5

ACTIVITIES/ DAC/ BOS

7. List of Adjunct Faculty

Sr. No.	Name	Designation	Affiliation
1.	Mr. Pawan Kumar Bageria	Adjunct Fellow	President, Tata Motors Group SBU, Tata Technologies, Bangalore

8. Board of Studies

Sr. No.	Name of the Member	Designation	Role
1.	Dr. S.K. Jha	Associate Professor & Head	Chairman (Ex officio)
2.	Dr. B.K. Singh	Professor, Director, BIT Patna Centre	Member
3.	Dr. V. Sharma	Professor, Incharge (Production Engg.) BIT Deoghar Centre	Member
4.	Dr. Arbind Kumar I	Professor, Mechanical Engineering, BIT Patna Centre	Member
5.	Dr. Gautam Sarkhel	Professor, Chemical Engineering	Member
6.	Dr. S.C. Srivastava	Associate Professor, Production Engg.	Member
7.	Dr. Joyjeet Ghose	Associate Professor, Production Engg.	Member
8.	Mr. Kapildeo Prasad	Assistant Professor, Production Engg. BIT Patna centre	Member
9.	Dr. Bappa Acharjee	Assistant Professor, Production Engg.	Member
10.		One UG Student Representative	Member
11.		One PG Student Representative	Member
12.	Dr. Somnath Chattopadhyay	Associate Professor, Mechanical Engineering IIT ISM Dhanbad	External Member
13.	Dr. Debamalya Banerjee	Associate Professor, Production Engineering, Jadavpur University	External Member

Sr. No.	Name of the Member	Designation	Role
14.	Dr. Nirjhar Roy	Professor, Mechanical Engineering, MNNIT Allahabad	External Member
15.	Dr. N.K. Singh	Professor, Forge Technology, NIFFT, Hatia	External Member
16.	Mr. Shree Ranjan	Program Manager, Enterprise Solutions Group, Tata Technologies, Jamshedpur	External Member
17.	Mr. Rana S. Chakraborty	DGM incharge, Corporate Services, MECON Ltd. Ranchi	External Member
18.	Mr. Nitin Kumar	Deputy Manager, Maruti Suzuki India Ltd.	External Member

9. Departmental Academic Committee

Sr. No.	Name of the Member	Designation	Role
1.	Dr. Sanjay Kumar Jha	Associate Professor & Head	Chairman (Ex officio)
2	Dr. Utpal Baul	Professor	External member
3	Dr. R.P.Sharma	Professor	External member
4	Dr. L.N. Pattanaik	Associate professor	Member
5	Dr. R.K. Singh	Associate professor	Member
.6	Dr. S.C. Srivastava	Associate professor	Member
7	Dr. Bappa Acharjee	Assistant Professor	Member

SECTION 7

OTHER INFORMATION


10. Student Entrepreneurship activities/Start-ups

Sr. No	Name of Student	Source of Funding	Title of Startup	Short Description
1.	Aditya Kumar Lal (BE/10016/16) (With Anil Kumar Peri)	BITOSA	The Farming Company	The firming company was founded with an aim to provide better crop price to farmers and high quality farm products to the consumers at a reasonable rate
2.	Aditya Kumar Lal (BE/10016/16) (With Anil Kumar Peri)	Self-funded	Externship Now	Externship Now helps peers, combine their strengths and challenges to share knowledge and stand for each other. Its mission is to provide the best kind of learning experience, the practical one. It also provides internship opportunity for students irrespective of field of education or grades. The skill set matters.

11. Extracurricular Achievements of Students

Sr. No	Name of Student	Achievement/Position/Award	Organised by	Date and Venue
1.	Shreya (BE/10211/15)	1 st position in Mind Over Matter competition. Pre placement offer in TATA STEEL and 1 lakh rupees cash prize.	Tata Steel R&D Team	Jamshedpur
2.	Aditya Singh (BE/10664/16)	First rank in the zone in the world skills competition	National Skill Development Corporation (NSDC), Ministry of skill development and entrepreneurship, Govt. of India	Bengaluru

12. Distinguished Visitors

Sr. No	Name of Visitor with Affiliation	Date of Visit	
1.	Mr. Sanjay Kumar, Director (operation) Amazon	26 February 2018	

13. Other Information

1. Establishment of Computer-Aided Manufacturing (CAM) Laboratory
2. Upgradation of Metrology and Material Deformation Processes Labs.



Department of Remote Sensing

SECTION 1

PROFILE



1. About the Department

Department of Remote Sensing was established in 1997 with an aim to meet the increasing demand for qualified manpower in this rapidly developing field. Application of Remote Sensing / Geoinformatics techniques using tools such as Geographic Information System (GIS) and Global Positioning System (GPS) in various activities including resources evaluation, environmental monitoring and land use/land cover mapping etc, has grown considerably during the last few decades and RS data products are increasingly being used for plan formulation at all levels. An essential pre-requisite to partaking in these opportunities is the building of various indigenous capacities for the development and utilization of space science and technology.

A multi-disciplinary team of faculty members is the strength of the department and they are also engaged in various R&D project and consultancy projects from various government and international organizations. The department also participates in the Distance learning Programmes (EDUSAT) conducted by IIRS, ISRO, Dehradun.

Postgraduate Programmes offered by the department: Department offers two Post Graduate Programmes of 2 years duration: (a) M. Tech. in Remote Sensing, (b) M.Sc. in Geoinformatics. The M.Tech Programme is NBA-Accredited.

In M.Tech. course, first year focuses on Theoretical and Practical Aspects of Remote Sensing, GIS, GPS, Photogrammetry, Programming, Geostatistics and various geo-spatial applications. Second year focuses mainly on developing Independent Research skill through individual geo-spatial research project.

For MSc, the period of theoretical study is spread over 3 semesters with examination requirements at the end of each semester. In Fourth Semester, main emphasis is on Research Project.

Department of Remote Sensing also offers Ph.D. programme in inter-disciplinary mode.

The Department has state-of-art laboratories equipped with latest software, hardware to provide hands-on training to its postgraduate students. The Department has seven dedicated labs catering to Digital Image Processing (DIP), GIS, Digital Photogrammetry, Satellite Navigation & GPS, Remote Sensing Research & Project, and departmental library for Satellite Data and Maps. Major equipment in different labs are as follows:

1. Leica Smart Station (Total Station with DGPS)
2. Leica Differential Global Positioning System
3. Unmanned Aerial Surveillance Vehicle with Thermal Sensor, Optical Sensor and Surveillance Camera
4. Ground Water Resistivity Meter
5. Hand held GPS
6. i7 desktop with IR emitter, 3D vision kit, 3D monitor & Leica Photogrammetry Suit
7. i7 desktop with 24" TFT monitor with ERDAS Image Processing Software
8. i5 desktop with 19" TFT monitor with Arc GIS software
9. A0 plotter & scanner (Multi-function printer)

SECTION 2**RESEARCH PROJECTS****2. Sponsored Projects and Consultancy****a) Project Sanctioned**

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	"Geophysical characterization of subsurface Calcrete deposits in semi arid - arid region of Rajasthan using fully polarimetric L- and S- band SAR data".	PI: Dr. V.S. Rathore , Co-PI Dr. A.P. Krishna & Dr. Gulab Singh IITB	SAC, ISRO, Ahmedabad	14/5/18	13.44 lacs	2 Years

b) Ongoing Projects

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Land Use Land Cover Mapping of Eastern UP and Western Bihar – 3 rd Cycle	Dr. C. Jeganathan (PI), Dr. A.P. Krishna (Co-PI), Dr. V.S. Rathore (Co-PI), Mrs. Richa Sharma (Co-PI), Mr. Nitish Kr. Sinha (Co-PI)	National Remote Sensing Centre (NRSC), ISRO, Hyderabad	August, 2016	Rs. 51,48,280	2 years
2.	Land Degradation Mapping of Eastern UP, National Remote Sensing Centre(NRSC), ISRO, Hyderabad, Project Amount	Dr. A.P. Krishna (PI), Dr. C. Jeganathan (Co-PI), Dr. V.S. Rathore (Co-PI), Mr. Nitish Kr. Sinha (Co-PI)	National Remote Sensing Centre (NRSC), ISRO, Hyderabad	August, 2016	Rs. 16,66,000/-	2 year

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
3.	Estimation of TIS derived Martian Surface temperature and assessment of its inter-annual variability in the current Martian climate in accordance with MCC derived morphological units	Dr.Mili Ghosh Nee Lala(PI), Dr.A.P.Krishna(Co-PI)	ISRO, Bangalore	18-08-16	Rs 17,43,400/-	3 years
4.	Refinement of existing algorithms for FeO and TiO ₂ mapping using HySI data and a comparative assessment of the HySI generated maps with that of Clementine and Moon Mineralogy Mapper-derived FeO and TiO ₂ products	Dr.Mili Ghosh Nee Lala(PI), Dr.A.P.Krishna(Co-PI), Dr.C.Jeganathan(Co-PI)	ISRO, Bangalore	17-08-16	Rs. 17,20,000/-	3 years
6.	Ground Water Quality Mapping In Parts Of MP State under RGNDWM Ph IV	PI: Dr. V. S. Rathore	National Remote Sensing Center,	2.6.11	45,25,000/-	2.6.11 - 31.12.18
7.	IWMP-KANKE	Executive Committee (Dr. V.S. RATHORE, Nodal Officer, Head, DRS, Project Coordinator, Dean Student Welfare, Project Director, Head, Civil & Environmental Engg, Mission Director)	MoRD, DoLR, Govt of India	30.06.11	5,94,21,000/-	30.06.11 -31.3.2019

c) Projects Completed

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Date of completion of the Project
1.	National Wastelands Change Analysis - 2015-16	PI: Dr. V. S. Rathore Co-PI: Dr. C. Jeganathan, Dr. A. P. Krishna	National Remote Sensing Center, Hyderabad	03.08.2016	13,24,925.00	30.11.2017
2.	National Land degradation Mapping - 2nd Cycle	Dr. A.P. Krishna (PI), Dr. C. Jeganathan (Co-PI), Dr. V.S. Rathore (Co-PI), Mr. Nitish Kr. Sinha (Co-PI)	NRSC Hyderabad, DoS, Gol	July 2016	Rs. 16.5L	June 2018

SECTION 3**SEMINAR / CONFERENCE****3. Seminar / Conferences / Short – Term Courses Conducted by the Department**

Sr. No.	Title of Seminar/ Conference/ Short Term Courses/ Workshop	Coordinator	Funding / Sponsoring Agency	Date of Event
1.	One day “Seminar on Water Conservation”	Conveners: Dr. Anand Sinha Dr. M.C. Sarotia, Dr. C. Jeganathan , Coordinator: Dr. V. S. Rathore	IWMP project	29.10.17
2.	One day Workshop on Livelihood Generation (For Stake holders of Kanke watershed area)	Dr. V. S. Rathore	IWMP project	18.2.2018

4. Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members:

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar/Workshop	Funding Agency	Organizers	Venue	Date
1.	Dr.Mili Ghosh Nee Lala	Challenges and Advances in Planetary Science (CAPS 2017)	ISRO, Bangalore	IISC, Bangalore	Centre for Earth Sciences, IISC, Bangalore	18-22Sept., 2017
2.	Mrs.Richa N K Sharma	3 rd Int. Conference on Advanced Machine Learning and Technologies,	Self-financed	Egypt Science Group and Cairo University	Cairo, Egypt	22-24 Feb. 2018

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar/Workshop	Funding Agency	Organizers	Venue	Date
3.	Dr.C.Jeganathan Dr.A.P.Krishna Dr.N.Patel Dr.V.S.Rathore Mrs.R.N.K. Sharma Dr.Mili Ghosh Nee Lala	Workshop on Outcome Based Accreditation	TEQIP-III	NPIU	BIT Mesra, Ranchi	18-19 th March, 2018
4.	C. Jeganathan	3DPCM : LiDAR point cloud processing with LAsTools Workshop	PI Research Grant	Indian Institute of Space Science and Technology	IIST, ISRO, Trivandrum	12 th October, 2017
5.	Dr. C. Jeganathan	Brain storming workshop on "Future Prospects of Space Technology in Forest and Environmental Applications".	PI Research Grant	Space Application Centre (SAC, ISRO, Ahmedabad)	ASC, Ahmedabad	27-28 th June 2018.
6.	Dr. N. Patel & Mrs. Richa Sharma	Active Learning	TEQIP	IIT Gandhinagar	IIT Gandhinagar	18-23 June 2018

SECTION 4

RESEARCH PUBLICATIONS

5. Publications in Journals :

• Published in International Journals

- Saptarshi Mondal and Jeganathan, C. (2018). Extracting Mountain Agriculture from Time-Series MODIS NDVI using Dynamic Time Warping Technique. International Journal of Remote Sensing, 39(11), 3679.
- Suneet Naithani, V.B. Mathur and C. Jeganathan (2018). Habitat Characterisation of Western Tragopan (Tragopan melanocephalus), Great Himalayan National Park, India. International Journal of Zoology Studies, 3(2), 46.
- Jeganathan, C. and Saptarshi Mondal (2017). Fractal-Based pattern extraction from time-series NDVI data for feature identification. IEEE Journal of Selected topics in Applied Earth Observations and Remote Sensing, 10 (12), 5258.
- Shweta, Bhattacharya, B K, Krishna, A P (2018). A baseline regional evapotranspiration (ET) and change hotspots over Indian sub-tropics using satellite remote sensing data, Agricultural Water Management, 208: 284.
- Kumar, A, Krishna, A P (2018). Assessment

of groundwater potential zones in coal mining impacted hard-rock terrain of India by integrating geospatial and analytic hierarchy process (AHP) approach, *Geocarto International*, 33 (2): 105.

6. Sengupta, S, Krishna, A P, Roy, I (2018). Slope failure susceptibility zonation using integrated remote sensing and GIS techniques: a case study over Jhingurdah open pit coal mine, Singrauli Coalfield, India, *Journal of Earth System Science*, 127:82.
7. Paul, K, Dutta, A, Krishna, A P (2017). Using GIS to Locate Waste Bins: a Case Study on Kolkata City, India, *Journal of Environmental Science and Management*, 20: (1), 95-105.
8. Mukherjee, A B, Krishna, A P, Patel, N (2017). Application of AHP-GIS Technology to Assess Congestion Vulnerability, a Case Study of Ranchi City, India. *International Journal of Applied Geospatial Research*, 8(1): 19-42.
9. Kumar, A and Krishna, A P (2017). Winter seasons assessment of atmospheric aerosol over coalfield region of India using geoinformatics. *Urban Climate* (20):94-119
10. Shekhar S, Ghosh M, Pandey A.C. (2017). Impact of geomorphology and lithological setting on fluoride contamination in groundwater in hard rock terrain of India using Geoinformatics approach. *Applied Water Science*, 7: 2943.
11. Ahmad A, Ghosh M (2017). Variability of lightning activity over India on ENSO time scales. *Advances in Space Research*, Vol 60, No. 11, 2379.
12. Mushtaq F, Ghosh M (2017). Assessment of hydrological response as a function of Land use/land cover change and climatic variability in the catchment of the Wular lake, J&K using geospatial technique. Accepted for publication in *Environmental Earth Sciences*.
13. Mushtaq F, Ghosh M, Wadood A (2018). Estimation of soil erosion risk in upper catchment of Wular Lake, Jammu & Kashmir using RUSLE model. *International*

Journal of Advance Research in Science and Engineering, Vol-7, Issue-07, 1828

- Published in National Journals

1. Md. Omar Sarif, Jeganathan, C. and Saptarshi Mondal (2017). MODIS-VCF Based Forest Change Analysis in the State of Jharkhand. *Proc. Natl. Acad. Sciences, Indian Academy of Sciences: A Physical Science*. 87(4), 751.

6. Publications in Proceedings:

- **Published in International Proceedings**

1. Sharma Richa N K, Remote Sensing and Geoinformatics Technology, In *Proceedings of Recent Advancements in Computer Science and Information Technology 2017*, Egypt Science Group and Cairo University, Egypt.

- **Published in National Proceedings**

1. Jeganathan, C. and Praveen Kumar, Mapping Agriculture Dynamics and associated Flood Impacts in Bihar using time-series Satellite Data. In *Proceedings of Conference on Climate Change and Agricultural Production: Adapting Crops to Increased Climate Variability and Uncertainty*. Bihar Agricultural University, Sabour, Bhagalpur, Bihar, 6-8th April, 2017.
2. Mushtaq F, Ghosh, M., Estimation of pollution load of Wular lake from Madhumati watershed using pload model, In *Souvenir of National Seminar on National Development Through Science and Technology*, Kashmir University, 25-26th September, 2017.
3. Mushtaq F, Ghosh, M. Abhishek Kumar, Spatio-temporal distribution of lightning activity over J&K region and its relationship with topography and vegetation cover, In *Souvenir of National Seminar on Himalayan Biodiversity*, University of Kashmir, 18-19th September, 2017.
4. Nilanchal Patel and Gulam Ansari, Change Detection Through Remote Sensing and GIS Techniques (Abstract) presented in the *National Seminar on Recent Advances in Earth Sciences: From Interior of the Earth to Space Geosciences*, Sundargarh (India),

22-23rd December, 2017.

7. Books:

- Co-Authored

1. George Joseph and Jeganathan, C. (2017). Fundamentals of Remote Sensing, Universities Press Pvt. Ltd., Hyderabad. 3rd Edition. ISBN: 978-93-86235-46-6. (Dec, 2017)

2. Mukherjee, A B, Krishna, A P, Patel, N, (2018). Geospatial Technologies in Urban System Development: Emerging Research and Opportunities, P. 179, IGI Global, ISBN No. 9781522536833.

- Chapter(s) in Edited Book

1. Kumar, A, Mukherjee, A B, Krishna, A P, (2017). Application of Conventional Data Mining Techniques and Web Mining to Aid Disaster Management. In: Web Usage Mining Techniques and Applications Across Industries (pp. 138-167). IGI Global, ISBN13: 9781522506133.

2. Mukherjee, A B, Krishna, A P, Patel, N, (2017). Significance of Affective Sciences and Machine Intelligence to Decipher Complexity Rooting in Urban Sciences. In: Ubiquitous Machine Learning and Its Applications (pp. 68-88). IGI Global, ISBN13: 9781522525455

3. Sharma R N K , Bhatnagar, R and Ojha, A.(2018), Discrimination of Satellite Signals from Opencast Mining of Mineral Ores of Hematite and Uranium Using Digital Image Processing and Geostatistical Algorithms. The International Conference on Advanced Machine Learning Technologies and Applications(AMLT 2018) Springer International Publishing

4. Kanchan Bala, D.K. Choubey, Sanchita Paul, Mili Ghosh (2018). Classification Techniques for Thunderstorms and Lightning Prediction: A Survey, Soft-Computing-Based Nonlinear Control Systems, IGI Global Publishers.

SECTION 5

AWARD/ PATENT/ COLLABORATIONS

8. Award / Recognition Bestowed on Faculty members

Sr. No.	Name of the Faculty Member	Title of the Award / Honour	Organisation	State / National / International Level	Year / Duration
1.	A.P. Krishna	Ph.D. Thesis Examiner	IIT Roorkee	National	2017
2.	Dr. N. Patel	Excellent Editor Award	Journal of Forestry Research (Springer, SCIE, Scopus, IF = 0.748)	International	2017
3.	Dr. C. Jeganathan	Keynote Speaker	Bihar Agricultural University	National	2017
4.	Dr. C. Jeganathan	Proposed summer project was selected for DAAD-RISE Fellowship	DAAD-RISE sponsored student from University of Heidelberg, Germany	National	2018
5.	Dr. C. Jeganathan	Ph.D. Thesis examiner	CEPT University, Ahmedabad	National	2017
6.	Dr. C. Jeganathan	Ph.D. Thesis examiner	IIT- Dhanbad	National	2017.

SECTION 6**ACTIVITIES/ DAC/BOS****9. Student Activities**

Sr. No.	Name of the Activity	Students' Co-Ordinator	Faculty Co-ordinator	Date / Duration
1.	Field and educational visit: M.Sc. Geoinformatics (2017-19 batch) students visited Rajiv Gandhi University (Central University) at Rono Hills, P O Doimukh 791112, Arunachal Pradesh during 7-18 December, 2017		Mrs. R.N.K. Sharma	7-18 December, 2017
2.	Summer Internship: 1. Darshan Mylappally (MGI/10006/2017) visited the Indian Institute of Information Technology & Management (IIITM-K), Thiruvananthapuram, Kerala, for summer internship			07/05/2018 to 06/08/2018
3.	Summer Internship: 1. Ankita Banerjee (MGI/10002/2017) visited the National Centre for Antarctic & Ocean Research, Goa, for summer internship			07/05/2018 to 06/08/2018
4.	Summer Internship: 1. Upasana Adhikary (MGI/10001/2017) 2. Jeeshna Mukherjee (MGI/10003/2017) 3. Moumita Das (MGI/10004/2017) carried out summer internship at National Atlas and Thematic Mapping Organisation, Kolkata, West Bengal.			07/05/2018 to 06/08/2018
5.	Summer Internship: 1. Gayatri Kumari Rani (MGI/10008/2017) 2. Amrit Akanksha (MGI/10009/2017) 3. Rashmi Malik (MT/RS/10001/2017) 4. Shubham Singh (MT/RS/10002/2017) carried out summer internship at Jharkhand Space Applications Centre, Ranchi, Jharkhand.			07/05/2018 to 06/08/2018

Sr. No.	Name of the Activity	Students' Co-Ordinator	Faculty Co-ordinator	Date / Duration
6.	Summer Internship: Debraj Guha Roy (MGI/10007/2017) carried out summer internship at SkyMap Global (India) Private Limited, Jaipur, Rajasthan.			07/05/2018 to 06/08/2018
7.	Summer Internship: 1. Preeti Kumari (MGI/10004/2016) 2. Shanu Adhikari (MGI/10005/2016) 3. Saswati Banerjee (MGI/10007/2016) 4. Nisha Sanjay (MGI/10006/2016) 5. Deep Shikha (MT/RS/10004/16) carried out summer internship at Jharkhand State Forest Development Corporation Limited, Ranchi, Jharkhand.			07/05/2018 to 06/08/2018
8.	GIS Day Celebration events a. GeoSpatial Treasure Hunt b. GIS Quiz		Dr. C. Jeganathan Dr. V.S. Rathore Mrs. Richa Sharma Mr. Nitish Kr. Sinha Mr. Ritesh Lakra	7-18 December, 2017

10. Board of Studies

Sr. No.	Name of the Member	Designation	Role
1.	Dr. C. Jeganathan	Professor, DRS, BIT, Mesra	Chairman
2.	Dr. A. K. Saraf	Professor, IIT-Roorkee	External Member
3.	Dr. Dibyendu Dutta	Scientist-SG, NRSC, ISRO, Hyderabad	External Member
4.	Dr. A. K. Sinha	Professor, CEE, BIT, Mesra	External member
5.	Dr. S.K.Ghosh	Professor, IIT Roorkee	External member
6.	Dr. Mrs. Manjari Chakraborti	Professor, DArch, BIT, Mesra	External member
7.	Dr. A. P. Krishna	Professor	Member
8.	Dr. N. Patel	Professor	Member

Sr. No.	Name of the Member	Designation	Role
9.	Dr. V.S. Rathore	Asst. Professor	Member
10.	Dr. Mili Ghosh	Asst. Professor	Member
11.	Mrs. Richa Sharma	Asst. Professor	Member

11. Departmental Academic Committee

Sr. No.	Name of the Member	Designation	Role
1.	Dr. C. Jeganathan	Professor & Head	Chairman (Ex-Officio)
2.	Dr. D. J. Biswas	Professor, Dept. of Arch., BIT, Mesra	External Member
3.	Dr. A. K. Sinha	Professor, CEE, BIT, Mesra	External Member
4.	Dr. A. P. Krishna	Professor	Member
5.	Dr. N. Patel	Professor	Member
6.	Dr. V.S. Rathore	Asst. Professor	Member
7.	Dr. Mili Ghosh	Asst. Professor	Member

SECTION 7

OTHER INFORMATION

12. Student Entrepreneurship activities/Start-ups

Sr.No	Name of Student	Source of Funding	Title of Startup	Short Description
1.	Mr. Alex Praveen Peter	Self	Real Spatial Labs http://www.realspatiallabs.com	Real Spatial Labs is a Geospatial sector that works to innovate and provide smart services & solutions, improvised spatial research works and automation of Geospatial works.
2.	Ansuman	Self	Prantik Care the Earth http://www.prantikcaretheearth.org/aboutUs.aspx	Geospatial projects for government agencies
3.	Saurav Suman		Aerowhizz Technologies Pvt. Ltd.	Provide Drone/UAV services & education. Skilled in providing Drone Images & products for businesses in Infrastructure, Agriculture, Mining and in many fields

13. Publication by students

1. Ahmad A, **Ghosh M** (2017). Variability of lightning activity over India on ENSO time scales. *Advances in Space Research*, Vol 60, No. 11, 2379.
2. Md. Omar Sarif, **Jeganathan, C.** and Saptarshi Mondal (2017). MODIS-VCF

Based Forest Change Analysis in the State of Jharkhand. *Proc. Natl. Acad. Sciences, Indian Academy of Sciences: A Physical Science*, 87(4), 751.

3. VG Rangarajan, M Ghosh (2018). Seasonal Variations in SEB Components over Gale crater, European Planetary Science Congress (EPSC2018-14).

14. Distinguished Visitors from Industry/Academia/Research organizations

Sr. No	Name of Visitor with Affiliation	Date of Visit	
1.	Dr. A. K. Saraf, Professor, Department of Earth Sciences, BIT, Mesra	26 th April 2018	
2.	Dr. D. Dutta, Scientist SG, NRSC, ISRO, Hyderabad	26 th April 2018	

15. Any other relevant information

Our Department has contributed in establishing the Tropic of Cancer which is passing near Ormanji. Our faculty Dr. V.S. Rathore and team has surveyed

and established the accurate positioning of line of crossing of Tropic of Cancer Using Geodetic GPS system. The TOC monument was inaugurated by Honourable Governor of Jharkhand.



Department of Space Engineering and Rocketry

SECTION 1

PROFILE



1. About the Department:

The Department of Space Engineering and Rocketry was established in 1964 at BIT Mesra campus. It offers two-year postgraduate degree programs, leading to M. Tech. in Space Engineering and Rocketry with two specializations, namely Aerodynamics and Rocket Propulsion. The department has received provisional NBA accreditation in 2018 for two years.

The departmental facilities consist of laboratories housing equipment for research and curriculum development in the related areas. The facilities for Aerodynamics include subsonic and supersonic wind tunnels, water tunnel, calibration rig, and a new supersonic free jet facility. The Aerodynamics facilities include digital oscilloscope, schlieren system, high-speed data acquisition system,

2-channel hot wire anemometer, dynamic pressure transducers, strain gage, single channel CTA system, calibrators, etc. Rocket propulsion laboratories consist of static fire test stands for solid, liquid and hybrid rockets, propellant preparation and characterization facilities. Combustion laboratory is equipped with pressure-controlled combustion set ups, stereomicroscope, and optical pyrometer. A separate instrumentation laboratory is equipped with simultaneous thermal analyzer (DSC + TGA + DTG), UV-Vis spectrophotometer, bomb calorimeter, and Brookfield viscometer. All major data acquisition tasks are done via dedicated hardware. Computing needs are fulfilled by a dedicated computational fluid dynamics laboratory housing ten terminals. It includes research grade software including ANSYS suite and MatLab.

SECTION 2

RESEARCH PROJECTS

2. Sponsored Projects and Consultancy

a) Project Sanctioned

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Steady & Unsteady Investigation on Slender Body at High Angles of Attack	Dr. Priyank Kumar, PI Dr. Sudip Das, Co-PI	AR&DB	29.06.2018	26.86 Lakhs	3 Years

b) Ongoing Projects

Sr. 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 Dr. Priyank Kumar Co-PI	RESPOND, ISRO	June 2016	24.46 Lakhs	3 years
2.	Effect of protrusion on regression rate and combustion instabilities at varying L/D of hybrid rocket motor	Rajiv Kumar	SERB, DST, Govt. of India	23 rd , August, 2016	31.20 Lakhs	3 Years

SECTION 3**SEMINAR / CONFERENCE****3. Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members:**

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1.	Dr. Mohan Varma	Workshop on High Density (JP10) High Energy (Boron Based) Slurry Fuel for Gas Turbine Engines	GTRE	GTRE	Bangalore	August 30 & 31, 2017
2.	Dr. Sudip Das	Orientation Workshop on SLA			New Delhi	10th -12th Nov. 2017
3.	Dr. Partha Mondal	Cyber Crime and Investigation	TEQIP-III	BIT Mesra, Ranchi	BIT Mesra, Ranchi	18-22 December, 2017
4.	Dr. Partha Mondal	Outcome Based Accreditation	TEQIP-III	BIT Mesra, Ranchi	BIT Mesra, Ranchi	18-19 March, 2018
5.	Dr. Partha Mondal	Industrial Process Simulation	TEQIP-III	Dept. of Chemical Engg., BIT Mesra, Ranchi	BIT Mesra, Ranchi	16-20 May, 2018
6.	Dr. Partha Mondal	ET701x: Elements of Learner-Centric MOOCs		IIT Bombay	Online	03-23 May, 2018
7.	Dr. Swarupkumar Y. Jejurkar	Summer Training Program on Active Learning	TEQIP-III	IIT Gandhinagar	IIT Gandhinagar	June 18-22, 2018

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
8.	Dr. Sudip Das	Summer Training Program on Active Learning	TEQIP-III	IIT Gandhinagar	IIT Gandhinagar	June 18-22, 2018
9.	Rajiv Kumar	11 th International High Energy Material Conference and Exhibits, Pune, India	SERB, DST, Govt. of India	High Energy Material Society of India,	High Energy Materials Research Laboratory, Sutarwadi, Pune	23-25 November, 2017
10.	Rajiv Kumar	An online Course on ET701X: Elements of Learner Centric MOOCs	-	Indian Institute of Technology Bombay	Online (BIT Mesra)	03 May-23 May, 2018
11.	Rajiv Kumar	Workshop on “Industrial Process Simulation”	TEQIP-III	Department of Chemical Engineering, BIT Mesra, Ranchi	BIT Mesra, Ranchi	16-20 May, 2018
12.	Rajiv Kumar	Workshop on “Outcome Based Accreditation”	TEQIP-III	BIT Mesra, Ranchi	BIT Mesra, Ranchi	18-19 March, 2018
13.	Rajiv Kumar	Summer Training Program on Active Learning	TEQIP-III	Indian Institute of Technology Gandhinagar, initiative MHRD, Govt. of India	Indian Institute of Technology Gandhinagar	18-22 June, 2018
14.	Rajiv Kumar	Workshop on “Cyber Crime and Investigation”	TEQIP-III	BIT Mesra, Ranchi	BIT Mesra, Ranchi	18-22 December, 2017
15.	Rajiv Kumar	Workshop on “Academic Writing: Grants, Consultancy & Research Articles”	TEQIP-III	BIT Mesra, Ranchi and ICT Mumbai	BIT Mesra, Ranchi	13-15 December, 2017
16.	Dr. Shelly Biswas	Workshop on “Cyber Crime and Investigation”	TEQIP-III	BIT Mesra, Ranchi	B. I. T. Mesra, Ranchi	18-22 December, 2017
17.	Dr. Mohan Varma	Workshop on Outcome Based Education on NBA Accreditation	TEQIP-III	BIT Mesra, Ranchi	B. I. T. Mesra, Ranchi	Mar. 18-19, 2018
18.	Dr. Sudip Das	Workshop on Outcome Based Education on NBA Accreditation	TEQIP-III	BIT Mesra, Ranchi	B. I. T. Mesra, Ranchi	Mar. 18-19, 2018

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
19.	Dr. Priyank Kumar	Workshop on Outcome Based Education on NBA Accreditation	TEQIP-III	BIT Mesra, Ranchi	B. I. T. Mesra, Ranchi	Mar. 18-19,2018
20.	Dr. Partha Mondal	Workshop on Outcome Based Education on NBA Accreditation	TEQIP-III	BIT Mesra, Ranchi	B. I. T. Mesra, Ranchi	Mar. 18-19,2018
21.	Dr. Rajiv Kumar	Workshop on Outcome Based Education on NBA Accreditation	TEQIP-III	BIT Mesra, Ranchi	B. I. T. Mesra, Ranchi	Mar. 18-19,2018
22.	Dr. Shelly Biswas	Workshop on Outcome Based Education on NBA Accreditation	TEQIP-III	BIT Mesra, Ranchi	B. I. T. Mesra, Ranchi	Mar. 18-19,2018
23.	Dr. Swarupkumar Y. Jejurkar	Workshop on Outcome Based Education on NBA Accreditation	TEQIP-III	BIT Mesra, Ranchi	B. I. T. Mesra, Ranchi	Mar. 18-19,2018
24.	Dr. Sudip Das	Training Programme on NBA Accreditation Process	TEQIP-III	BIT Mesra, Ranchi	B. I. T. Mesra, Ranchi	Feb. 15, 2018
25.	Dr. Priyank Kumar	Training Programme on NBA Accreditation Process	TEQIP-III	BIT Mesra, Ranchi	B. I. T. Mesra, Ranchi	Feb. 15, 2018
26.	Dr. Shelly Biswas	Training Programme on NBA Accreditation Process	TEQIP-III	BIT Mesra, Ranchi	B. I. T. Mesra, Ranchi	Feb. 15, 2018

SECTION 4

RESEARCH PUBLICATIONS

4. Publications in Journals

• Published in International Journals

1. Harshit Shukla, Rajesh G. Singh Nandan, Priyanka Shukla, Vinod Kumar N, and Mohan Varma (2017), Ignition and Combustion Characteristics of a MEMS Pyrotechnic Thruster for Micro Propulsion Applications, International Journal of Energetic Materials and Chemical Propulsion, 16 (2), 115-123.
2. Das, S., and Cohen, J. (2017) "Reducing Pressure Oscillations by change in Rear-Face Geometries at Subsonic and Transonic Speeds" AIAA Journal, Vol. 55,

No. 12 <https://doi.org/10.2514/1.J055895>, 4401-4411.

3. Kumar, B. A., Kumar, P., Das, S., and Prasad, J. K. (2018) "Effect of Leading-Edge Shapes on 81deg/45deg Double-Delta Wing at Low Speeds" Proc. IMechE Part G: J Aerospace Engineering, DOI: 10.1177/0954410017724822 (Available Online).
4. Saranyamol, V.S., Kumar, P., and Das, S. (2018) "Influence of Impinging Wall Ramping Modification on the Flow Field of Open Cavity at M=2.0", Journal of Fluids

Engineering, 140(7), 71103-1-71103-11.

5. Manisha B. Padwal and Mohan Varma. (2018) Thermal Decomposition Behavior and Combustion Characteristics of HTPB-Coarse AP Composite Solid Propellants Catalyzed with Fe_2O_3 , *Combustion Science & Technology*, 190 (9), 1614-1629.
6. Mondal, P., Anup V. Kanale, N. Balakrishnan, Nikhil V. Shende and Rohan Pradeep Wadnerkar. (2017) "Optimization of Flap Position Using a Modified Discrete-Vortex Method", *AIAA Journal*, 55(12), 4083-4093.
7. Pratim Kumar, P. C. Joshi and Rajiv Kumar. (2017). "Thermal Decomposition and Kinetic Studies of AN, KDN and Their Mixture with and Without Catalysts", *Central European Journal of Energetic Materials*, 14(1), 184-200.
8. Pratim Kumar, P. C. Joshi, Rajiv Kumar and Shelly Biswas. (2016). "Catalytic Effect of Cu-Co* on the Thermal Decomposition of AN/KDN based Green Oxidizer and Propellant Samples" *Defence Technology*, (14), 250-260.
9. Jejurkar, S.Y., Yadav, G., & Mishra, D.P. (2018). Visualizations of Sheet Breakup of Non-Newtonian Gels Loaded with Nanoparticles. *International Journal of Multiphase Flow*, 100, 57.
10. Jejurkar, S.Y., Yadav, G., & Mishra, D.P. (2018). Characterization of Impinging Jet Sprays of Gelled Propellants Loaded with Nanoparticles in the Impact Wave Regime. *Fuel*, 228, 10.

• Published in National Journals

1. Bhumkar, Y. G., Kumar, P., Roy, A., Das, S., and Prasad, J. K. (2017). "Investigation of Incompressible Flow past Two Circular Cylinders of Different Diameters" *Defence Science Journal*, 67(5), 487-496.

5. Publications in Proceedings

• Published in International Proceedings

1. Arvind S and Rajiv Kumar, "3 D Numerical Investigation of Hydrogen Combustion in Scramjet to Enhance Combustion Efficiency", 11th International High Energy

Material Conference and Exhibits, Pune, India, Nov 23-25, 2017, pp. 66-73.

2. Talluri Vamsi Krishna, Mengu Dinesh and Rajiv Kumar, "Study on the Improvement of Regression Rate and Combustion Efficiency in Hybrid Rocket Motor Using Multi-Protrusion", 11th International High Energy Material Conference and Exhibits, Pune, India, Nov 23-25, 2017, pp. 158-164.
3. Mengu Dinesh and Rajiv Kumar, "Combined Effect of Paraffin and Microcrystalline Wax on Mechanical Properties and Regression Rate of Hybrid Rocket Motor", 11th International High Energy Material Conference and Exhibits, Pune, India, Nov 23-25, 2017, pp. 133-138.
4. Pragya and Shelly Biswas "Investigating the effect of injector type on the regression rate of the hybrid rocket" 11th International High Energy Material Conference and Exhibits, Pune, India, Nov 23-25, 2017, pp. 187-191.
5. Pratim Kumar, Rajiv Kumar, and Puran Chandra Joshi" Studies of Heat of Combustion for AP, ADN, and KDN Pellets mixed with Carbon Black" 4th International Conference on Recent Developments in Science, Engineering and Technology (REDSET 2017) October 13-14, 2017, GD Goenka University, Gurgaon (DELHI-NCR) India 2017.

• Published in National Proceedings

1. Mohan Varma, Formulation, Characterization and Rheological Studies on Metallized Fuel Systems for Propulsion Applications (Invited Lecture), Proc. GATET Workshop, GTRE, Bangalore August 30 & 31, 2017.

• Chapter(s) in Edited Book

1. Mohan Varma, (2017). High Shear Rheometry of Unsymmetrical Dimethyl Hydrazine Gel. In Luigi T. DeLuca, Toru Shimada, Valery P. Sinditskii, and Max Calabro (Eds.), *Chemical Rocket Propulsion: A Comprehensive Survey of Energetic Materials*, Springer International Publishing Co., ISBN 978-3-319-27748-6.

SECTION 5**AWARD/ PATENT/ COLLABORATIONS****6. Award / Recognition Bestowed on Faculties**

Sr. No.	Name of the Faculty Member	Title of the Award / Honour	Organisation	State / National / International Level	Year / Duration
1.	Dr. Mohan Varma	Outstanding Contribution in Reviewing	Combustion and Flames (Elsevier)	International	2017
2.	Dr. Mohan Varma	Expert Panel Member	GTRE, Bangalore	National	2017
3.	Dr. Sudip Das	Executive Committee Member	Aerospace Division Board Institution of Engineers (India), Jharkhand State	State	2016-18

SECTION 6**ACTIVITIES/ DAC/ BOS****7. Board of Studies**

Sr. No.	Name of the Member	Designation	Role
1.	HOD/in-Charge	Professor & Head	Chairman (Ex-Officio)
2.	Dr. Mohan Varma	Professor	Member
3.	Dr. Sudip Das	Professor	Member
4.	Dr. Priyank Kumar	Asst. Professor	Member
5.	Dr. Rajiv Kumar	Asst. Professor	Member
6.	Dr. D. P. Mishra	Professor	Member
7.	Dr. M. Mukherjee	Professor	Member
Any two of the following			
8.	Dr. M. K. Laha	Professor, Deptt. of Aerospace Engg. , IIT, Kharagpur	External Member
9.	Dr. D. P. Mishra	Professor, Deptt. of Aerospace Engg. , IIT, Kanpur	External Member
10.	Dr. Debopam Das	Professor, Deptt. of Aerospace Engg. , IIT, Kanpur	External Member
11.	Dr. S. R. Chakravarthy	Professor, Deptt. of Aerospace Engg., IIT Madras, Chennai	External Member
12.	Dr. S. B. Verma	Dy. Head, Experimental Aerodynamics Division, NAL, Bangalore	External Member
13.	Shri P. Pathak	Dy. GM, R&D Centre of Steel Authority of India Ltd. Shyamli Colony, Doranda, Ranchi – 834002	External Member


8. Departmental Academic Committee

Sr. No.	Name of the Member	Designation	Role
1.	HOD/in-Charge	Professor & Head	Chairman (Ex-officio)
2.	Dr. Mohan Varma	Professor	Member
3.	Dr. Sudip Das	Professor	Member
4.	Dr. Priyank Kumar	Assistant Professor	Member
5.	Dr. Partha Mondal	Assistant Professor	Member
6.	Dr. Rajiv Kumar	Assistant Professor	Member
7.	Dr. Shelly Biswas	Assistant Professor	Member
8.	Dr. Swarupkumar Y. Jejurkar	Assistant Professor	Member
9.	Dr. R. P. Sharma	Professor	Member
10.	Dr. Gautam Sarkhel	Professor	Member
11.	Guide(s) of the Candidate	Member & Guide	Member

SECTION 7**OTHER INFORMATION****9. Student Entrepreneurship activities/Start-ups**

Sr. No	Name of Student	Source of Funding	Title of Start-up	Short Description
1.	Mr. Siddharth Behal	IIT Madras	IITM Summer Internship	
2.	Ms. Madhushree M.	SELF	Simulation of supersonic nozzle flows	

10. Distinguished Visitors from Industry/Academia/Research organizations

Sr. No	Name of Visitor with Affiliation	Date of Visit	Picture
1.	Padmashree Prof. G.D. Yadav Vice Chancellor, Institute of Chemical Technology, Mumbai	01/9/2017	

11. Any other relevant information

- 22 Nos. of PG Student have visited HEC and RDCSI, SAIL, Ranchi on March 17, 2018.



Deoghar Off Campus

SECTION 1

PROFILE



1. About the Campus

Founded in 2007, in collaboration with the Govt. of Jharkhand, the institute is one of the AICTE approved off-campus of BIT, Mesra and offers B.E./B. Tech. in CSE, ECE, EEE, Mech. Eng. and Prod. Eng. The campus spreads at Ratanpur across an area of about 25 acres and is about 1.5 km away from the Jasidih rail station (an important junction on the Howrah-Patna route). The institute is fully residential having two boys' and a girls' hostels. The institute library is well equipped with more than 10,000 text and reference books and a study hall. A number of research journals, magazines and books are also available in the library both in the electronic forms and hard copies. A total of 549 students had registered in SP 2018.

The institute workshop, newly formed Language Lab and the Entrepreneur Development Cell are of great benefits to the students. The institute is well equipped with a number of labs with modern instruments and accessories. There are three well-designed computer laboratories, equipped with over 200-networked high-end P-IV PCs with high speed internet connectivity. Beside these, 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, virtual laboratory with simulation packages like Multisim, Commsim, Ultiboard, Cadence, Ansys, Qualnet, MATLAB, NI Signal Express with DAC, Electrical Machines Lab, Power Electronics Lab, Measurement & Instrumentation Lab, Control System Lab, Simulation Lab, Digital Signal Processing Lab, Metrology Lab, Metallurgy Lab, Tool Design Lab etc. are also counted amongst the major labs of the institute.

The campus has an SBI ATM and a Dispensary having both male and female doctors and 24×7 ambulance facility. The institute has a football ground, two basket ball courts, a volleyball court and a field for all other athletic events. Apart from these, a gymnasium and a music room are also there for the benefit of the students. Within the hostels, students enjoy indoor game facilities e.g. table tennis, carom etc. along with a common study room to read news papers and magazines. In the boys hostels there are separate badminton courts too. A few quarters are also available within the campus to accommodate staff and faculty members.

SECTION 2**SEMINAR / CONFERENCE****2. Seminar / Conferences / Short – Term Courses Conducted by the Campus**

Sr. No.	Title of Seminar/ Conference/ Short Term Courses/ Workshop	Coordinator	Funding / Sponsoring Agency	Date of Event
1.	One Day Seminar on “ Role of Financial Institution in Entrepreneurship Development”	Ashutosh Kumar	BIT Deoghar	12/05/2018

3. Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1.	Dr. Manoj Kumar Dutta	14 th IEEE India Council International Conference INDICON 2017 ,	BIT Mesra	IIT Roorkee,	IIT Roorkee, Roorkee, Uttarakhand	15/12/2017 to 17/12/2017
2.	Dr. Manoj Kumar Dutta	QIP short term course on Design of Microwave Antennas for Wireless Communication Applications	AICTE	IIT Kharagpur	IIT Kharagpur	21/08/2017 to 26/08/2017
3.	Dr. Manoj Kumar Dutta	QIP short term course on Fundamentals of Digital Image and Video Processing	AICTE	IIT Kharagpur	IIT Kharagpur	15/05/2018 to 19/05/2018
4.	Dr. Manoj Kumar Dutta	QIP short term course on Industrial Relations & Issues and Challenges	AICTE	IIT Kharagpur	IIT Kharagpur	27/05/2018 to 31/05/2018
5.	Dr. KN.Mishra	Information Technologies and Society		University Grant Commission – Human Resource Development Centre, University of Allahabad	Allahabad, INDIA	June 11- July 2 2017
6.	Dr Chinmay Chakraborty	GIAN	MHRD	IIT Patna	Patna	04.12.17 – 08.12.17

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
7.	Sridhar Chintala	One week 'National training program on Wireless Sensor Networks'		Faculty Development Center of ISM Dhanbad	IIT(ISM) Dhanbad	December 2017.
8.	Payal Bhardwaj	Do-		Do-	Do-	Do-
9.	Akash Kumar Gupta	Do-		Do-	Do-	Do-
10.	Sutapa Mondal	Do-		Do-	Do-	Do-
11.	Dr. S. S. Majhi	Short term course on industrial relations make in india	IIT Kharagpur	IIT Kharagpur	IIT Kharagpur	27 th to 31 st may 2018
12.	Dr. A.C.Singh	Short term course on industrial relations make in India	IIT Kharagpur	IIT Kharagpur	IIT Kharagpur	27 th to 31 st May 2018
13.	Mr. Nilesh Kumar Rajalwal	International Conference on Innovations and Research in Sciences, Technology, Commerce, Business Management, Social Science and Humanities for Sustainable Development	IEEE	ITI Bhagalpur	ITI Bhagalpur	March 2018
14.	Mr. Nilesh Kumar Rajalwal	IEEE International Conference on Technologies for Smart-City Energy Security and Power (ICSESP-18).	IEEE	C V Raman College of Engineering, Bhubhaneswar	C V Raman College of Engineering, Bhubhaneswar	March 2018
15.	Mr. Pankaj Mishra	IEEE International Conference on Technologies for Smart-City Energy Security and Power (ICSESP-18).	IEEE	C V Raman College of Engineering, Bhubhaneswar	C V Raman College of Engineering, Bhubhaneswar	2018

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
16.	Mr. Srihari Gude	Foundation Program in ICT for Education in Blended Mode	MHRD	IIT Bombay	BIT Mesra	08 March-12 April, 2018
17.	Mr. Nilesh Kumar Rajalwal	Foundation Program in ICT for Education in Blended Mode	MHRD	IIT Bombay	BIT Mesra	08 March-12 April, 2018
18.	Mr. Pankaj Mishra	Department of Electrical & Electronics Engg. BIT Mesra, Ranchi, MHRD, Govt. of India (GIAN)	MHRD	BIT Mesra	BIT Mesra	2017
19.	Mr. Pankaj Mishra	National Training Program in Scientific Computing with Mathematica	MHRD	IIT ISM Dhanbad	IIT ISM Dhanbad	04-09 December, 2017
20.	Mr. Prabhat Kumar Ranjan	National Training Program in Scientific Computing with Mathematica	MHRD	IIT ISM Dhanbad	IIT ISM Dhanbad	04-09 December, 2017
21.	Mr. Srihari Gude	National Training Program in Scientific Computing with Mathematica	MHRD	IIT ISM Dhanbad	IIT ISM Dhanbad	04-09 December, 2017
22.	Mr. Nilesh Kumar Rajalwal	National Training Program in Scientific Computing with Mathematica	MHRD	IIT ISM Dhanbad	IIT ISM Dhanbad	04-09 December, 2017
23.	Mr. Deep Shekhar Acharya	Two Week ISTE STTP on "Electric Power Systems" in Blended Mode	MHRD	IIT Kharagpur	BIT Mesra	10-15 July, 2017
24.	Mr. Prabhat Kumar Ranjan	Two Week ISTE STTP on "Electric Power Systems" in Blended Mode	MHRD	IIT Kharagpur	BIT Mesra	10-15 July, 2017

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
25.	Anil Kumar Sharma	Advanced course on sustainability in materials and design.	Self financed	GIAN	Department of Mechanical Engineering, Malviya National Institute of Technology, Jaipur	21/05/2018 to 01/06/2018
26.	Sanjiv Kumar Tiwari	GIAN course on "Smart Manufacturing 1.0".	B.I.T., Mesra – Deoghar Campus	GAIN in association with Department of Manufacturing Engineering, CEG Campus, Anna University, Chennai.	Department of Manufacturing Engineering, CEG Campus, Anna University, Chennai.	12 th March to 16 th March, 2018
27.	Abhishek Kumar Singh	Advance Course on Sustainability in Materials and Design.	B.I.T., Mesra – Deoghar Campus	Global Initiative of Academic Networks (GIAN) Malaviya National Institute of Technology Jaipur – 302017	Department of Mechanical Engineering Malaviya National Institute of Technology Jaipur – 302017	May 21 th to June 1 st , 2018
28.	Randhir Kumar	Advance Course on Sustainability in Materials and Design.	B.I.T., Mesra – Deoghar Campus	Global Initiative of Academic Networks (GIAN) Malaviya National Institute of Technology Jaipur – 302017	Department of Mechanical Engineering Malaviya National Institute of Technology Jaipur – 302017	May 21 th to June 1 st , 2018
29.	Prafulla Kumar Manoharan	Advance Scientific Process Planning	B.I.T., Mesra – Deoghar Campus	Global Initiative of Academic Networks (GIAN) National Institute of Technology Mizoram	Department of Mechanical Engineering National Institute of Technology Mizoram	May 7 th to May 11 th , 2018

SECTION 3**RESEARCH PUBLICATIONS****4. Publications in Journals**

- **Published in International Journals**

1. Roy, A., Banerjee S., Bhatt, C., Badr, Y., & Mallik, S. (2018). Hybrid Group Recommendation Using Modified Termite Colony Algorithm: A Context Towards Big Data, *Journal of Information & Knowledge Management*, 17(02), 1.
2. Roy A., & Banerjee S. (2018). Exploring New Vista of intelligent collaborative filtering: A restaurant recommendation paradigm, *Journal of Computational Science*, 27, 168.
3. Pandey, A., & Banerjee, S. (2018). Test Suite Minimization in Regression Testing using Hybrid Approach of ACO and GA. *International Journal of Applied Metaheuristic Computing*, 9(3), 88.
4. Pandey, A., & Banerjee, S. Test Suite Optimization Using Chaotic Firefly Algorithm in Software Testing. (2017). *International Journal of Applied Metaheuristic Computing*, 8(4), 4.
5. Mukherjee, S. & Dutta, A. (2017). A Comparative Analysis of Clustering Algorithms and Recent Developments, *International Journal of Advanced Research in Computer Science*, 8(3), 240. 244.
6. Chakraborty, C. (2017). Chronic Wound Image Analysis by Particle Swarm Optimization Technique for Tele-Wound Network, *Int. Journal of Wireless Personal Communications*, 96(3), 3655.
7. Das, M. K., & Lal, R. K. (2017). Modelling of Quantum Well Infrared Photo Detector for Long Wavelength Infrared Detection. *IETE Journal of Research*, 63(5), 719.
8. Prasad, S., Dutta, M. K. & Sarkar, R. K. (2018). Coupled tapering/uptapering of Thirring type soliton pair in nonlinear media. *Optics Communications*, 410, 356.
9. Ranjan, P. K., & Thakura, P. R. (2018). Analysis of Single-Stage Three-Phase DC-AC Boost Inverter for Distributed Generation System. In *Nano-electronics, Circuits and Communication Systems*, 511, 245.

10. Thangaiah, I.S.S., Sharma, & Sundharam, V. N. (2018). Internet of Things (IoT) Integration with Enterprise Resource Planning Application in Manufacturing Industries. *International Journal of Mechanical Engineering and Technology* 9 (7) 877.
11. Oraon, M., & Sharma, V. (2018). Predicting Force in Single Point Incremental Forming by Using Artificial Neural Network. *International Journal of Engineering IJE Transaction A Basic*, 31 (1) 88.
12. Thangaiah, I. S. S., Sharma, V., & Sundharam, V. N. (2018). Analysing of customer feedback on critical quality parameters to improve productivity in manufacturing- a case study. *International Journal of Productivity and Quality Management, Inderscience*, 23(3), 349.
13. Rahman, Md. Z., Das, A.K, Chattopadhyaya, S., Bajpai, V., & Sharma, V. (2018) Investigation and Optimization of Micro-End-Milling of C-103 Nb-Alloy via Taguchi Design Method, *Advanced Science, Engineering and Medicine*, 10, 1.
14. Pathak, G., Dubey, O.P., & Manoharan, P. K. (2018). Mechanical Properties of Sisal/ Glass Fiber Reinforced Hybrid Composites: A Review, *International Journal of Student's Research in Technology & Management*, 6(2), 70.

5. Publications in Proceedings**Published in International Proceedings**

1. Chakraborty, C. Chaitanya, M. and Krishnan., Efficient Routing Algorithm for Disaster Recovery over Wireless Mesh Networks Based Communication System, *IEEE: 3rd Int. Conf. on Applied & Theoretical Computing & Comm. Tech.*, 171-175, 2017.
2. Chakraborty, C. Sravanth, R. Gupta, B. and Ghosh, S. Performance Analysis of Eye-State Characterization through Single Electrode EEG Device for Medical Application, *IEEE: Global Wireless Summit*, 1-5, 2017.

3. Ojha, P.K. Barwar, M.K. Tripathi, P.R. and Thakura, P.R. Hardware Implementation of Three Phase Single Stage Boost Inverter for Higher Frequency. In Proceedings of the 2nd International Conference on Electronics, Communication and Aerospace Technology, 2018.
4. Rajalwal N.K and Mishra P. Impact of DFIG on voltage stability of a network in smart grid: An analysis. IEEE International Conference on Technologies for Smart-City Energy Security and Power, 2018.
5. Perveen N. Siddhi, and Rajalwal, N.K. Analyze the Techno-commercial requirements of a solar power plant for the illumination system of B.I.T, Deoghar campus. International Conference on Innovations and Research in Sciences, Technology, Commerce, Business Management, Social Science and Humanities for Sustainable Development, 2018.
6. Ranjan, P.K., and Thakura, P.R. Analysis of Single Stage Three Phase DC-AC

Boost Inverter for Distributed Generation System. 3rd International Conference on Nanoelectronics Circuits & Communications Systems, 2017.

7. Ojha, P. K. and Thakur, P. R. Analysis of Voltage source Boost Inverter" in Proceeding of the Second International Conference on Microelectronics, Computing & Communication Systems, 9-16, 2018.

6. Books

- Chapter(s) in Edited Books
- 1. Verma, N. Sharma, V. Energy Value Stream Mapping: A Tool to Develop Green Manufacturing Energy, CRC Press, Manufacturing Techniques for Materials, (pp-189-206), 2018.
- 2. Upadhyaya, A. Prakash, V. Sharma, V. Optimizing Material Removal Rate Using Artificial Neural Network for Micro-EDM," Accepted to be published as book chapter of "Design and Optimization of Engineering Products" in IGI Global, (pp-209-233), 2018.

SECTION 4

AWARD/ PATENT/ COLLABORATIONS

7. Award / Recognition Bestowed on Faculties

Sr. No.	Name of the Faculty Member	Title of the Award / Honour	Organisation	State / National / International Level	Year / Duration
1.	Dr. Chinmay Chakraborty	Young Research Excellence Award	Cosmic AETM, Bangkok, Thailand	International	2018
2.	Dr. Chinmay Chakraborty	Young Faculty Award	Venus International Faculty Awards-VIFA	International	2018
3.	Dr. Chinmay Chakraborty	Best Paper of the Session Award	Global Wireless Summit, South Africa	International	2017
4.	Pankaj Mishra	Best paper- Runner up	IEEE International Conference on Technologies for Smart-City Energy Security and Power	International	2018
5.	Nilesh Kumar Rajalwal	Best paper- Runner up	IEEE International Conference on Technologies for Smart-City Energy Security and Power	International	2018

SECTION 5**OTHER INFORMATION****8. Publication by students**

1. Perveen N. Siddhi, and Rajalwal, N.K. Analyze the Techno-commercial requirements of a solar power plant for the illumination system of B.I.T, Deoghar campus. International Conference on Innovations and Research in Sciences, Technology, Commerce, Business Management, Social Science and

Humanities for Sustainable Development, 2018.

2. Chakraborty, C. Chaitanya, M. and Krishnan., Efficient Routing Algorithm for Disaster Recovery over Wireless Mesh Networks Based Communication System, IEEE: 3rd Int. Conf. on Applied & Theoretical Computing & Comm. Tech., 171-175, 2017.

9. Achievements of Students

Sr. No	Name of Student	Achievement/Position/Award etc	Organised by	Date and Venue
1.	Football team, BIT Deoghar	Winners in football	BIT, Mesra	VAJRA, the annual inter-college sports fest of BIT, Mesra, Sept. 2017
2.	Football team, BIT Deoghar	Runners up in football	BIT, Patna	PRAKIDA, the annual inter-college sports fest of BIT, Patna, 2017

10. Any other relevant information

1. Dr. S. Karmakar has been selected as a member in the International Association Innovation Professional, Texas, USA in January, 2018.
2. Dr. S. Karmakar has been selected as an Editorial Board Member in IOSRD International Journal of Physics in January, 2018.
3. Mr. Prabhat Kumar Ranjan is Reviewer of Electric Power Components and Systems Journal
4. Mr. Deep Shekhar Acharya is Reviewer of Information Technology and Control
5. The existing Metallurgical Microscope has been upgraded by High Magnification Camera with Image Analyzer Software.
6. Dr. Abhishek Kumar Singh has visited IOCL, Jasidih with 7th Semester Mechanical Engineering Students.
7. Mr. Prafulla Kumar Manoharan has visited Solar Power Plant Situated at Deoghar with 7th Semester Mechanical Engineering Students.

8. Dr. Chinmay Chakraborty has the following achievements

- Session Chair: Int. Conf. on CICBA -18. Kalyani Govt. Engg. College, India, 2018.
- Member of International Technical Programme Committee, CICBA 2018, India.
- National Advisory Member of ICASET 2018, Bengaluru.
- Editorial Board Member in IOSRD Int. Journal of Telecomm. Engg., 2018.
- Advisory Committee Member in 5th Nat. Conf. on Comm. Information & Control Syst., Tamilnadu, 2018.
- Editorial Board Member in Journal of Wireless Communication Technology, 2017.
- Delivered Guest Lecture on "Recent Advances in Communications and Networking" at ECE Department, JIS College of Engineering, Kalyani, 2018.
- Speaker for AICTE sponsored FDP on "Recent Developments in Artificial Intelligence & Robotics" at ECE Department, NiT, JIS University, Kolkata, 2018.

- Presented seminar talk on “5G Mobile Communication” at ECE Department, BIT Mesra, Deoghar Campus, 2017.
9. Dr. Manoj Kumar Dutta acted as Session Chair in two technical sessions of 14th IEEE India Council International Conference

INDICON 2017, held during 15/12/2017 to 17/12/2017 at IIT Roorkee, Roorkee, Uttarakhand.

10. Following noticeable programs/workshops were conducted in the campus

Sl. No.	Name of the program	Date
1.	Cultural Night AAGAAZ '17	15/11/17
2.	Workshop on Photography (in collaboration with Nikon India)	20/1/18
3.	Annual Athletics Meet	8-10 Feb 2018



Jaipur Off Campus

SECTION 1

PROFILE



1. About the Campus

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. A total of 740 students registered in the campus during 2017-18.

BIT Jaipur Campus has a long term vision to consolidate its strengths and excel in engineering and management education and research in emerging areas. The BIT Jaipur Campus has 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: Master of Computer Application (MCA) and Master in Animation Design (MAD).

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 12 Class Rooms, 15 Lab Halls, Mechanical WorkShop, Seminar Hall (150 Capacity), Common Computer/Internet Access Centre (30 Computers) , Library Hall, Indoor Sports & Gymnasium Hall, Student Activity Room, Music Room, 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

SECTION 2

RESEARCH PROJECTS

2. Sponsored Projects & Consultancy

a) Project Sanctioned :

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1.	Lightning impact on ozone precursor over Indian region and its implication on tropospheric ozone	PI – Dr. Swagata Payra	MOES	09.10.2017	34 lakh & 64 thousand	Three years up to 31/10/2020

b) Ongoing Projects :

Sr. No.	Project Title	PI / Co PI / Collaborator	Funding Agency	Date of Sanction	Sanctioned Amount	Duration of the Project
1	Studies of High Z impurity behavior using VUV spectral emissions from the tokamaks in IPR	Dr. Anand Kumar Srivastava (P.I.), Dr. M. B. Chowdhuri & Mrs. Ranjana Manchanda (Collaborator, IPR, Gandhinagar)	BRNS, DAE, Govt. of India	23.01.17	20.3 Lakh	2 Years

SECTION 3

SEMINAR / CONFERENCE

3. Seminar / Conferences / Short [-Term Courses Conducted by the Campus

Sr. No.	Title of Seminar/ Conference/ Short Term Courses/ Workshop	Coordinator	Funding / Sponsoring Agency	Date of Event
1.	Three days workshop on “Documentary Film Making” By Prof. Chandra Shekher, Internationally Renowned Documentary Film Maker & Educationist, Hungary. (For UG & PG Animation Students)	Dr. Vibhuti Pandya	Birla Institute of Technology, Mesra, Jaipur Campus	31.01.2018-02.02.2018

Sr. No.	Title of Seminar/ Conference/ Short Term Courses/ Workshop	Coordinator	Funding / Sponsoring Agency	Date of Event
2.	Five days workshop on Story Building & Idea Creation for Concerned Communication By Dr.Anju Dave, Creative Director and Communication Strategist from Coffee Bean Media, Jaipur. (For UG & PG Animation Students)	Dr.Vibhuti Pandya, Mr.Gaurav Chaudhary	Birla Institute of Technology, Mesra, Jaipur Campus	21.08.2017-24.08.2017 & 29.08.2017

4. Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members:

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1.	Mr.Ankur Agarwal	5G Communication	Electronics and ICT Academics, MNIT Jaipur	MNIT, Jaipur	MNIT, Jaipur	11.06.2018-15.06.2018
2.	Dr. Alok Pandey	Skill Development Course on IoT for Students & Professionals	CSIR, CEERI, Pilani	CEERI, Jaipur Centre	CEERI, Jaipur Centre	04.06.2018-13.07.2018
3.	Mr.Gaurav Jain	Artificial Intelligence and machine Learning	E & ICT Academy	IIT, Roorkee	MNIT, Jaipur	28.05.2018-31.05.2018
4.	Mr. Puneet Sharma	Communication Skills	NITTTR, Chandigarh	MNIT, Jaipur	MNIT, Jaipur	14.05.2018-18.05.2018
5.	Dr. Ritu Pareek	Communication Skills	NITTTR, Chandigarh	MNIT, Jaipur	MNIT, Jaipur	14.05.2018-18.05.2018
6.	Dr. Anand Kumar Srivastava	NFP-PFRC Vision Meeting 2018	BRNS, DAE	IPR Gandhinagar and Nirma University	Nirma University, Ahmedabad	26.04.2018-28.04.2018
7.	Dr. Swagata Payra	National Conference on Innovative trends in Civil Engineering NICTE(2018)	DST, New Delhi	Dept of Civil Engineering; Poornima University, Jaipur	Poornima University, Jaipur	13.04.2018-15.04.2018
8.	Dr. Ranjana Agrawal	International Conference on "Environment Sustainable Development"	Rajasthan Chapter of IEAE	Vivekanand Global University, Jaipur	Vivekanand Global University, Jaipur	24.02.2018-26.02.2018

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
9.	Dr. R.K. Gothwal	XXIX Annual Bioinformatics Review cum Coordinators Meeting	DBT, New Delhi	MS University, Tirunelveli	MS University, Tirunelveli	03.02.2018-04.02.2018
10.	Dr. P.S. Solanki	BTIS net Annual Meet	DBT, Govt of India	BTIS Center, MS Univ Tirunelveli	Manonmaniam Sundaranar University, Tirunelveli, Tamilnadu	03.02.2018-04.02.2018
11.	Dr. Dheeraj Bhardwaj	National Workshop on LATEX and Technical Writing	TEQIP-III, MNIT, Jaipur	MNIT, Jaipur	MNIT, Jaipur	24.01.2018-28.01.2018
12.	Mrs. Jyoti Sharma	National Workshop on LATEX and Technical Writing	TEQIP-III, MNIT, Jaipur	MNIT, Jaipur	MNIT, Jaipur	24.01.2018-28.01.2018
13.	Mr. P. S. Rathore	National Workshop on LATEX and Technical Writing	TEQIP-III, MNIT, Jaipur	MNIT, Jaipur	MNIT, Jaipur	24.01.2018-28.01.2018
14.	Mr. Ankur Agarwal	National Workshop on LATEX and Technical Writing	TEQIP-III, MNIT, Jaipur	MNIT, Jaipur	MNIT, Jaipur	24.01.2018-28.01.2018
15.	Dr. Madhavi Sinha,	National Workshop on LATEX and Technical Writing	TEQIP-III, MNIT, Jaipur	MNIT, Jaipur	MNIT, Jaipur	24.01.2018-28.01.2018
16.	Dr. Vivek Gaur	National Workshop on LATEX and Technical Writing	TEQIP-III, MNIT, Jaipur	MNIT, Jaipur	MNIT, Jaipur	24.01.2018-28.01.2018
17.	Mr. P. S. Rathore	National Workshop on LATEX and Technical Writing	TEQIP-III, MNIT, Jaipur	MNIT, Jaipur	MNIT, Jaipur	24.01.2018-28.01.2018
18.	Dr. Ritu Pareek	National Workshop on LATEX and Technical Writing	TEQIP-III, MNIT, Jaipur	MNIT, Jaipur	MNIT, Jaipur	24.01.2018-28.01.2018
19.	Dr. Roopali Sharma	National Workshop on LATEX and Technical Writing	TEQIP-III, MNIT, Jaipur	MNIT, Jaipur	MNIT, Jaipur	24.01.2018-28.01.2018
20.	Dr. Ritu Arora	National Workshop on LATEX and Technical Writing	TEQIP-III, MNIT, Jaipur	MNIT, Jaipur	MNIT, Jaipur	24.01.2018-28.01.2018

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
21.	Dr.Vibhuti Pandya	National Workshop on LATEX and Technical Writing	TEQIP-III, MNIT, Jaipur	MNIT, Jaipur	MNIT, Jaipur	24.01.2018-28.01.2018
22.	Dr. Ranjana Agrawal	National Workshop on LATEX and Technical Writing	TEQIP-III, MNIT, Jaipur	MNIT, Jaipur	MNIT, Jaipur	24.01.2018-28.01.2018
23.	Dr. Madan Mohan Agarwal	Internet of Things (IoT)	<i>Ministry of Electronics & Information Technology (MeitY), Govt of India</i>	IIT, Roorkee	IIT, Rorkee	13.01.2018-17.01.2018
24.	Dr. Ranjana Agrawal	24th ISCB International conference on "Frontier Research In Chemical And Biological Interface"	Manipal University, Jaipur	Department of Chemistry Manipal University, Jaipur	Manipal university, Jaipur	11.01.2018-13.01.2018
25.	Dr. Madan Mohan Agarwal	One week Short Term Training Programme on Automata Theory, Formal Language and Compiler Design	TEQIP-III	BIT, Mesra, Ranchi	Dept of CSE, BIT, Mesra, Ranchi	19.01.2018-25.01.2018
26.	Dr.Vibhuti Pandya	Five days National Workshop on Installation Art, During Jaipur Kala Mahotsav	BIT Mesra	Pratibha Educational Research Society	Jawahar Kala Kendra, Jaipur	17.01.2018-21.01.2018
27.	Mr.Gautam Goswami	Five days National Workshop on Installation Art, During Jaipur Kala Mahotsav	BIT Mesra	Pratibha Educational Research Society	Jawahar Kala Kendra, Jaipur	17.01.2018-21.01.2018
28.	Mr.Gaurav Chaudhary	Five days National Workshop on Installation Art, During Jaipur Kala Mahotsav	BIT Mesra	Pratibha Educational Research Society	Jawahar Kala Kendra, Jaipur	17.01.2018-21.01.2018
29.	Dr.Rishika Sharma	Five days National Workshop on Installation Art, During Jaipur Kala Mahotsav	BIT Mesra	Pratibha Educational Research Society	Jawahar Kala Kendra, Jaipur	17.01.2018-21.01.2018

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
30.	Mr. Manish Kumar	Five days National Workshop on Installation Art, During Jaipur Kala Mahotsav	BIT Mesra	Pratibha Educational Research Society	Jawahar Kala Kendra, Jaipur	17.01.2018- 21.01.2018
31.	Mr. Gautam Goswami	Four days workshop on Cartoon Making for adolescent children	Sponsored by Plan India Foundation	Plan India Foundation & Urmul Setu	Urmul Setu Campus, Lunkaransar, Bikaner	26.12.2017- 29.12.2017
32.	Dr. Vibhuti Pandya	Four days workshop on Cartoon Making for adolescent children	Sponsored by Plan India Foundation	Plan India Foundation & Urmul Setu	Urmul Setu Campus, Lunkaransar, Bikaner	26.12.2017- 29.12.2017
33.	Dr. Deepak Verma	Advances in Power Electronic Devices, Converters and Digital Controllers	MANIT Bhopal	MANIT Bhopal	MANIT Bhopal	18.12.2017- 22.12.2017
34.	Dr. P.S. Solanki	Symposium on Emerging Trends on Computational Biology	BISR	School of Computational and Integrative Sciences, JNU	JNU, New Delhi	16.12.2017- 17.12.2017
35.	Dr. V. Pathak	EICT Workshop on Pattern Recognition & Image Analysis	EICT, MeitY	Dept of Math./ EICT, IIT Roorkee	EICT, IIT Roorkee	15.12.2017- 19.12.2017
36.	Dr. Alok Pandey	Annual Information Security Summit 2017	NASSCOM & DSCI	DSCI, Delhi	Gurugram Haryana	13.12.2017- 15.12.2017
37.	Dr. Aparajita Pandey	Annual Information Security Summit 2017	NASSCOM & DSCI	DSCI	Gurugram Haryana	13.12.2017- 15.12.2017
38.	Dr. V. Pathak	5th International Conference on Business Analytics and Intelligence	Cisco Systems, Wiley	IIM Bangalore	IIM Bangalore	11.12.2017- 13.12.2017
39.	Dr. Anand Kumar Srivastava	International Conference on Nanotechnology: Idea, Innovations and Initiatives-2017	BIT, Mesra	IIT, Roorkee	IIT, Roorkee	06.12.2017- 08.12.2017

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
40.	Dr.Vibhuti Pandya	HR Summit Next Gen HR – Strategic HR	BIT Mesra	FICCI	Hotel Royal Orchid, Durgapura, Jaipur	29.11.2017
41.	Dr. Ritu Arora	HR Summit Next Gen HR – Strategic HR	BIT Mesra	FICCI	Hotel Royal Orchid , Jaipur	29.11.2017
42.	Dr. Swagata Payra	Workshop & Science Policy Dialogue: Air Pollution, Climate & Health in Southern Asia and HKH	ICIMOD, Kathmandu, Nepal	ICIMOD, Kathmandu, Nepal	ICIMOD, Kathmandu, Nepal	27.11.2017- 30.11.2017
43.	Dr. Alok Pandey	Object Oriented Programming	E & ICT Academies	MNIT, Jaipur	MNIT, Jaipur	20.11.2017- 29.11.2017
44.	Dr. Anand Kumar Srivastava	32 nd National Symposium on Plasma Science and Technology	BRNS,DAE	IPR, Gandhinagar	IPR, Gandhinagar	07.11.2017- 10.11.2017
45.	Dr. Swagata Payra	Climate Change Vulnerability, Assessment and Adaptation	Rajasthan Science Congress	Amity University, Rajasthan	Amity University, Rajasthan	13.10.2017- 15.10.2017
46.	Dr.Vibhuti Pandya	National Seminar on Social Content in Fine Arts	Self-Funded	Conducted by MKPPG College Dehra Dun	Dehra Dun (Attended Online)	07.10.2017
47.	Dr.R.K. Gothwal	One day workshop on Rajasthan-on Road to Biotechnology	DST, Rajasthan	DST, Rajasthan	BISR, Jaipur	20.09.2017
48.	Dr. Deepak Verma	FICCI-Workshop on Secret of Peak Performance	FICCI Rajasthan State Council	FICCI Jaipur Chapter	Hotel Ramada, Jaipur	15.09.2017
49.	Dr. Anand Kumar Srivastava	FICCI-Workshop on Secret of Peak Performance	FICCI Rajasthan State Council	FICCI Jaipur Chapter	Hotel Ramada, Jaipur	15.09.2017

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
50.	Dr.R.K. Gothwal	National Conference on Biological Engineering in 21 st Century	DBT, New Delhi	NSIT, New Delhi	NSIT, New Delhi	08.09.2017-09.09.2017
51.	Dr. P.S. Solanki	National Conference on Biological Engineering in 21 st Century	DBT, New Delhi	NSIT, New Delhi	NSIT, New Delhi	08.09.2017-09.09.2017
52.	Dr. Deepak Verma	Engineering Education & Research	National Instruments	National Instruments	ITC Rajputana Jaipur	07.09.2017
53.	Mr. Snehanshu Shekhar	Engineering Education and Research Sem	National Instruments	National Instruments, USA	ITC, Rajputana, Jaipur	07.09.2017
54.	Mr. Manish Kumar	Six Days Workshop on 3D Computer Graphics	ASNSM	ASNSM, Chittorgarh	Acharya Shree Nanesh Samta Mahavidyalaya, Chittourgarh	24.08.2017-30.08.2017

SECTION 5

PUBLICATIONS

5. Publications in Journals

• Published in International Journals

- Pathak V. and Mahanti, P. (2018). Analysis of Directional Functional Connectivity During Perceptual Decision Making Using Autoregressive Immune System, Journal of Next Generation Information Technology (JNIT), 9(1).
- Agarwal, M.M., Govil, M.C., Jhankal, A.K. and Sinha, M., (2017), Energy conservation by improving flooding mechanism in MANET. J. Sci. Ind. Res., 76(7), 408.
- Kumar Santosh & Sharma Roopali (2018). A Test of Herding in Investment Decision: Evidence from Indian Stock Exchange. Pacific Business Review, 10 (11), 27.
- Saurabh Singh, Madhavi Sinha (2018), Pattern recognition based on specific weights, International Journal of Applied Pattern Recognition (IJAPR), 5(1), 1.
- Manish Soni, Swagata Payra & Sunita Verma (2018), Particulate matter estimation over a semi arid region Jaipur, India using satellite AOD and meteorological parameters. Atmospheric Pollution Research, 9(5), pp.949.
- Pathak V. and Mahanti, P. (2017). Estimating Cointegration and Forecast of Multiple Time- Series Using Autoregressive T-Cell-Receptors Algorithm, Advanced Information Sciences and Service Sciences(AISS), 9(2).
- Amarnath, R.K. Nema and Deepak Verma (2017). Modeling and Simulation of Solar Photovoltaic Application Based Multilevel Inverter with Reduced Count Topology for Stand-alone System. Electrical & Computer Engineering: An International Journal (ECIJ) 6, 1.
- Das, Soubhagya K., Deepak Verma, Savita Nema, and R. K. Nema (2017). "Shading

mitigation techniques: State-of-the-art in photovoltaic applications.” *Renewable and Sustainable Energy Reviews* 78, 369.

9. S Verma, S., D Prakash, A K Srivastava, & Swagata Payra. (2017). Radiative Forcing Estimation of Aerosols at an Urban Site near the Thar Desert Using Ground-Based Remote Sensing Measurements. *Aerosol and Air Quality Research*, 17(5), 1294.

- **Published in National Journals**

1. Sunita Verma, Manish Soni and Swagata Payra (2018). Role of Meteorology and Satellite Retrievals in Estimating the Ground Particulate Matter During the Pre-Monsoon Period Over Jaipur, India, *International Journal of Earth and Atmospheric Science*, 5(1), 62.
2. Ravindra Kumar, Dheeraj Bhardwaj and Sharma Y. C. (2018). A Review on Plasma Ion Nitriding (PIN) Process. *i-manager's Journal on Material Science*, 6 (1), 9, 31.
3. Sharma,P.,& Kumar M (2017). Exploring Plausible Effects of GST on Goods and Services Sector in Western India, *Indian Journal of finance*, 2017(11), 20.
4. Pareek Ritu (2017). Feminist Reworking of Folk and Fairy Tales in Angela Carter's Short Stories. *IUP Journal of English Studies*, 12(2), 68.

6. Publications in Proceedings

- **Published in International Proceedings**

1. Deepak Verma, S Nema and R K Nema, Implementation of Perturb and Observe Method of Maximum Power Point Tracking in SIMSCAPE/MATLAB. In *Proceedings of the IEEE International Conference on Intelligent Sustainable Systems*, Palladam, Tamil Nadu, 2017.
2. Amarnath, R.K. Nemaand, Deepak Verma, Harmonics Mitigation of P&O MPPT Based Solar Powered Five-Level Diode-Clamped Multilevel Inverter. In *Proceedings of the IEEE International Conference on Innovations in Control, Communication and*

Information System, 2017.

3. Srivastava, A. K., Selection of Dielectric Material for Producing Diffuse Dielectric Barrier Discharge Plasma at Atmospheric Pressure. In *Proceedings of the International Conference on Nano- technology (ICN: 3I-2017)*, IIT Roorkee, Roorkee, 2017.

- **Published in National Proceedings**

1. Agrawal D, Verma Deepak and Pal Rakeshwri, Simulation And Performance Analysis Of 99 Kw Grid Interfaced Solar Photovoltaic System. In *Proceedings of the IEEE National Conference on Sustainable Energy*, Organized By VNIT Nagpur 2018.
2. Sharma Roopali, Demonetization & Economic Security in India: Some Issues. In *Proceedings of the National Seminar on Changing Dynamics of India's Security: Domestic & External Dimensions*, Department of South Asia Studies Centre, University of Rajasthan, Jaipur. January 2018.
3. Patel, S., Choudhuri, M. B., Srivastava, A. K., Manchanda, R. and Ghosh, J., Simulation Of Radial Profile Of Fe^{14+} & Fe^{15+} Emissions In Aditya-U Tokamak Plasma. In *Proceedings of the NFP-PFRC Vision Meeting*, Nirma University, Ahmedabad, Gujarat, 2018.
4. Patel, S., Choudhuri, M. B., Srivastava, A. K., Manchanda, R. and Ghosh, J., Estimation of Emissivity of Fe^{14+} and Fe^{15+} VUV Spectral Lines Relevant to Aditya-U Tokamak Plasma. In *Proceedings of the 32nd National Symposium on Plasma Science and Technology*, IPR, Gandhinagar, Gujarat, 2017.

7. Books Chapter

Jyoti Sharma and Mohd. Samar Ansari, (2017). "Low THD $\pm 0.75\text{V}$ 32nm CNFET Quadrature VCO for PLL and Costas-Loop Applications," *Advances in Intelligent Systems and Computing book series*. Springer, 479. 479-488.

SECTION 6**ACTIVITIES / DAC****8. Student Activities**

Sr. No.	Name of the Activity	Students' Co-Ordinator	Faculty Co-ordinator	Date / Duration
1.	One Week Institutional Summer Workshop on "Data analysis, Image processing and analysis using R, Python and Matlab.	-	Mr. Subhash Chand Gupta, Dr. Shripal Vijayvargiya, Dr. Vishwambhar Pathak	12.05.2018-17.05.2018
2.	Summer Training Workshop on Traditional Painting and Match Mover Camera Techniques (For UG & PG Animation Students)	-	Mr. Manish Kumar & Dr. Rishika Sharma	11.05.2018-17.05.2018
3.	Summer Training Workshop on Traditional Painting and Match Mover Camera Techniques and a lecture delivered on "Contemporary Art in Present Scenario by Professor Hemant Dwivedi	Prerna Mittal	Mr. Manish Kumar & Dr. Rishika Sharma	11.05.18-17.05.18
4.	Student Connect Programme	-	Dr. Roopali Sharma, Dr. Madhavi Sinha, Mr. Prashant Singh Rathore, Mr. Ankur Agarwal, Dr. Vibhuti Pandya	09.05.18
5.	TIME Preparatory Classes		Dr. Ritu Arora, Dr. Aparajita Pandey, Dr. Vivek Gaur	19.03.18-23.03.18
6.	Pitch Start- An Event of Entrepreneurship (Invited Lecture by Mr. Paresh Gupta- Founder & CEO GCEC & Mr. Chintan Bakshi- CEO Start Up Oasis)	Ms. Gunjan Surolia	Dr. Roopali Sharma. Dr. Ritu Arora	16.03.18
7.	Research Paper Presentation	-	Dr. Roopali Sharma, Dr. Ritu Arora, Mrs. Purvi Mathur	16.03.18
8.	Student Research Project Presentation	-	Dr. Roopali Sharma, Dr. Ritu Arora	16.03.18
9.	Business Quiz	Ms. Aashima Agarwal, Ms. Aakansha Punjabi	Mrs. Pankaj Sharma	15.03.18

Sr. No.	Name of the Activity	Students' Co-Ordinator	Faculty Co-ordinator	Date / Duration
10.	The Ad-Mad Show	Mr. Pulkit Narula, Ms. Riddhi Jain	Mrs. Purvi Mathur	15.03.18
11.	Five days Art Installation Workshop during Jaipur Kala Mahotsav, Jawahar Kala Kendra, Jaipur.	Akanksha Jangid, & Ayush Bal	Mr. Gautam Kumar Goswami & Mr. Gaurav Chaudhary	17.01.18-21.01.18
12.	Start Now-An Interactive Workshop on Entrepreneurship (By Mr. Satyam Mishra- Founder Urban Dhobi, Mr. Sharad Bansal founder-Srjna)	Mr. Pulkit	Dr. Roopali Sharma Dr. Ritu Arora	06.11.17
13.	Three days educational trip to Chittorgarh and Udaipur Districts for Animation & Multimedia Students. The trip covered the areas of both districts having rich artistic, heritage and architectural resources. The highlight of the trip was to visit art galleries, handicraft centers, and folk art centers of the Udaipur City.	Kartik Sharma & Kirti Mathur	Mr. Gautam Kumar Goswami & Dr. Rishika Sharma	08.09.17-10.09.17
14.	Workshop – Practical Aspects Of Computer Networks – For The Students of BE, MCA & BCA	-	Dr. Alok Pandey	28.07.2017-06.09.2017

9. Departmental Academic Committee

Sr. No.	Name of the Member	Designation	Role
1.	Dr. Abhinav Dinesh	Professor & Director	Chairman (Ex-Officio)
2.	Dr. Roopali Sharma	Professor	Member
3.	Dr. Madhavi Sinha	Associate Professor	Member

SECTION 7

OTHER INFORMATION

10. Student Entrepreneurship activities/Start-ups

Sr.No	Name of Student	Source of Funding	Title of Startup	Short Description
1.	Anmol Deep, (Passed out student of B.Sc. Animation & Multimedia Honours Programme- 2018)	Self	Unfold Craft	This start-up deals with animation content, Infographics, short films, documentary, biography, short videos etc. For more information log on www.unfoldcraft.com
2.	Harshit Gehlot, Harsh Badaya, Milind Bharadwaj and Nikhil Mittal (Passed out student of B.Sc. Animation & Multimedia Programme 2018)	Self	Grapholic	To give identity to any business, this start-up provides all types of promotional designs for branding through Illustrations, Animations, Videography, and Photography. For more details log on www.grapholic.in


11. Publication by students

1. Snehanshu Shekhar, Suruchi Priya , Ujjwal Bajaj, Dheeraj Bhardwaj, Real Time Health Monitoring using Cloud and its Management by Big Data, In Proceedings of the International Conference on Electrical, Electronics, Computers, Communication, Mechanical and Computing, organized by Priyadarshini Engineering College, Vellore, Tamil Nadu in association with IEEE Madras Section, Jan. 28 & 29, 2018.
2. Shashwat Mishra, Ankur Agarwal , Peak to average power ratio reduction in subcarrier index modulation OFDM using selective mapping 2017. In Proceedings of the International Conference on Computer, Communications and Electronics, 1, 168, 2017.

12. Achievements of Students

Sr. No	Name of Student	Achievement/Position/Award etc	Organised by	Date and Venue
1.	a) Chandan Singh b) Anchal Kediyan c) Hansjeet Duggal (Department of Animation and Multimedia)	An Animated Short Film "FREIHIT" is honoured in ANNECY Film Festival, France. The Film is prepared by one existing student and two pass out students collectively from A & M Dept. BIT Jaipur Campus.	ANNECY Film Festival France	11.06.18-16.06.18, BIT Jaipur Campus
2.	Nalin Harsh Vardhan (Department of Electrical and Electronics)	Second Position in Fest Cognizance 2018 , (Event: Ideaz)	IIT Roorkee	24.03.18-25.03.18, IIT Roorkee
3.	a) Kirti Mathur b) Rithembra Agarwal c) Aman Kumar (Department of Animation and Multimedia)	First Position in Vibhor Gandhi Memorial Creative Contest, during Techvibes 2018	BIT Jaipur	16.03.18, BIT Jaipur Campus
4.	Ayush Bal, Pratush Pareek, and Mulkit Pareek (Department of Animation and Multimedia)	First Position in Movie Making Competition during Techvibes 2018	BIT Jaipur	16.03.18, BIT Jaipur Campus
5.	Aditi Jain Rishabh Arora Neelanjana Verma (Department of Electronics and Communication)	Received Student Project Grant of Rs 15000/- for one year . ("NIRBHAYA" A Women safety device)	Sponsored by DST Rajasthan	02.01.2018
6.	Utkarsh Mishra and Aditya Sharma (Department of Electronics and Communication)	First position for paper presentation	DAV University, Jalandhar	06.09.17-07.09.17, DAV University Jalandhar

13. Distinguished Visitors

Sr. No	Name of Visitor with Affiliation	Date of Visit	
1	Prof. Vijay Shankar Vyas, Former Director IIM Ahmedabad	13.04.2018	Chief Guest on the occasion of Graduation Ceremony of BIT Jaipur and Noida Campus students in April, 2018.
2	Shri Rakesh Verma, Member Secetary, Centre for Good Governance, Govt. of Rajasthan	13.04.2018	Guest of Honour on the occasion of Graduation Ceremony of BIT Jaipur and Noida Campus students in April, 2018.
3	Professor Chandra Shekher, Renowned Documentary Film Maker & Film Educationist, Hungary	31.01. 2018	
4	Dr. Puneet Bhargava, Senior Professor, SMS Medical College, Jaipur	02.11. 2017- 04.11. 2017	Chief Guest in inaugural function of Sports Fest of BIT, Jaipur Campus, held in November, 2017.
5	Mr. C.K. Birla, Chairman, CK Birla Group	13.01.2018	Distinguished Guest at BITOSA Global Conclave held in January, 2018.
6	Mr. Gautam Sinha, Ceo, Times Internet, Mr. Manasij Ganguli, Co-Founder and CEO, ThreadSol Mr. Tanay & Ms Priyanka, Founders, Fractal Inc Mr. Arnab Kumar, Founding member, Alm, Niti Aayog Mr. Amit Chaudhary, Founder and COO, Lenskart Mr. Pradeep Kumar, Chief Engineer, IRSSE, Indian Railways Dr. Gopal Pathak, Vice Chancellor, Jharkhand Technical University Mr. Aroop Zutshi, Global President, Frost & Sullivan Ms. Sunita Singh, Executive VP, WF, & Co-founder NEN Mr. Abhishek Gupta,	12.01.2018- 14.01.2018	Guests at BITOSA Global Conclave held in January, 2018.

	COO, Tlabs, Mr. Abhishek Sinha, Co-founder, EKO India Mr. Ganesh Natarajan, Chairman at 5F World Pvt Ltd.		
	Mr. Sharad Verma, Management Consultant, BCG Mr. Naren Bakshi, Patron, BITOSA (Jaipur & Silicon Valley) Ms. Neha Vatsala, Independent Consultant Ms. Soma Banerjee, CEO, Business Brio Ms. Shipra Dutta, Asstt. VP, Rodic consultants, Mr. Niraj Sharan, CEO, Aura Inc Mr. Nikhilesh Krishnamurty, Sr. Project Manager, Visa Mr. Ramesh Agrawala, COO, Quality and Food Safety Consultants Mr. Karan Bajaj, Head of India/ South Asia, Discovery		
7	Dr. Rama Govindaraju TLM at Google, USA	19.12.2017	Visited Jaipur Campus in December, 2017 and held an interactive session with faculty and students on "The Scope of Higher Studies and Research in USA".
8	Dr. Madhusudan Govindaraju Professor, Dept. of Computer Science, Binghamton University, Suny, USA.	19.12.2017	Visited Jaipur Campus in December, 2017 and delivered an invited lecture on "Emerging Areas of Research and Technological Development in Computer Science and Related Interdisciplinary Research"

14. Any other relevant information

a.) Summer Training Programme

As an initiative to encourage practical exposure of the students on emerging technologies and industrial practices, and to enhance technical competence of students in specialized areas relevant to placement and professional career thereafter, training programme in relevant disciplines are organized in summer vacations every year that is as follows-

S. No.	Theme	Target Participants	Faculty Coordinator	Duration
1	Antenna Design & Simulation Using HFSS EM Simulation software	BE -IV & VI Students	Dr. Dheeraj Bharadwaj, Mr. Deepak Chaturvedi & Mrs. Kanika Joshi	12.05.18- 17.05.18

S. No.	Theme	Target Participants	Faculty Coordinator	Duration
2	Data analysis, Image Processing and analysis using R, Python and Matlab	BE-IV, VI, MCA-II & IV Students	Mr. Subhash C Gupta, Dr. Shripal Vijayavargiya & Dr. Vishwambhar Pathak	12.05.18- 17.05.18
3	Software Quality & Testing Process	BE-IV, VI, MCA-II & IV Students	Mr. Santosh Kumar Sharma & Dr. Piyush Gupta	12.05.18- 17.05.18



Lalpur Off Campus

SECTION 1

PROFILE



1. About the Campus

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 to offer programmes for 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 500 are postgraduate students.

SECTION 2

SEMINAR / CONFERENCE

2. Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1.	B.K.Sharma	Insight into fuzzy modeling: Reasoning in fuzzy natural logic and its applications. (GIAN Course)	MHRD	IIT(ISM) Dhanbad	IIT(ISM) Dhanbad	October 23 - 27, 2017
2.	P S Bishnu (K-Means Algorithm to Identify k1-Most Demanding Products)	Pattern Recognition and Machine Intelligence. PReMI 2017. Lecture Notes in Computer Science, vol 10597, pp 451-457. Springer,	-	ISI Kolkata	ISI Kolkata	5-8 December., 2017.
3.	P S Bishnu (A New Neighborhood Based Outlier Detection Technique)	4th International Conference on Nanoelectronics, Circuits & Communication Systems (NCCS-2018)	-	ARTTC, BSNL, Ranchi.	Ranchi	12-13th May-2018

4.	Abhaya Ranjan Srivastava	International Management Conference 2017 "A dynamic shift of 4G-Good Governance and Global Growth"	Empowerment of Women Artisan through skill development initiative in rural area of Jharkhand	-	G L A University, Mathura	Dec. 15-16, 2017
5.	Abhaya Ranjan Srivastava	International Management Conference 2017 "A dynamic shift of 4G-Good Governance and Global Growth"	Governance Issues in Human Resource Management & Growth	-	G L A University, Mathura	Dec. 15-16, 2017
6	Abhaya Ranjan Srivastava	International Management Conference 2017 "A dynamic shift of 4G-Good Governance and Global Growth"	Analyzing the impact of Relationship Marketing on Business Performance in Organised Fast Food Retailing	-	G L A University, Mathura	Dec. 15-16, 2017

SECTION 3

RESEARCH PUBLICATIONS

3. Publications in Journals

Published in International Journals

- 1 Kousar, K., Priyam, A. (2018). Feature Selection using Genetic Algorithm for Clustering High dimensional Data. *International Journal of Engineering & Technology*, 7(2.11), 27.
- 2 Traymbak S & Kumar P (2018). Impact of Job Characteristics and Role Stress on Job Satisfaction in Relation to Age of the Employees: An Assessment. *The IUP Journal of Organizational Behavior*, XVII (2)
- 3 Pooja & Kumar P (2017). The role of emotional intelligence in managing rural sales force performance. *Jharkhand Journal of Development and Management studies*, 15 (4), 7549
- 4 Kumari, G., & Srivastava, A.R. (2018). Orate or Utility: Millennial's Purchase Intention for Handicrafts. *International Journal of Research in Management & Social Science*, 6(02), 77.

- 5 Shandilya, G., Singh, S. & Srivastava, A.R. (2018). Impact of Consumers' Perception on the Service Quality of Fast Food Sector. *International Journal of Mechanical Engineering and Technology*, 9(02), 74.

Published in National Journals

- 1 Saha, A., Sau, B. & Mukhopadhyaya, S. (August, 2017). A Taxonomy of Rigidity of Graphs. *Indian Journal of Science and Technology*, 10 (32).

4. Publications in Proceedings

Published in International Proceedings

- 1 B.K.Sharma, S.Sharan, S.P.Tiwari., On Minimization of Deterministic Automaton with Rough Output. In *Springer Lecture Notes in Computer Science, LNCS*, volume 10398 PP. 383-391, 2017.

5. Books

Chapter(s) in Edited Books

1. Das, D. & Mukhopadhyaya, S. (2017).

- Suitability of CORDA Model for Area Coverage Problem. In R. K. Chaudhary, J. K. Mandal & D. Bhattacharyya (Eds.), Advanced Computing and Communication Technologies (pp. 3-9).
2. Sadhu, A., Sardar, M., Das, D. & Mukhopadhyaya, S. (2018). Gathering in the Discrete Domain. In J. K. Mandal, D. Bhattacharyya & N. Auluck (Eds.), Advanced Computing and Communication Technologies (pp. 11-18).
 3. Pal J., Bhattacharjee V. (2018) Analysis of Complete-Link Clustering for Identifying Multi-attributes Software Quality Data (pp.292-300) In: Hassanien A., Tolba M., Elhoseny M., Mostafa M. (eds) The International Conference on Advanced Machine Learning Technologies and Applications (AMLTA2018). AMLTA 2018. Advances in Intelligent Systems and Computing, vol 723. Springer, Cham.

SECTION 4**ACTIVITIES/ DAC****6. Student Activities**

Sr. No.	Name of the Activity	Students' Co-Ordinator	Faculty Co-ordinator	Date / Duration
1.	NAPS BIT MUN BIT ICON B-PLAN AACHAR VICHAR SA-MACHAR	Rishav Jha Rishav Drolia Suryank Krishna, Rishav Jha Harileen Singh, Samyak Sethi, Sakshi Kundu	Prof. Satrajeet Choudhary	a) 18.08.2017 b) 19.08.2017 c) 09.02.2018 d) 09.02.2018
2.	BIZWIT FANTASIA 2K17 FUTSAL TREASURE HUNT	Yash Raj	Dr. S.A. Haider	22.08.2017
3.	INTERACT CARNIVAL 2K17	Prashant Varma	Dr. Amitabh Chandan	09.09.2017
4.	BITEXL CONNECTING THE DOTS	Sabhyata Tanishq	Dr. S.A. Haider	03.02.2018
5.	DEBSOC\ DEBWARTS	Pritam Sonu	Dr. Amitabh Chandan	07.10.2017
6.	IT SOCIETY GAMER OF THE YEAR ABSTROSONIC	A) Prateek Jain B) Rishi Raj		a) 20.07.2017-21.07.2017 b) 06.02.2018-07.02.2018

7. Departmental Academic Committee

Sr. No.	Name of the Member	Designation	Role
1	Dr. A. N. Jha	Professor & Director	Chairman (Ex-Officio)
2	Dr. (Mrs.) V Bhattacharjee	Professor	Member
3	Dr. (Mrs.) Manju Bhagat	Professor & Head Dept. of Management, BIT Mesra	External Member
4	Dr. (Mrs.) Shardha Shivani	Professor Dept. of Management, BIT Mesra	External Member
5	Dr. Sandeep Dutta	Prof., Dept. of Computer Sc. BIT Mesra	External Member
6	Dr. (Mrs.) A. Priyam	Assoc. Prof.	Member
7	Dr. Pranab Kumar	Assoc. Professor	Member
8	Dr. P.S.Bishnu	Assistant Professor	Member
9	Dr. Abhay Ranjan Srivastava	Assistant Professor	Member
10	Dr. Harishwar Dayal	Professor & Director Institute of Human Development, Ranchi	External Member
11	Guides		Member

8. Publication by students

- 1 Kousar, K., Priyam, A. (2018). Feature Selection using Genetic Algorithm for Clustering High dimensional Data. International Journal of Engineering & Technology, 7(2.11), 27.
- 2 Kumar R., Bishnu P.S., Bhattacharjee V. (2017) K-Means Algorithm to Identify k1-Most Demanding Products. In: Shankar B., Ghosh K., Mandal D., Ray S., Zhang D., Pal S. (eds) Pattern Recognition and Machine Intelligence. PReMI 2017. Lecture Notes in Computer Science, vol 10597, 451-457. Springer, Cham, Print ISBN: 978-3-319-69899-1, Online ISBN: 978-3-319-69900-4, 5-8.
- 3 Kumari, G., & Srivastava, A.R. (2018). Orate or Utility: Millennial's Purchase Intention for Handicrafts. International Journal of Research in Management & Social Science, 6(02), 77.
- 4 A. Sadhu, M. Sardar, D. Das & S. Mukhopadhyaya (2018). Gathering in the Discrete Domain. In J. K. Mandal, D. Bhattacharyya & N. Auluck (Eds.), Advanced Computing and Communication Technologies 11 - 18
- 5 Sahay Evelina (2018). A Review of Ethical Consciousness (EC) and Organic food Choice: A Ripe Opportunity to communicate with the market. INTERNATIONAL JOURNAL OF RESEARCH CULTURE SOCIETY ISSN: 2456-6683 Volume - 2, Issue - 1, Jan – 2018, 44 – 49.
- 6 Hazari P (2018). Indian Feed Industry- A trend Analysis. The IUJ Journal of Management, 6 (1), 76.

9. Achievements of Students

Sr. No	Name of Student	Achievement/ Position/ Award etc.	Organised by	Date and Venue
1.	Neha Choudhary	2nd Position in SKIT Competition	Central Coal-fields Limited	11/09/2017, CCL Mahatma Gandhi Kridaangan, Gandhinagar Colony, Kanke Road, Ranchi.
		College Round Winner in StockMind 6	ICICI Direct	Sep-Oct 2017, Online Competition
2.	Divya Rani	2nd Position in SKIT Competition	Central Coal-fields Limited	11/09/2017, CCL Mahatma Gandhi Kridaangan, Gandhinagar Colony, Kanke Road, Ranchi.
3.	Nimisha Bhardwaj	2nd Position in SKIT Competition	Central Coal-fields Limited	11/09/2017, CCL Mahatma Gandhi Kridaangan, Gandhinagar Colony, Kanke Road, Ranchi.
4.	Arzoo Perween	College Round- 2nd Position in StockMind 6	ICICI Direct	Sep-Oct 2017, Online Competition
5.	Nidhi	1st Position in Ad Mad Show Competition	St. Xavier's College	7-9 February 2018, St. Xavier's College
		3rd Position in Design your Dress Competition	St. Xavier's College	7-9 February 2018, St. Xavier's College
6.	Aakriti	2nd in Team Quiz	Central Coal-fields Limited	08/09/2017, CCL Mahatma Gandhi Kridaangan, Gandhinagar Colony, Kanke Road, Ranchi.
		3rd in Team Quiz	AMITY University	31/03/2018, Amity University, Ranchi.
7.	Shreya Dhamorikar	2nd in Team Quiz	Central Coal-fields Limited	08/09/2017, CCL Mahatma Gandhi Kridaangan, Gandhinagar Colony, Kanke Road, Ranchi.
		3rd in Team Quiz	AMITY University	31/03/2018, Amity University, Ranchi.
8.	Mansi Anand	2nd Position in SKIT Competition	Central Coal-fields Limited	11/09/2017, CCL Mahatma Gandhi Kridaangan, Gandhinagar Colony, Kanke Road, Ranchi.
9.	Nisha Kumari	2nd Position in SKIT Competition	Central Coal-fields Limited	11/09/2017, CCL Mahatma Gandhi Kridaangan, Gandhinagar Colony, Kanke Road, Ranchi.
10.	Shreya Kumari	Best Female Anchor in International workshop	RAWA	25/12/2017, Ranchi Convocation Hall
		Best Female Anchor in "Jharkhand ki Pehchan"	Proxima Event	01/06/2018, Sangam Garden, Morabadi, Ranchi.
		Best Female Anchor in Fashion Show "Super Designer and Model Search season 2"	Homnis Management	24/07/2018, Hotel Trident Inn, Ranchi.

Sr. No	Name of Student	Achievement/ Position/ Award etc.	Organised by	Date and Venue
11.	Kumar Ardik	2nd Position in SKIT Competition	Central Coal-fields Limited	11/09/2017, CCL Mahatma Gandhi Kridaangan, Gandhinagar Colony, Kanke Road, Ranchi.
		Mr. BITOTSAV First Runner up	BIT MESRA	16/02/2018, BIT MESRA, Ranchi.
12.	Nishant Sinha	1st in Table Tennis Competition	Country Cricket Club	14/06/2018, JSCA Stadium, Ranchi.
13.	Nidhi Singh	2nd Position in Senate-Debate Competition	AMITY University	26/08/2017, Amity University, Ranchi.
14.	Survi Sambridhi	1st in Collage Making	Central Coal-fields Limited	10/09/2017, CCL Mahatma Gandhi Kridaangan, Gandhinagar Colony, Kanke Road, Ranchi.
15.	Satyam	1st in Collage Making	Central Coal-fields Limited	10/09/2017, CCL Mahatma Gandhi Kridaangan, Gandhinagar Colony, Kanke Road, Ranchi.



Noida Off Campus

SECTION 1

PROFILE



1. About the Campus

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. 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. A total of 203 students were registered during 2017-18.

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 centre 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 centre and fully equipped labs.
- The centre 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 Animation & Multimedia

The Department of Animation and Multimedia started as an UGC innovative programme in the year 2004 at the Noida Campus of BIT Mesra. The programme was offered as a 3 year B.Sc Degree Course and this was a national first in India. The popularity and the escalating demand soon saw BIT respond with a Master's Degree programme in Animation and Multimedia in the Noida and Jaipur Campus in 2009 to be subsequently followed by a Doctoral Research programme. Currently, a Doctoral Thesis has already been submitted on Gaming as a New communication approach. Apart from being the

first institution to offer a degree programme in Animation in our country, the department has consistently been rated as the best Animation school in the NCR by the Hindustan Times and other survey engines since 2010. The department has very proactive teachers who constantly interface with the industry at large both in India and abroad. Many have been invited by even American and European Universities to interact and give consultations.

Department of Computer Science

The mission of the department is to impart quality education, to produce innovative and globally competent technocrats having sound knowledge in the fields of Computer Science and Engineering. Department of Computer Science and Engineering running various reputed UG & PG programmes such as 3 year Full Time MCA and 3 Year 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 runs Doctoral programme in Computer Science. Department also has state-of-the-art Computing

Labs with latest configuration Dell Systems and required softwares.

The Department of Management

Since 1998, the Department of Management at BIT Noida Campus has set benchmarks in management education in NCR region with its focus on excellence in imparting practical knowledge to undergraduate, postgraduate and doctoral students. The department is enriched with highly acclaimed and dedicated faculty as most of them are doctorate in diversified areas. The department offers Ph. D. in management, Two years Master of Business Administration (MBA) and Three years Bachelor of Business Administration (BBA) course. The course curriculum is based on Choice Based Credit System (CBCS) for developing world-class managers capable of solving complex managerial problems. Management Students Development Programmes (MSDP) (comprised of Guest Lecture Series, Career preparation sessions and Industry University interface sessions), Personality Development Programmes, Industrial Visits in corporate are regularly conducted to boost their career prospects and employability.

SECTION 2

SEMINAR / CONFERENCE

2. Seminar / Conferences / Short – Term Courses Conducted by the Campus

Sr. No.	Title of Seminar/ Conference/ Short Term Courses/ Workshop	Coordinator	Funding / Sponsoring Agency	Date of Event
1.	Workshop on Bank Depositors Education & Awareness” under the aegis of Reserve Bank of India (RBI)”	Dr. Vandna Sharma	NGO- CSC	18.9.17

3. Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1.	Pramila Joshi	Cyber Security Threat Intelligence Researcher Preview		Online Course by Udemy	Online	8 th June 2018
2.	Pramila Joshi	Hadoop Starter Kit		Online Course by Udemy	Online	8 th June 2018

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
3.	Dr. Vandna Sharma	UGC Sponsored National Conference on “ Leadership in organizations: Contemporary Concerns & Key Developments”	UGC	Ramanujan College, University of Delhi	Dept. of Mgmt. Studies, Ramanujan College, University of Delhi	22-23 March 2018
4.	Priti Sharma	“Optical Fibers: Potential & Applications	Self	Galgotia College of Engg. & Technology & NITTTR	Galgotia, Greater Noida	18-22 December 2017
5.	Dr. Munish Makkad	Aiming for Excellence: Pathways to Institutional Advancement through Research	AICTE	AICTE	AICTE Auditorium, New Delhi	21 November 2017
6.	Niket Mehta & Partha Acharya	CMS Vatavaran , Environment and Wildlife International Film Festival and Forum	CMS	CMS	GSDS Rajghat, New Delhi	2-6 November 2017
7.	Dr. Suparna Dutta, Niket Mehta & Partha Acharya	India International Science Festival, 2017	Department of Science & Technology	Vigyan Prasar	Anna University , Chennai	13-16 October 2017
8.	Dr. B. B. Sagar	National Workshop on “Emerging Challenges of Cyber Crimes in India”	Self	JNU and NITTTR	JNU, New Delhi	9-10 October 2017
9.	Dr. Munish Makkad	Annual Conference of Department of Financial Studies	Self	Department of Financial Studies	Hotel Shangrila New Delhi	23 September 2017

SECTION 3

RESEARCH PUBLICATIONS

4. Publications in Journals

• Published in International Journals

Joshi, P., (2018). Analysing and Overcoming Challenges in Big Data Security. International Journal of Research and Scientific Innovation (IJRSI), V(VI),43.

Jha, P., Makkad, M. & Mittal, S. (2018). Performance Oriented Factors for Women Entrepreneurs – A scale Development

Perspective. Journal of Entrepreneurship in Emerging Economies, 10 (2).

Sharma, B., Nag, R., Makkad M. & Prasad, R. (2018). PPM Based Bayesian Solution in SW Engineering Based on Real Industry Data. International Journal of Wireless Communication and Control 8 (1).

Gupta, N. & Sharma, V. (2018). Relationship between leader member

exchange (LMX), high-involvement HRP and employee resilience on extra-role performance: Mediating role of employee engagement. *Journal of Indian Business Research*, 10 (2), 126.

Gupta, N. & Sharma, V. (2018). The Comparative Analysis of Employee Engagement Measures: A Theoretical Perspective. *International Journal of Management Practices*, 11(1), 42.

Sharma, V. & Jangbahadur U. (2018). Measuring Employee Development. *Global Business Review* (Scopus Unpaid Indexed), 2018, 19 (2), 455.

Gupta, P. & Sagar, B.B. (2018). Multi-Tenant Security with Virtual Network Using Mining- An Enrichment in Cloud's 'Infrastructure as a Service'. *Journal of Advanced Research in Dynamical & Control Systems*, 10(03), 1265.

Gupta, P. & Sagar, B.B. (2018). Determining Weighted, Utility-Based Time Variant Relationship Rules Using Frequent Pattern Tree. *Journal of Engineering and Education, Ingeniería Solidaria*, 14.

Alam, M.M., Mittal, A. & Chawla, D., (2017). Evaluating Patients' perception towards generic and branded medicines: A Segmentation Approach. *Journal of Generic Medicines*, 13 (4), 184.

Sharma, B., Nag, R. and Makkad, M. (2017). Process Performance Models in Software Engineering: A Mathematical Solution Approach to Problem Using Industry Data. *Wireless Personal Communication*, 97 (2).

Joshi, P., (2017). Impact of big data on computer graphics. *International Journal*

of Advanced Technology and Engineering Exploration (IJTAEEE), Vol 4(32).

Lohmor, S. & Sagar, B.B. (2017). Estimating the parameters of software reliability growth models using hybrid DEO-ANN algorithm. *International Journal of Enterprise Network Management*, (Inderscience Journal), 8(3), 247.

5. Publications in Proceedings

• Published in National Proceeding

Mehta, N., Mediamorphosis: Identity & participation, In *Proceedings of Media Summit on Mediamorphosis: Identity & participation*, Department of Mass Communication, Kishen Chand Chellaram College, Mumbai, 16-17 February 2018.

6. Books

• Single Authored

1. Acharya, P. (2018). *Kidzztale*. Chennai: Notion Press, ISBN No: 978-1-64324-667-3

• Chapter(s) in Edited Book

1. Sharma R., Prasad A. (2018). Employer Brand and Its External Perspective, Flexible Strategies in VUCA Markets under the Book Series on Flexible Systems Management. Springer Singapore. ISSN: 2199-8493.
2. Bharti, A., Mittal, A. (2017). Perishable Goods Supply Cold Chain Management in India, In A. Kumar, S. Saurav (Eds.), *Supply Chain Management Strategies and Risk Assessment in Retail Environments*, (pp. 232-246). Hershey, USA.

SECTION 4**ACTIVITIES/ DAC****7. Student Activities**

Sr. No.	Name of the Activity	Students' Co-ordinator	Faculty Co-ordinator	Date / Duration
1.	Industrial Visit to Moon Beverages (Coca Cola) Pvt. Ltd. Greater Noida (Uttar Pradesh) BBA 2015-2018 Batch	-	Dr. Monika Bisht	23.03.18
2.	Cultural Fest'2018	Nishant, Nikhil, Bharat, Satyam, Sonam, Harshita, Arni, Ratul, Nilansha	Mrs. Rachana Prateek & Ms. Charu Wahi	13.03.18 & 14.03.18
3.	Industrial Visit to Parle Biscuits Pvt. Ltd. Bahadurgarh (Haryana) MBA 2016-2018 Batch	-	Dr. Monika Bisht	6.02.18
4.	Industrial Visit to Yakult Danone India Pvt. Ltd. Sonapat (Haryana) MBA 2017-2019 Batch	-	Dr. Monika Bisht	5.02.18
5.	Essay Competition on the theme:-"My Vision –Corruption Free India"	-	Mrs. Rachana Prateek	2.11.17
6.	Debate Competition on the theme:-My Vision – Corruption Free India"	-	Mrs. Rachana Prateek	30.10.17
7.	Guest Lecture on Media Strategies	-	Mrs. Rachana Prateek	12.10.17
8.	Blood Donation Camp	Samarth Sehgal, Nikhil Anand	Ms. Charu Wahi, Mrs. Seema Sharma & Ms. Ritu Jain	6.10.17
9.	AICTE Anti-Smoking Poster Designing Competition	Karan Sinha	Partha Acharya	4.10.17
10.	Campus Engagement Activity by HDFC AMC (Talk on MUTUAL FUNDS and Career Opportunities with HDFC AMC)	-	Dr. Monika Bisht	20.09.17
11.	Wheebox Employability Skill Test (WEST) 2017 MBA, MCA, BBA & BCA (Pre-final & Final year)	-	Dr. Monika Bisht	18.09.17, 19.09.17 & 25.09.17
12.	Visit to Kiran Nadar Museum of Art, Saket, New Delhi	-	Niket Mehta	08.09.17

Sr. No.	Name of the Activity	Students' Co-ordinator	Faculty Co-ordinator	Date / Duration
13.	Freshers Party & Teachers Day Celebration	Nishant Ranjan	Mrs. Rachana Prateek	05.09.17
14.	Mock Campus: 2017 for MCA & MBA Final- Campus Connect Initiative of NSBT (Nucleus School of Banking Technology, Internal training vertical of Nucleus Software Exports Limited, Noida)	-	Dr. Monika Bisht	12.09.17
15.	Talk on Career Opportunities with PROTIVITI CONSULTING for MBA	-	Dr. Monika Bisht	06.09.17
16.	Visit to Virtual Reality and Augmented Reality Lab	-	Niket Mehta	22.08.17
17.	Seminar on Life Skills- by Dhruva Club	-	Mrs. Rachana Prateek	3.08.17
18.	Guest Lecture on Life Skills	-	Mrs. Rachana Prateek	24.07.17
19.	BIT CAT for BBA, MBA, BCA students	-	Dr. Monika Bisht	22.07.17
20.	Orientation Workshop on Communication skills for all UG & PG 1st Year students	-	Dr. Monika Bisht	13.07.17 & 14.07.17

8. Departmental Academic Committee

Sr. No.	Name of the Member	Designation	Role
1.	Prof.(Dr) Munish Makkad	Director BIT Noida	Chairman (Ex-Officio)
2.	Dr. Asha Prasad	Professor	Member
3.	Dr. Meenakshi Sharma	Associate Professor	Member
4.	Dr. Vandna Sharma	Associate Professor	Member
5.	Dr. Peeyush Tewary	Associate Professor	Member
6.	Dr. Suparna Dutta	Associate Professor	Member
7.	Dr. B.B. Sagar	Associate Professor	Member
8.	Prof. Sanjeev Mittal	Dean, University School of Management Studies, GGIPSU, New Delhi(eminant person in the area of Management)	External Member
9.	Guide(s) of the Candidate		

SECTION 5**OTHER INFORMATION****9. Achievements of Students**

Sr. No	Name of Student	Achievement/Position/Award etc.	Organised by	Date and Venue
1.	Vinayak Animesh Mathur	"Last Chance" - A short film made using cut-out animation technique which gives the message - "Save and protect the nature and environment" made by students of B.Sc. Animation and Multimedia, won Silver Beaver Award	8 th National Science Film Festival of India 2018	20th-24th Feb 2018 , Guwahati, Assam
2.	Arni Gaur, Satyajeet, Tanvi Kapoor	Appreciation Prize	Anti-Ragging Film Competition by UGC	Dec 2017
3.	Satyajeet	SWWAMPURNA – a film, was appreciated by audience at India International Science Film Festival, Chennai	Vigyan Prasar	14th to 16th October 2017

10. Distinguished Visitors

Sr. No	Name of Visitor with Affiliation	Date of Visit	
1.	Mr Neeraj Singhal -CEO, MHF India, AIIMS shared the importance of soft skills with first semester students.	1 Aug 2017	

11. Other information

- Details of Placement 2017-18:**

Campus	Discipline	Branch	Total No. of Students	Placed	Average Salary
Noida	MCA	MCA	03	1	4 LAC
	MBA	MBA	21	10	4.64 LAC
	Animation	B.Sc. A&M (2015-18)	28	11	4 LAC
	Animation	B.Sc. A&M (Hons.)(2014-18)	21	17	3.5 LAC

- Ph. D. Degree awarded to Naik Yogesh Nandakumar (PhD/MB/1064/2010) on the topic "Impact of Emotional Intelligence of Effectiveness of Technical Managers in Information Technology Industry: An Empirical Study" on November 24, 2017.
- Dr. Arun Mittal as Panellist in Panel discussion in Marketing Tact on the topic- The strategist's Lab - How to bring intelligence to beat competition and fuel market domination, under 3rd Global Leadership Research Conference 2018 on the theme of Transformation in Emerging Markets Dimensions of Growth Competitiveness and Governance' held at Amity Business School, AUUP, NOIDA. Amity Business School, NOIDA (Amity University, NOIDA), from 14th to 15th March 2018.
- 2nd issue of Annual College Magazine, designed by a team of Ms. Charu Wahi, Mrs. Preety Bajaj, Mr. Niket Mehta, and Mr. Rahul Dora with student representatives Ankit Mishra, Nayanika Prasad, Ashutosh Jha, Nishant Ranjan & Harshita Goel, was released on 15th September'2017.
- Competitions like 'Essay writing', 'Sketching' and 'Digital Painting Competition', were organised to celebrate Independence Day'2017.

Admission in Ph.D. Programme

During the session 2017-18, total number of research scholars admitted in Engineering, Science, Pharmacy and Management was 7.



Patna Off Campus

SECTION 1

PROFILE



1. About The Campus

Birla Institute Of Technology, Mesra, Patna Campus Came Into Existence In The Year 2006 With The Initiative Of Government Of Bihar And Bit Mesra With A Vision To Provide Quality Education To The Students Of Bihar Who Wish To Pursue Their Career In Technical Education. Bit Patna Is One Of The Best Equipped, Technically Sound Professional College In The State Of Bihar. The Institute Offers Bachelor Of Technology In Civil, Mechanical, Production, Cse, It, Ece And Eee Disciplines. The Institute Also Offers Bba, Bca, M. Tech. (Ece & Cse) And Ph.d. Programmes In Different Disciplines. The Total Number Of Registered Students During Sp 2018 Is 1630.

The Central Library Is Well Equipped With Libsys Software And Enriched With Ieee, Asce, Asme, Ebsco, J-Gate, Science Direct Etc Online Resources. Currently Total Number Of Titles Available In The Library Are 3483, Whereas Book Volume Is 40, 514 And Total Number Of National, International And E-Books Are 49, 9397 And 1, 34,000 Respectively.

Laboratories Of Different Departments Are Well Equipped With Latest Softwares And Good Quality Equipments Required To Provide Quality Education, Research And Training. A Glimpse Of Laboratories Includes Computer Application Lab, Analog And Digital Communication Lab,

Digital Electronics And Integrated Circuit Lab, Circuit Simulation Lab, Microprocessor Lab, Fiber Optics Communication Lab, Instrumentation & Industrial Instrumentation Lab, Vlsi Design Lab, Wireless Communication & Networking Lab, Microwave & Advanced Communication Lab, Power System Lab, Power Electronics Lab, Material Science Lab, Digital Electronics Lab, Digital Signal Processing Lab, Scientific Computing Lab, Measurements & Instrumentation Lab, Ape Lab, Control System Lab, Electrical Machine Lab, Matlab & E-Cad, Microprocessor And Microcontroller Lab, Engineering Mechanics Lab, Fluid Mechanics Lab, Manufacturing Processes Lab, Automobile Engineering Lab, Heat Transfer Lab, Thermal Engineering Lab, Dynamics Lab, Solar Application Lab, Heat Treatment Furnace, 3-Axis Cnc Lathe, Metrology Lab, Tool Design Lab, Work Study Lab, Soil Mechanics Lab, Strength Of Materials Lab, Hydraulics & Hydraulic M/C Lab, Highway Engineering Lab, Field Surveying & Geology Lab Etc.

Training & Placement Office At Patna Is Well Equipped And Designed To Smoothly Handle And Support The Campus Placement Process Of Students At Every Stage. An Average Package Of Rs 5.66 Lakhs Per Annum With The Highest At Rs.13.56 Lakhs Per Annum Has Been Offered Last Year. A Detailed Placement Report Of 2017-18 Batch Is Given Below:

SI	Name of Company	BE							UG Total
		CIVIL	CSE	EEE	ECE	IT	MECH	PROD	
1	Amdocs		1		1				2
2	Analytics Quotient		2						2
3	Byjus - PDA[Content]							1	1
4	Cognizant				1	1			2
5	Coviam		1						1
6	Cybage		3			1			4
7	FICO		2						2
8	Grifeo Technology		3	3	6	4	6	2	24
9	Havells			3	1		1		5
10	IIITan's PACE				1				1
11	Infineon			1					1
12	Infosys		7	2	11	4			24
13	Intel		3						3
14	Mahindra & Mahindra PPO			1					1
15	Mahindra Comviva		1						1
16	Musigma		1	2					3
17	Polestar Solutions				1				1
18	Pyreon Software					2			2
19	Reliance JIO		5		4	4			13
20	Rivigo				1		1		2
21	SAP Labs				1				1
22	Sapient		3		1				4
23	Tele Teach		1	1		1			3
24	VKC Group							1	1
25	VM Ware		1						1
26	Vodafone		3			1			4
27	Wipro		2	1				1	4
28	Zooper		1						1
29	ZS Associates		1						1

Average CTC offered- 5.66 Lacs

SECTION 2**SEMINAR / CONFERENCE****2. Seminar / Conferences / Short – Term Courses Conducted by The Campus**

Sr. No.	Title of Seminar/ Conference/ Short Term Courses/ Workshop	Coordinator	Funding / Sponsoring Agency	Date of Event
1.	One-Day Research Talk by Prof. Atal Chaudhury (Vice-Chancellor, VSSUT)	Dr. Ayan Kumar Das	BIT Patna	19.02.18
2.	One-Day Research Talk by Prof C.T.Bhunia (Director, NIT Arunachal Pradesh)	Dr. Kanhaiya Lal	BIT Patna	11.4.18
3.	Developing Emotional Competencies	Govt. of Bihar	None	19. 08.17
4.	Developing GD & Personal Interview Skills	BIT Patna	BIT Patna	24.08.17
5.	Tips for improving language in natural manner- Language is not to be taught, it is to be caught	Trainer, PACE Academy	None	26.08.17
6.	Employability-Enhancing the ability to get work in the future	Time	None	14.08.17
7.	Increasing the employability Skills	Trainer, Parivartan	BIT Patna	06.10.17 & 07.10.17
8.	How to get the best placement: GD & PI	IMS	None	06.10.17
9.	TechQuiz & CodeNight	BIT Patna	BIT Patna	08.09.17
10.	TECH TALK	BIT Patna	BIT Patna	15.10.17
11.	Innovation in Technology and Development	BIT Patna	BIT Patna	11.10.2017
12.	Android and Networking	Netcamp, Kolkata	None	12.10.17
13.	Techniques for qualifying GATE, ESE & PSU's Entrance Examinations.	ACE & Engineers Academy	None	01.10.17
14.	Cloud & Devops	Red Hat	None	07.11.17
15.	Developing acumen on Analyzing and Interpretation of Case studies	ICFAI	None	14.11.17
16.	Stockmind season-6	ICICI Securities	None	15.11.17
17.	Preparing for the job interview, GD, soft skills, presentation techniques and personal hygiene & presentability	Mr. Waris Sarwar Imam	None	09.02.18

Sr. No.	Title of Seminar/ Conference/ Short Term Courses/ Workshop	Coordinator	Funding / Sponsoring Agency	Date of Event
18.	Anroid Application Development	RPI Consultants(I) Pvt. Ltd.	BIT Patna	07.03.18 to 09.03.18
19.	J-gate training workshop	Dr. Chhaya Yadav	-----	24.01.18
20.	National Conference in Civil Engineering & Sustainable Urban Development (NCCESUD-2018)	Prof. (Dr.) Balram Singh	Various	16.02.18 & 17.02.18

3. Conferences/ Seminars/ Workshops/ Staff Development Programmes Attended By Faculty Members

Sr. No	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1.	Dr. Kaushlendra Sharma	International conference on Nanotechnology	Institute	Dept. of Mechanical and industrial Engineering	I.I.T. Roorkee	06.12.17 to 08.12.17
2.	Dr. Anubha Singh	Civil Engineering and Sustainable Development	Institute	Dept. Of Civil Engineering B.I.T. Patna	B.I.T. Patna	16.02.18 to 17.02.18
3.	Premlata Singh	Solute Transport Model in Semi Infinite Aquifer through Hetrogenous Media	Self	Department of Geology Patna University,	Department of Geology Patna	27.11.17 to 29.11.17
4.	Premlata Singh	National Training Program on scientific computing through MATHEMATICA	Department of Applied Mathematics, IIT(ISM) Dhanbad	Dept. of Applied Mathematics, IIT(ISM) Dhanbad,	Dept. of Applied Mathematics, IIT(ISM) Dhanbad,	04.12.17 to 09.12.17
5.	Premlata Singh	International conference on Numerical Heat transfer and fluid flow.	Institute	NIT Warangal	Department of Applied Mathematics,	18.01.18 to 22.01.18
6.	Premlata Singh	Refresher Course on Concept of fluid dynamics and applications	Department of Applied Mathematics, IIT(ISM) Dhanbad	Dept. of Applied Mathematics, IIT(ISM) Dhanbad	Dept. of Applied Mathematics,	25.06.18 to 06.07.18

Sr. No	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
7.	Dr.Prakash Chandra Srivstava	Recent Advances in Physical Sciences and Future Challenges	Institute	Faculty of Sciences, Osmania University, Hyderabad	Osmania University, Hyderabad	14.07.17 to 16.07.17
8.	Dr.Prakash Chandra Srivstava	Mathematics and its Application in Technology	MHRD Govt. of India.	NGBU, Allahabad & Commission for Science and Technical Terminology MHRD Govt. of India & Commission for Science and Technical Terminology MHRD Govt. of India.	NGBU, Allahabad	16.02.18 to 18.02.18
9.	Dr. Arbind Kumar	National Seminar on Recycling and Reuse of Plastics.		Central University of South Bihar, Patna	Central University of South Bihar, Patna	20.06.18
10.	Dr. S.K Pradhan	International Conference (ICCMS-2017)	Institute	IIT Hyderabad	IIT Hyderabad	27.12.17 to 29.12.17
11.	Dr. Anand Kumar	Advances and soft Computing Applications in design and manufacturing (ASCADM-2018)	Institute	NIT Patna	NIT Patna	04.06.18 to 06.06.18
12.	Prof. Amit Kumar	AMWC-2018	Self	Singapore	Singapore	04.02.18 to 08.02.18.
13.	Prof. Amit Kumar	International Conference (ICCMS-2017)	Institute	IIT Hyderabad	IIT Hyderabad	27.12.17 to 29.12.17
14.	Dr.Ritesh Kumar Badhai	Toward the Era of Millimeter-waves	ICT Academy	NIT Patna	NIT Patna	04.06.18 to 09.06.18
15.	Dr. Shahiruddin	Introduction to Data Structures and Programming in C	Electronics & ICT Academy	NIT Patna	NIT Patna	01.07.17 to 10.07.17

Sr. No	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
16.	Dr. Ayan Kumar Das	First International Conference on "Latest Advances in Machine learning and DATA Science" [LAMDA-2017]	Self	NIT Goa	NIT Goa, Goa	25.10.18 to 27.10.18
17.	Dr. Ayan Kumar Das	The 5th International Doctoral Symposium on Applied Computation and Security Systems (ACSS-2018)	Self	University of Calcutta	University of Calcutta, Kolkata, West Bengal	09.02.18 to 11.02.18
18.	Dr. P.Paul	Active Learning	TEQIP-III	IIT, Gandhinagar, Gujrat	IIT,GN,Gujrat	18.6.18 to 22.6.18
19.	Ratnesh Mishra	one week National Instructional Workshop on "Cryptology" which was organised by Department of Mathematics MNNIT Allahabad ,NIWC-2018.	MNNIT Allahabad & CRSI.	MNNIT Allahabad & CRSI.	MNNIT Allahabad	06.06.18 to 10.06.18
20.	Dr. Upendra Kr	Concept of Cryptographic Engineering	ISEA, Phase-II	NIT, Patna	NIT, Patna	19.02.18 to 23.02.18
21.	Dr. Upendra Kr	Cyber security trends and Technology	Gian, MHRD	IIT, PATNA	IIT, PATNA	14.05.18 to 18.05.18
22.	Dr. Kanhaiya Lal	Short term course on Machine learning Trends, perspective & prospects.	MHRD	IIT BHU	IIT BHU	18.09.17 to 23.09.17

Sr. No	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
23.	Dr. Anamika Nandan	TTP on Developmental Regulations and Built Environment	Council of Architecture, N. Delhi	Architecture Department, MNIT, Jaipur	MNIT, Jaipur	22.01.18 to 26.01.18
24.	Dr. Ashish Mohan Dubey	International Symposium on Frontiers of Infrastructure Finance	TEQIP	Vinod Gupta School of Management, IIT Kharagpur	IIT Kharagpur	14.12.17 & 15.12.17
25.	Dr. Chhaya Yadav	International Short Term Course on Open Source Software for Library Management	Institute	Central Library IIT Kharagpur and National Digital Library of India	IIT Kharagpur	07.05.18 to 12.05.18

SECTION 3

RESEARCH PUBLICATIONS

4. Publications In Journals

• Published In International Journals

- Kour, P., Pradhan, S.k., Kumar, P., Sinha, S.k. And Kar, M.(2017). Study Of Ferroelectric And Piezoelectric Properties On Ca Doped Pzt Ceramics. Materials Today: Proceedings, 4(4), 5727.
- Kour, P., Pradhan, S.k., Kumar, P., Sinha, S.k. And Kar, M. (2017) Effect Of Sr Doping On Electrical Properties Of Lead Zirconate Titanate Nanoceramics, Ferroelectrics, 517:1, 104.
- Kour, P., Pradhan, S.k., Kumar, P., Sinha, S.k. And Kar, M., Journal Of Elec Materi (2018) 47: 2861.
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5. Publications In Proceedings

• Published In International Proceedings

1. Anjuchaurasia, Dr P.c.srivastava, Dr. Y. Gupta., Solution Of Higher Order Boundary Value Problems By Spline Methods. in Proceeding Of The Advancement In Mathematical Sciences.published By The American Institute Of Physics In Proceedings Of 2Nd International Conference, Ramsa 2017.
2. Anjuchaurasia, Dr P.C.Srivastava, Dr. Y. Gupta., Exponential Spline Approximation For The Solution Of Third Order Boundary Value Problems”, In Proceedings Of 2Nd International Conference, Icdmai, 2018, Jan 2018.Itwill Be Published In “Advances In Intelligent Systems And Computing, Springer”, 2018.
3. Rajnish Kumar, Rajiv Ranjan, Mathematical Model Of Marangoni Convection Mhd Flow Of Nanofluids Through A Porous Medium With Radiation Effect.in Proceedings Of Nccesud2018, Organized By Department Of Civil Engg. Bit, Mesra, Patna Campus, 16-17 Feb. 2018.
4. Pradhan, S.k., Effect Of Magnesium Doped Pzt On Dielectric Properties Of PvdF-Pmzt Composite. In Proceedings Of The International Conference Iccms. Iit Hyderabad, December,2017.
5. Kumar, Amit, Prasad & Prasad,K., Cement-Batio₃ Composites For Structural Health Monitoring. In Proceedings Of The International Conference Amwc 2018. Singapore.
6. Utsav, A., Kumar, A. And Badhai, R. K., A Wlan Notched Wideband Monopole Antenna For Ultra Wideband Communication Applications. In Ieee Applied Electromagnetics Conference (Aemc), Aurangabad, India, 2017, Pp. 1-3.
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8. Bhardwaj, P. And Badhai, R. K., Design Of Planar Triple-Band Electrically Small Asymmetrical Antenna For Ism, Wlan And X-Band Applications.in International Conference On Optical And Wireless Technologies, Springer, Jaipur, India, Feb 10-11, 2018.
9. Shahiruddin, Akash Kr. Singh, Dharmendra K. Singh, Single Mode Negative Dispersion Hexagonal Photonic Crystal Fiber. Lectures Notes In Electrical Engineering, Dec 2018.
10. Shahiruddin, Md. Ashique Hassan, Dharmendra Kr. Singh, Comparative Analysis Of Hexagonal Solid Silica And Nitro-Benzene Filled Hollow Core Photonic Crystal Fiber. Iop: Materials Science And Engineering, Feb 2018.
11. Shahli Tabassum, M A Hassan, Shahiruddin, D K Singh, Dispersion Over All Telecommunication Bands With Hexagonal Photonic Crystal Fiber. Ieee Explore, June 2018.
12. Kishan Jhunjunwala, Shahiruddin, M A Hassan, Convective Heat Transport In Viscoplastic Material Due To Localized Heating: An Experimental Approach. Iop: Materials Science And Engineering, Feb 2018.
13. Shahiruddin, D K Singh, Sneha Kumari, Highly Negative Dispersive, Low Loss Single Mode Photonic Crystal Fiber. Lectures Notes In Electrical Engineering,

October 2017.

14. Neha Kumari, Shahiruddin, D K Singh, Md. Ashique Hassan, Design And Analysis Of Rhombus-Shaped Dual-Core Propylene Glycol Filled Pcf. Lecture Notes In Electrical Engineering, Feb 2018.
 15. Shalini, Shahiruddin, D K Singh, Md. Ashique Hassan, Transmission Properties Of Lower Refractive Index Liquid Filled Hexagon Solid Core Pcf. Lecture Notes In Electrical Engineering, Feb 2018.
 16. Keshav Sinha, Annu Priya, Rashmi Kumari, And Partha Paul, "A Computer Vision-Based Gesture Recognition Using Hidden Markov Model", In Proceedings Of _Innovations In Soft Computing And Information Technology (Icemit 2017), Volume 3, May 2018.
 17. Anjali Kumari, Partha Paul, Kumar Rajnish, "Bots A New Evolution Of Robots: A Survey", Proc Of Intt Conference Of Microelectronics, Computing & Communication System (Mccs-18), Artc BSNL, Ranchi, May'12-13'2018. Pp.68.
 18. Amit Kr Keshri, Partha Paul, " Faults In Wireless Sensor Networks Due To Different Attacks: A Survey And Vital Analysis.", Proc Of Recent Trend In Computer Science And Technology, Dept Of Cse, Rvscet, Jamshedpur, Springer, April 24-25'2018, Pp.39.
 19. Amit Kr Keshri, Partha Paul, Keshav Kaushik, " Different Algorithms For Congestion Control In Wireless Sensor Networks: A Survey, Proc Of Computing For Sustainable Global Development", Indiacom-2018, Ieee Conference, At Bvicam, New Delhi, March'14-16'2018, Pp.2443-2448.
 20. Keshri A. K., & Pandey S. K. (2017), Resolving The Protection Framework Of Cyber Consumers In India: A Note. In Proceedings Of The 5th Biennial Conference Of The Indian Academy Of Management (Indam), Indian Institute Of Management, Indore.
 21. Keshri A. K. (2017), Legal Framework Of E-Banking Services In India. In Proceedings Of The 2017 Iim Indore-Nasmei Summer Marketing Conference, Indian Institute Of Management, Indore.
 22. Anurag, Deepak Arora, Upendra Kumar, Secure Sensitive Data Information Through Multiplicative Perturbation Approach Based On Uml Modelling, Progress In Advance Computing And Intelligent Engineering, Springer Verlag, Pp.257-265, (2018)
 23. Neeraj Kumar Upendra Kumar, Anomaly Based Network Intrusion Detection Technique: An Outlier Detection Technique, Springer International Publication, Pp.262-269. (2018)
- **Published In National Proceedings**
 1. Singh, Anubha And Mahto, Bandana ; Rain Water Harvesting Management For Sustainable Development ; A Case Study Of Dhanbad District , Jharkhand , India In Proceeding Of National Conference. Department Of Civil Engineering B.i.t. Mesra Patna Campus.
 2. Kumar, Anand And Mishra, Sabin Kumar. A Novel Technique For Synthesizing In-Situ Al-4.5%Cu/TiC Metal Matrix Composites. In Proceedings Of The National Seminar On Advances And Soft Computing Applications In Design And Manufacturing. Department Of Mechanical Engineering, Nit Patna, June, 2018.
 3. Sehgal. R, Dubey. A.m. & Tiwari. N., Factors For Effective Implementation Of Public Private Partnerships In Infrastructure. In Proceeding Of The International Symposium On Frontiers Of Infrastructure Finance, Vinode Gupta School Of Management, Indian Institute Of Technology, Kharagpur, 2017.
6. **Books**
 - **Edited Books**
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2. Subhash Chandra Pandey. (2018). Protein Synthesis Based Discretization Method For Knowledge Discovery. Data Intensive Computing Applications For Big Data, Vol. 29. Ios Press.
 3. Subhash Chandra Pandey. (2017). Mind, Machine, And Image Processing. Deep Learning For Image Processing Applications, Vol. 31. Ios Press.
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Apache Spark. Big Data Processing Using Spark In Cloud, Vol. 43. Springer.

SECTION 4

AWARD/ PATENT/ COLLABORATIONS

7. Mous / Collaborations

Sr. No.	Name of Organisation / University	Purpose / Area	Year / Duration
1.	Bihar Prashasnik Sudhar Mission Society, Department of General Administration, Govt. Of Bihar.	Research Publication and Case analysis	1 year

SECTION 6

ACTIVITIES/ DAC

8. Student Activities



Sr. No.	Name of the Activity	Students' Co-Ordinator	Faculty Co-ordinator	Date / Duration
1.	SAE BAJA INDIA	Alokik Prateek (5 th)	M.A Hassan	3.02.18
2.	Makeover of a tea seller shop (Dhaba) outside BIT Campus which gained media attention	Shubham Kumar	-	March 2018
3.	Workshop on "Best out of Waste"		Dr Anamika Nandan	09.09.17 & 10.09.17
4.	Design and execution of an open restaurant at Gandhi Maidan	Students of 2k15 batch	Ar Anupam Sunil	July to September 2017
5.	Visit to Buddha Smriti Park for 2k15 batch for understanding the landscape elements		Anushree Barman	09.08.17
6.	Workshop on Stock-Mind Season 6		Dr. Vijay Agrawal	15.11.17
7.	Increasing the employability Skills		Dr. Vijay Agrawal	06.10.17 & 07.10.17




Sr. No.	Name of the Activity	Students' Co-Ordinator	Faculty Co-ordinator	Date / Duration
8.	Annual Technical Fest "ABHIVYAKTI' 17"	IEEE student chapter	Dr. Sanjay Kumar	03.11.17 to 05.11.17

SECTION 6**OTHER INFORMATION****10. Achievements Of Students**

Sr. No	Name of Student	Achievement/Position/Award etc	Organised by	Date and Venue
1.	Rishav Sankrityayan	Completed the course "Transformation of a city : Singapore" (Course was conducted at Singapore)	CEPT University	09.05.18 to 17.11.18 Singapore
2.	Students of 2k15 batch	Participated in ANDC competition and qualified for the same	NASA-COA	September October 2017

11. Distinguished Visitors

Sr. No	Name of Visitor with Affiliation	Date of Visit	Picture
1.	Dr Fulena Rajak (Professor, NIT Patna)	17 th May 2018	
2.	Ar. Alok Kumar (Practicing Architect at Muzaffarpur)		
3.	Abhishek Sharma (IIA Vice Chairman, Bihar Chapter)	8 th May 2018	

Sr. No	Name of Visitor with Affiliation	Date of Visit	Picture
4.	Dr. Shubhajit Sadhukhan, (Asst. Professor N I T Patna)	20 th April 2018	NA
5.	Ar. C.S.Sinha, (Past IIA Chairman, Bihar- Jharkhand, senior practicing architect at Patna)	5 th February 2018	
6.	Mr Atul Sinha, Director, Science and Technology	10 th September 2017	
7.	Mr. Anand Kishore, Commissioner of Dist. Patna	10 th September 2017	

Sr. No	Name of Visitor with Affiliation	Date of Visit	Picture
8.	Mr. Ben (France) Mr Prashant (India) As trainer in the workshop "Best out of Waste"	9 th & 10 th September 2017	
9.	Many senior Patna Based architects Ar Shyam Kishor- COA representative from Bihar Ar Ram Yatan Prasad – retd. Deputy Architect, PRDA Ar Awadhesh Prasad – Retd. Chief Architect, Bihar Police bldg. Constn. Department Ar Dhananjay Kumar- Senior Architect, Bihar Police bldg. Constn. Department	9 th and 10 th September 2017	

12. Other Information

- 1) "Start-Up India" Project Sanctioned By Dept. Of Industry; Govt. Of Bihar Is Running At Our Campus.
- 2) Student Of Bit Patna Secured 1st Position In National Level Of Hackathon Competition Organized By Ministry Of It, Govt. Of India.
- 3) Students Of Bit Patna Secured 1st & 3rd Position In State Level Of Bihar State Hackathon Competition Organized By Dept. Of It, Govt. Of Bihar.
- 4) One Of Our Students Was Chosen As Google Brand Ambassador For The Consecutive Three Years.
- 5) Be-Final Year Students Have Won National Level 'Hunar'; A Case Study Competition

Organized By Zaro Education Of Prize Money Rs. 3Lacs.

- 6) Bit Patna Students Had Participated Upto Third Level Of Schaeffer India Innovation Competition at Pune.
- 7) Bit Patna Team Of Volleyball, Football, Table Tennis (Men & Women), Badminton, Carom And Basketball (Women) Was Winner During The Inter College Sports Fest "Prakrida" During 9th To 11th March 2018, Whereas Team Of Lawn Tennis And Basketball (Men) Was Runner Up.

Admission In Ph.D. Programme

During The Session 2017-18, Total Number Of Research Scholars Admitted In Engineering, Science, Pharmacy And Management Was 2.

University Polytechnic

SECTION 1

PROFILE



1. About the Polytechnic

The University Polytechnic offers Diploma in Engineering program in six different disciplines and a Bachelors in Medical Lab Technology (BMLT) program. The University Polytechnic is fully residential. It has well equipped library, laboratories, T&P cell, NSS, sports, games facilities and other amenities. Most of the faculty at University polytechnic are doctorate and have good expertise in their respective areas. The University polytechnic functions as a genuine laboratory of ideas and innovative solutions to produce globally competent technical manpower.

SECTION 2

PROGRAMMES OFFERED

Sr. No.	Programmes 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.	Bachelors in Medical Lab Technology	2005	60

SECTION 3**ADMISSIONS AND REGISTRATION**

Diploma	Branch	No. of Students	Total
MO 2017			
1 st Semester	Automobile + Mechanical + EEE + Computer + Manufacturing + Electronics		170
3 rd Semester	Automobile	50	167
	Mechanical	27	
	EEE	29	
	Computer	23	
	Manufacturing	12	
	Electronics	26	
5 th Semester	Automobile	50	182
	Mechanical	27	
	EEE	30	
	Computer	25	
	Manufacturing	24	
	Electronics	26	
1 st Semester	BMLT	35	
3 rd Semester	BMLT	44	
5 th Semester	BMLT	53	
SP 2018			
2 nd Semester	Automobile + Mechanical + EEE + Computer + Manufacturing + Electronics		167
4 th Semester	Automobile	50	165
	Mechanical	27	
	EEE	29	
	Computer	22	
	Manufacturing	12	
	Electronics	25	

Diploma	Branch	No. of Students	Total
6 th Semester	Automobile	47	173
	Mechanical	23	
	EEE	29	
	Computer	25	
	Manufacturing	24	
	Electronics	25	
2 nd Semester	BMLT	33	
4 th Semester	BMLT	43	
6 th Semester	BMLT	53	

SECTION 4**TRAINING AND PLACEMENT**

Sr. No.	Name of Company	No. of Students Placed
1.	Mahale Filters	20
2.	GE Diesel Locomotive	07
3	L&T (Team Lease)	19
4	Mildtrix	03
5	Spicer India Pvt. Limited	03

SECTION 5**INDUSTRIAL VISITS**

Sr. No.	Name of Company	No. of Students Visited
1.	Jharkhand Electricity Sub Station, Mesra	50
2.	Jharkhand Government Mini Tool Room and Training Centre, Tatisilwai	180
3.	Meditron, SIRTDO Industrial Area, Mesra	25
4.	Sudha Dairy, Ranchi	53

SECTION 6**SEMINAR / CONFERENCE****2. Seminar / Conferences / Short – Term Courses Conducted**

Sr. No.	Title of Seminar/ Conference/ Short Term Courses/ Workshop	Coordinator / Joint Coordinator	Funding / Sponsoring Agency	Date of Event
1.	Research methodology for project work	Dr. Satish Kumar/ Dr. Trilok Kr. Parashar	Institute	24 – 30 August, 2017
2.	Training Programme on Recent Advances in Genetic Engineering	Dr. Neeru Singh / Dr. Mohd Neyaz Ahsan	Institute	01-08 December, 2017
3.	A Computer Skills Development Program Level-II	Dr. G M Ansari	Institute	11-17 May, 2018

3. Conferences/ Seminars/ Workshops/ Staff Development Programmes attended by Faculty Members

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
1.	Mr. Abhay Kumar	Speech Representation, Perception & Recognition	MeitY	Deptt. of Electronics communication Engineering, BIT Mesra, Ranchi	BIT Mesra Ranchi	July 03-07, 2017
2.	Dr. Trilok Kumar Parashar	Speech Representation, Perception & Recognition	MeitY	Department of ECE, BIT Mesra	BIT Mesra	July 03-07, 2017
3.	Mrs. Nirupam	Speech Representation, Perception & Recognition	MeitY	Department of ECE, BIT Mesra	BIT Mesra	July 03-07, 2017
4.	Dr. Meena Singh	Faculty Development Programme in Entrepreneurship	Dept of Science and Technology	XISS Ranchi	XISS Ranchi	20 Nov-04 Dec., 2017
5.	Mr. Abhay Kumar	Orientation course for NSS programme offices	Deptt. of Youth Affairs & Sports Govt. of India	Ramakrishna Mission Ashrama, Narendrapur kolkata,	BIT Mesra Ranchi	Dec. 16-22, 2017

Sr. No.	Name of the Faculty	Title of the Conference/ Seminar	Funding Agency	Organizers	Venue	Date
6.	Dr. Sandhya Rani	A swot analysis of promising green power technology, International conference on Energy, Material, and Information Technology, ICEMIT	-	Amity University	Noida	23 -24 Dec 2017
7.	Dr. Shambhu Sharan	3rd International Conference on MCCS-2018	IETE & ISVE, Advanced Regional Telecom Centre, BSNL	BSNL	Ranchi	May 12-13, 2018
8.	Md Maqubool Hosain	3rd International Conference on MCCS-2018	IETE & ISVE, Advanced Regional Telecom Centre, BSNL	BSNL	Ranchi	May 12-13, 2018
9.	Mr. Abhay Kumar	Induction Programme	AICTE	BIT Sindri	BIT Sindri	June 04–06, 2018
10.	Mr. Ramnish Sinha	Induction Programme	AICTE	BIT Sindri	BIT Sindri	June04–06, 2018
11.	Mr. Rakesh Kumar	Induction Programme	AICTE	BIT Sindri	BIT Sindri	June04–06, 2018
12.	Dr. (Mrs) Sumana Kumari	FDP	IIT, Mumbai	Indian Institute of Technology	Mumbai	17 May- 27 June, 2018
13.	Dr. Chanchal Mishra	FDP301x Mentoring Educators in Educational Technology	IIT, Mumbai	Indian Institute of Technology	Mumbai	17 May- 27 June, 2018
14.	Dr. Trilok Kumar Parashar	Science Academies 99 th Refresher Course on Experimental Physics	-	Department of Physics	BIT Mesra	14June-29June-2018

SECTION 7**RESEARCH PUBLICATIONS****4. Publications in Journals**

- **Published in International Journals**

1. Kumar, A., Pandey, J & Kumar, S. (2018), Biosorptive removal of arsenite and arsenate from aqueous medium using low-cost adsorbent derived from 'Pods of green peas': Exploration of kinetics, thermodynamics and adsorption isotherms, Korean Journal of Chemical Engineering, 35(2), 456.
2. Parashar, T.K. (2017). Computer aided modeling of HgCdTe based photodetector NO₂ gas detection. International Journal of Recent Trends in Electrical and Electronics Engineering. 2231.
3. Singh, M. (2018). Floating admittance Matrix approach to Model development of active devices and circuit Lecture notes in Electrical Engg book series. (476), 267.
4. Kumar, S.S. (2018). Synthesis and Performance Study of Nano-particles modified Polyurethane Composite Coatings, IJREAS, 3(1), 12.
5. Kumar, S.S. (2018). Effective Bottom-up Synthesis and Characterization of Nano-ZnO Particles, IJREAS, 3(1), 37.
6. Mishra, C.K., Sasmal, D., & Kumar, D. (2017). In Vitro antioxidant activity of chloroform and ethanolic fruit and root extracts of Carissa carandas linn. Journal of Bio. Innov. 6(5), 741.

5. Publications in Proceedings

- **Published in International Proceedings**

1. Parashar, T.K., Modeling and Simulation Infrared Photodetectors for MWIR & LWIR, In proceedings of International Journal of Engineering Technology Science and Research (IJETSR), Institution of Electronics and Telecommunication Engineers, Bengaluru, Karnataka, 2017.

2. Parashar, T.K., Theoretical Modelling of Basics Parameters of HgCdTe Material, In proceedings of International Journal of Electronics, Electrical and Computational System (IJEECS), Institution of Electronics and Telecommunication Engineers, Bengaluru, Karnataka, 2017.
3. Hosain, M.M., Kumari, S., Tiwary, A.K., Design of Circular Disc Monopole Antenna for UWB Application" in proceeding of International Conference on Microelectronics, Computing & Communication System, Lecture Notes in Electrical Engineering, 2018.
4. Singh, M., Analysis of Growth Rate of Tikka Disease Using Image Processing, In Proceedings of 3rd International conference on Microelectronics Computing and Communication Systems, IETE & ISVE, Advanced Regional Telecom Training center, BSNL, Ranchi, Jharkhand, 2018.
5. Singh, M., Performance Analysis of Tunable Third and Fifth Order Band Pass Filter Using an Active Inductor, In Proceedings of 3rd International conference on Microelectronics Computing and Communication Systems, IETE & ISVE, Advanced Regional Telecom Training center, BSNL Ranchi, Jharkhand, 2018.

- **Published in National Proceedings**

1. Kumar, S.S., Jha, S.K., Paswan, M.K., Narvi, S.S., & Pandey N.D. Improvement in Anti-aging and Anti-weathering Properties of Nano-Composite Coatings by the Incorporation of Graphene Nano-materials", in proceedings of National Conference on Design and Innovation, I.I.T. Delhi, 2017.
2. Kumar, S.S., & Jha S.K., Advances in the Synthesis of Nano Composite Coatings, in proceedings of "National Conference on Design and Innovation, Indian Institute of Technology, Delhi, 2017.

SECTION 8**AWARD / PATENT / COLLABORATIONS****6. Award / Recognition Bestowed on Faculties**

Sr. No.	Name of the Faculty Member	Title of the Award / Honour	Organisation	State / National / International Level	Year / Duration
1.	Abhay Kumar	Presentation on "My village" 2 nd position	National Integration Camp, Vishwakarma Govt. Engineering College, Ahmedabad	National	12 th - 18 th , August 2017

7. MoUs / Collaborations

Sr. No.	Name of Organisation / University	Purpose / Area	Year / Duration
1.	Reliance JIO	Installation of wi-fi in the college campus and provide free internet to staff and students	2018

SECTION 9**ACTIVITIES/ DAC****8. Student Activities**

Sr. No.	Name of the Activity	Students' Co-ordinator	Faculty Co-ordinator	Date / Duration
1.	Unifesto- 2018	NA	Dr. Chanchal Mishra	April, 13-14, 2018
2.	Art & craft exhibition	NA	Dr. Sandhaya Rani	05 Feb 2018
3.	Fete and Food Carnival, 2018	NA	Dr. Sandhaya Rani	22 Jan 2018
4.	Anveshan Anveshan-2017 Technical Fest	NA	Dr. Satish Kumar	November 9-10, 2017

9. Board of Studies

Sr. No.	Name of the Member	Designation	Role
1.	Dr. P. Padmanabhan	Dean AP, BIT Mesra	Chairperson (Ex-Officio)
2.	Prof. (Dr.) S.S. Solanki	Professor and Director, University Polytechnic	Vice-Chair Person (Ex-Officio)
3.	Dr. J.P Pandey	Professor and Controller of Examination	Vice-Chair Person (Ex-Officio)
4.	Dr. R.P. Sharma	HOD, Mechanical, BIT, Mesra	Member Ex-Officio
5.	Dr. Sanjay Kumar Jha	HOD, Production, BIT, Mesra	Member Ex-Officio

Sr. No.	Name of the Member	Designation	Role
6.	Dr. P.R. Thakura	HOD, EEE, BIT, Mesra	Member Ex-Officio
7.	Dr. Srikanta Pal	HOD, ECE, BIT, Mesra	Member Ex-Officio
8.	Dr. Vandana Bhattacharjee	HOD, CSE, BIT, Mesra	Member Ex-Officio
9.	Dr. S. Samanta	HOD, Pharmacy, BIT, Mesra	Member Ex-Officio
10.	Mr. Arvind Kumar	GM, JSPL, Patratu	External Member
11.	Dr. P.K. Chatterjee	GM, Mecon	External Member
12.	Mr. Arvind Prasad	GM, BSNL	External Member
13.	Mr. N.C. Agarwal	CEO, Meditron	External Member
14.	Mr. Pratyush Pathak	SDE, BSNL	External Member
15.	Mr. Ashok Prabhakar	SDE, BSNL	External Member
16.	Dr. Noman Alam	Microbiologist, Medanta	External Member
17.	Mr. Lalji Prasad	Assistant Enginner, JSEB	External Member
18.	Mr. Dhiman Das	Proprietor, Mind Tree, Tatisilwai	External Member
19.	Dr. Shambhu Sharan Kumar	Assistant Professor	Member
20.	Mr. Ramkesh	Assistant Professor	Member
21.	Mr. Rekha Kumari	Assistant Professor and Coordinator	Member
22.	Mr Manoj Kumar	Assistant Professor and Coordinator	Member
23.	Mr. Rakesh	Associate Lecturer	Member
24.	Mr. P. Toppo	Assistant Professor	Member
25.	Dr. G.M. Ansari	Assistant Professor and Coordinator	Member
26.	Mr. Ramnish Sinha	Assistant Professor	Member
27.	Dr. Sumana Kumari	Assistant Professor and Coordinator	Member
28.	Dr. Meena Singh	Assistant Professor and Coordinator	Member
29.	Mr. N.K. Mukherjee	Associate Lecturer	Member
30.	Dr. Mohd. Neyaz Ahsan	Assistant Professor and Coordinator	Member
31.	Dr. Neeru Singh	Assistant Professor	Member
32.	Dr. T. K. Parashar	Assistant Professor	Member

Sr. No.	Name of the Member	Designation	Role
33.	Mr. R.K. Chatterjee	Assistant Professor	Member
34.	Ms Sada Firdaus Alam	Guest Faculty	Member

SECTION 10**OTHER INFORMATION****10. Achievements of Students**

Sr. No	Name of Student	Achievement/Position/ Award etc.	Organised by	Date and Venue
1.	Aditya Tirkey (Roll No. D02/15) and Subash Chandra Majhi (Roll No. D24/15)	1st prize in Innovation meet (Project presentation: IZM1804) in the 3rd International Conference on MCCS-2018	IETE & ISVE	Advanced Regional Telecom Centre, BSNL, Ranchi, Ranchi, May 12-13, 2018
2.	Priya Kumari (D95/15) and Shravan Mahto (D/78/15) EEE branch	3rd Prize for project Arduino based Automatic soil irrigation in International Conference on MCCS 2018	IETE & ISVE	Advanced Regional Telecom Centre, BSNL, Ranchi Ranchi, May 12-13, 2018
3.	Deepak Kumar (D97/16)	First rank (State level) in National Skill Development Competition, Automotive Technology	National Skill Development Corporation	12 May, 2018, Ranchi
4.	Naushad Alam (D6/14)	First rank (State level) in National Skill Development Competition, Welding	National Skill Development Corporation	12 May, 2018, Ranchi

11. Distinguished Visitors**Name of Visitor**Rakesh Kumar
AGM, BSNL

Date of Visit

9th – 10th Nov.'17Nirmal Choudhary
AGM, BSNL9th – 10th Nov.'17N.C. Agarwal
CEO, Meditron9th – 10th Nov.'17

**Name of Visitor**

Dr. Rehan Ahmad,
Associate Professor, RIMS,
Ranchi

Date of Visit

17th Nov.' 17

Mr. Basudev Jethi &
Mr. Bipin Sahi,
Business Manager, CIPLA
Pvt

17th Nov.' 17

Dr. Sushil Kumar,
Head, Red Cross Society,
Ranchi Medical Officer

13th – 14th April'18**Name of Visitor**

Dr. A.K. Agarwal,
Doctor, Red Cross Society,
Ranchi

Date of Visit

13th – 14th April'18

Er. Shailesh Krishna,
Engineer, AVEON,
The Cycle Man

13th – 14th April'18

Dr. Ranjit Prasad,
CEO, Help Diabetics, Head,
Maa Ram Pyari Hospital,
Ranchi

13th – 14th April'18

Sr. No	Name of Visitor with Affiliation	Date of Visit
1.	Mr. Kamlesh Mishra, Senior Regional Manager, CIPLA Pvt.	17 th Nov.'17
2.	Mr. M.K.Gupta, Principal, MSME Tool ROOM	13 th – 14 th April '18
3.	Mr. S.B.Singh, (Ex-Director), MSME Development Institute	13 th – 14 th April '18

12. Other Information**1. Invited Lecture:**

- Dr. Satish Kumar, delivered Invited Lecture in Theme meeting on Analysis, remediation of potable water from Arsenic & Fluoride held at Bhabha Atomic Research Centre, Trombay, Mumbai from July 14-15, 2017, Sponsored by the Board of Research in Nuclear Sciences, Department of Atomic Energy, India.
- Dr. Meena Singh delivered a lecture as resource person during conference on "Advances in Electrical & Information

Communication Technology", AEICT-2018 on April 13-14 2018 organised by dept of Computer science and Engg, RV Institute of technology Bijnor,

2. Jury Member

- Dr. Satish Kumar, served as Jury Member in INSPIRE AWARD MANAK SCHEME (Science exhibition) organized by Deptt. of Science & Technology, Govt. of India and Education deptt. at Jamshedpur on 15th February, 2018, at Ranchi on 17th February, 2018 & in State Level program of Jharkhand a Ranchi on 28th February, 2018.

3. Annual Sports

1. Inter Semester Football tournament was held on 21st September, 2017 Winning Team - 2015 Batch , Runners Up -2016 Batch.
2. Inter Semester Volleyball Tournament was held on 27th October, Winning team 2015 batch, Runners up - 2016 batch.
3. Inter semester Cricket Tournament was held in the month of 11th November, winning team - 2016 batch.
4. Annual Athletic Meet was organised between 6-7, February, Over all Championship -Electronic Branch.
5. CROSS country Race was organised on 30th January 2018 for both men and women of University Polytechnic.
6. Inter hostel Night Volleyball Match was held in the month of February 2018 and the Winner was Hostel no- 1.

4. NSS Activities

- NSS of University Polytechnic organized various activities like Digital India Pilot Programme, Literacy programme, Cleanliness awareness and drive campaign, free coaching and guidance of SC and ST, minority section and weaker section of the society, Beti Bachao and Beti Padhao abhiyan, etc., for its adopted village like, Neori, Kedali, and Chuttu.
- Plantation of 800 fruitful trees at University campus from IWMP Project Kanke watershed P.I.A., BIT Mesra.
- A Yoga Session was organised On the Occasion of International Yoga Day (21st

June 2018) for All the Faculty of University Polytechnic.

5. Others

- Mr. Manoj Kumar is Coordinating Unnat Bharat Abhiyan, MHRD programme initiated by Government of India with the objective to engage higher education Institution to understand and work in rural areas.
- Dr. Chanchal Mishra was appointed as Associate faculty for two FDPs (FDP100x and FDP200x) from IIT Bombay for RC1331, BIT Mesra, Ranchi (Jharkhand) on Use of ICT in Education for online and Blended Learning, Conducted by IIT June 2017 to June 2018.
- Dr. Chanchal was Invited for Learner-Centric MOOC: From Conceptualizing to conduction, Sponsored by Pandit Madan Mohan Malaviya National Mission for Teachers and Teaching (PMMMNMTT), MHRD, Gol. held on 24-25 Nov. 2017 at IIT Bombay, Mumbai.
- Dr. Chanchal Mishra Coordinated "Awareness and Vaccination camp for Hepatitis- B" in association with CIPLA Pvt. Ltd. on 14th September 2017 to Aug. 2018.
- Dr. Chanchal Mishra organized "Free Health Check-up Camp- 2017" in association with SADAR Hospital, Ranchi on 12 September 2017.
- University polytechnic Library operations have been automated with the help of an online source integrated library software package, KOHA. The book database is accessible through OPAC (Online Public Access Catalogue).



Technical Education Quality Improvement Programme



Introduction and Objectives

The Project, Third phase of Technical Education Quality Improvement Programme (referred to as TEQIP-III) is fully integrated with the Twelfth Five-year Plan objectives for Technical Education as a key component for improving the quality of Engineering Education in existing institutions with a special consideration for Low Income States and Special Category States and support to strengthen few affiliated technical universities to improve their policy, academic and management practices. Based on the good performance in TEQIP-I and TEQIP-II and on the strength of our Institutional Development Proposal (IDP) for TEQIP-III, our Institute has been selected to participate in TEQIP-III.

Birla Institute of Technology is selected under sub-component 1.1 in which the Institute will receive Rs. 15 crores for Improving quality and equity in engineering institutions.

BIT is under the twinning arrangements to Build Capacity and Improve Performance of the institutions in partnership with Institute of Chemical Technology, Mumbai.

Induction programme for the benefit of newly joined students of first year B. Tech, Workshops for pedagogy training, improve student learning, Graduate employability, Faculty and Staff development, Joint research projects, Research and Development, Mentoring/Twinning, Management Capacity Development, Industry-Institute Interaction

etc., Establishment of Infrastructure for SWAYAM PRABHA, enhanced GATE participation rate and Joint activities with Industry are among the main objectives of TEQIP-III.

Details of Activities Carried out

a. Improvement in Teaching, Training and Learning Facilities:

- *Up gradation of Existing laboratory facilities:*
3D Printer and 3D Scanner has been purchased through TEQIP-III for Mechanical Engineering department

Microbial Bench top Autoclavable Fermentor purchased for Bioengineering Department

Desktop, UPS and Printer has been purchased for new faculties recruited by NPIU.

Furniture's are also procured for new faculty members recruited by NPIU.

b. Faculty and Staff Development:

Faculty and Staff Development is an important component of TEQIP. Following activities were conducted under head FSD during the period:

Two hundred seventy seven (277) faculty members were financially supported for attending seminar, conference, workshop, training programme etc. under TEQIP.



Workshop on Academic Writing



ICT Mumbai and BIT Mesra Team



Interaction on Outcome based Education

Workshop/Training program/ Conferences organized under TEQIP

Sr. No.	Title of Programme	Programme Duration
1.	Workshop on Cyber Crime and Investigations	18-22 December, 2017
2.	Short term Course on Automata Theory, Formal Language and Compiler Design	08-14 December, 2017
3.	Workshop on Academic writing	13-15 December, 2017
4.	Workshop on Outcome based Education	18-19 March, 2018
5.	IICHE	6-8 April, 2018
6.	Workshop on Industrial Process Simulation	15-20 May, 2018

c. Development of Research Interest among student

- BE/ME/MTech/PhD students have been financially supported for attending Seminar/Conference etc. from TEQIP fund.

- Eight UG Students and two PG students participated in Summer Internship at ICT Mumbai under TEQIP-III.

d. Support to Start Up activities

- a. E-Summit2018 E-Summit is annual flag ship event of EDC BIT Mesra. It is a unique plat form for academicians, budding entrepreneurs, eminent business personalities, venture capitalist sand the students. It was a two day event and witnessed well known personalities like:

- Yukti Kapoor Mehendirata (CEO, Silhouete byYukti)
- Devesh Chawla (CEO, Chatur Ideas)
- Amit Kumar (Vice President, QUIKR)
- Satish Kataria (CEO, Catapooolt)

- Varun Seth (CEO,Keto)

- b. Workshop by Sourabh Dafria: The guest lecture by Sourabh Dafria was a business cum interaction workshop. The workshop was focused to seed the entrepreneurial skil in young minds. He came up with very simple but effective tools of starting something new and innovative.

e. Other Information

- a. Annual Technical Student Fest of BIT, Mesra: PANTHEON 2017 was held during 13-15 Oct 2017 has been financially supported through TEQIP-III.
- b. Team Srijan and Team Aveon were also financially supported from TEQIP-III for participation of racing cars.



National Cadet Corps



About NCC at 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 2017-18 batch.

NCC has 200 cadets on its roll who are given basic knowledge in Corps EME, Corps Engineers and Corps Signals. NCC also enhance the overall personality of the Cadets and shaping young minds as well as inculcating nationalism, patriotism and building good citizen among new generation youths

No. of students enrolled

Total Students: 200

- Boys: 134
- Girls: 66

Achievements of NCC

- Roll No. BE/10500/12 Regimental No. B&J/SD/88286/12 Cadet Lekh Raj Meena has been selected in Indian Military Academy.
- Roll No. BE/10014/17 Regimental No. JH17SDA616001 Cadet Harsh Dev Verma has been selected in Indian Naval Academy.

NCC Team

Sr. No.	Name of Faculty Member / NCC Officer	Department / NCC	Designation
1.	Kishore Kumar Senapati	CSE Department	Lieutenant
2.	Amritanjali	CSE Department	Caretaker Officer

Major Activities

In session 2017-18, 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 color and fanfare to the parade. The following major activities were conducted by the NCC:-

- Live firing of .22 Rifles by cadets.
- Participation in Republic Day and Independence Day Parade.
- Tree Plantation by cadets.
- Blood Donation by the entire NCC Team incl the cadets.



Parade



National Service Scheme



NSS Visit to Old Age Home



Prabhath Pheri

About NSS at BIT Mesra

Birla Institute of Technology, Mesra offers NSS as an elective subject in all undergraduate programs for 1st and 2nd year students. NSS, BIT Mesra organises regular and special activities in the ten adopted villages namely Rudia, Panchauli, Kenduatoli, Humbai, Mesra East, Mesra West, Neori, Chuttu, Kedal and Navatoli.

National Service Scheme 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 the 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.



Independence Day Activities

Units and Students detail

- No. of units in NSS: 09
- No. of students enrolled:

Total Students: 607

- Boys: 414
- Girls: 193

Achievements of NSS:

- The delegation of volunteers representing NSS BIT Mesra at the National Integration Camp being held at Ahmedabad (Gujarat) was presented with an 'Outstanding Achievement Award' for their skit on the theme 'Swachh Bharat'.
- Ex-President of NSS Shalini Lala went to China for 'International Student Exchange Program'.

NSS Team

Sr. No.	Name of Faculty Member	Department	Designation
1.	Mr. O.P. Pandey	Mechanical Engg.	Program Coordinator
2.	Mr. Gautam Shandilya	HMCT	Program Officer
3.	Dr. Yogender Aggarwal	Bio Engineering	Program Officer
4.	Dr. Shashank Pushkar	Computer Sc. & Engg	Program Officer
5.	Dr. Syeda Darakhshand Jabeen	Mathematics	Program Officer
6.	Dr. Prabjot Kaur	Mathematics	Program Officer
7.	Mr. Pranjal Kumar	HMCT	Program Officer
8.	Dr. Praveen Srivastava	HMCT	Program Officer
9.	Dr. Abhijeet Nag	Mechanical Engg.	Program Officer
10.	Dr. Sanjeet Kumar	ECE	Program Officer

The major programs conducted by NSS BIT Mesra

- 1. Plantation Drive:** Plantation Drive was organized in the college campus where 120 saplings were planted by 148 NSS volunteers on 29th July, 2017, at BIT Mesra by Shri Rahul Sharma.
- 2. Village Education Awareness Drive:** The zealous volunteers went to the villages adopted by the NSS, BIT Mesra, to create awareness about "Village Education Program" among the residents.
- 3. Swacchta Pakhwada:** A 15 day pakhwada under the Swachh Bharat Mission was undertaken by NSS BIT Mesra, in which events such as cleaning the campus, villages and hostels had taken place.
- 4. Orientation Programme:** NSS, BIT Mesra organized an orientation programme for the newly enrolled NSS Volunteers on 1st August, 2017 wherein 182 volunteers were notified about the activities of NSS.
- 5. Prabhat Pheri:** "Prabhat Pheri" was organized on the morning of Independence Day by the NSS, BIT Mesra in which both volunteers and faculty members rallied in the nearby adopted village and the campus.
- 6. Blood Donation Camp:** Blood Donation Campaign was organized by NSS BIT Mesra in the Institute Dispensary. In this camp about 300

students (including NSS volunteers and other institute students) participated and donated blood.

7. **Health Check-up Camp:** Free Health Check-Up Camp was organized by NSS BIT Mesra on 9th September, 17 in Mesra West Panchayat Bhavan. The camp focused on the general medical health check-up and some minor medical tests which include: Blood Sugar, ECG, Blood Pressure, Pulse etc. People from neighboring villages participated in great numbers
8. **NSS Day:** On this day, Volunteers of NSS BIT Mesra took a pledge to take initiatives aimed for the up-liftment of the adopted villages and the society.
9. **Road Safety Week:** NSS BIT Mesra devoted a week to Road Safety and urged everyone to take a small step of caution and develop it into a gratifying lifestyle.
10. **Cheshire Home Visit:** The volunteers of National Service Scheme, BIT Mesra visited the Cheshire Home orphanage situated in Bariyatu. The volunteers interacted with the differently abled and mentally challenged people and helped them with their daily exercise.
11. **Unity Day:** To commemorate the birth anniversary of Sardar Patel, a slogan writing competition and a speech competition was organized by NSS BIT Mesra.
12. **Jharkhand Foundation Day:** NSS BIT Mesra celebrated the foundation day of our beloved "Land of Forests" so as to commemorate the end of a mammoth struggle of the inhabitants of Jharkhand for their individual identity.
13. **National Youth Day:** NSS BIT Mesra, conducted myriad events to instill, in every college going student and villager nearby, a sense of responsibility.
14. **Road Safety Week:** NSS-BIT Mesra organized a road safety awareness campaign in the campus. NSS volunteers toured the entire BIT campus, spreading awareness about the importance of safety measures on road.
15. **Prabhat Pheri:** Celebrating 65 years of India becoming a republic, volunteers of NSS, BIT

Mesra organized a Prabhat Pheri in the campus premises. Energized volunteers gathered for this event with flags and banners, shouting slogans, emphasizing the unity and integrity of our nation

16. **Interactive session with secretary, Ministry of Youth Affairs and Sports (GOI):** Dr A.K. Dubey, Secretary, Ministry of Youth Affairs and Sports, Government of India graced us with his presence and interacted with NSS volunteers and Program IOfficers.
17. **Blood Donation Camp:** NSS BIT Mesra, in collaboration with Seva Sadan, organized a blood donation camp. The camp witnessed effective participation from the students, faculty members and the villagers of the near-by adopted villages and continued for a duration of 8hrs, accounting to a total collection of 242 units of blood.
18. **International Yoga Day:** On the occasion of "International Yoga Day", a yoga camp was organized at the sports complex by NSS, BIT MESRA in which both volunteers and staff members actively participated for a good cause.
19. **Clothes and books collection drive:** NSS BIT Mesra, organized a Clothes and Book collection drive in the Staff Quarters Area of the campus. The books collected were organized and distributed to various study centers to form a library for the needy students. These study centers are also managed by NSS under their Village Education Programme.
20. **Health Awareness Drive:** NSS, BIT Mesra organized a Health Awareness Drive in the neighboring adopted villages. Residents were made aware of the common diseases prevalent in the locality and the measures that should be taken to prevent them. They were also made aware of various rights like right to have free medical treatment and deliveries against Below Poverty Line (BPL) Cards in public hospitals.
21. **Village Education Programme:** 30 volunteers per day taught the local children at designated centers in 6 of the adopted nearby villages throughout the year.



NSS Volunteers participating in different activities



Department of Physical Education & Sports



Intramural

Result details of the Inter Hostel Tournament (Boys)

Football	1 st Position	2 nd Position	3 rd Position
Institute captain Asman Bodra	Hostel No. 11 ● Vedant Agrawal	Hostel No. 6 ● Maheshwar Soren	-
Volleyball	1 st Position	2 nd Position	3 rd Position
Institute captain Vijay Kr. Mahto	Hostel No.13 ● K.Vivek Yadubya	Hostel No.12 ● Pratik Nandan	-
Basketball	1 st Position	2 nd Position	3 rd Position
Institute captain Suprio Dubey	Hostel No. 10 ● Ankit Binha	Hostel No. 07 ● Aadhar Govil	-

Result details of the Inter Hostel Tournament (Girls)

Basketball	1 st Position	2 nd Position	3 rd Position
Institute captain Nikhita Singh	2K14 ● Nikhita Singh	●2k17 Madhumita	-

- 32nd Annual Athletic Meet 2017-18 was organized from 23.3.2018 to 25.03.2018. Overall winner was Hostel No. – 07 and 2K16 amongst girls.

Individual Champion (Boy's):

Individual Champion (Girl's):

Marshal Soren
Pratima Kachhap
Hostel No. 7

2K15

- Cross Country Race was organized on 17.03.2018 Mr.Sumit Kumar Yadav, Hostel No. 10 secured 01st position.
- Cross Country Race was organized on 17.03.2018 Mrs. Pratibha Patel Hostel No. 08 secured 01st position.

Extramural

1. Second Annual Sports Fest Vajra 2017 was organized from 02.11.17 to 05.11.17. Twenty teams participated in this tournament: (1) BIT Mesra Ranchi (2) NIT Jamshedpur (3) CET Dumka (4) BIT Sindri (5) BIT Deoghar (6) VBU

Hazaribagh (7) IRIMEE Jamalpur (8) St. Xavier's Ranchi (9) Gossner College Ranchi (10) BCET Durgapur (11) CIT Ranchi (12) NIFFT Ranchi (13) CUJ Ranchi (14) BIT Patna (15) BIT Lalpur (16) IEST Shibpur (17) NSHM Durgapur (18) SSLNT Dhanbad (19) Marwari College (20) Annada College

Winner: BIT Mesra

Runner up: NIT Jamshedpur

Result Details	
<u>Basketball (Boy's)</u>	
Winner: St. Xavier's	Runner- up: BIT Mesra
<u>Basketball (Girl's)</u>	
Winner: St. Columbas	Runner- up: BIT Mesra
<u>Volleyball (Boy's)</u>	
Winner: BIT, Mesra	Runner- up: CUJ
<u>Volleyball (Girl's)</u>	
Winner: SSLNT	Runner- up: BIT Mesra
<u>Table Tennis(Boy's)</u>	
Winner: BIT Mesra	Runner - up: Marwari College
<u>Table Tennis(Girl's)</u>	
Winner: BIT Mesra	Runner - up: Annada College
<u>Football</u>	
Winner: BIT Deoghar	Runner- up: NIT JSR
<u>Badminton (Boy's)</u>	
Winner: Giridih	Runner- up: BIT Mesra
<u>Badminton (Girl's)</u>	
Winner: BIT Mesra	Runner - up: Annada College
<u>Chess (Boy's)</u>	
Winner: NIT JSR	Runner - up: BIT Mesra

2. 25th Chetan Devraj Memorial East Zone Inter Technical Institute/College Cricket Tournament 2016-17 was organized from 15.02.2017 to 19.02.2017. Ten Teams participated in this tournament: (i) BIT Mesra Ranchi (ii) UCET Hazaribag (iii) NIFFT Hatia (iv) BIT Lalpur (v) BIT Deoghar (vi) RICIT Ranchi (vii) VSSUT

Burla (viii) BIT Patna (ix) IEST Shibpur (x) BIT Kolkata

Winner: BIT Mesra

Runner up: NIFFT Hatia

3. Students are represented BIT TEAM in the SANGRAM'18 at IIT Roorkee sports fest from 29th March to 01st April 2018.

The following are the details of our teams participated and their result:

Sl. No	TEAM	Name of the Team Captain	Members	Result
1.	Cricket	Amit Kumar	14	
2.	Badminton (W)	Urvashi Ratna	03	Runner up

Sl. No	TEAM	Name of the Team Captain	Members	Result
3.	Badminton (M)	Pushpendra Kumar	05	
4.	Volleyball (M)	Vijay Kumar Mahto	10	
5.	Volleyball (W)	Bishnupriya Hembrum	08	
6.	Table Tennis	Shubham Gupta	04	
7.	Athletic (M)	Suraj Oraon	04	
8.	Athletic (W)	Shweta Singh	01	
9.	Basketball (M)	Suprio Dubey	10	

AWARD & HONOR

1. Dr. Mahendra Kumar nominated neutral Association of Indian Universities (AIU) Observer for National/ Zonal University games for Kho-Kho session 2017-18 organized by VBSPU, Jaunpur(UP) from 03.12.2017 to 08.12.2017.
2. Dr. Mahendra Kumar nominated as Technical Expert by IRCLASS (ISO 9001:2015) audit at TATA Steel Sports Division, TFA, TAA, THA & other Sports facilities from 08.3.2018 to 09.3.2018.



Green Initiatives

The Institute has adopted various Green Initiatives to achieve sustainable development. As a leading academic institute of India, BIT Mesra has implemented diverse measures to achieve its ISR goal. A pictorial depiction of its initiatives are presented below.



Renewable Energy Initiatives



Rainwater harvesting Structures under Construction near Hostel 9



Solar Laboratory and Weather Monitoring Station



Participants and Winners of Jharkhand Science and Environment Festival 2018 (An Event by EPAC, BIT Mesra) that witnessed participation of more than 400 school students from across Jharkhand. Efforts are being taken to make it an East Zone Festival in 2019.



Training & Placement Division

Overview

This year the recruiters who visited the campus represented diverse sectors ranging from Investment Banking, Analytics & Consulting, Automobile, Heavy Engineering & Infrastructure to IT Products & IT Services. The total number of recruiters who visited this year is 161, which has generated 794 numbers of Full Time Employments and 341 numbers of Internship offers across different sectors of the industry. 59 companies visited BIT campus for the first time this year and the process yielded satisfactory results.

The total numbers of eligible candidate was 1484 including all the campuses & programmes of BIT Mesra and a total of 794 offers have been generated, several meritorious students have received multiple offers.

Amongst the BE students of Mesra Campus, a total of 533 eligible students, received a total of 464 offers. 94% students from BE Computer Science, 80% from BE Electronics & Communication & 93% from BE Information Technology, placed in high-end Consulting & Analytical and IT Product & Core companies. 77% of the BE Mechanical Engineering, 77% of BE Production Engineering and 78% of BE Electrical Engineering students got offers from different Core Engineering companies and high-end Consulting-Analytical & IT companies. Likewise, 78%, 67%, 51% and 45% of students from Chemical, Chemical & Polymer, Civil and Bio-Engineering respectively opted for jobs in different Core & IT sectors.

Summary of Recruitment (2017-18) – Mesra Campus

	BE	ME/ MTech	MBA	MCA	B. Pharm	M. Pharm	IMSc.
Min. Salary (Rs lacs)	2.4	3.2	2.4	3	2.8	2.5	3
Maximum Salary (Rs lacs)	34	6	6	27	9	4	11.5
Avg. Salary (Rs lacs)	9.11	5.4	3.74	5.59	4.11	3.25	6.75
% Placement of Eligible students	79%	9%	67%	77%	34%	28%	43%
% Placement of Batch students	60%	7%	60%	74%	20%	24%	24%

List of Companies and Number of Offers (Full Time & Internship)

Company Name	Full Time Recruitment	Intern-ship	Offers	CTC	Internship 6 Months	Internship 2 Months
Accenture	Yes		2	7.5		
Aditya Birla Fashion Retail	Yes	Yes	2	4		5
Adobe	Yes		1	21		
Adrosonic - RIE	Yes		4	8.4		
Adrosonic - SA	Yes		1	4.04		

Company Name	Full Time Recruitment	Intern-ship	Offers	CTC	Internship 6 Months	Internship 2 Months
Amadeus	Yes	Yes	6	8.13	7	
Amazon - AM	Yes	Yes	1	17.5	5	6
Amazon - SDE	Yes	Yes	8	27	10	7
Amdocs	Yes		5	6		
Analytics Quotient - BA	Yes		5	5.5		
Analytics Quotient - BAJr	Yes		3	4		
Arcesium	Yes	Yes	1	34	1	
Astrazeneca	Yes		2	3.59		
Autodesk		Yes	0		4	
Avtec	Yes		2	4.5		
Axis Bank	Yes		5	8.05		
Bajaj Electricals	Yes		3	4.58		
Baylen De Louis	Yes		4	3.5		
BCG		Yes	0		5	
Birlasoft	Yes		0	6		
Britannia	Yes		1	12		
BuyHatke	Yes	Yes	1	15	4	2
Byjus - BDA	Yes	Yes	17	9	16	
Byjus - PDA	Yes	Yes	10	6	3	
Capgemini	Yes		19	6		
Carwale	Yes		3	7.5		
Cavin Kare	Yes		3	5		
Chinmaya Vidyalaya	Yes		2	3		
Cipla -R&D	Yes		2	4		
Cipla -TM	Yes		4	2.75		
Cloudroute	Yes	Yes	0	4.5	0	
Cognizant - Programmer	Yes		11	3.38		

Company Name	Full Time Recruitment	Intern-ship	Offers	CTC	Internship 6 Months	Internship 2 Months
Cognizant- Asso.	Yes		5	6.5		
Coviam	Yes		1	5.5		
Crisil	Yes		1	8		
Crompton	Yes		1	4.2		
ÇSM Technologies	Yes		1	2.4		
CV Raman	Yes		1	4.2		
Cybage	Yes		7	3.6		
Cypress	Yes		2	13		
Directl - Application	Yes	Yes	1	15.82		
Directl - Operations	Yes	Yes	1	15.82		
Directl - Platform	Yes	Yes	3	29.82	3	
Dr. Reddy's	Yes		2	4		
Dynamic Tarang	Yes		1	2.5		
E&Y		Yes	0		2	
Epilen	Yes		1	8		
Ericsson		Yes	0		5	
EXL Services	Yes		17	6		
Fastenal	Yes	Yes	4	11.5	4	
FICO	Yes	Yes	8	7.5	1	
Futures First	Yes	Yes	3	12.4	6	
Goldman Sachs	Yes	Yes	11	22	11	6
Havells	Yes		9	4.4		
HCL Technologies	Yes		4	6		
HDFC AMC	Yes		4	3		
HDFC Bank	Yes	Yes	1	4		1
HDFC Ltd.	Yes		1	5.29		
Hero MotoCorp -GET	Yes		2	6.5		

Company Name	Full Time Recruitment	Intern-ship	Offers	CTC	Internship 6 Months	Internship 2 Months
Hero MotoCorp -Sys	Yes		2	4.5		
Hindalco	Yes		10	6.6		
Hitachi	Yes		0	6		
Hyundai Motors	Yes		0			
ICICI Bank	Yes		12	4.12		
ICICI Prudential	Yes		3	4		
ICICI Securities	Yes	Yes	7	3.5		4
IDBI Fedral		Yes	0			38
IFB	Yes		10	4.5		
IITian's PACE	Yes		5	3.6		
Increff	Yes	Yes	2	10	2	
Indus Valley Patners	Yes		2	11.56		
Infineon		Yes	2	13.56	11	
Infoedge	Yes		3	9.5		
Infosys	Yes		89	3.5		
Intel	Yes	Yes	18	12.5	18	
Interactive Brokers	Yes		1	7.01		
Intuit	Yes	Yes	3	25.16	3	
iPrimed	Yes		2	4.6		
ISWPL	Yes		2	5.5		
ITC	Yes		1	3.99		
JCAPCPL	Yes		1	5.98		
Johnson & Johnson	Yes		2	4		
JSW Steel	Yes		3	5.5		
Karvy	Yes		5	2.5		
KPMG	Yes	Yes	9	4.5	5	
Kronos	Yes		2	9.18		

Company Name	Full Time Recruitment	Intern-ship	Offers	CTC	Internship 6 Months	Internship 2 Months
L&T Constructions	Yes		3	5.19		
LinkedIn	Yes	Yes	1	21.85		1
Mahindra & Mahindra	Yes		2	6		
Mahindra Comviva	Yes		3	6.5		
Mahindra Finance	Yes	Yes	2	6		5
MAQ Software	Yes	Yes	2	8	3	
Maruti Suzuki	Yes		9	6.4		
Max Digital		Yes	0		3	4
Medicus		Yes	0			9
MG Contractors	Yes		3	3		
Microland	Yes	Yes	2	10.1	2	
Microsoft	Yes	Yes	13	22.38	1	6
Miles Software	Yes		0	7		
Morgan Stanley		Yes	0			1
MotorHaat		Yes	0			1
MuSigma	Yes		15	3.3		
Nath Corp	Yes		6	3.2		
NEI	Yes		2	5.8		
Nestle	Yes		2	5		
Netscribes	Yes		3	4		
Nirvana		Yes	0		1	
NRB Bearings	Yes		7	3.2		
Nvidia		Yes	0		6	
NXP Semiconductors		Yes	0		5	
Nysaa Retails	Yes		8	2.5		
Optum - BA	Yes		5	7.18		
Optum - SDE	Yes		3	10.54		

Company Name	Full Time Recruitment	Intern-ship	Offers	CTC	Internship 6 Months	Internship 2 Months
Oracle OFSS	Yes		4	5.19		
Outlook		Yes	0			8
Pantaloons	Yes		2	4		
PayPal	Yes		1	23.3		
Polestar Solutions	Yes		2	5.25		
Premsons	Yes		2	2.7		
Presidency University	Yes		4	6		
PWC	Yes	Yes	27	8.4	5	4
Pyreon Software	Yes		2	3.6		
Reliance Jio	Yes		21	4.5		
Reliance Petrochemicals	Yes		6	5.5		
Rivigo	Yes		4	4.5		
Saamarthya	Yes		4	6		
SalesForce	Yes		5	30.83		
Samsung Bangalore		Yes	0		1	
Samsung Delhi	Yes		4	14		
Samsung Noida	Yes	Yes	5	8.88	12	
SAP Labs	Yes	Yes	3	10	3	
Sapient		Yes	10	5	10	
SBI Mutual Fund	Yes		5	3.5		
Schooglink		Yes	0		3	
SocGen	Yes		4	12.25		
Stellium	Yes	Yes	11	6.5	11	
Sterlite	Yes		7	5		
Tata Alg	Yes		5	4.75		
Tata Communications	Yes		2	10		
Tata Motors	Yes		9	6		

Company Name	Full Time Recruitment	Intern-ship	Offers	CTC	Internship 6 Months	Internship 2 Months
TATA Steel - MT Systems	Yes		5	8.8		
Tata Steel - MT Tech	Yes	Yes	11	10.11		11
Tata Trust	Yes		5	6.6		
Techture		Yes	0		7	
TeleTech	Yes		3	4.24		
Toppr	Yes		1	18		
Torrent Pharma	Yes		4	2.5		
Troikaa	Yes		1	2.4		
UpGrad - NonTech	Yes	Yes	1	8	5	
UpGrad - Tech	Yes	Yes	2	11	3	
Vedanta	Yes		8	7.95		
Vedika Credit Capital	Yes		7	5		
Verizon	Yes		8	5.8		
Viralmint		Yes	0		3	
Visa	Yes	Yes	2	12		3
Vishal Surgical	Yes		2	2.4		
VKC GROUP	Yes		6	3.6		
VM Ware	Yes		3	9.56		
Vodafone	Yes		9	4.25		
Walmart Labs	Yes	Yes	4	18.57		5
Wheelseye		Yes	0		3	
Wipro	Yes		12	3.3		
Wipro Turbo	Yes		30	6		
Yodlee	Yes		1	8.7		
Zopper	Yes	Yes	1	8	1	
ZS Associates	Yes		12	6.5		



Central Library



Introduction

The Central Library strives to evolve into a 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.

The Library is fully automated 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 & e-ShodhSindhu Consortium. E-Library section consists of several networked terminals to access e-journals, e-books and other e-reference resources to the library users under Intranet and Internet environment.

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.

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.

Print Books

Total Volumes	1,48,382
Total Titles	48,103
Online Books	8,46,837
Online Journal, Conference Proceedings, Standards	26, 286
Print Journals/Magazine	70
Print Journals	60
CD/ DVD	4,203
Bound Volumes	18,834
Library Home Page	http://bitmesra.ac.in/library/default.asp

The library offers 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

Library Membership

The library serves more than 5000 members, including students, research scholars, faculty, project engineers, and staff.

Library Consortium/Membership

Central library enrolled its membership for following consortium

- e-ShodhSindhu Consortium
- NDL India

Department wise Books as of June 2018

Department	Title	Volume
Chemistry	2098	8402
Mathematics	2187	9469
Physics	2741	7400
Architecture	1852	2709
Biotechnology	1884	3452
Civil & Env. Engg.	3339	8842
ECE	2937	12878
CSE	9349	31124
EEE	2839	10694
HMCT	641	3338
Management	2610	12655
Mechanical Engineering	5378	16556
Pharmacy	2930	6774
Chemical Engineering	676	3931
Production Engineering	2481	3429
Remote Sensing	610	1125
Space Engg. & Rocketry	689	1181
Others	2862	4423
Total	48,103	1,48,382

Details of Online Journals/books/thesis & dissertations

Sr. No.	Publishers	Web Link
1.	ABI/Inform (Management Collection)	http://search.proquest.com
2.	American Chemical Society	http://pubs.acs.org
3.	American Institute of Physics	http://www.aip.org
4.	American Physical Society	http://www.aps.org
5.	Annual Reviews	http://www.annualreviews.org
6.	ASCE Journals	http://ascelibrary.org/
7.	ASME (including AMR)	http://asmedigitalcollection.asme.org/
8.	Bentham Science	http://benthamscience.com//ben
9.	Cambridge Online Books	http://ebooks.cambridge.org
10.	Cambridge University Press	http://journals.cambridge.org
11.	EBSCO Databases(Art & Architecture, Hospitality & Tourism Complete	http://web.ebscohost.com
12.	Economic & Political Weekly	http://www.epw.in
13.	Elsevier's Science Direct	http://www.sciencedirect.com
14.	Emerald (Management)	http://www.emeraldinsight.com
15.	Grammarly (Online Grammar & Spell checker)	http://www.grammarly.com/edu
16.	IEEE/IEL Online	http://ieeexplore.ieee.org/Xplore
17.	Institute of Physics	http://iopscience.iop.org/journals
18.	ISID (Bibliographic Database)	http://isid.org.in
19.	JCCC (Bibliographic Database)	http://www.jccc-ugcinfonet.in
20.	McGraw Hills Access Engineering	www.digitalengineeringlibrary.com
21.	Oxford University Press	http://www.oxfordjournals.org
22.	Project Muse	http://muse.jhu.edu/browse
23.	ProQuest Dissertation & Theses	http://search.proquest.com
24.	Royal Society of Chemistry	http://www.rsc.org
25.	SciFinder Scholar (Bibliographic Database)	http://cas.org/products/scifindr/index.html
26.	SIAM	http://epubs.siam.org

Sr. No.	Publishers	Web Link
27.	Springer Link	http://www.springerlink.com
28.	Taylor & Francis	http://www.tandfonline.com
29.	Turnitin Ant plagiarism Tools	http://www.turnitin.com
30.	Web of Science (Bibliographic Database)	http://apps.webofknowledge.com
31.	Wiley-Blackwell	http://onlinelibrary.wiley.com
32.	Ebrary online Books	http://site.ebrary.com/lib/bitranchi/home.action

Library Team

Name

Dr.(Mrs.)P.Padmanabhan

Dr. Rita Sinha

Mr. Debojyoti Nath

Designation

Dean (AP) Prof. In Charge Library

Assistant Librarian

Information Scientist

Library Statistics of 2017-18

Total Books Added	:	Title - 294 & Volumes – 573
Total Journals Procured	:	Print - 20 & Online – 26,228
Total Online books Procured	:	1,46,055
Total Number of Membership enrolled	:	1521
Total Number of Books Issued	:	46019
Total Number of Books Returned	:	46520

New Implementation:

10 New Computers procured for Digital Libraries.

Library Activities:

The library organized one day ProQuest user training program at BIT Mesra on 5th September, 2017.



Central Instrumentation Facility



The Central Instrumentation Facility, at BIT Mesra, has been created with an objective of providing a central facility for conducting latest and advanced analytical training and research in various areas of science and technology. It houses several highly sophisticated and modern analytical equipments offering its users, a wide range of analytical methods/ techniques for chemical/material analysis/testing/ characterization enabling them to keep pace with developments taking place globally, publish their research findings in peer reviewed high impact factor journals and through their concerted efforts contribute to the upliftment of the society at large. This facility is extensively used by undergraduate and post graduate students, doctoral research scholars and faculty members. The facility is also extended to external organizations mainly academic institutions in the region, on chargeable basis. The facilities are availed by approximately 1000 internal users and 400 external users annually. Presently Research Scholars from Departments of Chemistry, Physics, Civil and Environmental Engineering, Pharmaceutical Science and Technology, Bioengineering, Chemical Engineering and Technology, Mechanical Engineering, Production Engineering, Space Engineering and Rocketry, Hotel Management and Catering Technology, Electrical and Electronics Engineering, Electronics and Communication Engineering and Remote Sensing are extensively using this facility. This facility is also used for organizing short term courses/ workshops on the use and application of various instruments and analytical techniques. **Instruments available at**

CIF

1. Inductively coupled plasma optical emission spectroscope, (OPTIMA 2100DV ICP-OES), Perkin Elmer, USA.
2. Microwave Digestion System, (Multiwave 3000), Anton Paar, Austria.
3. Ultraviolet-Visible Spectroscopy, (Lambda25), Perkin Elmer, USA.
4. Electrochemical analyzer, (680B), CH Instruments, USA.
5. Gel Permeation Chromatograph, Waters, USA.
6. Differential Scanning Calorimeter, (Q-10), TA Instruments, USA.
7. Light Scattering, (NANO ZS), Malvern Instruments, UK.
8. Thermo Gravimetric Analyzer, (DTG-60), Shimadzu, Japan.
9. FTIR Spectrophotometer, Mid IR Range (IR-PRESTIGE 21), Shimadzu, Japan.
10. FTIR Spectrometer, Far & Mid IR Range (L1280044), Perkin Elmer, USA
11. FTIR Spectrometer, Far & Mid IR Range (L1280026, Frontier NIR), Perkin Elmer, USA
12. Spectro Fluoro photometer, (RF-5301 PC), Shimadzu, Japan.
13. Color Measurement System, (Colorflex), Hunter Lab, USA.

14. CHNSO Analyzer (Vario EL III), Elementar, Germany.
15. Pulse Analyzer, (OR 38/ ORS), Oros SA, France.
16. Mercury Porosity meter, (PASCAL 440), Thermoelectron, Italy
17. Atomic Force Microscope , (Solver Pro-47), NT-MDT, Russia.
18. Dynamic Contact Angle , (DCAT-21), Dataphysics, Germany.
19. Universal Testing Machine , (8801), Instron, UK.
20. Impedance Analyser, (Alfa ATB), Novocontrol Tech, Germany.
21. Optical Contact Angle (OCA), (OCAH 230), Dataphysics, Germany.
22. Printed Circuit Board (PCB), (LPKF PCB), Germany.
23. Robotic Kit, (IR Proximity Sensor Module and the Line Sensing Module), TRI Technosolutions Pvt. Ltd., India.
24. Scanning Electron Microscope (SEM), (JSM-6390 LV), JEOL, Japan.
25. Ellipsometer (Se MG-VIS) Nano View Inc. , Korea
26. Ion Chromatography (ICS 5000), Thermo Fisher, USA
27. Flash Chromatography(Cheetah, MP 200), Bonna Agela, USA
28. Anodic Stripping Voltammeter (884, ProfessionalVA0, Metrohm, USA
29. X-Ray Diffractometer (Smart Lab 9KW), Rigaku, Japan
30. Machine Fault Simulato(MFS2010), Make Spectraquest Inc., USA
31. Water Lab (Instruments related to Water and Soil Testing)
- 3) Analytical Cum Semi Preparative HPLC, (Ultimate 3000), Thermofisher, USA
- 4) Field Emission Scanning Electron Microscope (Sigma 300), Carl Zeiss, Germany
- 5) Liquid Chromatography Mass Spectroscopy, (LTQXL), Thermofisher, USA
- 6) Simultaneous TGA-DTA-DSC,(Discovery SDT 650), Waters, USA
- 7) Modulated Differential Scanning Calorimeter, (Discovery DSC 25), Waters, USA

Hands on Training Programs and Sessions conducted:

- 1) Hands on Training Programme on different Analytical Instruments to QIP Participants on 8th Jun 2018
- 2) Hands on Training Programme on different Analytical Instruments to QIP Participants on 28th Jun 2018
- 3) Application Training on FAR-MID-NIR FTIR on 30th August 2017 by Perkin Elmer.
- 4) Application Training on Small Molecule Single Crystal X-ray Diffractometer System on 11th October 2017 by Dr Andrej Kowalski, Rigaku Corporation.
- 5) Application Training on Flash Chromatography System on 12th December 2017 by Dr Vikash Dixit, Bonna Agela India Pvt. Ltd.
- 6) Application Training on FESEM on 13th April 2018 by Mr Tridib Das, Carl Zeiss India.
- 7) Application Training on Thin Layer Chromatography on 6th August 2018 by Mr Pratik Sinalkar, Ancrom Enterprises India Pvt. Ltd.

New Facilities added or major equipment procured:

- 1) Single Crystal X Ray Diffractometer (X Calibur), Rigaku, Japan
- 2) High Performance Thin layer Chromatography, (Camag, Switzerland



Fig: X Ray Diffractometer & UTM



Dispensary



The present BIT Dispensary is 20 bedded including 8 bedded two isolation wards fully functional Health Care Centre providing facilities to BIT Students, Faculties, their families and staff members & their families plus 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 23 paramedical staff. We have also Dentist, Physiotherapist, Skin, & Gynecologist as visiting specialist every week for health care service. The workforce, as per the need and work load is quite insufficient and we are in the process of appointing and adding up few

more Doctors & Paramedics to give our services in a better way. 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 Bajaj Allianz Insurance Company. the Health Centre is equipped with 2 Ambulances round the clock for emergency cases available in all the 3 shifts fitted with Oxygen Cylinders & first aid kits. 3rd ambulance always stand by at transport department in other necessary activities like student sports and athletes and Bitoshav programme.

Details of Dispensary Staffs

Medical officers

Sr.No	Name of Medical officer
1.	Dr. Kishore Kumar Misra
2.	Dr. Mona Deepa
3.	Dr. Anju Kumari
4.	Dr. Madhu Pramanik

Homeopathy Physician

1.	Dr. P. Mohanty
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Visiting Specialist

Sr.No	Name	Specialist
1.	Dr. Rishi Raj	Dentist
2.	Dr. Renu Sinha	Gynaecologist
3.	Dr. R.P. Chaudhary	Skin specialist
4.	Dr. Pramod Kumar	Physiotherapist

Staffs and their Details

Sr.No	Name	Category
1.	Mr. A.K. Tarun	Pharmacist
2.	Mr. B. P. Yadav	
3.	Mr. Umesh Prasad	
4.	Mr. Mahesh Kumar Sinha	Store Keeper
5.	Mr. Rajeev Ranjan	
6.	Mr. Anil Kumar	Dressers
7.	Mrs. Janki Devi	
8.	Saurav Kumar	
9.	Mr. R. S. Mahto	Ward Attendant
10.	Mr. Jitendra Kumar	
11.	Mr. Akash Kermali	
12.	Mr. S. K. Singh	Lab Technician

Sr.No	Name	Category
13.	Mrs. Renu Kumari	Nurse
14.	Mr. R.E. Singh	
15.	Mrs. Sanju Devi	
16.	Mrs. Pinki Kachhap	
17.	Mrs. Sunita Pallai	
18.	Mrs. Nupur Tigga	
19.	Mrs. Aruna Goswami	
20.	Mr. B. Munda	Office Attendant
21.	Mr. Bijay Lakra	
22.	Pramila Devi	
23.	Mr. K. Mahto	X-Ray Technician

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

- OPD services including part time specialist OPD viz. Skin, Obs/ Gynecologist & Dental surgeon & Physiotherapist.
- In patient services for minor ailments.
- Emergency Services
- Homeopathy Clinic
- Dental Clinic
- Pathological Laboratory
- Physiotherapy Unit

- X-Ray Unit
- ECG Unit
- General Ward- Total 03 (Student male – 01, Student female – 01 and BIT Staff- 01 each)
- Isolation ward – Total- 02 (one each for male & Female patients)
- Dressing unit

To be commissioned

- Complete Renovation & modernization of the existing infrastructure.
- Minor OT

Services provided during the period 01.07.2017 to 30.06.2018

Total number of patients	40605
Number of outdoor patients treated & supplied medicines	40605
(a) Male	22713
(b) Female	17892

Categories:

Students	14517
Staff members & their dependants	19219
Non-staff and local villagers cases	6869
Number of patients admitted & treated	562
Number of patients referred	328
Medical Budget Allocation (2017-18)	Rs.40,00000 (Approx)
Expenses incurred till June 2018	Rs.38,75000 (Approx)
Number of patients treated by Homeopathic Physician	5618
Number of patients treated by Dental Surgeon	2417
Number of patients treated by Gynecologist	309
Number of patients treated by Skin Specialist	2512
Number of patients treated by Physiotherapist	1923
Number of Chicken Pox, Measles & Herpes patients treated & supplied medicines	6
Number of X-Ray done	207
Number of ECG done	43
Number of Pathological test done	603



Student Activities

PANTHEON'17

With an ambition to provide a platform for the youth to showcase their technical skills and display cutting-edge technologies, Birla Institute of Technology, Mesra, conducts one of the biggest technical fests of Eastern India - Pantheon. Pantheon'17, organized from 13th to 15th of October, 2017, dove deeper into the convoluted world of machines through its intriguing theme of 'Unleash the Digital Immortality'. A plethora of exquisite events and workshops were organized in the fields of scientific research, coding, robotics, oration, and quizzing, which helped the budding engineers prove their mettle and emerge victoriously.

The Flagship events included the all-terrain robot making competition, 'Droid Trooper', 'Eureka'-

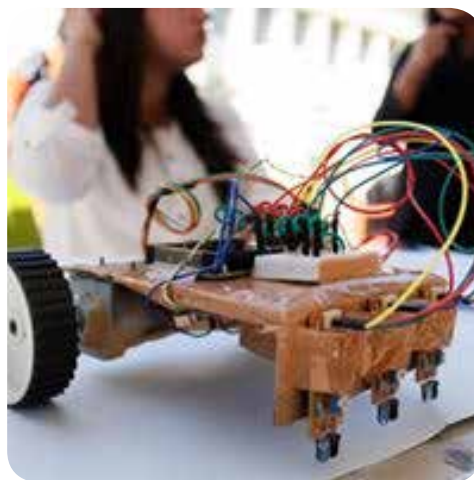
the Science Exhibition Contest, 'Codezilla'- the online coding contest, 'CyberBridgeton'- the bridge simulation module and 'Illuminati'- the mock paper presentation contest. Through its engaging line up of Guest lecturers, Pantheon tried to transcend national boundaries. The invigorating series of lecturers included eminent educators like Dr. Abhas Kumar Mitra, the former head, Theoretical Astrophysics section, Bhabha Atomic Research Centre, Mumbai; Mr. Manish Piyush, the divisional and marketing manager at Tata Motors; Professor Namrita Lall from the University of Pretoria and many more. The nights were a vivid culmination of vogue, symphony, and expressions, that included mesmerizing and scintillating performances by the various student clubs' and societies' of BIT.



Director, IIM Ranchi during Inauguration ceremony



Dr Abhas Mitra, Former Head, Theoretical Astrophysics, BARC



VAJRA'17

A sport, apart from being a medium of enjoyment and entertainment, also teaches us important lessons. It is a way of bringing people together from different aspects towards a common goal. To keep this level of union and team spirit alive, BIT Mesra organized a three-day sporting extravaganza, VAJRA from the 3rd to the 5th of November. Multifarious sporting events like Basketball, Volleyball, Football, Cricket, Chess and Badminton had the participant's adrenaline in a rush.

The budding sportspersons toiled in passion, perspiration, and gusto to trounce their fears and face the challenges. The event witnessed a massive and enthusiastic participation from students of reputed colleges all across Eastern India namely IEST Jamshedpur, NIT Jamshedpur, Bengal College of Engineering Durgapur, Asansol Engineering College, NIFFT Ranchi, St Xavier Ranchi, and BIT Patna.





BITOTSAV 2018

BITOTSAV the annual socio-cultural festival of Birla Institute of Technology, Mesra is considered to be one of the biggest campus and youth festival of Eastern India. Presented by Wipro, powered by Pokerbaazi and in association with The Telegraph, the fest took place over a span of 3 days from the 15th to the 18th of February, 2018. Jumping on the bandwagon of binge-watching T.V series, the theme of BITOTSAV'18 was "Behind the Screens– A Nexus of Episodes".

This time, the social cause was "Dignity of Labour", the social campaign was "Upliftment of Tribes of Jharkhand" and the online campaign was "Fight Against Body Shaming". The Flagship events such as 'B-Plan', 'Mr. and Ms. BITOTSAV', 'Rhapsody', 'Talkies', 'Saptak', 'Stomp the Yard', 'Pukaar', 'Dance Saga' and 'BIT MUN' attracted students from colleges like Jadavpur University, Kolkata and various colleges of Ranchi - BIT Lalpur, St. Xavier's and Gossner College.

The band night featured enthralling performances from Swarathma and Anand Bhaskar Collective. The EDM Night, had the audience grooving to the beats and rhythms of Asia's largest electronic dance music festival, Sunburn, with star DJ Anish Sood, Rave and Crave, Gaurav Mehta and the very electrifying, Teri Miko. In the pro night, the crowd witnessed enchanting music in the infectious aura of one of the most leading singers, musicians, and lyricists of the artistic canvas, the 'magical studio man', Amit Trivedi!





Amit Trivedi performing during BITOTSAV 2018



Annexure I
Members Of The General Council

FOUNDER MEMBERS**Shri C.K. Birla**

Chairman, Board of Governor
 Birla Tower (9th floor)
 25, Barakhamba Road
 New Delhi – 110001

Shri S.L. Bhatner

C/o Hindustan Motors Ltd.
 10th Floor, Birla Building
 9/1, R.N. Mukherjee Road
 Kolkata- 700001

Shri Sarosh Ghandy

45, Museum Road
 Bangalore- 560025

H.E. Dr. A. R. Kidwai

Government of Haryana
 Raj Bhawan
 Chandigarh

Shri D.N. Patodia

45, Akash Neem Marg
 DLF City Phase- II
 Gurgaon- 122001

Dr. Karan Singh

3, Nyaya Marg
 Chanakyapuri
 New Delhi

II. LIFE MEMBERS**Dr. H.C. Pande**

1/97, Vijay Khand-I
 Gomti Nagar
 Lucknow- 226010

Shri Mohammed Yousif Jalal

Mohammed Jala & Sons WLL
 P.O. Box. – 879
 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- 302006

Shri M.L. Pachisia

9/1, R.N. Mukherjee Road
 Kolkata – 700001

Dr. P Ghosh

Executive Director
 Birla Institute of Scientific Research
 Stature Circle, Jaipur- 302001

Shri P.C. Agarwala

9/1, R.N. Mukherjee Road
Kolkata- 700001

Shri Ajay Kumar Singh, IAS

Secretary
Higher Technical Education & Skill Development
Department,
Govt. of Jharkhand
Nepal House, Doranda
Ranchi – 834001

IV. **MEMBERS BY REPRESENTATION**

Joint Secretary (Central Universities)

Nominee of MHRD, GOI
Dept. of Higher Education, Shastri Bhawan
New Delhi – 110001

Shri S.S. Jajodia

78, Syed Amir Ali Avenue
Kolkata – 700019

Shri H.K. Mittal

Nominee of DST, GoI
Adviser & Head (NEB)
Govt. of India
New Delhi – 110016

Dr. M.K. Mishra

Vice-Chancellor
B.I.T, Mesra, Ranchi

V. **ALUMNI MEMBERS**

Prof. Ajit K. Chaturvedi

Nominee of AICTE
Director
IIT, Roorkee – 247667

Mr. Rajiv Kaul

Vice-Chairman and CEO
CMS Inforsystem Limited
(11th Floor) Silver Metropolis
Off Western Express Highway
Opposite SRPF Ground,
Goregaon (East), Mumbai – 400063



ANNEXURE II

Members of Board of Governors

1.	Shri C.K. Birla Birla Tower (9th floor) 25, Barakhamba Road New Delhi – 110001	Chairman
2.	Joint Secretary (Central Universities) Nominee of MHRD, Govt. of India Dept. of Higher Education, Shastri Bhawan New Delhi – 110002	Nominee of MHRD Govt. of India
3.	Dr. Renu Batra Additional Secretary University Grants Commission Bahadur Shah Zafar Marg New Delhi – 110002	Nominee of UGC
4.	Prof. Ajit K. Chaturvedi Director Indian Institute of Technology Roorkee – 247667	Nominee of AICTE
5.	Shri Ajay Kumar Singh, IAS Secretary Dept. of Higher & Technical Education Govt. of Jharkhand Nepal House, Doranda Ranchi	(Ex-Officio) — 834002
6.	Mr. Amrendra Pratap Singh, IAS Principal secretary Dept. of Primary Education & Literacy Govt. of Jharkhand Project Bhawan, Dhurwa Ranchi – 834001	(Ex-Officio)

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| <p>7. Dr. Dinesh Chandra Mishra, IAS
 Commissioner
 South Chhotanagpur Division,
 Jharkhand
 RANCHI – 834001</p> | <p>(Ex-Officio)</p> |
| <p>8. Dr. Nitin Kulkarni, IAS
 Principal Secretary to the Governor
 Hon'ble Governor of Jharkhand
 Raj Bhawan
 RANCHI – 834001</p> | <p>Nominee of the
Chancellor</p> |
| <p>9. Shri Madhavan Nayar
 23W301 Kimberwick Lane
 Naperville, Illinois – 60540 (USA)
 Postal address: (Mr. Madhvan Nayar, C/o Infogix,
 1240 E Diehl Road, #400 Naperville, IL 60563 USA)</p> | <p>Nominee of HCT</p> |
| <p>10. Shri Rohit Saboo
 M/s National Engineering Industries Ltd.
 Khatipura Road
 Jaipur- 302006</p> | <p>Nominee of HCT</p> |
| <p>11. Dr. Manoj Kumar Mishra
 Vice-Chancellor
 BIT, Mesra
 RANCHI – 835215</p> | <p>Vice-Chancellor
BIT Mesra, Ranchi</p> |
| <p>12. Dr. Utpal Baul
 Professor
 Department of Management
 BIT, Mesra
 Ranchi – 835215</p> | <p>Institute Faculty</p> |

- | | |
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| <p>13. Dr. Akriti Nigam
 Assistant Professor
 Department of Computer Sc. & Engineering
 BIT, Mesra
 Ranchi – 835215</p> | <p>Institute Faculty</p> |
| <p>14. Shri Aroop Zutshi
 43804 Green Hills Way
 Fremont, CA 94539
 USA</p> | <p>Nominee of the General
 Council</p> |
| <p>15. Dr. P Ghosh
 Executive Director
 Birla Institute of Scientific Research
 Statue Circle
 Jaipur – 302001</p> | <p>Nominee of the General
 Council</p> |
| <p>16. Dr. Arup Roy Chaudhury
 Chief Commissioner
 West Bengal Rights to Public Service Commission
 Kreta Surakha Bhawan, 4th Floor, 11A Mirza Ghalib Street
 KOLKATA – 700087</p> | <p>Nominee of the General
 Council</p> |
| <p>17. Shri S.N. Agarwal
 Chairman
 Bhoruka Power Ltd.
 48, Lavelle Road
 Bangalore – 560001</p> | <p>Nominee of HCT</p> |



ANNEXURE III
Members Of The Finance Committee

Shri C.K. Birla

Birla Tower (9th floor)
25, Barakhamba Road
New Delhi – 110001

Dr. M.K. Mishra

Vice-Chancellor, BIT, Mesra
Ranchi

Prof. Jose Varghese

Professor of Eminence
Christ University
(Deemed University)
Hosur Road
Bangalore – 560029

Dr. Nitin Kulkarni, IAS

Principal Secretary to the Hon'ble Governor
Governor Secretariat
Raj Bhawan
Ranchi

Shri P.C. Agarwala

9/1, R.N. Mukherjee Road
Kolkata – 700001

Shri Rohit Saboo

M/s National Engineering Industries Ltd.
Jaipur – 302017

Shri Y. Goenka

Birla Tower (8th floor)
25, Barakhamba Road
New Delhi – 110001



Annexure – IV
Members of Academic Council

Sl.No.	Members of Academic Council
1	Dr. M.K Mishra, Vice Chancellor
2	Dr. J.P Pandey, Controller of Examination
3	Dr. Sandip Dutta, Dean- Admin & Acad. Coord
4	Dr. S Konar, Dean- Faculty Affairs & Spons. Research
5	Dr. Utpal Baul, Dean- Alumni & International Relations
6	Dr. (Mrs.) P Padmanabhan, Dean- Academic Programme
7	Dr. Mahesh Chandra, Dean- Student's Welfare
8	Dr. Amar Nath Jha, In-Charge- Lalpur Off Campus
9	Dr. Anand Kr. Sinha, Prof & HOD- Civil & Environmental Engg.
10	Dr. (Mrs.) Vandana Bhattacharjee, Prof & HOD- Comp. Sc & Engg.
11	Dr. P.K Srivastava, Prof & HOD- Chemistry
12	Dr. Mohan Varma, Prof & HOD- Space Engg. & Rocketry
13	Dr. (Mrs.) Sunita Keshri, Prof & HOD- Physics
14	Dr. Subir Samanta, Prof & HOD- Pharma Sciences & Technology
15	Dr. Satyaki Sarkar, Asso. Prof & HOD- Architecture
16	Dr. Ramesh Chandra, Prof & HOD- Bio-Engineering
17	Dr. J Jeganathan, Prof & HOD- Remote Sensing
18	Dr. P.R Thakura, Prof & HOD- EEE
19	Dr. Sanjay K Jha, Asso. Prof & HOD- Production Engg.
20	Dr. Srikanta Pal, Prof & HOD- ECE
21	Dr. R.P. Sharma, Prof & HOD- Mechanical Engg.
22	Dr. (Mrs.) Sudipta Goswami, Prof & HOD- Chemical Engg. & Tech
23	Dr. (Mrs.) Manju Bhagat, Prof & HOD- Management
24	Dr. (Mrs.) Mandira Mukherjee, Prof., Chemical Engg. & Tech
25	Dr. Sarbani Chakraborty, Prof., EEE
26	Dr. (Mrs.) Usha Jha, Prof., Chemistry

Sl.No.	Members of Academic Council
27	Dr. (Mrs.) M Chakraborty, Prof., Architecture
28	Dr. P.R.P Verma, Prof., Pharma Sciences & Technology
29	Dr. (Mrs.) Nisha Gupta, Prof., ECE
30	Dr. S.K Ghorai, Prof.- ECE
31	Dr. Nihanchal Patel, Prof., Remote Sensing
32	Dr. Swapan Kr. Chakraborty, Prof. & HOD, Mathematics
33	Dr. Bipendra Kr. Singh, Prof.- Civil & Environmental Engg.
34	Dr. G. Sahoo, Prof., Comp Sc. & Engg
35	Dr. S Jha , Prof., Pharma Sciences & Technology
36	Dr. D.K Mohanta, Prof., EEE
37	Dr. Abhinav Kr. Sandilya, Incharge - HMCT
38	Dr. Shradha Shivani, Prof.- Management
39	Dr. R. Sukesh Kumar, Prof.- ECE
40	Dr. R. N. Gupta, Prof.- Pharma Sciences & Technology
41	Dr. Vibha Rani Gupta, Prof.- ECE
42	Dr. Sudeshna Chakraborty, Prof.- Civil & Environmental Engg.
43	Dr. R.N. Bhagat, Prof.- Management
44	Dr. Rakesh Kumar Sinha, Prof.- Bio-Engineering
45	Dr. T. Ghosh, Prof.- EEE
46	Dr. Gautam Sarkhel, Prof.- Chemical Engg. & Tech.
47	Dr. Souvik Chakraborty, Prof.- Mathematics
48	Dr. Kunal Mukhopadhyay, Prof.- Bio-Engineering
49	Dr. (Mrs.) Swastika Ganguly, Prof.- Pharma Sciences & Technology
50	Dr. (Mrs.) Bindhu Lal, Prof.- Civil & Environmental Engg.
51	Dr. (Mrs.) S.M. Verma, Prof.- Pharma Sciences & Technology
52	Dr. Sudip Das, Prof.- Space Engg. & Rocketry
53	Dr. Sanjay Kuma Sinha, Prof.- Physics
54	Dr. K. Jayaram Kumar, Prof.- Pharma Sciences & Technology

Sl.No.	Members of Academic Council
55	Dr. S.S. Solanki, Prof.- ECE
56	Dr. (Mrs.) Papiya Mitra Mazumder, Prof.- Pharma Sciences & Technology
57	Dr. (Mrs.) Vijaya Laxmi, Prof.- EEE
58	Dr. S.K Bose, Prof.- Management
59	Dr. S.K Jain, Prof., Mathematics
60	Dr. B.N Sinha, Prof., Pharma Sciences & Technology
61	Dr. D.P. Mishra, Prof., Mechanical Engg.
62	Dr. S. Padhi, Prof.- Mathematics
63	Dr. D.J Biswas, Prof.- Architecture
64	Dr. A.P Krishna, Prof.- Remote Sensing



ANNEXURE V

Building And Works Committee

1.	Vice Chancellor	Chairman
2.	Honorary Treasurer	Member
3.	Registrar	Member
4.	Dr. Manjari Chakraborty Professor (Dept, of Architecture)	Member
5.	Additional Registrar (F7MM)	Member
6.	Dy. Finance Officer	Member
7.	In-charge (construction)	Member
8.	Asst. Registrar (works)	Member Secretary



ANNEXURE VI
Members of Women Cell

Dr Usha Jha: Chairman Professor, Dept. of Chemistry Cell no 09431326739 Email: ushajha@bitmesra.ac.in	Dr Bindu Lal: Member Professor Dept. of Civil & Env. Engg. Email: bindhu_63@yahoo.co.in
Ms S. G. Panpalia: Member Associate Professor Dept. of Pharm. Sc. & Tech. Email: shaila1958@rediffmail.com	Dr VibhaRani Gupta: Member Professor, Dept. of ECE Email: vrgupta@bitmesra.ac.in
Dr Manju Bhagat: Member Professor Department of Management Email: mbhagat@bitmesra.ac.in	Mrs Nidhi Jaiswal: Member Secretary Assistant Registrar General Office Email: nidhijaiswal@bitmesra.ac.in
Dr Papiya Mazumder: Member Professor Dept. of Pharm. Sc. & Tech. Email: papaya_mm@rediffmail.com	

Correspondence Address:

To
The Chairperson
Women cell
BIT MESRA - 835215
Ranchi Jharkhand.
Email: womencell@bitmesra.ac.in



ANNEXURE VIII**Address Of The Campuses**

Sl. No.	Address	Sl.No.	Address
1	BIT Off Campus, Deoghar Jasidih, Deoghar- 814132 Fax: 06432-292565	4	BIT Off Campus, Noida A-7, Sector-1 NOIDA-201301 Phone: 0120-254348/2553661/3662 Fax: 2554146
2	BIT Off Campus, Jaipur B.S.I.R. Campus 27, Malviya Industrial Area Jaipur- 302017 Phone : 0414-4019798/4019812 Fax: 2751614	5	BIT Off Campus, Patna Near Patna Airport, P.O. Bihar University College Patna- 800014 Phone: 0612-2223545/3200853 Fax: 2223545
3	BIT Off Campus, Lalpur Lalpur Chowk Ranchi- 834001 (Jharkhand) Phone: 0651-2531817/2531676 Fax: 2531658/2531676		

