

ANNUAL REPORT 2016–2017



Indian Institute of Technology Guwahati

Guwahati 781039, INDIA



Indian Institute of Technology Guwahati

Indian Institute of Technology Guwahati is the sixth member of the IIT family. Indian Institute of Technology–Assam Society was formed in February 1989. The foundation stone of IIT Guwahati was laid in July 1992 in Guwahati. The Institute of Technology (Amendment) Act 1994, passed by the Parliament, was notified in the Gazette of India on May 26, 1994, by which the IIT Guwahati–Assam Society was made into IIT Guwahati. By the Gazette of India notification of the Ministry of Human Resource Development dated September 1, 1994, the Central Government declared September 1, 1994, as the date on which the Institute of Technology (Amendment) Act 1994 (No. 35 of 1994) came into force and IIT Guwahati was established. Enrollment of students started in 1995.



Annual Report 2016–2017: Highlights

Growth			
Particulars	2015-2016	2016-2017	Growth in %
Student Strength	5533	5770	4.11
Faculty Strength	402	411	2.19
R&D Funds Received (In crores of ₹)	65.67	81.87	24.67
Total Research Publication	1588	1779	12

Major R&D Projects Received:

- Pilot scale study for biodiesel production using waste rubber seeds as raw material; Centre for Energy; MHRD; ₹ 410 lakh
- Mass cultivation of Microalgae for the production of high value bio-fuel fractions through Hydro-Thermal Liquefaction; Chemical Engineering; MHRD and MNRE; ₹ 237 lakh
- Production of Hydrocarbon oil via Hydro-Thermal Liquefaction (HTL) of recycled from HTL unit; Biosciences and Bioengineering; ONGC; ₹ 182 lakh
- Feasibility Studies and Optimisation of Electromagnetic Pulse Welding of Tubes for Nuclear Reactor Application; Mechanical Engineering; BRNS; ₹ 164 lakh
- ARTICULATE+:- A system for automated assessment and rehabilitation of persons with articulation disorders; Centre for Linguistics and Technology; MHRD; ₹ 137 lakh
- North East Silk Biomaterial Based Injectable Hydrogels for Drug Delivery and Tissue Engineering; Biosciences and Bioengineering; DBT; ₹ 134 lakh
- Development of BHISM for Blast and Impact Resistant Design and Testing of Products; Civil Engineering; MHRD; ₹ 125 lakh

Major Conference Held:

- International Conference on Waste Management (RECYCLE 2016) – April 2017
- 3rd National Workshop on NEMS/MEMS and Theranostics Devices (NWNTD-2017) – February 2017
- International Conference on Research into Design (ICoRD'17) – January 2017
- National Conference on Frontiers in Chemical Sciences (FICS-2016) – December 2016
- 22nd Himalayan Languages Symposium – June 2016
- National Conference on Recent Advancements in Environmental Research – June 2016
- 20th International Symposium on VLSI Design and Test (VDAT 2016) – May 2016
- 7th DAE-BRNS biennial symposium on Emerging Trends in Separation Science and Technology (SESTEC 2016) – May 2016

Annual Report 2016–2017: A Quick Look

Department/Centre	
Academic Department	11
Academic Centre	5
Service Centre	5

Grants (₹ in crores)		
MHRD	Non-Plan: 150.00	Plan: 165.00
Total	₹ 282.15 crores	

Students Admitted	
Preparatory	10
BTech/BDes	651
MTech/MDes	439
MSc/MA	169
PhD	377
MS (R)	14
Dual Degree	8
Total	1668

Students Strength	
Preparatory	10
BTech/BDes	2610
MTech/MDes	844
MSc/MA	323
PhD	1927
MS (R)	24
DUAL Degree	32
Total	5770

Number of Degrees Awarded 18 th Convocation (22 June 2016)	
BTech/BDes	630
MTech/MDes	356
MSc	129
MA	22
PhD	128
Total	1265

Faculty/Staff Strength	
Faculty	411
Scientific Staff (Group A)	40
Officers (Group A)	38
Support Staff (Group B & C)	381
Total	870

Research Papers	
Journal Papers	952
Conference Papers	827
Total	1779

Consultancy Projects	
New Projects	103
Outlay (₹ in crore)	4.19

Sponsored Research Projects	
New Projects	147
Outlay (₹ in crore)	69.00



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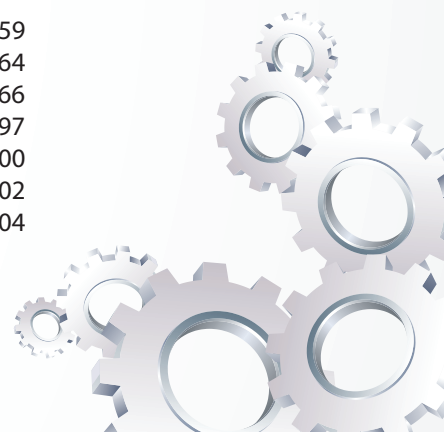
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PART I

Organisation

IIT Council

Board of Governors

Senate

Finance Committee

Building and Works Committee

Executive Summary





Organisation

Chairman, Council of IITs

Shri Prakash Javadekar

Hon'ble Minister of Human Resource Development
Govt. of India, Shastri Bhawan, New Delhi

Chairman, Board of Governors

Dr. Rajiv I. Modi

Chairman & Managing Director
Cadila Pharmaceuticals Limited
Cadila Corporation Campus
Sarkhej-Dholka Road, Bhat
Ahmedabad 382 210, Gujarat

Director

Prof. Gautam Biswas

Deputy Director

Prof. P. K. Bora

Dean, Academic Affairs

Prof. M. G. P. Prasad

Dean, Faculty Affairs

Prof. P. Mahanta

Dean, Research and Development

Prof. S. R. M. Prasanna

Dean, Students' Affairs

Prof. Chandan Mahanta

Dean, Infrastructure, Planning and Management

Prof. S. K. Kakoty

Dean, Alumni and External Relations

Prof. R. M. Punekar

Dean, Outreach Education Programme

Prof. A. K. Gogoi (up to 08.05.2016)

Prof. S. Basu (from 09.05.2016)

Associate Dean, Academic Affairs

Prof. A. Saikia

Associate Dean, Faculty Affairs

Prof. S. Natesan

Associate Dean, Research and Development

Prof. Gopal Das

Associate Dean, Students' Affairs

Prof. L. Rangan (upto 02.06.2016)

Prof. A. Perumal (from 22.04.2016)

Prof. Hemangee K. Kapoor (from 03.08.2016)

Associate Dean, Infrastructure, Planning and Management

Dr. R. K. Bhattacharjya (up to 01.07.2016)

Prof. Sharad Gokhale (from 02.07.2016)

Associate Dean, Alumni Affairs and External Relations

Prof. R. Chaturvedi

Registrar

Mr. U. C. Das

Head, Department of Biosciences and Bioengineering

Prof. K. Pakshirajan

Head, Department of Chemical Engineering

Prof. B. Mandal

Head, Department of Chemistry

Prof. B. K. Patel

Head, Department of Civil Engineering

Prof. S. Dutta

Head, Department of Computer Science and Engineering

Prof. D. Goswami

Head, Department of Design

Prof. U. Barua

Head, Department of Electronics and Electrical Engineering

Prof. Chitrlekha Mahanta

Head, Department of Humanities and Social Sciences

Dr. A. Saikia

Head, Department of Mathematics

Prof. S. N. Bora

Head, Department of Mechanical Engineering

Prof. A. K. Dass

Head, Department of Physics

Prof. P. Poulse

Head, Centre for Energy

Prof. P. Goswami

Head, Centre for the Environment

Prof. V. K. Dubey

Head, Centre for Nanotechnology

Prof. R. P. Paily

Head, Central Instruments Facility

Dr. G. Krishnamoorthy

Head, Centre for Educational Technology

Prof. S. K. Khijwania

Head, Computer & Communication Centre

Prof. S. V. Rao

Head, Centre for Linguistic Science and Technology

Prof. S. Nandi

Head, Centre for Career Development

Prof. K. Mohanty

Head, Centre for Rural Technology

Prof. S. K. Kakoty

Librarian, Lakshminath Bezbaroa Central Library

Dr. T. Guha

IIT Council

Minister in charge of Technical Education in the Central Government (Ex-Officio)	Chairman
Chairman of Board of Governors of all Indian Institutes of Technology (Ex-Officio)	Member
Director of all Indian Institutes of Technology (Ex-Officio)	Member
Chairman, University Grants Commission (Ex-Officio)	Member
Director General, Council of Scientific and Industrial Research (Ex-Officio)	Member
Chairman, Indian Institute of Science, Bangalore (Ex-Officio)	Member
Director, Indian Institute of Science (Ex-Officio)	Member
Three nominees of the Central Government	
To represent the Ministry concerned with Technical Education	Member
To represent the Ministry of Finance	Member
To represent any other Ministry	Member
Nominee of the All India Council for Technical Education (AICTE)	Member
Nominees of the Visitor (minimum 3 and maximum 5)	Member
Three Members of Parliament (two from Lok Sabha and one from Rajya Sabha)	Member
Secretary to the Council	Secretary

Board of Governors

Chairman

Dr. Rajiv I. Modi

Chairman & Managing Director
Cadila Pharmaceuticals Limited
Cadila Corporation Campus
Sarkhej-Dholka Road, Bhat
Ahmedabad 382 210, Gujarat

Member (Ex-Officio)

Prof. Gautam Biswas

Director
IIT Guwahati

Member-Nominees of the IIT Council

Dr. Chitra Dutta

Head, Structural Biology and Informatics Division
CSIR - Indian Institute of Chemical Biology
Kolkata 700 032

Prof. M. K. Chaudhuri

Vice-Chancellor
Tezpur University
Napaam, Tezpur 784 028

Mr. Pydah Venkatanarayana

Member, Pydah Educational Academy
3-16B-115, Santhi Nagar
Kakinada 533 003

Dr. D. B. Goel

Former Professor, IIT Roorkee
268/5, 16 Civil Lines
Roorkee 247 667

Member-Nominee of the Govt. of Assam

Commissioner and Secretary to the Govt. of Assam
Higher Education (Technical) Department
Dispur, Guwahati 781 006

Member-Nominee from North Eastern Region

Mr. C. Lalhmachhuana, ITS

Secretary, Information and Telecommunication
Technology Department
Government of Mizoram, Aizawl

Member-Nominees of the Senate

Prof. R. Alam (up to 31.12.2016)

Professor
Department of Mathematics
IIT Guwahati

Prof. C. Mahanta

Professor
Department of Electronics and Electrical Engineering
IIT Guwahati

Prof. Anoop Kr. Dass (from 01.01.2017)

Professor
Department of Mechanical Engineering
IIT Guwahati

Secretary (Ex-Officio)

Mr. U. C. Das

Registrar
IIT Guwahati

Senate

Composition of the Senate

- | | |
|--|-------------------------|
| 1. The Director | Chairman (Ex-Officio) |
| 2. The Deputy Director | Member (Ex-Officio) |
| 3. All Professors of the Institute | Members (Ex-Officio) |
| 4. Three persons, not being employees of the Institute, to be nominated by the Chairman, BOG in consultation with the Director, from among educationists of repute, one each from the fields of science, engineering and humanities | Board Nominated Members |
| <p>Prof. H. K. Das
 Pro. Vice Chancellor, Assam Down Town University
 House No. 1, 2nd Bye Lane
 Baranchal Road, Bamunimaidam
 Guwahati 781 021</p> <p>Prof. Anil Kumar Goswami
 137, U. N. Bezbarooah Road
 Silpukhuri, Guwahati 781 003</p> <p>Prof. Birendranath Datta
 Chandrabala Barooah Lane
 104, G.N.B. Road, Silpukhuri
 (near SBI Evening Branch)
 Guwahati 781 003</p> | |
| 5. Head of the Academic Departments and Academic Centres | Members (Ex-Officio) |
| 6. Librarian of the Institute | Member (Ex-Officio) |
| 7. Chairman, Hostel Affairs Board | Member |
| 8. Registrar of the Institute | Secretary (Ex-Officio) |

Finance Committee

Dr. Rajiv I. Modi

Chairman & Managing Director
Cadila Pharmaceuticals Limited
Cadila Corporation Campus,
Sarkhej-Dholka Road, Bhat,
Ahmedabad 382 210

Chairman (Ex-Officio)

Prof. Gautam Biswas

Director
IIT Guwahati

Member (Ex-Officio)

Prof. P. K. Bora

Professor, Department of Electronics and Electrical Engineering
IIT Guwahati

Member

Director (IITs)

Department of Higher Education
Ministry of Human Resource Development, Govt. of India
Shastri Bhavan, New Delhi 110 115

Member

Director (Finance)

Integrated Finance Division, Department of Higher Education
Ministry of Human Resource Development, Govt. of India
Shastri Bhavan, New Delhi 110 115

Member

Prof. Dilip Kr. Barua

Former Principal, Cotton College, Guwahati

Member

Mr. Mukesh M. Shah

Chartered Accountant and
Founder and Managing Partner, Mukesh M. Shah & Co.
7th Floor, Heritage Chambers
Nehru Nagar, Ahmedabad 380 015

Member

Mr. U. C. Das

Registrar
IIT Guwahati

Secretary (Ex-Officio)

Building and Works Committee

Prof. Gautam Biswas

Director
IIT Guwahati

Chairman (Ex-officio)**Superintending Engineer (CPWD), Assam**

Assam Central Circle-II, CPWD Complex
Garchuk, Guwahati 781 035

Member (Ex-officio)**Chief Engineer (Buildings), PWD, Assam**

PWD, Govt. of Assam
Chandmari, Guwahati 781 003

Member (Ex-officio)**Shri Mrinal R. Das**

Former Secretary, PWD, Govt. of Assam

Member**Shri Pramathesh Choudhury**

Director, Design (Retd.), PWD, Govt. of Assam

Member**Prof. P. K. Bora**

Deputy Director and Professor,
Department of Electronics and Electrical Engineering, IIT Guwahati

Member (Ex-officio)**Prof. S. K. Kakoty**

Dean, Infrastructure, Planning and Management and
Professor, Department of Mechanical Engineering, IIT Guwahati

Member (Ex-officio)**Prof. Sharad Gokhale**

Associate Dean, Infrastructure, Planning and Management and
Professor, Department of Civil Engineering, IIT Guwahati

Special Invitee**Mr. U. C. Das**

Registrar, IIT Guwahati

Member Secretary (Ex-officio)



Executive Summary



INTRODUCTION

The year 2016 has seen its eighteenth batch of students taking their degrees in the month of June. The Institute takes pride in the achievements of its students and gladly announces that almost all the passed out students have been well placed in various government organisations and multi-national companies in India and abroad. All the achievements in academic and research areas have been successful only because of the relentless efforts of dedicated faculty members and the commendable cooperation of all other non-teaching employees of the Institute.

Here is a brief report on the activities and achievements of the Institute during the year 2016-2017.

THE BOARD OF GOVERNORS

Prof. Anoop Kr. Dass, Professor, Department of Mechanical Engineering, IIT Guwahati joined the Board in January 2017 as a nominee of the Senate. Prof. R. Alam, Professor, Department of Mathematics, has completed his tenure as the nominee of the Senate in December 2016. On behalf of the Board, I welcome Prof. Dass to the Board and thank Prof. Alam for his valuable contributions.

ACADEMIC ACTIVITIES

The Institute has 11 academic departments, 5 interdisciplinary academic centres and 5 extramural centres. Centre for Linguistic Science and Technology and Centre for Rural Technology, have started offering academic and research programmes from the new academic year. The areas covered for study are inter-disciplinary in nature with equal emphasis on new technology and developmental issues of the North Eastern region. While the Centre for Rural Technology is offering PhD and MTech programmes, the Centre for Linguistic Science and Technology is offering PhD programme.

The Department and Centres are—

Departments

Biosciences and Bioengineering (BSBE), Chemical Engineering (CL), Chemistry (CH), Civil Engineering (CE), Computer Science and Engineering (CSE), Design (DE), Electronics and Electrical Engineering (EEE), Humanities and Social Sciences (HSS), Mathematics (MA), Mechanical Engineering (ME), and Physics (PH)

Academic Centres

Centre for Energy, Centre for the Environment, Centre for Nanotechnology, Centre of Linguistic Science and Technology, and Centre for Rural Technology

Extramural Centres

Computer and Communication Centre, Central Instruments Facility, Centre for Educational Technology, Centre for Career Development, and Centre for Creativity

The Institute offers academic programmes covering a wide range of science, engineering, and humanities disciplines as given below:

Bachelor of Technology (BTech) programmes in Biotechnology (BT), Chemical Engineering (CL), Chemical Science and Technology (CT), Civil Engineering (CE), Computer Science and Engineering (CS), Electronics and Communication Engineering (EC), Electronics and Electrical Engineering (EE), Engineering Physics (EP), Mathematics and Computing (MC), and Mechanical Engineering (ME);

Bachelor of Design (BDes) programme in Design (DD);

Master of Technology (MTech) programmes in BT, CL, CE, CS, EE, and ME;

Master of Design (MDes) programme in Design;

Master of Science by Research [MS(R)] programme in Energy (EN);

Master of Science (MSc) programmes in Chemistry (CH), Mathematics and Computing (MC), and Physics (PH);

Master of Arts (MA) programme in Development Studies (DS) in the Department of Humanities and Social Sciences (HS);

Doctor of Philosophy (PhD) programmes in all the

Departments and in the Centre for Energy (EN), Centre for the Environment (EV), and Centre for Nanotechnology (NT); and **Dual (MTech+PhD) programme** in the Department of Computer Science and Engineering (CS).

Dual [MS (Eng.) + PhD] programme in Electronics and Electrical Engineering (EE).

The total number of enrolled students in 2016-2017 is 5770. Of these, 55% are postgraduate students. The detailed break up is —

Course	2015-2016	2016-2017
Preparatory	5	10
BTech and BDes	2615	2610
MTech and MDes	817	844
MSc	265	274
MA	49	49
MS	10	24
Dual Degree (MTech+PhD)	29	32
PhD	1743	1927
Total	5533	5770

Eighteenth Convocation

In the Eighteenth Convocation held on 22 June 2016, a total number of 1265 students received their BTech, BDes, MA, MSc, MTech, MDes and PhD degrees as given in the next page



Prof. Jitendra Nath Goswami (C), renowned astrophysicist and planetary scientist, Principal Scientist of Chandrayaan-1 Mission and Chairman, Advisory Board of Chandrayaan-2 Mission, JC Bose National Fellow and former Director of Physical Research Laboratory, Ahmedabad; Dr. Rajiv I. Modi (L), Chairman, BoG, IIT Guwahati, Chairman & Managing Director, Cadila Pharmaceuticals Limited; Prof. Gautam Biswas (R), Director, IIT Guwahati, along with the gold and silver medal winners at the 18th Convocation



Prof. Jitendra Nath Goswami with the President of India Gold Medal winner at the 18th Convocation

Programme	Nos.
BTech/BDes	
Biotechnology	47
Chemical Engineering	61
Chemical Science and Technology	33
Civil Engineering	73
Computer Science and Engineering	88
Design	37
Electronics and Communication Engineering	81
Electronics and Electrical Engineering	48
Engineering Physics	34
Mathematics and Computing	46
Mechanical Engineering	82
Total	630



Dr. Rajiv I. Modi presenting the Dr. Shankar Dayal Sharma Gold Medal at the 18th Convocation

Programme	Nos.
MSc	
Chemistry	47
Mathematics and Computing	38
Physics	44
Total	129
MA	
Development Studies	22
Total	22



Dr. Rajiv I. Modi (L), Prof. Jitendra Nath Goswami (C) and Prof. Gautam Biswas (R) sharing the dias at the 18th Convocation



Prof. Gautam Biswas receiving the NIRF trophy from the Hon'ble President of India, Shri Pranab Mukherjee, at the Rashtrapati Bhavan in the presence of Shri Prakash Javadekar, Hon'ble Minister of Human Resource Development (HRD) and Dr Mahendra Nath Pandey, Hon'ble Minister of State for HRD (Higher Education)

Programme	Nos.
MTech/MDes	
Biotechnology	32
Chemical Engineering	46
Civil Engineering	80
Computer Science and Engineering	46
Design	26
Electronics and Electrical Engineering	47
Mechanical Engineering	79
Total	356
PhD	
Biosciences and Bioengineering	6
Chemical Engineering	19
Chemistry	30
Civil Engineering	10
Computer Science and Engineering	4
Design	8
Electronics and Electrical Engineering	6

Programme	Nos.
Humanities and Social Sciences	4
Mechanical Engineering	21
Mathematics	5
Physics	9
Centre for Energy	2
Centre for the Environment	2
Centre for Nanotechnology	2
Total	128
Grand Total	1265

MHRD-NIRF India Rankings 2017

A major achievement for the Institute came through the announcement of MHRD, National Institutional Ranking Framework (NIRF), India Rankings 2017 in which IIT Guwahati ranked eighth among all the participating universities and institutions and seventh among the top engineering institutions in the country. The credit for this success entirely goes to the faculty members, students, research scholars as well as the officers and staff members and well-wishers of



Group photograph taken at the NIRF award giving ceremony at the Rashtrapati Bhavan. *Standing (L to R)*– Prof. Partha Pratim Chakraborty (Director, IIT Kharagpur), Dr. Pratibha Jolly (Principal, Miranda House, New Delhi), Prof. Shailesh Gandhi (Dean, IIM Ahmedabad), Prof. Devang V. Khakhar (Director, IIT Bombay), Dr. Seyed Ehtesham Hasnain (Vice Chancellor, Jamia Hamdard University, New Delhi), Prof. M. Jagadesh Kumar (Vice Chancellor, Jawaharlal Nehru University, New Delhi), Prof. U. P. Singh (Acting Director, IIT Roorkee), Prof. Girish Chandra Tripathi (Vice Chancellor, Banaras Hindu University, Varanasi), Prof. Gautam Biswas (Director, IIT Guwahati), Prof. Indranil Manna (Director, IIT Kanpur), Prof. V. Ramgopal Rao (Director, IIT Delhi), Prof. Parameswar K. Iyer (Professor In-Charge, PRIR, IIT Guwahati); *Seated (L to R)*– Prof. Anurag Kumar (Director, IISc), R. Subrahmanyam (Additional Secretary-TE, MHRD), Dr. Mahendra Nath Pandey (Minister of State for HRD), Shri Prakash Javadekar (Minister of HRD), Shri Pranab Mukherjee (President of India), Smt. Omita Paul (Secretary to the President of India), Mr. Kewal Kumar Sharma (Secretary-HE, MHRD), Dr. Surendra Prasad (Chairman, NBA & Implementation Core Committee, NIRF), Prof. Bhaskar Ramamurthy (Director, IIT Madras)

the Institute. The Institute shall tirelessly strive in the coming days to achieve more.

PARAM ISHAN – Supercomputing Facility

IIT Guwahati has installed a high performance



Shri Prakash Javadekar, Hon'ble Minister of Human Resource Development, inaugurating PARAM ISHAN – Supercomputing Facility



Shri Prakash Javadekar, Hon'ble Minister of Human Resource Development, inaugurating PARAM ISHAN – Supercomputing Facility

supercomputing facility of 250 TF peak computing performance with 300TB PFS storage with infiniband interconnect at Computer and Communication Centre of the Institute. The facility has been christened PARAM ISHAN – C-DAC-IITG Supercomputing Facility. Hon'ble Minister for Human Resource Development, Government of India, Shri Prakash Javadekar launched the Supercomputing Facility on 19 September 2016. With the installation of this state-of-the-art facility, the Institute is equipped to address challenging problems in science and technology.

ISHAN VIKAS

Started in 2014, and funded by MHRD with a vision on improving the scenario of school and college education in the North-Eastern part of the country, Ishan Vikas has achieved, albeit partially, the goals and objectives of the initiative. A large number of school children and engineering college students from various places of the North-Eastern states are provided with the opportunity of visiting the IITs, IISERs, NITs and the NIAS, get trained by skilled faculty members and the technical staff, exposed to the state-of-the-art research facilities and interact with them.

About 1650 school students and 250 engineering students studying in various institutions in the North East have participated in the programme till date. Almost all the

IITs, IISERs and NIAS have acted as host institutes for the participants and the participating students have greatly benefitted from the exposure that they received from such premier institutions in engineering, technology and the pure sciences.

NATIONAL PROJECTS

Project Vishwajeet is an ambitious project of MHRD, GoI to upgrade the facilities of selected IITs to world class level. IIT Guwahati is happy to inform about securing this project. GoI will invest about ₹2700 crores over next five years at IIT Guwahati to create advanced infrastructure and also advanced research and development facilities. Areas like healthcare, signal processing, flexible electronics, advanced manufacturing, water resources management, material science and engineering, and photonics, plasmonics and laser applications, have been identified to create advanced R&D facilities.



Global Initiative of Academic Networks (GIAN), an initiative of Govt. of India for Higher Education, was started in 2016. The major aims of GIAN are to tap the international pool of talented scientists/entrepreneurs with an objective to encourage their engagement with the institutes of Higher Education in India. The initiative is aimed to augment the country's existing academic resources, accelerate the pace of quality reforms, and elevate India's scientific and technological capacity to global excellence. In the reporting year, 15 such courses were conducted by erudite scholars from international universities/institutions at the Institute. To name a few courses:

1. Dr. Maurizio Palesi, University of Catania, Italy – “Scalable On-chip Interconnects for many-core Systems”
2. Prof. Yannis Stylianou, University of Crete, UK – “Advanced Sinusoidal Modeling of Speech and Applications”
3. Dr. Jose Palomar, Universidad Autonoma de Madrid (Spain) – “Integration of Molecular Design to Process Simulation for the Development of Industrial Chemical Products and Processes”
4. Dr. Kari Tammi, Aalto University, Finland – “Design of Electric Vehicle Systems”
5. Dr. Richard Blanchard, Loughborough University's (UK) – “Electricity Systems and Future Scenarios”
6. Prof. Mayank Tyagi, Louisiana State University, Baton Rouge, USA – “Reservoir Simulation – Mathematical Techniques in Oil and Gas Recovery”
7. Dr. Saurav Goel, Queen's University Belfast, UK – “Advances in Ultra-precision Machining Processes”

The Institute is also engaged in creating e-course contents for the MHRD flagship programme Central Sector Scheme-Massive Open Online Courses (CSS-MOOCs) where courses are delivered through NPTEL online portal that are open for anyone with an Internet connection. In the first year of execution of CSS-MOOCs, IIT Guwahati has offered five courses under this scheme.

The Institute organised teacher training programmes under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) – an MHRD, Govt. of India Initiative – for in-service teachers of Assam and other states of India. The aim of this programme is to strengthen the quality of teaching and education of science and mathematics in the country.

ACADEMIC INFRASTRUCTURE DEVELOPMENT

Hon'ble Minister of State, Human Resource Development (Higher Education), Govt. of India, Dr. Mahendra Nath



Dr. Mahendra Nath Pandey, Hon'ble Minister of State, Human Resource Development (Higher Education), Govt. of India, while inaugurating the high capacity servo hydro press Universal Testing Machine (UTM) at the Central Instruments Facility of IIT Guwahati

Pandey, visited IIT Guwahati on 28 October 2016 and inaugurated the newly installed high capacity servo hydro press Universal Testing Machine (UTM) at the Central Instruments Facility.

Dr. Rajiv I. Modi, Chairman, Board of Governors, IIT Guwahati recently inaugurated the 'Electron Microscopic Facilities' of the Central Instruments Facility (CIF) of the Institute which is expanded with installation of a Field Emission Transmission Electron Microscope (FETEM) and a Field Emission Scanning Electron Microscope (FESEM) at the cost of nearly ₹10 crores.

The new FETEM is a JEM-2100F (HR) instrument, a make of JEOL, is basically a next generation multipurpose TEM. The JEM-2100F can achieve the highest image quality and the highest analytical performance in the 200 kV class analytical TEM with a probe size under 0.5 nm. FETEM is also equipped with the latest GATAN Ultrafast Camera and Oxford make Energy Dispersive X-ray Spectrometer with 80 mm² high performance detector for elemental analysis with



Prof. Vijay Dhir, University of California, Los Angeles, USA, with Prof. Gautam Biswas and faculty members of IIT Guwahati



Dr. Rajiv I. Modi, Chairman, Board of Governors, while inaugurating the 'Electron Microscopic Facilities' of the Central Instruments Facility

a detection limit from Boron to Uranium. This is the first field emission TEM of the northeast India.

The new Carl Zeiss Gemini 300 FESEM is a high performance instrument designed for gaining maximum information from the broadest range of sample and high flexibility in imaging, analysis, with future upgradability for any kind of in situ application. The Gemini 300 of CIF is equipped OXFORD Instruments' advanced Windowless Energy Dispersive X-ray Spectrometer (EDS) system for characterisation of nano-size features. The windowless EDS is a recent technology of its kind. These instruments would boost up the research capabilities and empower the scientists to attempt much more analytically intense problems.

A number of new equipment have been added to the laboratories of the Departments and Centres. Some of the major equipment and facilities acquired by the Institute during the year under report are –

- Carl Zeiss F. E. Electron Microscope ₹ 133 lakh
- Electromagnetic Manufacturing Unit ₹ 23 lakh

- Inductively Coupled Plasma Mass Spectrometry ₹ 68 lakh
- Micrological Cultivation System ₹ 46 lakh
- HPC ₹ 44 lakh
- Semi-Automatic wire Bonder ₹ 42 lakh
- Electro Spinning Device ₹ 41 lakh
- Photo Electron Chemical Workstation ₹ 41 lakh





Lakshminath Bezbaroa Central Library and the Computer and Communication Centre

Lakshminath Bezbaroa Central Library is a major service centre of the Institute which provides services and facilities to support the teaching, learning, research activities. The Library has a collection of about 1.65 lakhs of printed books and bound volumes of journals, 1.53 lakhs of e-books, and 90 print and 24000 online journals along with a substantial number of other documents. During the reporting year, the Library has subscribed to some of the world's most renowned abstract/full-text database like Scopus, INSPEC, EBSCO Discovery Service, IEC Standards, etc. and some national level database i.e. CMIE Prowees, BIS Standards, EPWRF Time Series, etc.

Being member of e-ShodhSindhu: Consortium for Higher Education Electronic Resources and DelCON DBT-Electronic Library Consortium, Library gets access to varied and vast collection of academic publications. The Library is actively involved in different activities of the National Digital Library project of MHRD under NME-ICT. The Library remains open throughout the year.



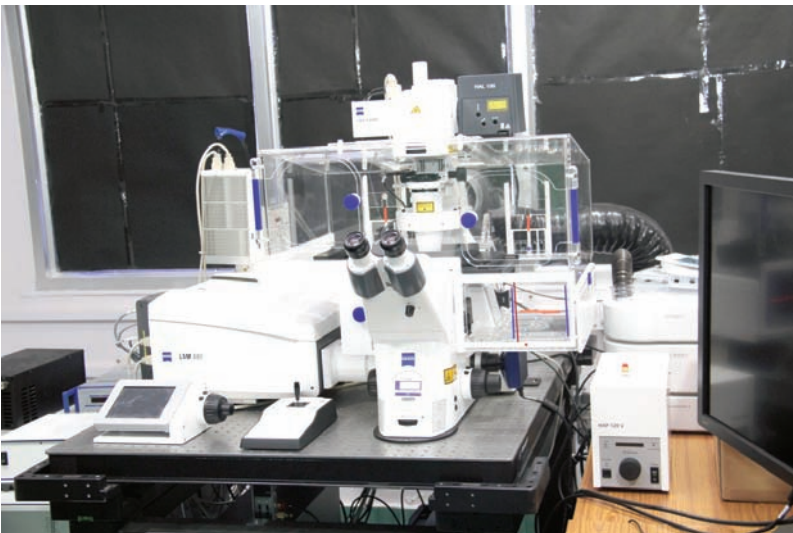
Universal Testing Machine (UTM) at the Central Instruments Facility

The Computer and Communication Centre has augmented its facilities to provide better service in connectivity. The Centre also acts as a nodal centre for various network related activities of the North-Eastern states. Projects of the National Knowledge Network and the ERNET are being actively pursued in the Centre.

RESEARCH AND DEVELOPMENT

The number of PhD students on campus is increasing every year. This year too has seen a considerable increase in numbers, growing from 1743 students last year to 1927 this year. The current faculty to PhD students' ratio is 4.69. The number of graduating PhD students has also increased to 155 from 128 in the previous year

The other component of our research programme is sponsored (or directed) research. There are 440 research projects in progress with a total sanctioned value of about ₹260 crore. In the year under report we received 147 new projects with a sanctioned value of ₹69 crore. The R&D



projects are mainly sponsored by Government Ministries and Departments with major support coming from Ministry of Human Resource Development (MHRD), Departments of Science and Technology (DST), Biotechnology (DBT), Atomic Energy (DAE), Electronics and Information Technology (DeitY), Defence Research and Development Organisation (DRDO). We also have a considerable number of industry supported research projects. 245 personnel are engaged in various research projects at the Institute with 250 Principal Investigators involved. During the reporting year ₹7.59 crores were spent under manpower head.

The Institute has applied for 20 patents in 2016-2017.

Some of the major research projects received during the year are—

Project Title	Department/ Centre	Funding Agency	Amount Sanctioned (₹ in lakhs)
Pilot scale study for biodiesel production using waste rubber seeds as raw material	Energy	MHRD	410
Mass cultivation of Microalgae for the production of high value bio-fuel fractions through Hydro-Thermal Liquefaction	Chemical Engg.	MHRD and MNRE	237
Production of Hydrocarbon oil via Hydro-Thermal Liquefaction (HTL) of recycled from HTL unit	BSBE	ONGC	182
Feasibility Studies and Optimisation of Electromagnetic Pulse Welding of Tubes for Nuclear Reactor Application	Mechanical Engg.	BRNS	164
ARTICULATE+: A system for automated assessment and rehabilitation of persons with articulation disorders	CLST	MHRD	137
North East Silk Biomaterial Based Injectable Hydrogels for Drug Delivery and Tissue Engineering	BSBE	DBT	134
Membrane based efficient energy storage, clean energy generation and waste water treatment system	Energy	DST	129
Development of BHISM for Blast and Impact Resistant Design and Testing of Products	Civil Engg.	MHRD	125
Assessment of impact of climate change on crop water requirements and productivity of major crop in Sikkim, Himalayan region of North East India	Civil Engg.	DST	116
Design and development of a membrane reformer prototype for production of Ultra-Pure Hydrogen from Methanol for Fuel Cell based vehicle and power generators	Chemical Engg.	DST	114

Table-1

BRNS – Board of Research in Nuclear Sciences

DST – Department of Science and Technology, Govt. of India

DBT – Department of Biotechnology, Govt. of India

MNRE – Ministry of New and Renewable Energy

In addition to sponsored research projects, IIT Guwahati undertakes consultancy assignments for various State Government Departments, the Railways, the National Highways Authority of India, the Oil and Gas Sector, Construction and Infrastructure Companies, the Power Sector, Educational Institutes, Health and Pharmaceutical Industries and Financial Institutions. Consultancy projects make significant contributions to the industrial, economic and social growth of the country with special emphasis on this region.

A total of 103 new consultancy projects were carried out

during the year. The total value of consultancy projects undertaken during this year is ₹4.19 crores, and ₹7.13 crores was received for all consultancies.

IIT Guwahati has a Technology Incubation Centre (IITG-TIC) which facilitates new start-ups. Presently fifteen incubating companies are working in the centre.

IIT Guwahati Research Park

IIT Guwahati is facilitating established companies to set up their R&D centre inside the Institute campus for industry-academia collaboration. At present the following

companies got inducted at IITG Research Park:

- CADILA R&D Lab: Pharmaceuticals
- Kovid Lab: Big data analytics and Multimedia
- DESHYA Technologies: Teaching-Learning tools
- Silicon Microsystems: Embedded systems + IoT

Two more companies will join very soon.



Prof. Gautam Biswas while inaugurating Kovid Lab

FACULTY AND STAFF

The faculty strength at the end of March 2017 was 411. The number of non-teaching staff at the end of March 2017 was 459.

RESEARCH PUBLICATIONS

The faculty members of the Institute have been actively publishing research papers in international and national journals as well as in conference proceedings. The number of publications during the past one year is:

Papers in Journals: 952

Papers in Conference Proceedings: 827

In the previous year 883 papers in journals and 705 papers in conference proceedings were published by the faculty of



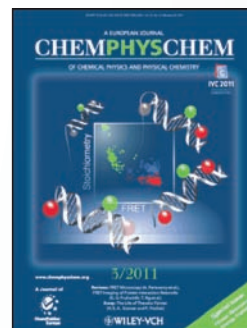
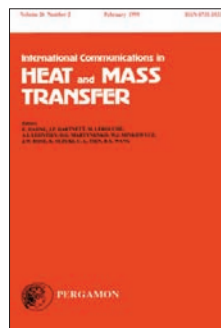
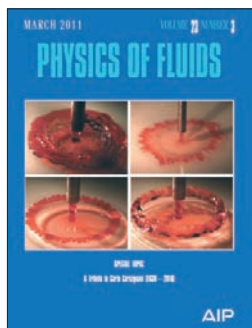
Seminar on Revisiting Partition

the Institute. The increase in research papers in journals as well as conference proceedings is satisfactory.

CONFERENCES/WORKSHOPS/SYMPOSIA

Various conferences, seminars and workshops were organised by the Departments and Centres of the Institute during the year. A few of them are—

- International Conference on Waste Management (RECYCLE 2016) – April 2017
- Seminar on Revisiting Partition: Concepts, Dynamics and Manifestations with special focus on North East India – February 2017
- 3rd National Workshop on NEMS/MEMS and Theranostics Devices (NWNTD-2017) – February 2017
- 3rd Indian Control Conference (ICC-2017) – January 2017
- International Conference on Research into Design (ICoRD'17) – January 2017
- National Conference on Frontiers in Chemical Sciences (FICS-2016) – December 2016
- Conference on India-Myanmar Bilateral Ties: Ethnicity, Security and Connectivity – September 2016
- 22nd Himalayan Languages Symposium – June 2016





- National Conference on Recent Advancements in Environmental Research – June 2016
- 20th International Symposium on VLSI Design and Test (VDAT 2016) – May 2016
- 7th DAE-BRNS biennial symposium on Emerging Trends in Separation Science and Technology (SESTEC 2016) – May 2016

IIT Guwahati participated in a Joint Symposium on Applied Science and Technology of Bio-related Materials co-hosted by Gifu University in August 2016 in Japan. A joint degree programme with the partner universities were worked out in the symposium.

The Institute has also organised more than 30 short term courses, workshops, and training programmes under the Technical Education Quality Improvement Programme (TEQIP) and Electronics and ICT Academy, projects funded by the Govt. of India.

INTERNATIONAL COLLABORATIONS

Collaboration with Universities in UK

The Institute is making sustained efforts to establish contact

with Universities in the United Kingdom. It is now actively engaged in communicating with 29 Universities/Institutes in the United Kingdom seeking avenues to establish a robust academic and research collaboration.

Collaboration with Universities in Japan

Faculty members of IIT Guwahati are engaged in collaboration with their counterparts from the Tokyo Institute of Technology, Japan, National Institute of Advanced Industrial Science and Technology, Japan (AIST) which resulted in the establishment of a DBT-AIST International Laboratory for Advanced Biomedicine (DAILAB) for advanced cancer research. It is only the second such laboratory to be established in India. Discussions on a Joint Masters-PhD programme with Gifu University, Japan is at an advanced stage and the programme is expected to commence in 2019.

His Excellency, Mr. Kenji Hiramatsu, the Honourable Ambassador of Japan to India visited the campus and addressed the students and faculty members of IIT Guwahati on Indo-Japanese bilateral relations and the prospects of academic and research collaborations between India and Japan. The visit of the honourable ambassador has added impetus to the relationship between IIT Guwahati and institutes in Japan.



NWNTD-2017



Mr. Kenji Hiramatsu, the Honourable Ambassador of Japan to India, being welcomed by Prof. Gautam Biswas

Faculty members of IIT Guwahati are also actively engaged in collaborations with counterparts from Tokyo Institute of Technology, Hokkaido University, Kyoto Institute of Technology, Kagawa University, National Agriculture and Food Research Organisation (NAFRO), Kyoto University and Shibaura Institute of Technology, Japan.

Joint Masters-PhD Programme with Heidelberg University and DBT

The above is a unique programme to be funded by DBT whereby 15 Master Students from 6 Premier Indian Institutions will be selected and sent to undertake their 4th semester of Masters Programme at the University of Heidelberg out of which 10 will be eventually selected for a Joint-PhD program in Big Data Analysis with Heidelberg University, Germany.

Linnaeus-Palme Partnership

The Linnaeus-Palme International Exchange Programme



Erasmus Mundus Heritage Meeting held in IIT Guwahati



Mr. Kenji Hiramatsu, the Honourable Ambassador of Japan to India, addressing students and faculty members at IIT Guwahati

between IIT Guwahati and Lund University has been approved by the Swedish Council for Higher Education which will fund the programme for a period of seven years interspersed with periodic reviews.

Heritage Network

IIT Guwahati agreed to become part of the Heritage Network, a consortium of Institutions from India and Europe. The network was formed in May 2016 during the concluding event of the Erasmus Mundus Heritage Meeting held in IIT Guwahati.

Asia Technological Universities Network (ATU-Net)

This is one of the most recent of international networks that IIT Guwahati has joined to become a founding member. The vast network of 59 technical Institutes in Asia from 18 different countries creates an exciting platform for institutionalising engagements with reputed institutes abroad.



Prof. Gautam Biswas with Prof. Horie Takashi, Director International Affairs, KIT at Kyoto Institute of Technology (KIT) along with other members from KIT and IIT Guwahati



Prof. Gautam Biswas receiving the Distinguished Alumnus Award – 2016 at the 62nd Convocation of IIT Kharagpur

MEMORANDA OF UNDERSTANDING (MoUs)

IIT Guwahati at present has 108 national and international collaborations aimed at facilitating research collaborations, student and faculty exchange, joint PhD supervision, and other research related activities. The Institute signed twenty one new MoUs with various educational and research institutes in Japan, France, South Korea, Switzerland, China, Netherlands, Spain, etc. during the year under report.

INTERNATIONAL STUDENTS

A substantial number of international students from top universities visit IIT Guwahati every year to pursue full time masters, doctoral and short-term courses as exchange students and interns. As of today, there are about 75 International Students studying in the campus including Research Interns and Exchange Students.

There are also a large number of students, faculty and staff of IIT Guwahati who have visited other institutions for exchange programmes, internships or under flagship programmes such the Erasmus Mundus, DAAD, MITACS, Erasmus+ KA-107, etc.

ALUMNI ACTIVITIES

IIT Guwahati Alumni meet 2016 was successfully organised on the first week of November 2016 witnessing enthusiastic discussions amongst our alumni, students, and other dignitaries. SPARC, the Students' PAN IIT Alumni Relations Cell successfully organised its first Student-Alumni Meet in July in Bangalore. The Institute organised interactive sessions with alumni and the present students aimed at providing career and academic guidance to the current students.



Prof. Arun Chattopadhyay with his team

The Institute now has a fully functional alumni portal designed and managed by our own students.

FACULTY ACHIEVEMENTS

A number of faculty members received awards and brought accolades for the Institute during the year. Some of them are:

Dr. Biman Mandal and Dr. Sachin Kumar, Associate Professors, Biosciences and Bioengineering, won the NASI-SCOPUS Young Scientist Award 2016 in Medicine and Agriculture. This is probably the first and a very rare distinction that in the same year 2 winners (Medicine & Agriculture) out of total 9 are from IIT Guwahati (BSBE department).

Prof. Rakhi Chaturvedi, Professor, Biosciences and Bioengineering, received the Newton-Bhabha Leading Women Scientist Award 2016 in Crop and Agricultural Sciences instituted jointly by DBT, India and Cambridge University, UK.

Prof. Latha Rangan, Professor, Biosciences and Bioengineering, was awarded the Women Scientist Award 2015 of Biotech Research Society of India (BRSI). The award was conferred to her in December 2016. Prof. Rangan was also awarded Fellow of Association of Pharmacy and Biotechnology for the year 2016.

Prof. V. S. Moholkar, Professor, Chemical Engineering, and his research team comprising of Mr. Sushobhan Pradhan, Mr. Arup Jyoti Borah, Mr. Pritam Dikshit and Mr. Maneesh Poddar have been awarded National Award for Technology Innovation in the field of Petrochemicals and Downstream Plastic Processing. The prize comprises of ₹2 lakh cash award along with a shield and citation.

A team of researchers led by Prof. Arun Chattopadhyay, Professor, Chemistry, has invented an easy method for detecting jaundice.



Dr. Biman Mandal and Dr. Sachin Kumar

Prof. S. K. Deb, Professor, Civil Engineering, was awarded the “A. S. Arya - IITR Disaster Prevention Award” of IIT Roorkee for his outstanding contribution in the area of Disaster Prevention/Mitigation.

Prof. Utpal Barua, Professor, Design, received Gold Medal for his visualisation work on this year’s G20 theme: Freedom, Peace, Humanity and Environment as “outstanding work” in an International Exchange exhibition in Hangzhou, China, where all G20 countries had participated.

Prof. Arun Goyal, Professor, Biosciences and Bioengineering, won the Malaviya Memorial Award - Senior Faculty 2016 for outstanding contributions to Biotechnology by Biotech Research Society of India. He also won G. B. Manjrekar Award 2016 for contribution to fundamentals of applied values of Microbiology by Association of Microbiologists of India.

Dr. Shyam P. Biswas, Associate Professor, Chemistry, received Young Scientist Award 2017 by Chemical Research Society of India (CRSI).

Dr. Dipankar Srimani, Assistant Professor, Chemistry, attended Alexander von Humboldt Programme at RWTH Aachen University during April - July 2016.

Prof. Anil K. Saikia, Professor, Chemistry, was awarded Bronze Medal by Chemical Research Society of India (CRSI) for the year 2017 for his contributions to research in chemistry.

Prof. Sukumar Nandi, Professor, Computer Science and Engineering, was elected as Fellow of Indian National Academy of Engineering in November 2016.

Prof. Pradeep Yammiyavar, Professor, Design, with Mr.

Anmol Srivastava, research scholar won the Best Demo Award at 18th ACM International Conference on Multimodal Interaction 2016 in Tokyo, Japan. Prof. Yammiyavar also won Most Distinguished Paper award at ICoRD 2017 with Ravi L., Sai Prasad Ojha.

Prof. Arupjyoti Saikia, Professor in History, Department of Humanities and Social Sciences, has been awarded the prestigious New India Foundation Fellowship for 2017. He will write a book on Assam after Independence.

Dr. Debasish Borah, Assistant Professor, Physics, won the first ever State Science Award, Assam in the segment ‘Young Scientist/Innovator’ instituted by ASTEC for his remarkable contributions in his field of study. The award was presented to him by the Hon’ble Chief Minister of Assam Sri Sarbananda Sonowal.

Dr. Sovan Chakraborty, Assistant Professor, Physics, has been nominated for a Max Planck-India Mobility grant.

Prof. Gautam Biswas, Director, and Professor of Mechanical Engineering, IIT Guwahati, was felicitated with Distinguished Alumnus Award – 2016 at the 62nd Convocation of IIT Kharagpur.

Prof. P. Muthukumar, Professor, Mechanical Engineering, won the Fulbright-Nehru Academic and Professional Excellence Award (Teaching and Research) 2017 from Indo-US Science and Technology Forum.

Prof. S. Kanagaraj, Professor, Mechanical Engineering, won the BIRAC-SRISTI GYTI Award 2016. He also won the DSIR-PRISM (Promoting Innovations in Individuals Start-ups and MSME) Award.

Prof. Anupam Saikia, Professor, Mathematics, joined the editorial board of Journal of Ramanujan Mathematical Society from January 2017.



Prof. V. S. Moholkar



Married Scholars' Hostel

Dr. Arup Chattopadhyay, Assistant Professor, Mathematics, received Fulbright-Nehru Post Doctoral Research Fellowship for 2016-2017 to work with Dr. Anna Skripka at University of New Mexico, Albuquerque, USA.

Dr. Mohammad Qureshi, Professor, Chemistry, received the Fulbright-Nehru Academic and Professional Excellence Fellowships (FNAPE) for 2016-2017 to work with Prof. Shane Ardo at University of California, Irvine, USA.

Congratulations to all.

CONSTRUCTION AND CAMPUS DEVELOPMENT

The Institute has seen considerable growth in number of students in the recent past. In conformity with this we are upgrading our infrastructure with new constructions and extensions.

Students' Hostels

In the tenth boys' hostel – Lohit – all the 804 single seater rooms and 48 rooms with attached toilets were already

handed over. The remaining 152 rooms with attached toilets should be ready soon. Construction work of boys' hostel number eleven is also progressing as scheduled. The entire hostel should be ready for occupation by March 2018. The extension work of the married scholars' hostel with 96 units of flat-lets was completed and handed over for occupation.

Class Room Complex

The construction work of the Class Room Complex is going on. The complex will have six lecture halls of 200 capacity each and eighteen class rooms of 120 capacity with provision of future vertical extension. Finishing work including heating, ventilation and air conditioning (HVAC) and electrical works for eighteen 120 capacity halls is completed. For the six 200 capacity halls, structural works of roof is in progress. The work is expected to be completed within October 2017.

Research Building Complex

The construction works of the multi-storied research building for housing the research facilities and catering to the requirements of time bound funded research projects are in progress. The building is designed as ten storied framed structures having 1850 sqm. per floor. In this phase, the RCC structure with external finish of the building will be constructed upto G+9 storied. However internal finish with HVAC and electrical works would be taken up upto 4th floor. The work is expected to be completed within October 2017.

Expansion of Academic Complex (Phase-V)

The expansion of the Academic Complex under Phase-V started in 2015 and the construction work is in progress. The work is expected to be completed by the end of 2017.

Residential Quarters

The site development work of the 160 units of F-Type



Class Room Complex



Research Building Complex



New Guest House

residential quarters in 4 towers having G+9 storied residential buildings is completed. The tender for the construction will be floated shortly.

Architectural preparations for the proposed 80 units of D type, 40 units of C type and 50 units of B type residential quarters are going on.

The Institute took up construction of 12 units of residential quarters in prefabricated structure to meet the immediate demand for accommodation of faculty and staff. The superstructure work of the construction is going on. The work is expected to be completed by July 2017.

New Guest House

The finishing work of the new guest house is progressing well. Out of the 165 rooms (including 8 VIP rooms) 32 general rooms are in use. It is expected that the Guest House construction would be completed by the end of 2017.

Boundary Wall

The boundary of the Institute campus is being strengthened with the construction of new boundary walls. Already 50% of the boundary has been covered and work on the remaining portion is going on.

Community Work

As a service to the community residing nearby the campus, the Institute took up a project of construction of a crematorium and a park with approach roads after getting requests from social organisations. The work is under progress.

INSTITUTE EXPENDITURE

The details of expenditure during the year 2016-2017 are as follows (in crores of ₹):

Recurring:	184.95
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Non-recurring:	186.35
Sponsored Research:	75.44
Total Expenditure:	446.74

In comparison, in 2015-2016, ₹443.5 crores were spent.

VISIT OF PARLIAMENTARY COMMITTEE

The Parliamentary Committee on Papers Laid on the Table of the Rajya Sabha visited Guwahati and had an interaction with the key officials of the Institute on 13 January 2017. The Committee expressed its pleasure in timely submission of Institute Audit and Annual Report 2015-16 to both the Houses of the Parliament. The august members of the Committee were also apprised about the various projects and activities going on in the Institute.



Prof. Gautam Biswas with officials of IIT Guwahati at the meeting of the Parliamentary Committee

EQUAL OPPORTUNITIES

The Institute is committed to extend all the required supports to the members from the reserved categories and differently abled persons. Government guidelines are followed in this regard. The Head of the Section has proactively initiated several philanthropic initiatives.

STUDENTS' ACTIVITIES

Alcheringa, the annual cultural festival of IIT Guwahati, was held during 2-5 February this year. Alcheringa is now regarded as a much anticipated students' cultural event in the North-East where thousands of students across the country take part in various youth oriented competitions, workshops, seminars and informal events. The performances of musicians and performing artistes of repute are the real crowd puller. In the past Alcheringa has featured some exhilarating performances from some of the biggest names in the entertainment industry.

Techniche-2016 – the annual techno-management festival of the Institute – was held during 1-4 September 2016.



Alcheringa

Techniche has been an extra-ordinary platform to showcase the latest inventions, exhibitions and technological advances from all over the globe. The student teams organise a plethora of events and competitions all designed to make the participants step outside their comfort zones and challenge the institution of conventional thinking. In this edition of Techniche IIT Guwahati hosted Prof. Ada E. Yonath, 2009 Nobel Prize winner in Chemistry from Israel. Prof. Yonath delivered a special lecture and had interactive discussions with the students.

Other regular student events like Manthan, Spirit, Spardha were successfully organised by the students during the year. Moreover, there have been regular events and competitions organised by the various clubs and societies of the Institute.

STUDENTS' ACHIEVEMENTS

Mr. Idul Ahmed, our alumnus of 2010 BTech Mechanical

Engineering batch has topped Indian Engineering Services 2016, in Mechanical Engineering.

Mr. Akash Pandauriya, Mr. Chandahas Kumar and Mr. Nitesh Jindal, all BTech 1st year students, were awarded Samsung Star Scholars for four years with financial support of ₹2 lakh per year for expenses related to tuition fee, hostel fees or mess charges.

Ms. Tushara L. Balabolu, a BTech 2016 batch student of Computer Science and Engineering, won the prestigious Aditya Birla Scholarship for the year 2016 in Engineering stream. She is one of the fifteen best students from IITs/BITS in engineering to receive the scholarship. The scholarship entails each scholar receiving an amount of ₹65,000 per annum.



Alcheringa

Mr. Polanati Sai Arun Kumar and Ms. Galla Lahari, BTech students, won WS Laxman Unstoppable Scholarship. The scholarship amount is ₹50,000 per annum for four years.



Prof. Ada E. Yonath, 2009 Nobel Prize winner in Chemistry, with Prof. Gautam Biswas and other officials of IIT Guwahati

Mr. Jithin Krishnan B., BTech student of Mechanical Engineering, was selected for the prestigious Honda YES (Young Engineer and Scientist) Award 2016-17. He will receive US\$ 3,000 in equivalent Indian Rupees.

Mr. Kalind Baraya, BTech student of Mechanical Engineering, won ONGC Gold Medal. The award consists of cash award ₹1 lakh and a gold plated medallion. The ONGC Gold Medal is awarded to the BTech topper of Mechanical Engineering.

Mr. Sanjeev Kumar, BTech, Mechanical Engineering; Mr. Mandeep Deka, MTech, Mechanical Engineering; Mr. Sudhakantha Girmohanta, MSc, Physics; Ms. Reshmi Dani, MSc, Chemistry, received ONGC Scholarship. The scholarship amount is ₹5,000 per month for a year.

Mr. Mohammed Suhail, Mr. Parth Tiwari, Mr. Suyash Pati Tripathi and Mr. Shubham Tripathi, all BTech students were selected for prestigious O. P. Jindal Engineering and Management Scholarship (OPJEMS) 2016. The scholarship amount is ₹65,000 for a year.

Mr. Bibhas K. Bhunia, research scholar, Biosciences and Bioengineering, won the Talent Search contest on Innovative Research Ideas leading to Entrepreneurial venture in Biotechnology and allied areas organised by Guwahati Biotech Park in January 2017 for his project 'Affordable Bio-artificial Disc for Low Back Pain Management'.

Mr. Somnath Chanda, research scholar, Centre for the Environment, won first prize in IITG-TIC Innovation Competition for his project 'formulation of herbal

cosmeceuticals and nutraceuticals from Assam green tea leaves' in October 2016.

Mr. Bibhas Kumar Bhunia, Mr. Prerak Gupta, Ms. Dimple Chauhan, Mr. Manishekhar Kumar, Mr. Yogendra Pratap Singh, Ms. Janani G and Mr. Joseph Christakiran M., research scholars, Biosciences and Bioengineering, won second prize in IITG-TIC innovation competition for their project 'Silk based affordable tissue grafts and healthcare products' in October 2016.

Mr. Rishikesh Shukla, research scholar, Biosciences and Bioengineering, won the Young Scientist Award of Association of Microbiologists of India (AMI) at Gauhati University, Guwahati.

Ms. Devivasha Bordoloi, research scholar, Biosciences and Bioengineering, received Young Scientist Award for her paper at the International Conference on Nutraceuticals and Chronic Diseases (INCD-2016), Kerala.

Mr. Prerak Gupta and Ms. Shreya Mehrotra, research scholars, Biosciences and Bioengineering were selected for Indo-US Fulbright Fellowship 2017-2018 in Bioengineering.

Mr. Akhilesh Kumar Pal, research scholar, Chemical Engineering, won the Gandhian Young Technological Innovation Award for 2017. Mr. Pal also received the Marshall Award for Student at the 11th Asia Pacific Chitin and Chitosan Symposium 2016.

Mr. Ayan Pal, research scholar, Chemistry, received first best



Graduating students' posing for a photograph with Prof. Gautam Biswas and other faculty members of the Institute

paper award at 6th DAE BRNS Interdisciplinary Symposium on Material's Chemistry (ISMC-2016) held at BARC, Mumbai.

Mr. Abhishek, research scholar, Computer Science and Engineering, received Fall 2016 Linguistic Data Consortium (LDC) Data Scholarship.

Ms. Hema K. Yarnagula, research scholar, Computer Science and Engineering, received Best Paper Award at IEEE ANTS 2016, Bengaluru.

Mr. Tushar Semwal, research scholar, Computer Science and Engineering, received TCS Fellowship.

Mr. Vikram Aditya, Mr. Suprabho Dhenki, Mr. Amarvaj Likhith, Mr. Ajinkya Karale and Mr. Harmeet Singh of Department of Design won the 1st prize in CHI 2016 Student Design Challenge.

Mr. Neeraj Kumar, Electronics and Electrical Engineering, received US NIH R25 grant to pursue post-doctoral at University of Illinois at Chicago.

Mr. Avinash Kumar, research scholar, Humanities and Social Sciences, was selected as Research Fellow at Institute for Advanced Studies on Science, Technology and Society (IAS-STS), Graz, Austria, from October 2016 to June 2017.

Mr. Aniruddha Poria, research scholar, Mathematics, received the prestigious Fulbright-Nehru Doctoral Research Fellowship for 2016-17 to work with Dr. Radu Balan at University of Maryland, College Park, USA.

Mr. Dawit Gudeta, research scholar, Mechanical Engineering, won best paper award, at the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB), at Tezpur University in March 2017.

Mr. Devarshi Kashyap, research scholar, Mechanical Engineering, won S. Rajeshwari award 2016 at National Conference on Emerging Biomaterials, Bharathiar University Coimbatore in October 2016.

Mr. Ashish Kumar Rajak, research scholar, Mechanical Engineering, won best paper award at International Conference on Advances in Materials & Manufacturing, Hyderabad in December 2016.

Mr. R. S. Malani, research scholar, Centre for Energy, received best paper award in "Environmental System" session during "LAMSYS-2016" held at SDSC SHAR (ISRO) Sriharikota.

Ms. Shyamali Sarma, research scholar, Centre for Energy, has been selected for the Newton-Bhaba PhD Placements Programme (2016-2017) to pursue a part of her PhD research work at the University of Nottingham, U.K.

Mr. Vikas Kumar, MS-R student, Centre for Energy, received Excellent Paper Award at the ASAR International conference held at Dehradun in August 2016.

Ms. Satarupa Dutta, Department of Chemical Engineering and Mr. Nilanjan Mandal Centre for Nanotechnology, won Gandhian Young Technology Innovation BIRAC-SHRISTI Appreciation Award 2017.



Prof. Gautam Biswas with the IIT Guwahati students' team at the 51st Inter IIT Sports Meet 2016 held at IIT Kanpur

Mr. Mitradip Bhattacharjee, Centre for Nanotechnology, won best paper award in REFLUX-2017, IIT Guwahati.

IIT Guwahati launched the Student's Chapter of Indian Green Building Council (IGBC). The Student Chapter is an important initiative to address the growing ecological issues and concerns with emphasis upon energy and water management.

The performance of IIT Guwahati sports team at the 51st Inter IIT Sports Meet 2016 held at IIT Kanpur is very encouraging. A total of 13 medals were won in the sports meet. Above all Ms. Sajitha S. won the "Best Athlete" Female title, Ms. Bhaswati Gohain Barua won the Best Player Badminton Female title and Ms. Namami Goswami bagged the Best Table Tennis Player Female title. In the Inter IIT Staff Sports Meet 2016 one medal was won.

Our heartiest congratulations to all of them.

CAMPUS PLACEMENT

The placement scenario at IIT Guwahati for the year 2016-2017 has been impressive so far. A total of 115 companies from various sectors have already participated in campus recruitment. The total number of registered students for campus placement in the year 2016-2017 is 1107. The overall placement of BTech and BDes students is 70%. For BTech



and BDes, the total number of jobs offered is 413 for 590 students. An average package offered for BTech and BDes students is ₹15.11 lakhs per annum (treated as CTC).

The placement for MTech and MDes students is reasonable and stands at 33%. An average package offered for MTech and MDes students is ₹10.82 lakhs per annum (treated as CTC). For MSc programmes, 4 students have been placed out of 88 registered candidates. For MSR programme, 2 students were placed out of 7 registered candidates. For PhD programmes, 14 PhD students have received job offers out of 45 registered candidates in the education and research sector.



PART II

ACADEMIC DEPARTMENTS

Biosciences and Bioengineering

Chemical Engineering

Chemistry

Civil Engineering

Computer Science and Engineering

Design

Electronics and Electrical Engineering

Humanities and Social Sciences

Mathematics

Mechanical Engineering

Physics

ACADEMIC CENTRES

Centre for Energy

Centre for the Environment

Centre for Linguistic Science and Technology

Centre for Nanotechnology

Centre for Rural Technology

EXTRAMURAL CENTRES

Lakshminath Bezbaroa Central Library

Centre for Educational Technology

Central Instruments Facility

Computer and Communication Centre

DEPARTMENT OF BIOSCIENCES AND BIOENGINEERING

The Department at a Glance

Year of Establishment: 2002

Academic Programmes Offered:

Bachelor of Technology (BTech)

Biotechnology

Master of Technology (MTech)

Doctor of Philosophy (PhD)

Total Faculty Strength: 39

- Professor: 13
- Associate Professor: 15
- Assistant Professor: 10
- Visiting Assistant Professor: 1

New Faculty Members Joined: 1

- Assistant Professor: 1

Total Student Strength: 469

BTech: 185

MTech: 64

PhD: 220

New Students Joined in 2016-2017: 127

BTech: 54

MTech: 31

PhD: 42

LABORATORY FACILITIES

i. MAB (Mechanistic Approaches to Biology) Lab (Dr. B. Anand): The laboratory employs a combination of approaches encompassing Bioinformatics & Computational Biology, Biochemical and Biophysical approaches and X-ray crystallography. The current research interest of the lab pertains to RNA Biology and Molecular Evolution.

ii. BERL (Bioengineering Research Laboratory) (Prof. Utpal Bora): The research interests of this laboratory include Biomedical Engineering, Seri-biodiversity, Seri-bioinformatics and Bio-entrepreneurship.

iii. Molecular Networks and Recombinant Therapeutics (Dr. Biplab Bose): The lab is interested in understanding the inter-connected cellular communication systems. Particularly, the lab is interested to know the effect of architecture, kinetics and integration of the molecular pathways on vital cellular processes. The lab uses experimental as well as theoretical tools to understand how information is carried and processed in such signaling networks. The lab is also involved in developing molecules that can target particular signal transduction pathway. Such a molecule can be used to modulate an aberrant pathway involved in a particular disease.

iv. Dr. Pranjal Chandra lab: The lab is interested to combine biotechnology, nanotechnology, material science, and electroanalytical chemistry, approaches to address problems of biomedical significance, human health, and environmental monitoring. Specifically the lab is interested to develop novel and commercially viable bioanalytical methods for diagnostics applications. The major research work is focused on: (i) Clinical Diagnostics (Cancer cells, DNA, RNA, bio-markers) using electroanalytical methods such as cyclic voltammetry, chronoamperometry, impedance spectroscopy, (ii) Nano-biosensors (Aptamer, antibody, enzyme) based biological phenomenon investigation, (iii) Porous silicon based label free self reporting optical nanosensors, (iv) Microfluidics and Nanomachines.

v. Plant Tissue Culture & Secondary Metabolite Production Lab (Prof. Rakhi Chaturvedi): The tree species with long generation cycle are mostly highly heterozygous in nature due to strict cross pollination and are considered to be recalcitrant (difficult to regenerate in vitro). The genetic improvement of these plants and development of homozygous lines (pure) is either very challenging or impossible using the conventional methods, because the cross pollination is a rule. This limitation has completely been overcome by the research group of Dr Chaturvedi while working on two complex tree species, Neem (*Azadirachta indica*) and Tea (*Camellia* species). Prof. Chaturvedi's laboratory has also involved in developing Plant Cell Culture Technology as an alternative to whole plant extraction for the production of secondary metabolites of medicinal and commercial values. Although these compounds can also be isolated from naturally grown whole plants, continued destruction of plants for the purpose may pose a major

threat to species getting extinct. Her research group is able to identify, purify and isolate three main categories of bioactive metabolites: essential oils, coumarins and alkylamides, from in vitro elite cell lines of medicinal plants. Some of these compounds are complex triterpenoids which are difficult to synthesize chemically. The focused research work in the laboratory are: (i) Mass multiplication by micropropagation/clonal propagation of medicinally and economically valuable plants, (ii) In vitro haploid and doubled haploid plant production to generate homozygous (pure) lines to produce hybrid vigour for improved plant yield, (iii) Triploid plant production to develop seedless variety, (iv) Somatic embryogenesis for synthetic seed production, (v) Protoplast isolation and regeneration for single cell cloning and isolation of mutants, (vi) Cytological and Histological studies of in vitro raised cultures to understand their ploidy, development and origin (vii) Cell biomass production in shake-flask for screening, characterization and quantification of medicinally and commercially useful plant metabolites and their scale-up in photo-bioreactors

vi. Biophysical Chemistry Lab (Dr. Nitin Chaudhary): The laboratory focuses on understanding the molecular self-assembly and amyloid diseases, protein/peptide membrane interactions, and developing peptide based antibiotics.

vii. Bioprocess Development Lab (Dr. Debasish Das): The research focus of the lab is the process development for various value added products using microbes as a cell factory. The areas that are currently being pursued are: biodiesel production from freshwater microalgal isolates *Chlorella* sp. and diatoms; bioethanol from agricultural wastes, process development for hyaluronic acids from new *Streptococcus* isolates and butanol production from *Clostridium* sp. The lab aims at improving overall performance of the technology via combined modifications at the process (Biochemical engineering approach) and strain level (genetic engineering approach). The lab has expertise to create solutions for process development by combining biochemical and biological knowledge with engineering principles.

viii. Prof. V. V. Dasu lab: The laboratory focuses on Bioprocess development (upstream to downstream), metabolic engineering, and bioenergy.

ix. Laboratory of Protein Biochemistry & Biochemical Parasitology (Prof. Vikash Kumar Dubey): The laboratory focuses on understanding protein structure and function, molecular aspects of parasitology, and drug discovery. The lab has been recognized as "Unit of excellence in Molecular and Biochemical Parasitology" by Department of Biotechnology, Government of India.

x. Prof. Siddhartha Sankar Ghosh lab: The laboratory focuses on development of new generation gene therapy vectors. This mainly includes development of suicide gene therapy for cancer. The lab has also set up infrastructure facilities for interdisciplinary collaborative research in the field of nanoscience and nanotechnology supported by

extramural funding at the Centre for Nanotechnology, IIT Guwahati. The major area is to develop new nanoparticles, nanocomposites and nanocarriers and evaluate their antimicrobial and anticancer activities. The lab is perusing research to understand molecular mechanisms of nanoparticle mediated cell cytotoxicity. Other areas, such as, bioimaging using C-dots, metal nanoclusters, gene delivery using quantum dot embedded nanocarriers are also being pursued. The lab is also interested in understanding the molecular pathways involving drug resistance.

xi. Biosensor and Biofuel Cell Research Lab (Prof. Pranab Goswami): The lab is involved in the development of novel bio-recognition system and their applications for developing biosensors and biofuel cells. DNA aptamers, catalytic as well as non-catalytic proteins have been investigated as biorecognition elements for some clinical applications targeting to operate in point-of-care and resource limited environments. Focus has been given on the rapid detection of acute myocardial infarction (AMI), cholesterol, alcohol, bilirubin and malaria due to their obvious importance in diagnostic sector.

xii. Prof. Arun Goyal Lab: The lab research interests include Microbial Biotechnology, Molecular Biology, Protein Engineering, Structural & Functional studies of carbohydrate enzymes.

xiii. Dr. Cota Navin Gupta: The research interest of the lab include Imaging Genetics, Biomedical Signal/Image Processing, Multimodal Analysis, Computer Aided Diagnosis, Biomedical Instrumentation.

xiv. Stem Cell and Cancer Biology Group (Dr. Bithiah Grace Jaganathan): Stem cell and cancer biology group focuses on the identification of factors affecting the differentiation of mesenchymal stem cells and the role of cancer microenvironment in cancer chemoresistance.

xv. Structural and Computational Biology Laboratory (Dr. Shankar Prasad Kanaujia): The lab uses the knowledge of various techniques such as molecular biology, structural biology (X-ray Crystallography) and biophysical and biochemical studies to understand the mechanism of different biological functions. In addition, the lab applies the molecular dynamics simulations to further corroborate the results obtained from various experiments. Currently, the lab is focusing on investigating into the mechanisms involved in protein translation initiation, ABC transporters and their role in multidrug resistance.

xvi. Molecular Microbiology Laboratory (Dr. Manish Kumar): The research interests of the lab include (i) Molecular interaction of host-pathogen-vector of infectious diseases, (ii) Gene expression analysis of Spirochete, Leptospira interrogans and Borrelia burgdorferi, (iii) Development of vaccine against outer membrane protein of Leptospira interrogans and Borrelia burgdorferi, and (iv) Vector borne diseases of Zoonotic importance.

xvii. Viral Immunology lab (Dr. Sachin Kumar): The paramyxoviruses include viruses that are isolated from

many species of terrestrial, avian and aquatic animals. The group includes many important pathogens of humans such as measles virus, human respiratory syncytial virus, human parainfluenza viruses, Nipah virus and Hendra virus and animals such as canine distemper virus and Newcastle disease virus. Newcastle disease virus (NDV) is the prototype member of this family and is a leading cause of respiratory disease in avian species. It leads to huge economic losses to the poultry industry in India. The laboratory focuses mainly on understanding the biology of avian paramyxovirus and development of vaccine against them using reverse genetics system.

xviii. Cancer Biology Laboratory (Dr. Ajaikumar B. Kunnumakkara): The research interests of the lab include (i) Role of inflammatory pathways in cancer development, (ii) Identification of novel biomarkers for cancer diagnosis and prognosis, (iii) Cancer drug discovery, and (iv) Development of transgenic and gene knockout mouse models for biomedical research

xix. The Molecular Endocrinology lab (Dr. Anil Mukund Limaye): The laboratory focuses on the following research themes: (i) Hormone regulation of gene expression, (ii) Role of estrogen in breast tumor invasion and metastasis, (iii) Regulation of cystatin A expression and its role in breast cancer, (iv) HoxB2 in breast cancer, (v) GPR30/GPER-1 biology, (vi) Mechanisms of anticancer activity of EGCG, (vii) Karanjin and its biological effects

xx. Dr. Soumen Kumar Maiti Laboratory: The research interests of the lab include Biochemical Engineering, Biofuel, Bioprocess modeling, control, optimization, Metabolic engineering, Downstream processing, Membrane separation, Bioremediation

xxi. Biomaterial and Tissue Engineering laboratory (Dr. Biman B. Mandal): The laboratory is a "Unit of Excellence" as granted by DBT, Govt. of India at Biosciences and Bioengineering Department, IIT Guwahati. The lab focuses on a number of tissue engineering projects generously funded by National and International grants towards affordable human healthcare translational products.

xxii. Organelle Biology and Cellular Ageing Lab (Dr. Shirisha Nagotu): The lab focusses on understanding the biogenesis of organelles and the inter-organelle communication within a cell. The lab tries to understand the effect of ageing on organelle biology and the role of organelles in cellular ageing.

xxiii. Prof. Kannan Pakshirajan's laboratory: The research interests of the lab are Environmental Biotechnology, Biological removal and recovery of inorganic compounds from wastewaters, Biofuels and other Biotechnological Products: production, process design, kinetics and environmental applications.

xxiv. Bio-interface & Environmental Engineering Lab (Dr. Lalit Mohan Pandey): The laboratory focuses on the following research aspects: (i) Surface and interfacial science particularly in the area of Bio-interfaces and Biomaterials

(Design of Biocompatible surfaces): The surfaces are modified using various Self-Assembled Monolayers (SAMs) and their interactions with water, bio macromolecules i.e. polymers, proteins and cells are studied, (ii) Protein's adsorption and aggregation: The lab investigates the adsorption behavior and properties of various adsorbed proteins on surfaces with different wettabilities by forming mono, mixed and hybrid SAMs. The role of surface chemistry at the nanometer scale on aggregation of various therapeutic proteins is studied, (iii) Environmental Biotechnology: The lab focuses on 3Rs. Reduce waste generation, recycle the treated waste and reuse waste as by-product or recover energy from the waste.

xxv. Dr. Sanjukta Patra laboratory: The research interests of the lab include enzyme applications, biotransformation, and biosensors.

xxvi. Prof. Aiyagari Ramesh laboratory: The research interests of the lab include Nanobiotechnology, Chemistry-Biology Interface for Developing Antibacterials and Sensors

xxvii. Molecular Informatics and Design Group (Dr. Vibin Ramakrishnan): Molecular Informatics and Design Group integrates diverse disciplines of science and engineering in the design and development of advanced materials. The lab's approach to a research problem is 'idea centric' with a clear emphasis on the design phase, adopting modeling and informatics tools. The lab experiments a reductionist approach in understanding the interaction between molecules resulting in assembled architectures at nano and micro scale, and further employ it in the design of future materials. An information based modeling approach has been employed in the design and generation of tumor homing and cell penetrating molecules to test their efficacy as future drug delivery vehicles.

xxviii. Applied Biodiversity Laboratory (Prof. Latha Rangan): The group tries to address the research questions in areas of Applied Biodiversity with special reference to bioresources of Northeast India using an integrative approach.

xxix. Translational Crop Research Laboratory (Prof. Lingaraj Sahoo): Pathogens, insects and abiotic stresses cause major losses in yield and quality of crops. The discoveries in basic plant research play a vital role in meeting these challenges by developing technologies to improve agriculture by introducing important traits to crop of interest. The lab employs integrated approaches to identify genes with significant agronomic impact in both model (Arabidopsis) and crops (grain legumes and oil seeds), understand the mechanism by which they function and using this knowledge, develop designer crops for diverse plant abiotic (drought, salinity and nutrient deficiency or toxicity) and biotic (viral and insect) stress conditions, useful for growers, industry and consumers. Besides, the lab is working on biofortification in Asiatic grain legumes for healthcare applications and manipulation of key oil biosynthesis genes yield in *Jatropha*, a tropical perennial biofuel crop to improve oil quality and oil.

xxx. Prof. Gurvinder Kaur Saini laboratory: The laboratory works in fungal biotechnology. The various aspects that are studied include (i) secondary metabolite production, (ii) development of hyper virulent strains of *Metarhizium anisopliae* and *Beauveria bassiana* using scorpion and spider neurotoxins, (iii) gene stacking in entomopathogenic fungi.

xxxi. Computational Structural Biology laboratory (Dr. Priyadarshi Satpati): The research in the lab is focused to understand the speed and accuracy of translation using Computer Simulations. Using explicit solvent all atom molecular dynamics free energy simulations, the lab studies the protein-ligand, protein-RNA, RNA-RNA interactions and their relevance to biology. The lab is specially interested in translation factors, synthetases (aaRS), Ribosome etc.

xxxii. Bio Process Analytical Technology (BioPAT) Laboratory (Dr. Senthilkumar Sivaprakasam): The lab develops PAT technology for recombinant therapeutic proteins and value added compounds such as biopolymers, organic acids etc. PAT is defined as 'System for designing (process development), analysing and controlling manufacturing process, based on timely measurements of critical quality and performance attributes of raw material, in process materials and processes with the goal of ensuring final product quality'. PAT methodology envisages the identification of Critical Process Parameters (CPPs) and Critical Quality Attributes (CQAs) for every process. The CPPs are the indication of the overall reliability that a process proceed in the desired direction. Therefore their monitoring and control establishes the uniform product quality. 'Quality by design' in the PAT emphasizes that monitoring to be accomplished not only during the process, but should begin from raw material characterization, its processing, upstream process, product recovery, downstream process and till the polishing step. Therefore this reduces the much effort emphasized by regulatory authorities on ensuring quality.

xxxiii. Dr. Kusum Singh Laboratory: The lab's research interest is in post-translational gene regulation by RNA binding proteins. During alternative splicing introns are spliced out in various ways from the precursor RNA, resulting in one gene producing several different mRNAs and protein products. The process of alternative splicing requires accurate selection of splice sites, which play a key factor in the generation of different transcripts. Several regulatory protein complexes take active part to aid in the selection of splice sites, like small nuclear ribonucleoprotein complexes containing U1, U2, U4/U6 and U5 subunits. The serine/arginine-rich protein family members (SR proteins) and SR-related proteins (SR-rps) also have the capability to assist in the splice site selection process. In addition, various other regulatory protein complexes might be involved in the alternative splicing process. In this regard, understanding the role of the subunits existing in the apoptosis and splicing associated protein (ASAP) complex during splice site selection are crucial to understand splicing dependent post-transcriptional steps of gene regulation.

xxxiv. Ion Channels Laboratory (Dr. Piruthivi Sukumar): Ion channels, ion permeable pores in the plasma membrane, are indispensable for virtually all cellular function in most, if not all, cells. Ion channels can be selective to a particular type of ion or may be non-selective, for example, they can allow all cations or anions or both. Among various ions, calcium (Ca²⁺), a ubiquitous signaling molecule, has been identified as an important factor for not only physiological cellular proliferation, growth, migration and secretion. The lab is interested in studying specific group of calcium permeable ion channels called store operated calcium channels. Owing to the recent discovery of various components of store operated channels, the knowledge is neither wide nor deep in their role in cancer when compared to other two types. Atherosclerotic vascular diseases are the primary cause of morbidity and mortality of numerous people worldwide. The lab is embarking in identifying molecular pathological mechanisms underlying occlusive vascular diseases with the ultimate goal of finding novel drug targets. Also, diabetes greatly enhances the occurrence and progression of occlusive vascular diseases. Hence the lab's interest also lies in elucidating the effect of diabetes on vascular dysfunction. Various cells like vascular smooth muscle cells, endothelial cells and macrophages play important roles in initiation, progression and complications of atherosclerotic occlusive vascular diseases. The lab is analyzing SOCE in these cells.

xxxv. Prof. R. Swaminathan Laboratory: The research interests of the lab include (i) Protein Aggregation:

Protein aggregation is a common symptom associated with several neurodegenerative diseases like Alzheimer's and Parkinson's. The molecular mechanism responsible for protein aggregation in neuronal cells and subsequent neuronal death is not yet understood. The lab uses biophysical techniques like fluorescence spectroscopy, atomic force microscopy along with biochemical approaches like protein activity to monitor the growth of aggregates in real time. Currently, the lab is exploring various maneuvers to inhibit the progress of aggregation as part of the strategy to understand the molecular mechanism of this phenomenon. (ii) Macromolecular Crowding inside living cells: Macromolecular crowding refers to the presence of large concentration (300–400 mg/ml) of macromolecules like nucleic acids, proteins or membranes inside a cell cytoplasm, mitochondrial matrix or red blood cell. The consequence of such crowding on simple biochemical events like enzyme catalysis is not yet clear. The lab has artificially mimicked cellular crowding inside a test tube using inert polymers like dextrans and Ficolls in a range of sizes from 15 kDa to 2000 kDa and in the concentration range 0–30 % w/w. The lab has investigated the influence of such crowding on the activity of enzymes like alkaline phosphatase and acetylcholine esterase. (iii) Intrinsically Disordered Proteins: A significant fraction of eukaryotic proteome (~30%) consists of proteins that are either partially or fully disordered. Such proteins lack ordered tertiary structure in their purified state at neutral pH. Interestingly, these proteins have functions in cell cycle

control, regulation of transcription/ translation and so on. The lab is interested in approaches to quantify the disorder in these proteins using both computational and experimental techniques.

xxxvi. Neurospora Research Group (Dr. Ranjan Tamuli): The lab is interested to understand the molecular mechanism of calcium signaling pathway using the model filamentous fungus *Neurospora crassa*. Calcium ion is a universal second messenger molecule that impacts almost all cell processes in eukaryotes. The lab hopes to extend its research to understand the role of calcium signaling in memory, learning, and other related areas in future.

xxxvii. Laboratory for Stem Cell Engineering and Regenerative Medicine (Dr. Rajkumar P. Thummer): The lab focuses on generation of transgene-free induced pluripotent stem cells for biomedical applications and understanding the role of core stem cell-specific transcription factors in maintaining stem cell identity and function.

xxxviii. Malaria Research Group (Dr. Vishal Trivedi): The research interests of the lab include Anti-malarial Drug Discovery, Immunotoxicity studies in Macrophages, Regulation of Innate Immune Response, Endothelial Cells-RBC cytoadherence during Cerebral Malaria, Designing immunostimulatory and Anticancer agents

xxxix. Computational lab: The computational lab is used for carrying out the Bioinformatics and Computational Biology Lab, a lab course of the B. Tech. curriculum

xl. Experimental Teaching laboratory: The laboratory is used to conduct the experimental course of the B. Tech. and M. Tech. curricula.

MAJOR EQUIPMENT AND FACILITIES ACQUIRED

Equipment	Make & Model
(-80) Ultra Low Temp. freezer	Make: Eppendorf Ultra Low Temperature Freezer; Model: U410- Upright
Vacuum concentrator	Make: Thermo Fisher Scientific; Model: Savant SPD1010P1
Water Purification System (Buy back)	Make: Merck Millipore; Model: Elix Ref. 3 Kit and Milli Q Ref. Kit
Spectrophotometer	Make: Shimadzu, Model: UV-1800
Centrifuge	Make: Sartorius, Model: Centrisart G-26C
Micro-Nano litre Spectro	Make: IMPLIN; Model: Nanophotometer NP80-Mobile
Stereozoom Microscope with Photography attachment	Make: Olympus; Model: SZX16
Real Time PCR	AB Biosystems

Cell Imaging System	Cytel GE Healthcare
Electroporator	BioRad
Flow cytometer	BD, USA
Rheometer	Anton Paar, USA
3D Bioprinter	Biotics, USA

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

Cell signaling, Systems Biology, Protein Biochemistry, Molecular Biology, Immuno Parasitology, Biofuel, Biochemical Engineering, Tissue Engineering and Biomaterials, Organelle Biology, Inter-organelle Communications, Cellular Ageing, Bio-interfaces and Biomaterials, Environmental Biotechnology, Nanobiotechnology, Chemistry-Biology Interface for Developing Antibacterials and Sensors, Stem cell engineering and regenerative medicine, Molecular Parasitology, Computational Biology, Plant Biotechnology, RNA Biology, Structural Biology, Fungal Biotechnology, Molecular Endocrinology, Systems Biology, Bioprocess Engineering, Cancer Biology.

MAJOR INITIATIVES AND BREAKTHROUGH IN RESEARCH AND DEVELOPMENT

- i. Developed a targeted drug delivery system using a toxin. Diphtheria toxin is a dreaded toxin and causes Diphtheria. It attacks specific cells in human body by binding to Diphtheria toxin receptors present on cell surface. Subsequently, the toxin enters the cell and causes toxicity. We have truncated this toxin and made a recombinant protein. This protein binds to the specific cells but does not cause toxicity. We have used this new protein to deliver drug-loaded nanoparticles specifically to cells that has diphtheria toxin receptors on cell surface.
- ii. LdBPK_070020 (Conserved hypothetical protein) knocked out *Leishmania donovani* showed significant retardation of growth and infectivity.
- iii. Dihydroorotase an enzyme of pyrimidine biosynthetic pathway was characterized biochemically and the inhibitors of dihydroorotase were employed to study the pyrimidine pathway (de novo and salvage) of *L. donovani* parasite.
- iv. CAAX prenyl protease II was found as a potential drug target against *Leishmania donovani*. CAAX prenyl protease II knocked out parasite showed significant decrease in growth and infectivity.
- v. Methionine aminopeptidase 2 (MAP2) was found to be a key regulator of apoptotic like cell death in *Leishmania donovani*. Miltefosine is only oral drug for Leishmaniasis in the market and it shows apoptotic like cell death in parasite. TNP-470 a drug that specifically inhibit MAP2 was used with miltefosine to prove the importance of MAP2 in apoptotic like cell death by evaluating the DNA fragmentation pattern and caspase 3/7 protease assay.

- vi. The "Biomaterial and Tissue Engineering" lab has developed an implantable "bioartificial pancreas" prototype for sustained delivery of insulin and "smart wound dressings" specifically targeted for diabetic patients. Further, "human skin" grafts for burn injuries and small diameter "human blood vessels" for by-pass surgery patients have been developed. These products are of advanced level as compared to existing technologies in the market. The lab is further working on developing transplantable "human corneas" for vision restoration and "Bioartificial liver" for detoxification. To combat back pain, cartilage and bone degeneration, the lab is developing "intervertebral disc" for slip disc patients and "bone/cartilage implants" for patients with soft tissue/ bone damage.
- vii. Isolation and identification of two novel stains SLAJ731 and SLAJ732 from a core sample of Assam oil field
- viii. Bio-sorbent comprising encapsulated *Agrobacterium fabrum* (SLAJ731) and iron oxide nanoparticles for removal of crude oil co-contaminant, lead Pb (II)
- ix. Low molecular weight synthetic amphiphiles and their metal complexes have been developed for antibacterial and antibiofilm applications. The delivery of these bioactive agents has been accomplished by using biocompatible nanomaterials. In another research endeavor, small molecule ligands have been employed as sensors for anions having healthcare implications. The target analyte has been detected both in solution as well as in live cells using imaging tools.
- x. Developed novel DNA aptamer against the biomarkers *Plasmodium falciparum* glutamate dehydrogenase for malaria diagnosis.
- xi. A combinatorial method is developed for the first time to elucidate the specific interactions between aptamer and the target protein.
- xii. A novel label free spectrophotometric detection of malarial biomarker HRP-II following an indicator displacement assay has been developed. The detection method was reproduced in a microfluidic paper based analytical device. The device detects HRP-II within 5 min with LOD of 30 ± 9.6 nM.
- xiii. In addition to the well acclaimed requirement of C-rich regions in the DNA sequence, the presence of suitable hairpin structure is essential to confer stable fluorescent AgNC. The study signifies the tentative size of the ring and length of the stem on the formation and stabilization of AgNC in the ssDNA scaffolds and hence, it may be considered as a guideline in selecting ssDNA candidates for developing AgNC. Further, the developed AgNC in ssDNA scaffolds has been exploited to detect NAD⁺ quantitatively in solution with high sensitivity and specificity.

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED

Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
Dr. Sachin Kumar	New Avenues in microbiology and biotechnology challenges and prospects	West Bengal State University	2016	National
Dr. Sachin Kumar	Global Symposium on Animal Health and XXIX annual convention of Indian Association of Veterinary Microbiologists, Immunologists and Specialists in Infectious Diseases	Assam Agricultural University	2016	International
Dr. Biman B Mandal	TERMIS-EU Conference	Uppsala, Sweden	28 Jun-1 Jul 2016	International
Prof. Kannan Pakshirajan	4th Bioprocessing India Conference (BPI-2016), Center of Innovative and Applied Bioprocessing (CIAB)	Mohali, Punjab	15-17 Dec 2016	International
Prof. Kannan Pakshirajan	5th International conference on research frontiers in Chalcogen cycle science and Technology	Goa	19-21 Dec 2016	International
Prof. Kannan Pakshirajan	International Conference on Recent Advancements in Chemical, Environmental & Energy Engineering	Chennai, Tamil Nadu	23-24 Feb 2017	International
Prof. Kannan Pakshirajan	National Seminar on Petroleum Biotechnology and Bioenergy	Tezpur, Assam	3-4 Mar 2017	National
Prof. Kannan Pakshirajan	TEQIP Workshop, Department of Chemical engineering	Guwahati	-	National
Prof. Kannan Pakshirajan	Annamalai University, Chidambaram, Tamil Nadu	Chidambaram, Tamil Nadu	-	International
Prof. Kannan Pakshirajan	National conference on Recent advancement in Environmental research	Guwahati	4-5 Jun 2016	National
Dr. Lalit Pandey	The 3rd Int'l Conference on Surface and Interface of Materials (SIM 2017)	Thailand	3-5 Jan 2017	International
Dr. Vibin Ramakrishnan	National Workshop on Drug Design and Discovery, ILS Bhubaneswar; Name of the talk: A Reductionist Approach to Drug Discovery Research	Bhubaneswar	22 Mar 2017	National
Prof. L. Rangan	18th Indo-US Workshop on Flow Cytometry	Biotech Park Lucknow	21 Feb 2017	
Prof. L. Rangan	International Symposium on Plant Biotechnology for Crop Improvement (ISPBCI-2017)	IIT Guwahati	19-20 Jan 2017	
Prof. L. Rangan	10th Annual Convention of Association of Biotechnology and Pharmacy	Tirupati, AP	21-23 Dec 2016	
Prof. L. Rangan	BRSI Annual convention	Vellore	8-10 Dec 2016	
Prof. R. Swaminathan	Gordon Research Conference on Intrinsically Disordered Proteins	Les Diablerets, Switzerland	26 Jun-1 Jul 2016	International
Dr. Ranjan Tamuli	NER Training Program on Gene Cloning, Protein Biochemistry, Structure Biology & Bioinformatics	Tata Memorial Centre, Mumbai	4-15 Jul 2016	National

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Dr. B. Anand	CRISPR-Cas System: From Genome Defence to Tinkering Genome at Avidadham '17 (International Conference on Advances in Gene Editing)	Anna University	Chennai	1-2 Mar 2017
Dr. B. Anand	Host Factor Mediated Homing Mechanism of CRISPR-Cas Adaptive Immune System at 20th ADNAT Convention	KIIT University	Bhubaneswar	16-18 Feb 2017
Dr. B. Anand	Homing Mechanism of the CRISPR-Cas Adaptive Immune System at 85th Annual Meeting of Society of Biological Chemists, India (SBCI)	CSIR-CFTRI	Mysuru	21- 24 Nov 2016
Dr. B. Anand	Functional Insights into the Mechanism of CRISPR-Cas Adaptive Immune system at 82nd Annual Meeting of Indian Academy of Sciences (IASc)	IISER	Bhopal	4-6 Nov 2016
Dr. Biplab Bose	Making friend out of an enemy	GIPS	Guwahati	May 2016
Dr. Biplab Bose	Beyond overexpression: how network motifs control an oncofetal protein	35th Annual Convention of Indian Association for Cancer Research (IACR2016)	New Delhi	Apr 2016
Prof. Rakhi Chaturvedi	Anti-bacterial potential of calli induced from stem, flower and leaf explants of <i>Lantana camara</i> L.	Plant Tissue Culture Association (PTCA) and Indian Institute of Chemical Biology (IICB)	Kolkata	3-5 Mar 2017
Prof. Rakhi Chaturvedi	Crop Improvement through In vitro Haploid Production	IIT Guwahati	Guwahati	20-21 Jan 2017
Prof. Rakhi Chaturvedi	Application of Plant Tissue Culture Techniques for Bioresources Recovery	2nd Global Summit on Plant Science organized by Conference Series LLC., USA and Conference Series Ltd., UK	London, UK	6-8 Aug 2016
Prof. Rakhi Chaturvedi	In vitro cell cultures - A source of Biobased valuable products	Kyoto Institute of Technology	Kyoto, Japan	3-6 Aug 2016
Prof. Rakhi Chaturvedi	Exploring Plant Improvements and Bioaccumulation Capabilities of Plant Cells using Plant Tissue Culture	Gifu University	Gifu, Japan	30 Jul-2 Aug 2016
Prof. Rakhi Chaturvedi	Studies on nutrient uptake and culture conditions for synthesis of Caffeine, (+)-Catechine, (-)-Epicatechin and (-)-Epigallocatechin gallate in anther derived haploid cell lines of tea [<i>Camellia sinensis</i> (L.)]	4th International Conference on Plant Genomics by Conference	Brisbane, Australia	14-15 Jul 2016
Prof. S. S. Ghosh	Emergence of Cancer Theranostics and Nano-ensemble Devices	North-Eastern Hill University	Shillong	2 Aug 2016

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Prof. S. S. Ghosh	Cancer Theranostics Smartens up to Utilize Oxidative Stress	9th Annual TCS Event & Flow Cytometry Workshop on Flow Application in Basic Applied & Clinical Biology - FABACTCS 2016	IITG	3 Nov 2016
Prof. S. S. Ghosh	Emergence of Cancer Theranostics	Defence Institute of Advanced Technology	Pune	13 Jan 2017
Prof. S. S. Ghosh	Nanotechnology in Biosensing, Detection and Device	Gauhati University	Guwahati	30 Mar 2017
Prof. S. S. Ghosh	Cancer Nanotheranostics	Gauhati University	Guwahati	30 Mar 2017
Prof. Pranab Goswami	Development of DNA aptamers against human heart type fatty acid binding protein for early detection of acute myocardial infarction	2nd World Congress on Bio Summit & Molecular Biology Expo	Dubai, UAE	11 Oct 2016
Prof. Pranab Goswami	Introduction to Biosensors and Developing aptamers as biorecognition element for diagnostics	Tezpur University	Tezpur, Assam	23 Jun 2016
Prof. Pranab Goswami	Biosensors	Assam Engineering college	Guwahati, Assam	26 Apr 2016
Dr. Biman B. Mandal	Advances in Regenerative Medicine	Gauhati University	Guwahati	23 Mar 2017
Dr. Biman B. Mandal	Human Tissue Engineering	IIT BHU	Varanasi	19-23 Feb 2017
Dr. Biman B. Mandal	Bioengineered Human Tissues	NIT Raipur	Raipur	13 Jan 2017
Dr. Biman B. Mandal	Silk as a biomaterial	AIIMS	New Delhi	25 Nov 2016
Dr. Vibin Ramakrishnan	Molecular Dynamics Simulations. Concept to Practice	Institute of Life Sciences	Bhubaneswar	22 Mar 2017
Prof. Latha Rangan	Combining the OLD with the NEW- "Nature is our PROTOTYPE"	CAS In Botany UGC SAP Visiting Fellow	Chennai	28 Mar 2017
Prof. Latha Rangan	Flow mining- Application and Progress in Plant Science	Biotech and Research Park 18th Indo-US Workshop on Flow Cytometry	Lucknow	21 Mar 2017
Prof. Latha Rangan	Genome size and chromosome number: keys to unfold polyploidization in taxonomically complex Zingiberaceae	IIT Guwahati	Guwahati	20 Jan 2017
Prof. Latha Rangan	Mining Renewable Energy Resources- Progress in Pongamia	SV University	Tirupati	21-23 Dec 2016
Prof. Latha Rangan	Mining Zingiberaceae FROM Wilderness to Tapping 'OMICS'	VIT Vellore	Chennai	8-10 Dec 2016
Dr. Ranjan Tamuli	Insight into the calcium signaling process using the model filamentous fungus Neurospora crassa	Tezpur University	Tezpur, Assam	25 Mar 2017

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Dr. Navin Gupta	Multivariate Methods for fusion of Multimodal Imaging and Genetic Datasets in Schizophrenia	IIT Guwahati	Guwahati	Mar 2017
Prof. Arun Goyal	Recombinant carbohydrate enzyme in conversion of waste biomass to biovalued products	Center of Innovative and Applied Bioprocessing (CIAB)/ International Conference on Sustainable Energy and Environmental Challenges (SEEC-2017)	Mohali	26-28 Feb 2017
Prof. Arun Goyal	Crystal structure and molecular determinants of substrate specificity of arabinofuranosidase from Clostridium thermocellum	14th International Conference of the Asian Crystallographic Association	Hanoi, Vietnam	4-7 Dec 2016
Prof. Arun Goyal	A novel multi-ligand specific family 35 carbohydrate binding module (Rgl-CBM35) from Clostridium thermocellum targeting rhamnogalacturonan I	Gauhati University	Guwahati, Assam	24-27 Nov 2016
Prof. Gurvinder Kaur Saini	Engineering entomopathogenic fungi to improve the potency towards crop pests	Gauhati Univeristy	Guwahati, Assam	24-27 Nov 2016
Dr. Manish Kumar	Understanding Host-pathogen-vector interaction of spirochetes	Tezpur University	Tezpur, Assam	25 Mar 2017
Prof. Utpal Bora	Socio ethical issues in genome engineering	KIIT	Bhubaneswar	16-18 Feb 2017
Prof. Utpal Bora	Frontier in seribiotechnology	Arya Vidyapeeth College	Guwahati, Assam	13 Feb 2017
Prof. Utpal Bora	Genome engineering: boon or bane	Dimoria College	Guwahati, Assam	28 Feb 2017
Prof. Utpal Bora	Genome Editing: Future of Humankind and Evolution	Cotton College State University	Guwahati, Assam	28 Feb 2017
Prof. Utpal Bora	Learning biology from silkworms	IIT Madras	Chennai, Tamil Nadu	24 Mar 2017

SEMINARS/WORKSHOPS/CONFERENCES/SHORT-TERM COURSES ORGANISED

Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International / National	No. of participants
Dr. Ajaikumar B. Kunnumakkara	International Conference on Nutraceuticals and Chronic Disaeses	Nutraceutical companies	9-11 Sep 2016	International	160
Dr. Ajaikumar B. Kunnumakkara	Molecular Techniques in the Diagnosis of Cancer	Nil	17 Nov 2016	National	40
Prof. Latha Rangan; Convener	9th TCS Annual Event and Workshop	TCS, DST, ICMR NE Council	5-7 Nov 2016	National	112

Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International / National	No. of participants
<p>The 3-day Symposium cum workshop was organized at the Indian Institute of Technology Guwahati (IITG) in collaboration with Dr. B. Borooah Cancer Institute (BBCI), Guwahati. The 9th Annual Cytometry Society of India symposium was on “flow applications in basic, applied and clinical biology FBACTCS”. The event comprised of 2-day symposia at IITG on 3rd-4th November having lectures from eminent speakers, young investigators and corporate talks by Beckman Coulter, BD Biosciences and Thermo Fisher. The symposium also had poster presentations by around 30 young researchers who showcased their research based on flow cytometry. A workshop was held on 5th November 2016 at IITG in flow applications on basic and applied biology. A parallel workshop session was also held on the same day in BBCI in flow applications on clinical biology.</p>					

PATENTS

- i. Title of the invention: Antimicrobial short peptides, Inventors: Nitin Chaudhary, Karabi Saikia, Durga Sravani Yalavarthi, Vibin Ramakrishnan, Application No.: 353/KOL/2015, Published on 07.10.2016
- ii. A device with integrated methods for reverse transcription polymerase chain reaction (RTPCR) and/or DNA/Protein array based analyses”. Arun Chattopadhyay, Sunil Kumar Sailapu, Deepanjalee Dutta, Amaresh Kumar Sahoo, Siddhartha Sankar Ghosh (Application number: PCT/IN2016/000141 dated 02/06/2016).
- iii. Title of the invention: DNA aptamers specifically binding to plasmodium falciparum glutamate dehydrogenase (PFGDHA)., Inventors: Pranab Goswami, Naveen Kumar Singh, Priyamvada Jain, Babina Chakma, Application no.201631025722, Applied on 27/07/2016
- iv. Title of the invention: Graphite paste ink with silk sericin for enhancing the conductivity and stability, Inventors: Pranab Goswami, Mallesh Santhosh, Priyanki Das, Phurpa Dema Thungon, Applied on 01/07/2016, Application no. 201631022633
- v. Title of the invention: Crystalline Di-Histidine nanostructures, Inventors: Vibin Ramakrishnan, Sajitha S, Nitin Chaudhary & Gaurav Pandey, Applied on 09.03.2015, Application No. 243/KOL/2015, Published in 16.09.2016
- vi. Title of the invention: Antimicrobial peptides, Inventors: Vibin Ramakrishnan, Prakash Kishore Hazam, Nitin Chaudhary, Vishal Trivedi and Gaurav Jerath., Applied on 30.03.2015, Application No. 333/KOL/2015, Published on 30.09.2016
- vii. Title of the invention: Cost effective, portable optoelectronic instrument to measure steady state fluorescence and its set up method, Name of Inventors: Kulkarni Alark Shripad, Harshal Nemade and Rajaram Swaminathan, Application No.1136/KOL/2015 A, Patent Application Publication Date : 28/10/2016

viii. Title of the invention: A Chemical Composition For Extracting Genomic DNA And Method Thereof, Inventors: Anand Tiwari and Ranjan Tamuli, Applied on 17-10-2016, Application No. 201631035509

AWARDS AND HONOURS

- i. Prof. Pranab Goswami: Served as an expert in project review committee meeting of DBT, India on Basic and Modern biotechnology in NER during 27th - 28th April, 2016.
- ii. Dr. Sachin Kumar: 2016 NASI SCOPUS Young Scientist Award.
- iii. Dr. Biman B. Mandal: NASI-SCOPUS Young Scientist Award 2016 by National Academy of Sciences and SCOPUS India. Citation and cash award of 75k INR
- iv. Dr. Lalit Mohan Pandey, Early Career Research Award from Science and Engineering Research Board (SERB), Department of Science & Technology, Govt. of India
- v. Prof. Latha Rangan, 2016- Women Scientist Award from Biotech Research Society of India
- vi. Prof. Latha Rangan 2016- Fellow, Association of Pharmacy and Biotechnology
- vii. Dr. Kusum Singh: (MAY-JULY 2016) Invited as Guest Scientist at Institute for Genetics, University of Cologne, Received Albert’s researcher reunion grant.
- viii. Prof. Arun Goyal: 2016 Malaviya Memorial Award- Senior Faculty (Medal and Cash award Rs 15,000/-) for outstanding contributions to Biotechnology by Biotech Research Society of India
- ix. Prof. Arun Goyal: 2016 G.B Manjrekar Award (citation and cash award Rs 20,000/-) for contribution to fundamentals of applied values of Microbiology by Association of Microbiologists of India
- x. Prof. Rakhi Chaturvedi: 2016 Newton-Bhabha Leading Women Scientist Award in Crop and Agricultural Sciences 2016” instituted jointly by DBT, India and Cambridge University, UK

STUDENTS' ACHIEVEMENTS

- i. Best department poster in IIT Guwahati research conclave 2017: Ritesh Kumar (PhD), Gundappa Saha(PhD), Prachi Bhalla (M.Tech)
- ii. Best Institute poster award in IIT Guwahati research conclave 2017: Gundappa Saha (PhD)
- iii. Neha Arora , Best poster, ICSCC-2016, (Functional Stabilization of Recombinant PTEN onto Silica Nanoparticles for Potential Biomedical Applications)
- iv. Deepanjalee Dutta, Sunil Kumar Sailapu, Shortlisted within top 15 proposals, Assam Biotech conclave, Guwahati Biotech Park, January 5-6, 2017, (A bench top device and integrated methods for gene and protein analysis).
- v. Best poster award: Das M and Kumar S (2016) Molecular characterization of an apoptotic strain of Newcastle disease virus from Northeast India. Biology and Molecular Pathogenesis of Viruses, organized at MCB at IISC on 20-21st June, 2016
- vi. Venkateswara Rao Naira, a Ph.D student received an award entitled "T.V. DESIKACHARY MEMORIAL AWARD" for best poster presentation in National Conference on Biodiversity, Biology and Biotechnology of Algae (NCBBBA-2017) organized by Centre for Advanced Studies in Botany, University of Madras, Chennai (9-10 January 2017). Title of the poster: "Understanding the effects of inoculum size, CO₂ and light intensity on growth of an indigenous microalgae, *Chlorella* sp. FC2 IITG in perspective to outdoor mass culturing for biodiesel production".
- vii. Shreya Mehrotra, Nandana Bhardwaj, Samit Kumar Nandi, Biman B. Mandal. Biomimetic mulberry and non-mulberry silk cell sheets for cardiac patch applications. International Conference of Young Researchers on Advanced Materials (IUMRS-ICYRAM 2016), Indian Institute of Sciences, Bangalore. December 11-15, 2016. (BEST POSTER AWARD)
- viii. Ankit Gangrade and Biman B. Mandal. Folic Acid Functionalized Carbon Nanotubes for Cancer Targeted Drug Delivery, Nanobiotech 2016, All India Institute of Medical Sciences (AIIMS, New Delhi), Organized by Indian Society of Nanomedicine (ISNM), November 24-26, 2016. (BEST POSTER AWARD)
- ix. Dimple Chouhan, Bijayshree Chakraborty, Samit K. Nandi and Biman B. Mandal. Nonmulberry silk fibroin based functionalized nanofibrous mats as potential wound dressing material. International conference on Biomaterials, Biodiagnostics, Tissue Engineering, Drug delivery and Regenerative medicine (BiTERM 2016). Indian Institute of Technology Delhi. April 15-17, 2016. (BEST POSTER AWARD)
- x. Yogendra P. Singh, Mimi Adhikary, Salma Jasmine and Biman B. Mandal. Silk fibre reinforced silk scaffolds for cartilage tissue engineering. International conference on Biomaterials, Biodiagnostics, Tissue Engineering, Drug delivery and Regenerative medicine (BiTERM 2016). Indian Institute of Technology Delhi. April 15-17, 2016. (BEST POSTER AWARD).
- xi. Bibhas K. Bhunia and Biman B. Mandal. Affordable Bio-artificial Disc for Low Back Pain Management, Proposal presented in Assam Biotech Conclave, organized by Guwahati Biotech Park. January 5-6, 2017. (1st PRIZE for Product Innovation & Development)
- xii. Prerak Gupta, Manishekhar Kumar, Nandana Bhardwaj, Jadi Praveen Kumar, C.S.Krishnamurthy, Samit Kumar Nandi and Biman B. Mandal. Mimicking form and function of native small diameter vascular conduits using mulberry and non-mulberry patterned silk films. Poster presented at Research Conclave 2017, Indian Institute of Technology Guwahati. March 16-19, 2017. (BEST POSTER AWARD)
- xiii. Shreya Mehrotra, Samit Kumar Nandi, Biman B. Mandal. Stacking of silk-cardiomyocyte monolayers as a biomimetic approach for cardiac tissue engineering. Research Conclave 2017, Indian Institute of Technology Guwahati. March 16-19, 2017. (BEST POSTER AWARD)
- xiv. Saket Kumar Singh, Bibhas Kumar Bhunia, Nandana Bhardwaj, Sween Gilotra, Biman B. Mandal. Reloadable Silk-Hydrogel Hybrid Scaffolds for Sustained and Targeted Delivery of Molecules, Poster presented at Research Conclave 2017, Indian Institute of Technology Guwahati, March 6-19, 2017. (BEST POSTER AWARD)
- xv. Yogendra Pratap Singh, Dimple Chouhan, Manishekhar Kumar, Bibhas Kumar Bhunia, Prerak Gupta, Biman B Mandal. Silk based affordable tissue grafts and healthcare products. Indian Institute of Technology Guwahati-Technology Incubation Centre (IITG-TIC 2016), Indian Institute of Technology Guwahati. (2nd PRIZE for Product Innovation & Development)
- xvi. Best poster award: L. Goswami, K. Pakshirajan and G. Pugazhenth (2017) Biodegradation of polycyclic aromatic compounds in a binary substrate system by *Rhodococcus opacus*, Indo- EU Workshop on "Microbial electrochemical technologies for sustainability: Fuels, Chemicals and Remediation", CSIR-IICT, Hyderabad.
- xvii. Best poster award: A. Sinharoy and K. Pakshirajan (2016) Nanoparticle mediated enhanced biological carbon monoxide conversion using anaerobic microbial consortia, International conference of waste management, Recycle – 2016, IIT Guwahati.
- xviii. Best poster award: M.M.T. Namboodiri and K. Pakshirajan, (2016) Chitosan Production by *Aspergillus niger* using cheaply available Domestic Wastewater, ICWM-RECYCLE, IIT Guwahati.
- xix. Miss. Sajitha Sasidharan has won the best poster award at the "International Conference on Advances in Biological Systems and Material Science in NanoWorld" (ABSMSNW-2017), held at IIT-BHU, Varanasi, India.
- xx. Miss. Sajitha Sasidharan has secured 2nd position in the poster presentation at the institute level in Research Conclave 2017 held at IIT Guwahati, India.
- xxi. Gaurav Pandey received first prize for oral

presentation at Advances in Biological Systems and Materials Science in NanoWorld (ABSMSNW) 2017, organized by IIT BHU, Varanasi.

xxii. Ms Anuma Singh, doctoral student received Best Poster Award for her poster titled “Synthesis, in silico studies and in vitro evaluation for antioxidant and antibacterial properties of diarylmethylamines: a novel class of structurally simple and highly potent pharmacophore” during the 9th TCS Annual symposium and Workshop on Flow applications in Basic, applied and Clinical Biology “FABACTCS2016 held from 3-5 Nov, 2016.

xxiii. Bhagyashree Deka: Qualified CSIR-UGC NET, 2017 for Junior Research Fellowship (JRF) with AIR 75, Qualified CSIR-UGC NET, 2016 for Lectureship, Awarded DST INSPIRE Fellowship, 2016

xxiv. Krishan Kumar, Best Poster Award, Research Conclave 2017, IIT Guwahati, Mar 2017

xxv. Rishikesh Shukla, Young Scientist Award, AMI, Received Young Scientist Award by Association of Microbiologists of India (AMI) in 57th International Annual Conference of Association of Microbiologists of India (AMI), November, 2016, Gauhati University, Guwahati, Nov 2016

xxvi. Kedar Sharma, Travel Grant, AsCA, Early Career Research Travel Award by International Union for Crystallography and Asian Crystallography Association for attending 14th Asian Crystallography Association Conference (AsCA-2016), Dec 4-7 2016, Hanoi, Dec 2016

xxvii. Kedar Sharma, Travel Grant, DST, Worked as exchange student at Faculty of Veterinary Medicine (FMV), University of Lisbon under Indo- Portugal Joint Project, May-July, 2016

xxviii. Ms. Javadi Monisha received ‘Institute Best Poster Presentation Award’ for the paper entitled “Downregulation of NGAL and Its Role in Head and Neck Squamous Cell Carcinoma” at Research Conclave 2017, IIT Guwahati, 2017.

xxix. Ms. Javadi Monisha received ‘Departmental Best Poster Presentation Award’ for the paper entitled “Downregulation of NGAL and Its Role in Head and Neck Squamous Cell Carcinoma” at Research Conclave 2017, IIT Guwahati 2017.

xxx. Ms. Ganesan Padmavathi received ‘Departmental Best Poster Presentation Award’ for the paper entitled “Differential expression of TNFAIP-8 family of proteins in oral cancer tissues” at Research Conclave 2017, IIT Guwahati.

xxxi. Ms. Devivasha Bordoloi received ‘Young Scientist Award’ for the paper entitled “An investigation on the anti-cancer mechanism of a chalconoid isolated from Toxicodendron vernicifluum against human oral squamous cell carcinoma” at the International conference on Nutraceuticals and chronic diseases 2016 (INCD-2016), Kerala, India, 2016.

xxxii. Ms. Javadi Monisha received ‘Best Oral Presentation Award’ for the paper entitled “Insights into anticancer activity and mechanism of action of azadiradione against triple

negative breast cancer” at the International conference on Nutraceuticals and chronic diseases 2016 (INCD-2016), Kerala, 2016.

xxxiii. Ms. Harsha Choudhary received ‘Best Poster Presentation Award’ for the paper entitled “Gold nanoparticles (GNPs) synthesized from Elephant apple preferentially kills cancer cells” International conference on Nutraceuticals and chronic diseases 2016 (INCD-2016), Kerala, 2016.

xxxiv. Ms. Ganesan Padmavathi received ‘Best Outstanding Poster Presentation Award’ for the paper entitled “Prevention of Azoxymethane Induced Colon Carcinogenesis by the Spice Carum copticum (Ajwain)” at the Translational Cancer Research, Ahmedabad, 2016.

SPECIAL MENTION

i. Prof. Kannan Pakshirajan: Dr. Thesis evaluation:

a. Effect of organic loading and cyanide on anaerobic digestion of cassava pulp. School of Environment Resources and Development, Asian Institute of Technology, Bangkok.

b. Studies on the antifungal properties of biosurfactant produced by soil bacteria with reference to *Fusarium verticillodes* and *Fusarium oxysporum* f. sp. Pisi, Gauhati University, Assam, India.

c. Enhancement of microbial fuel cell anode through functionalization of conductive polymer. Department of Civil and Environmental Engineering, University of Malay, Malaysia.

ii. Dr. Navin Gupta

a. PhD thesis Internal Examiner at Dept of EEE, IIT Guwahati, Mr. Anurag Singh (Roll No.: 11610230)-Compressed Sensing Framework for Multi-channel ECG Signals

iii. Prof. Arun Goyal

a. Invited as Visiting Fellow (UGC) by Department of Microbiology, Panjab University, Chandigarh for 2 weeks (Feb-March 2017).

b. Invited to chair a session in International Conference on Sustainable Energy and Environmental Challenges (SEEC-2017), Feb 26-28, 2017, Center of Innovative and Applied Bioprocessing (CIAB), Mohali, India.

c. Invited to Judge Best Poster award in International Conference on Sustainable Energy and Environmental Challenges (SEEC-2017), Feb 26-28, 2017, Center of Innovative and Applied Bioprocessing (CIAB), Mohali, India.

d. Invited to Co-chair a session of presentations by Young Scientists during 57th Annual Conference of Association of Microbiologists of India (AMI), November 24-27, 2016, Gauhati University, Guwahati Assam

e. Nominated by Agricultural Recruitment Board (ASRB) as an Advisor on the Selection Committee for conducting Viva-Voce of the candidates from ARS Examination 2015 for the recruitment of posts of Scientist. October 2016.

f. Invited as an “Expert” member for Selection

Committee” for Faculty selection at Department of Bioengineering at Birla Institute of Technology, MESRA, Ranchi, April 19, 2016.

iv. Prof. Pranab Goswami

a. Evaluated doctoral thesis entitled “Development of an optical biosensors for fluoride determination” from NIT Raipur, India.

b. Evaluated doctoral thesis entitled “Isolation and characterization of biosurfactants from soil microbes of north-east India with special reference to antifungal properties against certain pathogenic fungi of sugarcane” from Gauhati University.

c. Conducted PhD viva-voce for the thesis mentioned above (b).

d. Evaluated doctoral thesis entitled “Development of biofunctional polymeric nanofibers and their therapeutic applications” from IIT Roorkee.

e. Evaluated doctoral thesis entitled “Biodiesel production using enzyme catalyst and its application in CI engine” from Dr. B. R. Ambedkar NIT, Jalandhar.

f. Conducted PhD viva-voce for the thesis mentioned above (e).

g. Evaluated doctoral thesis entitled “Study of environmental and genetic risk factors of nasopharyngeal cancer patients in Manipur” from Manipur University.

FACULTY MEMBERS

Sl. No.	Name	PhD	Designation	Areas of Interest
1	B. Anand	Indian Institute of Technology Kanpur, Kanpur	Associate Professor	Structural Biology, Bioinformatics & Computational Biology, RNA Biology, Molecular Evolution and Synthetic Biology
2	Bora Utpal	Institute of Genomics and Integrative Biology, Delhi	Professor	Biomedical Engineering, Biodiversity and Bio-entrepreneurship
3	Bose Biplab	All India Institute of Medical Sciences	Associate Professor	Systems Biology, Cell signaling, Recombinant therapeutics
4	Chandra Pranjal	Pusan National University, Busan, South Korea	Assistant Professor	Clinical Diagnostics (Cancer cells, DNA, RNA, bio-markers), Nano-biosensors (Aptamer, antibody, enzyme) based biological phenomenon investigation, Porous silicon based label free self reporting optical nanosensors, Microfluidics and Nanomachines
5	Chaturvedi Rakhi	University of Delhi, Delhi	Professor	Plant Cell, Tissue & Organ Culture, Protoplast Isolation and Regeneration, Isolation, Purification and Characterization of Plant Secondary Metabolites
6	Chaudhary Nitin	CSIR-Centre for the cellular and Molecular Biology, Hyderabad	Associate Professor	Peptide self-assembly and amyloid aggregates, Peptide-membrane interactions Curvature inducing proteins
7	Das Debasish	Indian Institute of Technology Bombay	Associate Professor	Metabolic engineering, Biochemical engineering, Modelling of fermentation process, Biofuel
8	Dasu V. Venkata	Indian Institute of Technology Madras	Professor	Bioprocess Development, Metabolic Engineering
9	Dubey Vikash Kumar	Banaras Hindu University	Professor	Biochemistry, Molecular Parasitology, Drug Discovery
10	Ghosh Siddhartha S.	Indian Institute of Chemical Biology (IICB), Kolkata	Professor	Cancer Gene Therapy, Nanobiotechnology, Molecular Pathways Involving Drug Resistance
11	Goswami Pranab	Gauhati University	Professor (HAG)	Biosensors and Biofuel cells
12	Goyal Arun	Indian Institute of Technology Kanpur, Kanpur, India	Professor and Former Head	Molecular Biology, Protein Engineering, Structural and Functional Proteomics of Carbohydrate active enzymes and other industrially important microbial enzymes

Sl. No.	Name	PhD	Designation	Areas of Interest
13	Gupta Navin (Joined on 23.01.2017)	Brain Computer Interfaces and Neural Engineering (BCI-NE) Group, University of Essex	Assistant Professor	Imaging Genetics, Biomedical Signal/Image Processing, Multimodal Analysis, Computer Aided Diagnosis, Biomedical Instrumentation
14	Jaganathan Bithiah G.	Johann Wolfgang Goethe University, Frankfurt, Germany	Associate Professor	Stem Cell Biology, Cancer signaling
15	Kanaujia Shankar Prasad	Indian Institute of Science Bangalore	Associate Professor	Structural Biology and Bioinformatics Studies
16	Kumar Manish	University of Maryland, College Park, USA	Associate Professor	Molecular interaction of host-pathogen-vector of infectious diseases
17	Kumar Sachin	University of Maryland, College Park, USA	Associate Professor	Molecular biology of paramyxoviruses
18	Kunnumakkara A. B.	University of Calicut, Kerala	Associate Professor	Role of inflammatory pathways in cancer development, Identification of novel biomarkers for cancer diagnosis and prognosis, Cancer drug discovery, Development of transgenic and gene knockout mouse models for biomedical research
19	Limaye Anil Mukund	Indian Institute of Science Bangalore	Associate Professor	Hormonal regulation of gene expression
20	Maiti Soumen Kumar	Indian Institute of Technology Bombay	Assistant Professor	Bioprocess Engg, biofuel
21	Mandal Biman B.	Indian Institute of Technology Kharagpur	Associate Professor	Cell based tissue engineering, Biomaterials, Stem cells, Drug delivery systems
22	Nagotu Shirisha	University of Groningen, Groningen, The Netherlands	Assistant Professor	Organelle biology and Inter-organelle communication, Cellular Ageing, Membrane fission and fusion
23	Pakshirajan Kannan (Head of the Department)	Indian Institute of Technology Madras	Professor	Environmental Technology
24	Pandey Lalit Mohan	Indian Institute of Technology Delhi	Assistant Professor	Surface and interfacial science particularly in the area of Bio-interfaces and Biomaterials Protein's adsorption and aggregation, Environmental Biotechnology
25	Patra Sanjukta	Central Food Technological Research Institute, Mysore	Associate Professor	Enzymes - applications in pharma and food industry
26	Ramesh Aiyagari	CFTRI, Mysore (Degree awarded by Mysore University)	Professor	Nanobiotechnology, Chemistry-Biology Interface for Developing Antibacterials and Sensors
27	Ramakrishnan Vibin	Indian Institute of Technology Bombay	Associate Professor	Computational Biology, Bioinformatics, Biophysics, Bio-Organic Chemistry, Bio-nanotechnology
28	Rangan Latha	University of Madras (Research work carried at IRRI, Manila)	Professor	Molecular systematics, Biofuel, IPR
29	Sahoo Lingaraj	Maharshi Dayanand University, Rohtak, India	Professor	Genetic engineering and functional genomics of plants

Sl. No.	Name	PhD	Designation	Areas of Interest
30	Saini Gurvinder Kaur	Andhra University, Visakhapatnam	Professor	Fungal Biotechnology, Biological Control, DNA fingerprinting and Transformation studies, Studies on extracellular enzymes and toxic metabolite production, Development of a potent biopesticide
31	Satpati Priyadarshi	Indian Institute of Science Bangalore	Assistant Professor	Classical molecular dynamics (MD) free energy simulation, Electronic Structure calculations that predict the structure, properties, reactivity, bonding, etc. of small molecules
32	Senthilkumar S.	Central Leather Research Institute, Chennai	Associate Professor	Biocalorimetry, BioPAT, Real-time monitoring and control of bioprocess systems
33	Singh Kusum K.	Institute of Molecular Medicine, Heinrich-Heine University of Duesseldorf, Germany	Assistant Professor	Post-transcriptional gene regulation by RNA binding Proteins
34	Sukumar Piruthivi	University of Leeds, Leeds, UK	Assistant Professor	Smooth muscle and endothelial cell function, Cardiovascular Diseases, Diabetes, Obesity
35	Swaminathan Rajaram	Tata Institute of Fundamental Research, Mumbai	Professor	Intrinsically Disordered Proteins, Protein Aggregation
36	Tamuli Ranjan	CSIR-Centre for the cellular and Molecular Biology, Hyderabad	Associate Professor	Calcium signaling, Genetics, DNA repair
37	Rajkumar P. Thummer	University of Groningen, Groningen, The Netherlands	Assistant Professor	Stem Cell Engineering and Regenerative Medicine
38	Trivedi Vishal	Central Drug Research Institute, Lucknow	Associate Professor	Intracellular Signaling in Plasmodium falciparum
39.	Yasufumi Kobayashi	United Graduate School of Agriculture, Gifu University, Japan	Visiting Assistant Professor	Plant Biotechnology

DEPARTMENT OF CHEMICAL ENGINEERING

The Department at a Glance

Year of Establishment: 2002

Academic Programmes Offered:

Bachelor of Technology (BTech) in

- o Chemical Engineering

Master of Technology (MTech) in

(1) Petroleum Science and Technology (PST),

(2) Material Science and Technology (MST)

Doctor of Philosophy (PhD)

Total Faculty Strength: 34

- Professor: 13
- Associate Professor: 13
- Assistant Professor: 8

New Faculty Members Joined: Nil

- Assistant Professor: Nil

Total Student Strength: 525

BTech: 252

MTech: 99

PhD: 174

New Students Joined in 2016-2017: 163

BTech: 69

MTech: 51

PhD: 43

LABORATORY FACILITIES**UG Labs: 7**

- o Fluid Mechanics Lab: Flow through Fluidized Bed, Centrifugal Pump Test Rig, Flow through Helical Coil, Nozzle Meter Test Rig, Packed Bed, Pitot Tube, Rotameter Test Rig, Drag Co-efficient Apparatus, Reynolds's Apparatus, Notch Tank Apparatus, Impact of Jet on Vane Apparatus, Reciprocating Pump Test Rig, Bernoulli Apparatus, Flow Meter Demonstration Rig, Energy Losses In Pipes, Energy Losses In Bends.
- o Mechanical Operation Lab: Ball mill, Froth floatation cell, Hammer mill, Jaw crusher, Roll crusher, Plate and frame filtration, Rotary drum Vacuum filter, Vibrating screen, Sieve shaker, Cyclone separator, Cyclone Scrubber, Elutriator, Sedimentation, Leaf Filter.
- o Heat Transfer Lab: Extended Surface heat exchanger, Tubular heat exchanger, Jacketed vessel heat exchanger, Plate heat exchanger, Shell and tube heat exchanger, Emissivity measurement apparatus, Composite wall, Conductivity of metal rod, Calandria evaporator, Vertical & horizontal condenser, Unsteady state heat transfer, Heat transfer in forced convection, Multi effect evaporator.
- o Chemical Reaction Engineering: Packed bed reactor, Trickle bed reactor, RTD studies in CSTR, RTD studies in plug flow reactor, Cascade CSTR, Isothermal batch reactor, Combined flow reactor, RTD of packed bed reactor, Spinning basket reactor, Bubble cap Distillation.
- o Mass Transfer Lab: Double glass wall distillation apparatus, Bubble cap distillation set up, Packed bed distillation set up, Mass transfer with and without chemical reaction, Liquid - liquid extraction in packed bed, Solid - liquid extraction in packed bed, Absorption in packed bed, Vapour in air diffusion, Rotary drier, Forced Draft tray drier, Water cooling tower. Batch crystallization.
- o Process control Lab: Two Tank Non-Interacting System, Two Tank Interacting System, Control Valve Characteristics, Temperature Control Trainer, Pressure Control Trainer, Flow Control Trainer, Level Control Trainer, Cascade Control Trainer, First-Order and Second-Order System, Multi Process Trainer, Multi Variable Control Trainer, PLC Trainer.
- o Thermodynamics Lab: Vapour - liquid equilibrium apparatus, Liquid - liquid equilibria, Equilibrium Flash Distillation Apparatus, Separating & Throttling Calorimeter.

PG Labs: 1

- o Petroleum Lab: Acidity and Alkalimetry, Aniline point, Burning test lamp, Cloud & Pour Point, Flash & Fire Point, Melting point apparatus, Red wood Viscometer, Reid vapour pressure, Smoke point, U-Tube Viscometer, ASTM Distillation, Kinematic Viscometer bath, Drop point grease apparatus, Burning quality of kerosene,

Contamination detector, Tar viscometer, Softening point apparatus, Carbon residue apparatus, Bomb calorimeter, Vapour - Liquid Equilibrium, Steam Distillation, Digital Penetrometer.

Other Labs: 2

- o Analytical Lab: Atomic absorption spectrophotometer, Autotitrator, BET surface area analyzer, Buchi rheometer, Chemisorb surface area analyzer, Differential scanning calorimeter, Digital polarimeter, Ellipsometer, Fourier Transform Infrared spectrophotometer, Gas chromatography with TCD, FID, ECD detector, Gas chromatography with TCD, FID, PPF detector, Gas chromatography mass spectroscopy, High performance liquid chromatography, Interfacial rheometer, Karl Fisher titrator, Laser particle size analyser, Microscope, Millipore water purification, Refractometer, Rheometer, Spinning drop tensiometer, Tensiometer, Thermogravimetric analyzer, Total organic content analyzer, UV-Visible spectrophotometer, X Ray diffraction, Zeta potential.
- o CoE-SusPol: Centre of Excellence for Sustainable Polymers (CoE-SusPol) is funded by Department of Chemicals and Petrochemicals, Ministry of Chemicals and Fertilizers. The objective of CoE-SusPol is to develop cost effective and scalable technologies for the production of biodegradable polymer based end products using both petrochemical and renewable bio- feedstock and establish state of the art facilities in biodegradable polymers area. Both experimental and computational laboratory has been setup under this project facility and significant high-end equipments have been purchased in the department.

MAJOR AREAS OF RESEARCH AND DEVELOPMENT:

- **Fluids**

- o Design and development of micro-pumps and actuators
- o Surfactant Enhanced oil recovery
- o Experimental and computational fluid dynamics
- o Experimental and computational multiphase flows
- o Field driven fluid flows
- o Mechanics, patterns, and stability of fluids
- o Micro- and nano-fluidic devices
- o Minerals processing
- o Multi scale bubble dynamics and applications
- o Rheology of complex fluids
- o Transport through meso-porous materials

- **Reaction Engineering**

- o Catalysis electrolysis and Heterogeneous reactions
- o Electrochemical corrosion
- o Electroless plating
- o Hydrocarbon processing
- o Interfacial reactions

- o Kinetic analysis
- o Micro- and nano-fluidic reactors
- o Non-equilibrium reactive systems
- o Pyrolysis of waste plastics
- o Separations with chemical reaction
- o Sono-process engineering
- **Chemical Engineering Science**
- o Biological physics
- o Chemical mechanical polishing (CMP)
- o Colloids and interfacial science
- o Dewetting and phase separation
- o Phase equilibria and thermodynamics
- o Phase equilibria of ionic liquids
- o Phase transition in polymers (nucleation, crystallization, collapse transition)
- o Structure property relations
- o Super-hydrophobic and self-cleaning surfaces
- **Environmental Pollution Control**
- o Air pollution
- o Biological wastewater treatment (biosorption, bioaccumulation, biodegradation, bioreduction, biotransformation)
- o Electro remediation of water/wastewater
- o Membrane bioreactors
- o Physiochemical water/wastewater treatment techniques
- o Screening of novel microbial strains for treatment of organic/inorganic wastewater
- o Sonolysis and Sono-hybrid Advanced Oxidation techniques
- o Treatment of industrial effluent
- o Pollution trading
- **Process Systems Engineering**
- o AI based Optimization Techniques
- o Computational transport processes
- o Deterministic, evolutionary and global optimization
- o Material processing
- o MEMS & NEMS
- o Molecular simulation
- o Optimization and control
- o Planning and scheduling
- o Process control
- o Process design & techno-economics
- o Process intensifications
- o Process modelling
- o Randomized algorithms
- o Self-assembly and self-organization
- o Soft lithography
- o Statistical mechanics and thermodynamics
- **Materials Engineering**
- o Bio-lubricant
- o Complex organic solids
- o Functional multiscale structures & composites
- o Graphene synthesis and application
- o Ionic liquids
- o Liquid crystalline materials
- o Low cost ceramic membranes
- o Micro- and nano-sensors
- o Non-Newtonian Fluids
- o Palladium membranes
- o Reactive systems and gels
- o Responsive materials for environmental, biological and chemical separation
- o Self-healing surfaces
- o C-C Composites and C-Polymer Composites
- **Polymer Science and Engineering**
- o Polymers Synthesis and Characterization
- o Polymer Reaction Engineering
- o Polymer Processing
- o Polymer Rheology
- o Polymer Solutions and Thermodynamics
- o Polymer Simulation and Computing
- o Polymer based Nano and biocomposites
- o Polymer Degradation
- o Polymer and Nano-material Migration Studies
- o Polymer Recycling and Reuses
- o Biodegradable Polymers
- o Polymer based Technology Development, licensing, Training and Entrepreneurship
- o Biodegradable polymers and biobased nanocomposites
- **Energy Engineering**
- o Artificial photosynthesis
- o Biofuels: biodiesel, bioethanol, biobutanol, bio hydrogen and Bio oil
- o Biomass gasification and pyrolysis
- o Carbon dioxide capture and conversion to Fuel
- o Clean coal technology
- o Combustion and gasification reaction kinetics
- o Fischer-Tropsch Synthesis
- o Fuel cells
- o Hydrogen production and storage
- o Utilisation of lignocellulosic biomass for fuel/chemicals
- o Solar cells
- o Nuclear reactor

- o Membrane reformer for hydrogen production
- o Micro-mixers & separators
- **Separation and Mixing Processes**
- o Post CMP cleaning
- o Adsorption
- o Separation using Supercritical Fluids
- o Bio-separation
- o Surfactant mediated separation processes
- o Membrane Separation Processes

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED

Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
Ashok Kumar Dasmahapatra	GIFU-IITG Joint Symposium	Japan	1-2 Aug 2016	International
Ashok Kumar Dasmahapatra	ASP-2016	Japan	3-6 Aug 2016	International
Ashok Kumar Dasmahapatra	CompFlu 2016-Hyd	Hyderabad	12-14 Dec 2016	National
Ashok Kumar Dasmahapatra	Soft matter - Yong Investigators Meet - 2016	Goa	15-17 Dec 2016	National

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Subrata Kumar Majumder	Kinetics of ionic soft particle of gas for fine particle separation	IIT Guwahati	Guwahati	2016
A.K. Golder	Pharmaceuticals as Emerging Contaminants and Decomposition Behavior in AOPs	IIT Guwahati	Guwahati	2016
Bishnupada Mandal	Post-combustion CO ₂ -capture by amine based solvents, CO ₂ -selective membranes and Metal Organic Frameworks adsorbents	Thapar University	Patiala, Punjab	2016
Subrata Kumar Majumder	Surfactant aided stability, holdup and lifetime of soft particle of gas	IIT Guwahati	Guwahati	2016
Dipankar Bandyopadhyay	Reaction Engineering: from Laboratory Prototypes to the Devices	IIT Guwahati	Guwahati	2016
Vimal Katiyar	Development of Poly(lactic acid) as Drug Delivery Vehicle and For Internal Fixation Orthopedic Devices Fabrication	International Conference at BITERM-2016	New Delhi	15 Apr 2016
Nageswara Rao Peela	Sponsored Short Term Course on Advance Materials for Engineering Applications	Assam Engineering College	Guwahati	25 Apr 2016
Nageswara Rao Peela	Metal Encapsulated Zeolites: Synthesis, Characterization and Applications	IIT Guwahati	Guwahati	13 May 2016
Vimal Katiyar	Influence of bionano-fillers in improvement of poly(lactic acid) performance	ISBBB-2016	Guelph, Canada	30 May 2016
Vimal Katiyar	Biodegradable Polymers Based Food Packaging	GIFU	Japan	1 Aug 2016
Vimal Katiyar	Fabrication Strategies of Bionano fillers and their influence on the Performance of Bioplastics	International Symposium on Advances in Sustainable Polymers	Kyoto, Japan	4 Aug 2016
Vimal Katiyar	Biobased Plastics: Technology Trends and Commercialization Prospects in Seminar on Plastic Industries Opportunities & Challenges-2016	FINER 2016	Guwahati	12 Sep 2016

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Vimal Katiyar	Biodegradable Polymeric Nanomaterials for Advance Applications	Institute of Chemical Technology (ICT)	Mumbai	16 Sep 2016
Vimal Katiyar	Role of Degradable Plastics and composite products for sustainable Growth of Urban Civilization in 21st Century	Punjab University	Chandigarh, Punjab	30 Sep 2016
Nageswara Rao Peela	Rational Catalyst Design	Andhra University	Visakhapatnam	14 Oct 2016
Vimal Katiyar	Stereocomplex polylactic Acid based bionanocomposites	Third International Conference, Kathmandu Symposia on Advanced Materials, KaSAM 2016	Pokhara, Nepal	17 Oct 2016
Nageswara Rao Peela	Overview of Bio-oil Upgradation	Vignan University	Guntur	29 Nov 2016
Nageswara Rao Peela	Catalyst Design for Complex Reactions	Andhra University	Visakhapatnam	30 Nov 2016
Vimal Katiyar	Advance Industrially Viable Technologies using Sustainable Plastics,	International Conference on Polymers, Additives, Masterbatches, compounds	Society Of Plastics Engineers India	8 Dec 2016
Vimal Katiyar	Nanoamphiphilic Chitosan Dispersed PLA bionanocomposite Cast Films: Improved Thermal, Mechanical and Gas Barrier Properties	IIT Kharagpur	Kharagpur	12 Dec 2016
Vimal Katiyar	Modified Gum Arabic Based Formulation for Structural Adhesion & Gas Barrier Applications in Food Packaging	Bioprocessing India (BPI-2016) Conference, Organized by CIAB	MOHALI	15 Dec 2016
Anki Reddy Katha	gravity driven granular flows	soft matter investigators meet	OOC, Goa	16 Dec 2016
Vimal Katiyar	Sustainable Polymers on Food Packaging,	GIFU University	GIFU, Japan	19 Dec 2016
Vimal Katiyar	Stereocomplex Poly (lactic acid) based bionanocomposites	International Conference on Polymer Science and Technology, MACRO 2017	-	9 Jan 2017
Nageswara Rao Peela	Process Intensification Using Microstructured Reactors in the TEQIP Training Program on Process Intensification in Chemical Industries	SVNIT	Surat	6 Feb 2017
Dipankar Bandyopadhyay	Self-Motile Mesoscale Droplets & Particles	IIT Guwahati	Guwahati	2017
Dipankar Bandyopadhyay	Self-Organizing Thin Films & Droplets of Functional Polymers - Liquid Crystals	9th Indo-German Frontiers of Engineering Symposium, Jaipur	Jaipur	2017

SEMINARS/WORKSHOPS/CONFERENCES/SHORT-TERM COURSES ORGANISED

Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International/ National	No. of participants
V.S. Moholkar	Energy Management and Energy Efficiency	TEQIP	23-27 May 2016	National	60
Vimal Katiyar	Coordinator, in Gifu-U/IITG & Gifu-U/UKM Joint Symposium, GIFU, Japan	-	1 Aug 2016	International	
Vimal Katiyar	Indian Coordinator for KIT (Japan)-IITG Joint Symposium, Kyoto Japan	-	3 Aug 2016	International	
Vimal Katiyar	ASP-16	Kyoto Institute of Technology Kyoto, Japan	4-6 Aug 2016	International	
Nageswara Rao Peela	KIC-TEQIP short-term course on Novel Catalysts for Industrial Use	IIT Guwahati	24-26 Aug 2016	National	
Ashok Kumar Dasmahapatra	3rd National Workshop on NEMS/MEMS and Theranostic Devices	DeitY	21-23 Feb 2017	National	200

PATENTS

Name of Faculty and co researcher	Patent Name	Date Applied/ Granted	Application No.	Remarks
Dipankar Bandyopadhyay, Mitradip Bhattacharjee	Flexible Paper Touchpads for Low-cost Electronic Appliances	17 May 2016	Appl. No. 201631017054	Indian Patent
Dipankar Bandyopadhyay, Nilanjan Mandal, Satarupa Dutta	A Transmittance Based OptoElectroChemical Device for Detecting Biomarkers on Paper Surface Targeting Low-cost Point-of-Care Diagnostic Tools	31 May 2016	Application No.201631018620	Indian Patent
Senthilmurugan Subbiah, Jaideep Chatterjee, Shailendra Pratap	A water purifier and a process of cleaning the membrane	5 Jun 2016	WO2016066382	Patent filled by Unilever R&D Bangalore
Vimal Katiyar, Medha Milli, Arvind Gupta	Formulation of Polymer Nicotine Conjugates	10 Jun 2016	201631034242	
Vimal Katiyar, Arvind Gupta	Formulation of Heat Stable Stereocomplex Poly (lactic acid) Composites	28 Jun 2016	201631022079	
Vimal Katiyar, Amit Kumar, Prodyut Dhar	Poly (lactic acid) Nanocomposites formulation and method of making thereof	28 Jun 2016	201631022079	
Dipankar Bandyopadhyay, Tapas Kumar Mandal, Saptak Rarotra	A Microfluidic Electrolyzer for the Continuous Production and Separation of Hydrogen/Oxygen	8 Aug 2016	Patent Appl. No. 201631012510	Indian Patent
Seim Timung, Mitradip Bhattacharjee, Dipankar Bandyopadhyay, Tapas Kumar Mandal	Microfluidic Hybrid Energy Harvester Combining Solar Energy, Surface Plasmon Resonance, and Streaming Potential	24 Sep 2016	Application No.201631036408	Indian Patent

Dipankar Bandyopadhyay, Harshal Nemade, Mitradip Bhattacharjee	A Lung Condition Monitoring Device	28 Sep 2016	Appl. No. 201631033190	Indian Patent
Dipankar Bandyopadhyay, Tapas Kumar Mandal, Saptak Rarotra	A Microfluidic Electrolyzer for the Continuous Production and Separation of Hydrogen/Oxygen	2017	PCT/IN2017/050022	
Dipankar Bandyopadhyay, Nilanjan Mandal, Satarupa Dutta	A Transmittance Based OptoElectroChemical Device for Detecting Biomarkers on Paper Surface Targeting Low-cost Point-of-Care Diagnostic Tools	2017	PCT/IN2017/050023	

AWARDS AND HONOURS

- Mr. Akhilesh Kumar Pal and his Ph. D supervisor Dr. Vimal Katiyar have been selected for Gandhian Young Technological Innovation Awards for 2017 which was conferred during function at Rashtrapati Bhavan, New Delhi on 05th March 2017.
- Binota Thokchom, IPDF has been awarded the best Oral Presentation for the topic entitled “Development and the Synthesis of multifunctional magnetic nanocatalyst for Sonoelectrolytic water treatment process” in the Nano Catalysis session at APCAT-7, 2017 event in Mumbai, India
- Mr. Abhishek Shukla (Research Scholar) has been awarded the Best Oral Presentation Award for his paper in the Technical Session “Food and Bio-Process Engineering” at ETAE - 2016 organized by Agricultural and Food Engineering Dept., IIT Kharagpur
- Prof. V.S. Moholkar and his research team comprising of Mr. Sushobhan Pradhan, Mr. Arup Jyoti Borah, Mr. Pritam Dikshit and Mr. Maneesh Poddar have been awarded National Award for Technology Innovation in the field of Petrochemicals and Downstream Plastic Processing. The prize comprises of Rs 2 lakhs cash award along with a shield and citation.
- Ms Shymali Sarma has been selected for the Newton-Bhaba award for which she would be getting an opportunity to spend a part of her research tenure at the University of Nottingham.
- Satyannarayana Edubilli has been received the “Best Poster Award” in an International Conference on “Emerging Trends in Nanomaterials Science & Technology (ICETNMST - 2017)” held at NIT Nagaland during 4-6th January 2017. The title of the paper is “Scale Up Synthesis And Experimental Investigation Of Porous Metal Organic Frameworks In Gas Adsorption”.
- Mr. Arvind Gupta has been selected for Academia-Industry Training Program, which is scheduled at Ecole Polytechnique Federale de Lausanne (EPFL) and Zurich, Switzerland.
- Ms. Murchana Changmai has been selected for the Winter School program 2016 at GIFU University.
- Mr. Akhilesh Kumar Pal and his Ph.D supervisor Dr. Vimal Katiyar received the Marshall Award for Student which has been awarded during 11th Asia Pacific Chitin and Chitosan Symposium 2016.

FACULTY MEMBERS

Sl. No.	Name	PhD	Designation	Areas of Interest
1	Anandalakshmi R.	IIT Madras	Assistant Professor	Computational Heat Transfer and Fluid Flow, Process Modeling and Simulation, Solar Thermal Energy Conversion, Energy Efficient Design of Thermal Systems
2	Bandyopadhyay Dipankar	IIT Kanpur	Associate Professor	Colloid and Interfacial Phenomena, Computational Fluid Dynamics, Micro and Nano Fluidics, Complex Flow and Fluids, Clean Energy – Fuel and Solar cells
3	Banerjee Tamal	IIT Kanpur	Professor	Phase equilibria of ionic liquids, Molecular simulations, Global optimisation, Statistical thermodynamics
4	Chatterjee Jaideep	Illinois Institute Of Technology, Chicago	Adjunct Faculty	Water Purification, Oil-water interfaces, and Surfactant Enhanced Oil Recovery

Sl. No.	Name	PhD	Designation	Areas of Interest
5	Das Chandan	IIT Kharagpur	Associate Professor	Wastewater Treatment, Bioremediation, Membrane based Separation Process
6	Dasmahapatra Ashok Kumar	IIT Bombay	Associate Professor	Complex fluids, Phase transition in polymers (Nucleation, crystallization, collapse transition, etc.), Structure-property relations, Molecular simulations, Biological physics
7	De Mahuya	IIT Kanpur	Associate Professor	Catalysis and reaction engineering, adsorption, hydrocarbon processing
8	Ghosh Pallab	IIT Bombay	Professor	Interfacial phenomena, Interfacial reactions, Membrane separation, Randomised algorithms
9	Ghoshal Alope Kumar	IIT Kharagpur	Professor	Advanced Separation Technology, Modeling & Simulation, Environmental Pollution Control, Pyrolysis of waste plastics
10	Gooh Pattader Partho Sarathi	Lehigh University	Assistant Professor	Stochastic dynamics, Colloid and Interface science, Tribology, Soft matter
11	Golder Animes Kr.	IIT Kharagpur	Associate Professor	Electroremediation of water/wastewater, Physiochemical water/wastewater treatment techniques, Bioremediation, Electrochemical corrosion
12	Goud Vaibhav V.	IIT Kharagpur	Associate Professor	Heterogeneous Reactions, Bio-energy and Green Engineering, Biolubricant, Utilisation of Lignocellulosic Biomass for Fuel/Chemicals, Supercritical Fluids
13	Gumma Sasidhar	Cleveland State University, USA	Professor	Phase Equilibria and Thermodynamics, Adsorption, Molecular simulation, Gas storage
14	Gupta Raghvendra	The University of Sydney, Australia	Assistant Professor	Multiphase flow, Microfluidics and micro process engineering, Computational and experimental fluid dynamics
15	Katha Anki Reddy	IISc Bangalore	Assistant Professor	Computational study of polymer-composites, Membranes, Poly electrolytes, Granular flows
16	Katiyar Vimal	IIT Bombay	Associate Professor	Synthetic and Natural Polymers, Polymer Processing, Biothermoset, Nanobiocomposite, Organic Solar Cells, Biodegradable Polymers
17	Kishore Nanda	IIT Kanpur	Associate Professor	CFD, Bubbles, Drops and Particles Dynamics, Non-Newtonian Fluids
18	Kotecha Prakash	IIT Bombay	Associate Professor	Optimization, Process Control, Artificial Intelligence, Planning and Scheduling
19	Kumar Amit	University of Delaware, USA	Assistant Professor	Gas Transport in Nanoporous Materials, Molecular Simulation, Statistical Mechanics
20	Mandal Bishnnupada (Head of the Department)	IIT Kharagpur	Professor	Separations with chemical reaction, Molecular based membrane separation, Modeling and simulation of separation processes, Environmental pollution control
21	Mandal Tapas K	IIT Kharagpur	Associate Professor	Multiphase flow & Measurement in multiphase flow, Bio-diesel
22	Mazumdar Subrata Kumar	IIT Kharagpur	Professor	Multiphase flow and reactor development, Computational fluid dynamics in multiphase flow, Mineral processing, Process intensifications and Micro-nanobubble science and technology

Sl. No.	Name	PhD	Designation	Areas of Interest
23	Mohanty Kaustubha	IIT Kharagpur	Professor	Bioseparation, Biofuels, Biological wastewater treatment, Membrane technology, Ionic liquids
24	Moholkar Vijay S.	University of Twente, Netherlands	Professor	Bubble dynamics, CFD, Sono-process engineering, Bio-mass gasification
25	Peela Nageswara Rao	IIT Kanpur	Assistant Professor	Heterogeneous Catalysis and reaction engineering, Biomass conversion to value added chemicals, Bio-oil up-gradation to transportation fuels, Carbon dioxide activation to valuable chemicals, Metal encapsulated zeolites
26	Prabu Vairakannu	IIT Madras	Assistant Professor	Clean Coal Technology, Combustion and Gasification, Reaction kinetics
27	Pugazhenth G.	IIT Kanpur	Professor	Membrane Separation, Polymer Nanocomposites, Nanomaterials, Catalysis & Refinery Processes
28	Purkait Mihir Kumar	IIT Kharagpur	Professor	Advance Separation Processes, Membrane technology. Preparation/fabrication of ceramic/polymeric membranes and their application in RO, NF, UF and MF. Treatment of Industrial Effluent, Surfactant mediated separation processes, Responsive materials for environmental, biological and chemical separation
29	Saha Prabirkumar	IIT Madras	Professor	Process Modeling, Optimisation and control, Membrane Based separation Process
30	Senthilmurugan S.	IIT Delhi	Associate Professor	Modeling and Optimization of Novel Processes, Process Design and Operation of Membrane Separation Processes, Waste and waste water treatment (WWWT) for Process Industries, Novel Desalination Technologies, Smart Water Grid, Waste to Energy
31	Singh Anugrah	IISc Bangalore	Professor	Computational and Experimental Fluid Dynamics, Microfluidics/Nanofluidics, Material Processing, Flow through Porous Media
32	Tiwari Pankaj	University of Utah, Salt Lake City, UT, USA	Assistant Professor	Conventional and unconventional energies, Reservoir Engineering, Complex organic solids, Biomass conversion, Pyrolysis process, Kinetic analysis
33	Upadhyay Rajesh Kr.	IIT Delhi	Associate Professor	Multiphase Flow Reactor, Multiphase Flow Measurements, Computational Fluid Dynamics, Residence Time Distribution, Novel Reactors
34	Uppaluri Ramgopal V. S.	UMIST, Manchester, UK	Professor	Major: Electroless Plating, Evolutionary Engineering Optimization, Low Cost Ceramic Membranes, Microfiltration Minor: Bio-systems Engineering, Polymer-natural fiber composites, Process Design & Techno-economics, Refinery Engineering, Reservoir Engineering. Extracurricular: Synthesis of Science and Spirituality
35	Venkatesh R. Prasanna	IIT Madras	Assistant Professor	Electrochemistry, Chemical Mechanical Polishing (CMP), Post CMP cleaning, Refinery Processes

DEPARTMENT OF CHEMISTRY

The Department at a Glance
Year of Establishment: 1995
Academic Programmes Offered: Bachelor of Technology (BTech) in <ul style="list-style-type: none"> o Core (Theory and Laboratory) and Elective courses in Chemistry Bachelor of Technology (BTech) in <ul style="list-style-type: none"> o Chemical Science and Technology Master of Science (MSc) in <ul style="list-style-type: none"> o Chemistry Doctor of Philosophy (PhD)
Total Faculty Strength: 40 <ul style="list-style-type: none"> • Professor: 14 • Associate Professor: 16 • Assistant Professor: 10 New Faculty Members Joined: NIL <ul style="list-style-type: none"> • Assistant Professor: NIL
Total Student Strength: 486 BTech: 157 MSc: 92 PhD: 237
New Students Joined in 2016-2017: 145 BTech: 44 MSc: 48 PhD: 53

LABORATORY FACILITIES**Laboratories for BTech and MSc programme:**

Sl. No.	Details of Laboratory	No.	Approx. Floor space (m ²)
Laboratories for B. Tech and M. Sc programme			
01	Chemistry Laboratory (B. Tech, 1st sem) / Chemical Technology Lab – I, B. Tech (CST)	01	200
02	Chemical Technology Lab – II, B. Tech (CST)	01	140
03	Chemical Technology Lab – III, B. Tech (CST) / Physical Chemistry Lab (M. Sc)	02	300
04	Inorganic Chemistry Lab (M. Sc) / Organic Chemistry Lab (M. Sc)	01	180
Research Laboratories			
05	CHL –101, CHL – 102, CHL –103, CHL – 104, CHL –105, CHL –106, CHL – 201, CHL-202, CHL-203, CHL-204, CHL – 205, CHL – 206, CHL-3201, CHL-3202, CHL-3203, CHL-3204, CHL-3207, CHL-3209, CHEL-004, CHEL-005, CHEL-006, CHEL –101, CHEL –102, CHEL –103, CHEL – 104, CHEL – 105, CHEL – 106, CHEL –107, CHEL –108, CHEL – 109, CHEL –201, CHEL –202, CHEL –203, CHEL – 204, CHEL – 205, CHEL – 206, CHEL –207, CHEL –208, CHEL – 209, CHEL –301, CHEL –302, CHEL –303, CHEL – 304, CHEL – 305, CHEL – 306, CHEL –307, CHEL –308, CHEL – 309.	48	80 (average)
06	Analytical equipment Lab I – VI	04	300
07	Computer Lab I and II	02	80
08	Ultrapure (Millipore) water Lab	01	50

MAJOR EQUIPMENT AND FACILITIES ACQUIRED

1. Inverted Led Microscope For Brightfield, Dic, Led Fluorescence With 5Mp Ccd Camera, Imaging Software And Computer

Make: Nikon, Model: ECLIPSE Ts2R-FL

2. Bench Top Cascade Freeze Dryer System

Make: Labconco Corporation, USA

Model: FreeZone 4.5 Liter Benchtop Freeze Dry system (–150 °C)

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

The Department is engaged in various research and Development activities such as:

Catalysis, Supramolecular Chemistry, Nanoscale Science and Technology, Synthesis, structure and reactivity of Inorganics, Newer reagents, Protocols and Newer methodologies, Synthesis of natural products and Carbohydrate Chemistry, Bio-organic Chemistry, Bio-inorganic Chemistry and Co-ordination Chemistry & Organometallics, Chiral recognition using metal complex based host, Metal removal from wastewater using polymer based chelators, Polymer synthesis, Organic Photochemistry, Molecular dynamics, Quantum Molecular dynamics, Physical

Chemistry – Spectroscopic and Theoretical investigations on Novel Materials, peptide chemistry, Development of new theoretical approaches to: Laser Assisted Control of Chemical Reactions, and, Resonances in Electron – Molecule Scattering, Biomimetic Chemistry and Chemical Biology, Computational Biophysics and Chemistry, Oxidation Catalysis, Molecular Magnetism, Synthesis of Single-Molecule Magnets (SMMs), MRI Contrast agents, Water Oxidation Chemistry, Experimental & Theoretical Physical Chemistry, Self-organization and Nonlinear dynamics, Liquid crystals, Functional Materials, Molecular Electronics, Self Assembly, Supramolecular dynamic aggregates, peptides, lipids, Time Resolved Absorption and Fluorescence Spectroscopy, SHG, MUPPETS, Synthetic organic chemistry, Natural product synthesis with the emphasis of new synthetic methodology; development of new reactions, asymmetric organocatalysis and transition metal catalysis with new catalyst design; mechanistic study, solar fuel from water, Gas/Vapor/Liquid Adsorption and Catalytic Applications of Metal-Organic Frameworks (MOFs), Peptidomimetics: Synthesis, Conformation and Biological activity, Nanofluidics, Organometallic Chemistry and Catalysis, Bio-inspired Polymer Materials, Drug Delivery, Open Microfluidics, Chemical Sensor, Organofluorine Chemistry etc.

MAJOR INITIATIVES AND BREAKTHROUGH IN RESEARCH AND DEVELOPMENT**Major Initiatives and breakthrough in R&D:**

Development of novel methods for the construction of diverse organic molecules those are of important in biological and medicinal sciences,

Development of novel strategies for C-H activation for the regioselective carbon-carbon and carbon-heteroatom bonds formations, which are important in academia and chemical industries from both environmental and economic standpoint,

Supramolecular chemistry of polypeptides which are important in drug delivery and nanotechnology,

Design and development of novel approaches for the development drugs for misfolding diseases, such as Alzheimer's disease (AD) and Parkinson's disease etc.

Development of atom economic routes for the construction of novel molecules which are important in pharmaceuticals, materials chemistry such as construction of devices etc

Breakthrough Innovations:

There are some salient research achievements observed in the ongoing research and development under institutional and sponsored research projects which has appeared in reputed peer-reviewed journals recently in various fields of chemistry as mentioned below-

- A device with integrated methods for reverse transcription polymerase chain reaction (rt-pcr) and/or dna/protein array based analyses,
- A device for visual detection of bilirubin,
- Solvent-driven responsive bilayer membranes of clay and graphene oxide,
- Facile Synthesis of Tunable and Durable Bulk Superhydrophobic Material from Amine "Reactive" Polymeric Gel,
- Phosphate bioisostere containing amphiphiles: a novel class of squaramide-based lipids, Transition Metal, Azide, and Oxidant-Free Homo- and Heterocoupling of Ambiphilic Tosylhydrazones to the Regioselective Triazoles and Pyrazoles, Danazol has potential to cause PKC translocation, cell cycle dysregulation, and apoptosis in breast cancer cells,
- Organocatalytic Asymmetric Tamura Cycloaddition with α -Branched Nitroolefins: Synthesis of Functionalized 1-Tetralones, Organocatalytic Asymmetric Michael/Hemiketalization/Retero-aldol Reaction of α -Nitroketones with Unsaturated Pyrazolones: Synthesis of 3-Acyloxy Pyrazoles, Organocatalytic redox isomerization of electron-deficient allylic alcohols: Synthesis of 1,4-ketoaldehydes etc.
- β -Sheet Breaker Peptides for Drug Design Against Diabetes Type-2 etc.

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED

Name of Faculty	Name of Conf./Workshop	Place	Date	International/National
Arun Chat-topadhyay	Frontiers in Inorganic and Organometallics	IIT Indore	14-15 Apr 2016	National
	DST INSPIRE Science Camp	Manipur University	1-2 Oct 2016	National
	DST INSPIRE Science Camp	Manipur University	26-27 Nov 2016	National
	Annual Meeting of the Indian Academy of Sciences	IISER Bhopal	4-6 Nov 2016	National
	Indian Academy of Sciences Lectures	Tezpur University	11-13 Nov 2016	National
	Indian Society of Nanomedicine 1st Annual Meeting	AIIMS, New Delhi	24-26 Nov 2016	National
	Supramolecules and Forensic Nanotechnology	Gujarat Forensic Science University	20-21 Jan 2017	National
Debasis Manna	Frontiers in Chemical Sciences (FICS) -2016	IIT Guwahati	8-10 Dec 2016	National
Krishna Pada Bhabak	INSPIRE Faculty Monitoring-cum-Interaction Meet in Chemical Sciences & Material Sciences	KIIT Bhubaneswar	16-17 Jan 2017	National
M. Sarma	Theoretical Chemistry Symposium (TCS) 2016	Hyderabad	14-17 Dec 2016	National

Name of Faculty	Name of Conf./Workshop	Place	Date	International/National
Shyam P. Biswas	Frontiers in Chemical Sciences 2016	IIT Guwahati	8-10 Dec 2016	National
	20th CRSI National Symposium in Chemistry	Gauhati University	3-5 Feb 2017	National
Chandan K. Jana	Frontiers in Chemical Science	IITG	8-10 Dec 2016	National
Debapratim Das	Recent Advancement in Functional Materials and Nanotechnology (RAFMN-2017)	NIT Patna	15-17 Feb 2017	International
G. Krishnamoorthy	Aggregation Induced Emission: Faraday Discussion	Guangzhou, China	18-20 Nov 2016	International
	NFCFA 2017	Goa, India	28-29 Jan 2017	National
	FICS 2016	IIT Guwahati	8-10 Dec 2016	International
Sandip Paul	Frontiers in Chemistry	University of North Bengal	21 Feb 2017	National
Subhas Chandra Pan	CRSI-NSC 2016	Siliguri	14-16 Jul 2016	National
	ICOS 2017	Mumbai	11-16 Dec 2016	International
	CRSI-NSC 2017	Guwahati	3-5 Feb 2017	National
M. Ray	Fifth Symposium on Advanced Biological Inorganic Chemistry (SABIC-2017)	TIFR, Kolkata	7-12 Jan 2017	International
Sunanda Chatterjee	6TH INDIAN PEPTIDE SYMPOSIUM	MUMBAI	23-24 Feb 2017	National
Akshai Kumar A. S.	NWNTD-2017	IIT Guwahati	22-23 Feb 2017	National
	ACS on Campus	IIT Guwahati	16 Jan 2017	International

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Arun Chattopadhyay	Dr. R. A. Mashelkar Endowment Lecture on Advanced Materials	NCL	NCL	15 Sep 2016
	GIAN Course	Aligarh Muslim University	AMU	22 Dec 2016
	Institute Lecture	IISER Trivandrum	IISER Tvm	31 Mar 2017
T. Punniyamurthy	Selective C-H Activation and Carbon-Carbon and Carbon-Heteroatom Bonds Formations	Berhampur University	Berhampur	3 Mar 2017

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
T. Punniyamurthy	Chelation Assisted C-H Activation and Carbon-Carbon and Carbon-Heteroatom Bonds Formations	NISER Bhubaneswar	Bhubaneswar	2 Mar 2017
	Regioselective C-H Functionalization and Carbon-Heteroatom Bonds Formations	North Bengal University	North Bengal	21 Feb 2017
	Regioselective C-H Activation for Carbon-Carbon and Carbon-Heteroatom Bonds Formations	Indian Chemical Society, Gitam University	Visakhapatnam	28 Dec 2016
	Regioselective C-H Functionalization and Carbon-Heteroatom Bonds Formation	Tezpur University	Tezpur	13 Nov 2016
	Domino Strategies for the Synthesis of Medically Important Heterocycles	do	Tezpur	11 Nov 2016
	Carbon-Carbon and Carbon-Heteroatom Bonds Formations and Their Application for Medically Important Heterocycles	IIT Guwahati	Guwahati	28 Aug 2016
	Carbon-Carbon and Carbon-Heteroatom Bonds Formations and their Applications for Medically Important Heterocycles,	Rajiv Gandhi University of Knowledge Technologies	Telangana	20-21 Aug 2016
	Carbon-Carbon and Carbon-Heteroatom Bonds Formations and Their Application for Medically Important Heterocycles	IICT Hyderabad	Hyderabad	19-20 Sep 2016
Gopal Das	Supramolecular Chemistry at Work: Chemosensor for Anions	Vidyasagar College for Women (VCFW)	Kolkata	6-7 Jan 2017
Bhubaneswar Mandal	Peptide based drug design against protein misfolding diseases	IIT Guwahati	Guwahati	19 Mar 2017
Debasis Manna	Cancer immunotherapy: Inhibition of Indoleamine 2,3-Dioxygenase-1 Enzyme	IIT Guwahati	Guwahati	8-10 Dec 2016
Krishna Pada Bhabak	Bio-catalysis: Towards Enzymes and their Mimetics	IIT Guwahati	Guwahati	14 May 2016
M. Sarma	Invited Lecture at National Conference on Chemical Physics (NCCP – 2017)	Assam University	Silchar	20-21 Mar 2017
Shyam P. Biswas	Development of Functionalized MOF Materials for Fluorescence Sensing Applications	IIT Guwahati	Guwahati	8 Dec 2016
Subhas Chandra Pan	Organocatalytic Asymmetric Cyclization Reactions	R K M Vidyamandira Belur	Belur, Howrah	6-7 Jan 2017
	Organocatalytic Asymmetric Cyclization Reactions	Heads of MPI-Partner group meeting	Mohali	3-5 Mar 2017
Anil K. Saikia	New Strategies for the Synthesis of Heterocyclic Compounds	Gauhati University	Guwahati	3-5 Feb 2017
	Strategies for the Synthesis of Heterocyclic Compounds with Special Emphasis on Biomolecules	Dibrugarh University	Dibrugarh	10-11 Mar 2017
	Synthesis of Heterocyclic Compounds with Special Emphasis on Biomolecules	OAHOST & Springer	Hanoi, Vietnam	13-17 Mar 2017
M. Ray	Recognition and resolution of multiple biogenic amino alcohols using metal complex anion as host	TIFR	Kolkata	7 Jan 2017

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
M. Ray	Recognition and resolution of multiple biogenic amino alcohols using metal complex anion as host	IIT Guwahati	Guwahati	16 Jan 17
Subhendu Sekhar Bag	A Journey toward Expanding the Genetic Alphabet and Genetic Code through Click Chemistry	IIT Kharagpur	Kharagpur	17-18 Feb 2017
C. V. Sastri	Exploring Novel Reactions of Non-Heme High Valent Metal Intermediates	SABIC-2017	Kolkata	7-11 Jan 2017
Akshai Kumar A. S.	Fuel Chemical Synthesis Via Catalysis / Novel Catalysis for Industrial Use	IIT Guwahati	Guwahati	24 Aug 2016
	Fuel Chemical Synthesis Via Catalysis	Mangalore University	Mangalore	16 Dec 2016
	"What next after class XII"	Vani Pre-University College	Belthangady, Mangalore	Dec 2016

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANIZATIONS / INVITED LECTURES

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Prof. Richard N. Zare	Stanford University	Institute Lecture on Chemical Fizzics: The Life of a Bubble	1 Feb 2017
Prof. Santanu Bhattacharya	IACS, Kolkata	Institute Lecture on Numerous opportunities with Supramolecular gels	25 Feb 2017
Dr. Alan S. Goldman	Rutgers-The State University of New Jersey	Dehydrogenation and Related Reactions of Alkanes Catalyzed by Iridium Complexes. Mechanism, Selectivity, and a New Class of Catalysts	27 Jan 2017
Dr. Angshuman Nag	IISER Pune	Plasmonic and Magnetically Doped Colloidal Metal Oxide Nanocrystals	15 Jul 2016

SEMINARS/WORKSHOPS/CONFERENCES/SHORT-TERM COURSES ORGANISED

Name of Faculty (Convenor/ Co-ordinator, etc.)	Name of Sem./Wor./ Con.	Funded By	Date	International/ National	No. of participants
M. Sarma (One of the organizers)	Frontiers in Chemical Sciences (FICS 2016)	Oil India Limited, SERB-DST, Chemical Science, Aditya Scientific, Gulbrandsen Chemicals, Perkin Elmer, TCI, Merck	8-10 Dec 2016	National	200
Animesh Das & Akshai Kumar A. S.	Recent trends in catalysis; KIC TEQIP-Short term course	MHRD	13-14 May 2016	National	18
Akshai Kumar A. S. (With Sumana Dutta and John Jose)	ISHAN VIKAS	MHRD	20- 28 Jun 2016	National	70
Akshai Kumar A. S. (With Sumana Dutta and John Jose)	ISHAN VIKAS	MHRD	30 Nov-11 Dec 2016	National	90
Akshai Kumar A. S. (With Animesh Das)	KIC-TEQIP short-term on "Recent Trends in Catalysis"	MHRD	13-14 May 2016	National	30

PATENTS

Name of Faculty and co-researcher	Patent Name	Date Granted	Application No.
Chattopadhyay, Arun; Sailapu, Sunil Kumar; Dutta, Deepanjalee; Sahoo, Amaresh Kumar; Ghosh, Siddhartha Sankar	A Device With Integrated Methods For Reverse Transcription Polymerase Chain Reaction (Rt-Pcr) And/Or DNA/ Protein Array Based Analyses	2 Jun 2016	PCT/IN2016/000141
Chattopadhyay, Arun; Paul, Anumita; Basu Srestha; Sahoo, Amaresh Kumar	A Device For Visual Detection Of Bilirubin	2 Jun 2016	PCT/IN2016/000141
Bhubaneswar Mandal And Ashim Paul	B -Sheet Breaker Peptides For Drug Design Against Diabetes Type-2	26 May 2016	201631018104

AWARDS AND HONOURS

- Dr. Shyam P. Biswas has received Young Scientist Award by Chemical Research Society of India (CRSI) in February 2017.
- Dr. Dipankar Srimani attended Alexander von Humboldt Programme at RWTH Aachen University (April 2016- July 2016)
- Prof. Anil K. Saikia has been awarded the Bronze Medal for the Year 2017 by Chemical Research Society of India (CRSI)
- Dr. S. S. Bag received 2016: Outstanding Faculty: The Venus International Faculty Awards – VIFA 2016 for the contribution in the field of Bioorganic Chemistry
- Uday Narayan Pan received 3rd best paper award at 6th DAE BRNS Interdisciplinary Symposium on Material's Chemistry (ISMC – 2016) held at BARC, Mumbai.
- Kafeel Ahmad received best poster award at Research Conclave at IIT Guwahati.
- Adil Rather securing first (department level) and third (institute level) position for research poster presentation at Research Conclave-2017 (IITG)
- Bedika Phukan received best oral presentation award during ACS on Campus, 16th January, 2017, IIT Guwahati
- Sujit Mahato received 2nd best poster award for research poster presentation at Flow Application on Basic, Applied and Clinical Biology (FABACTCS2016) conference organized by BSBE, IIT Guwahati / BBCI Guwahati.

STUDENTS' ACHIEVEMENTS

- Ayan Pal received 1st best paper award at 6th DAE BRNS Interdisciplinary Symposium on Material's Chemistry (ISMC – 2016) held at BARC, Mumbai.
- Dhriti Mahanta received distinguished poster award during Hands-on research in complex systems school 2016", held at ICTP, Trieste, Italy.

FACULTY MEMBERS

Sl. No.	Name	PhD	Designation	Areas of Interest
01	Achalkumar A. S.	CSMR, Bangalore	Associate Professor	Liquid crystals, Functional Materials, Molecular Electronics, Self Assembly, Green Chemistry
02	Akshai Kumar A. S.	IISc Bangalore	Assistant Professor	Organometallic Chemistry, Inorganic Chemistry, Organofluorine Chemistry, Catalysis (Homogeneous and Heterogeneous), C-H and C-F activation
03	Bag Subhendu Sekhar	IIT Kharagpur	Associate Professor	Bioorganic Chemistry and Chemistry of Unnatural Nucleic Acid and Peptides
04	Baruah Jubaraj B.	IISc Bangalore	Professor	Homogeneous Catalysis, Supramolecular chemistry and material design
05	Bhabak Krishna Pada	IISc Bangalore	Assistant Professor	Organic and Bio-organic Chemistry

Sl. No.	Name	PhD	Designation	Areas of Interest
06	Biswas, Shyam Prosad	Ulm University, Germany	Assistant Professor	Gas/Vapor/Liquid Adsorption and Catalytic Applications of Metal-Organic Frameworks
07	Chattopadhyay Arun	Columbia University	Professor	Nanoscale Science and Technology
08	Chatterjee Sunanda	IISc Bangalore	Assistant Professor	Peptidomimetics: Synthesis, Conformation and Biological activity
09	Das Animesh	University of Goettingen, Germany	Assistant Professor	Organometallic chemistry and catalysis
10	Das Debapratim	IACS, Kolkata	Associate Professor	Supramolecular dynamic aggregates, peptides, lipids
11	Das Gopal	IIT Kanpur	Professor	Supramolecular, Bioorganic chemistry and Biomineralization
12	Dutta Sumana	IACS, Kolkata	Associate Professor	Experimental & Theoretical Physical Chemistry / Self-organization and Nonlinear dynamics
13	Gupta Ashish K.	Univ. of California, Los Angeles	Professor	Quantum Molecular Dynamics
14	Iyer Parasmeswar K.	CSMCRI, Bhavnagar	Professor	Polymer synthesis, Organic / Organometallic Chemistry & Device fabrication, Sensors
15	Jana Chandan K.	WWU Muenster, Germany	Associate Professor	Total Synthesis/ Natural Product Based Drug Discovery/ Synthetic Methodology/ Development of New Reaction
16	Kancharla Pavan K.	IIT Kanpur	Assistant Professor	Organic Chemistry, Carbohydrate Chemistry, Development of Synthetic Methodology, Organocatalysis.
17	Khan Abu Taleb (On deputation as Vice Chancellor of Aliah University, West Bengal)	Kalyani University, W.B.	Professor	Synthesis of Natural Products, Heterocycles and Carbohydrate Chemistry, Newer Methodologies
18	Krishnamoorthy G.	IIT Kanpur	Professor	Organic Photochemistry & Spectroscopy
19	Kundu Lal Mohan	LMU Munich, Germany	Associate Professor	Nucleic Acid / Peptide Chemistry, DNA / RNA Damage and Repair, DNA Hybrid Materials
20	Mahata Kingsuk	University of Siegen, Germany	Assistant Professor	Solar Fuel from Water, Supramolecular Catalysis, Theranostic Nano-Medicine
21	Manivannan V.	IACS, Calcutta	Professor	Coordination Chemistry
22	Mandal Bhubaneswar	EPFL, Lausanne, Switzerland	Associate Professor	Peptide Chemistry and Amyloid Research
23	Manna Debasis	University of Illinois at Chicago	Associate Professor	Lipid-Protein Interaction, Lipid Synthesis
24	Manna Uttam	IISc, Bangalore	Assistant Professor	Bio-inspired Polymer Materials, Drug Delivery, Open Microfluidics, Chemical Sensor.
25	Mondal Biplab	IIT Bombay	Professor	Coordination and Bioinorganic Chemistry
26	Mukherjee Chandan	Max-Planck Institute of Bioinorganic Chemistry, Muelheim, Germany	Associate Professor	Oxidation Catalysis / Molecular Magnetism / Synthesis of Single-Molecule Magnets (SMMs) / MRI Contrast agents / Water Oxidation Chemistry

Sl. No.	Name	PhD	Designation	Areas of Interest
27	Pan Subhas Chandra	Max-Planck-Institut fuer Kohlenforschung, Muelheim an der Ruhr, Germany	Associate Professor	Synthetic organic chemistry: Natural product synthesis with the emphasis of new synthetic methodology; development of asymmetric organocatalysis and transition metal catalysis with new catalyst design; mechanistic study
28	Panda Aditya N.	IIT Kanpur	Associate Professor	Dynamics of bimolecular scattering processes
29	Patel Bhisma K. (Head of the Department)	IIT Kanpur	Professor	Bio-Organic Chemistry and Newer Methodologies
30	Paul Anumita	Columbia University	Professor	Surface Science, Catalysis, Thin Films
31	Paul Sandip	IIT Kanpur	Associate Professor	Computational Biophysics and Chemistry
32	Punniyamurthy T.	IIT Kanpur	Professor	Synthetic Organic Chemistry
33	Qureshi Mohd	IIT Kanpur	Associate Professor	Materials Chemistry
34	Ray Manabendra	IIT Kanpur	Professor	Bioinorganic and Coordination chemistry
35	Raidongia Kalyan	JNCASR	Assistant Professor	Physical Chemistry
36	Sahu Kalyanasis	IACS, Kolkata	Associate Professor	Time Resolved Absorption and Fluorescence Spectroscopy, SHG, MUPPETS
37	Saikia Anil Kr.	RRL Jorhat	Professor	New Synthetic Methodology & Natural Product Synthesis
38	Sastri Chivukula V	University of Hyderabad	Associate Professor	Biomimetic Chemistry and Chemical Biology
39	Sarma Manabendra	IIT Bombay	Associate Professor	Development of new theoretical approaches to Laser Assisted Control of Chemical Reactions, and Resonances in Electron – Molecule Scattering Reactions
40	Srimani Dipankar	IACS, Jadavpur	Assistant Professor	Organic, Organonometallic Chemistry

DEPARTMENT OF CIVIL ENGINEERING

The Department at a Glance

Year of Establishment: 1998

Academic Programmes Offered:

Bachelor of Technology (BTech) in

- o Civil Engineering

Master of Technology (MTech) in

1. Structural Engineering,
2. Water Resources Engineering and Management,
3. Geotechnical Engineering,
4. Environmental Engineering,
5. Transportation Systems Engineering,
6. Infrastructure Engineering and Management

Doctor of Philosophy (PhD)

Total Faculty Strength: 46

- Professor: 17
- Associate Professor: 14
- Assistant Professor: 15

New Faculty Members Joined: NIL

Total Student Strength: 687

BTech: 295

MTech: 178

PhD: 214

New Students Joined in 2016-2017: 225

BTech: 80

MTech: 95

PhD: 50

LABORATORY FACILITIES

Environmental Engineering Laboratory, Infrastructure Engineering and Management, Earth System Science and Engineering & Engineering, Structural Engineering Laboratory, Water Resources and Hydraulic Engineering and Geotechnical Engineering

MAJOR EQUIPMENT AND FACILITIES ACQUIRED

- a) Laboratory corrosion analyser model Gill
- b) Foam Generator with compressor and mixer machine
- c) AGILENT CARY 60 UV VIS Spectrophotometer (With solid sample attachments)
- d) Upgradation of Digital Signal Processor, application software and control panel of existing Uni-axis Shake Table Assembly
- e) Ultrasonic Pulse Velocity Tester with Touch Screen
- f) Piezoelectric Actuator
- g) Ion Chromatography System

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

Sustainable development, Public Private Partnerships, Risk Management, Construction Management, Durability studies in concrete, Corrosion of steel reinforcement and protection measures, High performance concrete, Mass transport in cementitious materials, Non-destructive testing of concrete structures, Light weight concrete (Foam concrete), Shrinkage behaviour and thermal performance of concrete, Sustainable materials in construction, Hydrological modeling, Earth and planetary exploration., Study of sediment dynamics in fluvial systems, Petrophysical Modelling for Petroleum Exploration, Environmental impact/ risk assessment & management, Remote Sensing and GIS for mapping groundwater potential and recharge, Geodesy and mapping, Photogrammetry and LiDAR., Integration of remote sensing techniques, Sensor calibration and synthetic simulation, Airborne remote sensing (Unmanned Aerial Vehicles) for mapping and exploration, Advance

Remote Sensing (hyperspectral, thermal and microwave) and GIS techniques Natural Resource Management, earthquake engineering, structural mechanics, structural dynamics, fracture and fatigue mechanics, finite element analysis, durability of structures, non-destructive testing, construction materials, numerical and analytical methods, computer aided analysis, passive and semi-active control, retrofitting of structures, computational mechanics, IT in construction management, structural analysis and design, performance based seismic design, system identification & structural health monitoring, seismic damage assessment, bridge engineering, wind induced vibration & control, random vibration, nonlinear behaviour of structures, ultrasonic wave propagation, acoustic-impact detection, time-frequency analysis, impact and blast resistant design, reliability analysis and performance based engineering, design and optimization of protection measures, sustainable construction and sustainable construction materials, Removal of heavy metals from wastewater using amine based functionalized polymers, Biodegradation of industrial wastewater, Removal of toxic pollutants like phenol, ammonia, thiocyanate, pyridine from wastewater in fed batch type reactors by indigenous cultures and Air quality modeling in urban transport and industrial environment.

MAJOR INITIATIVES AND BREAKTHROUGH IN RESEARCH AND DEVELOPMENT

Framework for integration of sustainable development principles in procurement process of PPP infrastructure projects, Microstructural characterization of cementitious materials. Research work conducted in the laboratory are aligned towards addressing some of the global environmental issues. Some of the breakthrough research includes manufacturing of eco-friendly light weight bricks through binary mix of paper mill sludge and soil, identification of pollution indicator algal species like Euglena in the pond ecosystems of IIT Guwahati campus, utilizations of spirogyra species as a food supplement for mankind etc.

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED

Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
Prof. Subashisa Dutta	India Water Week 2016	Delhi	4-8 Apr 2016	International
Dr. Sri Harsha Kota	American Geophysical Union	San Francisco, US	Dec 2016	International
Dr. Rajan Choudhary	16th Annual International Conference on Pavement Engineering and Infrastructure, Liverpool John Moores University	Liverpool, UK	22-23 Feb 2017	International
Dr. Rajan Choudhary	12th International Conference on Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC), IIT Bombay	Mumbai	19-21 Dec 2016	International
Dr. A. Murali Krishna	Deep foundations in liquefiable soils and Deep excavation experiences	IIT Madras, Chennai	14 Dec 2016	International

Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
Dr. A. K. Maurya	14th World Conference on Transport Research, Tongji University,	Shanghai, China	10-15 Jul 2016	International
Dr. A. K. Maurya	Transportation Planning and Implementation Methodologies for Developing Countries, IIT Bombay	IIT Bombay	19-21 Dec 2016	International
Dr. Teiborlang L. Rynthiang	12th Transportation Planning and Implementation Methodologies for Developing Countries	IIT Bombay	19-21 Dec 2016	International
Dr. Arindam Dey	Geotechnical Frontiers	Orlando, Florida, USA	12-15 Mar 2017	International
Dr. Arindam Dey	1st International Conference on Civil Engineering for Sustainable Development Opportunities and Challenges (CESDOC)	Guwahati	19-21 Dec 2016	International
Dr. Arindam Dey	DFI-IGC Workshop: Deep Foundations in Liquefiable Soils and Deep Excavation Experiences	Chennai	14 Dec 2016	International
Dr. Arindam Dey	5th International Conference on Forensic Geotechnical Engineering (5ICFGE)	Bangalore	8-10 Dec 2016	International
Dr. Arindam Dey	International Geotechnical Engineering Conference (IGEC) on Sustainability in Geotechnical Engineering Practices and Related Urban Issue	Bombay	2016	International
Dr. Arindam Dey	Indian Geotechnical Conference (IGC 2016)	IIT Madras	15-17 Dec 2016	National
Dr. Arindam Dey	North-East Space Application Centre (NESAC) Academia-Student Interaction Meet, Department of Space	Umiam, Meghalaya	24 Jun 2016	National
Dr. Arindam Dey	North-East Regional Seminar on Applications of Geosynthetics in Infrastructure Projects	Guwahati	22-23 Jun 2016	National
Dr. Tadikonda Venkata Bharat	Brain Storming session on Environmental Geotechnics	Goa	24-25 Jan 2017	National

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Dr. Sri Harsha Kota	Regional air quality modeling in India	Louisiana State University, USA	Baton Rouge, USA	4 Jan 2017
Prof. Subashisa Dutta	Hyperspectral and Multispectral data Fusion for Plot Scale Variability Mapping of Paddy Crop	NESAC	Shillong	24 Jun 2016
Prof. Subashisa Dutta	Water Resources Management for the Brahmaputra River Basin: Past, Present and Future	Amity School of Engineering & Technology	Noida	11 Aug 2016
Prof. Subashisa Dutta	Stochastic Bank Erosion model for the Brahmaputra River	NIT Silchar	Silchar	26 Oct 2016
Prof. Subashisa Dutta	Hydrodynamic and Morphological Understanding of The Brahmaputra River using Geo-Spatial Technologies	Assam Don Bosco University	Guwahati	13 Dec 2016

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Prof. Subashi-sa Dutta	International Conference on Recent Advances in Mechanics & Materials	VSSUT, Odisha	Burla	18 Dec 2016
Prof. Subashi-sa Dutta	Hyper-spectral Remote Sensing for Plot-scale Rice Agriculture Management	IIT Kharagpur	Kharagpur	28 Dec 2016
Prof. Arup Kumar Sarma	Sustainable Approach of Rainwater Management and Application for Mitigating Climate Change Impact on Society	Tezpur University	Tezpur	25 Feb 2017
Prof. Arup Kumar Sarma	Boon of Orienting Rainwater to Useful Niche (BORUN): A concept of Ecologically Sustainable Rainwater Harvesting	GMDA	Guwahati	18 Jan 2017
Prof. Arup Kumar Sarma	Sustainable Approach of Rainwater Management and Application for Mitigating Adverse Impact of Climate Change	Tea Board of India	Jorhat	25 Mar 2017
Prof. Arup Kumar Sarma	Hydraulic Model and their Application in River Modelling.	GMT	Borjhar	14 Dec 2017
Prof. Arup Kumar Sarma	Application of Geoinformatics in Water Resources Management	Don Bosco University	Azara	13 Dec 2017
Prof. Arup Kumar Sarma	Impact of Climate Change on Water Resources: Issues and Mitigation measures	Assam Educational Centre	Jorhat	25 Sep 2017
Dr. Rajan Choudhary	Utilization of Waste Plastic in Road Construction	Swami Keshvanand Institute of Technology, Management & Gramothan	Jaipur	15 Sep 2016
Dr. Rajan Choudhary	Warm Mix Asphalt: Asphalt Mix isn't Always Hot	Rajasthan Institute of Engineering & Technology	Jaipur	14 Feb 2017
Dr. Rajan Choudhary	Road Safety Issues and Way Forward	Ministry of Road Transport & Highways, Gol & Transport Dept., Govt. of Assam	Not given	22 Dec 2017
Dr. Rajan Choudhary	Road Safety : Issues, Challenges & the Way Forward	OLA TM, Ani Technologies Private Limited		12 Jan 2017
Dr. Archana M. Nair	Spectroscopic investigation of rocks and minerals	Guwahati University	Guwahati	8 Jun 2016
Dr. Archana M. Nair	Relevance of Geoscience	Cotton College	Guwahati	27 Feb 2017
Dr. Arun Ch. Borsaikia	Planning and Management of Low Cost PMAY-G Rural Housing for Rural Development Functionaries like ZP members, AP Presidents, Engineers, etc. of North East India	NIRD&PR, NER Centre	Guwahati	23 Nov 2016
Dr. A. Murali Krishna	Seismic analysis of reinforced soil retaining structures	Indian Geotechnical Conference 2016	IIT Madras, Chennai	15 Dec 2016
Dr. A. Murali Krishna	Feasibility Study of Sand-Tire Chips Mixtures as Backfill Material in Retaining Walls	Indo-US Bilateral Workshop on Establishing Linkages Between Geoenvironmental Practices and Sustainability	Chicago, USA	18 Aug 2016
Dr. A. K. Maurya	Road Safety Issues and Challenges	HBTU, Kanpur	Kanpur	27 Feb 2017

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Dr. A. K. Maurya	Traffic Flow Modelling and Simulation	MNIT Allahabad	Allahabad	28 Feb 2017
Dr. A. K. Maurya	Measurement of Traffic Stream Characteristics	NIT Surathkal	Surathkal, Mangalore	3 Oct 2016
Dr. Manish Kumar Goyal	Hydrological Impacts of climate change	University of Missouri, Missouri, USA	Missouri, USA	7 Jul 2016
Dr. Manish Kumar Goyal	Climate Change and Hydrologic Modeling: Challenges and opportunities	Missouri Water Resources Research Center, Columbia, USA	Missouri, USA	7 Jul 2016
Dr. Rishikesh Bharti	Application of Remote Sensing in Geology	Vinoba Bhave University	Hazaribag	2016
Dr. Arindam Dey	Experimental Geotechnology to Understand Soils and Subsurface	Bankura Unnayan Institute of Engineering, BUIE	Bankura	2016
Dr. Bulu Pradhan	Corrosion Aspects of Reinforced Concrete	NIT Karnataka, Surathkal	Surathkal, Mangalore	2017
Dr. Tadikonda Venkata Bharat	Advancements and Opportunities in Geotechnical Engineering	College of Engineering Trikaripur	Kasargode, Kerala	21 Jan 2017

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANIZATIONS / INVITED LECTURES

Name	Name of Inst./ Univ./Org.	Purpose/ Name of Lecture	Date
Prof. Jai Singh Parihar	Space Applications Centre	Geomatics Applications for Earth Resources Mapping, Monitoring and Management Planning	7 Sep 2016

SEMINARS/WORKSHOPS/CONFERENCES /SHORT-TERM COURSES ORGANISED

Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International/ National	No. of Participants
Prof. Subashisa Dutta, Dr. Rishikesh Bharathi (Co-Ordinators)	Advance Remote Sensing and GIS	Indian Institute of Technology Guwahati	1 Oct 2016	National	70
Dr. Sandip Das, Dr. Kaushtubh Dasgupta	Earthquake-Resistance of Low-Cost Engineering Housing in North-East India (Workshop)	Ministry of Housing and Urban Poverty Alleviation (MoHUPA)	24-25 Jun 2016	National	22
Dr. A. Murali Krishna, Dr. S. Sreedeeep	TEQIP STC on Rock Engineering for Infrastructural Development	TEQIP	5-8 Apr 2016	National	50
Dr. G. Indu Siva Ranjani, Dr. Boeing Singh, Dr. Bulu Pradhan	TEQIP Short Term Course	MHRD	30 May-1 Jun 2016	National	25

PATENTS

Name of Faculty and co researcher	Name	Date Applied/ Granted	Application No.
Prof. S. K. Deb	Elastomeric Seismic Isolation with High Damping Capacity and Manufacturing Method Thereof.	20 Jun 2016	Application No. 201631021115

AWARDS AND HONOURS

- Prof. Subashisa Dutta was elected as Associate Editor for Elsevier Journal (Journal of Hydrology) for the term 2016 – 2018.
- Prof. A. K. Sarma- i) Awarded with Prestigious Bimla Prasad Chaliha Chair Professor
- ii) Member of Advisory Committee of the National Disaster Management Authority (NDMA)
- Prof. Gautam Barua was selected as an ‘Outstanding Reviewer’ for the Journal of Hydrologic Engineering, American Society of Civil Engineering, for the year 2016.
- Dr. Manish Kumar Goyal- i) Awarded prestigious Indo-US WARI Fellowship Award.
- ii) Appointed as an Associate Editor (AE) for the prestigious American Society of Civil Engineers (ASCE)-Journal of Hazardous, Toxic and Radioactive Waste (JHTRW).
- iii) Awarded the NIT Warangal Distinguished Young Alumni Professional Achievement Award 2016 .
- iv) Awarded SGSITS National Award for Best Research Work by Young Teachers of Engineering Colleges-(2016)
- Prof. S. K. Deb was awarded with A.S. Arya - IIT Roorkee Research Award 2016 on Disaster Prevention

COMMISSION (CSC), UK under Split Site Fellowship to PhD scholar (DammalaPradeep Kumar) to carry out collaborative research work in the University of Surrey, UK for one year (September 2016 - September 2017).

- Dr. Saswati Charkraborty- Best oral presentation by Mr. Subrat Kumar Mallick of Department of Civil Engineering, IIT Guwahati in International Conference on Contaminated Site Remediation held at Tamilnadu Agricultural University, Coimbatore from 13-15 December 2016.
- Title of presentation: Involvement of individual biomass during the anoxic degradation of pollutants in simulated petroleum refinery wastewater at varied phenol Concentrations.
- Dr. Arindam Dey- i) Mr. Amalesh Jana, Post-graduate student received the BEST PAPER AWARD from International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE) for his presentation on “Unsaturated behaviour of geotextile in earth retaining structure under rainwater infiltration” at the International Geotechnical Engineering Conference on Sustainability in Geotechnical Engineering Practices and Related Urban Issues, Mumbai, India.
- ii) Ms. Madhulatha Boga, Research Scholar, received the BEST PAPER AWARD from Indian Geotechnical Society (IGS) for her presentation on “Numerical investigation of failure of reinforced segmental retaining wall” North-East Students Geo-Congress: NESGC 2016, Agartala, India.

STUDENTS’ ACHIEVEMENTS

- Dr. A. Murali Krishna- COMMONWEALTH SCHOLARSHIP

FACULTY MEMBERS

Sl. No.	Name	PhD	Designation	Areas of Interest
1.	Barua, Gautam	IIT Kharagpur	Professor	Flow through porous media
2.	Bharat, Tadikonda Venkata	IISc Bangalore	Assistant Professor	Behavior of unsaturated soils during infiltration & drainage, Settlement behavior of ultra-soft soils and mine tailings, Contaminant transport through landfill liners, Mineralogical aspects of clays, Inverse analysis of geotechnical & geoenvironmental engineering problems
3.	Bharati, Hrishikesh	IIT Bombay	Assistant Professor	Hyperspectral and Thermal Remote Sensing, Advance processing and Analyses of High Resolution Images and Spectra for Earth and Planetary Exploration, Optical and Microwave Remote Sensing for Natural Resource Management, Algorithm Development for Advance Image and Spectral Analyses, Geographic Information System and Modeling (3D), Thermal Characterization of Soil and Rocks, Application of Remote Sensing and GIS in Urban Planning, Airborne Remote Sensing (Unmanned Aerial Vehicles) for Mapping and Exploration
4.	Bhattacharjya, Rajib Kumar	IIT Kanpur	Professor	Water Resources System Management, Genetic Algorithms, Artificial Neural Networks

Sl. No.	Name	PhD	Designation	Areas of Interest
5.	Chakraborty, Arunasis	Trinity College, Dublin, Ireland	Associate Professor	Dynamic and Random Vibration, System identification and damage detection, Wavelet analysis
6.	Chakraborty, Saswati	IIT Bombay	Professor	Water and Wastewater Treatment, Biodegradation of Industrial Wastewater, Removal of Heavy Metals from Wastewater
7.	Choudhury, Rajan	IIT Roorkee	Associate Professor	Pavement Analysis and Design, Highway Construction and Quality Control, Pavement Material Characterization, Pavement Evaluation and Maintenance, Traffic Engineering
8.	Das, Sandip	IIT Kanpur	Assistant Professor	Earthquake Engineering, Structural Dynamics, Random Vibration
9.	Dasgupta, Kaustubh	IIT Kanpur	Assistant Professor	Earthquake Engineering, Design of Reinforced Concrete Structures, Retrofitting of Structures
10.	Dashora, Ajay	IIT Kanpur	Assistant Professor	Synthetic Simulation, Sensor Calibration, Airborne and Terrestrial LiDAR, Integration of Remote Sensing Technologies, Development of Lumped Parameter Models, Flight Planning, Unmanned Aerial Vehicles (UAVs) for Mapping
11.	Deb, Sajal Kanti	IIT Roorkee	Professor	Passive and semi-active control, Performance based seismic design, System identification & structural health monitoring, Seismic damage assessment
12.	Dey, Arindam	IIT Kanpur	Assistant Professor	Geosynthetic Reinforced Foundation Beds, Geotechnical Lumped Parameter and Continuum Mechanics Modelling, Parameter Estimation of Geotechnical Models, Optimization, GA, ANN and Soft Computing in Geotechnical Engineering, Ground Modification and Improvement Practices, Soil-Structure-Foundation Interaction, Reinforced Soil Structures, Landslides and Slope Stability Analysis, Seismic and Ambient Health Monitoring of Geotechnical Structures, Reliability and Uncertainty Analysis in Geotechnical Engineering, Forensic Investigation in Geotechnical Engineering, Subsurface Profiling and Soil Investigation, Soil Dynamics and Earthquake Engineering
13.	Dutta, Anjan	IIT Delhi	Professor	Finite Element Mesh Generation, Optimization, Control, Health Monitoring and Retrofitting of structures
14.	Dutta, Subashisa (Head of the Department)	IIT Kanpur	Professor	Meso-Scale Distributed hydrological modelling, Satellite Remote Sensing and GIS for Water resources Management, Computational river hydraulics and its applications, Watershed and Irrigation Management
15.	Gandhi, Indu Siva Ranjani	IIT Madras	Assistant Professor	Light weight concrete (Foam concrete), Durability related studies on concrete, Shrinkage behaviour and thermal performance of concrete, Sustainable materials in construction, Lean concepts of construction, Construction management
16.	Garg Ankit	Hong Kong University of Science and Technology	Assistant Professor	Bio-Geotechnology, Soil-Root-Water Interaction
17.	Ghosh, Pranab Kumar	IIT Kharagpur	Professor	Water treatment for domestic and industrial use, Domestic and Industrial wastewater treatment, Sludge treatment by physicochemical and biological process

Sl. No.	Name	PhD	Designation	Areas of Interest
18.	Gokhale, Sharad B.	IIT Delhi	Professor	Air Pollution and Environmental Noise
19.	Goyal, Manish Kumar	IIT Roorkee	Assistant Professor	Stochastic Hydrology and Distributed Hydrological Modeling, Hydro-climatology and Statistical Downscaling, Irrigation Management and Crop Modelling Applications, Multivariate Statistical Analysis, Machine Learning Models and Data Mining
20.	Hazra, Budhaditya	University of Waterloo, Canada	Assistant Professor	Deterministic and Stochastic Structural Dynamics, System Identification, Blind source separation, Time-frequency analysis, Vibration based condition monitoring
21.	Jawed, Mohammad	IIT Kanpur	Professor	Biological Processes, Anaerobic Wastewater Treatment, Heavy Metal Removal and Recovery, Water Treatment and Supply, Domestic & Industrial Wastewater Treatment
22.	K., Ravi	IISc Bangalore	Assistant Professor	Geo-environmental engineering, Geo-energy systems, Engineering behaviour of unsaturated soils, Research on hazardous waste management
23.	Kalamdhad, Ajay	IIT Roorkee	Associate Professor	Solid waste management, Mechanical composting and vermicomposting, Analysis of solid wastes
24.	Kartha, Suresh A.	IIT Kanpur	Associate Professor	Flow and transport through porous media, Heap leaching, Hydrology, Numerical modelling
25.	Kaushik, Hemant B.	IIT Kanpur	Associate Professor	Earthquake Resistant Design, Nonlinear Behaviour of Structures, Retrofitting of Structures, Finite Element Modeling
26.	Kota, Sri Harsha	Texas A&M University, College Station, USA	Assistant Professor	Formation, transformation and chemical mechanisms of air pollutants near roadways, Development of air quality models, Estimation of emission factors, Source apportionment of air pollutants, Regional air quality
27.	Kumar, Abhishek	Indian Institute of Science, Bangalore	Assistant Professor	Seismic hazards of Urban Centers, Ground Motion Simulations, Liquefaction, Seismic hazard for Nuclear Power Plants, Site response studies for deep basins, Multichannel Analysis of Surface Waves (MASW) and Ground Penetration Radar (GPR), Subsoil Investigations and Geotechnical Engineering, Soil Dynamics, Dynamic testing's on Piles, Ground Improvement, Reinforced earth structures, Deep Excavations
28.	Kumar, Bimlesh	IISc Bangalore	Associate Professor	Small scale studies of mixing tanks, Experimental Studies of Aeration Systems, Sediment Transport analysis, Pipeline analysis, CFD simulation, Surge analysis
29.	Mahanta, Chandan (Dean, Students' Affaris)	Jawaharlal Nehru University, New Delhi	Professor	Water Quality, Sediment Dynamics in Fluvial Systems, Environmental Impact, Risk Assessment and Management, Environmental Geo-informatics, Engineering Geology
30.	Mallikarjuna, Chunchu	IIT Delhi	Associate Professor	Traffic flow theory and Modeling, Traffic data collection and analysis, Travel demand modeling
31.	Maurya, Akhilesh Kumar	IIT Kanpur	Associate Professor	Driver behavior, Traffic flow theory and modeling, Traffic engineering
32.	Mishra, Anil Kumar	Kyushu University, Fukuoka, Japan	Assistant Professor	Chemical compatibility studies of soil-bentonite mixtures, Waste (municipal, industrial and hazardous) management and disposal, Unsaturated soil mechanics

Sl. No.	Name	PhD	Designation	Areas of Interest
33.	Murali Krishna, Adapa	IISc Bangalore	Associate Professor	Soil Investigation, Reinforced Soil Structures, Geosynthetics and Ground Improvement, Earthquake Geotechnical Engineering
34.	Nair, Archana M.	IIT Bombay	Assistant Professor	Petroleum Exploration, Hydrogeology, Environmental Geoscience and remote sensing for geological applications
35.	Pradhan, Bulu	IIT Delhi	Associate Professor	Durability studies in concrete, Corrosion of steel reinforcement and protection measures, High performance concrete, Mass transport in cementitious materials, Non-destructive testing of concrete structures, Construction management
36.	Ryntathiang, Teiborlang L.	IIT Kharagpur	Associate Professor	Pavement Materials, Precast Concrete Block Pavement, Cast In-Situ Concrete Block Pavement
37.	Sarma, Arup Kumar	Gauhati University, Guwahati	Professor	Modelling & simulation in Free Surface Flow, Heuristic Method in Reservoir Optimization, GIS based Watershed Modelling
38.	Sharma, Hrishikesh	Texas A&M University, USA	Assistant Professor	Impact and Blast Resistant Design, Reliability Analysis and Performance Based Engineering, Design and Optimization of Protection Measures
39.	Shelke, Amit Balasaheb	The University of Arizona, USA	Assistant Professor	Ultrasonic wave propagation, Acoustic-Impact detection, Non-destructive testing
40.	Siddagangaia, Anjan Kumar	IIT Madras	Assistant Professor	Analysis and Design of Pavement Structures, Pavement Material Characterization, Pavement Construction and Recycling, Pavement Management Systems, Pavement Evaluation using NDT, Forensic Investigations of Pavement Failures
41.	Singh, Arvind Kumar	IISc Bangalore	Professor	Information Technology in Construction Engineering, Object-Oriented Programming, Constitutive modeling
42.	Singh, Baleshwar	IIT Delhi	Professor	Marine Geotechnology, Modelling of Onshore & Offshore Foundations, Soil Stabilization & Ground Modification, Pavement Subgrade & Site Characterization
43.	Singh, Konjengbam Darunkumar	Southampton University	Associate Professor	Structural Analysis and Design, Finite Element Method, Fracture and Fatigue Mechanics
44.	Singh, Laishram Boeing	IIT Madras	Associate Professor	Public Private Partnerships, Risk Management, Construction Management
45.	Sreedeeep, S.	IIT Bombay	Associate Professor	Behavioral studies on unsaturated porous media, Characterization of geo-materials (soils and rocks), Thermal characteristics of geo-materials, Contaminant transport and retention studies, Waste containment studies, Landslides
46.	Sreeja, Pekkat	IIT Bombay	Associate Professor	Urban Flood Modeling, Modelling and Control of Open Channel Flows, Infiltration and artificial recharge, Stochastic Hydrology, River Mechanics
47.	Talukdar, Sudip	IIT Kanpur	Professor	Structural Dynamics, Bridge Engineering, Wind induced vibration & control, Non destructive techniques

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

The Department at a Glance
Year of Establishment: 1995
Academic Programmes Offered: Bachelor of Technology (BTech) in o Computer Science and Technology Master of Technology (MTech) Dual Degree (MTech+PhD) Doctor of Philosophy (PhD)
Total Faculty Strength: 29 <ul style="list-style-type: none"> • Professor: 10 • Associate Professor: 10 • Assistant Professor: 8 • Visiting Professor: 1 New Faculty Members Joined: 2 <ul style="list-style-type: none"> • Assistant Professor: 1 • Visiting Professor: 1
Total Student Strength: 555 BTech: 347 MTech: 93 PhD: 101 MTech+PhD: 14
New Students Joined in 2016-2017: 139 BTech: 80 MTech: 42 PhD: 17 MTech+PhD: 0

LABORATORY FACILITIES

1. **Multimedia lab:** Multimedia lab has been set up in 2012 as a research project lab which mainly focuses on computer vision, deep learning, multimedia security, adaptive video streaming etc. Currently five Ph D students, three M. Tech. students and four B. Tech. students are working in this lab. 2 PhD students are graduated from this lab. There are two sponsored projects are currently going on in this lab. 14 journal papers in top tier international journals and more than 15 conference papers in different premier forums have been published from this lab in last 5 years. Multimedia Lab is well equipped for state-of-art research in multimedia, image and video processing domain providing IBM X3500 M4 sever, HP: Z420 Xeon E5 workstation, SONY HDR PJ820 camcorder, SONY LED KDL55W950 display facility, high end desktops, laptops and other necessary lab equipments.
2. **Robotics Lab:** Robotics Lab has open sourced an in-house developed Multi-agent emulator, nicknamed Tartarus. Written in SWI-Prolog, Tartarus, facilitates users to create overlay sort of network of nodes comprising either a single PC/laptop/embedded system or several such devices connected as a LAN (wired/wireless) and then program both static and mobile agents. Agents in Tartarus are basically programs written in Prolog. They can be programmed to perform tasks autonomously at select nodes and even migrate to others in the network they inhabit. Such agents can even be programmed to clone (copy and multiply) on-the-fly and then move around the network and execute tasks concurrently, providing a distributed and decentralized processing environment. These agents can also carry programs as payloads. Payloads could be written in Prolog or Python and executed at desired nodes. One could try out using other languages as well. Agents can communicate amongst one another and also with programs at a node. As of now, Tartarus can be run on Windows, Ubuntu and Raspbian operating systems. Tartarus can run on the Raspberry Pi. It can be used to sense the sensors on-board and also control the actuators (motors, relays, etc.) connected to the board
3. **Open Source Intelligence Group** (<http://www.iitg.ernet.in/cseweb/osint/index.html>): The lab focuses on systematic acquisition of data at rest and stream from publicly available multi-modal heterogeneous data sources such as web, news publications, social media, social networks etc., and processing, and deriving actionable intelligence from the acquired data. Major activities of the group include real time event detection and tracking, topic modeling, sentiment analysis, social network analysis, terrorist network analysis.
4. **Computer Networks & Security:** The CNS research group at IIT Guwahati works on projects that cover a diverse range of experimental and theoretical research, including Wireless Mesh, Ad Hoc and Sensors Networks, High Speed Networks, Network Architecture and Design, Computer and Network Security, Secure Multimedia Communications and Intrusion Detection Systems. The researches aim at developing low cost and effective solutions for communication and media technology with a focus of blooming technologies for Indian context, specifically the North East Region. At the same time, our theoretical research targets the global developments of networking and security technologies, standards and policies while addresses the design of future network architecture.
5. **User-centric Computing and Networking** (<http://www.iitg.ernet.in/cseweb/uccn/>) : The lab focuses on the design and development of applications for computing devices that caters to heterogeneous user groups. The user-centric computing paradigm (otherwise known as the human-computer interaction) is applied in the design of applications used in large-scale content delivery, to ensure good quality of experience to the consumers on heterogeneous devices and networks. The challenges that arise in the development of user-centric networked applications are addressed both from theoretical as well as practical perspectives. This lab is equipped with Tobii eye tracker (model: X2-60) and associated software for usability studies, Mobile Devices (Android, iOS, Windows), Laptops, Tablets, Smart Phones, SDK Tools for Android, iOS, Windows Application Development, Desktop PCs, High performance computing servers, Wireless and Wired Gigabit Routers, Reconfigurable routers (built using 1Gbps Digilent NetFPGA Cards).
6. **Computer Architecture & Embedded Systems:** The lab focuses on cutting edge research and technology innovation in the area of VLSI design, testing, verification, real time systems and scheduling, NOC design, multicore architecture and scheduling and cache design for multicore.
7. **Hardware Lab:** The Department hardware laboratory is equipped with educational tools to promote better understanding of computer hardware and peripherals among the students. 8085/86 Microprocessor Trainer kits and 8031 Microcontroller kits are used to provide hands on experience to students about basic hardware. New PIC based microcontrollers and FPGA boards have also been acquired. These are supported by Colour Logic Analyzer and Pattern Generator, Function/Arbitrary wave generator, digital oscilloscopes, Wireless Transmitter/Receiver pairs, Data acquisition/ Switch units, TDM pulse code modulator/transmitter and demodulator/receiver and other similar essentials.

MAJOR AREAS OF RESEARCH AND DEVELOPMENT:

Algorithms; Computational Geometry; Systems Biology (Bio-computing); Bio-inspired Robotics and related algorithms;

Intelligent Mobile Agent Based Cyber-physical Systems; Human-Computer Interaction; Speech Processing; Multimedia: Image and Video Processing; Machine Learning; Information Retrieval; Data Mining; Web Mining; Formal Verification; Embedded Systems; Multi-processor Computer Architecture; Real-time Systems; Computer Security; Networks; Distributed Systems.

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED: INTERNATIONAL, NATIONAL

Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
Arnab Sarkar	20th International Symposium on VLSI Design and Test (VDAT)	Guwahati	24-27 May 2016	International
Arnab Sarkar	6th International Symposium on Embedded computing & system Design (ISED)	Patna	15-17 Dec 2016	International
Arnab Sarkar	30th VLSI Design Conference (VLSID)	Hyderabad	9-11 Jan 2017	International
Sukumar Nandi	4th International Doctoral Symposium on Applied Computation and Security Systems	National Institute of Technology Patna	17-19 Mar 2017	International
Sukumar Nandi	National Symposium on Cognitive Science	Indian Institute of Technology Guwahati	16-17 Mar 2017	National
Sukumar Nandi	Cloud-NET workshop	National Institute of Technology Silchar	11-15 Mar 2017	National
Sukumar Nandi	ISEA Asia Security and Privacy Conference	National Institute of Technology Surat	Jan 29-1 Feb 2017	International
Sukumar Nandi	International Conference on Accessibility to Digital World	Assam Engineering College	16-18 Dec 2016	International
Sukumar Nandi	38th International Conference of the Linguistic Society of India	Indian Institute of Technology Guwahati	10-12 Nov 2016	International
Sukumar Nandi	Third Annual Appraisal Workshop under ISEA Project Phase II	Indian Institute of Technology Guwahati	3 Sep-1 Oct 2016	National
Sukumar Nandi	India International Conference on Information Processing	Delhi Technical University	12-14 Aug 2016	International
Sukumar Nandi	22nd Himalayan Languages Symposium	Indian Institute of Technology Guwahati	8-10 Jun 2016	International
Sukumar Nandi	20th International Symposium on VLSI Design and Test	Indian Institute of Technology Guwahati	24-27 May 2016	International
Sanasam Ranbir Singh	IEEE/WIC/ACM Web Intelligence 2016	Omaha, Nebraska, US	13-16 Oct 2016	International
Sanasam Ranbir Singh	IALP 2016	Tainen, Taiwan	21-23 Nov 2016	International
Sanasam Ranbir Singh	Coling 2016	Osaka, Japan	13-16 Dec 2016	International
Sanasam Ranbir Singh	DICORA-TR 2017	Hankuk Universities of Foreign Studies, South Korea	12 Jan 2017	International
S. Karmakar	13th International IEEE India Conference (INDICON)	IISc Bengaluru	16-18 Dec 2016	International
S. Karmakar	36th IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science	Chennai	13-15 Dec 2016	International
S. Karmakar	Workshop on Complexity Theory	IIT Gandhina-gar	2-6 Nov 2016	National

Name of Faculty	Name of Conf./Workshop	Place	Date	International/ National
S. Karmakar	17 th Max Planck Advanced Course on the Foundations of Computer Science (ADFOCS)	Saarbruc-en, Germany	29 Aug-2 Sep 2016	International
Aryabartta Sahu	The 17th International Conference on Parallel and Distributed Computing, Applications and Technologies (PDCAT)	Guangzhou, China	16-19 Dec 2016	International
Aryabartta Sahu	The 13th International India Conference (INDICON)	IISc Bangalore	16-19 Dec 2016	International
Santosh Biswas	20th International Symposium on VLSI Design and Test (VDAT)	Guwahati	24-27 May 2016	International
T. Venkatesh	IEEE International Conference on Communications (ICC)	Malaysia	23-27 May 2016	International
T. Venkatesh	8th IEEE International Conference on Technology for Education (T4E)	IIT Bombay	2-4 Dec 2016	International
T. Venkatesh	The Ninth International Conference on COMMunication Systems and NETWORKS (COMSNETS 17)	Bengaluru	4-8 Jan 2017	International
Samit Bhattacharya	DST Meeting on Interdisciplinary Cyber physical System	IIT BHU	Sep 2016	National
Shivashankar B. Nair	Autonomous Agents and Multi Agent Systems Conference (AAMAS-2016)	Singapore	9-13 May 2016	International
Shivashankar B. Nair	Research colloquium on intelligent systems and computing	Kochi	25 Mar 2017	National
Shivashankar B. Nair	National symposium on computational intelligence	Kerala	13-15 Mar 2017	National
John Jose	ICACC	Kochi		International
John Jose	ICADW	Guwahati		International
John Jose	VDAT	Guwahati		International
John Jose	ISED	Patna		International
Dr. Arijit Sur	The International Conference on Digital Image Computing: Techniques and Applications (DICTA 2016)	Gold Coast, Australia	30 Nov-2 Dec 2016	International
Dr. Arijit Sur	Tenth Indian Conference on Computer Vision, Graphics and Image Processing (ICVGIP 2016)	IIT Guwahati	18 - 22 Dec 2016	International

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Arnab Sarkar	IoT and its Usecases in Diverse Domains	NIT Meghalaya	Shillong	4 Nov 2016
Arnab Sarkar	Dynamic Resource Allocation for Cloud Data Centers	IIT Guwahati	Guwahati	6 Dec 2016
Sukumar Nandi	Software Define Networks and its applications	National Institute of Technology Silchar	Silchar	11-15 Mar 2017
Sukumar Nandi	Internet of Things security and challenges	Indian Institute of Technology Guwahati	Guwahati	30 Sep-1 Oct 2016

Sukumar Nandi	Denial-of-Service Attacks in 802.11 Wi-Fi Networks	Delhi Technical University	Delhi	12-14 Aug 2016
Sanasam Ranbir Singh	Social Media Mining	National Institute of Technology Silchar	Silchar	23-24 Feb 2017
Santosh Biswas	Virtual Lab	Assam Engineering College	Guwahati	16 Feb 2017
Samit Bhattacharya	User Centric Computing	Government College of Engineering, Kannur	Kerala	Oct 2016
Samit Bhattacharya	User Centric Computing	Central Institute of Technology Kokrajhar	Kokrajhar, Assam	Oct 2016
Shivashankar B. Nair	Bio-inspired AI	College of Engineering Cherthala	Kerela	25 Nov 2017
Shivashankar B. Nair	Bio-inspired AI & Robotics	College of Engineering Perumon	Kerela	15 Mar 2017
John Jose	Interconnection Networks in Computer Architecture and Parallel Processing	Government Engineering College	Barton Hill, Trivandrum	18-19 Apr 2016
John Jose	Make your Mark, Make India Proud	Ishan Vikas program, IIT Guwahati	Guwahati	23 Jun 2016
John Jose	How to choose the right institute for your higher education	De Paul Public School Thodupzha	Kerala	5 Jul 2016
John Jose	Massive multicore architectures for big data management	Rajagiri School of Engineering and Technology	Kochi	15 Jul 2016
John Jose	Let us make India better	Rajagiri School of Engineering and Technology	Kochi	15 Jul 2016
John Jose	Role of On-Chip Interconnects in large multicore systems	Thiagarajar College of Engineering	Madurai	22 Jul 2016
John Jose	Multicore Communication Systems	Vellore Institute of Technology University	Vellore	23 Jul 2016
John Jose	Doctoral research-Essentials and Desirables	Vellore Institute of Technology University	Vellore	23 Jul 2016
John Jose	Multicore Communication Systems	Model Engineering College	Kochi	25 Jul 2016
John Jose	Role of On-Chip Interconnects in large multicore systems	School of Engineering, Cochin University of Science and Technology	Kochi	26 Jul 2016
John Jose	Let us make India better	De Paul Higher Secondary School	Kerala	27 Jul 2016
John Jose	On-Chip interconnects in multicore systems	College of Engineering Thalassery	Kerala	5 Sep 2016
John Jose	Performance Optimization Techniques for Large Multicore Systems	Rajagiri School of Engineering and Technology	Kochi	6 Sep 2016
John Jose	Introduction to Large Multicore Systems	Government College of Engineering	Kannur	27 Oct 2016
John Jose	Make Your Own Mark, Make India Proud	Government College of Engineering	Kannur	28 Oct 2016
John Jose	Understanding the Hardware of Mobile Multicore Systems	National Institute of Technology Karnataka	Surathkal	12 Dec 2016
John Jose	Performance Optimization in mobile multicore systems	National Institute of Technology Karnataka	Surathkal	13 Dec 2016

John Jose	Advanced Computer Architecture	College of Engineering Adoor	Kerala	19-21 Dec 2016
John Jose	Role of On-Chip Interconnects in Large Multicore Systems	Mohandas College of Engineering	Trivandrum	20 Dec 2017
John Jose	Communication Mechanisms for Large Multicore Systems	College of Engineering Adoor	Kerala	3 Feb 2017
John Jose	Architectural Optimizations For Performance Enhancement in Large Multicore Systems	Madras Institute of Technology	Chennai	16 Mar 2017
John Jose	Architecture for next generation multicore systems	Mar Ephraems College of Engineering	Chennai	20 Mar 2017
John Jose	Let The Engineer In You Make India Proud	Mar Baselious College of Engineering and Technology	Trivandrum	21 Mar 2017
John Jose	Effective Assessment Methodologies	Thiagarajar College of Engineering	Madurai	23 Mar 2017
John Jose	Multicore Interconnects- Theory & Practice	Thiagarajar College of Engineering	Madurai	24-27 Mar 2017
John Jose	Machine Learning Techniques for Multicore Processors	University of Kerala	Trivandrum	28 Mar 2017
John Jose	Architecture for next generation multicore systems	Mar Baselious College of Engineering and Technology	Trivandrum	29 Mar 2017
Dr. Arijit Sur	Deep Learning	WBUT Kolkata	Kolkata	9-10 Mar 2017

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANIZATIONS / INVITED LECTURES

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Dr. B Ravindran	IIT Madras	Deep Reinforcement Learning	19 Mar 2017
Dr. Bhooshan Kelkar	Mobueisutra Consultancy and IT Professional	ELearning	9 Dec 2016

SEMINARS/WORKSHOPS/CONFERENCES /SHORT-TERM COURSES ORGANISED

Name of Faculty (Convenor/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International/ National	No. of Participants
Arnab Sarkar, J. K. Deka, Santosh Biswas	NPTEL Online Certification Course on "VLSI Design, Verification and Test"	NPTEL, Govt. of India	Jul-Oct 2016	International	5313
Sukumar Nandi, Santosh Biswas	Third Annual Appraisal Workshop under ISEA Project Phase II	MeITY	30 Sep-1 Oct 2016	National	60
Sukumar Nandi (General Co-Chair), Himangee K. Kapoor (Program Co-Chair)	20th International Symposium on VLSI Design and Test	VLSI Society of India, Dell, Infineon, Cadence	24-27 May 2016	International	200
S. Karmakar	TEQIP Short Term Course on Centralized and Distributed Graph Algorithms	Govt. of India	23-25 May 2016	National	-
Arnab Sarkar, J. K. Deka, Santosh Biswas	NPTEL Online Certification Course on "VLSI Design, Verification and Test"	NPTEL, Govt. of India	Jul-Oct 2016	International	5313

Name of Faculty (Convenor/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International/ National	No. of Participants
John Jose	STC on Recent Advances in Computer Architecture	TEQIP-II	May 30- June 3	National	40 approx
John Jose	Ishan Vikas Program	MHRD, Gol	June, December	National	80
Arijit Sur (Organizing Co-Chair)	Tenth Indian Conference on Computer Vision, Graphics and Image Processing (ICVGIP 2016)	Microsoft Research, Google, Qualcomm, TCS, NVIDA, IOL	18-22 Dec 2016	International	375

PATENTS

Name of Faculty and co researcher	Name	Date Applied/ Granted	Application No.
Nilkanta Sahu, Sibaji Gaj, Anirban Lekharu, Satish Kumar, Shuvendu Rana, Arijit Sur	Watermark Evaluation Tool	24 Aug 2016	T.I.(47)/TIFA/2016

AWARDS AND HONOURS

November 2016, Professor Sukumar Nandi has been elected as Fellow of Indian National Academy of Engineering

T.Venkatesh Best Paper Award - IEEE ANTS 2016, Bengaluru, India

T. Venkatesh Best Poster Award - COMSNETS 2016, Bengaluru, India

IV. Hema KYarnagula received Best Paper Award - IEEE ANTS 2016, Bengaluru, India

V. Hema K Yarnagula received Best Poster Award - COMSNETS 2016, Bengaluru, India

VI. Midhul Varma received Conference Travel Grant - COMSNETS 2016, Bengaluru, India

VII. Midhul Varma received Best Poster Award - COMSNETS 2016, Bengaluru, India

VIII. Tushar Semwal: TCS Fellowship

STUDENTS' ACHIEVEMENTS

I. PhD scholar Sunil Sahu received Google India Student Travel Grant (Rs. 1 Lakh), Microsoft Research India Travel Grant (Rs. 50000), and ACM India-IARCS Travel Grant (Rs. 1 lakh, which we did not take as other travel grants were sufficient to cover the relevant costs for the conference.) to present his work accepted in ACL conference 2016.

II. PhD scholar Abhishek received Fall 2016 Linguistic Data Consortium (LDC) Data Scholarship.

III. PhD scholar Abhishek received Google Student Travel Grant (\$1500) for his research work accepted in EAACL conference 2017.

IX. Tushar Semwal: AAMAS Summer School Travel grant (Singapore)

X. Sonia: AAMAS Summer School Travel grant (Singapore)

XI. Tushar Semwal: Selected for Microsoft IoT Summer School (Full sponsored)

XII. Sonia: Selected for Microsoft IoT Summer School (Full sponsored)

XIII. Tushar Semwal: COMSNETS 2017 Travel grant (Bangalore)

XIV. Sonia: Selected for TCS Kolkata Internship

FACULTY MEMBERS

Sl. No.	Name	PhD	Designation	Areas of Interest
1	Ashish Anand	Nanyang Technological University, Singapore	Assistant Professor	Machine Learning and its application in computational biology, Systems Biology, Evolutionary Algorithms
2	Amit Awekar	North Carolina State University, Raleigh , NC, USA	Assistant Professor	Data Mining

Sl. No.	Name	PhD	Designation	Areas of Interest
3	Gautam Barua (On deputation as Director of IIIT Guwahati)	University of California, Santa Barbara, USA	Professor	Operating Systems, Distributed Systems, Networks, Database Management Systems
4	Rashmi Dutta Baruah	Lancaster University, United Kingdom	Assistant Professor	Evolving Intelligent Systems, Computational Intelligence, Online Machine Learning, Learning from Data streams
5	Purandar Bhaduri	Washington State University, Pullman	Professor	Formal Modelling, Synthesis and Verification of Embedded Systems
6	Samit Bhattacharya	IIT Kharagpur	Associate Professor	Human Computer Interaction, User Modeling, Model Based Evaluation of Interactive Systems, Rehabilitation Engineering
7	Santosh Biswas	IIT Kharagpur	Associate Professor	Networking, Fault Tolerance, VLSI Testing, Embedded Systems
8	Pradip Kr. Das	University of Delhi	Professor	Digital Signal Processing, Speech Processing, Man-Machine Intelligence Systems
9	Jatindra Kr. Deka	IIT Kharagpur	Professor	Formal Modelling and Verification, CAD for VLSI and Embedded Systems (Design, Testing and Verification), Data Mining
10	Diganta Goswami (Head of the Department)	IIT Kharagpur	Professor	Distributed Systems, Software Engineering
11	R. Inkulu	IIT-Chicago	Associate Professor	Computational Geometry, Graph Algorithms
12	John Jose	IIT Madras	Assistant Professor	Computer Architecture, Network on Chips (NoC), Memory system design for multicore processors
13	Benny George K	Tata Institute of Fundamental Research, Mumbai	Assistant Professor	Word combinatorics, algorithms and combinatorics
14	Hemangee Kalpesh Kapoor	London South Bank University, UK	Professor	Multiprocessor Computer Architecture, Formal Methods, Network-on-Chip design, Asynchronous systems
15	Chandan Karfa (Joined on 01.08.2016)	IIT Kharagpur	Assistant Professor	Formal Verification, Electronic Design Automation with special interest in High-level Synthesis, Embedded System Design and Verification, Verification of Compiler Optimizations.
16	Sushanta Karmakar		Associate Professor	Distributed algorithms, fault-tolerance, distributed algorithms for ad hoc and sensor networks
17	Deepanjan Kesh	IIT Kanpur	Assistant Professor	Computational Commutative Algebra, Data Streaming
18	Pinaki Mitra	Simon Fraser University, Canada	Associate Professor	Computational Geometry, Parallel Algorithms, Randomized Algorithms, Optimization
19	Shivashankar B. Nair	Amravati University, Amravati	Professor	Artificial Intelligence, Intelligent and Bio-Inspired Robotics, Emotional Robots, Mobile Agent based systems, Artificial Immune Systems, Cyber-physical Systems, Natural Language Processing, Genetic Algorithms, Fuzzy Systems & Neural Networks

Sl. No.	Name	PhD	Designation	Areas of Interest
20	Sukumar Nandi	IIT Kharagpur	Professor	Networks (Specially: QoS, Wireless Networks), Computer and Network Security, VLSI
21	S. V. Rao		Professor	Computational Geometry and Its Applications
22	Aryabartta Sahu	IIT Delhi	Associate Professor	Advance Computer Architecture, Multicore Parallel Programming and Compiling, Embedded System, VLSI and FPGA Design
23	G. Sajith		Professor	External Memory Algorithms, Algorithmic Game Theory, Parallel and Distributed Algorithms, Complexity Theory
24	V. Vijaya Saradhi	IIT Kanpur	Associate Professor	Machine Learning, Kernel Methods, Data Mining and their applications
25	Arnab Sarkar	IIT Kharagpur	Assistant Professor	Real-Time and Embedded Systems, Computer Architecture, Algorithms
26	Sanasam Ranbir Singh	IIT Madras	Associate Professor	Web Search Engine, Machine Learning, Information Retrieval, Data Mining especially in the area of Web Search Engine
27	Arijit Sur	IIT Kharagpur	Associate Professor	Information Hiding: Steganography and Steganalysis. Multimedia Security: Image and Video Watermarking. Network Security: Intrusion Detection System and Network Steganography
28	T. Venkatesh	IIT Madras	Associate Professor	Computer Networks

DEPARTMENT OF DESIGN

The Department at a Glance

Year of Establishment: 1998

Academic Programmes Offered:

Bachelor of Design (BDes)

Master of Design (MDes)

Doctor of Philosophy (PhD)

Total Faculty Strength: 26

- Professor: 5
- Associate Professor: 3
- Assistant Professor: 17
- Visiting Assistant Professor: 1

New Faculty Members Joined: 1

- Assistant Professor: 1

Total Student Strength: 303

BDes: 179

MDes: 52

PhD: 72

New Students Joined in 2016-2017: 85

BDes: 44

MDes: 25

PhD: 16

LABORATORY FACILITIES**I. Ergonomics Laboratory**

This is a well-equipped laboratory with various basic and applied research facilities for both physical and cognitive ergonomics. Apart from equipment for traditional ergonomics evaluation, modern sophisticated equipment are available for virtual ergonomics evaluation and cognitive workload study. Facilities available in the laboratory include (a) Anthropometric measurement kit, (b) Equipment/ tools for biomechanical analysis, (c) Kit for environmental variable measurement, (d) Tools/equipment for cognitive workload analysis, (e) Digital human modeling software for virtual ergonomics evaluation, (f) Eye-tracker for visual attention analysis, and (g) Equipment for physiological variable analysis (ECG, EMG, EEG etc.).

II. Photographic Lab**III. Computer Lab****IV. Workshop/Design lab****V. Media Lab****VI. Material lab****VII. Embedded Interaction lab****VIII. E-Kalpa lab****IX. Usability Engineering and HCI Lab****X. Product Design & Development Studio****XI. Animation research lab****XII. Visualisation lab****XIII. Sustainability and social Innovation Lab**

Design for Sustainability (DfS) is an emerging and significant domain. It is also one of the prime needs of the hour considering the burden of human consumption and production. In order to create sustainable human consumption and production, a complete revamp of the

consumption structure is needed. Through the SSI Lab, the Department of Design at IIT Guwahati, aims to foray into this domain.

XIV. Visual Communication studio**MAJOR EQUIPMENT AND FACILITIES ACQUIRED**

Noise dosimeter (Make:M/s. Larson Davis, USA , Model: 706RC), Ultimaker 2+, Single user LCA Software Simapro 8.3, Camtasia, IMac Computers, Portable Voice Recorder, Sound Monitors and Microphones

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

Physical and Cognitive ergonomics aspect of product design evaluation, Product Service System Design for Sustainability, Product Design in Agricultural Machinery, Comic studies, Game design, Design for Users with varying Tech Readiness, Multimodal and Assistive User Interface Design, Speech Based Interfaces.

MAJOR INITIATIVES AND BREAKTHROUGH IN RESEARCH AND DEVELOPMENT

We became a part of the international Learning Network of networks on Sustainability (LeNSin). The LeNSin project aims at the internationalization, intercultural cross-fertilization and accessibility of higher education by consolidating and empowering a global network called the Learning Network on Sustainability. This network is composed of 6 existing, functioning regional networks (14 HEIs in 5 partner countries and 4 European HEIs): LeNS_Brasil, LeNS_Mexico; LeNS_South Africa, LeNS_China, LeNS_India and LeNS_Europe. The project stresses curriculum development in the field of Design for Sustainability (DfS) focused on Sustainable Product-Service Systems (S.PSS) and Distributed Economies (DE), both known as promising models to couple environmental protection with social equity/cohesion and economic prosperity.

CONFERENCES/WORKSHOPS/SEMINARS/SYMPOSIA ATTENDED

Name of Author	Name of Conf./Workshop	Place	Date	National/ International
Sharmistha Banerjee	6th International Conference on Research and Design, iCoRD'17	Guwahati	9-11 Jan 2017	International
Sharmistha Banerjee	Festival of Innovation	New Delhi	4- 6 Mar 2017	National
Sharmistha Banerjee	Design Workshop at Assam Agricultural University	Jorhat	26-27 Oct 2016	National
Prasad Bokil	International Conference on Research into Design 2017	Guwahati	9-11 Jan 2017	International
Abhishek Shrivastava	Design Principles and Practices	Toronto	2-4 Mar 2017	International
Swati Pal	International Ergonomics Conference 'Humanizing Work and Work Environment' HWWWE 2016	NIT Jalandhar, Punjab	8-11 Dec 2016	International

Name of Author	Name of Conf./Workshop	Place	Date	National/ International
Swati Pal	'International Conference on Research into Design' ICoRD 2017	IIT Guwahati, Assam	9-11 Jan 2017	International
Dr. Urmi Salve	International Ergonomics Conference 'Humanizing Work and Work Environment' HWWE 2016	NIT Jalandhar, Punjab	8-11 Dec 2016	International
Dr. Sougata Karmakar	International Ergonomics Conference 'Humanizing Work and Work Environment' HWWE 2016	NIT Jalandhar, Punjab	8-11 Dec 2016	International
Prof. Utpal Barua	Luxor International Art Symposium	Egypt	14-27 Dec 2016	International
Prof. Utpal Barua	G20 International Art Exchange exhibition	China	10-15 Oct 2016	International
Prof. Utpal Barua	Art camp Gernik	Romania	23 Sep-2 Oct 2016	International

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Dr. Sougata Karmakar	Invited talk: 'Virtual Ergonomics Evaluation for Product and Workstation Design' in TEQIP (Phase-II) sponsored Workshop on 'Ergonomics in Workplace: Measurement, Analysis and Solutions'	Rajiv Gandhi Institute of Technology (RGIT)	Kottayam, Kerala	20-22 Jul 2016
Dr. Sougata Karmakar	Invited talk: 'Workplace Design Intervention in Industries' in TEQIP sponsored industry- institute interaction workshop on 'Ergonomics, Safety and Occupational Health'	North Eastern Regional Institute of Science and Technology (NERIST)	Nirjuli, Arunachal Pradesh	30 Sep-1 Oct 2016
Dr. Sougata Karmakar	Lead Lecture: 'Preference towards colour and form of consumer product: A case study with tea cups'	Dr. B. R. Ambedkar National Institute of Technology (NIT)	Jalandhar, Punjab	8-11 Dec 2016
Dr. Sougata Karmakar	Invited talk: 'Use of Ergonomics in designing product and workstation' in Directorate of ATARI, Zone-III, ICAR, Meghalaya, sponsored capacity building training on 'Use of ergonomics in drudgery reduction of women in workplace'	Central Agricultural University (CAU)	Tura, Meghalaya	15-17 Feb 2017
Prasad Bokil	Human factors for website standardization	Assam State Government	Guwahati	2016
Swati Pal	Human-Product Interaction- Product Personality and Usability Aspects in Product Preference' in a short-term training program on Work Design: A Human Factor Approach for Faculty members and Research Scholars of PEC University of Chandigarh	IIT Guwahati	Guwahati	27 Sep-1 Oct 2016
Prof. Pradeep G. Yammiyavar	Design Research Design Thinking & Design Technology Future Trends in Architecture	Royal School of Architecture	Guwahati	20 Oct 2016
Urmi R. Salve	Fundamentals of Ergonomics	PEC University	Panjab	23 Oct 2016

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS / INVITED LECTURES

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Dr. Tushar Singh	Department of Psychology, Faculty of Social sciences, Banaras Hindu University, UP, India	Conducting workshop on 'Statistical Methodologies' for PhD Research Scholars	7th Nov. to 12th Nov. 2016

SEMINARS/WORKSHOPS/CONFERENCES/SHORT-TERM COURSES ORGANISED

Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./ Con.	Funded By	Date	International/ National	No. of participants
Sharmistha Banerjee	Seminar on Sustainable Product Service System Design	Polytechnico di Milano (through Erasmus +)	10-11 Nov 2016	National	50
Sharmistha Banerjee	Pilot course on Product Service System Design applied to Distribute Economics	Polytechnico di Milano (through Erasmus +)	13-24 Feb 2017	National	20
Dr. Prasad Bokil, Sheetal Gokhale	Game Design Workshop	DIC, MHRD	30 May- 14 Jun 2016	National	38
Prof. Debkumar Chakrabarty (Chair), Dr. Prasad Bokil (Secretary)	International Conference on Research into Design 2017	-	9-11 Jan 2017	International	220
Urmi R. Salve	Work Design: A Human Factor Approach	PEC University	27 Sep-1 Oct 2016	National	12
Dr. Pratul Ch. Kalita, Dr. Deepak Sharma (Mechanical Engg Dept), Dr. Sukhomay Pal (Mechanical Engg Dept)	Training Pogramme on Project Management : Design and Innovation for Competitive Advantage	Ministry of Heavy Industries and Public Enterprises, Government of India	25- 29 Jul 2016	National	42 participants; Senior executives of Central Public Sector Enterprises and State Level Public Enterprises
Dr. Pratul Ch. Kalita, Dr. Deepak Sharma (Mechanical Engg Dept) Dr. Sukhomay Pal (Mechanical EnggDept)	Training Pogramme on Production Planning, Inventory Control and Supply Chain Management	Ministry of Heavy Industries and Public Enterprises, Government of India	19-23 Sep 2016	National	37 participants; Senior executives of Central Public Sector Enterprises and State Level Public Enterprises
Dr. Pratul Ch. Kalita	Short term training on SPSS and its application in teaching and research	Institutional Bio-tech Hub, Jawaharlal Nehru College, Boko	22-23 Apr 2016	National	30 Participants; Faculty members and senior students of Jawaharlal Nehru College, Boko.

PATENTS

Name of Faculty and co researcher	Name	Date Applied/ Granted	Application No.
Charu Monga	Pulse Rate Controlled Helmet Entertainment	3 Feb 2017	2288/DEL/2015 A
Charu Monga	Pulse Monitored Medically Safe Entertainment	28 Aug 2015	62211419 (US Patent Pending Number)

AWARDS AND HONOURS

1. ICMI 2016, Tokyo, Japan Best Demo Award: Anmol Srivastava, Pradeep Yammiyavar. Title: "Design of multimodal instructional tutoring agents using augmented reality and smart learning objects." in 18th ACM International Conference on Multimodal Interaction, ACM, 2016.
2. ICoRD 2017 Most Distinguished Paper, IIT Guwahati: Ravi L., Sai Prasad Ojha and Pradeep Yammiyavar. Title: "A Matrix Framework Proposal for Evaluating Innovation Criteria of a Design Process Output During Product Conceptualization". In International Conference on Research into Design, IIT Guwahati, Assam.
- 2017 organized by Students' Academic Board (SAB), IIT Guwahati, Assam, India.
2. Mr. Indresh Kumar Verma (PhD student) - Winner of Design Competition of Calender 2017 of IIT Guwahati, organised by Public Relations Office, IIT Guwahati, Assam, India.
3. 1st prize in CHI 2016 Student Design Challenge by Vikram Aditya, Suprabho Dhenki, Amarvaj Likhith, Ajinkya Karale and Harmeet Singh.
4. Travel grant for attending 18th ACM International Conference on Multimodal Interaction in Japan ACM, 2016.
5. Best Poster Award, Research Conclave 2017, IITG: Ravi Lingannavar, Pradeep Yammiyavar.
6. Best Poster Award, Research Conclave 2016, IITG: Sai Prasad Ojha, Ravi Lingannavar, Pradeep Yammiyavar.

STUDENTS' ACHIEVEMENTS

1. Mr. Amare Wibneh Mengistu (PhD student) - Best Poster Award (Departmental Category) at Research Conclave

FACULTY MEMBERS

Sl. No.	Name	PhD	Designation	Areas of Interest
01	Sharmistha Banarjee	-	Assistant Professor	Design for sustainability, Boi-inspired design, Medical product Design
02	Utpal Barua (Head of the Department)	IIT Guwahati	Professor	Graphic Design, Design drawing and Visualisation, Visual design Principles and applications, Indian Symbology
03	Dr. Prasad Bokil	IIT Bombay	Assistant Professor	Visual language, Information design, Type design Game design
04	Debkumar Chakrabarti	University Colleges of Science, Calcutta	Professor	Ergonomics Research, Human Compatibility Factor, Design ergonomics, Product Environment Interface Design, Occupational Health
05	Amarendra Kumar Das	IIT Guwahati	Professor	Industrial Design, Rapid Prototyping and tooling, Space Design, Environment Graphics, Design for Disabled
06	Supradip Das	-	Assistant Professor	Origami Inspired Product Development, Toy for tomorrow, Paper Craft, Transformable furniture, Structural packaging design
07	Debayan Dhar (Joined on 30.03.2017)	IIT Guwahati	Assistant Professor	
08	D. Udaya Kumar	IIT Bombay	Associate Professor	Topography, Type Design, Information Graphics, Motion Graphics, Design Research, Exhibition Design, Architecture
09	Sheetal M. Gokhale	-	Assistant Professor	Film & Video, Animation Graphic Design
10	Shareka Iqbal	-	Assistant Professor	Adaptive Resue, Solar Passive Architecture
11	Pratul Kalita	IIT Guwahati	Assistant Professor	Design Management, Design Method, Design for Development
12	Sougata Karmakar	Bharathiar University	Associate Professor	Ergonomics, Human Factor, Design and work Environment, Design and Occupational health

Sl. No.	Name	PhD	Designation	Areas of Interest
13	Mriganka Madhukailya	-	Assistant Professor	Short Film, New Media theory, Video Art, Documentary Film, Participatory Theory
14	Manoj Majhi	-	Assistant Professor	Animation, Special Effects, Cartooning
15	Charu Monga	-	Assistant professor	Visual communication, Design Research, Visual Ethnography, Film Making, Animation, Gamedesign, Edutainment
16	Nanki Nath	IIT Bombay	Assistant Professor	Graphic Design, Typography, Content development, Photography
17	Swati Pal	University of Gujrat	Assistant Professor	Ergo Design & Innovation, Physical Ergonomics, Design 7 biomechanism, Occupational Health
18	Ravi Mokashi Punekar (Dean, Alumni and External Relations)	IIT Guwahati	Professor	Industrial Design, Space Design, Facility Design, Environmental Graphics, Design for disabled
19	Swarooproy	-	Assistant Professor	Automobile Design, Concept design, Product sketching and rendering < Advance Form
20	Urmi Ravindra Salve	University of Calcutta	Assistant Professor	Human factor engineering, Occupational Ergonomics, Research Methology
21	Avinash Shinde	-	Assistant Professor	Product Design, Furniture Design, Lighting design
22	Abhishek Srivastava	-	Assistant Professor	Interection Design, Design for Development, New Media, Graphic Design & Cartooning
23	Abhishek Singh	--	Assistant Professor	Automative design, Product Design, Graphic Design, Design Researce.
24	Keyur Sorathia	-	Associate Professor	Interection Design, Gesture controlled User Interfaces, Design for development
25	Pankaj Upadhaya	-	Assistant Professor	Product design, Industrial Design, Design for Manufacture, Consumer product Design, Industrial Equipment design
26.	Pradeep Yammiyavar	Indian Institute of Science, Bangalore	Professor	Human Computer interaction Design

The Department at a Glance

Year of Establishment: 1995

Academic Programmes Offered:

Bachelor of Technology (BTech) in

- o Electronics and Communication Engineering,
- o Electronics and Electrical Engineering

Master of Technology (MTech) in

- (1) Signal Processing,
- (2) VLSI,
- (3) Power and Control,
- (4) Communication Engineering,
- (5) RF and Photonics

Dual Degree [MS (Eng) + PhD]

Doctor of Philosophy (PhD)

Total Faculty Strength: 41

- Professor: 12
- Associate Professor: 8
- Assistant Professor: 19
- Visiting Professor: 1
- Visiting Assistant Professor: 1

New Faculty Members Joined: 1

- Assistant Professor: 1

Total Student Strength: 864

BTech: 508

MTech: 125

PhD: 213

MS+PhD: 18

New Students Joined in 2016-2017: 218

BTech: 114

MTech: 71

PhD: 25

MS+PhD: 8

DEPARTMENT OF ELECTRONICS AND ELECTRICAL ENGINEERING

LABORATORY FACILITIES

The Department of EEE has 25 laboratories which are equipped with state-of-the-art equipment and software. These laboratories are used for both instructional purposes and carrying out R&D activities in the various areas of interest. The list of laboratories presently functioning in the Department is as follows:

Name of Labs

1. Power System Lab (Instructional): The Power Systems Laboratory is well-equipped with several experimental setups and several software packages for real time experiments. The facilities include overcurrent, under voltage and differential relays. The major equipments in the Power Systems Laboratory include the following:

Relay Demonstration Setup:

- IDMT over current relay
- Instantaneous over current relay
- IDMT under voltage relay
- Current transformer
- Negative sequence relay
- Differential relay
- High Voltage AC/DC/Impulse setup

List of Softwares:

- PSS/E
- PSCAD
- DigSilent

2. Electrical Machine Lab (Instructional): The machine lab is equipped with all kinds of AC and DC motors and generators required for undergraduate lab session (EE380) and research activities in the field. For the better understanding of control of various motors lab also has braking and drive modules for some motors.

3. Electronic Circuit Lab- I (Instructional)

4. Electronic Circuit Lab-II (Instructional): The Electronic Circuits Lab – I & II mainly hold basic electronics lab for first year undergraduate students of all the departments. The labs are equipped with large number of set ups each containing cathode ray oscilloscope, function generator, digital multimeter, and multioutput DC power supply. The labs are well-stocked with electronic components like resistors, capacitors, diodes, transistors, analog and digital ICs. Experiments performed in the lab cover hardware design and implementation of basic circuits which include rectifiers, transistor characteristics, comparators, combinational logic circuits, synchronous and asynchronous counters, latches, and opamp circuits.

5. Control & Instrumentation Lab-I (R&D): The Control and Instrumentation Laboratory I focuses on the research and development activities related to Control Theory and Applications, Stochastic Systems, Robotics, Ultrasonic Instrumentation, Underwater Acoustics etc. Some of the current areas of interest include Robust and Adaptive

Control theory, Relay Control Theory and Applications, Mobile Robotics and Multi-Agent Systems, MEMS and SAW Devices, Fractional Order Systems. Discrete Event Systems. Laboratory infrastructure includes personal computers for research scholars and a number of experimental set-ups, namely, Mobile Robot Platforms, Multi DOF manipulator, Twin Rotor MIMO System, Inverted Pendulum Systems, Level Control System.

6. Control & Instrumentation Lab-II (Instructional):

The Control and Instrumentation Lab II is the instructional laboratory used for lab courses such as control and instrumentation lab (UG), and applied control lab (PG). The laboratory has work benches equipped with advanced test and measuring instruments like 200 MHz DSO, DDS function generator, 5½ digit DMM, multioutput DC power supply, and PC. The lab is equipped with large number of transducers for measurement of physical quantities like temperature, displacement, level, force and strain, in addition to PLC, process calibrator, hot chamber, coupled tank system, motor speed control system and other facilities for instructional laboratory. The students instruction is focused to learn the design and implementation of signal conditioning circuits and controllers like PID.

7. System Simulation Lab (Instructional): The System Simulation Laboratory is a fully computerized laboratory equipped with highly configured PCs and various computational and simulation software like Matlab 7.3, Borland C++, FPGA Advantage from Mentor Graphics, Xilinx's ISE foundation, Zeland's IE3D EM simulation SW, Altera's Quartus webpack, Electronics Workbench, MicroSim Design Lab (EDA software), Cadstar PCB Design, Elanix's Systemview, HP-Eesof, Hypersignal and Operating System such as HP Unix, Sun Solaris, Redhat Enterprise Linux, Microsoft windows 2003 and windows 2000/XP.

8. Embedded System Lab (Instructional): Microprocessors and Embedded Systems Laboratory provides students with hands-on experience with building, programming, testing, and debugging processor based systems. For example, systems that students build may incorporate audio and various input devices. It is an instructional laboratory. Lab courses like Digital Signal Processors Lab, Digital Circuits and Microprocessors Lab and Embedded Systems Lab are held here.

9. High Frequency Lab (Instructional + R&D): High Frequency Laboratory at EEE, IIT Guwahati is a research cum teaching laboratory. Research works are carried out in the area of antennas, computational electromagnetics and microwave engineering. Lab courses like Microwave Engineering Lab, Communication Lab, Design Lab, etc. are held in HF Lab.

10. Power & Control Lab (R&D): Research and Development Activities related to Power & Control areas are conducted in this lab. Research Scholars, MTech/ Btech students and Project Engineers working in these areas use this laboratory.

11. Communication and Networking Lab (R&D): Research

and Development Activities related to Communication & Networking areas are conducted in this lab. The Research Scholars, Mtech/ Btech students and Project Engineers working in these areas use this laboratory.

12. Multimedia Analytics Lab (R&D): This Laboratory was set up in the department of Electronics and Electrical Engineering (EEE), Indian Institute of Technology (IIT) Guwahati during July, 2013. The lab focuses on the research and development activities related to multi-modal (video, speech and text) analytics and applications of machine learning in vision and robotics.

13. Communication Lab-I (R&D)

14. Communication Lab-II (R&D): Research Scholars working in different communication related areas use this lab.

15. Image & Signal Processing Lab (R&D): Image Processing is one of the prominent fields in signal processing area. Digital data in the form of an image is most common in mundane life and hence image processing is inevitable in everyone's life. The major areas of image processing which are of great interest in research in our laboratory are image compression, medical image processing, video processing, pattern recognition etc.

16. VLSI Lab-I (R&D): VLSI design lab was setup in the year 2004 as an integral part of the department of Electronics and Electrical Engineering (EEE). Followed by commencement of PG(M.Tech) and Ph.D. programme in the field of VLSI design subsequently.

Ever since its inscription the VLSI lab has constantly been upgraded to match with the technologies of the modern era. The VLSI library integrated with the lab helps the students, researchers and all enthusiasts to acquire all the much needed concepts to deal with different practical experiments. The focus of this lab is widely spread towards different pros and cons of the entire upgrading VLSI domain. Development works at different levels like semiconductor device simulation, circuits & system design and research in some recent trends like Biomedical signal processing has extensively been carried out.

17. VLSI-ADSP & Communication Lab (R&D): The Department has set up a sophisticated DSP & Communication Laboratory with the state-of-the-art equipment from Analog Devices and Texas Instruments, and Real Time DSP Software from Hyperception Inc. The Department has also received a donation from Analog Devices Inc. consisting of hardware kits and Visual DSP software.

18. Signal Informatics Lab (R&D): Research and Development Activities related to Security & Document Processing areas are conducted here. The Research Scholars and Project Engineers working in these areas use this laboratory.

19. Electro-Medical & Speech Lab (R&D): The Lab was set up during 2004. The laboratory focuses on the research and development activities related to biomedical signal

and image processing, speech signal processing, coding and technology areas. Some of the current topics of interest include speech enhancement, speaker recognition, children speech recognition, speech synthesis, stressed speech processing, fundus image processing, ECG signal processing, biometrics and handwriting data processing.

20. Image Processing and Computer Vision Lab (R&D): The ongoing major activities in the Image Processing and Computer Vision(IPCV) Laboratory include music signal processing, histopathology image processing, denoising, video processing, image superresolution, image forensic, computer vision, image hashing, Gesture Recognition and HCI

21. Power Electronics Lab (Instructional): The lab has started functioning from August 2015. It contains the major facilities required to perform undergraduate and postgraduate experiments related to power electronics. In addition, design of power electronic hardware, implementation of prototype and testing can be performed in the lab. DSP and FPGA controllers for power electronics applications also can be tested.

22. HPC and FPGA Design Lab (R&D): High Performance Computing and FPGA Lab (HPC and FPGA Lab) was established in 2012 at Department of Electronics and Electrical Engineering, IIT Guwahati with initial support from IIT Guwahati and Nvidia. The work at HPC & FPGA Lab is focused towards exploring possibilities of high performance computing and FPGA based system design in various fields related to Electrical Engineering and Scientific Computing in non-electrical engineering disciplines.

Our group's mission is to carry out multidisciplinary research in reconfigurable, parallel and distributed computing as a basis for long-term partnership and collaboration amongst industry, academia, and government; focus on research in advanced computer architectures, algorithms, networks and systems, both theoretical and applied; to carry out state-of-the-art research and development with collaborators with maximized synergy and pooled, leveraged resources. Being an educational institute, to enrich the education of high-quality students, has been the first priority. In turn, focus is to contribute knowledge and technologies in this field.

23. MTech Project Lab: The lab has started functioning from August 2016. This lab is specially designed for M.Tech student to perform experiments related to their M.Tech project.

24. BTech Project Lab: The lab has started functioning from August 2016. This lab is specially designed for B.Tech student to perform experiments related to their B.Tech project.

25. Signal Processing Lab (R&D): The Lab has started functioning from 2016. Research and Development Activities related to Speech Processing, Image Processing, Biometric Face Recognition, Music Signal Processing, Machine Learning and Cleft Monitoring System areas are conducted here. The Research Scholars working in these areas use this laboratory.

EML: e-mobility lab: This is a new initiative for developing state of the art technologies for electric vehicles (EVs). The areas of work in this lab are:

- Electric motor design
- Power electronics converters of EVs
- Inductive charging systems
- Grid to vehicle interaction (G2V)
- Vehicle powertrain control algorithms

MAJOR EQUIPMENT AND FACILITIES ACQUIRED:

- 1 4 Channel Oscilloscope
- 2 8085 Microprocessor Trainer Kit
- 3 Differential Probe (+)- 700V
- 4 Desktop PC
- 5 High Sensitivity Spectrometer
- 6 Dual Channel Soldering Station with accessories
- 7 a) 20KVA Online UPS, Make: Eaton, Model: 93E
b) 20KVA Three Phase Isolation Transformer, Make: Orion
- 8 a) DC Ammeter
b) AC Ammeter
- 9 CRIO-9030

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

Image Processing, Computer Vision, Speech Processing, Biomedical Signal and Image Processing, Multimedia Signal Processing; Microwave, Antenna Design, Wireless Communication, Error Control Coding; Analog and Digital Design, MEMS, VLSI CAD, Photonics, Semiconductor Devices; Electrical Converters, Electric Drives, Smart Grids, Wind Energy, Solar Energy, Solar Photovoltaic, Power Electronics and Power Systems; Control Systems, Stochastic Systems, Relay Based Identification and Auto tuning, Control Systems, Control Theory Applications, Electrical machine design, contactless charging system for EVs, Pattern Recognition, Machine Learning, Multimedia Analytics

MAJOR INITIATIVES AND BREAKTHROUGH IN RESEARCH AND DEVELOPMENT

Major initiatives

- i. A prototype for contactless charging system for EVs.
- ii. Development of a smart urban transportation system

CONFERENCES/WORKSHOPS/SEMINARS/SYMPOSIA ATTENDED

Name of Faculty	Name of Conf./Workshop	Place	Date	National/ International
S. R. M. Prasanna	CDAC Workshop on Speech Technology Solutions for North Eastern states of India	NIT Silchar, Assam	24-25 Feb 2017	National
S. R. M. Prasanna	Summer School on Applications of Source Information in Speech Processing Tasks	DAIICT Gujarat	July 2016	National
S. R. M. Prasanna	TENCON 2016	Singapore	22-25 Nov 2016	International
S. R. M. Prasanna	INTERSPEECH 2016	San Francisco, California, USA	8-12 Sep 2016	International
Rakshesh Singh Kshetrimayum	10th IEEE International Conference on Advanced Networks and Telecommunications Systems	IISc, Bangalore	6-9 Nov 2016	International
Suresh Sundaram	SPCOM 2016	IISc, Bangalore	12-15 Jun 2016	National
Hanumant S. Shekhawat	22nd International Symposium on Mathematics Theory of Networks and Systems	Minnesota, USA	12-15 Jul 2016	International
Smarajit Das	IEEE International Symposium on Information Theory	Barcelona, Spain	10-15 Jul 2016	International
A. Rajesh	SPCOM 2016	IISc, Bangalore	12-15 Jun 2016	National
Praveen Kumar	IEEE PES General Meeting 2016	Boston, USA	17-21 Jul 2016	International
Probin Kr. Bora	SPCOM 2016	IISc, Bangalore	12-15 Jun 2016	National
Rohit Sinha	INTERSPEECH 2016	San Francisco, California, USA	8-12 Sep 2016	International
Probin Kr. Bora	9th International Symposium on Turbo Codes & Iterative Information Processing	Brest, France	5-9 Sep 2016	International

Name of Faculty	Name of Conf./Workshop	Place	Date	National/International
Suresh Sundaram	international conference on frontiers in handwriting recognition 2016	China	23-26 Oct 2016	International
S. K. Bose	TENCON 201 6	Singapore	22-25 Nov 2016	International
A. K. Gogoi	TENCON 201 6	Singapore	22-25 Nov 2016	International
R. K. Sonkar	International Conference on Light and Light based Technologies	Tezpur, Assam	26-28 Nov 2016	International
N. Nallam	Asia Pacific Microwave Conference	New Delhi	5-9 Dec 2016	International
P. Tripathy	19th National Power System Conference	Bhubaneswar	19-21 Dec 2016	National
S. R. Ahamed	30th International Conference on VLSI Design	Hyderabad	7-11 Jan 2017	International
R. K. Sonkar	International Conference on Fiber Optics and Photonics	IIT Kanpur	6-8 Dec 2016	International
Indrani Kar	Indian Control Conference 2017	IIT Guwahati, Assam	4-6 Jan 2017	National
Prithwijit Guha	Tenth Indian Conference on Computer Vision, Graphics and Image Processing (ICVGIP 2016)	IIT Guwahati	14-19 Dec 2016	National
Chandan Kumar	IEEE Power and Energy Society General Meeting (PESGM)	Boston, MA, USA	17-21 Jul 2016	International
Chitralekha Mahanta	2016 European Control Conference (ECC16)	Aalborg, Denmark	29 Jun-1 Jul 2016	International

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
S. R. M. Prasanna	Significance of vowel like regions for speech processing	NITK Surathkal	NITK Surathkal	3 Feb 2017
S. R. M. Prasanna	Significance of source information for speech processing	NITK Surathkal	NITK Surathkal	4 Feb 2017
S. Dandapat	WISP 2016	IIIT Hyderabad	Hyderabad	24 Dec 2016
Sanjib Ganguly	Power distribution system planning and optimization	IIT Guwahati	Guwahati, Assam	27 May 2017
Sanjib Ganguly	Planning of power distribution system and its transition from passive to active	NIT Meghalaya	Shillong, Meghalaya	8 Mar 2017
Chitralekha Mahanta	Robust Control of a Robotic Manipulator using Sliding Mode Controller	NIT Meghalaya	Shillong, Meghalaya	April 2016
Rafi Ahamed Shaik	Efficient VLSI Architectures for Signal Processing Algorithms	T. K. M. College of Engineering	Kollam, Kerala	26 Sep 2016
Rafi Ahamed Shaik	Distributed Arithmetic based VLSI architectures for Signal Processing Algorithms	L. B. R. College of Engineering	Mylavaram, Andhra Pradesh	31 Dec 2016
Rafi Ahamed Shaik	Advanced DSP Architectures	NIT Meghalaya	Shillong, Meghalaya	8 Mar 2017
M. K. Bhuyan	Image Transform and Its Applications	NIT Silchar	Silchar	14-18 Feb 2017

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
M. K. Bhuyan	Image and Video Compression	IIT Guwahati	Guwahati	5-9 Sep 2016
K. Karthik	Video Security: Methodologies and Constraints	IIT Guwahati	Guwahati	9 Sep 2016
Amit Sethi	Deep learning in HPC – Using data to go far beyond automation in pathology	NVIDIA	Mumbai	6 Dec 2016
Amit Sethi	Case studies in computational pathology	Tata Memorial Hospital	Mumbai	20 Jul 2016
Amit Sethi	Evolution of Convolutional Neural Networks for Image Recognition	Hacker Earth	Online	5 Oct 2016
Amit Sethi	Channel and Language Model for Spell Checkers	IIT Madras / NPTEL	Chennai	Apr 2016

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS / INVITED LECTURES

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Prof. Shihab Shamma	University of Maryland, USA	Invited Talk on How Neuromorphic Computing Inspires and Learns from Cognitive Neuroscience and Engineering	18 Apr 2016
Prof. Ian Reid	Australian Centre of Excellence for Robotic Vision, University of Adelaide	Plenary Talk: "Deep Learning meets Reconstruction and SLAM" in connection with ICVGIP 2016	18-22 Dec 2016
Prof. C. V. Jawahar	Centre for Visual Information Technology, IIIT Hyderabad	Plenary Talk: "Beyond Indian Language OCRs: Problems that Beckon in the Era of Deep Learning" in connection with ICVGIP 2016	18-22 Dec 2016
Prof. Kyoung Mu Lee	Computer Vision Lab, Seoul National University	Plenary Talk: "Blind Dynamic Scene Deblurring Techniques" in connection with ICVGIP 2016	18-22 Dec 2016
Prof. Vivek S. Borkar	IIT Bombay	Plenary Talk: Variations on the Theme of Gossip in connection with ICC-2017	4-6 Jan 2017
Dr. Sanjay P. Bhat	Tata Consultancy Services	Session Chair to "Variations on the Theme of Gossip" in connection with ICC-2017	4-6 Jan 2017
Prof. Atul G. Kelkar	Professor of Mechanical Engineering Fellow, American Society of Mechanical Engineers Fellow, American Institute of Aeronautics and Astronautics	Session Chair: Linear and Nonlinear Control Theory" in connection with ICC-2017	4-6 Jan 2017
Prof. Arun K. Tangirala	IIT Madras	Session Chair: Identification and Estimation in connection with ICC-2017	4-6 Jan 2017
Dr. Shovan Bhaumick	IIT Patna	Chair: Observers in connection with ICC-2017	4-6 Jan 2017
Vijayalayan, R	Math Works	Industrial Plenary Talk: "The Impact of Model-Based Design on Controls Today and in Future" in connection with ICC-2017	4-6 Jan 2017
Dr. Ramkrishna Pasumarthy	IIT Madras	Session Chair to "Network Systems in Science and Technology" in connection with ICC-2017	4-6 Jan 2017
Prof. Francesco Bullo	University of California, Santa Barbara	Plenary Talk: "Network Systems in Science and Technology" in connection with ICC-2017	4-6 Jan 2017
Prof. Arun K. Mahindrakar	IIT Madras	Session Chair: Optimal Control and Optimization in connection with ICC-2017	4-6 Jan 2017

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Dr. Jayesh Bharve	GE Global Research Center	Session Chair: Modeling and Simulation in connection with ICC-2017	4-6 Jan 2017
Prof. Hamsa Balakrishnan	Massachusetts Institute of Technology, USA	Plenary Talk: "Dealing with Delays Or: How I Learned to Stop Worrying and Love Air Travel" in connection with ICC-2017	4-6 Jan 2017
Dr. Shaunak Sen	IIT Delhi	Session Chair, Consensus and Cooperation in connection with ICC-2017	4-6 Jan 2017
Dr. Ketan Detroja	IIT Hyderabad	Industrial Plenary Chair: "Controls and Optimization at GE: Some Overview and Industrial Case Study" in connection with ICC-2017	4-6 Jan 2017
Dr. Chiranjib Guha Majumdar	Indian Space Research Organization, Bangalore	Session Chair: "Control Applications" in connection with ICC-2017	4-6 Jan 2017
Prof. Murat Arcak Berkeley	University of California Berkeley	Plenary Talk: "Exploiting System Structure for Automated Control Synthesis" in connection with ICC-2017	4-6 Jan 2017
Prof. Ganti Prasad Rao	Retd. Professor, Dept. EE, IIT Kharagpur and President and CEO, Inventive Pathways-Management Consultancy, Member, UNESCO-EOLSS Joint Committee	Invited Talk: "Genesis, Genetics, And Life-Like Evolution Of The world Of Mathematics From Hindu Zero And Number Concepts" and "Control Systems: A Perspective"	7-8 Feb 2017

SEMINARS/WORKSHOPS/CONFERENCES/SHORT-TERM COURSES ORGANISED

Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./ Wor./Con.	Funded By	Date	International/ National	No. of participants
General Chair: Prabin K. Bora; Organizing Chairs: Prithwjit Guha, Arijit Sur, Finance Chair: Amit Sethi	Tenth Indian Conference on Computer Vision, Graphics and Image Processing	IUPRAI, Oil India Ltd., DST, Microsoft, NVIDIA, Google, QUALCOMM, MathWorks, General Electric, TCS, Aditya Imaging Information Technologies, Indian Oil	18-22 Dec 2016	National Conference	200
Finance Chair: Indrani Kar, IIT Guwahati	The Third Indian Control Conference	IEEE Control Systems Society-USA, General Electric-USA, MathWorks, SERB-DST-Govt. Of India	4-6 Jan 2017	National Conference	150
Dr. Shaik Rafi Ahamed, Dr. M. K. Bhuyan	Short Term Course on "Algorithms and Architectures for High Efficiency Video Coding"	TEQIP	5-9 Sep 2016	Short Term Course	35
Prof. S. R. M. Prasanna	GIAN Course "Advanced Sinusoidal Modelling and its Applications"		26-30 Dec 2016	Short Term Course	

PATENTS

Sl. No.	Name of Faculty and Co-Researcher	Name	Date Applied/ Granted	Application No.
1	L. N. Sharma	3-D SEISMOGLOT-TOGRAM	2016	201631036440

AWARDS AND HONOURS

Prof. Rakesh Singh Kshetrimayum

Best Work-in-Progress, IEEE International Conference on Accessibility to Digital World, 2016

STUDENTS' ACHIEVEMENTS:

- a) Ruchika Verma, guided by Dr. Amit Sethi and Prof. P K Bora, secured IEEE Signal Processing Society Travel Grant to attend IEEE ICIP.
- b) Neeraj Kumar, guided by Dr. Amit Sethi, secured US NIH R25 grant to pursue post-doctoral at University of Illinois at Chicago.
- c) Saurabh Pandey, guided by Prof. Somanath Majhi, secured DST travel grant to attend 55th IEEE Conference on Decision and Control 2016 at Las Vegas, USA.
- d) Rohan Kr. Das, guided by Prof. S.R.M. Prasanna, secured SERB, DST travel grant to attend Interspeech 2017 Conference at San Francisco, USA.
- e) Rohan Kr. Das, guided by Prof. S.R.M. Prasanna, secured ISCA partial student travel grant to attend Interspeech 2017 Conference at San Francisco, USA.

- f) Bidisha Sharma, guided by Prof. S.R.M. Prasanna, secured ISCA partial student travel grant to attend Interspeech 2017 Conference at San Francisco, USA.
- g) Tousif Khan N, guided by Prof. Chitrallekha Mahanta, secured SERB, DST travel grant to attend IEEE Conference on Power and Energy at University of Illinois, USA.

SPECIAL MENTION

- a) Dr. Amit Sethi was one of the five finalists for NVIDIA Global Impact Award.
- b) Dr. Amit Sethi has been approached by NVIDIA for a case study on the use of NVIDIA GPUs for research in computational pathology.
- c) Dr. Amit Sethi has been approached by Amazon Web Services for a case study on the use of their cloud computing credits for research in computational pathology.
- d) A team comprised of Dileep Munugoti, Chaitanya Reddy, Vamsi Tallam, Abhishek Vahadane, and Dr. Amit Sethi won the top position in automatic breast cancer HER2-positivity scoring contest organized by University of Warwick in May 2016.

FACULTY MEMBERS

Sl. No.	Name	PhD	Designation	Areas of Interest
1	Adda Ravindranath	IIT Kanpur	Assistant Professor	Power Electronics, Distributed Generation and Power Quality
2	Ahamed Shaik Rafi	IIT Kharagpur	Associate Professor	Adaptive Signal Processing, Mobile Communications, VLSI Signal Processing, Biomedical Signal Processing
3	Bhattacharjee Ratnajit	Jadavpur University	Professor	Electromagnetics, Microstrip Antennas, Microwave Engineering, Wireless Communication
4	Bhuyan M. K.	IIT Guwahati	Associate Professor	Image and Video Processing, Computer Vision, Pattern Recognition and Human Computer Interactions (HCI)
5	Bora Prabin Kumar (Deputy Director)	IISc Bangalore	Professor	Image Processing and Computer Vision
6	Bose Sanjay Kumar	Stony Brook, USA	Professor	Modeling, Simulation and Analysis of Communication Networks
7	Chatterjee Amitabh	University of California	Visiting Assistant Professor	Devices
8	Chouhan Sonali	IIT Delhi	Assistant Professor	Wireless Sensor Networks, Coding Theory, Wireless Communications
9	Dandapat Samarendra	IIT Kanpur	Professor	Signal Processing, Speech Processing, Biomedical Signal & Image Processing, Biomedical Instrumentation
10	Das Smarajit	IISc Bangalore	Assistant Professor	Information theory, Error correcting codes
11	Dhaka Kalpana	IIT Delhi	Assistant Professor	Cooperative Communication, Multi-hop relaying systems, Multiple-input multiple-output (MIMO) wireless communication system, Bluetooth 2.0+EDR Physical and MAC layer

Sl. No.	Name	PhD	Designation	Areas of Interest
12	Ganguly Sanjib	IIT Kharagpur	Assistant Professor	Power distribution system planning and optimization, Distributed generation, Custom power devices, Evolutionary algorithms, Multi-objective optimization
13	Gogoi Anup Kumar	IIT Kanpur	Professor	Electro Magnetics, Microwave Engineering, RF circuits, System Design
14	Guha Prithwijit	IIT Kanpur	Assistant Professor	Computer Vision, Machine Learning, Robotics
15	Jacob Tony	IIT Kanpur	Assistant Professor	Statistical Signal Processing and Information Theory
16	Kar Indrani	IIT Kanpur	Associate Professor	Control Theory and Applications, Soft Computing Applications, Neural Network Based Adaptive Control, Applications of Fuzzy Logic and Neural Networks in Nonlinear Control, Kinematic and Dynamic Control of Robot Manipulators
17	Karthik Kannan	University of Toronto	Associate Professor	Privacy Preserving Authentication and Multimedia Searches, Fine Grained Access Control, Image and Audio Comparisons in lower-dimensional Spaces, Blind Image Forensics and Image Phylogeny
18	Krishnaswamy Srinivasan	IIT Bombay	Assistant Professor	Control Systems, Cryptography
19	Kumar Chandan	IIT Madras	Assistant Professor	Smart Transformer Application in Power System, Grid Connected Converters and Microgrid, Power Quality Improvement using STATCOM, DVR, UPQC, Predictive Control of Power Converters, Parallel Operation of Voltage Source Converters
20	Kumar Praveen	Delft University of Technology, The Netherlands	Associate Professor	Optimisation of electrical motors and drives, Algorithm development for Multi-objective optimisation and multicriteria decision making in engineering systems, Simulation and design of electrical motors and actuators using Finite Element Methods (FEM), Analytical modeling of electrical motors for rapid simulation, Simulation and Analysis of Hybrid and Electric Vehicles
21	Mahanta Anil	IIT Delhi	Visiting Professor	Digital Signal Processing, High-speed VLSI structures for Signal Processing & Communication
22	Mahanta Chitrlekha (Head of the Department)	IIT Delhi	Professor	Control System Theory and Applications, Control of Nonlinear Uncertain Systems, Artificial Intelligence based Control, Identification and Control of Nonlinear Systems
23	Majhi Somanath	University of Sussex, Brighton, UK	Professor	Relay Based Identification and Auto tuning, Control Systems, Control Theory Applications
24	Mallajosyula Arun Tej	IIT Kanpur	Assistant Professor	Photovoltaics, Large Area Electronics, Organic and Organic-Inorganic Hybrid Semiconductor Devices and Layered 2D Materials
25	Nallam Nagarjuna	IIT Delhi	Assistant Professor	Analog and RF integrated circuits
26	Nath Shabari	University of Minnesota	Assistant Professor	Power Electronics, Application of Power Electronics to Power Systems.

Sl. No.	Name	PhD	Designation	Areas of Interest
27	Nayak Sisir Kumar	IISc Bangalore	Associate Professor	Nanofluid for transformer, Metamaterial enhanced WPT, PV integration with grid
28	Nemade Harshal B.	IIT Bombay	Professor	Electronic Instrumentation, Systems Design, Ultrasonic Instrumentation, Non-destructive testing, Electronic product design, EMI/EMC issues, Acoustic sensors, Under-water acoustics, Surface acoustic wave devices, MEMS
29	Palathinkal Roy Paily	IIT Madras	Professor	VLSI and MEMS
30	Prasanna S. R. Mahadeva (Dean, Research and Development)	IIT Madras	Professor	Speech and Signal Processing
31	Rai Brijesh Kumar	IIT Bombay	Assistant Professor	Communication Systems, Coding Theory
32	Rajesh Alentallil	IIT Kanpur	Associate Professor	Coding and Modulation Techniques
33	Sahambi J. S. (On lien to IIT Ropar)	IIT Delhi	Associate Professor,	Digital Signal Processing, Wavelets, Microprocessors
34	Sekhawat Hanumant Singh	University of Twente, The Netherlands	Assistant Professor	System Theory, Applied Mathematics & Signal Processing
35	Sethi Amit	Illinois, UIUC	Associate Professor	Computer Vision, Image Processing, Pattern Recognition, Image Processing, Visual Perception
36	Shrestha Govinda Bol (Released on July 2016)	Virginia Polytechnic Institute & State University, USA	Visiting Professor	Power Markets and Economics, Renewable Energy Sources – Photovoltaic systems, Wind Generation Systems, Generation and Transmission Planning Power System Analysis, Operation and Planning, Optimization and Uncertainty Techniques
37	Singh Kshetrimayum Rakesh	NTU Singapore	Professor	Electromagnetic Band Gap, Filters, Metamaterials, Computational Electromagnetics and Periodic Structures
38	Sinha Rohit	IIT Kanpur	Professor	Speech and Audio Processing, Speech Recognition, Signal Processing
39	Sonkar Ramesh Kumar	IIT Kanpur	Assistant Professor	Optoelectronics Device Characterization and fabrication, Microelectronics and III-V Compound Semiconductors, Photonics Integrated Circuits, Integrated Optics Fiber Optics Communication
40	Sundaram Suresh	IIScBangalore	Assistant Professor	Pattern Recognition, Image / Video Processing and Computer Vision
41	Tripathy Praveen	IIT Kanpur	Assistant Professor	Power system dynamics and stability studies, Wide Area Monitoring and Control of Power System, Optimal power dispatch and state estimation, Security analysis and control, Energy management system and distribution automation
42	Trivedi Gaurav	IIT Bombay	Assistant Professor	Circuit Simulation (Analog & Digital) and VLSI CAD, High Performance Computing, Computational Biology and Solar Photovoltaics

DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES

The Department at a Glance

Year of Establishment: 1998

Academic Programmes Offered:

Master of Arts (MA) in

- o Development Studies

Doctor of Philosophy (PhD)

Total Faculty Strength: 28

- Professor: 7
- Associate Professor: 11
- Assistant Professor: 9
- Visiting Professor: 1

New Faculty Members Joined: 1

- Visiting Professor: 1

Total Student Strength: 158

MA: 49

PhD: 109

New Students Joined in 2016-2017: 38

MA: 27

PhD: 11

LABORATORY FACILITIES

Language-Cognition Lab: The lab is engaged in research in language from a cognitive science perspective. We explore the relationship of human language with cognition, with culture as a possible third angle through studies of language processing in various domains.

Phonetics and Phonology Lab: Research on language and speech is an exciting area encompassing research in the fields of language technologies and human-computer interfaces in a way which can be employed to various ends ranging from language learning of intelligent systems to the learning capabilities of humans. To fulfill these ends this lab would like to start a modern academic research lab which is focused on the way speech is produced and comprehended. The lab will be involved with experimental investigations of speech processes and their acquisition. Topics include: articulatory movements, measurements of pressures and airflows in speech production, computer-aided waveform analysis and spectral analysis of speech, perception and discrimination of speechlike sounds, speech prosody, models for speech recognition, speech disorders, and language acquisition. This laboratory will also play an important role in recording and archiving the languages of the North-East. Apart from that, the facilities in this laboratory will also promote advanced research on languages of the region.

The Sleep & Cognition Lab is a specialized lab where research work in the area of cognition and sleep is being carried out. The present project is funded by the department of science and technology, GOI. This lab has few specialized equipments such as 40 channel Nihon-Khodon polysomnography system, 32 channel active electrode, EEG/ERP system and DC current brain stimulator for designing experiment.

Psychology Lab: Psychology laboratory is also used for conducting experiments in the area of social psychology and organizational psychology on regular basis by faculty and research scholars. Psychology lab has already initiated the process of procuring various instruments, which will be used for conducting lab sessions for under-graduate courses in Psychology.

MAJOR EQUIPMENT AND FACILITIES ACQUIRED:

- i. Portable Scanner
- ii. Inventory Management System
- iii. Professional Video Camera
- iv. Printer, UPS
- v. Camera for Archaeology lab
- vi. 2 Projectors
- vii. PC 4 noes

MAJOR AREAS OF RESEARCH AND DEVELOPMENT:

The faculties in the HSS department carry out research in several fields of humanities and social sciences. This includes

English and Indian literature, Linguistics, Economics, Psychology, Philosophy, Political Science, Archeology, Sociology and History. Faculties and doctoral students pursuing research within these disciplines have been engaged in teaching and research. Major areas of research include Dalit literature, Marathi literature, North-Eastern Archeology and Heritage Management, Common Wealth Literature, Aesthetics, Cultural Studies, Ecocriticism and Translations, Development Economics, Industrial Economics, Labour Economics, Phenomenology and Cognitive Science, Phenomenology and Religion, Ethical Issues related to Science and Technology, Organizational Behaviour, Human Resource Management, Social/Environmental Psychology, I-O Psychology, Literary and Cultural Theory, Microeconomics, Agricultural Economics, Environmental Economics, Econometrics, Philosophy of Technology, Applied Philosophy, Peace Studies, Critical Thinking, Applied Ethics, Philosophy of Education, Phonological theory with special interest in Optimality Theory, vowel harmony, Experimental approaches to Phonology and its acquisition, Social & Environmental History of Assam, Sociology of Science, Historical Sociology, Cognitive linguistics, Endangered and lesser known languages, Language typology, Sociolinguistics, Sleep and Information Processing, Macroeconomics, Applied Game Theory, Sociology of Gender, Sociology of Law, Sociology of Communication, Socio-economic understanding of climate risk and resilience, Urban Living and Sustainable cities, Development Economics, Informal Sector, Issues in Food Security and Social Security, Economics of Education, Identity issues of ethnic minorities, local governance, development policies, social movements, ethnic violence and conflict prevention, Health and Clinical Psychology, Phonetics, Phonology, Acoustic Phonetics, Tibeto-Burman tones, Psychoacoustics, Perception, Public Economics, Dynamic Economic Theory, Christianity, conversion, ethnic violence, kinship and family, urban issues, Socio-economic history.

MAJOR INITIATIVES AND BREAKTHROUGH IN RESEARCH AND DEVELOPMENT

Graduate Research Meet: The Graduate Research Meet brought together a diverse range of interdisciplinary researchers and offered a platform to showcase innovative and cutting-edge research in the humanities and social sciences. The event was organized by the PhD scholars of the Department of Humanities and Social Sciences (HSS), Indian Institute of Technology Guwahati. The primary objective of the GRM was to highlight the interdisciplinarity and significance of recent research in the humanities and social sciences. It explored the varied and complex methodology which underpins such research. The Meet offered an excellent opportunity for doctoral students to present their findings and work-in-progress and receive valuable feedback from peers and experts alike.

Last year we had the third edition of GRM was conducted by Dept. of Humanities and Social Sciences, IIT Guwahati

from October 20th to 22nd 2016. The key note speaker for the GRM 2016 was Dr. SrinathRaghavan, Centre for Policy Research. He delivered a lecture on “War and Social Change in India”

We received 167 abstracts from research scholars from various universities across India and 85 abstracts were selected. The themes of the various panels were Technology and Society; Trade Transaction and State Formation; Identity and Violence; Transitions in cultural Practices; Dams and Social Movements; Education and Children; Gender Violence and Law; Caste Community and Institutions; Religion and Identity; International Trade and Finance; Performance, Gender and Identity; Tribes and Transformation; Interrogating the Nation; Agriculture and Environment; Media and Representation; Literary Re-enactment; Networks, Nature and the Quest for Well Being; Identity, Labour and Migration; State and Law in NE India; Negotiating the Urban; Political Parties and Identity Politics.

Faculties from Guwahati University, Tata Institute of Social Sciences (TISS) Guwahati, Omiya Kumar Das Institute (OKD), ICHR, Guwahati and Dept. of HSS, IITG chaired the various panels and also performed as discussants to the papers presented. The papers presented were circulated earlier among the chairs so that an engaged interactions could be carried out and well thought out comments could be provided on each paper. Students from these universities and institutes also attended the sessions.

Linnaeus-Palme: Linnaeus-Palme is a Swedish exchange

programme, introduced in May 2000, for teachers and students at undergraduate and master’s level of higher education and aims at strengthening co-operation between institutions of higher education in Sweden and developing countries and thereby increasing global contacts in the world of higher education. The programme is administered by the International Programme Office for Education and Training and financed by Sida, Swedish International Development Co-operation Agency.

Linnaeus scholarships are meant for outbound Swedish participants abroad with partner institutions and Palme scholarships are for foreign participants to study under exchange with Swedish Institutions of higher learning. The underlying idea is mutual co-operation between institutions of higher education will enrich the countries involved and provide a basis for broader partnerships between them.

The Department of Humanities and Social Sciences, IIT Guwahati in collaboration with the Department of Human Geography and Ecology Division, Lund University, Sweden received the said grant for one year starting with January, 2017. Already two students from Lund University are pursuing one semester course in our department. Also faculty members from Lund University spend three weeks in the department in teaching and seminars in January, 2017. Two of our Masters students will be studying one semester in Lund University during Fall, 2017 and a faculty member of the department will be visiting Lund University for 3 weeks under the exchange programme.

CONFERENCES/WORKSHOPS/SEMINARS/SYMPOSIA ATTENDED

Name of Faculty	Name of Conf./Workshop	Place	Date	National/International
Sawmya Ray	Domestic Abuse and Violence, 13th Global Meeting	Prague	5-7 May 2016	International
Sawmya Ray	3rd International Sociological Association, Forum of Sociology	Vienna	11-14 Jun 2016	International
Ngamjahao Kipgen	3rd ISA Forum of Sociology	Austria	10-14 Jul 2016	International
Ngamjahao Kipgen	Development, Dispossession and Resistance	Rourkela	15-16 Nov 2016	National
Priyankoo Sarmah	Speech Technology Solutions for North Eastern states of India (STeSNE)-2017	NIT Silchar	24-25 Feb 2017	National
Priyankoo Sarmah	Three-day intensive workshop on Acoustic Phonetics	Delhi University	2-4 Mar 2017	National
John Thomas	Anthropological Histories and Tribal Worlds in India	Shimla	27-29 Mar 2017	National
John Thomas	Writing Down to Writing Up: The Art and Craft of Historical Research	Alwaye	16-21 Jan 2017	
Saundarjya Borbora	National Seminar on Foreign Trade a Strategy for economic growth of the North Eastern Region	Shillong	1-2 Apr 2016	National

Name of Faculty	Name of Conf./Workshop	Place	Date	National/International
Saundarjya Borbora	Solid Wastes: Their Mitigation and Management in Urban Centers in India	Jamugurihat	2-3 Sep 2016	National
Sambit Mallick	Technologies for Development: From Innovation to Social Impact	EPFL, Lausanne, Switzerland	2-4 May 2016	International
Sambit Mallick	3rd ISA Forum of Sociology	University of Vienna, Vienna, Austria	10-14 Jul 2016	International
Sambit Mallick	14th Triple Helix Conference on Triple Helix Models of Innovation: Addressing Ecosystem Challenges	Heidelberg, Germany	25-27 Sep 2016	International
Sambit Mallick	8th Annual Meeting of the Society for the Study of New and Emerging Technologies	Centre for the Study of the Sciences and the Humanities, University of Bergen, Norway	11-14 Oct 2016	International
Sambit Mallick	Development, Dispossession and Resistance	National Institute of Technology Rourkela	14-15 Nov 2016	National
Sambit Mallick	42nd All India Sociological Conference	Tezpur University	27-30 Dec 2016	National
Sambit Mallick	Globalisation and India's Innovation Systems: A Creative Destruction	Mahatma Gandhi University, Kottayam, Kerala	4-6 Feb 2017	International
Archana Barua	Re-construction of Indian Philosophical framework: Quest for decoding meaning	Goa	28-30 Jan 2017	International
Archana Barua	The Tribes of North East India: Exploring Identities, Culture, Politics and Philosophy	Delhi	28-30 Jan 2017	National
Debapriya Basu	UGC Sponsored Two Day International Seminar on Contemporary Trends in Humanities And Social Sciences	Cooch Behar	7-8 Apr 2016	National
Debapriya Basu	Digital Humanities: Perspectives and Challenges	Goa	9 Sep 2016	National
Debapriya Basu	International Workshop on Archiving and Textual Computing	Kolkata	29 Nov 2016	National
Nachiketa Tripathi	31st International Congress of Psychology	Yokohama, Japan	24-29 Jul 2016	International
Nachiketa Tripathi	26th Annual Conference of the National Academy of Psychology	Chennai	29-31 Dec 2016	National
Nachiketa Tripathi	Academy of International Business (India) Conference	Indore	21-23 Apr 2016	National
Dilwar Hussain	International Conference on Well-being	Singapore	31 Oct - 1 Nov 2016	International
Dilwar Hussain	4th International Conference on North-East India: Re-framing India's North-East.	Gangtok, Sikkim	24-26 Nov 2016	International
Dilwar Hussain	26th Annual Conference of National Academy of Psychology, India.	Chennai	29-31 Dec 2016	National
Rajshree Bedematta	Prosperity, Equality and Sustainability: Perspectives and Policies for a Better World	Indian International Centre, New Delhi	1-3 Jun 2016	International
Bidisha Som	Language and Perception international Conference	Norway	13-16 Jun 2016	International

Name of Faculty	Name of Conf./Workshop	Place	Date	National/International
Bidisha Som	22nd Architectures and Mechanisms for Language Processing conference	Bilbao, Spain	1-3 Sep 2016	International
Bidisha Som	ICOLSI	Guwahati	10-12 Dec 2016	International
Bidisha Som	Current trends in Figurative language	Tubingen, Germany	6-8 Dec 2016	International
Mithilesh Kumar Jha	Reimagining South Asia: An Exploration into the History of Ideas	Delhi	17-18 Feb 2017	National
Mithilesh Kumar Jha	The 19th International Conference on Conceptual History on Key Concepts in Times of Crisis	Aarhus, Denmark	14-16 Sep 2016	International
Mithilesh Kumar Jha	22nd Himalayan Language Symposium	Guwahati	8-10 Jun 2016	International
Anamika Barua	Planetary Security Conference	The Hague		International
Anamika Barua	The International River Symposium	New Delhi		International
Anamika Barua	Mainstreaming ecosystem services into countrys sectoral and macroeconomic policies and programmes	Geneva		International
Avishek Parui	International Society for the Study of Narratives Annual Conference	Lexington, Kentucky	23-26 Mar 2017	International
Avishek Parui	English, Diaspora and Indian Literatures	Hyderabad	6 Mar 2017	National
Avishek Parui	Revisiting Partition Conference	IIT Guwahati	9-11 Feb 2017	National
Rohini Punekar	Violets in a Crucible: Translation in the 19th century	Grenoble, France	22-24 Jun 2016	International
Rohini Punekar	Translating Disability Across Cultures	New Delhi	14-16 Sep 2016	International
Sukanya Sharma	Oral Traditions: Continuity and Transformations, with a focus on North East India and South East	Shillong	1-2 Feb 2016	International
Sukanya Sharma	SAA 81st Annual Meeting at Orlando, FL	Orlando, Florida	6-10 Apr 2016	International
Sukanya Sharma	Rural Research Methodology	Guwahati	26 Jul 2016	National
Sukanya Sharma	22nd Himalayan Language Symposium	Guwahati	9 Jun 2016	National
Sukanya Sharma	Rock Art of Northeast India: Methodological And Technological Issues	Tura	5-6 Oct 2016	National
Venkataraman Prabhu	Reciprocity in a Pluralistic World	China	29-30 Jun 2016	International
Venkataraman Prabhu	Moral Responsibility and Humanity	China	2-3 Jul 2016	International
Mrinal Kanti Dutta	Solid Wastes: Their Mitigation and Management in Urban Centres in India	Jamugurihat, Sonitpur	2-3 Sep 2016	National
Mrinal Kanti Dutta	Dynamics of Saving Behaviour in India and Development	Margherita, Tinsukia	5-6 Oct 2016	National

Name of Faculty	Name of Conf./Workshop	Place	Date	National/International
Mrinal Kanti Dutta	Short Term Course in Socio-Economic Transition in NE India	Gauhati University	14-20 Nov 2016	National
Mrinal Kanti Dutta	Indian Society of Labour Economics	Guwahati	24-26 Nov 2016	National
Mrinal Kanti Dutta	Indian Econometric Society	Bhubaneswar	22-24 Dec 2016	National
Mrinal Kanti Dutta	Environmental Awareness: Issues, Concerns and Challenges	Nalbari	11-12 Aug 2016	National
Arupjyoti Saikia	Assam: textile transmission and the performance of dance	London	8-9 Jul 2016	International
Arupjyoti Saikia	Suryya Kumar Bhuyan and the Art of History Writing in Modern India	New Delhi	19 Aug 2016	National
Arupjyoti Saikia	Disastrous Pasts: New Directions in Asian Disaster History	Singapore	21-22 Nov 2016	International
Arupjyoti Saikia	Indo-China Corridor	London	11-12 May 2016	International
Arupjyoti Saikia	Elephant Conference, Bangalore	Bangalore	4-6 Apr 2016	International
Arupjyoti Saikia	Asia in Motion-Association of Asian Studies	Kyoto, Japan	24-27 Jun 2016	International
Hiranya Kumar Nath	The 86th Annual Meetings of Southern Economic Association	Washington, D. C., USA	19-21 Nov 2016	International
Hiranya Kumar Nath	The 3rd SBI Banking & Economics Conclave	Mumbai, Maharashtra	26-27 Sep 2016	National
Das, Liza	IACLALS Annual Conference, Location, Identity, Solidarity – Hegemonic Formations and Contestations		15-17 Feb 2017	National
Das, Liza	Revisiting Partition: concepts, dynamics and manifestations		9-11 Feb 2017	National
Shakuntala Mahanta	Speech Prosody, Boston University		31 May - 3 Jun 2016	International
Shakuntala Mahanta	Tonal Aspects of Language, Buffalo, New York		24-27 May 2016	International
Shakuntala Mahanta	Second Language Approaches to Prosody		18-19 Nov 2016	International

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Name of Faculty	Name of Lecture / Talk	Name of Inst./Org.	Place	Date
Sawmya Ray	Family, Gender and Domestic Violence in India	Tripura Central University	Agartala	1 Mar 2016
Sawmya Ray	Trafficking of Women and Girls into Commercial Sexual Exploitation in Assam	Tripura Central University	Agartala	2 Sep 2016
Sawmya Ray	To Violate with Impunity: Everyday Constructions of Sexual Violence (Refresher Course in Womens Studies & Contemporary Issues)	Gauhati University	Guwahati	29 Aug - 18 Sep 2016

Name of Faculty	Name of Lecture / Talk	Name of Inst./Org.	Place	Date
Ngamjahao Kipgen	Livelihood and Agriculture (Earthquakes and Landslides: Challenges of Disaster Management in Four North Eastern States)	Manipur Central University, Imphal, Manipur	Imphal	9-12 Apr 2016
John Thomas	From the Tree to the Temple: Recasting Religion as Identity in North-East India (Changes and Continuities in the Religious Landscape of Northeast India)	North Eastern Social Research Centre, Guwahati & Department of Estonian and Comparative Folklore, Un	Guwahati	19-22 Jan 2017
John Thomas	Oral History and the Limits of Memory (Researching Karbi Oral History)	Centre for Karbi Studies	Diphu	15 Mar 2017
Saundarjya Borbora	Population Growth and Economic Development: Causes, Consequences, and Controversies	NEHU	Shillong	17 Sep 2016
Saundarjya Borbora	Population Policies : Introduction, Brief Historical overview and Development Interrelations	NEHU	Shillong	17 Sep 2016
Sambit Mallick	Modernity from the Margins	JamiaMillia Islamia	New Delhi	7 Apr 2016
Sambit Mallick	Science, Technology and Society: Cultural and Ideological Construal	National Institute of Science Education and Research	Bhu-baneswar	20 Dec 2016
Sambit Mallick	Intellectual Property Rights in Science in India	National Institute of Science Education and Research	Bhu-baneswar	21 Dec 2016
Sambit Mallick	Science and Modernity	Tezpur University	Assam	28 Dec 2016
Sambit Mallick	Resistance to and Accommodation of the Product Patent Regime: A Study of Changing Scientific Practic	Indian Institute of Technology Patna	Patna	10 Feb 2017
Archana Barua	Medical Ethics (World Philosophy Day)	KBVS & AS University	Nalbari, Assam	17 Feb 2017
Debapriya Basu	Women Edit Women: Feminist Scholarly Editing in the Digital World (HSS Seminar Series)	IIT Guwahati	Guwahati	27 May 2016
Debapriya Basu	Desiring Women Editing: Computations of Female Literary Scholarship (Dr. S. Radhakrishnan Memorial Lecture)	Acharya BrajendraNath Seal College	Cooch Behar	5 Sep 2016
Avishek Parui	Masculinity, Monstrosity and Affect: A Study of Dracula and Dorian Gray (DSA-II Visiting Fellow Lectures)	Hyderabad Central University	Hyderabad	9 Mar 2017
Avishek Parui	Memory, Fantasy and Forgetting in Literature (DSA-II Visiting Fellow Lectures)	Hyderabad Central University	Hyderabad	8 Mar 2017
Avishek Parui	Language, Literature and Diaspora: An Introduction (DSA-II Visiting Fellow Lectures)	Hyderabad Central University	Hyderabad	7 Mar 2017
Avishek Parui	Memory Masculinity and War Trauma: A Case Study of Mrs. Dalloway and Regeneration trilogy (Medical Humanities Course)	IIT Hyderabad	Hyderabad	24 Jan 2017
Avishek Parui	Violence, Affect and Healing: A Case Study of Ian McEwans Saturday (Medical Humanities Course)	IIT Hyderabad	Hyderabad	25 Jan 2017

Name of Faculty	Name of Lecture / Talk	Name of Inst./Org.	Place	Date
Avishek Parui	Literature, Memory and the Storytelling Self	Jadavpur University	Kolkata	21 Nov 2016
Avishek Parui	The Postmodern Postcolonial	English and Foreign Languages University	Hyderabad	4 Nov 2016
Avishek Parui	Memory, History and the Postmodern Condition	English and Foreign Languages University	Hyderabad	3 Nov 2016
Avishek Parui	Memory, Storytelling and Agency: Through the Literary Glass	English and Foreign Languages University	Hyderabad	2 Nov 2016
Avishek Parui	Masculinity, Affect and Agency	English and Foreign Languages University, Hyderabad	Hyderabad	1 Nov 2016
Sukanya Sharma	Ceramivs of Ancient Assam	Centre for Archaeological Studies and Training Eastern India	Kolkata	4-5 Jul 2016
Sukanya Sharma	Antiquity of Pragjyotisha- Kamrupa on the Basis of Ambari Finds	Assam State Museum	Guwahati	22 Jan 2016
Arupjyoti Saikia	An Economic History of Assam after 1947: The Long Term Trends	The Sasakawa Peace Foundation	Tokoyo, Japan	27 Jun 2016
Hiranya Kumar Nath	Economic Development of Assam: Myths and Realities (Purandar Sarma Memorial Lecture)	Mangaldoi College	Mangaldoi, Assam	11Mar 2017
Hiranya Kumar Nath	New Global Realities and Management Challenges (Refresher Course in Business Studies)	UGC-Human Resource Development Centre, Gauhati University	Guwahati, Assam	22 Feb 2017
Hiranya Kumar Nath	Information and Communications Technology (ICT) and Services Trade	Indian Institute of Management	Udaipur, Rajasthan	24 Mar 2017
Hiranya Kumar Nath	ICT Infrastructure and Eco-Sensitive Urban Development (International Symposium on Water Urbanism and Infrastructure Development)	Indian Institute of Technology Kharagpur	Kolkata, West Bengal	6-7 Jan 2017
Hiranya Kumar Nath	Information and Communications Technology (ICT) and Services Trade (The 18th Annual Conference of North Eastern Economic Association)	North Eastern Economic Association	Guwahati, Assam	16-17 Dec 2016
Hiranya Kumar Nath	Research and Innovation in An Indian University (Workshop on the Research and Innovation: A Catalyst for Growth of a University)	Rajiv Gandhi University	Doimukh, Arunachal Pradesh	11 Nov 2016
Hiranya Kumar Nath	India's Look/Act East Policy and the Northeast Region (International Seminar on Economic Dependence of Northeast India and Its Bordering Nations)	Assam University	Silchar, Assam	8-9 Nov 2016
Hiranya Kumar Nath	New Global Realities and Management Challenges	Guwahati College	Guwahati, Assam	27 Oct 2016
Hiranya Kumar Nath	Information and Communications Technology (ICT) and International Trade	Indian Institute of Technology	Kharagpur, West Bengal	21 Oct 2016
Hiranya Kumar Nath	New Global Realities and Management Challenges	Gauhati Commerce College	Guwahati, Assam	22 Sep 2016

Name of Faculty	Name of Lecture / Talk	Name of Inst./Org.	Place	Date
Hiranya Kumar Nath	The Information Services Economy	SB Deorah College	Guwahati, Assam	9 Sep 2016
Hiranya Kumar Nath	The Information Services Economy	Cotton College	Guwahati, Assam	9 Sep 2016
Hiranya Kumar Nath	Inflation, Inflation Targeting and Monetary Policy (National Seminar on Solid Wastes: Their Mitigation and Management in Urban Centres in India)	Tyagbir Hem Baruah College	Jamugurihat, Assam	3 Sep 2016
Shakuntala Mahanta	University of North Texas Linguistics Colloquium series (Nasal Assimilation in Deori)	University of North Texas	USA	28 Apr 2016
Shakuntala Mahanta	Eleventh Students' Conference Of Linguistics In India (Sconli-11) Keynote address, Intonation and Prosody in South Asian Languages	School of Languages and Linguistics, Jadavpur University	Kolkata	28 Jan 2017
Shakuntala Mahanta	International Conference on Natural Language Processing (Status of women in science)	IIT	BHU	28 Dev 2016

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANIZATIONS/INVITED LECTURES:

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Dr. Manjil Hazarika	Assistant Professor, Department of Archaeology, Cotton College State University, Guwahati	Archaeology in Northeast India: Looking Beyond 'Ambari'	6 Apr 2016
Dr. Kuntala Lahiri-Dutt	Senior Fellow, Resource, Environment and Development (RE&D) Program, Australian National University, Canberra	Extractive peasants: Reframing the debate on informal mining	3 Jun 2016
Prof. Pramod Joglekar	Professor, Department of Archaeology, Deccan College, Pune	Importance of Sciences in Archaeology	20 Jun 2016
Prof. Ankhi Mukherjee	Professor, English and World Literatures, Oxford University	Slums and the Postcolonial Uncanny	4 Aug 2016
Prof. Mahfooz A. Ansari	International Management and Human Resources Management & Organizational Studies, University of Lethbridge, Alberta	LEADER-MEMBER EXCHANGE (LMX): Challenges and Opportunities for Future Research	8 Aug 2016
Prof. Rohan D'Souza	Graduate School of African and Asian Area Studies, Kyoto University, Kyoto	Politics at the Boiling Point: South Asian Environmental History and theAnthropocene	22 Aug 2016
Prof. Surender Kumar	Department of Economics, University of Delhi	Voluntary Environmental Programs: Drivers and Market Implications	26 Sep 2016
Dr. Nirupam Bajpai	Senior Advisor, Sustainable Development, Center for Sustainable Development, Earth Institute, Columbia University New York	Sustainable Development: A Global Need of the Hour	27 Jul 2016
Dr. Anup Kumar	Associate Professor, School of Communication, Cleveland State University, Cleveland	Hegemonic Developmentalism in Policy Making and Role of Civil Society and News Media: The Case of Uttarakhand	4 Oct 2016
Dr. Ian G. Baird	Associate Professor, Department of Geography, University of Wisconsin-Madison	Revisiting the Xe Bang Fai River in Laos: Assessing the Downstream Impacts of the Nam Theun 2 Hydropower Project and New Cross-Border Political Ecologies	1 Nov 2016

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Prof. Sugata Bose	Centre for Government and International Studies-South Building, Cambridge	3rd Suryya Kumar Bhuyan Memorial Lecture on 'Unity or Partition: Mahatma Gandhi's Last Stand, 1945-48'	3 Jan 2017
Dr. Sucharita Sen	Centre for the Study of Regional Development, School of Social Sciences, Jawaharlal Nehru University	The Political Economy of Agrarian Distress of Post-Reform India	9 Jan 2017
Prof. Rachel Dwyer	Professor, Indian Cultures and Cinema, SOAS, University of London	Calling God on the wrong number: Hindu-Muslim relations in PK (2014) and Bajrangi Bhaijaan (2015)	10 Jan 2017
Dr. Ravi Korisetar	Senior Fellow, Dr VS Wakankar Archaeological Research Institute, Govt. of Madhya Pradesh, Bhopal-Dharwad.	Early Agricultural Village Settlement at Sanganakallu, Ballari District, Karnataka	18 Jan 2017
Dr. Makiko Kimura	Associate Professor, Tsuda College, Tokyo, Japan	Conflict, Displacement and Ethnicity in Bodoland, Assam	22 Feb 2017
Prof. Takashi Kurosaki	Professor, Institute of Economic Research, Hitotsubashi University, Tokyo, Japan	Comparative Economic Development in India, Pakistan, and Bangladesh: Agriculture in the 20th Century	7 Mar 2017
Dr. Soumya Datta	Assistant Professor, Faculty of Economics, South Asian University, New Delhi	Can Limits of Arbitrage explain Bounded Rationality among Speculative Traders in Foreign Exchange Markets?	7 Apr 2017
Prof. K. Sivaramakrishnan,	Professor of Anthropology, Yale University	Environmental Jurisprudence and Inequality in India	24 Aug 2016
Prof. Arun Kumar	Former Professor of Economics, Centre for Economic Studies and Planning, JNU	India's Black Economy: Implications, Causes and Remedies	7 Dec 2016
Prof. Anindya Sinha	Professor, National Institute of Advanced Studies, Bangalore and Senior Scientist at Nature Conservation Foundation, Mysore	A Beautiful Mind! Social Cognition in Wild Bonnet Macaques	6 Dec 2016
Dr. Kausik Chaudhuri	Associate Professor, Economic Division, Leeds University Business School	Does the Banking Sector or the Stock Market Development matter for Economic Growth?	6 Apr 2017
Prof. Holli A. Semetko	Candler Professor of Media & International Affairs, Emory University	GIAN, MHRD, IIT Guwahati	May 2016

SEMINARS/WORKSHOPS/CONFERENCES /SHORT-TERM COURSES ORGANISED

Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International /National
Priyankoo Sarmah	38th International Conference of the Linguistic Society of India	CIIL	10-12 Nov 2016	International
Priyankoo Sarmah	22nd Himalayan Languages Symposium	ICSSR	8-10 May 2016	International
Saundarjya Borbora	58th Annual conference of Indian Society of Labour Economics	ICSSR, ILO, UGC etc	24-26 Nov 2016	
Dilwar Hussain	KIC-TEQIP 3 day workshop on Basic statistical tests and data analysis using SPSS	KIC-TEQIP	30 Mar – 1 Apr 2016	National
Rajshree Bedematta	58th Annual Conference of the Indian Society of Labour Economics	ISLE, ILO, UNICEF, Action Aid	23-27 Nov 2016	National
Bidisha Som	Himalayan Language Symposium	ICSSR	8-10 Jun 2016	International

Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International /National
Mithilesh Kumar Jha	38th International Conference of Linguistic Society of India		10-12 Nov 2016	International
Mithilesh Kumar Jha	Graduate Research Meet 2016	IIT Guwahati	20-22 Oct 2016	National
Mithilesh Kumar Jha	22nd Himalayan Language Symposium		8-10 Jun 2016	International
Mithilesh Kumar Jha	58th Annual Conference of the Indian Society of Labour Economics (ISLE)		24-26 Nov 2016	National
Rohini Puneekar	IACLALS Annual Conference 2017	IACLALS	15-17 Feb 2017	International
Sukanya Sharma	The Crisis of Multiple Identities in Contemporary World	Indian Council of Philosophical research	15-17 Feb 2016	National
Arupjyoti Saikia	Suryya Kumar Bhuyan & the Art of History Writing in Modern India	S. K. Bhuyan Endowment Fund	19 Aug 2016	National
Arupjyoti Saikia	Ind-China Spring School	Ind-China Project	26-27 Mar 2017	International
Hiranya Kumar Nath	Brown-Bag Reading Seminar at the Department of Humanities and Social Sciences, IITG		18-21 Jan 2017	National
Pahi Saikia	India-Myanmar Bilateral Ties: Ethnicity, Security and Connectivity	ICSSR, DELHI	25-26 Sep 2016	National
Pahi Saikia	Revisiting Partition: concepts, dynamics and manifestations with special focus on north east India	ICSSR, DELHI	9-10 Feb 2017	National
Pahi Saikia	Global Initiative of Academic Networks	MHRD, DELHI	15-20 May 2016	National
Liza Das, R. M. Puneekar	IACLALS		15-17 Feb 2017	

AWARDS AND HONOURS

Sambit Mallick

1. Member, ICSSR Advisory Committee, Cultural Disparities among the Tribes in India: Exploring through Oral Literature, since 5 October 2016

2. Co-Convener, Research Committee 13 (Science, Technology and Society), Indian Sociological Society, New Delhi, 1 January 2017 - 31 December 2018

Arupjyoti Saikia

New India Foundation Fellowship

STUDENTS' ACHIEVEMENT

Kaveri Deb: PhD Student: Appointed as Assistant Professor (Economics) at IITG.

Rahul Shukla (coauthored), International Travel Grant (full)

from EPFL, Lausanne, Switzerland, and UNESCO to attend International Conference on Technologies for Development: From Innovation to Social Impact, EPFL, Lausanne, Switzerland, 2-4 May 2016

Avinash Kumar, Research Fellow, Institute for Advanced Studies Science, Technology and Society (IAS-STs), Graz, Austria, 1 October 2016 30 June 2017

Madhulika Kumari (coauthored), International Travel Grant (full) from the Centre for the Study of the Sciences and the Humanities, University of Bergen, Norway to attend 8th Annual Meeting of the Society for the Study of the New and Emerging Technologies, University of Bergen, Norway, 11-14 October 2016

Mahsina Rahman, PhD student of Economics received the Best Poster Award in Research Conclave 2017 organised by the Students Academic Board, IIT Guwahati

Baban Bayan, a PhD student received the best paper award

in the PhD consortium 2017 organised by the School of Management of IIT Bombay during January 24-25, 2017.

Prathana Saikia, PhD student, wins Sahitya Academi Juva Award

PhD student Aniruddha Kumar Baro was Awarded the best student paper in Elite Competition and Ethnic Violence: Violence in Bodoland Territorial Area Districts (BTAD) of Northeast India on 6th Annual International Conference on Political Science, Sociology and International Relations organized by GSTF Singapore during September 26-27, 2016.

SPECIAL MENTION

Saundarjya Borbora

- a) Chairman and member of DC of two students at NIT Mizoram
- b) Member, Board of the School of Economics, Management and Information Sciences, Mizoram University

Sambit Mallick

- 1. Content Editor, Bachelor of Social Work Programme, Krishna Kanta Handiqui State Open University, Guwahati, June-September 2016
- 2. Resource Person, Masters Programme in Sociology and Social Anthropology (Theories of Society I), Tata Institute of Social Sciences Guwahati, August-November 2016
- 3. Referee, National Science Foundation, October-November 2016
- 4. External Examiner, PhD Thesis, Centre for Studies in

Science Policy, Jawaharlal Nehru University, New Delhi, November 2016

- 5. Resource Person, Masters Programme in Sociology and Social Anthropology (Economy and Society), Tata Institute of Social Sciences Guwahati, December 2016 April 2017
- 6. Resource Person, Sendai Framework for Disaster Risk Reduction, Assam State Disaster Management Authority and United Nations International Children’s Emergency Fund, Guwahati, 9 December 2016
- 7. External Reviewer, Research Committee 13 (Science, Technology and Society), 42nd All India Sociological Conference, Tezpur University, 27-30 December 2016
- 8. Chair, Session on ICTs and Development, Research Committee “13 (Science, Technology and Society), 42nd All India Sociological Conference, Tezpur University, 27-30 December 2016
- 9. Co-Chair, Session on Disaster Risk Reduction, Disaster Risk Reduction Meet, Guwahati, 23 January 2017
- 10. External Member, PhD Entrance Test in Sociology, Department of Sociology, Cotton College State University, Guwahati, 25 March 2017

Mrinal Kanti Dutta

- a) Executive Member, The Indian Econometric Society, 2016-17
- b) Reviewer, Journal of Land and Rural Studies
- c) Reviewer, International Journal of Rural Management
- d) Member, Board of Studies, Dept. of Economics, Mizoram University

FACULTY MEMBERS

Sl. No.	Name	PhD	Designation	Areas of Interest
1.	Barua, Anamika	University of Leeds	Associate Professor	Socio-economic understanding of climate risk and resilience, urban living and sustainable cities
2.	Barua, Archana	North Eastern Hill University	Professor	Phenomenology, Existentialism, Feminist Epistemology, Applied Ethics, Philosophy of Religion, Indian Philosophy, Gandhian Philosophy
3.	Basu, Devapriya	Jadavpur University	Assistant Professor	Literature and culture of sixteenth century England, early modern women's writing, feminist literary theory, early modern English manuscript studies, textual and bibliographical studies, book history, physical and digital archives, digital humanities, TEI-XML, web technologies
4.	Borbora, Saundarjya	Gauhati University	Professor	Development Economics, Industrial Economics, Labour Economics
5.	Bedamatta, Rajshree	University of Calcutta	Associate Professor	Development Economics, Informal Sector, Issues in Food Security and Social Security, Economics of Education

Sl. No.	Name	PhD	Designation	Areas of Interest
6.	Das, Debarshi	Jawaharlal Nehru University	Associate Professor	Development Economics, Macroeconomics, Applied Game Theory
7.	Das, Liza	Dibrugarh University	Professor	Literary and Cultural Theory
8.	Dutta, Mrinal Kanti	Gauhati University	Professor	Agricultural Economics, Environmental Economics, Development Economics
9.	Hussain, Dilwar	IIT Kanpur	Associate Professor	Health and Clinical psychology
10.	Jha, Mithilesh Kumar	University of Delhi	Assistant Professor	Political Thought in Comparative Perspective particularly Indian and Western Political Thought, Political Theory, Indian Politics especially Language and related Issues of state formations in Modern India.
11.	Kashyap, Naveen	IIT Bombay	Associate Professor	Sleep and Information Processing
12.	Mahanta, Amarjyoti	Jawaharlal Nehru University	Assistant Professor	Industrial Organization, Auction Theory, Dynamics Economics (adjustment processes)
13.	Mahanta, Shakuntala	Utrecht University, The Netherlands	Associate Professor	Phonological theory with special interest in Optimality Theory, vowel harmony, Experimental approaches to Phonology and its acquisition.
14.	Mallick, Sambit	University of Hyderabad	Associate Professor	Sociology of Science, Historical Sociology
15.	Prof. Hiranya Kumar Nath (Joined on 05.08.2016)	Southern Methodist University	Visiting Professor	Macro and Monetary Economics, Development Economics, Information Economics
16.	Punekar, Rohini Mokashi	Gujarat University	Professor	Research Interests: Culture and Translation Studies, Modern British Literature, Indian Writing in English
17.	Kipgen, Ngamjahao	IIT Delhi	Assistant Professor	Environmental Sociology, Cultural Politics, Traditional Governance, Oral History
18.	Parui, Avishek	Durham University, UK	Assistant Professor	Critical Theory; Masculinity Studies; Literature, Cognitive Psychology and Philosophy of Mind
19.	Ray, Sawmya	University of Hyderabad	Associate Professor	Sociology of Gender, Sociology of Law, Sociology of Communication
20.	Saikia, Arupjyoti (Head of the Department)	University of Delhi	Professor	Social & Environmental History of 19th and 20th century Assam.
21.	Saikia, Pahi	McGill University, Canada	Assistant Professor	Identity issues of ethnic minorities, local governance, development policies, social movements, ethnic violence and conflict prevention.
22.	Sarmah, Priyankoo	University of Florida, Gainesville	Associate Professor	Phonetics, Phonology, Acoustic Phonetics, Tibeto-Burman tones, psychoacoustics, perception
23.	Sharma, Sukanya	Deccan College PG and Research Institute	Associate Professor	Archaeology of Northeast India, Colonial history of Assam, Cultural Policy
24.	Sengupta, Bodhisattva	McGill University	Assistant Professor	Public Economics, Dynamic Economic Theory

Sl. No.	Name	PhD	Designation	Areas of Interest
25.	Som, Bidisha	Jawaharlal Nehru University	Associate Professor	Cognitive linguistics, Endangered and lesser known languages, Language typology, sociolinguistics.
26.	Thomas, John	JNU New Delhi	Assistant Professor	Religion and Formation of Cultural and Political Identities; Religion and Politics in North-East India; Social and Intellectual History of 19th Century Travancore; History of Missionary Encounter in South Asia
27.	Tripathi, Nachiketa	IIT Kanpur	Professor	Organizational Behaviour, Human Resource Management, Social/Environmental Psychology, I-O Psychology.
28.	Venkataraman, Prabhu	Pondicherry University	Associate Professor	Philosophy of Technology, Applied Philosophy, Peace Studies, Critical Thinking, Applied Ethics, Philosophy of Education.

DEPARTMENT OF MATHEMATICS

The Department at a Glance

Year of Establishment: 1995

Academic Programmes Offered:

Bachelor of Technology (BTech) in

- o Mathematics and Computing

Master of Science (MSc) in

- o Mathematics and Computing

Doctor of Philosophy (PhD) in

- o Mathematics and Computing

Total Faculty Strength: 37

- Professor: 11
- Associate Professor: 8
- Assistant Professor: 18

New Faculty Members Joined: 4

- Associate Professor: 1
- Assistant Professor: 3

Total Student Strength: 359

BTech: 197

MSc: 92

PhD: 70

New Students Joined in 2016-2017: 102

BTech: 45

MSc: 50

PhD: 7

LABORATORIES

Maths E-block Laboratory: Seating capacity: 74+71=145

Maths E1-block Laboratory: Seating Capacity: 138

Two Research Scholars Laboratories: Total capacity: 100 (Located in E and E1 blocks)

All laboratories are equipped with LAN and wireless network connectivity. An LCD projector with motorized screen is available in each laboratory for tutorial and demonstration sessions. All students who are enrolled in BTech, MSc and regular PhD programmes are allotted an individual computer in these laboratories.

In addition to the standard personal computers in the laboratories, the department has several workstations, high-end servers and a storage area network. All laboratories except research scholars laboratories are equipped with CCTV cameras.

MAJOR EQUIPMENT AND FACILITIES ACQUIRED

(a) Two 4-port KVM switch

(b) Upgradation of existing sixty PCs to HCL desktop

computers (Core i5 desktop)

(c) LCD projector

(d) Split AC (1.5 TR) with a stabilizer

(e) Water cooler and purifier

(f) Four Laser presenters

(g) Overhead book scanner

(h) Upgradation of three Laser printers

(i) Upgradation of three HP XW9300 workstations to a 2U rack mountable server

(j) Upgradation of four laptops

(k) Layer 3 network switch

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

Analysis, Algebra and Number Theory, Combinatorics, Fluid Dynamics, Finance Mathematics, Graph Theory, Linear Algebra, Numerical Analysis.

Statistics and Probability.

Algorithms, Theoretical Computer Science.

CONFERENCES/WORKSHOPS/SEMINARS/SYMPOSIA ATTENDED

Name of Faculty	Name of Conf./Workshop	Name of Inst./Org.	Date
S. N. Bora	Recent Development in Numerical Techniques and Applications	NIT Patna	7-8 Apr 2016
S. N. Bora	International Conference on Applied Mathematics	City University of Hong Kong	30 May - 2 Jun 2016
Rajen K. Sinha	Recent Advances in Applied Mathematics	NIT, Silchar	22-26 Feb 2017
Rupam Barman	29th International Conference of the Jangjeon Mathematical Society	Pondicherry University	8-10 Aug 2016
Shyamashree Upadhyay	Workshop on Seshadri Constants	Chennai Mathematical Institute	30 Jan - 4 Feb 2017
S. Natesan	International Conference on Mathematical Modelling and Computational Methods in Science and Engineering ICMMCMSE-2017	Alagappa University, Karaikudi	20-22 Feb 2017
S. Natesan	National Workshop on Differential Equations and Applications (NWDEA- 2017)	Periyar University, Salem	9-10 Mar 2017
S. Natesan	TEQIP – Short-term Course on Differential Equations – Theory, Computation and Applications	IIT Kharagpur	27 Feb - 3 Mar 2017
S. Natesan	International Conference on Applied Mathematics	Hong Kong	30 May - 2 Jun 2016
S. Natesan	International Conference BAIL-2016 (Boundary and Interior Layers)	Beijing, China	15-19 Aug 2016
Partha Sarathi Mandal	International Conference on Distributed Computing and Networking (ICDCN'17)	Hyderabad, India	4-7 Jan 2017
Partha Sarathi Mandal	International Workshop on Algorithms and Computation (WALCOM 2016)	Kathmandu, Nepal	29-31 Mar 2016

Name of Faculty	Name of Conf./Workshop	Name of Inst./Org.	Date
Arup Chattopadhyay	Brazos Analysis Seminar	Texas A &M University, College Station, Texas, USA	25-26 Mar 2017
Vinay Wagh	National Conference on Commutative Algebra and Algebraic Geometry	IISER Mohali	11-16 Oct 2016
Jiten Chandra Kalita	International conference on Numerical Analysis and Applied Mathematics	Rhodes, Greece	18-23 Sep 2016
Sweta Tiwari	International IFCAM conference on nonlinear PDE	TIFR CAM Bengaluru	28-29 Mar 2017
Gautam K. Das	Third International Conference on Algorithms and Discrete Applied Mathematics (CALDAM)	BITS Pilani, Goa	16-18 Feb 2017

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Rafikul Alam	Linear Algebra in Data Mining	Institute of Chemical Technology	Mumbai	29-30 Aug 2016
S. N. Bora	Mathematics: here, there, everywhere	NEHU	Tura	26 Apr 2016
S. N. Bora	Use of Green's Function in Boundary Problems	NIT Meghalaya	Shillong	19 Aug 2016
S. N. Bora	Scattering and Trapping of Water Waves in a Two-layer Fluid	NIT Meghalaya	Shillong	20 Aug 2016
Rajen K. Sinha	A posteriori error analysis of linear parabolic interface problems: a reconstruction approach	Indian Institute of Space Science and Technology	Thiruvananthapuram	2 Feb 2017
Rajen K. Sinha	Finite element methods for interface problems	NIT Silchar	Silchar, Assam	22-23 Feb 2017
S. Pati	Professor Frank Harary Endowment Lecture in 12th annual conference.	Siddaganga Institute of Technology (S.I.T)	Tumkur, Bangalore	9-11 Jun 2016
S. Pati	Laplacian matrix of a graph	Aliah University	Kolkata	19-24 Dec 2016
S. Pati	Laplacian matrix of a graph	Manipal Institute of Technology	Sikkim	2-7 Jan 2017
B. K. Sarma	Matrix completion problems: some recent studies	Manipal Institute of Technology	Sikkim	8-10 Jan 2017
Anupam Saikia	Coates-Wiles Theorem	International Centre for Theoretical Sciences	Bengaluru	Dec 2016
Rupam Barman	Hypergeometric series in Arithmetic Geometry	Tezpur University	Tezpur	Jul-Aug 2016
Rupam Barman	Teacher's Enrichment Workshop	IIT Guwahati	Guwahati	Dec 2016
Rupam Barman	p-adic analogues of Ramanujan series	Gauhati University	Guwahati	22-24 Dec 2016
Rupam Barman	Hypergeometric series in Number Theory	Calcutta University	Kolkata	1-2 Mar 2017
Rupam Barman	Elliptic Curves in Number Theory	Gauhati University	Guwahati	15 Mar 2017
Arup Chattopadhyay	Rank of a shift invariant subspace of the Hardy space H^2 over the bidisc (colloquium talk)	University of New Mexico	New Mexico, USA	9 Mar 2017

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Jiten Chandra Kalita	Critical points and vertical structures in the 3D lid driven cavity flow	IIT Mandi	Mandi, HP	6 Jun 2016
Jiten Chandra Kalita	Unsteady separation leading to secondary and tertiary vortex dynamics: sub- α and sub- β phenomena	United Arab Emirates University	Al Ail, UAE	2 Mar 2017
Jiten Chandra Kalita	Critical points and 3D separated flow	NIT Silchar	Silchar	11 Mar 2017
Jiten Chandra Kalita	Structural Bifurcation: secondary and tertiary vortex dynamics in the flow past circular cylinder	NIT Silchar	Silchar	12 Mar 2017
Siddhartha P. Chakrabarty	Monte Carlo Simulation in Option Pricing	Indian Institute of Technology Delhi	Delhi	23-27 May 2016
Siddhartha P. Chakrabarty	(1) Dynamics of Hepatitis C: Optimal Therapeutic Efficacy and Sampling Based Analysis, (2) Option Pricing Through the Black-Scholes PDE	National Institute of Technology Meghalaya	Meghalaya	19-20 Aug 2016
Siddhartha P. Chakrabarty	Jump-Diffusion Model and Best Fit for SENSEX and NIFTY for the Period 2003-2012	Chennai Mathematical Institute	Chennai	18-22 Dec 2016
Partha Sarathi Mandal	Expert Lecture Series on Distributed Computing	NIT Patna	Patna	1-5 Jun 2016
Shreemayee Bora	NCM Advanced Instructional School on Matrix Analysis	Shiv Nadar University	Noida	1-21 May 2016
Shreemayee Bora	20th Conference of the International Linear Algebra Society (ILAS).	KU Leuven	Leuven, Belgium	11-15 Jul 2016
B. Deka	Advanced Level Training Programme On Differential Equations	BIT, Hyderabad	Hyderabad	25 May-14 Jun 2016
B. Deka	Teachers Training Camps (TTC) for Rashtriya Madhyamik Shiksha Abhijan (RMSA), Assam Government	IIT Guwahati	Guwahati	27 Jun-8 Jul 2016
B. Deka	UGC sponsored National workshop on Mathematics, Tinsukia Women's College	Tinsukia Women's College	Tinsukia	24 Mar-25 Mar 2017

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS/INVITED LECTURES

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Dr. Sarbeswar Pal	IISER, Thiruvananthapuram	Geometry of Quadrics and Hitchin Map	13 Apr 2016
Prof. Rudra P. Sarkar	ISI Kolkata	A question regarding isometric multiplier and a chaotic answer	23 Jun 2016
Dr. Stefan Schmid	Aalborg University, Denmark.	To deliver lecture for GIAN course on Distributed Network Algorithms	15 Jun-4 Jul 2016
Prof. M. S. Raghunathan (FRS)	IIT Bombay	The Congruence Subgroup Problem	6 Sep 2016
Dr. Ranadev Datta	IIT Kharagpur	Hydroelasticity of floating structures	3 Oct 2016

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Dr. Atreyee Bhat-tacharya	Ramakrishna Mission Vivekananda University, West Bengal	Ricci flow on surfaces	25 Oct 2016
Prof. G. P. Raja Sekhar	IIT Kharagpur	Necrosis criterion for biological tumor - mixture theory modeling approach	11 Nov 2016
Dr. Sarthok Sircar	The University of Adelaide, Australia	Multi-scale modelling in ionic gels and particulate suspensions	16 Nov 2016
Prof. J. Giacomoni	Laboratoire De Mathematiques Et De Leurs Applications (LMA), France	Diaz-Saa inequality for variable exponent problems	18 Nov 2016
Mr. Karthik Ramasubramanian	Data Scientist	World of Big Data and Scalable Machine Learning	23 Dec 2016
Prof. Dambaru Bhatta	The University of Texas Rio Grande Valley, Edinburg, Texas	Numerical Solution for a Transient Incompressible Viscous Fluid Flow in a Cavity	4 Jan 2017
Dr. Debanjana Mitra	Virginia Tech, Blacksburg, USA	Control of compressible Navier-Stokes system	23 Jan 2017
Dr. Siddhartha Mandal	Research Scientist, Public Health Foundation of India	Studies of human microbiome and the role of statistics	25 Jan 2017
Dr. Diganta Borah	IISER Pune	Absence of the Riemann mapping theorem in higher dimensions	14 Feb 2017
Prof. Mahan Mj	TIFR Mumbai	Hyperbolic Geometry and Chaos in the Complex Plane	17 Feb 2017
Prof. M. K. Kadalbajoo	LNMIIT Jaipur	Computational Mathematics-Some Challenges	20 Feb 2017
Dr. Anil K. Ghosh	ISI, Kolkata	Multi-scale Classification using Localized Spatial Depth	24 Feb 2017
Dr. Nachiketa Mishra	ICTS-TIFR Bangalore	On short recurrence Krylov type methods for Fourier Galerkin Based Homogenization of Periodic Media	7 Mar 2017
Prof. Dipendra Prasad	TIFR Mumbai	Classgroups of number fields, Herbrand-Ribet theorem, and beyond	14 Mar 2017
Prof. Alladi Sitaram	ISI Bangalore	From Fourier to Harish-Chandra: A Quick Journey in Harmonic Analysis	21 Mar 2017

SEMINARS/WORKSHOPS/CONFERENCES /SHORT-TERM COURSES ORGANISED

Name of Faculty (Convener/Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	No. of participants
Partha Sarathi Mandal	GIAN course on Distributed Network Algorithms	MHRD	27Jun-2 Jul 2016	34
Anupam Saikia & Rupam Barman	Annual Foundation School-I	National Center for Mathematics	1-28 Dec 2016	30
Bhaba K. Sarma (Convener) & Rafikul Alam (Academic Coordinator)	Teachers' Enrichment Workshop (TEW)	National Centre for Mathematics	19-24 Dec 2016	19
Shreemayee Bora & Christian Mehl (TU Berlin)	Minisymposium on Perturbation Theory and Distance Problems associated with Eigenvalues within the 20th ILAS Conference in Leuven, Belgium	ILAS Conference	11-12 Jul 2016	45

STUDENTS' ACHIEVEMENTS

Mr. Aniruddha Poria, research scholar working under Dr. Jitendriya Swain, has received the prestigious Fulbright - Nehru Doctoral Research Fellowship for 2016-17 to with Dr. Radu Balan at University of Maryland, College Park, USA

SPECIAL MENTION

(a) Anupam Saikia has joined the editorial board of Journal of Ramanujan Mathematical Society from January, 2017.

(b) Arup Chattopadhyay, Assistant Professor, has received the prestigious Fulbright - Nehru Post Doctoral Research Fellowship for 2016-17 to work with Dr. Anna Skripka at University of New Mexico, Albuquerque, USA.

FACULTY MEMBERS

Sl. No.	Name	PhD	Designation	Areas of Interest
1	R. Alam	IIT Bombay	Professor	Linear and Numerical Linear Algebra
2	S. Bandopadhyay	ISI Delhi	Assistant Professor	Operations Research
3	Rupam Barman (Joined on 01.07.2016)	IIT Guwahati	Associate Professor	Algebraic Number Theory, Arithmetic Geometry
4	B. Bhattacharjya	IIT Kanpur	Assistant Professor	Graph Theory
5	S. Bora	IIT Guwahati	Associate Professor	Perturbation Theory, Numerical Linear Algebra
6	S. N. Bora (Head of the Department)	Dalhousie University, Canada	Professor	Water Wave Mechanics, River Mechanics, Sloshing Dynamics, Flow through Porous Media, Differential Equation, Fractional Differential Equation
7	S. P. Chakrabarty	University of Illinois, Chicago, USA	Associate Professor	Mathematical Biology, Optimal Control Theory, Mathematical Finance
8	A. K. Chakrabarty	IIT Kanpur	Assistant Professor	Functional Analysis
9	Arup Chattopadhyay	JNCASR, Bangalore	Assistant Professor	Functional Analysis and Operator Theory
10	D. C. Dalal	IIT Kharagpur	Professor	Fluid Dynamics
11	G. K. Das	ISI Kolkata	Associate Professor	Computational Geometry, Approximation Algorithms, Wireless Networks
12	B. Deka	IIT Guwahati	Associate Professor	Numerical Analysis, Finite Element Methods, Interface Problems, Numerical Solutions to Integro Differential Equations
13	A. K. Dey	IIT Kanpur	Assistant Professor	Distributions models and its applications, Survival Analysis
14	S. Dutta	IIT Kanpur	Assistant Professor	Quantum Computing, Complexity Theory
15	Ayon Ganguly (Joined on 28.06.2016)	IIT Kanpur	Assistant Professor	Life Time Data Analysis
16	J. C. Kalita	IIT Guwahati	Professor	Computational Fluid Dynamics, Numerical methods for PDEs
17	S. Kamal	TIFR, Mumbai	Assistant Professor	Probability, Random graphs
18	K. Kapoor	London South Bank University, UK	Associate Professor	Theoretical Computer Science
19	P.A.S. Sree Krishna	SUNY, Buffalo	Assistant Professor	Hyperbolic 3-manifolds, Low-dimensional topology
20	K. V. Krishna	IIT Delhi	Associate Professor	General Algebra, Theoretical Computer Science
21	P. Kumar	IIT Kanpur	Assistant Professor	Harmonic Analysis

Sl. No.	Name	PhD	Designation	Areas of Interest
22	P. S. Mandal	Jadavpur University	Associate Professor	Wireless Sensor Networks, Distributed Computing
23	S. Natesan	Bharathidasan University, Thiruchirappalli	Professor	Differential Equations, Homogenization, Numerical Analysis
24	S. Pati	ISI Delhi	Professor	Spectral Graph Theory
25	M. G. P. Prasad (Dean, Academic Affairs)	IIT Kanpur	Professor	Complex Dynamics and Fractals
26	H. Ramesh	IIT Madras	Assistant Professor	Formal Languages and Automata Theory, Membrane Computing
27	Subhamay Saha (Joined on 25.07.2016)	IISc Bangalore	Assistant Professor	Probability and Stochastic Process
28	A. Saikia	University of Cambridge, U.K.	Professor	Algebraic Number Theory
29	B. K. Sarma	Delhi University	Professor	Spectral Graph Theory, Combinatorial Matrix Theory
30	N. Selvaraju	IIT Madras	Professor	Stochastic Modelling, Queueing Theory, Stochastic Modelling, Operations Research
31	R. K. Sinha	IIT Bombay	Professor	Numerical Analysis
32	K. V. Srikanth	SUNY, Buffalo	Assistant Professor	Low Dimensional Topology
33	R. Srivastava	IIT Kanpur	Assistant Professor	Harmonic Analysis
34	J. Swain	IIT Madras	Assistant Professor	Harmonic Analysis
35	Sweta Tiwari (Joined on 01.06.2016)	IIT Delhi	Assistant Professor	Differential Equation
36	S. Upadhyay	CMI, Chennai	Assistant Professor	Algebraic Combinatorics
37	V. V. Wagh	University of Pune	Assistant Professor	Algebraic Geometry

DEPARTMENT OF MECHANICAL ENGINEERING

The Department at a Glance
Year of Establishment: 1995
Academic Programmes Offered: Bachelor of Technology (BTech) in o Mechanical Engineering Master of Technology (MTech) in (1) Machine Design, (2) Fluid and Thermal Engineering, (3) Computer Assisted Manufacturing, (4) Computational Mechanics, (5) Aerodynamics and Propulsion Doctor of Philosophy (PhD)
Total Faculty Strength: 44 • Professor: 17 • Associate Professor: 15 • Assistant Professor: 13 New Faculty Members Joined: NIL
Total Student Strength: 770 BTech: 327 MTech: 224 PhD: 219
New Students Joined in 2016-2017: 228 BTech: 78 MTech: 115 PhD: 35

LABORATORY FACILITIES

- **Advanced Manufacturing Laboratory:** Equipped with advanced equipments for manufacturing including micro-fabrication facility using CO2 Laser cutting technology.
- **Strength of Materials Laboratory:** Basically dedicated for doing all kinds of testing including tensile testing, fatigue testing, compressive testing, torsion testing, hardness testing, impact testing etc.
- **Materials Science Laboratory:** Dedicated for carrying out metallographic studies using highly precise microscope, XRD etc.
- **Fluid Mechanics Laboratory:** This lab has basic fluid mechanics set-up. The lab is equipped with different flow measuring set-ups such as venturimeter, orifice-plate, pitot tube, rotometer etc., where students can visualize the basic theory of working of the flow meter.
- **Thermal Science Laboratory:** This lab consists of heat exchangers, equipments for conducting experiments on conduction, convection and radiation, refrigeration systems etc. All these equipments facilitate learning of basic Thermodynamics and Thermal Engineering at undergraduate level.
- **Turbo-machinery Laboratory:** This lab has different table-top model of pumps and turbines where students can study the performance characteristics of those machines. Students can strengthen their basic understandings of working and applications of these machines.
- **IC Engine Laboratory:** This lab is for both undergraduates and graduate students. Some of the experiments which are performed by under-graduate students are performance studies of both C.I. and S.I. engines, etc. Moreover studeis on the glorific values, exhaust gas characteristics, extensive studies of bio-diesel with both engines are done by post-graduate students in their respective project works
- **Vibrations and Acoustics Laboratory:** This lab demonstrates basic vibrational instruments to students at undergraduate level. Also provides facilities for measurement of frequency signals, rpm etc, and facilities for data-acquisition which are very much beneficial for research activities in the domain of vibrational analysis.
- **Mechatronics and Robotics Laboratory:** The Mechatronics and Robotics lab is equipped with various facilities to educate the students at the undergraduate and postgraduate levels. Most of the robotics activities are facilitated to students by this lab.
- **Instrumentation Laboratory:** This lab performs calibration of pressure transducer/ gauge and other mechatronics apparatus, provides strain-gauge measurement facilities etc.
- **Theory of Machines Laboratory:** This lab consists of all basic equipments for understanding mechanisms, apparatus etc. at undergraduate level such as gyroscope, governor, jib-crane, screw jack, worm-wheel apparatus etc.
- **Tribology Laboratory:** Provides facilities for carrying out wear test of specimens of different materials under the condition of with lubrication/without lubrication.
- **CAD/CAM Laboratory:** Specialized in extending computer-assisted software tools needed for design and analysis such as ABAQUS, ANSYS, Master CAM, Pro/E, ADAMS etc.
- **Metrology Laboratory:** Provides facilities for carrying out dimensional measurements up to high degree of accuracy.

In addition, 14 new laboratories have been built –

- Micro-machining lab
- Aerodynamics lab
- Electromechanics lab
- Composite and Fracture lab
- Welding lab
- Dynamics and Vibration lab
- Advance Mechatronics and Bio-materials lab
- Computation MD Lab
- Microfluidics Lab-1
- Microfluidics Lab-2
- Smart materials and structures lab
- CFD lab
- Gasification and Thermal Lab
- Hydraulic lab

CONFERENCES/WORKSHOPS/SEMINARS/SYMPOSIA ATTENDED

Name of Faculty	Name of Conf./ Workshop	Place	Date	National/ International
K. S. R. K. Murthy	National Workshop on Industrial Problems on Machines & Mechanisms (XII IPRoMM 2016)	VNIT, Nagpur	-	National
D. Chakraborty	ICCM 2016	UC Berkeley, USA	1-4 Aug 2016	International
A. K. Dass	ICCM 2016	UC Berkeley, USA	1-4 Aug 2016	International

Name of Faculty	Name of Conf./ Workshop	Place	Date	National/ International
A. Dalal	7th International and 43rd National Conference on Fluid Mechanics and Fluid Power	MNIT Allahabad, India	15-17 Dec 2016	International
A. Dalal	69th Annual Meeting of The American Physical Society - Division of Fluid Dynamics	Portland, OR, USA	20-22 Nov 2016	International
A. Dalal	ASME International Mechanical Engineering Congress & Exposition	Phoenix, AZ, USA	11-17 Nov 2016	International
P. Muthukumar	International Conference on Recent Advancement in Air Conditioning and Refrigeration, RAAR 2016	Bhubaneswar	10-12 Nov 2016	International
P. Muthukumar	International Conference on Advances in Functional Materials	Anna University, Chennai	6-8 Jan 2017	International
P. Muthukumar	9th Indo – German Frontiers of Engineering Symposium	Jaipur, Rajasthan	9-11 Mar 2017	International
S. Kanagaraj	Innovators meeting	CMERI, Durgapur	23-24 Mar 2017	National
S. Kanagaraj	Science and Technology for specially abled person, IASST Guwahati	Guwahati	28 Feb-1 March 2017	National
S. Kanagaraj	Annual meeting of MGM Centre of Human Movement Science, Navi Mumbai	Mumbai	10 Oct 2016	National
S. Kanagaraj	Indian Medical Devices Expo (IMD-EXPO) Pune	Pune	8-10 Apr 2016	National
S. Kanagaraj	International Conference on Biomaterials, Biodiagnostics, Tissue Engineering, Drug Delivery and Regenerative Medicine (BITERM 2016)	IIT Delhi	15-17 Apr 2016	International
Shrikrishna N. Joshi	Laser forming: fundamentals and applications - Five-day TEQIP-II sponsored Short-Term Course on 'Laser and its Applications' (Invited talk)	Motilal Nehru National Institute of Technology Allahabad	27-31 Mar 2017	National
Shrikrishna N. Joshi	Enhancement in productivity and product quality by better utilization of manufacturing resources (Invited talk) International Conference on Advanced Technologies for Societal Applications: Techno-Societal 2016	Shri Vitthal Education and Research Institute's College of Engineering, Pandharpur, Maharashtra	20-21 Dec 2016	International
Shrikrishna N. Joshi	6th International & 27th All India Manufacturing Technology, Design and Research Conference (AIMTDR-2016)	College of Engineering, Pune, Maharashtra	16-18 Dec 2016	International
R. Ganesh Narayanan	6th International & 27th All India Manufacturing Technology, Design and Research Conference (AIMTDR-2016)	Pune	16-18 Dec 2016	International
R. Ganesh Narayanan	IMPLAST 2016	Delhi	10-13 Dec 2016	International

Name of Faculty	Name of Conf./ Workshop	Place	Date	National/ International
Sachin D. Kore	1st National Conference on Advances in Research and Innovations in Mechanical Engineering, Material Science, Industrial Engineering and Management (NCARIMMIEM-2016)	NIT Manipur	12-13 Dec 2016	National
Sachin Singh Gautam	NAFED 2016	VSSC, Trivandrum	12 Dec 2016	National
Sachin Singh Gautam	IMPLAST 2016	IIT Delhi	12-14 Dec 2016	International
Sachin Singh Gautam	AIMTDR 2016	CoE Pune	16-18 Dec 2016	International
Poonam Kumari	IMPLAST 2016	IIT Delhi	11-14 December 2016	International

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Name of Faculty	Name of Lecture	Name of Inst./ Org.	Place	Date
U. S. Dixit	Expert lecture on National workshop on Laser Material Processing Technology (NWLMP-2016)	Jadavpur University	Jadavpur, West Bengal	27 Aug 2016
U. S. Dixit	Expert lecture on Autofrettage Processes	NIT Jalandhar	Jalandhar, Punjab	5 Oct 2016
U. S. Dixit	Keynote address on Issues and Challenges in the Modeling of Metal Forming Processes in National Conference on Advances in Research and Innovations in Mechanical Engineering, Material Science, Industrial Engineering and Management	NIT Manipur	Manipur	12-13 Dec 2016
U. S. Dixit	Keynote address on Issues and Challenges in the Modeling of Metal Forming Processes in IVth International Conference on Production and Industrial Engineering (CPIE-2016)	Dr. B.R. Ambedkar National Institute of Technology, Jalandhar	Jalandhar, Punjab	19-21 Dec 2016
U. S. Dixit	Two hours lecture on Friction in a winter school on Engineering Mechanics	GIMT Guwahati	Guwahati	2 Mar 2017
A. Dalal	Anupravaha: Development of a General Purpose CFD Solver	MNIT Allahabad	Allahabad	15 Dec 2016
A. Dalal	Finite Volume Method and Its Application to Complex Geometry	-	Silchar	9 Nov 2016
A. Dalal	Introduction to Turbulence Models	MCKV Institute of Engineering	Howrah	26 Oct 2016
A. Dalal	Turbulence Modelling	Tata Steel	Jamshedpur	5-6 Sep 2016
P. Muthukumar	Thermal Energy Storage systems : Concept and Applications	NIT Raukerla	Rourkela	15 Apr 2016
P. Muthukumar	Design and development thermal storage system for solar thermal power plant application	Govt College of Engineering, Adur	Adur, kerala	21 Dec 2016

Name of Faculty	Name of Lecture	Name of Inst./ Org.	Place	Date
P. Muthukumar	Introduction of Green Energy Technology	Adhi Engineering College	Chennai	23 Dec 2016
P. Muthukumar	Hydrogen a future energy carrier	Anna University	Chennai	8 Jan 2017
S. Kanagaraj	Polymer based prosthetic polycentric knee joint for trans-femoral amputees	IEST Shibpur	Howrah	14 Mar 2017
S. Kanagaraj	Improved version of polycentric polymer based prosthetic knee for trans-femoral amputees	IASST Guwahati	Guwahati	3 Mar 2017
S. Kanagaraj	Development of UHMWPE based next generation bearing materials for total joint replacements and testing them using an ingeniously developed hip joint wear simulator	Bharathiar University Coimbatore	Coimbatore	19-21 Oct 2016
S. Kanagaraj	Thermal Insulation Material in lieu of Ceramic Wool	NIRDESH	Jaipur	4-6 Jun 2016
Pankaj Biswas	Welding Symbols and Joint Design	Tripura Institute of Technology	Agartala	28 Sep 2016
Pankaj Biswas	Power Sources of Welding	Tripura Institute of Technology	Agartala	28 Sep 2016
Pankaj Biswas	Welding Residual Stresses and Distortions	Tripura Institute of Technology	Agartala	29 Sep 2016
Pankaj Biswas	Some Advanced Research on Welding	Tripura Institute of Technology	Agartala	29 Sep 2016
R. Ganesh Narayanan	Advances in Metal Forming, National workshop on Advances in Manufacturing Engineering	NIFFT Ranchi	Ranchi	17-18 Mar 2017

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS / INVITED LECTURES

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Dr. A. Banerjee	Former Principal Scientist, Lock Heed Martin, USA	Multi-Body Dynamics	8-23 Dec 2016
Prof. M. Groll	University of Stuttgart, Germany	Visiting Professor	16-29 Jan 2017
Prof. Jay S. Gunasekera	Ohio University, USA	Coordinator for GIAN course on Green material and forming	6-12 Jun 2016

SEMINARS/WORKSHOPS/CONFERENCES /SHORT-TERM COURSES ORGANISED

Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International/ National	No. of participants
A. Dalal, G. Biswas, V. K. Dhir (UCLA, USA)	GIAN course on Boiling Heat Transfer	MHRD	23 May - 3 Jun 2016	International	25
P. Muthukumar	2nd National Workshop on Recent Advancements in Refrigeration and Air-conditioning	ISHRAE	28 Jan 2017	National	100
Shrikrishna N. Joshi	GIAN course on Advances in Ultra-Precision Machining Processes	MHRD	4-16 Jul 2016	National	20

Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International/ National	No. of participants
R. Ganesh Narayanan	GIAN course on Green material and forming	MHRD	6-12 Jun 2016	International	32

PATENTS

Name of Faculty and co researcher	Name	Date Applied/ Granted	Application No.
Subhash C. Mishra, P. Muthukumar, Niraj Kumar Mishra and Snehasish Panigrahi	Medium-Scale Self-Aspirated Improved Air Entrainment LPG Cooking Stove with a Two-Layer Porous Radiant Burner	4 May 2016	Indian Patent No: 201631015526
Subhash C. Mishra, P. Muthukumar, G. S. Sinha, M. Sharma, N. Mishra, P. Mahanta	Self-Aspirated Pressurized Kerosene Cooking Stove With A Porous Radiant Burner	31 Oct 2016	Application No: 201631037245

AWARDS AND HONOURS

- (i) Prof. Gautam Biswas: Felicitated with Distinguished Alumnus Award at the 62nd convocation of IIT Kharagpur
- (ii) Prof. U. S. Dixit: Felicitated by National Coordinator of NPTEL for figuring of the course on Engineering Mechanics (co-author: Dr. G.S. Kumar) in the top five NPTEL course from IIT Guwahati in terms of "Viewership"
- (iii) Prof. U. S. Dixit: Nominated as Vice-President of AIMTDR in December 2016
- (iv) Prof. P. Muthukumar: Fulbright-Nehru Academic & Professional Excellence Award (Teaching & Research) 2017 from Indo - U.S. Science and Technology Forum
- (v) Prof. P. Muthukumar: President, Indian Society of Heating, Refrigerating and Air Conditioning Engineers (ISHRAE), Guwahati sub-chapter from April 2016 - March 2017
- (vi) Prof. S. Kanagaraj: BIRAC-SRISTI GYTI Award 2016
- (vii) Prof. S. Kanagaraj: PRISM Award

STUDENTS' ACHIEVEMENTS

- (i) Prof. Pinakeswar Mahanta and P. S. Robi : Adjudged the Best paper award for the paper titled "Energetic and Exergetic Analysis of Bent Tube Solar Collector" authored by Dawit Gudeta, Pinakeswar Mahanta, P.S Robi, at the National Conference on Sustainable Mechanical

Engineering: Today and Beyond (SMETB), at Tezpur University, India, March 24th & 25th , 2017.

- (ii) Prof. S. Kanagaraj: Mr. Devarshi Kashyap, Ph.D scholar, received S. Rajeshwari award 2016 at National Conference on Emerging Biomaterials, Bharathiar University Coimbatore, 19-21st October 2016.
- (iii) Prof. S. Kanagaraj: Mr. Kishore Kumar Padi received second prize in TechExpo during Techniche 2016, IIT Guwahati.
- (iv) Dr. Sachin D. Kore : Best Paper Award for the paper, Ashish Kumar Rajak and Sachin D Kore, FEM Study of Electromagnetic Wire Crimping Process, International Conference on Advances In Materials & Manufacturing, December 8-10, 2016 , Hyderabad , INDIA, Organized by Osmania University and DRDO.

SPECIAL MENTION

- (i) Prof. U. S. Dixit: Editorial board member of IJPTech since August 2016.
- (ii) Prof. U. S. Dixit: Vice-President of AIMTDR since December 2016.
- (iii) Prof. U. S. Dixit: Academic Committee member of E&ICT Academy, IIT Guwahati, from 2016.
- (iv) Dr. Pankaj Biswas: Mentor of 'Ishan Vikas' comprehensive programme for Workshop 6 to 17th December, 2016.
- (v) Dr. Pranjol Paul (Technical Officer of the Department): Member of Society of Automative Engineers (SAE India) since 2016.

FACULTY MEMBERS

Sl. No.	Name	PhD	Designation	Areas of Interest
1	Bag, Swarup	IIT Bombay	Assistant Professor	Fusion welding processes, Finite element method, Laser microjoining, Heat transfer and fluid flow in fusion welding, Residual stress and distortion, Recrystallization in hot metal forming process, Optimization in manufacturing process
2	Bandopadhyaya, Dibakar	IIT Kanpur	Associate Professor	Active materials, Artificial muscle materials, Smart structures, Robotics and mechanism, Composites, MEMS, Bio inspired design
3	Banerjee, Atanu	IIT Kanpur	Assistant Professor	Complaint Mechanism, Shape memory alloy, Bio-memetic devices
4	Basu, Dipankar Narayan	IIT Kharagpur	Assistant Professor	Nuclear Thermalhydraulics, Supercritical Natural Circulation Loops, Domestic Air-conditioning, Computational Fluid Dynamics and Heat Transfer
5	Biswas, Pankaj	IIT Kharagpur	Associate Professor	Manufacturing and Design: Computational weld mechanics, Solid state welding, Soft computing modeling of welding processes, FEM, Line heating
6	Biswas, Gautam (Director, IIT Guwahati)	IIT Kharagpur	Professor	Computational Fluid Dynamics, Convective Heat Transfer, Turbulence, Boiling Heat Transfer, Heat Transfer Augmentation, Turbomachinery
7	Chakraborty, Debabrata	IIT Kharagpur	Professor	FRP, Composites, FEM, Fracture Mechanics and Design
8	Dalal, Amaresh	IIT Kanpur	Associate Professor	Computational Fluid Mechanics and Heat Transfer, Finite Volume Methods and Unstructured Grid Techniques, Natural and Mixed Convection Flows
9	Das, Manas	IIT Kanpur	Assistant Professor	Advanced Finishing and Nano-finishing Processes, Magnetorheological Finishing (MRF) Process, Advanced / Non-traditional Machining Processes, Machining of Advanced Engineering Materials, Micromanufacturing
10	Dass, Anoop K. (Head of the Department)	IISc Bangalore	Professor	Computational Fluid Dynamics and Turbomachines
11	De, Arnab Kumar	IIT Kanpur	Assistant Professor	Numerical Methods in Fluid Flow and Heat Transfer, Convection, Turbulence
12	Dixit, Uday S.	IIT Kanpur	Professor	Design and Manufacturing : FEM, Neural Network and Fuzzy Set Application; Mechatronics
13	Dwivedy, Santosha K.	IIT Kharagpur	Professor	Non-linear Dynamics, Design and Robotics, vibrations
14	Gautam, Sachin S.	IIT Kanpur	Assistant Professor	Design and Manufacturing : Nonlinear Finite Element Analysis, Computational Contact Impact Analysis, Adhesion, Rough Surfaces, Time Integration Schemes, Mixed Time Integration Schemes, Plasticity, Ductile Fracture, Continuum Damage Mechanics
15	Joshi, Shrikrishna N.	IIT Bombay	Assistant Professor	Micro fabrication: Laser micro forming, Micro machining: Micro electric discharge machining (EDM), Web based manufacturing, Process modeling and optimization of advanced manufacturing processes, Application of soft computing techniques in manufacturing

Sl. No.	Name	PhD	Designation	Areas of Interest
16	Kakoty, Sashindra K. (Dean, Infrastructure, Planning and Management)	IIT Kharagpur	Professor	Tribology, Duct Acoustics, Mechanical System Design, Rural Technology
17	Kalita, Karuna	University of Nottingham	Associate Professor	Rotordynamics, Coupled Dynamics of Electro-Mechanical Systems, Vibration
18	Kanagaraj, S.	IIT Kharagpur	Associate Professor	Biomaterials, Carbon nanotubes based nanocomposites, Nanofluids, Materials characterization
19	Khanikar, Prasenjit	North Carolina State University	Assistant Professor	Microstructural Materials Modeling, Micro-mechanics, Dislocation Density Based Crystal Plasticity, Deformation and Failure Mechanisms of Metallic Materials, Finite Element Method, Dynamic Behavior of Materials, Fracture Mechanics, Aluminum Alloys, Microstructural Characterization
20	Kore, Sachin D.	IIT Bombay	Associate Professor	Experimental and numerical study of electromagnetic pulse processing, Solid state welding, Joining of similar, dissimilar and lightweight metals like Al, Steel, Al-Li, and Mg
21	Kulkarni, Vinayak	IISc Bangalore	Associate Professor	High enthalpy flows, scramjet engine, experimental, aerodynamics, measurement science, CFD simulations
22	Kumari, Poonam	IIT Delhi	Assistant Professor	Theory of plates and shells, Computational mechanics, Smart structures
23	Kumar, Bhaskar	-	Assistant Professor	Hydrodynamic Stability, Bluff Body Flows, Computational Fluid Dynamics
24	Madhusudhana, Gavara	IISc Bangalore	Assistant Professor	Computational Fluid Dynamics, Heat Transfer, Cooling of Electronics, Multi-phase flows, Cooling at Micro/Mini scales, Turbulent Fluid Flow and Heat transfer
25	Mahanta, Pinakeswar (Dean, Faculty Affairs)	IIT Guwahati	Professor	Thermal Radiation with Participating Media, Fluidization, Energy Conservation and Renewable Energy
26	Mehta, Balkrishna	IIT Kanpur	Assistant Professor	Experimental investigation of heat transfer in two-phase flow in mini/micro systems, Heat pipes, Thermosyphons, Heat transfer investigation of ferrofluids in presence of magnetic field, InfraRed thermography for temperature measurements
27	Mishra, Subhash C.	IIT Kanpur	Professor	Analysis of Heat Transfer Problems involving Thermal Radiation
28	Mondal, Pranab Kumar	IIT Kharagpur	Assistant Professor	Microfluidics, Electrokinetics, Two Phase Transport, Microscale Transport of Heat, Flow Through Porous Media
29	Murthy, K. S. R. Krishna	IIT Kharagpur	Associate Professor	Finite Element Methods, Error Estimation and Fracture Mechanics
30	Muthukumar, P.	IIT Madras	Professor	Coupled heat and mass transfer analysis; Metal hydride based thermal machines, Conventional and Non-conventional refrigeration systems
31	Narayanan, Ganesh R.	IIT Bombay	Associate Professor	Metal Forming: Sheet forming & Cold forging, Computer applications in Metal Forming

Sl. No.	Name	PhD	Designation	Areas of Interest
32	Natarajan, Ganesh	IISc Bangalore	Assistant Professor	Computational Fluid dynamics, Grid Adaptation, Error Estimation, Immersed Boundary methods, Parallel computing, Biofluid dynamics
33	Pal, Sukhomay	IIT Kharagpur	Associate Professor	Welding Process Monitoring and Control, Tool Condition Monitoring, Non-Conventional Machining Process Application of Artificial Neural Network, Genetic Algorithms and Fuzzy logic in manufacturing
34	Panda, Satyajit	IIT Kharagpur	Associate Professor	Composite materials, Nonlinear vibrations, Smart materials and structures, FEM, Functionally Graded materials and structures, Micromechanics.
35	Pandey, Manmohan	IIT Kanpur	Professor	Two-phase flow instabilities, Nuclear reactor thermal hydraulics, Heat transfer in microchannels, Heat transfer in fluidized beds
36	R, Sangamesh Deepak	IISc Bangalore	Assistant Professor	Kinematics and Dynamics of rigid multi-body systems, Compliant Mechanisms, Topology Optimization, Static Balancing
37	Reddy, Narayana	IISc Bangalore	Assistant Professor	Inverse Problems, Biomechanics, Compliant Mechanisms, Topology Optimization, Nonlinear FEM, MEMS and Design of Materials
38	Robi, P. S.	IIT Bombay	Professor	Coating, Fracture Mechanics, Materials Processing, Metal Matrix composite, Metal Casting, P/M Processing
39	Saha, Ujjwal K.	IIT Bombay	Professor	Propulsion, Turbomachinery, Wind Energy Conversion, Internal Combustion Engines
40	Sahasrabudhe, Anil D. (On deputation as Chairman of the All India Council for Technical Education)	IISc Bangalore	Professor	Vibration and Noise, Condition Monitoring, CAD/CAM
41	Sahoo, Niranjan	IISc Bangalore	Professor	Fluid and Thermal Engineering, Aerodynamics, Gas Dynamics, Instrumentation, Measurements and Experiments in Fluid
42	Sankar, Ravi M.	IIT Kanpur	Assistant Professor	Machining & Advanced Machining Processes, MEMS & NEMS, Sustainable Machining, Micromanufacturing, Composite Materials, Online monitoring of Manufacturing Processes, Tribology, Precision Engineering
43	Senthilvelan, S.	IIT Madras	Associate Professor	Composites, Fatigue, Wear and Failure Analysis
44	Sharma, Deepak	IIT Kanpur	Assistant Professor	Optimal Design: Modeling and Computation, Engineering Design and Optimization, Genetic Algorithms, Multi-objective Optimization
45	Somayaji, Chandramohan	Mississippi State University	Associate Professor	Renewable Energy, Non-Conventional Energy Sources, Engine After treatment Systems, Design of Heat Transfer Equipments, Chemical Reaction Engineering
46	Tiwari, Rajiv	IIT Kanpur	Professor	Rotor Dynamics, Vibrations, Identification in Mechanical Systems, Rolling Element Bearing Design and Analysis, Application of Active Magnetic Bearings in Rotors, Vibrations based Condition Monitoring of Industrial Rotating Machines

DEPARTMENT OF PHYSICS

The Department at a Glance

Year of Establishment: 1995

Academic Programmes Offered:

Bachelor of Technology (BTech) in

- o Engineering Physics

Master of Science (MSc) in

- o Physics

Doctor of Philosophy (PhD)

Total Faculty Strength: 40

- Professor: 12
- Associate Professor: 13
- Assistant Professor: 14
- Visiting Professor: 1

New Faculty Members Joined: 1

- Visiting Professor: 1

Total Student Strength: 384

BTech: 163

MSc: 85

PhD: 136

New Students Joined in 2016-2017: 110

BTech: 43

MSc: 44

PhD: 23

LABORATORY FACILITIES

The Department has 22 laboratories for teaching and research

a) Teaching Labs: (5 teaching laboratories)

- i. Advanced Physics lab-01
- ii. B. Tech 1st year lab-01
- iii. Electronics lab-01
- iv. M. Sc lab-01
- v. Numerical lab-01

b) Research labs: (17 research laboratories)

- i. Computational lab
- ii. Electro-ceramics lab
- iii. Fiber optics lab
- iv. Furnace lab
- v. High Energy Physics lab
- vi. Holography and Optical imaging lab
- vii. Laser and Photonics lab
- viii. Low temperature lab
- ix. Magnetism lab
- x. Material Science lab
- xi. Nonlinear optics lab
- xii. Semiconductor labs (02)
- xiii. Solid State lab
- xiv. Spectroscopy lab
- xv. Terahertz Photonics and Plasmonics lab
- xvi. Thin film lab
- xvii. XRD labs (02)

MAJOR EQUIPMENT AND FACILITIES ACQUIRED

DC polling unit with temperature attachment Rt-250°C.

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

The major research focus of the department is evenly poised between different branches of theoretical and experimental Physics. The thrust areas are:

(i) Condensed Matter Physics (Theory and Experiments)

- Amorphous and nanocrystalline magnetic materials.
- Amorphous and nanocrystalline semiconductor thin films for solar cells and other devices. Thin film and Hetero-junction solar cells.
- Atomistic Modeling of Materials for Energy and Environmental Applications.
- Biophysics and Biomaterials.
- Hybrid nanomaterials for energy and environmental applications.

- Magnetic alloys and thin films for spintronics.
- Microwave and piezoelectric bulk and thin films.
- Multilayer structured thin films.
- Nanostructured and Nanogranular magnetic materials.
- Transition Metal oxide system.

(ii) Laser and Photonics (Theory and Experiments)

- Fiber & Integrated Optics, Photonic Crystal Fiber and applications, Surface Plasmon Resonance based Sensors, Fiber Bragg Gratings and based Devices, Fiber Optic Sensor, Bio/Nano-Photonics.
- Laser cooling and trapping of atoms.
- Laser Physics and Spectroscopy, Laser produced plasmas.
- Nonlinear optics.
- Programmable Diffractive Optics, Confocal Microscopy.
- Quantum Optics.
- Ultrafast optics, Terahertz Plasmonics and metamaterials.

(iii) High Energy Physics (Theory and Experiment)

- Collider Phenomenology: Darkmatter studies, Supersymmetric models, Higgs Physics and Top quark physics, Higher order QCD corrections, Flavour Physics and CP violation.
- Cosmology and Astroparticle Physics: Inflationary models, Leptogenesis and Baryogenesis, Darkmatter studies, Supernovae neutrinos.
- Experimental High Energy Physics: B-Physics, Neutrino Physics, ILC R&D.
- Low energy QCD, Effective Field Theory.

(iv) Cosmology and Gravitation

- Astrophysical flows around compact objects, Ultra high energy cosmic rays, Black hole perturbations, Gravitational waves Cosmology, Ads/CMT.
- General theory of relativity, Field theory on curved space times, Black holes.

MAJOR INITIATIVES AND BREAKTHROUGH IN RESEARCH AND DEVELOPMENT

The mechanism of reduction of transition metal oxides into pure transition metal elements using inexpensive method of mechanical alloying process and the reverse process for the production of transition metal oxides.

Research collaboration at the Department level with the Department of Physics, School of Sciences, Tokyo Institute of Technology, Tokyo, Japan, with main focus on areas under Materials Science, Statistical Mechanics and High Energy Physics. The MoU is expected to be signed soon.

CONFERENCES/WORKSHOPS/SEMINARS/SYMPOSIA ATTENDED

Name of Faculty	Name of Conf./Workshop	Place	Date	National/ International
B. Bhuyan	Workshop on DUNE Near Detector Systems	Fermi National Accelerator Laboratory, USA	27-29 Mar 2017	International
B. Bhuyan	Workshop on DUNE Near Detector	CERN, Geneva	22-25 Jan 2017	International
B. Bhuyan	9th International Workshop on the CKM Unitarity Triangle	TIFR, Mumbai	November 28- December 2016	International
B. Bhuyan	Belle II Collaboration Meeting and Belle II Computing Workshop	KEK, Japan	17-23 Oct 2016	International
B. Bhuyan	38th International Conference on High Energy Physics	Chicago, USA	3 -10 Aug 2016	International
B. Bhuyan	2nd International Conference on Charged Lepton Flavor Violation	University of Virginia, USA	20-22 Jun 2016	International
D. Borah	Indo-French LIA THEP and CEFIPRA INFRE-HEPNET Kick-Off Meeting	CHEP, IISc Bangalore	2-4 May 2016	International
D. Borah	Why there is more matter than antimatter in the Universe	MIAPP, Munich, Germany	13-24 Jun 2016	International
D. Borah	Indo-US Bilateral Workshop on Understanding the Origin of the Invisible Sector: From Neutrinos to Dark Matter and Dark Energy	University of Hyderabad	16-18 Nov 2016	International
Santabrata Das	Wide Band Spectral and Timing Studies of Cosmic X-ray Sources	TIFR, Mumbai	10-13 Jan 2017	International
P. K. Giri	International Conference on Electron Microscopy (EMSI-2016)	Varanasi	2-4 Jun 2016	International
P. K. Giri	National Conference on Nanoscience and Nanotechnology	NEHU, Shillong	8-9 Sep 2016	National
P. K. Giri	International Conference on Functional Materials (ICFM 2016)	IIT Kharagpur	12-14 Dec 2016	International
P. K. Giri	International Conference on Emerging Trends in Nanomaterials Science & Technology (ICETNMST 2017)	NIT Nagaland	4-6 Jan 2017	International
P. K. Giri	National Conference on Hard and Soft Condensed Matter Physics (NCHSCMP-2017)	Tezpur University	2-4 Mar 2017	National
P. K. Giri	Current Trends in Condensed Matter Physics	IACS, Kolkata	3-4 Mar 2017	National
P. K. Giri	2nd International Conference on Emerging Materials: Characterization & Application (EMCA-2017)	NIT Durgapur	15-17 Mar 2017	International
P. K. Giri	SPS March Meeting 2017	JNU, New Delhi	17-18 Mar 2017	National
P. K. Giri	Advances in Materials Science	Gauhati University	24-25 Mar 2017	National
Padma Kumar Padmanabhan	International Conference on Molecular Simulation (ICMS-2016)	Shanghai, China	23-26 Oct 2016	International
Padma Kumar Padmanabhan	National Conference on Chemical Physics (NCCP-2017)	Silchar, Assam	20-21 Mar 2017	National

Name of Faculty	Name of Conf./Workshop	Place	Date	National/International
D. Pamu	The 10th Asian Meeting On Electroceramics (AMEC-2016)	Taipei, Taiwan	4-7 Dec 2016	International
S. B. Santra	Statphys Kolkata IX	Saha Institute of Nuclear Physics, Kolkata	13 - 14 Dec 2016	International
S. B. Santra	Discussion Meeting on Percolation Phenomena	S. N. Bose National Centre for Basic Sciences, Kolkata	23-24 Jan 2017	National
A. Srinivasan	International Confernece on Smart Materials and Applications, (ISMA-2016)	SOA. Univ., Bhubaneswar	15 -17 Dec 2016	International
A. Srinivasan	International Conference on Emerging Trends in Nanomaterials Science and Technology (ICETNMST-2017)	NIT Nagaland	4-6 Jan 2017	International

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Pratima Agarwal	Graphene, Silicon Carbide and Silicon thin films deposited by Hot Filament CVD for different device applications	Engineering Information Institute	Bangkok	3-5 Jan 2017
Pratima Agarwal	Persistent photoconductivity and space charge limited conduction in a-Si:H/nc-Si:H multilayer structure: Role of interface states	Tezpur University	Tezpur	2-4 Mar 2017
Pratima Agarwal	Growth of carbon nano-materials using hot filament CVD	Gauhati University	Guwahati	24-25 Mar 2017
Saurabh Basu	Adatom induced Enhanced Quantum Spin Hall Effect in Graphene; a poor man's take in topology	Gauhati University	Guwahati	24 Mar 2017
B. Bhuyan	CP Violation and the B-Factories: Unveiling the matter anti-matter asymmetry of the Universe	Manipur University	Manipur	27 May 2016
B. Bhuyan	Monte Carlo Methods in HEP: Three lectures at the X SERC School on Experimental High Energy Physics	Delhi University	Delhi	19 -20 Apr 2016
Subhaditya Bhattacharya	Scalar dark matter: semi annihilation, co-annihilation and multipartite features	Indian Institute of Science	Bangalore	20 Dec 2016
Subhaditya Bhattacharya	Particle Physics and Standard Model	IIT Gandhinagar	Gandhinagar	5 Sep-1 Oct 2016
Subhaditya Bhattacharya	Phenomenology of simple scalar and fermion dark matter	Harish Chandra Research Institute	Allahabad	7 Mar 2017
B. R. Boruah	Super-resolution Optical Microscopy using Ultra-short Pulses	IIT Guwahati	Guwahati	Aug 2016
B. R. Boruah	Vortex beams	Tezpur University	Tezpur	14 Jun 2016
B. R. Boruah	Generation of arbitrary vector beams	Tezpur University	Tezpur	26-28 Nov 2016
B. R. Boruah	Vortex beams: generations and applications	Mizoram University	Aizwal	14 Oct 2016

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
B. R. Boruah	Wavefront sensing of light beams using an array of dynamic holograms	KIIT University	Bhubaneswar	20-23 Dec 2016
D. Borah	Minimal Left-Right Symmetry Confronted with 750 GeV di-photon Excess at the LHC	ICTS	Bangalore	5 May 2016
D. Borah	Radiative Active-Sterile Neutrino Mass with Dark Matter	MITP, Mainz	Germany	7 Jun 2016
D. Borah	Theory and Phenomenology of Multi-component dark matter in left-right models	SINP	Kolkata	21 Nov 2016
D. Borah	Cosmology and Particle Astrophysics: Formal Theory and Some Recent Developments	Cotton College State University	Guwahati	Jul 2016
D. Borah	The Universe: From the Big Bang to the Present	IASST	Guwahati	27 Oct 2016
D. Borah	The Discovery of Gravitational Waves and its Implications	Arya Vidyapeeth College	Guwahati	19 Sept 2016
D. Borah	Common Origin of Dark Matter and Matter-Antimatter Asymmetry of the Universe	Tezpur University	Tezpur	14 Dec 2016
Sovan Chakraborty	Self-induced neutrino flavor conversion even without flavor mixing	Aligarh Muslim University	Aligarh	2-6 Nov 2016
Tarak N. Dey	Microwave assisted arbitrary optical pulse generation in thermal vapor	University of Hyderabad	Hyderabad	10 Dec 2016
Tarak N. Dey	Coherent generation, control and manipulation of structured beam in atomic vapor	Indian Association for the Cultivation of Science	Kolkata	19-20 Feb 2017
Alika Khare	Thin films via Pulsed Laser Deposition Technique for Photonics applications	Engineering Information Institute	Bangkok, Thailand	3-5 Jan 2017
Alika Khare	Versatility of Pulsed Laser Deposition Technique for Photonics applications	Tezpur University	Tezpur	26-28 Nov 2016
Alika Khare	Synthesis of Nano Particles and Nano Structured Thin Films via Pulsed Laser Ablation	NIT Meghalaya	Meghalaya	18-19 Nov 2016
Alika Khare	Basic overview of Laser Plasma Interaction (Two Lectures)	IASST	Guwahati	9-29 Nov 2016
Alika Khare	Photonics Technology	Synode College	Shillong	10 Jun 2016
Gagan Kumar	Terahertz Plasmonic and Metamaterials Devices	IIT Kharagpur	Kharagpur	28 Mar 2017
Debaprasad Maity	Introduction to inflationary cosmology	Cotton College	Guwahati	21 Jul 2016
Debaprasad Maity	Sub-Planckian G-axion inflation, Aspects of Early Universe Cosmology	Saha Institute of nuclear Physics	Kolkata	16-20 Jan 2017
Tapan Mishra	Workshop on recent trends in Cold atoms' physics	IISER-Pune	Pune	16 May 2016
Tapan Mishra	National Conference on Atomic and Molecular Physics	PRL	Ahmedabad	4 Jan 2017
Soumitra Nandi	Possibilities of new Physics in B system	IISER Mohali	Punjab	9 Apr 2016

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Soumitra Nandi	Lectures on flavour Physics in SERC school on experimental high energy Physics	Delhi University	Delhi	29- 30 Apr 2016
Soumitra Nandi	Towards precision in Vub and Vcb -Theory	International Center of Interdisciplinary Science Education (ICISE)	Quy Nhon, Vietnam	26 Sep 2016
Soumitra Nandi	Improvements to inclusive Vcb	TIFR	Mumbai	30 Nov 2016
Soumitra Nandi	Current status of Heavy Flavour Physics	IACS	Kolkata	31 Jan 2017
D. Pamu	Two Day National Workshop On Thin Film Coatings and Nano Electronics	Andhra University	Andhra Pradesh	25-26 Jan 2017
D. Pamu	Novel Synthesis Methods For The Preparation Of Microwave Dielectric Resonator Materials	IIT Kharagpur	Kharagpur	20-22 Feb 2017
A. Perumal	Journey over storage ideas & understanding microstructure using microscopy	NEHU	Shillong	7 Jun 2016
A. Perumal	Wonders of Nanoscale science and magnetism for endless future	Srimad Andavan Arts and Science College	Trichy	6 Oct 2016
A. Perumal	Optimization of L10 FePt nanogranular structure for HAMR: Challenges for real density beyond 4 Tbits/in ²	Leonia International Centre for Exhibitions and Conventions	Hyderabad	1-3 Feb 2017
A. Perumal	Smart materials for storage beyond 4 Tbits/in ²	Gauhati University	Guwahati	23 Mar 2017
S. Ravi	Tunable Exchange Bias and Magnetization Reversal in NiCr ₂ O ₄ based Compounds	PSN College of Engineering	Tirunelveli	7-10 Sep 2016
S. Ravi	Magnetic Properties of Transition Element Substituted Orthochromites	Anna University	Chennai	6-8 Jan 2017
S. Ravi	Preparation of Fe and Al Substituted NiCr ₂ O ₄ Compounds and Study of their Structural and Magnetic Properties	Second International Conference on Materials Science	Agartala	16-18 Feb 2017
Arunansu Sil	Spontaneous CP violation in lepton sector: a common source of theta ₁₃ , Dirac CP phase and Leptogenesis in Type-II seesaw	Instituto Superior Técnico, Lisbon	Lisbon, Portugal	9 Sep 2016
Arunansu Sil	Flavor origin of dark matter and lepton mixing	IISc Bangalore	Bangalore	20 Dec 2016
A. Srinivasan	Sol-gel based bioglass and its composites	Council for Scientific and Industrial Research	Pretoria, South Africa	11 Nov 2016
Amarendra K. Sarma	Nonlinear and Quantum Optics Research: Some Recent Trends	University of Science and Technology	Meghalaya	21 Sep 2016
Amarendra K. Sarma	A Tale of Two Recent Optics Marvels	Light: not a Light matter- a students Symposium	Dibrugarh	12 Nov 2016
Amarendra K. Sarma	Quantum Optical phenomena in Macroscopic Systems	International Conference on Light and Light-based technologies	Tezpur	27 Nov 2016
Amarendra K. Sarma	Quantum Optomechanics with nano-optical systems: ground state cooling and entanglement	3rd Regional Conference on Radio Science, International Union of Radio Science	Tirupati	2 Mar 2017

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Ashwini K. Sharma	Applications of Femtosecond Pulses	IIT Guwahati	Guwahati	23 Aug 2016
Subhash Thota	Cobalt and Manganese based Bimetallic catalysts	IIT Guwahati	Guwahati	25 Aug 2016
Subhash Thota	Low-temperature Anomalous Magnetic Ordering in some Inverse-Spinels	Sona College of Technology	Tamil Nadu	23 Jun 2016
Subhash Thota	Recent Developments in Nano Electro-Mechanical Devices	Kallam Haranadha Reddy Institute of Technology	Andhra Pradesh	19 Sep 2016
Subhash Thota	Recent trends in Nanotechnology	Sri Vasavi Institute of Engineering and Technology	Andhra Pradesh	20 Sep 2016
D. V. Ahluwalia	Mass dimension one fermions and dark matter	IUCAA	Pune	7-9 Mar 2017

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS / INVITED LECTURES

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Dr. Manpreet Singh	PRL, Ahmedabad	Quantum phases of dipolar bosons in optical lattices	1 Apr 2016
Mr. Soumya Sadhukhan	IMSC, Chennai	750 GeV Excess in Gauged B-L model and role of exotic fermions	12 Apr 2016
Dr. Sanjay Biswas	Korean Institute of Advanced Studies (KIAS), Seoul, South Korea	Closing in on the Standard Model like Higgs boson?	18 Apr 2016
Dr. Dhriti Sundar Ghosh	IAPP-Institute of Applied Photophysics, Dresden - Germany	Ultrathin metal transparent electrodes for the optoelectronics industry	21 Apr 2016
Dr. Saurabh Bose	University of Canterbury, New Zealand	Nature inspired computational architectures	25 Apr 2016
Dr. Gopal K. Pradhan	Utkal University, Bhubaneswar	Physics under PRESSURE: From Condensed Matter Systems to Planetary Interiors	11 May 2016
Dr. Sandeep Kumar Srivastava	Central Institute of Technology, Kokrajhar, BTAD, Assam	d0 Magnetism in Oxide Materials for Spintronics Application & Bit Patterned Media for High Density Hard Disk Drives	20 May 2016
Prof. Gautam Bhattacharyya	Saha Institute of Nuclear Physics, Kolkata	The hierarchy problem and physics beyond the Standard Model	27 May 2016
Prof. Anriban Kundu	University of Calcutta	Higgs and more Higgs	14 Jul 2016
Dr. Rashidul Islam	University of Calcutta, Kolkata	Prospects of the Higgs Studies at the LHC and Future Colliders	21 Jul 2016
Prof. D. Ahluwalia	University of canterbury, New Zealand	Neutrino Oscillation: QM to GR (General Relativity)	2 Aug 2016
Dr. Rajeev Kumar Jain	University of Southern Denmark	Cosmological Inflation and Primordial Magnetic Fields	19 Aug 2016
Dr. Bhaskar Sen Gupta	Yale University New Haven, CT, USA	Cross Magneto-Mechanical Effects in Amorphous Solids with Magnetic Degrees of Freedom	23 Aug 2016
Mr. Bhupendra Mishra	Nicolaus Copernicus Astronomical Center, Warsaw Poland	Three-dimensional, global, radiative GRMHD simulations of a thermally unstable disc	5 Sep 2016

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Mr. Aritra Biswas	Indian Institute of Mathematical Sciences (IMSC), Chennai	Two-body pseudoscalar decays of charm	6 Sep 2016
Dr. Bidya Binay Karak	NCAR Boulder, USA	Solar Magnetic Fields and Cycles: Understanding the Dynamo Mechanism	19 Sep 2016
Dr. Pritam Ganguly	University of California, Santa Barbara, Santa Barbara, CA, USA	Solvation thermodynamics of biosolutes in mixed protecting-denaturing osmolytes	4 Oct 2016
Dr. Debasish Chaudhuri	Institute of Physics, Bhubaneswar	Spatial organization, positioning, and segregation of bacterial chromosome	6 Oct 2016
Mr. Tanmoy Paul	IACS, Kolkata	Modulus stabilization in a backreacted warped geometry model via Goldberger-Wise, mechanism	25 Oct 2016
Prof. Subhash Chaturvedi	IISER, Bhopal	Phase space descriptions of quantum systems: Application to quantum heat engines	15 Nov 2016
Prof. Achanta VenuGopal	TIFR, Mumbai	Metamaterials with broadband response	16 Nov 2016
Prof. Vipin K. Tripathi	IIT Delhi	Magnetoplasmons in graphene and their excitation by laser	17 Nov 2016
Prof. Biplab Sanyal	Uppsala University	Ultrafast magnetization dynamics from ab initio theory	30 Nov 2016
Prof. Paolo Gambino	University of Torino and INFN Turin	Puzzles in semileptonic B decays	6 Dec 2016
Dr. Isha. Pahwa	IUCAA Pune	The cosmic web and the Spin of Galaxies	7 Dec 2016
Dr. Arnab Dasgupta	IOP Bhubaneswar	Common Origin of Neutrino Mass, Dark Matter and Dirac Leptogenesis	7 Dec 2016
Prof. Haranath Ghosh	Raja Ramanna Centre for Advanced Technology, Indore	Fe-based superconductors - eight years after its discovery	8 Dec 2016
Prof. N. Harish Kumar	IIT Madras	The Quest For Half Metallic Heusler Alloys	13 Dec 2016
Mr. Aritra Gupta	HRI	Calculation of Momentum Distribution Function of a Non-thermal Fermionic Dark Matter	11 Jan 2017
Dr. Ravi Chandra Raju	The University of Queensland, Australia	Organic-inorganic halide Perovskite Solar Cells	12 Jan 2017
Dr. Heman Bhuyan	Pontificia Universidad Catolica de Chile, Santiago, Chile	Plasma Physics at Pontificia Universidad Catolica De Chile & Its Possible Applications	19 Jan 2017
Dr. Dipankar Nath	Postdoctoral Fellow, Leibniz Universität Hannover, Germany	Precision inertial sensing using atom interferometers	2 Feb 2017
Ms. Ananya Mukherjee	Tezpur University	Neutrino phenomenology and scalar Dark Matter with A_4 flavor symmetry within Inverse and type II seesaw	15 Feb 2017
Dr. Swarup Panda	Postdoctoral researcher, Centre de Physique Theorique (CPHT), Ecole Polytechnique, France	First principles simulations of strongly correlated materials: a density functional theory + dynamical mean field theory (DFT+DMFT) perspective	24 Feb 2017
Prof. K. Thyagarajan	IIT Delhi	Guided wave optical devices for the generation and manipulation of entangled photon pairs	28 Feb 2017
Dr. Debanjan Bose	Sungkyunkwan University, South Korea	Ice Cube Neutrino Observatory: Past, Present & Future	March 15, 2017
Prof. Toru Okuda	Hokkaido University of Education, Japan	Collaborative research	15 Mar-7 Apr 2017

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Dr. Arjun Trivedi	University of South Carolina	Measurement of New Observables from the Electroproduction off the Proton	17 Mar 2017
Dr. Victoria Martin	University of Edinburgh (Currently based at CERN)	What's next for the Higgs boson? Higgs physics at the HL-LHC and CLIC	22 Mar 2017
Dr. Antaryami Mohanta	EMPA - Swiss Federal Laboratories for Materials Science and Technology	Spectroscopic analysis for understanding plasma synthesis of nanoparticles and carrier dynamics in semiconductor quantum dots	23 Mar 2017
Dr. Anuj Nandi	ISRO Satellite Centre, Bangalore	Collaborative Research	27 Mar-4 Apr 2017
Dr. Samir Mandal	Indian Institute of Space Science and Technology, Trivandrum	Radiative processes around Galactic black holes	29 Mar 2017

SEMINARS/WORKSHOPS/CONFERENCES /SHORT-TERM COURSES ORGANISED

Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International/ National	No. of participants
Gagan Kumar	National Workshop On Advancements & Applications of Ultrafast Laser Pulses	IIT Guwahati	22-23 Aug 2016	National	22
M. C. Kumar and Subhaditya Bhattacharya	Collider Physics: Events, Analysis and QCD	RECAPP (HRI) Allahabad, DST-SERB and IMSc. Chennai	27-31 Mar 2017	National	70

PATENTS

Name of Faculty and co-researcher	Name	Date Applied/ Granted	Application No.
Biswajit Pathak, Rahul Kesarwani, Alika Khare and B. R. Boruah	System, apparatus and method for monitoring of surface profile and thickness measurement in thin films	Applied	PCT/IB2016/054261
Santanu Konwar and B. R. Boruah	Free space optical communication system apparatus and a method thereof	Applied	PCT/IB2016/054233

AWARDS AND HONOURS

- Dr. Debasish Borah received the Young Scientist Award for the year 2017 instituted by ASTEC.
- Dr. Sovan Chakraborty has been nominated for a Max Planck-India Mobility grant.
- Prof. Perumal Alagarsamy has been selected as Executive Committee Member of Magnetic Society of India.

STUDENTS' ACHIEVEMENTS

- Mr. Bibhuti B. Dash received the best poster award in International Conference on Material Science (ICMS), 2017.
- Mr. Biswajit Pathak received Optical Society of India second best contributory paper award in the oral

session for the paper entitled Spatial Resolution Enhancement in a Grating Array Based Zonal Wavefront Sensor at International Conference on Light and Light based Technologies, Tezpur University during November 26-28, 2016.

- Mr. Biswajit Pathak received Optical Society of India second best contributory paper award in the poster session for the paper entitled Zonal Wavefront Sensing with Improved Accuracy at International Conference on Light and Light based Technologies, Tezpur University during November 26-28, 2016.
- Mr. Santanu Konwar received Optical Society of America best contributory paper award in the poster session for the paper entitled Propagation of Aberrated Beam through Atmospheric Turbulence at International Conference on Light and Light based

Technologies, Tezpur University during November 26 - 28, 2016.

- Mr. Joyprakash Das received best poster award from department of Physics in Research Conclave 2017.
- Ms. Ruma Das won the 3rd best poster award at the National Conference on Nanoscience and Nanotechnology-16 (NCRANNT-2016), Sept. 8-9, 2016, Shillong.

SPECIAL MENTION

- Dr. Bipul Bhuyan was invited to visit Fermi Lab, USA during June 1 –July 20, 2016 to work on the NovA and the DUNE experiments.
- Prof. A. Srinivasan has been offered a Visiting Professorship in Department of Physics, University of South Africa from June 1, 2016 - September 30, 2017.

FACULTY MEMBERS

Sl. No.	Name	PhD	Designation	Areas of Interest
1	Agarwal, Pratima	IIT Kanpur	Professor	Thin films and hetero junction solar cells, nanocrystalline Semiconductors, nanomaterials, optoelectronic properties
2	Ahluwalia, Dharam Vir (Joined on 22.08.2016)	Texas A&M University, USA	Visiting Professor	Mass dimension one fermions, dark matter, neutrino oscillations and mixing matrix, gravitationally-induced phases, interface of the gravitational and quantum realms
3	Basu, Saurabh (Dean, Outreach Education Programme)	IIT Kanpur	Professor	Condensed Matter Physics (Theory); High T C superconductors, Optical lattices, Transport in Magnetic semiconductors
4	Bhuyan, Bipul	Delhi University	Associate Professor	High Energy Physics (Experiment); CP violation, Rare K and B meson decays, ILC R & D
5	Boruah, Bosanta Ranjan	Imperial College London	Associate Professor	Lasers and Optics (Experiment & Theory); Programmable Diffractive Optics, Confocal Microscopy, Phase Stepping Interferometry, Vectorial Diffraction Theory
6	Bhattacharya, Swati (On Lien to IIT Bombay)	MPIP, Mainz, Germany	Assistant Professor	Soft Condensed Matter Theory and Simulation, Computational Biophysics, Bio-Nano Interface
7	Bhattacharya, Subhaditya	HRI, Allahabad	Assistant Professor	High Energy Physics (Theory), Phenomenology of Standard Model and Beyond, Supersymmetry, Dark Matter, LHC
8	Borah, Debasish	IIT Bombay	Assistant Professor	Particle Physics Model Building, Astroparticle Physics and Cosmology
9	Chakrabarti, Sayan Kumar	SINP, Kolkata	Assistant Professor	High Energy Physics (Theory), General relativity, Black hole perturbations, Gravitational waves, Cosmology
10	Chakraborty, Sovan	SINP, Kolkata	Assistant Professor	Astroparticle Physics, High Energy Astrophysics, Neutrino Oscillations, Supernovae Neutrinos, Ultra High Energy Neutrinos & Dark Matter
11	Das, Santabrata	SNBNCBS, Kolkata	Associate Professor	Astrophysics (Theory); Astrophysical flows around compact objects, Ultra high energy cosmic rays
12	Dey, Tarak Nath	PRL, Ahmedabad	Associate Professor	Quantum Optics (Theory); Coherent control of pulse propagation, Nonlinear optics, Optical solitons, Negative index media, Bose-Einstein condensates
13	Ghosh, Subhradip	SNBNCBS, Kolkata	Professor	Condensed Matter Physics (Theory); Electronic Structure theory, Ordering and Phase stability of disordered alloys, Vibrational properties of metallic alloys

Sl. No.	Name	PhD	Designation	Areas of Interest
14	Giri, Pravat Kumar	IIT Kanpur	Professor	Condensed Matter Physics (Experimental); Semiconductor nanostructures, Ion-solid interactions, Optoelectronic materials & devices, Nanotechnology
15	Kadolkar, Charudatt Y.	IIT Bombay	Associate Professor	Condensed Matter Physics (Theory); Magnetism, Defects in Ionic Materials, Group Theoretical approaches to Molecular Problems
16	Khare, Alike	IIT Kanpur	Professor	Laser and Photonics (Experiment and Theory)
17	Khijwania, Sunil K.	IIT Delhi	Professor	Fiber Optics (Experiment & Theory); Fiber & Integrated Optics, Photonic Crystal Fiber and Applications, Surface Plasmon Resonance based Sensors, Fiber Bragg Gratings and based Devices, Fiber Optic Sensor, Bio/Nano-Photonics
18	Kumar, Gagan	IIT, Delhi	Assistant Professor	Terahertz Plasmonics and metamaterials, Guided Wave Devices, Ultrafast Spectroscopy
19	Kumar, Meduri Chakravartula	Univ. of Hyderabad	Assistant Professor	High Energy Physics (Theory); Particle Physics, Higher order QCD corrections for LHC and Tevatron, Standard Model and beyond
20	Maity, Debaprasad	IACS, Kolkata	Assistant Professor	High Energy (Theory); Cosmology, Ads/CMT
21	Maiti, Uday Narayan	Jadavpur University, Kolkata	Assistant Professor	Graphene, carbon nanotube, Inorganic nanostructures, Energy storage and conversion, Nanomaterials based electronic devices
22	Majhi, Bibhas Ranjan	SNBNCBS, Kolkata	Assistant Professor	High Energy Physics (Theory); General theory of relativity, Field theory on curved spacetimes, Black holes, Cosmology, Thermodynamical aspects of gravity, Fluidgravity correspondence
23	Mishra, Pankaj Kumar	IIT Kanpur	Assistant Professor	Nonlinear Physics (Theory and Simulation): Quantum turbulence, Instabilities and turbulence in thermal convection and MHD, Supercooled liquid and glasses
24	Mishra, Tapan	IIA, Bangalore	Assistant Professor	Condensed Matter Physics (Theory); Quantum Phase Transitions, Many-body physics with strongly correlated quantum gases in optical lattice
25	Nandy, Malay Kumar	IIT Kanpur	Associate Professor	Theoretical Physics, Statistical Physics, Condensed Matter Physics, Turbulence Field Theory, Plasma Physics, Quantum Computation
26	Nandi, Soumitra	Univ. of Calcutta	Assistant Professor	High Energy Physics (Theory); Quark and Lepton Flavour Physics, Flavour Symmetries, CP violation, precision calculations in the SM, Special interest in QCD, Heavy Quark Effective Theory and Soft Collinear Effective Theory
27	Padmanabhan, Padma Kumar	IISc, Bangalore	Associate Professor	Condensed matter (Theory); Atomistic Modeling and Simulation of Condensed States of Matter
28	Pal, Dilip	TIFR, Mumbai	Associate Professor	Low Temperature Physics and Material Science (Experimental); Strongly Correlated Electron Systems, Vortex states in superconductors, Superconductivity and Magnetism

Sl. No.	Name	PhD	Designation	Areas of Interest
29	Pamu, Dobbidi	Univ. of Hyderabad	Associate Professor	Condensed Matter Physics; High-k and low loss materials, Ferroelectrics Ceramics, Oxide thin films Nanomaterials
30	Pandey, Kanhaiya	IISc, Bangalore	Assistant Professor	Atomic, molecular and optical physics (Experiment); Laser cooling and trapping of atoms, BEC, Many body physics, artificial gauge field; Atomic coherence, EIT, magnetometry; Spectroscopy and frequency metrology of optical-atomic transitions
31	Alagarsamy, Perumal	IIT Kharagpur	Professor	Condensed Matter Physics (Experimental); Magnetism, Nanostructured Materials, Nanocrystalline Materials, Magnetic Thin Films, Metallic Glasses
32	Poulose, Poulose (Head of the Department)	PRL, Ahmedabad	Professor	Theoretical Physics; High energy physics phenomenology, CP violation, Mass Generation mechanism, Low energy Gravity
33	Raha, Udit	University of Bonn, Germany	Assistant Professor	Quantum Chromodynamics and Nuclear Effective Field Theories
34	Ravi, Seenipandian	Univ. of Hyderabad	Professor	Condensed Matter Physics (Experimental); Magnetism, Superconductivity, Low temperature Physics
35	Santra, Sitangshu Bikas	Bose Institute, Kolkata	Professor	Condensed Matter Physics (Theory); Condensed Matter Physics, Statistical Physics
36	Sarma, Amarendra Kumar	IIT Delhi	Associate Professor	Photonics (Theory) and Theoretical Physics; Solitons, Metamaterials and Plasmonics, Ultrafast optics, Nonlinear Fiber Optics, Nonlinear Optics
37	Sharma, Ashwini Kumar	IIT Kanpur	Associate Professor	Laser ablation, characterization, deposition and applications of nanostructures
38	Setlur, Girish Sampath	Univ. of Illinois	Professor	Theoretical Physics; Optoelectronic properties of graphene, Nonchiral bosonization of fermions in one and higher dimensions
39	Sil, Arunansu	Univ. of Calcutta	Associate Professor	High Energy Physics & Cosmology (Theory); Phenomenology of Physics beyond the Standard Model, Supersymmetry and its breaking, Neutrino Physics, Matter-antimatter asymmetry of the Universe, Inflation
40	Srinivasan, Ananthkrishnan	IISc, Bangalore	Professor	Condensed Matter Physics (Experimental); Glasses and Disordered Materials, Thin Films, Metallic Alloys, Nanophase materials, Shape Memory Alloys
41	Thota, Subhash	IIT Kanpur	Associate Professor	Material Science and Engineering; Magnetic Nanostructures, Oxide Heterostructures, Superlattices, Magnetocaloric effects, Semimagnetic semiconductors, Bandgap Engineering

CENTRE FOR ENERGY

The Centre at a Glance

Year of Establishment: 2004

Academic Programmes Offered:

Doctor of Philosophy (PhD)

Master of Science by research [MS (R)]

Total Faculty Strength: 2

- Assistant Professor: 1
- Visiting Assistant Professor: 1

New Faculty Members Joined: NIL

Faculty Members Associated: 19

Total Student Strength: 87

PhD: 63

MS(R): 24

New Students Joined in 2016-2017: 32

PhD: 18

MS (R): 14

LABORATORY FACILITIES

The centre has the following laboratories—

1. **Analytical Laboratory:** Energy research demands a proper analytical set-up for quantitative as well as qualitative analysis of samples like biomass, biofuels, etc. Centre for Energy houses a state of the art analytical lab for both quantitative and qualitative analysis. Some of the tests that can be performed here are -Characterization of fuels (Calorific value, viscosity, flash point, fire point, cloud & pour point, cetane index), Proximate as well as ultimate analysis, Gas Chromatograph analysis. The laboratory is equipped with Gas Chromatograph (GC), Thermo-Gravimetric Analyzer (TGA), High Performance Liquid Chromatograph (HPLC), Oxygen bomb calorimeter, Vacuum rotary evaporator, Lyophilizer, Kjeldahl apparatus for nitrogen estimation etc. to name a few.
2. **Biofuel Laboratory:** The lab is focused in developing a sustainable process design for various biofuel productions and its bioconversion to various value added byproducts. The facilities available are: Development of thermo-chemical and biochemical conversion routes to efficiently generate renewable biofuels (Bio-butanol, Bio-ethanol) from various feedstock types – rice straw, glycerol, lignocelluloses, Microalgae and Jatropha (Bio-diesel production); UltraSound enhanced conversion of sugars to fuels and chemicals; Glycerol bioconversion to various value added product (1, 3-Propanediol, DHA); and Biohydrogen production.
3. **Fuel Cells Laboratory:** Study of fuel cells has assumed immense importance because fuel cells have many advantages - clean, high efficiency, silent / vibration-free, reliable, responsive, high quality power, unlimited runtime, independence from traditional infrastructure, use a variety of fuels, high power density, variable operating temperatures, complementary technologies, design flexibility etc. The laboratory is emphasizing on microbial and enzymatic fuel cell as an alternative source of energy and power generation. In this endeavor, researchers in the lab have actively worked in enzymatic fuel cell with alcohol oxidase in bionanode and laccase in biocathode. We are also carrying out work in PMFC i.e. photosynthetic microbial fuel cell using cyanobacteria and other photosynthetic bacteria in anode as a means of self-sustainable power generating profile for a clean, green energy initiative and technology for the future. Facilities available in this laboratory are: Fabrication and characterization of bioelectrodes for biofuel cell and biosensors applications, Facility for development and characterization of composite proton exchange membranes for fuel cell applications, Potentiostat for cyclic voltametric study, amperometric study and other electrochemical measurements.
4. **X-ray Crystallography Laboratory:** This houses the facility for sample preparation for studies on structure of enzymes and their interaction with nanostructured materials for bioelectronic devices such as biofuel cell & other applications.
5. **Energy Efficiency Laboratory:** Fuel testing facility (calorific value and viscosity), proximate analysis facility, anemometer, pump testing setup, biomass gasification unit, flue gas analyzer, GC for biogas analysis, natural convection grain drier, fuel cell demonstration unit, fibre analysis system, Kjeldahl apparatus for nitrogen estimation, fume hood etc. A portion of the energy efficiency laboratory is located in the technology complex (TC) to house the noisy, rugged and robust facilities like biomass gasifier units, pump testing set-up etc.
6. **Bio-energy Laboratory:** The Bioenergy laboratory is developing the necessary knowledge and range of technologies to improve biofuel crops with more efficient biofuel and bioenergy. The lab is also involved in development of micropropagation technology for commercial scale production of clonal (genetically identical) plant materials of high yielding biofuel plants. The laboratory is also planning to employ automation (using bioreactor) in micropropagation to further reduce the cost of clonal plants. The main research activities in the area of bioenergy involves the following -Micropropagation and Genetic Engineering of Bio Fuel plants, Tissue culture of energy and bio-fuel crops, Bioprocess Engineering for yielding value added products, Genetic Engineering, Extraction of oil and other value added products, and Microalgae based biodiesel production.
7. **Solar Energy Laboratory:** Centre for Energy also houses a solar energy lab for dedicated research towards development and testing of thin films for solar cells. Demonstration unit for efficient use of solar energy; characterization and study of the photovoltaic module; energy spectrum measuring facility; spectral response/ photoconductivity/ quantum; efficiency and other transport measurements in the presence of light of photovoltaic modules, materials and devices. The transport measurements are also possible as a function of temperature in the temperature range 250-450K. A facility for preparation of thin films by physical vapor deposition method is also available. The facility for the fabrication of thin film and heterojunction solar cells based amorphous and microcrystalline silicon is also available in collaboration with Physics department.
8. **Process Development laboratory:** This laboratory has been developed at the Technology Complex (TC) to house the noisy, rugged and robust equipment. The major facilities in Process Development Lab are Gasification units (both Downdraft & Fluidized Bed), IC Engines setup, Pump testing setup, and Gas to Liquid conversion setup. Some of the equipment available are Gas analyzer, Pelletizer, Gas Chromatograph, Fibre analysis system, etc.

9. Biogas Development and Training Centre (BDTC): This is a continuous project funded by Ministry of New and Renewable Energy (MNRE), New Delhi, which has been functioning from the Centre for Energy for promotion of biogas technology in the NE states since 2006. It is involved with activities such as providing training programme for turnkey workers, providing construction cum maintenance training, organization of users training and awareness programme, survey of and technical support to biogas digesters installed in different states of the NE India.
10. Internal Combustion Engine Laboratory: This laboratory is located at Technology Complex and houses facility for developments to petrol and diesel engines for testing of various alternative fuels.

MAJOR EQUIPMENT AND FACILITIES ACQUIRED:

Digital Viscometer, Multichannel Potentiostat Galvanostat with Bipot, Fume hood, Data acquisition system, Air compressor

MAJOR AREAS OF RESEARCH AND DEVELOPMENT:

Biosensor, Biofuel cells, Amorphous and nano-crystalline semiconductor thin films for solar cells, perovskite solar cells, heterojunction solar cells and other devices, Biomass(microorganism/ waste/ plant materials) to biofuel/ bio-oil/ biodiesel/ biogas/ power through physical/ chemical/ biological means, Clean coal technology, Combustion and energy efficiency of systems, Sustainable biofuel, Bio-energy and Green Engineering, Bio-mass gasification, Wind Energy Conversion, Energy Conservation and Renewable Energy, Solar energy conversion.

CONFERENCES/WORKSHOPS/SEMINARS/SYMPOSIA ATTENDED

Name of Faculty	Name of Conf./Workshop	Place	Date	National / International
Dr. P. Kalita	International conference on Nano for Energy and Water & Indo-French Workshop on Water Networking	University of Petroleum and Energy Studies (UPES), Dehradun	22 -24 February, 2017	International

INVITED LECTURES: IN INDIA, ABROAD

Name	Name of Lecture	Name of Inst./Univ./Org.	Place	Date
Prof. P. Goswami	Biosensors	NEQIP on Advance Materials for Engineering	Assam Engineering College	26 Apr 2016
Prof. P. Agarwal	Graphene, Silicon Carbide and Silicon thin films deposited by Hot Filament CVD for different device applications.	Engineering Information Institute	Bangkok	3-5 Jan 2017
Prof. P. Agarwal	Persistent photoconductivity and space charge limited conduction in a-Si:H/nc-Si:H multilayer structure: Role of interface states	Tezpur University	Tezpur	2-4 Mar 2017
Prof. P. Agarwal	Growth of carbon nano-materials using hot filament CVD	Gauhati University	Guwahati	24-25 Mar 2017
Dr. P. Kalita	Investigation of heat transfer and hydrodynamic characteristics of a PCFB unit	National conference on Petroleum Biotechnology and Bioenergy, Tezpur University	Tezpur	3-4 Mar 2017
Dr. P. Kalita	Pressurized fluidized bed combustion and gasification	2nd winter school at Gifu University	Japan	18 Dec 2016
Dr. P. Kalita	(i) Wind energy conversion, (ii) Geothermal Energy Conversion and (iii) Ocean Thermal Energy Conversion	AICTE sponsored QIP-short term course on Sustainable Development & Green Energy Technologies, TKM College of Engineering	Kollam, Kerala	15 Feb 2017

Name	Name of Lecture	Name of Inst./Univ./Org.	Place	Date
Dr. P. Kalita	Renewable Energy Technologies for NE region of India	National conference on Emerging trends in engineering -opportunities in North-East organized, Royal Group of Institutions	Guwahati	29 Apr 2016
Dr. P.Kalita	Bio-energy options for NE region of India	Symposium on aspects of renewable energy in North Eastern region of India, GMT	Azara, Guwahati	8 Apr 2016
Dr. L. Barbora	Biomass to Power	National Seminar on Renewable Energy Generation, Integration, Forecasting Issues & Role of Smart Grid, National Power Training Institute	Guwahati	9 Dec 2016
Dr. L. Barbora	Vermicomposting	Training on Biogas and Vermicomposting, MNRE	IIT Guwahati	3-7 Oct 2016

SEMINARS/WORKSHOPS/CONFERENCES/SHORT-TERM COURSES ORGANISED

Name of Faculty (Convener/ Co-ordinator,etc.)	Name of Sem./Wor./Con.	Funded By	Date	International/ National	No. of participants
Prof. V. S. Moholkar, Dr. P. Kalita, Dr. C. Somayaji	TEQIP-Short term course was organized on Energy Management and Energy Efficiency	MHRD	23-27 May 2016	National	26
Prof. P. Mahanta, Prof. U. K. Saha, Dr. P. Kalita	International Workshop on Aspects of Fluidized Bed Technology	CPRI, Bangalore	9-10 Jul 2016	International	61
Prof. P. Mahanta	Training programme on Biogas and Vermicomposting	MNRE	3-7 Oct 2016	National	17

PATENTS

Name of Faculty and co researcher	Title	Date Applied	Application No.
P. Goswami, M. Santhosh, P. Das, P. D. Thungon	Graphite Paste Ink with Silk Sericin for Enhancing the Conductivity and Stability	01/07/2016	201631022633

AWARDS AND HONOURS

1. Prof. V.S. Moholkar has been awarded Chartered Chemical Engineer status and elected as a Chartered Member of IChemE, London.
2. Dr. P.Kalita has been awarded Early Career Research Award, Science Engineering Research Board (SERB), Govt. of India, March 2017
3. Dr. P. Kalita has been declared as a Lifetime Member of Indian Society of Heating Refrigeration and Air conditioning (ISHRAE).
4. A.J. Borah, PhD Student, received best poster award during "ICCB-2016" held at VIT Vellore.
5. S. Sarma, PhD Student, has been selected for the Newton-Bhaba PhD Placements Programme (2016-2017) to pursue a part of her PhD research work at The University of Nottingham, U.K.
6. S. Pradhan, A.J. Borah, M.K. Poddar, P.K.Dikshit, and V.S. Moholkar received the "7th National Award for Technology Innovation" in the category of "Innovation in Polymeric Material" given by "Department of Chemicals and Petrochemicals, Ministry of Chemicals and Fertilizers, Government of India."

STUDENTS' ACHIEVEMENTS

1. R.S. Malani, PhD Student, received the best paper award in "Environmental System" session during "LAMSYS-2016" held at SDSC SHAR (ISRO) Sriharikota.
5. R.S. Malanireceived the best poster award at

departmental level during “RESEARCH CONCLAVE-17” held at IIT Guwahati.

6. V. Kumar (MS-R student) received the Excellent Paper Award at the ASAR International conference held at Dehradun on August 14, 2016.
7. V. Kumar (MS-R student) secured ‘Second’ position in ‘Process Design Problem’ competition in Reflux, 25- 27 March, 2016, at Indian Institute of Technology Guwahati, Guwahati, Assam, India

SPECIAL MENTION

ABB’s Scholarships- Industry Sponsored Scholarship for M.S(R) and Ph.D. Students at Centre for Energy, IIT Guwahati. Investigators: Dr. S. Senthilmurugan, and Prof R. Uppaluri

CORE FACULTY

Sl. No.	Name	PhD	Designation	Areas of Interest
Core Faculty				
1	Kalita P.	IIT Guwahati	Assistant Professor	Clean coal technology, energy storage, biomass energy thermal
Visiting Faculty				
1	Chaturvedi H.	University of North Carolina (UNCC) at Charlotte, USA	Visiting Faculty	Directed assembly of hybrid functional nanomaterials, lithography fabrication, prototype development of electro optic wearable devices, biosensors, Flexible electronics, solar cells

FACULTY MEMBERS ASSOCIATED WITH THE CENTRE

Sl. No.	Name	Designation and Department
1.	Agarwal P.	Professor, Department of Physics
2.	Das D.	Associate Professor, Department of Biosciences and Bioengineering
3.	De Mahuya	Associate Professor, Department of Chemical Engineering
4.	Dubey V.K.	Professor, Department of Biotechnology
5.	Goswami P. (Head of the Centre)	Professor, Department of Biosciences and Bioengineering
6.	Goud V. V.	Associate Professor, Department of Chemical Engineering
7.	Kalita K.	Associate Professor, Department of Mechanical Engineering
8.	Kulkarni V.	Associate Professor, Department of Mechanical Engineering
9.	Mahanta P.	Professor, Department of Mechanical Engineering
10.	Mohanty K.	Professor, Department of Chemical Engineering
11.	Moholkar Vijay S	Professor, Department of Chemical Engineering
12.	Muthukumar P.	Professor, Department of Mechanical Engineering
13.	Nayak S. K.	Associate Professor, Department of Electronics and Electrical Engineering
14.	Nemade H.B.	Professor, Department of Electronics and Electrical Engineering
15.	Saha U. K.	Professor, Department of Mechanical Engineering
16.	Sahoo N.	Professor, Department of Mechanical Engineering
17.	Sahoo L.	Professor, Department of Biotechnology
18.	Senthilmurugan S.	Associate Professor, Department of Chemical Engineering
19.	Uppaluri R.V.S.	Professor, Department of Chemical Engineering

CENTRE FOR THE ENVIRONMENT

The Centre at a Glance
Year of Establishment: 2004
Academic Programmes Offered: Doctor of Philosophy (PhD)
Faculty Members Associated: 40
Total Student Strength: 44 PhD: 44
New Students Joined in 2016-2017: 13 PhD: 13

LABORATORY FACILITIES

- Research laboratory – I: (Location: first floor, I block) It is used as workplace by research students to carry out routine laboratory experiments.
- Research Laboratory – II: (Location: second floor, I block) It is used as workplace by research students to carry out routine laboratory experiments.
- Analytical laboratory: (Location: Research lab-II, second floor, I block) It is equipped with sophisticated equipment essential for environmental research.
- Computational laboratory- (Location: Research lab-II, second floor, I block). This facility is accessible to the students for their computer related work. At present 20 computers are available for the users.
- Institutional Biotech Hub Laboratory including mammalian cell culture laboratory and silk rearing and culture facility.

MAJOR EQUIPMENT AND FACILITIES ACQUIRED

- Hydrothermal Autoclave
- Ultrafine Particle Counter
- Ultra centrifuge
- Universal Tensile Testing Machine
- Fluorescent Microplate Reader
- Evom-Teer

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

- Water and Wastewater Treatment
- Solid Waste Management and Recycling
- Environmental Bioremediation/ Environmental Biotechnology
 - Bio-sorption & Bioremediation of heavy metals
 - Bio-filtration for treating Waste Gases and Green Solvents
 - Removal of Toxic and Recalcitrant Compounds
 - Biodegradation/Bio-detoxification of Toxic Wastes
- Environmental Genomics and Proteomics
- Green Chemistry
- Greenhouse gas Capture and Storage.
- Biofuels
- Air pollution- Dispersion, Control & Modeling
- Waste Immobilization
- Soil-water-contaminant Interaction
- Contaminant Transport and Retention in Porous Media
- Environmental History
- Environmental Economics
- Green Design
- Global Warming and Climate Modeling
- Seribiotechnology and seri-informatics and other related areas

CONFERENCES/WORKSHOPS/SEMINARS/SYMPOSIA ATTENDED

Name of Faculty/ Student	Name of Conf./Workshop	Place	Date	International/ National
Prof. Kannan Pakshirajan	Int. Conference on Recent Advancements in Chemical, Environmental & Energy Engineering	S. S. N. College of Engineering, Chennai	23-24 Feb 2017	International
Prof. Kannan Pakshirajan	Nat. Seminar on Petroleum Biotechnology and Bioenergy	Tezpur University	3-4 Mar 2017	National
Prof. Kannan Pakshirajan	ICWM- RECYCLE (2016)	IIT Guwahati	1-2 Apr 2016	International
Prof. Kannan Pakshirajan	5th Int. conference on research frontiers in Chalcogen cycle science and Technology	Goa	19-21 Dec 2016	International
Dr. Animes K. Golder	IITG-KIT Joint Symposium on Soft and Biobased Materials	Kyoto Institute of Technology, Kyoto, Japan	2016	International
Dr. Animes K. Golder	GIFU-IITG Joint Symposium on Food Engineering, Biotechnology, Biomaterials and Renewable Energy	GIFU University, GIFU, Japan	1-2 Aug 2016	International
Dr. Ranjan Tamuli	Nat. Conference on Recent Advancements in Environmental Research-2016 (Chaired a Session)	IIT Guwahati	4-5 Jun 2016	National
Prof. Utpal Bora	Learning biology from silkworms	IIT Madras	Mar 2017	National

Name of Faculty/ Student	Name of Conf./Workshop	Place	Date	International/ National
Prof. Utpal Bora	Genome engineering: future of human kind and evolution	Cotton College State University, Guwahati	February 2017	National

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Prof. Utpal Bora	Frontier in seribiotecchnology	Arya Vidyapeeth College	Guwahati	Feb 2017

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANIZATIONS / INVITED LECTURES

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Prof. Sirshendu De	IIT Kharagpur	Ultra low cost innovation for arsenic removal from drinking water and hollow fibres for treatment of industrial wastewater	4 Jun 2016
Prof. Suresh Deka	Institute of Advanced Study in Science and Technology, Guwahati	Phytoremediation of hydrocarbon contaminated soil with some efficient plant species	4 Jun 2016
Dr. Naresh Kumar Sahoo	Siksha 'O' Anusandhan University, Orissa	Intimately coupled photobiocatalysis system for treatment of coke oven wastewater	4 Jun 2016
Prof. Dulal C. Goswami	Gauhati University	Management of urban solid waste with special reference to Guwahati city	4 Jun 2016
Dr. Simanta Kalita	Programme Co-ordinator Centre for Environment Education, North East India	Green Stories: A compilation of 100 environmental success stories	4 Jun 2016
Dr. Ranjit Kumar	Deptt of Chemistry, Dayalbagh Educational Institute (Deemed University), Agra	Air pollution-climate change: value based education ultimate solution	5 Jun 2016
Dr. Sutapa Bose	Assistant professor, Dept. of Earth Sciences, IISER Kolkata	Assessment of Arsenic Kinetics (As) in Rice- Soil System in Bengal Delta Region	5 Jun 2016
Dr. Sudip Mitra	Tezpur University	Community Based Climate Risk Management and Disaster Risk Reduction Are the Two Sides of a Same Coin.	5 Jun 2016
Prof. Sunandan Baruah	Assam Don Bosco University, Guwahati	Development of Nanostructured Environmental Sensors	5 Jun 2016
Mr. A. B. Paul	PHE Assam	Geogenic Contamination of Ground Water of Assam with Special Reference to Fluoride and its Mitigation Effort- A Case Study.	5 Jun 2016
Dr. Tanmoy Bose	Former Additional Director FICCI and Key leader BLESS	Empowering ideas with technology	29 Jun 2016
Dr. Rajib Rudra Tariang	Digboi College	Snake conservation and management	29 Aug 2016
Dr. Bob Wasson, Lee Kuan Yew	National University of Singapore	Catastrophic floods in the Himalaya: Causes, knowledge, requirements and solutions	2 Dec 2015
Dr. Bibhash Nath	Columbia University, USA, Lamont-Doherty Earth Observatory	Sedimentological controls on distribution and heterogeneity of arsenic aquifers.	16 Nov 2015

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Dr. Lex van Geen	Columbia University, USA, Lamont-Doherty Earth Observatory	Processes regulating groundwater arsenic levels in Bangladesh that might be relevant to Assam	16 Nov 2015
Mr. Ram Chandra Baijgaj	-	India Science and Research Fellowship (ISRF) to SAARC Nations From Sherubtse College, Kanglung, Bhutan	1 Aug 2016-28 Feb 2017

SEMINARS/WORKSHOPS/CONFERENCES /SHORT-TERM COURSES ORGANISED

Name of Faculty (Convener/ Co-ordinator,etc.)	Name of Sem./Wor./Con.	Funded By	Date	International/ National
Dr. Sri Harsha Kota	Air Quality & Climate Change: Control & Modelling	TE QIP Short Term course	4-8 Apr 2016	National
Prof. Vikash Kr. Dubey (Chairman), Dr. Deepmoni Deka (Convener), Partha P. Bakal (Co-Convener)	Recent Advancements in Environmental Research	DST, DBT, ICMR	4-5 Jun 2016	National
Prof. Utpal Bora	Seritech 2017	DBT under Institute Biotech Hub	24 Jan 2017	National

STUDENTS' ACHIEVEMENTS

- Lalit Goswami; K. Pakshirajan and G. Pugazhenth, Biodegradation of polycyclic aromatic compounds in a binary substrate system by *Rhodococcus opacus*, 28 February, 2017, Indo- EU Workshop on "Microbial electrochemical technologies for sustainability: Fuels, Chemicals and Remediation" organized by Bioengineering and Environmental Sciences Lab, EEEF Department, Indian Institute of Chemical Technology (CSIR-IICT), Hyderabad, Telangana, India (2017) (Best Poster Award)
- Ms. Visva Bharati Barua received ISWA-SWIS full scholarship 2016 to attend winter school at The University of Texas at Arlington, Texas, USA.
- Somnath Chanda, G. Das and M. K. Purkait, Formulation of herbal cosmeceuticals & nutraceuticals from Assam green tea leaves, IITG-TIC innovation competition 1st prize, 29th October, 2016, IIT Guwahati.

FACULTY MEMBERS ASSOCIATED WITH THE CENTRE

Sl. No.	Name	Designation and Department
1	Bag S. Subhendu	Associate Professor
2	Barua Anamika	Associate Professor
3	Bhabak Pada Krishna	Assistant Professor
4	Bora Utpal	Professor
5	Chakraborty Saswati	Professor
6	Chaturvedi Rakhi	Professor
7	Das Chandan	Associate Professor
8	Das Gopal	Professor
9	Dasu V. Venkata	Professor
10	Dubey Vikash Kumar (Head of the Centre)	Professor
11	Dutta M. K.	Professor
12	Ghosh Pranab Kumar	Professor
13	Ghosal Alope Kumar	Professor
14	Gokhale Sharad	Professor
15	Golder K. Animes	Associate Professor
16	Goud Vaibhav V.	Associate Professor

Sl. No.	Name	Designation and Department
17	Goyal Arun	Professor
18	Goyal Kumar Manish	Assistant Professor
19	Jawed Mohammad	Professor
20	Kalamdhad Ajay	Associate Professor
21	Kundu Lal Mohan	Associate Professor
22	Mahanta Chandan	Professor
23	Mandal Bishnupada	Professor
24	Mandal Tapas Kumar	Associate Professor
25	Mohanty Kaustubha	Professor
26	Mukherjee Chandan	Associate Professor
27	Pakshirajan Kannan	Professor
28	Pandey M. Lalit	Assistant Professor
29	Patra Sanjukta	Associate Professor
30	Patel K. Bhisma	Professor
31	Purkait M. K.	Professor
32	Ray Manabendra	Professor
33	Sarma Arup Kumar	Professor
34	Sastri V. Chivukula	Associate Professor
35	Senthilmurugan S	Assistant professor
36	Sivaprakasam K. Senthil	Assistant professor
37	Tamal Banerjee	Associate Professor
38	Tamuli Ranjan	Associate Professor
39	Tiwari Pankaj	Assistant Professor
40	Uppaluri Ramagopal	Professor

CENTRE FOR LINGUISTIC SCIENCE AND TECHNOLOGY

The Centre at a Glance
Year of Establishment: 2014
Academic Programmes Offered: Doctor of Philosophy (PhD)
Total Faculty Strength: 1 • Visiting Faculty: 1 New Faculty Members Joined: 1 • Visiting Faculty: 1
Faculty Members Associated: 16
Total Student Strength: 8 PhD: 8
New Students Joined in 2016-2017: 8 PhD: 8

MAJOR AREAS OF RESEARCH AND DEVELOPMENT:

CLST is a multidisciplinary center aimed at research and development in the fields of language analysis language technology development. The center pays special attention to the various languages spoken in North East India and aims to build itself as a resource center for the language of the area in general. The center is currently hosting and executing a few projects that have a truly interdisciplinary team of investigators.

MAJOR INITIATIVES UNDERTAKEN

- Language Identification Systems for the North Eastern languages
- Limited vocabulary automatic speech recognition system for Mizo
- Sentiment and text analytics modules for North Eastern languages
- Keyword spotting and speech recognition in Nagamese and Manipuri

SEMINARS/WORKSHOPS/CONFERENCES /SHORT-TERM COURSES ORGANISED

Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International/ National	No. of participants
Prof. Sukumar Nandi	22nd Himalayan Languages Symposium	ICSSR	6-8 Jun 2016	International	200
Prof. Sukumar Nandi	38th International Conference of the Linguistic Society of India	CIIL	10-12 Nov 2016	International	210
Dr. Bidisha Som	National Symposium on Cognitive Science	DST & Aerobe	16-17 Mar 2017	National	100

FACULTY MEMBERS ASSOCIATED WITH THE CENTRE

Sl. No.	Name	Designation and Department
1.	Bhattacharya, S.	Associate Professor CSE
2.	Bokil, P.	Assistant Professor Design
3.	Dandapat, S.	Professor EEE
4.	Das, P. K.	Professor CSE
5.	Guha, P.	Assistant Professor EEE
6.	Mahanta, S.	Associate Professor HSS
7.	Nandi, S. (Head of the Centre)	Professor CSE and Head CLST
8.	Prasanna, S. R. M.	Professor EEE
9.	Saikia, A.	Professor HSS
10.	Sarmah, P.	Associate Professor HSS
11.	Sharma, S.	Associate Professor HSS
12.	Shrivastava, A.	Assistant Professor Design
13.	Sinha, R.	Professor EEE
14.	Som, B.	Associate Professor HSS
15.	Sundaram, S.	Assistant Professor EEE
16.	Udaya Kumar, D	Assistant Professor Design

CENTRE FOR NANOTECHNOLOGY

The Centre at a Glance

Year of Establishment: 2004

Academic Programmes Offered:

Doctor of Philosophy (PhD)

Faculty Members Associated: 11

Total Student Strength: 38

PhD: 38

New Students Joined in 2016-2017: 7

PhD: 7

LABORATORY FACILITIES

The centre has a total of 15 numbers of laboratories, out of which two have been set up in the Central Instruments Facility.

1. Material Res. Lab
2. XRD Lab
3. TEM Lab
4. Optoelectronic Device Fabrication Lab
5. Nanobiotech Lab
6. Cell culture Lab
7. Synthesis Lab
8. Nano Fabrication Lab
9. MEMS & NEMS Lab
10. SPM Lab
11. Thin Film and Micro Fluidics Lab
12. Lithography Fabrication Lab
13. Micro-Nano Characterization Lab
14. Micro-Nanoelectronic Characterization Lab
15. Wet Lab

MAJOR EQUIPMENT AND FACILITIES ACQUIRED**Equipment**

1. Gas Chromatography
2. Ultrasonic Processor
3. Ultrasonic Bath
4. Bench Top Incubator cum orbital Shaker
5. Magnetic stirrer with hot plate digital
6. Digital pH Meter
7. Analytical Balance
8. Rotavapor
9. Refrigerated High Speed Centrifuge
10. Refrigerator
11. 24.3 MP DSLR Camera FX format
12. Motor complete, Horizontal damper, Rotor identification, Grey wedge, Optical imbalance recognition for Sigma centrifuge
13. Power pack for motorised lid lock for Sigma centrifuge
14. Rockyvac Vacuum Pump 600 & Spinot digital Magnetic stirrer hot
15. Hand Pallet Truck
16. CCTV Surveillance & recording
17. Programmable Spin Coating System

Facilities

1. Laser Head Assembly Service
2. Pwr Supply Argon Laser Univ-AC/70-120V
3. FLUOROLOG 3 SPECTRACQ (1HV) for Fluorolog-3
4. Comsol Multiphysics
5. 20KVA On Line UPS system & 6KVA On Line UPS System

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

The centre is pursuing research in the multi-disciplinary area of Nanotechnology required to meet the future challenges and to augment academic partnerships with industry. A sponsored research project of Rs. 57.75 Crore sanctioned from DeitY is implementing at the Centre with experts

from multi-disciplinary areas of science and engineering for establishing a 'Centre for Excellence in Research and Development of Nanoelectronic Theranostic Devices'. Nano-Electronics group focuses on Micro-Nano fabrication, Optical and Electronic Characterization of Micro-Nano Devices, development of SAW sensors, ECG amplifier and blind assisted walker. Nanoscale science and technology group have recently developed a device for visual detection of bilirubin and another device with Integrated Methods For Reverse Transcription Polymerase Chain Reaction (Rt-Pcr) And/Or Dna/Protein Array Based Analyses. Gene Therapy group is mainly focused in developing 'Gene Therapy Vectors'. They have established molecular mechanism of cell death via apoptotic signaling in suicide gene therapy. Combination therapy involving various cytokines, cell signaling molecules and nanomaterials is another area of our interest. Nanobiotechnology group is pursuing interdisciplinary collaborative research at the Centre for Nanotechnology on "nanoparticles and nanocomposites". They are developing new nanoclusters for the potential applications as sensors, antimicrobial and anticancer agents. Nanophysics group is working on the various aspects on the defects of carbon nanotube and their possible application as sensor. A combined group of faculty members from Chemistry and Physics are working on Organic light emitting diode (OLEDs), Conjugated oligomer and polymer synthesis, Organic Field Effect Transistors (OFETs), Organic Solar Cells (OSCs), Memory devices, Theranostic devices, Sensors. and Nanotube based transistors. In addition Centre is also involved in fostering growth of science and education in the north east in the field of nanotechnology by conference, workshops, symposium and seminars.

MAJOR INITIATIVES AND BREAKTHROUGH IN RESEARCH AND DEVELOPMENT

- Development of Class 100 and Class 1000 Clean Room facilities at IITG.
- Development of a device for Flexible Paper Touchpads for Low-cost Electronic Appliances
- Development of a device for visual detection of bilirubin.
- Development of a device with Integrated Methods For Reverse Transcription Polymerase Chain Reaction (Rt-Pcr) And/Or DNA/Protein Array Based Analyses
- Development of a device for A Transmittance Based Opto Electro Chemical Device for Detecting Biomarkers on Paper Surface Targeting Low-cost Point-of-Care Diagnostic Tools
- Development of a device for A Lung Condition Monitoring Device
- Development of a device for Microfluidic Hybrid Energy Harvester Combining Solar Energy, Surface Plasmon Resonance, and Streaming Potential
- Development of a device for A Transmittance Based Opto Electro Chemical Device for Detecting Biomarkers on Paper Surface Targeting Low-cost Point-of-Care Diagnostic Tools

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Prof. Arun Chattopadhyay	Dr R A Mashelkar Endowment Lecture on Advanced Materials	NCL	Pune	15 Sep 2016
Prof. Arun Chattopadhyay	GIAN Course	Aligarh Muslim University	Aligarh	22 Dec 2016
Prof. Arun Chattopadhyay	Institute Lecture	IISER Trivandrum	Trivandrum	31 Mar 2017
Prof. S. S. Ghosh	Emergence of Cancer Theranostics and Nano-ensemble Devices	North-Eastern Hill University	Shillong	2 Aug 2016
Prof. S. S. Ghosh	Cancer Theranostics Smartens up to Utilize Oxidative Stress	Indian Institute of Technology Guwahati	Guwahati	3 Nov 2016
Prof. S. S. Ghosh	Emergence of Cancer Theranostics	Defence Institute of Advanced Technology	Pune	13 Jan 2017
Prof. S. S. Ghosh	Nanotechnology in Biosensing, Detection and Device	Gauhati University	Guwahati	30 Mar 2017
Prof. S. S. Ghosh	Cancer Nanotheranostics	Gauhati University	Guwahati	30 Mar 2017
Prof. P. K. Giri	Solar light Driven Photocatalysis by Functional Hybrid Nanostructures for Water Purification and Environmental Cleaning	NEHU	Shillong	8-9 Sep 2016
Prof. P. K. Giri	Application of Electron Microscopy in the Study of Hybrid Nanostructured Photocatalysts	IIT BHU	Varanasi	2-4 Jun 2016
Prof. P. K. Giri	Functional Hybrid Nanostructures of Graphene, Graphitic Carbon Nitride, TiO ₂ and Plasmonic Metal Nanoparticles for Water Purification by Solar Light Driven Catalysis	IIT Kharagpur	Kharagpur	12-14 Dec 2016
Prof. P. K. Giri	Organic-Inorganic Hybrid Nanostructures for Solar Light Driven Photocatalysis	NIT Durgapur	Durgapur	15-17 Mar 2017
Prof. P. K. Giri	Multifunctional Si Nanowires Decorated with Metal Nanoparticles: White Light Emission, Photocatalysis, SERS and Bio-sensing Applications	NIT Nagaland	Nagaland	4-6 Jan 2017
Prof. P. K. Giri	Understanding the Mechanism of Visible Photoluminescence from Chemically Derived Graphene and Graphene Quantum Dots and its Application in Bio-Imaging	Tezpur University	Tezpur	2-4 Mar 2017
Prof. P. K. Giri	Plasmonic Metal Nanoparticle Decorated Si Nanowires Array for Light Emission, Visible Light Photocatalysis, SERS and Bio-sensing Applications	IACS, Kolkata	Kolkata	3-4 Mar 2017
Prof. P. K. Giri	Graphene Quantum Dots: Formation Mechanism, Edge State Conversion, Bio-imaging and Photocatalytic Applications	JNU	New Delhi	17-18 Mar 2017
Prof. P. K. Giri	Mesoporous Si Nanowire Heterostructures for Broad-band Light Emission, Visible Light Photocatalysis, SERS and Bio-sensing Applications	Gauhati University	Guwahati	24-25 Mar 2017

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Dr. Dipankar Bandyopadhyay	Self-Motile Mesoscale Droplets & Particles	IIT Guwahati	Guwahati	16 Jan 2017
Dr. Dipankar Bandyopadhyay	Self-Organizing Thin Films & Droplets of Functional Polymers - Liquid Crystals	Not given	Jaipur	9-12 Mar 2017
Dr. Dipankar Bandyopadhyay	Reaction Engineering: from Laboratory Prototypes to the Devices	IIT Guwahati	Guwahati	2016

SEMINARS/WORKSHOPS/CONFERENCES /SHORT-TERM COURSES ORGANISED

Name of Faculty (Convener/ Co-ordinator, etc.)	Name of Sem./Wor./Con.	Funded By	Date	International/ National	No. of participants
Prof. Siddhartha Sankar Ghosh (Chairman), Dr. Tapas Kumar Mandal (Convener)	NWNTD-2017 - 3rd National Workshop on NEMS/MEMS and Theranostic Devices	DeitY	21-23 Feb 2017	National	170

PATENTS

Name of Faculty and co-researcher	Name	Date Applied/ Granted	Application No.
Dipankar Bandyopadhyay, Mitradip Bhattacharjee	Flexible Paper Touchpads for Low-cost Electronic Appliances	17 May 2016	201631017054
Satarupa Dutta, Nilanjan Mandal, Dipankar Bandyopadhyay	A Transmittance Based OptoElectroChemical Device for Detecting Biomarkers on Paper Surface Targeting Low-cost Point-of-Care Diagnostic Tools	31 May 2016	201631018620
Arun Chattopadhyay, Sunil Kumar Sailapu, Deepanjalee Dutta, Amaresh Kumar Sahoo, Siddhartha Sankar Ghosh	A Device With Integrated Methods For Reverse Transcription Polymerase Chain Reaction (Rt-Pcr) And/Or Dna/Protein Array Based Analyses.	2 Jun 2016	PCT/ IN2016/000141
Arun Chattopadhyay, Anumita Paul, Srestha Basu, Amaresh Kumar Sahoo	A Device For Visual Detection Of Bilirubin	2 Jun 2016	PCT/ IN2016/000141
Mitradip Bhattacharjee, Dipankar Bandyopadhyay, Harshal Nemade	A Lung Condition Monitoring Device	28 Sep 2016	201631033190
Seim Timung, Mitradip Bhattacharjee, Tapas Kumar Mandal, Dipankar Bandyopadhyay	Microfluidic Hybrid Energy Harvester Combining Solar Energy, Surface Plasmon Resonance and Streaming Potential	24 Oct 2016	201631036408
Satarupa Dutta, Nilanjan Mandal, Dipankar Bandyopadhyay	A Transmittance Based Opto Electro Chemical Device for Detecting Biomarkers on Paper Surface Targeting Low-cost Point-of-Care Diagnostic Tools	16 Jan 2017	PCT/ IN2017/050023

STUDENTS' ACHIEVEMENTS

- Deepanjalee Dutta, Sunil Kumar Sailapu, Shortlisted within top 15 proposals, Assam Biotech conclave, Guwahati Biotech Park, January 5-6, 2017, (A bench top device and integrated methods for gene and protein analysis).
- Satarupa Dutta, Nilanjan Mandal, and Dipankar Bandyopadhyay, Gandhian Young Technology Innovation BIRAC-SHRISTI Appreciation Award 2017.
- Nanoparticle based lung monitoring device, MitradipBhattacharjee, Harshal Nemade and Dipankar Bandyopadhyay, REFLUX-2017, IIT Guwahati, 2017. (Best Paper Award)
- Microfluidic vapour sensor and energy harvester, Mitradip Bhattacharjee, Viswanath Pasumarthi, Joydip Chaudhuri, Amit Kumar Singh, Harshal Nemade and Dipankar Bandyopadhyay, Research Conclave-2017, IIT Guwahati, 2017. (Best Poster Award)

- Droplet based organic vapor sensor, Mitradip Bhattacharjee, Viswanath Pasumarthi, Joydip Chaudhuri, Amit Kumar Singh, Harshal Nemade and Dipankar Bandyopadhyay, Reflux-2016, IIT Guwahati (Best Poster Award)
- Fabrication of High Aspect Ratio Surface Patterns on Viscoelastic Thin Films with Mutable Kinetic Parameters, Abir Ghosh, Dipankar Bandyopadhyay and Ashutosh Sharma, 3rd Indo-German workshop: Advances in Materials, Reactions & Separation Processes, IIT Guwahati, Guwahati (Best Poster Award)
- Neha Arora, Best Poster, ICSCC-2016 (Functional Stabilization of Recombinant PTEN onto Silica Nanoparticles for Potential Biomedical Applications)

FACULTY MEMBERS ASSOCIATED WITH THE CENTRE

Sl. No.	Name	Designation and Department
1.	Bandyopadhyay, Dipankar	Associate Professor, Department of Chemical Engineering
2.	Bose, Biplab	Associate Professor, Department of Biosciences and Bioengineering
3.	Chattopadhyay, Arun	Professor, Department of Chemistry
4.	Ghosh, Siddhartha Sankar	Professor, Department of Biosciences and Bioengineering
5.	Giri, Pravat Kumar	Professor, Department of Physics
6.	Iyer, ParameswarKrishnan	Professor, Department of Chemistry
7.	Mandal, Tapas K.	Associate Professor, Department of Chemical Engineering
8.	Nemade, Harshal B.	Professor, Department of Electronics and Electrical Engineering
9.	Palathinkal, Roy Paily (Head of the Centre)	Professor, Department of Electronics and Electrical Engineering
10.	Paul, Anumita	Professor, Department of Chemistry
11.	Sahoo, Lingaraj	Professor, Department of Biosciences and Bioengineering

CENTRE FOR RURAL TECHNOLOGY

The Centre at a Glance
Year of Establishment: 2015
Academic Programmes Offered: Doctor of Philosophy (PhD)
Total Faculty Strength: 3 <ul style="list-style-type: none"> • Associate Professor: 1 • Assistant Professor: 2 New Faculty Members Joined: 3 <ul style="list-style-type: none"> • Associate Professor: 1 • Assistant Professor: 2
Faculty Members Associated: 13
Total Student Strength: 9 PhD: 9
New Students Joined in 2016-2017: 9 PhD: 9

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

- Technology and Development
- Public Policy and Governance
- Rural Housing, Transportation
- Rural Water Supply and Sanitation
- Rural communication
- Energy and Environment Assessment
- Climate Change and Development
- Natural Resources Management and Livelihood
- Water Resources
- Agro-Food Processing

MAJOR INITIATIVES AND BREAKTHROUGH IN RESEARCH AND DEVELOPMENT

RuTAG-NE, a project initiated and sponsored by office of the Principal Scientific Advisor to the GOI. Major initiatives and breakthroughs of RuTAG-NE is highlighted below:

- North Eastern Region Community Resource Management Project (NERCORMP) has recently taken up a project on implementation of biomass based dryer, developed by RuTAG-NE, in various rural areas of North Eastern region for drying different agricultural, medicinal and food products. The project is funded by Ministry of DoNER.
- RuTAG-NE participated in an exhibition at Chandigarh organized by Ministry of DoNER for demonstration of

various technologies developed by RuTAG-NE.

- Aaranyak, a leading NGO, organized an exhibition of rural technologies at Baksa district with an aim to uplift the economic conditions of neighborhood villages of Manas National Park, a world heritage site, with a prime objective of protection of wildlife of Manas National Park. RuTAG-NE participated in that programme and demonstrated various technologies developed by RuTAG-NE. There are huge demands of betel nut cutter, modified bicycle, eri cocoon opener, straw cutter, feed block machine and few more technology.
- Ministry of Textile, Government of India has shown interest in implementing some of the technologies developed by RuTAG-NE related to textile industries viz., Muga power loom, hank to bobbin machine, pirn winding machine and sectional warping machine.
- Training program has been organized by RuTAG-NE for the benefit of potters engaged in pottery industry from different parts of Assam at Bezera, kamrup district; Mandakata, Kamrup; Hirapara, Darang district;. The objective of the program was to enhance the skill of the artisans to make the sector competitive in the international market.
- RuTAG participated in an exhibition organized by ASTEC to showcase technologies developed by RuTAG on 27 -28 February, 2017 at SrimantaSankardevKalakhetra, Assam.

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED: INTERNATIONAL / NATIONAL

Name of Faculty	Name of Conf./ Workshop	Place	Date	International /National
Dr. Sudip Mitra	As subject expert – Farmers First for Conserving Soil and Water Resources in North Eastern Region (FFCSWR-2017)	Assam Agricultural University, Guwahati	9-11 Feb 2017	National
Dr. Sudip Mitra	Chairperson of a plenary session – Climate Change and Society	Tezpur University	24-25 Feb 2017	National
Dr. Sudip Mitra	As subject expert for round table discussion – A dissemination workshop on Ecosystem Services and Human Wellbeing in the Eastern Himalayas	Darjeeling	25 Mar 2017	National

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS / INVITED LECTURES

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Mr. Manash Chaliha	Organic Majuli	Interaction with students and faculty member	16 Sep 2016
Mr. Santanu Mohan Deka	IIE Guwahati	Interaction with students and faculty member	3 Oct 2016
Mr. Mukit Rouf	National Urban Livelihood Missions	Interaction with students and faculty member	6 Oct 2016
Mr. Aloy Borah	ICCo	Interaction with students and faculty member	24 Feb 2017

STUDENTS' ACHIEVEMENTS

- Biswanath Saha, Kalamdhad A. S., 2017. Review paper on Partheniumhysterophorous Proc. Research Conclave, 17th March 2017, Indian Institute of Technology Guwahati (Best student poster presentation)

CORE FACULTY MEMBERS

Sl. No.	Name	PhD	Designation	Areas of Interest
1.	Dr. Meena Khwairkpm (Joined on 09.03.2017)	IIT Roorkee	Assistant Professor	Solid Waste Management. Environmental Engineering
2.	Dr. Siddhartha Singha (Joined on 17.02.2017)	IIT Madras	Assistant Professor	Bio-Chemical Engineer, Food Processing Modeling, Nano-Biotechnology
3.	Dr. Sudip Mitra (Joined on 19.01.2017)	Indian Agricultural Research Institute (IARI), New Delhi	Associate Professor	Environmental Pollution, Climate change: Vulnerability and Adaptation; Carbon sequestration, Greenhouse gases management

FACULTY MEMBERS ASSOCIATED WITH THE CENTRE

Sl. No.	Name	Designation and Department
1	Chaturvedi, Rakhi	Professor, Biosciences and Bioengineering
2	Das, Amerendra K.	Professor, Design
3	Dutta, Mrinal K.	Professor, Humanities and Social Sciences
4	Jawed, Mohammad	Professor, Civil Engineering
5	Kalita, Karuna	Associate Professor, Mechanical Engineering
6	Kalita, Pankaj	Assistant Professor, Centre for Energy
7	Kakoty, Sashindra K. (Head of the Centre)	Professor, Mechanical Engineering
8	Kalamdhad, Ajay (Member Secretary of the Centre)	Associate Professor, Civil Engineering
9	Monga, Charu	Assistant Professor, Design
10	Patra, Sanjukta	Associate Professor, Biosciences and Bioengineering
11	Rangan, Latha	Professor, Biosciences and Bioengineering
12	Sarma, Arup	Professor, Civil Engineering
13	Uppaluri, Ramagopal	Professor, Chemical Engineering

LAKSHMINATH BEZBAROA CENTRAL LIBRARY

Lakshminath Bezbaroa Central Library is a major service centre of the Institute, provides library and information services to support the teaching, learning, research activities by creating state-of-the-art facilities and offering innovative services. The library is a window to the world of latest information in sciences, engineering, technology, humanities & social sciences. The library has a fast growing collection of books, journals, magazines both in print and digital format. It is housed on a four stored building having a floor area of about 7500 sq. meter and can accommodate around 364 readers at a time. The in-house services of the library are fully computerized and the entire premise is provided with wi-fi facility for connecting to the internet and accessing Institute's electronic resources.

During the reported period total 405 visitors from other academic Institutions have availed the reference and reading facility of the Library. Library remains open from 8.00 am to 02.00 am (next day) throughout the year and 24 hours during mid/end semester examination, to provide the reading facility to the Institute's academic community.

1. Collection Development:

The library has a fast growing collection of books, journals,

magazines both in print and digital format. A large number of books, database, international and national journals on various subjects have been added during the Financial Year 2016 -17. The total collection strength of the Library now stands as follows:

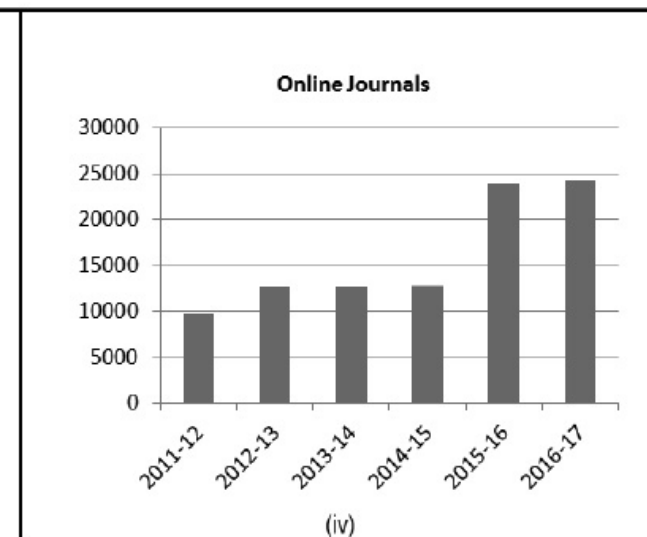
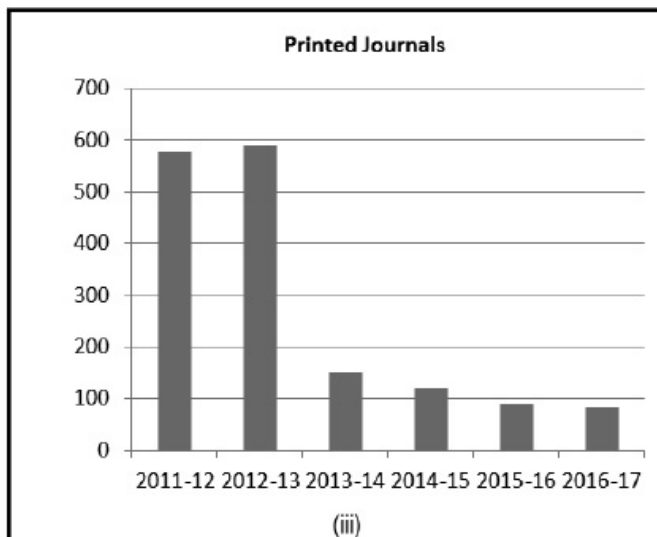
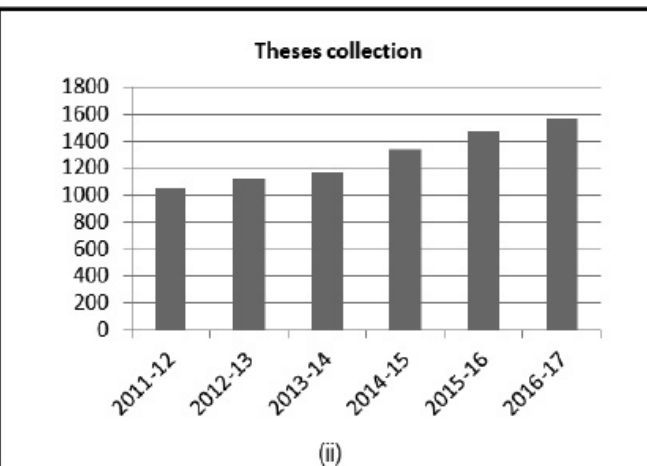
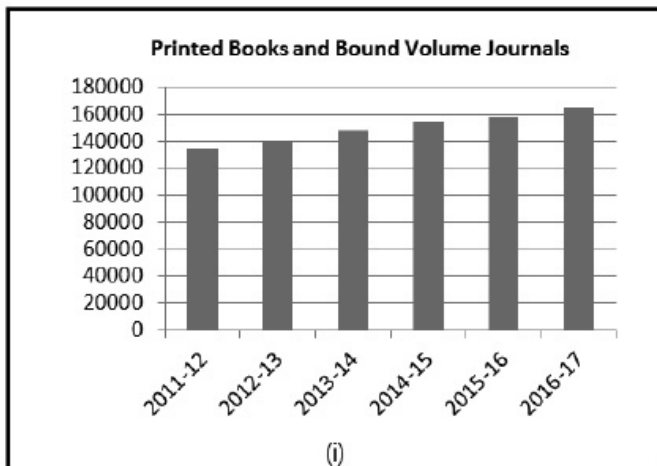
ITEMS	Collection Size (2016-17)
Printed Books and bound volume journals (including NBHM collection)	1,64,701
E- books	1,53,089
Back file electronic journals (including NBHM collection)	2,066
Theses, standards, Reports etc.	2,897
Non-Book material (CD, DVD, etc.)	5,733
Print Journal Subscription	84
Current electronic journals (including journals subscribed and access provided by Consortia)	24,264

b) The growth of the collections during last six years stands as follows:

Sl. No.	Collection	F.Y.					
		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
(i)	Printed Books and Bound Volume Journals	1,34,687	1,40,434	1,48,181	1,54,564	1,57,955	1,64,701
(ii)	Theses collection	1,048	1,119	1,169	1,343	1,471	1565
(iii)	Printed Journals	578	591	151	120	90	84
(iv)	Online Journals (including journals subscribed and access provided by Consortia)	9,795	12,630	12,656	12,835	24,012	24,264

c) As most of the research activities are heavily dependent on the journal publications, Library has emphasized on enhancing the subscription current journals and expanded the collection significantly over last couple of years. Further, for better accessibility of the contents, efforts have been

made to increase the online journals over the printed journals. Presently the Library is subscribing 2,347 titles across all academic areas of which 2,263 are online journals. In addition to that, Institute is having access to 20,251 online journals through 'e-Shodh Sindhu Consortium' and 'DeLCON:



DBT- Electronic Library Consortium’.

d) Apart from the above, Library has procured some of the world’s most renowned abstract/full-text database like Scopus, INSPEC, EBSCO Discovery Service, IEC Standards, ACSESS archive and some national level database i.e. CMIE Prowees, BIS Standards, EPWRF Time Series, etc during the reporting period.

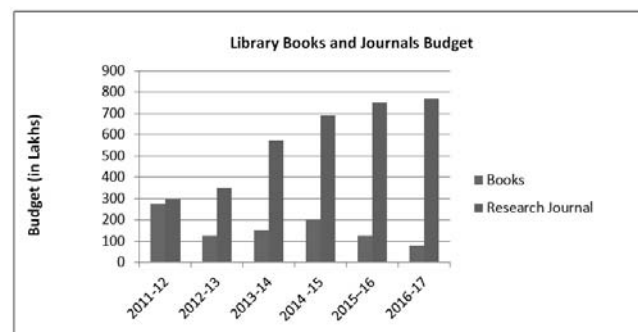
e) To make awareness about the regional culture and to generate interest about the vernacular literature, Library has developed a reasonably good collection on Assamese language and on literary works of Sahityarthi Lakshminath Bezbaroa.

f) As a regional library of National Board of Higher Education (NBHM), the Lakshminath Bezbaroa Central Library has added 627 numbers of books and 16 current journals and 6 back-file journals to its NBHM Library collection during the reporting period.

2. Budget:

The books and research journal budget of the Lakshminath Bezbaroa Central Library has also increased over the last 6 financial years, details of which as follows:

Financial Year	Books Budget (₹ in Lakhs)	Research Journal Budget (₹ in Lakhs)
2011-12	275.00	301.90
2012-13	125.00	350.00
2013-14	150.00	573.00
2014-15	200.00	690.00
2015-16	125.00	750.00
2016-17	80.00	771.00



3. Services and Facilities:

- a) To facilitate the users, a digital repository of theses, submitted by the Ph. D. scholars of the Institute, has been created and made accessible to the academic community. By the end of the reporting period, total 678 full-text theses has been uploaded in the stated repository.
- b) To provide sufficient reading facility, the Central Library has added 40 seating capacity during the reporting period. With this the total seating capacity now stands 364.
- c) To extend better searching of huge electronic resources of the Library a world renowned Discovery Service has been made available to the academic community of the Institute.
- d) The circulation system is being upgraded with better RFID based technology for faster transactions.
- e) For safe keeping of personal belongings of the library users, token based property counter has been made available throughout the library operation hours.

4. Infrastructural development :

- a) For enabling better delivery of circulation facility, the library management software has been upgraded

to web-based version. This helped to provide better browsing of the library collection, instant email and SMS generation for individual library transactions.

- b) A RFID based Book Drop system has been installed for helping the users to do self check-in of library books beyond the library transaction period.
- c) A large format display monitor has been installed for intimating the users about the recent developments and facilities of library.
- d) For creating appropriate ambiance for readers and for better illumination in reading areas, the library is being renovated.

5. Recent Events

- a) A workshop titled “ACS on Campus” was organized by Lakshminath Bezbaroa Central Library & Department of Chemistry, IIT Guwahati in association with American Chemical Society on 16th January 2017. The event was attended by more than 200 researchers and academicians.

LIBRARIAN

Dr. Tamal Kumar Guha

CENTRE FOR EDUCATIONAL TECHNOLOGY

YEAR OF ESTABLISHMENT OF THE CENTRE: 2004

ACADEMIC PROGRAMMES OFFERED:

Sl. No.	Academic Programme Offered	Scheme
1	Interdisciplinary/Industry oriented/Research oriented academic courses jointly developed by an international faculty of repute and an IITG faculty	GIAN
2	Masters & PhD (All Engineering Departments)	QIP
3	Teachers Training Camp	CESME under PM-MMNMTT and IITG MoU with RMSA, Assam
4	MITACS - Canadian Student Exchange Program	TEQIP
5	Short Term courses for Science & Engineering	QIP
6	Short term courses; Training Programs for selected Technical Institutes under TEQIP	Knowledge Incubation Cell (KIC); TEQIP

LABORATORY FACILITIES

- Science Laboratory under Centre of Excellence in Science and Mathematics Education, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMNMTT)
- Web Laboratory: Uploads & maintains NPTEL Content on Servers for National & International web cast via NPTEL HQ at IITM.
- Video Studio: Captures using HD cameras educational content of lectures, shows, demonstrations, etc given by Authors of NPTEL, MOOCs & PAL Courses.
- Sound & Broadcast Studio: Edits sound in educational content created at IITG

- 3D Virtual Content Creation Lab: Conducts Research on creation of next generation 3D Virtual reality educational content using a Virtual Reality System with Headgear mount.
- E-Learning Class Room: Provides all facilities to conduct On-Line lectures and connects across the Nation. Provides facilities for IITG Faculty to conduct Lectures in other IITs & institutions from IITG campus. Presently this room is under renovation.
- Video Conferencing Room: The newly constructed Video Conferencing room contains 7+1 VC system, projection, 5.1 Digital Dolby system & NKN backbone. This will enable us to have conference with all IITs and IISc simultaneously.
- E Kalpa Lab: The e-kalpa lab located at 2nd floor of Design department has facilities for Video recording and editing, Product Photography and computers required to generate content for Design Education and e-learning
- Virtual Labs: Under Virtual lab project there are total 18 nos. of Labs which are physically located in 6 departments at IITG.
 - i) Virtual Mass Transfer Lab: This is a chemical engineering lab developed using labview software. A total of 12 experiments have been developed under this lab.
 - ii) System, Communication and Control Lab: This lab is under electrical and electronics engineering department. Ten experiments are developed out of which 4 experiments are real time experiments. Labview software is used to develop the experiments.
 - iii) Virtual Labs for Mechanical Vibrations: This lab is under mechanical engineering department. Ten experiments are developed using Labview software.
 - iv) Speech Signal Processing Lab: This lab is under electrical and electronics engineering department. Nine experiments are developed using Scilab software.
 - v) Digital VLSI Design Lab: This lab is under electrical

- and electronics engineering department. Seven experiments are developed using NGSpice software. Currently the lab is integrated and hosted in the cloud.
- vi) Signals and Systems Lab: This lab is under electrical and electronics engineering department. Five experiments are developed using Labview software. Currently the lab is integrated and hosted in the cloud.
- vii) Electrical Machines Lab: This lab is under electrical and electronics engineering department. Nine experiments are developed using adobe flash software. Currently the lab is integrated and hosted in the cloud.
- viii) Electronic Instrumentation Lab: This lab is under electrical and electronics engineering department. Nine experiments are developed using Labview software. Currently the lab is integrated and hosted in the cloud.
- ix) Virtual Laboratory Experience in Fluid and Thermal Sciences: This lab is under mechanical engineering department. Twelve experiments are developed using Labview software.
- x) Digital North East: This lab which is actually a repository of rare periodical archives, ethnographic reports etc is under humanities department.
- xi) Virtual English and Communication: This is a laboratory under humanities department. This laboratory is about English comprehension, grammatical errors, passage making etc. Eight experiments are developed using html, adobe flash software. Currently the lab is integrated and hosted in the cloud.
- xii) Virtual Anthropology Lab: This laboratory is under humanities department. A total of nine experiments are developed using adobe flash software. Currently the lab is integrated and hosted in the cloud.
- xiii) Ergonomics Lab for accessing physical aspect of design: This lab is under design department. Ten experiments are developed using adobe flash software. Currently the lab is integrated and hosted in the cloud.
- xiv) Creative design, prototyping and experimental simulation in human computer interaction: This lab is under design department. Sixteen experiments are developed using html5 and php.
- xv) Remote triggered fiber optic communication lab: This is a real time lab under electrical and electronics engineering department. Six experiments are developed using Labview software.
- xvi) Remote triggered digital system design lab: This is a

real time lab under computer science engineering department. Ten experiments are developed under this lab.

- xvii) Virtual robotics lab: This is a real time lab under mechanical engineering lab. Eight experiments are developed under this lab.

- xviii) Remote triggered electromechanical conversion lab: This is a real time lab under electrical and electronics engineering lab.

MAJOR EQUIPMENT AND FACILITIES ACQUIRED

Sl. No.	Equipment	Qty
1	Video Camera	02
2	Video Switcher	02
3	Hard Disk Recorder & Hard Disk Drive	02
4	Touch Screen Display Panel	02
5	2-in-1 Laptop with Active Stylus pen	01
Under TEQIP - II		
6	2-in-1 Laptop with Active Stylus pen	01
7	Graphics tablet	03
8	Multifunctional Color Printer	01
9	Video Conferencing System	01
Under PMMMMNTT		
10	MacBook Air	01
11	Large format display	01
Under GIAN		
12	P2 Memory Card	08
Under CSS-MOOCs		
13	Large format display	01

MAJOR AREAS OF RESEARCH AND DEVELOPMENT

Pedagogy Training, Teachers training, MOOCs content creation, Course Content Creation with a foreign expert under GIAN, Video course content creation for class XI-XII students by IIT faculty members under IIT-PAL.

Generation of design education courseware, Indian Craft resources, Case studies and video lectures for e-learning.

Development, Integration and Hosting of the virtual labs on cloud.

MAJOR INITIATIVES

- i. Total 13 nos. of courses were organized under Global Initiative of Academic Networks (GIAN)
- ii. 5 nos. of video courses were completed under MOOCs
- iii. Teachers Training Camp was held under PMMMMNTT
- iv. 6 nos. of video courses were completed under Professor Assisted Learning (PAL)

CONFERENCES/WORKSHOPS/SYMPOSIA ATTENDED: INTERNATIONAL, NATIONAL

Name of Faculty	Name of Sem./Wor./Con.	Funded By	Date	International/ National
Prof. Sunil Khijwania	Basic & Higher Education: IIT Guwahati footprint in Teacher Development Program International Conference on North East (India)-CLMV Business Summit: Higher Education and Health Sector	Ministry of Comm. & Ind., Gol, SEPC and the ICSI	24-25 Mar 2017	International
Prof. Sunil Khijwania	MHRD National Workshop on MOOCs for SWAYAM	MHRD	2 Mar 2017	National
Prof. J K Deka	MHRD National Workshop on MOOCs for SWAYAM	MHRD	2 Mar 2017	National
Prof. Sunil Khijwania	Orientation Workshop on TEQIP III	MHRD	18-19 Jan 2017	National

INVITED LECTURES OF FACULTY: IN INDIA, ABROAD

Name of Faculty	Name of Lecture	Name of Inst./Org.	Place	Date
Prof. Sunil Khijwania	Orientation Workshops on TEQIP II	MHRD	New Delhi	18-19 Jan 2017
Prof. Sunil Khijwania	Basic & Higher Education: IIT Guwahati footprint in Teacher Development Program International Conference on "North East (India)-CLMV Business Summit: Higher Education and Health Sector	Ministry of Comm. & Industry, Gol, SEPC and the ICSI	Guwahati	24-25 Mar 2017

VISITORS FROM OTHER INSTITUTES/UNIVERSITIES/ORGANISATIONS / INVITED LECTURES

Name	Name of Inst./Univ./Org.	Purpose/ Name of Lecture	Date
Prof. Fouad Bennis	Mechanical Engineering, Ecole Centrale de Nantes, France	Delivering GIAN course on "Optimization Methods for Engineering Planning and Design"	4-8 May 2016
Prof. Holli A. Semetko	Department of Political Science, Emory University, Atlanta	Delivering GIAN course on "Campaigns, Media & Influence"	16-20 May 2016
Prof. Vijay Dhir	Mechanical Engineering, University of California, Los Angeles	Delivering GIAN course on "Boiling Heat Transfer"	23 May 3 Jun 2016
Prof. Jay S. Gunasekera	Department of Mechanical Engineering, Ohio University, USA	Delivering GIAN course on "Green Material Forming and Joining"	6-11 Jun 2016
Dr. Stefan Schmid	Associate Professor, Aalborg University, Denmark	Delivering GIAN course on "Distributed Network Algorithms"	27 Jun - 1 July 2016
Dr. Hemanta Doloi	University of Melbourne	Delivering GIAN course on "Infrastructure Projects Planning and Modelling"	27 Jun - 8 Jul 2016
Dr. Saurav Goel	Queen's University Belfast, UK	Delivering GIAN course on "Advances in Ultra-precision Machining Processes"	4-15 Jul 2016
Prof. Mayank Tyagi	Department of Petroleum Engineering, Louisiana State University, USA	Delivering GIAN course on "Reservoir Simulation – Mathematical Techniques in Oil and Gas Recovery"	18-29 Jul 2016
Dr Richard Blanchard	Lecturer at Centre for Renewable Energy Systems Technology, Loughborough University, UK	Delivering GIAN course on "Electricity Systems and Future Scenarios"	6 Nov 2016 to 11 Nov 2016
Dr. Kari Tammi	Associate Professor, Aalto University	Delivering GIAN course on "Design of Electric Vehicle Systems"	28 Nov - 9 Dec 2016
Dr. Jose Palomar	Associate Professor in Chemical Engineering Section of Universidad Autonoma de Madrid (Spain)	Delivering GIAN course on "Integration of Molecular Design to Process Simulation for the Development of Industrial Chemical Products and Processes"	12-17 Dec 2016

Prof. Yannis Stylianou	Dept. of Computer Science, University of Crete	Delivering GIAN course on "Advanced Sinusoidal Modeling of Speech and Applications"	26-30 Dec 2016
Under E&ICT Academy			
Dr. Amitabh Bhattacharya	IIT Kharagpur	Workshop at NIT Silchar	27-28 Aug 2016
Mr. Vivek Raghunath	NI		
Mr. H S Jatana	SCL/ISRO	Workshop on "Recent Trends in VLSI Design"	3-5 Oct 2016
Dr. Anand Bulusu	IIT Roorkee		
Mr. H Balachander	CoreEl Technologies		
Prof. Sukumar Nandi	IIT Guwahati	Workshop on "Internet of Things: A Gateway to Smart and Intelligent Future"	4-6 Nov 2016
Dr. Arnab Sarkar	IIT Guwahati		
Mr. Raghav Ankur	FICE		
Mr. Ankireddy Sreevardhan	FICE		
Dr. Ferdous Ahmed	IIIT Guwahati	FDP on Cloud Computing	5-10 Dec 2016
Dr. Arnab Sarkar	IIT Guwahati		
Mr. Praveen Sripath	Kovid Academy		
Dr. Heman Goswami	Damyant Pvt. Ltd.	FDP in Mobile Application Development	7-11 Dec 2016
Mr. Bharat Kumar	Nvidia Graphics	FDP on Deep Learning	16-21 Dec 2016
Mr. Mukundhan Srinivasan	Nvidia Graphics		
Mr. Shankara Rao Thejaswi Nanditale	Nvidia Graphics		
Mr. H S Jatana	SCL/ISRO	FDP in Analog Integrated Circuit Design	23-31 Jan 2017
Mr. Ashutosh Yadav	SCL/ISRO		
Mr. Shajo Mathew	Entuple Technologies		
Mr. Varun Bhandana	Entuple Technologies		
Dr. Azad Srivastava	Nvidia Graphics	FDP in HPC & Deep Learning	17-22 Mar 2017
Mr. Ashok Choudhary	Fujitsu		

SEMINARS/WORKSHOPS/CONFERENCES/SHORT-TERM COURSES ORGANISED

Sl. No.	Faculty	Name of Course	Funded By	Date	International/ National	No. of participants
Under TEQIP						
1	Prof. Sunil Khijwania	Orientation Workshop on TEQIP Phase-III for Engineering Institutions in North-Eastern Region	MHRD	25-26 Nov 2016	National	26
2	Prof. G Krishnamoorthy	Modern Instruments in Research	MHRD	29 Mar – 1 Apr 2016	National	7
3	Dr. Dilwar Hussain, Dr. B. Sengupta	Basic Statistical Tests and Data Analysis Using SPSS	MHRD	30 Mar – 1 Apr 2016	National	10

Sl. No.	Faculty	Name of Course	Funded By	Date	International/National	No. of participants
4	Dr. Harsha Kota, Prof. Sharad Gokhale	Air Quality & Climate Change: Control & Modelling	MHRD	4-8 Apr 2016	National	16
5	Dr. A. Murali Krishna, Dr. S. Sreedeeep	Rock Engineering for Infrastructural Development	MHRD	5-8 Apr 2016	National	29
6	Dr. Akshai Kumar A. S., Dr. Animesh Das	Recent Trends in Catalysis	MHRD	13-14 May 2016	National	15
7	Dr. Sushanta Karmakar	Centralized and Distributed Graph Algorithms	MHRD	23-25 May 2016	National	6
8	Dr. V. S. Moholkar, Dr. Pankaj Kalita, Dr. C. Somyaji	Energy Management and Energy Efficiency	MHRD	23-27 May 2016	National	39
9	Dr. Indu Siva Gandhi, Dr. L. Boeing Singh, Dr. Bulu Pradhan	Sustainability in Construction: Materials and Management	MHRD	30 May – 1 Jun 2016	National	13
10	Dr. John Jose, Dr. Hemangee K. Kapoor	Recent Advances in Computer Architecture	MHRD	30 May – 3 Jun 2016	National	18
11	Dr. Gagan Kumar, Dr. Amitabh Chatterjee	Advancement and Applications of Ultrafast Laser Pulses	MHRD	22-23 Aug 2016	National	13
12	Dr. Nageswara Rao Peela, Dr. Mahuya De	Novel Catalysts for Industrial Use	MHRD	24-26 Aug 2016	National	15
13	Dr. S. Rafi Ahamed, Dr. M.K Bhuyan	Algorithms & Architectures for High Efficiency Video Coding	MHRD	5-9 Sep 2016	National	21
14	Dr. Sashidhar K Kakoty, Dr. Karuna Kalita	Recent Development of Magnetic Bearing and Energy Efficient Bearing-less Machines	MHRD	26-27 Sep 2016	National	24
Under E&ICT Academy						
15	Workshop on Antenna Design & Wireless Communication	Prof. Ratnajit Bhattacharjee, Prof. Rohit Sinha, Dr. Gaurav Trivedi, Dr. Arnab Nandi (NIT Silchar), Dr. Banani Basu (NIT Silchar)	MCIT	27-28 Aug 2016	National	56/28
16	Workshop on Recent Trends in VLSI Design	Prof. Ratnajit Bhattacharjee, Prof. Rohit Sinha, Dr. Gaurav Trivedi, Dr. Ashish Ranjan (NIT Manipur)	MCIT	3-5 Oct 2016	National	69/29
17	Workshop on IoT: A Gateway to Smart & Intelligent Future	Prof. Ratnajit Bhattacharjee, Prof. Rohit Sinha, Dr. Gaurav Trivedi, Dr. Ansuman Bhattacharyya (NIT Meghalaya)	MCIT	4-5 Nov 2016	National	61/30
18	FDP on Cloud Computing with AWS	Prof. Ratnajit Bhattacharjee, Prof. Rohit Sinha, Dr. Gaurav Trivedi, Dr. Ferdous Ahmed (IIIT Guwahati)	MCIT	5-10 Dec 2016	National	13/31
19	FDP on Mobile Application	Prof. Ratnajit Bhattacharjee, Prof. Rohit Sinha, Dr. Gaurav Trivedi	MCIT	07-11 Dec 2016	National	09/32
20	FDP on Deep learning	Prof. Ratnajit Bhattacharjee, Prof. Rohit Sinha, Dr. Gaurav Trivedi	MCIT	16-21 Dec 2016	National	28/33
21	FDP on Analog Integrated Circuit Design	Prof. Ratnajit Bhattacharjee, Prof. Rohit Sinha, Dr. Gaurav Trivedi, Dr. Kandarpa Kumar Sarma (Gauhati University)	MCIT	23-31 Jan 2017	National	41/34

Sl. No.	Faculty	Name of Course	Funded By	Date	International/ National	No. of participants
22	FDP on HPC & Deep Learning	Prof. Ratnajit Bhattacharjee, Prof. Rohit Sinha, Dr. Gaurav Trivedi, Dr. Nagesh Ch. (IIIT Manipur)	MCIT	17-22 Mar 2017	National	27/35
Under Virtual Lab						
23	One Day workshop on Virtual Laboratory at RG CER, Nagpur, Maharashtra	Santosh Biswas	MHRD	25 Jul 2016	National	72
24	One Day workshop on Virtual Laboratory at CIT, Kokrajhar	Santosh Biswas	MHRD	31 Aug 2016	National	200
25	One Day workshop on Virtual Laboratory at RCC Institute of Information Technology, Kolkata	Santosh Biswas	MHRD	9 Sep 2016	National	80
26	One Day workshop on Virtual Laboratory at Kaliyani University, West Bengal	Santosh Biswas	MHRD	28 Sep 2016	National	128
27	One Day workshop on Virtual Laboratory at University of Calcutta, Kolkata	Santosh Biswas	MHRD	3 Oct 2016	National	200
28	One Day workshop on Virtual Laboratory at NIT Meghalaya, Shillong	Santosh Biswas	MHRD	4 Nov 2016	National	100
29	One Day workshop on Virtual Laboratory at Assam Engineering College, Guwahati	Santosh Biswas	MHRD	15 Feb 2017	National	70
30	One Day workshop on Virtual Laboratory at Maulana Abul Kalam Azad University of Technology, West Bengal	Santosh Biswas	MHRD	23 Feb 2017	National	50
31	One Day workshop on Virtual Laboratory at B. P. Poddar Institute of Management and Technology	Santosh Biswas	MHRD	17 Mar 2017	National	120

FACULTY MEMBERS ASSOCIATED WITH THE CENTRE

Sl. No.	Name	Designation and Department
1	Bhattacharjee, R.	Professor, Department of Electronics and Electrical Engineering
2	Deka, J.	Professor, Department of Computer Science and Engineering
3	Khijwania, S. (Head of the Centre)	Professor, Department of Physics
4	Punekar, R. M.	Professor, Department of Design
5	Sharma, A. K.	Associate Professor, Department of Physics

CENTRAL INSTRUMENTS FACILITY

INTRODUCTION

The Central Instruments Facility of IIT Guwahati hosts various sophisticated instruments which cater the need of cutting edge research in many areas of modern science and technology. It is one of the largest such facility in the country. CIF is used by 10 of the 16 academic/research departments and centers of the institutes. The instruments are operated through research scholars as a part of their teaching assistantship under supervision of technical staff of the center. Apart from regular sample analysis of IIT Guwahati, it also analyzing samples of other academic and research institutes of north-east region of India at a special discounted rate. In addition, CIF receives samples from all over the country from Jammu & Kashmir in the north to Tamil Nadu in the south. The centre also conducts scientific workshop/conference on sophisticated instruments to facilitate internal as well as external researchers.

YEAR OF ESTABLISHMENT OF THE CENTRE: 2004

EXISTING FACILITIES (MAJOR EQUIPMENT)

The center presently has following sophisticated instruments

- 400 MHz Nuclear Magnetic Resonance (NMR) Spectrometer, Make: Varian, Model: Mercury plus
- Electron Spin Resonance (ESR) Spectrometer, Make: JEOL, Model: JES-FA200
- Field Emission Scanning Electron Microscope (FESEM), Make: Zeiss, Model: Sigma
- Atomic Force Microscope (AFM) and Scanning Tunneling Microscope (STM), Make: Agilent, Model 5500 series
- Laser Micro Raman System, Make: Horiba Jobin Vyon, Model LabRam HR
- High Temperature Differential Scanning Calorimetry (DSC)/Thermo Gravimetric (TG) System, Make: Netzsch Model: STA449F3A00
- Transmission Electron Microscope (TEM), Make: JEOL, Model: JEM 2100
- Vibrating Sample Magnetometer (VSM), Make: Lakeshore, Model: 7410 series

- Liquid Chromatography Mass Spectrometer (LCMS/MS), Make: Waters, Model: Q-ToF Premier
- Picosecond Time-resolved Fluorometer, Make: Eddinburg Instruments, Model: FSP920, Lifespec II
- Steady State Luminescence Spectrometer, Make: Eddinburg Instruments, Model: FSP920
- Physical Property Measurement System (PPMS), Make: Quantum Design, Model: PPMS-9
- Nanoindentor Make: CETR, Model: UNMT-1
- Spectroscopic Ellipsometer Make: SEMILAB, Model: GES5E
- Single Crystal X-ray Diffractometer, Make: Agilent Model: Single source supernova E (Mo source).
- Surface Area and pore size analyzer Make: Quantachrome Instruments, Model: Isorb HP1
- High pressure gas sorption analyzer, Make: Quantachrome Instruments, Model: Autosorb, IQ MP
- Impedance and Material Analyzer (IMA), Make: Quantachrome Instruments, Model: Autosorb, IQ MP
- 600 MHz Nuclear Magnetic Resonance (NMR) Spectrometer, Make: Bruker, Model: Ascend 600
- Micro Particle Image Velocimetry, Make: DANTEC, Model: 9080M0571
- Isothermal Titration Calorimeter, Make: Wipro GE, Model: itc200
- High Temperature Gel Permeation Chromatography, Make: Agilent, Model: G 7820A
- MALDI Toff -Toff Mass spectrophotometer, Make: Bruker, Model: Autoflex speed
- 250 KN Servo Hydraulic Universal Testing Machine, Make: BISS Model: MEDIAN 250
- Field Emission Gun Transmission Electron Microscope, Make: Jeol Model: JEM 2100F(HR)

NEW EQUIPMENT INSTALLED

The Field Emission Scanning Electron Microscope (FESEM) with windowless EDS system, Make: Zeiss Model: Gemini

300 has been installed recently.

This FESEM with Schottky type field emitter system is a high performance instrument designed for gaining maximum information from broadest range of sample materials and high flexibility of imaging, analysis and in situ measurement. The uniqueness of this system is imaging at very high resolution (0.8 nm at 15 kV; 1.4 nm at 1 kV), very low to high accelerating voltage (0.02 to 30 kV) and very high magnification range i.e. up to 20,00000x. In addition, magnetic samples can also be analyzed in very low working distance and high magnification along with other different types of samples.

The Energy Dispersive Spectroscopy (EDS) system (Make: OXFORD) equipped with FESEM instrument is the latest X-max Extreme liquid nitrogen free windowless EDS detector with SDD crystal area of 100 mm² and resolution of 127 eV. This is the advanced windowless EDS system with the detection range from lithium (Li) to uranium (U). and it is first windowless EDS in the country.

SPECIAL MENTION

CIF achieved some important milestone this year, two important facilities of CIF, Jonak and Rengoni were inaugurated by the director, IIT Guwahati on 1st June 2016.

Jonak

Jonak, this satellite data transfer facility is created as a part of green initiative by CIF. Through this the users can transfer the data from any instrument of CIF (except 400 MHz NMR) and Rengoni (Data Transfer Facility) of CIF to anywhere in the campus. Jonak means Moon-Shine. Every faculty was given a login and password. This facility allows the users to access and download only their data from any location in the campus like one gets light from the moon shine. Like moon reflects the sun's light, this facility helps the users to obtain the data generated from the CIF instruments in their systems. Thus, it is named as Jonak.

Rengoni

Data analysis facility is named as Rengoni, a ray of light. This facility helps the users to analyze the data from different instruments of Central Instruments Facility, like a ray of light helps one to visualize/analyze this world. Rengoni is connected to Jonak, the data transfer facility. So one can obtain the data through Jonak and analyze them in Rengoni. After analysis the data can be downloaded from anywhere in the campus using Jonak. At present, Rengoni has the following Data Analysis Software:

- Mestrenova (NMR spectral data analysis)
- Protein Scape (MALDI Mass data analysis)
- Bio Tools (MALDI Mass data analysis)
- Poly Tool (MALDI Mass data analysis)
- WARP-LC (MALDI Mass data analysis)
- FQSEE (MALDI Mass data analysis)
- Flex Analysis (MALDI Mass data analysis)

- Microcal Analysis (ITC data analysis)
- Gattan Digital Micrograph (TEM data analysis)
- NETZSCH- TA4 (DSC/TG data analysis)

External Sample Collection

An amount equals to Rs. 3 lakhs approximately have been collected as charges of external samples analysis for the period from 1st April 2016 to 31st March 2017.

VISITORS

Shri Mahendra Nath Pandey, Union Minister of State, MHRD, Govt. Of India, visited on 28th October, 2016 and inaugurated Universal Testing Machine during his visit.

Prof. Dr. Ing. Tobias Plessing and Mr. Andy Gradel, Hof University visited

Mr. Kenji Hiramatsu, Ambassador Extraordinary & Plenipotentiary, Embassy of Japan visited

Dr. S.N. Dube, Director, Defence Research Laboratory (DRL), Defence R&D Organisation, Tezpur visited

Institute benefitted from the facilities of CIF

1. Gauhati University, Guwahati
2. Tezpur University, Tezpur
3. Manipur University, Manipur
4. Girizananda Institute of Pharmaceutical Science, guwahati
5. National Institute of Technology (NIT) Tiruchiraapalli
6. Banaras Hindu University, Varanasi
7. North Eastern Hill University (NEHU), Shillong
8. Assam Don Bosco University, Guwahati
9. Veterinary College, Khanapara
10. Institute of Advanced Study in Science and Technology (IASST), Guwahati
11. Aligarh Muslim University (AMU), Aligarh
12. Shri Shankaradeva Nethralaya, Guwahati
13. National Institute of Technology (NIT) Silchar
14. Regional Dental College & Hospital, Guwahati
15. C. Abdul Hakeem College of Engineering and Technology, Melvisharam
16. Regional Institute of Pharmaceutical Science and Technology, Agartala
17. Central Institute of Technology (CIT), Kokrajhar
18. Institute of Bioresources and Sustainable development, Manipur
19. North Eastern Regional Institute of Science and Technology (NERIST), Itanagar
20. LNM Institute of Information Technology, Jaipur
21. Assam Down Town University, Guwahati

FACULTY MEMBER ASSOCIATED WITH THE CENTRE

Krishnamoorthy, G. (**Head of the Centre**)
Professor, Department of Chemistry

COMPUTER AND COMMUNICATION CENTRE

INTRODUCTION

The Computer and Communication Centre of IIT Guwahati is the central computing resource pool of the institute. The Computer and Communication Centre is responsible for:

- Providing Email service and Internet connectivity to the institute
- Catering to the general purpose as well as high computational need of the users
- Maintenance of the campus network
- Hosting and maintenance of Institute's web pages
- Providing EPABX services
- Providing Office Automation services

The Computer and Communication Centre has been involved in development of several in-house software packages. It is also providing assistance to other academic institute of north-east region of India. The centre also conducts summer training to facilitate external students from various institutes of the region.

The computer lab of the centre is equipped with PCs with the latest configurations to facilitate the need of the IITG community. The lab remains open for 16 hours in a day which is accessible to all authorized users of the Institute. Computer practical for the common courses are held in the Centre. The computer lab facilities of the Centre are also extended to the students of other institutes. The resources of the Centre are constantly upgraded to meet the ever evolving standards of information technology.

The Computer and Communication Centre provide and maintain the PCs of the faculty and staff members of the Institute. In addition to providing direct support to the members of the Institute, the Computer and Communication Centre also frequently hosts write-ups (HOW-TOs, FAQs etc.) in its Intranet website. The Centre also maintains an online E-Notice board for posting and viewing notices electronically campus-wide, a web-based Complain Management Information System, etc.

MAJOR EQUIPMENT AND FACILITIES

The major equipment purchased in the last financial year are:

PARAM-ISHAN

The PARAM-ISHAN, 250 TF peak computing performance, supercomputing facility was inaugurated by Shri Prakash Javadekar, Hon'ble Minister HRD, Gol on 19th Sept, 2016 at Data Center, IIT Guwahati. This was a joint project between IIT Guwahati and CDAC Pune. The facility consists of 126 Compute Nodes without Accelerator, 04 nodes of High Memory Compute Nodes without any Accelerator, 16 compute nodes with GPU and 16 Compute Nodes with Xeon Phi. The High Memory Compute Nodes consists of 512 GB of physical memory per node and rest of the nodes consists of 64 GB of physical memory per node. The GPU nodes consists of 2 nos. of NVIDIA Tesla K40 per node and Xeon Phi nodes consists of 2 nos. of Intel Xeon Phi 7120 per node. A Mellanox FDR (56Gbps) 324 port chassis switch is used as primary high speed interconnect. 300TB Storage with 15GB/s write throughput based on lustre parallel file system. Software Stack includes CentOS 6.6, Intel Parallel Studio 2016, GNU compilers, Intel MPSS, CUDA, Mellanox OFED, Luster, SLURM Resource Manager & Scheduler and Bright Cluster Manager. From the utilization point of view, Avg. Cluster CPU Cores Utilization is 73.36% & Avg. Cluster Memory Utilization is 2.4TB.

Computer Network Enhancement

The centre is responsible for providing the network connectivity to upcoming hostels/buildings as well as to reinforce the existing network infrastructure. To cater the need a number of network equipment were purchased & installed. They include L2 & L3 switches, Wall-mount racks, LIUs and other Fibre passive components like patch cord, pig-tail etc. The centre has also extended the network and voice facility to some new offices and infrastructures, like, Married hostel extension, Lohit hostel extension, new academic extension blocks of various departments.

Apart from these, for the IITG Data Centre, we have purchased managed network switches and its associated various passive components.

Also, we have installed & configured Cisco Router ASR 1001-X chassis for NKN internet bandwidth of 10Gbps capacity. Additionally, we have also configured VPN connectivity in this Router with 200 Licenses.

Servers and PCs

On the Server front, the Computer and Communication Centre has a mix of high-end Servers which caters to the need for Authentication, E-mail, Proxy, Automation and Web services. This year a total of nine new high end servers were purchased for new uses as well as for up-gradation of existing servers and two more blade servers has been added in the Automation project.

Renewal of License /Software

The Centre had renewed the Microsoft Campus License, the Matlab software with 165 licenses and Plagiarism detection Software TURNITIN with 1000 student user licenses, RedHat License and Barracuda Spam and Virus Filter license. Also, We have installed Mathematica 10.4 software with 50 user licenses and Comsol for 10 user license. This year we have purchased SSL certificate for our iit.ac.in domain and also renewed the SSL for iitg.ernet.in doamin from DigiCert.

Expansion of existing EPABX system

With the expansion of the campus, the Computer Centre has increased the capability of the existing EPABX system and also extended its telephone network to new offices and expansion wings of the institute.

We have renovated the whole IITG campus telephone outdoor and indoor terminations. This year we have also upgraded the IITG telephone billing software, i.e., CUBETBS.

Office Automation Services

The Computer and Communication Centre has been involved in development of several in-house software packages for providing services to institute's various office automation works. These include online (Dual-Degree + MA + MTech-MDes / MS + PhD) application as well as data process, Training and Placement, Student Course Registration, Alumni Registration, Student Affairs, Faculty Online Leave, Staff Administration, Faculty Administration, Student Course Feedback, e-Payment application, ID Card application, IITG Payroll online, PDA application, PF application, Student Profile, Convocation Registration, MCM Scholarship, New students registration, Students course alias, RND project staff application, GMIS application, SA course registration, Library trainee recruitment, CC trainee recruitment, Stock Management, Sishugram voluntary donation and Electricity billing system.

This year, we have released Staff Leave System, Medical Application, Online Recruitment application, No-Dues application for Staff and Faculty, Telephone Bill Reimbursement, Freshers Portal for collecting additional information, HSS course registration, new MTech/MDes/MS online application and application for TA Authentication and Performance Evaluation. We have also integrated backlog

course registration to the existing course registration application, integration of Station Leave / Multiple Leave / Departure / Rejoining to the existing faculty leave system, integration of library fee / semester registration fee (via loan) / Techniche registration fee payment to the existing e-payment application, integration of ID card apply option for Alumni students, integration of semester registration for continuing students with the existing students registration application, integration of honorarium and consultancy to the existing payroll application, integration of passport application to the existing Student Profile portal and integration of GMIS apply option for students. We have plan to implement Application Software for different purposes for Academic, Student affairs, Finance & Accounts and Medical section along with the inclusion of gymkhana application, faculty recruitment application, APAR application, budget application, file tracking system, medical appointment system, integration STAF module to the existing Student Profile application and a centralized portal.

ONGOING SPONSORED PROGRAMMES

National Knowledge Network (NKN) Project

This year using NKN facility we have successfully hosted Hon. President's address to NITs and central universities interactive Video conferencing event in IITG. The event was jointly organised by National Informatics Centre (NIC) and IIT Guwahati with support from Computer and communication centre. This year NKN has also upgraded the bandwidth to 10 Gbps.

ERNET Point of Presence

IIT Guwahati, a PoP (Point-of-Presence) for ERNET India in the whole of North-Eastern India is entrusted with the task of networking the academic institutions of the region and provide technical assistance where required. Currently the following educational and research institutes have taken Internet connectivity from the ERNET PoP –

- IIT Guwahati , (1:1) 8 Mbps leased line
- Tezpur University, Assam, (1:1) 2 Mbps leased line
- Assam Agricultural University,Guwahati. (1:1) 2 Mbps leased line
- Centre of Central Inland Fisheries Research Institute, (1:1) 2Mbps leased line
- Rajiv Gandhi University, Arunachal Pradesh, (1:1) 2 Mbps leased line

The ERNET node is upgraded with high end Juniper routers, switches and firewalls. The PoP backbone has 1 Gbps connectivity to NKN Guwahati, NKN Delhi, and NKN Mumbai.

CONSULTANCY AND OTHER COMMUNITY SERVICES

The Computer Centre has been involved in setting up of campus network and providing consultancy services to nearby educational institutes and state government departments as and when needed.

The Centre has donated 12 nos. of used PC and 600 VA UPS to Kamrup District Administration for their child welfare scheme.

WORKSHOP ATTENDED

- Mr. Nilutpal Changkakoti attended the 43rd Asia Pacific Advanced Network Meeting held in Delhi, organised by ERNET, NKN and CII from 12-17 February, 2017.
- Dr. Pallav Kumar Dutta attended the Garuda-NKN partners meet 2016 held in Bangaluru organized by CDAC and NKN from 8-9 September, 2016.

WORKSHOP ORGANIZED

- A 4 Day Workshop on High Performance Computing was organized from 15-18 November, 2016.
- A Users Training Programme was also organized on 23 August, 2016.

FACULTY MEMBER ASSOCIATED WITH THE CENTRE

Rao, S. V., Professor, Computer Science and Engineering (Head of the Centre)

PART III

RESEARCH PUBLICATIONS

Journal Papers

Conference Papers

Books

Book Chapters

DETAILS OF RESEARCH AND DEVELOPMENT ACTIVITIES

Journal Papers

Biosciences and Bioengineering

Authors	Paper Title	Journal Name	Year	Volume	Issue Number	Starting Page	Ending Page
Neha Arora, Siddhartha Sankar Ghosh	Functional Characterizations of Interactive Recombinant PTEN-Silica Nanoparticles for Potential Biomedical Applications	RSC Advances	2016	6	-	114944	114954
M. Singh, K. Pakshirajan, V. Trivedi	Photo-inactivation of Escherichia coli and Enterococcus hirae using methylene blue and sodium anthraquinone-2-sulphonate: effect of process parameters	3 Biotech	2016	6	2	176	-
Vikash Kumar Dubey, Miten J. Mehta, Anand G. Patil, Vikram Gota, et al.	Surface-Modified Liposomal Formulation of Amphotericin B: In vitro Evaluation of Potential Against Visceral Leishmaniasis	AAPS PharmSciTech	2017	DOI: 10.1208/s12249-016-0553-8		-	-
Prerak Gupta, Mimi Adhikary, Joseph Christakiran M, Manishekhar Kumar, Nandana Bhardwaj, Biman B. Mandal.	Biomimetic, Osteoconductive Non-mulberry Silk Fiber Reinforced Tricomposite Scaffolds for Bone Tissue Engineering	ACS Applied Materials and Interfaces	2016	8	-	30797	30810
Manishekhar Kumar, Jeannin M. Coburn, David L. Kaplan, Biman B. Mandal	Immuno-informed 3D silk-biomaterials for tailoring biological responses	ACS Applied Materials and Interfaces	2016	8	-	29310	29322
Yogendra Pratap Singh, Nandana Bhardwaj, Biman B. Mandal	Potential of Agarose/Silk Fibroin Blended Hydrogel for In Vitro Cartilage Tissue Engineering	ACS Applied Materials and Interfaces	2016	8	-	21236	21249
P. Gupta, M. Kumar, N. Bhardwaj, J. P. Kumar, C. S. Krishnamurthy, S. K. Nandi and Biman B. Mandal	Mimicking form and function of native small diameter vascular conduits using mulberry and non-mulberry patterned silk films	ACS Applied Materials and Interfaces	2016	8	-	15874	15888
Joseph C. M, Philip J. T. Reardon, Rocktotpal Konwar, J. C. Knowles, Biman B. Mandal	Mimicking Hierarchical Complexity of the Osteochondral Interface Using Electrospun Silk-Bioactive Glass Composites	ACS Applied Materials and Interfaces	2017	9	-	8000	8013
Tamanna Bhuyan, A. K. Singh, D. Dutta, A. Unal, Siddhartha Sankar Ghosh, Dipankar Bandyopadhyay	Magnetic Field Guided Chemotaxis of iMushbots for Targeted Anticancer Therapeutics	ACS Biomaterials Science & Engineering	2017	DOI: 10.1021/acs.biomaterials.7b00086		-	-

Journal Papers

Biosciences and Bioengineering

Authors	Paper Title	Journal Name	Year	Volume	Issue Number	Starting Page	Ending Page
Deepanjalee Dutta, Arun Chattopadhyay, Siddhartha Sankar Ghosh	Cationic BSA Templated Au-Ag Bimetallic Nanoclusters As a Theranostic Gene Delivery Vector for HeLa Cancer Cells	ACS Biomaterials Science & Engineering	2016	2	11	2090	2098
Amaresh Kumar Sahoo, Upashi Goswami, Deepanjalee Dutta, Subhamoy Banerjee, Arun Chattopadhyay, Siddhartha Sankar Ghosh	Silver Nanocluster Embedded Composite Nanoparticles for Targeted Prodrug Delivery in Cancer Theranostics	ACS Biomaterials Science & Engineering	2016	2	8	1395	1402
Dimple Chouhan, Bijayshree Chakraborty, Samit K. Nandi, Biman B. Mandal.	Role of Non-Mulberry Silk Fibroin in Deposition and Regulation of Extracellular Matrix Towards Accelerated Wound Healing	Acta Biomaterialia	2017	48	-	157	174
Filipe Freire, Anil Kumar Verma, Pedro Bule, Victor D. Alves, Carlos M. G. A. Fontes, Arun Goyal, Shabir Najmudin	Conservation in the mechanism of glucuronoxylan hydrolysis revealed by the structure of glucuronoxylan-xylanohydrolase (CtXyn30A) from <i>Clostridium thermocellum</i> .	Acta Crystallographica Section D, Structural Biology	2016	D72	-	1162	1173
Arun Goyal, Shadab Ahmed, Kedar Sharma, Vikas Gupta, Pedro Bule, Victor D. Alves, Carlos M. G. A. Fontes, Shabir Najmudin	Molecular determinants of substrate specificity revealed by the structure of <i>Clostridium thermocellum</i> family 43_16 arabinofuranosidase.	Acta Crystallographica Section D. Structural Biology	2016	D72	-	1281	1289
Supriyo Basak, Vigya Kesari, Aadi Moolam Ramesh, Latha Rangan, Ajay Parida, Sudip Mitra	Assessment of genetic variation among nineteen turmeric cultivars of Northeast India- nuclear DNA content and molecular marker approach	Acta Physiologia Plantarum	2017	39	-	45	-
E. Khatoon, N. N. Barman, M. Deka, G. Rajbongshi, K. Baruah, N. Dekha, D. P. Bora, S. Kumar	Molecular characterization of classical swine fever virus isolates from India during 2012-14	Acta Tropica	2017	170	-	184	189
S. S. Dahiya, S. Kumar, S. C. Mehta, R. Singha, K. Nath, S. D. Narnaware, F. C. Tuteja	Molecular characterization of Camelpox virus isolates from Bikaner, India: Evidence of its endemicity	Acta Tropica	2017	171	-	1	5
S. S. Dahiya, S. Kumar, S. C. Mehta, S. D. Narnaware, R. Singh, F. C. Tuteja	Camelpox: A brief review on its epidemiology, current status and challenges	Acta Tropica	2016	158	-	32	38
Naresh Sahoo, Kannan Pakshirajan, Pranab Kumar Ghosh	Evaluation of 4-Chlorophenol Biodegradation by <i>Arthrobacter chlorophenolicus</i> A6 in an Upflow Packed Bed Reactor	Advanced Science Letters	2016	22	2	519	523

Journal Papers
Biosciences and Bioengineering

Authors	Paper Title	Journal Name	Year	Volume	Issue Number	Starting Page	Ending Page
Arghya Sett, Manoj Gadewar, Pragma Sharma, Manab Deka, Utpal Bora	Green synthesis of gold nanoparticles using aqueous extract of <i>Dillenia indica</i>	Advances in Natural Sciences: Nanoscience and Nanotechnology	2016	7	2	1	8
Priyamvada Jain, Babina Chakma, Sanjukta Patra, Pranab Goswami	Hairpin stabilized fluorescent silver nanoclusters for quantitative detection of NAD ⁺ and monitoring NAD ⁺ /NADH based enzymatic reactions.	Analytica Chimica Acta	2017	956	-	48	56
Priyamvada Jain, Smita Das, Babina Chakma, Pranab Goswami	Aptamer-graphene oxide for highly sensitive dual electrochemical detection of Plasmodium lactate dehydrogenase,	Analytical Biochemistry	2016	514	-	32	37
Babina Chakma, Priyamvada Jain, Naveen K. Singh, Pranab Goswami	Development of an indicator displacement based detection of malaria targeting HRP-II as biomarker for application in point-of-care settings.	Analytical Chemistry	2016	88	-	10316	10321
Ruchika Bhardwaj, Ritesh Kumar, Sanjeev Kumar Singh, Chandrabose Selvaraj, Vikash Kumar Dubey	Understanding the importance of conservative hypothetical protein LdBPK_070020 in <i>Leishmania donovani</i> and its role in subsistence of the parasite	Archives of Biochemistry and Biophysics	2016	596	-	10	21
Vijya Laxmi, Ranjan Tamuli	The calmodulin gene in <i>Neurospora crassa</i> is required for normal vegetative growth, ultraviolet survival, and sexual development	Archives of Microbiology	2016	doi: 10.1007/s00203-016-1319-0		-	-
Moushume Das, Sachin Kumar	Evidence of independent evolution of genotype XIII Newcastle disease viruses from India.	Archives of Virology	2017	162	4	997	1007
Ketan Ganar, Moushume Das, Ashwin Ashok Raut, Anamika Mishra, Sachin Kumar	Emergence of a deviating genotype VI pigeon paramyxovirus type-1 isolated from India.	Archives of Virology	2017	doi: 10.1007/s00705-017-3340-2			
Ankana Kakoti, Pranab Goswami	Multifaceted analyses of the interactions between human heart type fatty acid binding protein and its specific aptamers	BBA General Subject	2017	1861	-	3289	3299
Radhika Rajendran, Rakhi Chaturvedi	Screening and optimizing media constituents for enhanced production of medicinal N-alkylamide Deca-2E,6Z,8E-trienoic acid isobutylamide from dedifferentiated in vitro cell lines of <i>Spilanthes paniculata</i>	Biocatalysis and Agricultural Biotechnology	2017	9	-	95	102
Kartikeya Tiwari, Ritesh Kumar, Vikash Kumar Dubey	Biochemical characterization of dihydroorotase of <i>Leishmania donovani</i> : Understanding pyrimidine metabolism through its inhibition	Biochimie	2016	131	-	45	53

Journal Papers

Biosciences and Bioengineering

Authors	Paper Title	Journal Name	Year	Volume	Issue Number	Starting Page	Ending Page
Mallesh Santhosh, Somasekhar R. Chinnadayala, Naveen K. Singh, Pranab Goswami	Human serum albumin-stabilized gold nanoclusters act as an electron transfer bridge supporting specific electrocatalysis of bilirubin useful for biosensing applications,	Bioelectrochemistry	2016	111	-	7	14
Sharmila Narayanan, Pallab Sanpui, Lingaraj Sahoo, Siddhartha Sankar Ghosh	Tobacco phytoplast: Successful expression in a heterologous system.	Bioengineered	2017	DOI: 10.1080/21655979.2017.1292187		1	5
Selvarajan Vanitha, Nidhi Chaubey, Siddhartha S. Ghosh, Pallab Sanpui	Recombinant human granulocyte macrophage colony stimulating factor (hGM-CSF): Possibility of nanoparticle-mediated delivery in cancer immunotherapy	Bioengineered	2016	8	2	120	123
Rituparna Duarah, Yogendra P. Singh, Prerak Gupta, Biman B. Mandal Niranjana Karak	High performance bio-based hyperbranched polyurethane/carbon dot-silver nanocomposite: A rapid self-expandable stent	Biofabrication IF 4.70	2016	8	-	45013	45013
Aditi Makhija, Sachin Kumar	Characterization of duck plague virus stability at extreme conditions of temperature, pH and salt concentration	Biologicals	2017	45	-	102	105
Mrinal Kumar Sarma, Sharbani Kaushik, Pranab Goswami	Cyanobacteria: A metabolic power house for harvesting solar energy to produce bio-electricity and biofuels	Biomass and Bioenergy	2016	90	-	187	201
Shyamali Sarma, Avinash Anand, Vikash Kumar Dubey, V. S. Moholkar	Metabolic flux network analysis of hydrogen production from crude glycerol by Clostridium pasteurianum	Bioresource Technology	2017	http://doi.org/10.1016/j.biortech.2017.03.168		-	-
Priyanka Das, Madhuri Das, Somasekhar R. Chinnadayala, Irom Manoj Singha, Pranab Goswami	Recent advances on developing 3rd generation enzyme electrode for biosensor applications	Biosensors and Bioelectronics,	2016	79	-	386	397
Rocktotpal Konwarh, Prerak Gupta, Biman B. Mandal	Silk Microfluidics for advanced biotechnological applications: A progressive review	Biotechnology Advances	2016	34	-	845	858
Soumyadeep Chakraborty, T. Jagan Mohan Rao, Arun Goyal	Immobilization of recombinant pectate lyase from Clostridium thermocellum ATCC-27405 on magnetic nanoparticles for bioscouring of cotton fabric	Biotechnology Progress	2016	DOI 10.1002/btpr.2379		-	-
A. B. Kunnumakkara, D. Bordoloi, G. Padmavathi, J. Monisha, N. K. Roy, S. Prasad, B. B. Aggarwal	Curcumin, the golden nutraceutical: multitargeting for multiple chronic diseases	Br J Pharmacol	2016	doi: 10.1111/bph.13621		-	-

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Authors	Paper Title	Journal Name	Year	Volume	Issue Number	Starting Page	Ending Page
V. L. Maruthanila, R. Elancheran, A. B. Kunnumakkara, S. Kabilan, Jibon Kotoky	Recent development of targeted approaches for the treatment of breast cancer	Breast Cancer	2017	2	-	191	219
N. K. Roy, A. Deka, D. Bordoloi, S. Mishra, A. P. Kumar, G. Sethi, A. B. Kunnumakkara	The potential role of boswellic acids in cancer prevention and treatment	Cancer Lett	2016	377	-	74	86
Aruna Rani, Rwivoo Baruah, Arun Goyal	Physicochemical, antioxidant and biocompatible properties of chondroitin sulphate isolated from chicken keel bone for potential biomedical applications.	Carbohydrate Polymers	2017	159	-	11	19
Nadeem Akhtar, Kanika, Alok Kumar Jain, Dinesh Goyal, Arun Goyal	Surfactant assisted microwave-acid pretreatment of leaf litter biomass for enhanced enzymatic release of sugars	Cellulose Chemistry and Technology	2016	50	1	127	137
Soham Samanta, Poulomi Dey, Aiyagari Ramesh, Gopal Das	A solo fluorogenic probe for real-time sensing of SO ₃ ²⁻ and SO ₄ ²⁻ /HSO ₄ ⁻ in aqueous medium and live cells by distinct turn-on emission signals	Chemical Communications	2016	52	68	10381	10384
M. Gopi Kiran, Kannan Pakshirajan, Gopal Das	A new application of anaerobic rotating biological contactor reactor for heavy metal removal under sulfate reducing condition	Chemical Engineering Journal	2017	321	-	67	75
M. Gopi Kiran, Kannan Pakshirajan, Gopal Das	An overview of sulfidogenic biological reactors for the simultaneous treatment of sulfate and heavy metal rich wastewater	Chemical Engineering Science	2017	158	2	606	620
Ritesh S. Malani, Shubham Patil, Kuldeep Roy, Sankar Chakma, Arun Goyal, Vijayanand Suryakant Moholkar	Mechanistic analysis of ultrasound-assisted biodiesel synthesis with Cu ₂ O catalyst and mixed oil feedstock using continuous (packed bed) and batch (Slurry) reactors.	Chemical Engineering Science	2017	Doi: 10.1016/j.ces.2017.03.041		-	-
Durairaj Thiagarajan, Gopal Das, Aiyagari Ramesh	Extracellular DNA-targeting nanomaterial for effective elimination of biofilm	ChemNanoMat	2016	2	9	879	887
Arghya Sett, B. B. Borthakur, Utpal Bora	Selection of DNA aptamers for extra cellular domain of human epidermal growth factor receptor 2 to detect HER2 positive carcinomas	Clinical and Translational Oncology	2017	doi: 10.1007/s12094-017-1629-y.		1	13
Sitrarasu Vijaya Prabhu, Kartikeya Tiwari, Venkatesan Suryanarayanan, Vikash Kumar Dubey, Sanjeev Kumar Singh	Exploration of potent molecules against CAAX prenyl protease I of Leishmania donovani through Pharmacophore based virtual screening approach	Combinatorial Chemistry & High Throughput Screening	2017	DOI: 10.2174/1386207320666170120164515		-	-

Journal Papers

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Authors	Paper Title	Journal Name	Year	Volume	Issue Number	Starting Page	Ending Page
N. K. Roy, D. Bordoloi, J. Monisha, G. Padmavathi, J. Kotoky, R. Golla, A. B. Kunnumakkara	Specific Targeting of Akt Kinase Isoforms: Taking the Precise Path for Prevention and Treatment of Cancer	Curr Drug Targets	2017	18	-	421	435
J. Monisha, N. K. Roy, D. Bordoloi, A. Kumar, R. Golla, J. Kotoky, G. Padmavathi, A. B. Kunnumakkara	Nuclear Factor Kappa B: A Potential Target to Persecute Head and Neck Cancer	Curr Drug Targets	2017	18	-	232	253
J. Monisha, G. Padmavathi, N. K. Roy, A. Deka, D. Bordoloi, A. Anip, A. B. Kunnumakkara	NF- κ B Blockers Gifted by Mother Nature: Prospectives in Cancer Cell Chemosensitization	Curr Pharm Des	2016	22	-	4173	4200
Ananya Barman, Ranjan Tamuli	The pleiotropic vegetative and sexual development phenotypes of <i>Neurospora crassa</i> arise from double mutants of the calcium signaling genes <i>plc-1</i> , <i>splA2</i> , and <i>cpe-1</i> .	Current Genetics	2017	DOI 10.1007/s00294-017-0682-y		-	-
Aruna Rani, Seema Patel, Arun Goyal	Chondroitin sulphate lyases: structure, function and application in therapeutics	Current Protein and Peptide Science	2016	DOI: 10.2174/1389203718666170102112805		-	-
Kedar Sharma, Arun Dhillon, Arun Goyal	Insights into structure and reaction mechanism of mannanase	Current Protein and Peptide Science	2016	DOI: 10.2174/1389203717666161013115724		-	-
D. Singh, H. Chetia, D. Kabiraj, S. Sharma, A. Kumar, P. Sharma, M. Deka, U. Bora	A comprehensive view of the web-resources related to sericulture	Database (Oxford)	2016	-	86	1	31
J. Kakati, T. K. Gogoi, K. Pakshirajan	Production of biodiesel from Amari (<i>Amoora Wallichii</i> King) tree seeds using optimum process parameters and its characterization	Energy Conversion and Management	2017	135	-	281	290
Nadeem Akhtar, Arun Goyal, Dinesh Goyal	Characterization of microwave-alkali-acid pre-treated rice straw for optimization of ethanol production via simultaneous saccharification and fermentation (SSF)	Energy Conversion and Management	2016	141	-	133	144
D. Yadav, L. Barbora, Latha Rangan, Pinakeswar Mahanta	Tea waste and food waste as a potential feedstock for biogas production	Environmental Progress & Sustainable Energy	2016	35	5	1247	1253
Preety Vatsyayan, Pranab Goswami	Highly Active and Stable Large Catalase Isolated from a Hydrocarbon Degrading <i>Aspergillus terreus</i> MTCC 6324	Enzyme Research	2016	Article ID 4379403	-	1	8

Journal Papers
Biosciences and Bioengineering

Authors	Paper Title	Journal Name	Year	Volume	Issue Number	Starting Page	Ending Page
Yogendra Pratap Singh, Joseph Christakiran M., Bibhas Kumar Bhunia, Biman B. Mandal	Bi-phasic silk scaffolds for osteochondral tissue engineering.	European cells & materials	2016	31	-	326	326
Mimi Adhikary, Prerak Gupta, Manishekhar Kumar, Salma Jasmine, Nandana Bhardwaj, Dimple Chouhan, Biman B. Mandal	Hydroxyapatite-silk fiber-silk fibroin tri-composite scaffolds for bone tissue engineering	European cells & materials	2016	31	-	18	18
Dimple Couhan, Samit K. Nandi, Biman B. Mandal.	Non-mulberry silk fibroin based smart nanofibrous wound dressing for chronic cutaneous ulcers	European cells & materials	2016	31	-	239	239
Prerak Gupta, Manishekhar Kumar, Nandana Bhardwaj, Jadi Praveen Kumar, C. S. Krishnamurthy, Samit K. Nandi, Biman B. Mandal	Bioengineered silk vascular grafts for coronary artery bypass surgery	European cells & materials	2016	31	-	231	231
Ruchika Bhardwaj, Mousumi Das, Shalini Singh, Adarsh Kumar Chiranjivi, Sitaraa Vijaya Prabhu, Sanjeev Kumar Singh, Vikash Kumar Dubey	Evaluation of CAAX prenyl protease II of Leishmania donovani as potential drug target: infectivity and growth of the parasite is significantly lowered after the gene knockout	European Journal of Pharmaceutical Sciences	2017	102	-	156	160
S Das, Anupam Singh, Latha Rangan, Chandan K. Jana	Synthesis, in silico studies and in vitro evaluation for antioxidant and antibacterial properties of diarylmethylamines: A novel class of structurally simple and highly potent pharmacophore.	European Journal of Pharmaceutical Sciences	2016	88	-	202	209
Sudhir Morla, Aditi Makhija, Sachin Kumar	Synonymous codon usage pattern in glycoprotein gene of rabies virus	Gene	2016	584	-	1	6
Shalinee Jha, Shankar Prasad Kanaujia, Anil M. Limaye	Direct inhibition of matrix metalloproteinase 2 (MMP-2) by (-)-epigallocatechin-3-gallate: a possible role for the fibronectin type II repeats	Gene	2016	593	-	126	130
Monika Chandravanshi, Prerana Gogoi, Shankar Prasad Kanaujia	Computational characterization of TTHA0379: a potential glycerophosphocholine binding protein of Ugp ATP-binding cassette transporter.	Gene	2016	592	-	260	268

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Hasnahana Chetia, Debajyoti Kabiraj, Deepika Singh, Ponnala Vimal Mosahari, Suradip Das, Pragya Sharma, Kartik Neog, Swagata Sharma, P. Jayaprakash, Utpal Bora	De novo transcriptome of the muga silkworm, <i>Antheraea assamensis</i> (Helfer)	Gene (Elsevier)	2017	611	-	54	65
Suraj Kumar Mandal, Monika Chandravanshi, Prerana Gogoi, Shankar Prasad Kanaujia	In silico characterization of TTHA0596: A potential Zn ²⁺ binding protein of ATP-binding cassette transporter	Gene Reports	2017	6	-	132	141
J. M. Dixy Jaba Sheeba, C. M. Mohan, Marine Hussain, Gauri Deb, Neeraj Kumar, Anil Mukund Limaye	Estrogen-regulated extracellular matrix remodeling genes in MCF-7 breast cancer cells	Gene Reports	2016	3	-	14	21
Dibakar Gohain, Rekha Deka, Ranjan Tamuli	Identification of critical amino acid residues and functional conservation of the <i>Neurospora crassa</i> and <i>Rattus norvegicus</i> orthologues of neuronal calcium sensor-1.	Genetica	2016	144	6	665	674
Vijay Kumar Mishra, Ruchira Bajpai, Rakhi Chaturvedi	An efficient and reproducible method for development of androgenic haploid plants from in vitro anther cultures of <i>Camellia assamica</i> ssp. <i>assamica</i> (Masters)	In Vitro Cell and Developmental Biology – Plant	2017	-	-	1	10
Lakshminath Kundanati, Saket Kumar, Biman B. Mandal, Tejas G. Murthy, Namrata Gundiah, Nicola M. Pugno	Fabrication and mechanical characterization of hydrogel infused network silk scaffolds for tissue engineering	Int. J. Molecular Sci.	2016	17	-	1631	1631
Bhagyashree Deka, Kusum Kumari Singh	Multifaceted regulation of gene expression by ASAP complex and its components	Int. Jour. Biol. Sci.	2017	13	5	545	560
Vibha Sinha, N. Arul Manikandan, Kannan Pakshirajan, Rakhi Chaturvedi	Continuous removal of Cr (VI) from wastewater by phytoextraction using <i>Tradescantia pallida</i> plant based vertical subsurface flow constructed wetland system.	International Biodeterioration & Biodegradation	2017	119	-	96	103
S. Arun, N. Arul Manikandan, Kannan Pakshirajan, G. Pugazhenthii, Mayashree B. Syiem	Cu (II) removal by <i>Nostoc muscorum</i> and its effect on biomass growth and nitrate uptake: A photobioreactor study	International Biodeterioration & Biodegradation	2016	119	-	111	117

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Dipti Yadav, Lepakshi Barbora, Deep Bora, Sudip Mitra, Latha Rangan, Pinakeswar Mahanta	An assessment of duckweed as a potential lignocellulosic feedstock for biogas production	International Biodeterioration & Biodegradation	2017	119	-	437	447
Pooja Singh, Sudip Mitra, Deepanjan Majumdar, Pradip Bhattacharyya, Amit Prakash, Pallabi Borah, Ankita Paul, Latha Rangan	Nutrient and enzyme mobilization in earthworm casts: A comparative study with addition of selective amendments in undisturbed and agricultural soils of a mountain ecosystem	International Biodeterioration & Biodegradation	2017	119	-	253	259
Sharmila Narayanan, Pallab Sanpui, Lingaraj Sahoo, Siddhartha Sankar Ghosh	Heterologous expression and functional characterization of phytaspase, a caspase-like plant protease	International Journal of Biological Macromolecules	2017	95	-	288	293
Sharmila Narayanan, Pallab Sanpui, Lingaraj Sahoo, Siddhartha Sankar Ghosh	Unravelling the potential of a new uracil phosphoribosyltransferase (UPRT) from Arabidopsis thaliana in sensitizing HeLa cells towards 5-fluorouracil	International Journal of Biological Macromolecules	2016	91	-	310	316
Ajeet Singh, Poulami Datta, Lalit M. Pandey	Deciphering the mechanistic insight into the stoichiometric ratio dependent behavior of Cu(II) on BSA fibrillation	International Journal of Biological Macromolecules	2017	97	-	662	670
Seema Patel, Arun Goyal	Chitin and chitinase: Role in pathogenicity, allergenicity and health	International Journal of Biological Macromolecules (JIF 3.1)	2017	97	-	331	338
Madhavi Singh, Kannan Pakshirajan, Vishal Trivedi	Study on combined effect of Methylene blue and Sodium anthraquinone-2-sulphonate on inactivation efficiency of Escherichia coli and Enterococcus hirae	International Journal of ChemTech Research	2016	9	6	614	619
Rwivoo Baruah, Ndegwa H. Maina, Kati Katina, Riikka Juvonen, Arun Goyal	Functional food applications of dextran from Weissella cibaria RBA12 from Pummelo (Citrus maxima)	International Journal of Food Microbiology	2017	242	NA	124	131
Preeti Singh, Deepshikha Verma, Simarjot Kaur, Manish Kumar, et al.	Borrelia burgdorferi BBI39 paralogs, targets of protective immunity, reduce pathogen persistence either in hosts or in the vector	J Infect Dis.	2017	doi:10.1093/infdis/jix036		-	-
Sudesna Chakravarty, Nandana Bhardwaj, Biman B. Mandal, Neelotpal Sensarma	Silk Fibroin-Carbon Nanoparticle composite Scaffolds: A Cost Effective Supramolecular 'Turn Off' Chemiresistor for Nitro aromatic Explosive Vapours	J Material Chemistry C	2016	4	-	8920	8929
Nisha Shankhwar, Manishekahr Kumar, Biman B. Mandal, P. S. Robi, A. Srinivasan	Electrospun polyvinyl alcohol-polyvinyl pyrrolidone nanofibrous membranes for interactive wound dressing applications	J. Biomat. Sci. Poly. Edition	2016	27	-	247	262

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Qiao Shi, Yaxi Hou, Minna Juvonen, Päivi Tuomainen, Ilkka Kajala, Shraddha Shukla, Arun Goyal, Hannu Maaheimo, Kati Katina, Maija Tenkanen	Optimization of isomalto-oligosaccharide size-distribution by acceptor reaction of Weissella confusa dextransucrase and characterization of novel α -(1-2)-branched isomaltooligosaccharides	Journal of Agricultural and Food Chemistry	2016	64	-	3276	3286
Debajyoti Kabiraj, Jonjyoti Kalita, Hasnahana Chetia, Deepika Singh, Utpal Bora	Expanding the frontiers of rice research through omics	Journal of Assam Science Society (ISSN 0587-1921)	2017	56	2	1	28
Radhika Rajendran, Balaji Sitthu Narashimman, Vishal Trivedi, Rakhi Chaturvedi	Isolation and quantification of antimalarial N-alkylamides from flower-head derived in vitro callus cultures of <i>Spilanthes paniculata</i>	Journal of Bioscience and Bioengineering	2017		-	1	9
Sharbani Kaushik, Mrinal K Sarma, Phurpa Dema Thungon, Mallesh Santhosh, Pranab Goswami	Thin films of silk-fibroin and its blend with chitosan strongly promote biofilm growth of <i>Synechococcus</i> sp. BDU 140432.	Journal of Colloid and Interface Science	2016	479	-	251	259
Sakshi Tiwari, Abshar Hasan, Lalit M. Pandey	A novel bio-sorbent comprising encapsulated <i>Agrobacterium fabrum</i> (SLAJ731) and iron oxide nanoparticles for removal of crude oil co-contaminant, lead Pb(II)	Journal of Environmental Chemical Engineering	2017	5	-	442	452
Eldon R. Rene, Kannan Pakshirajan, Piet N. L. Lens	Special Issue on Biofilm Engineering for Heavy-Metal Removal and Recovery	Journal of Environmental Engineering	2016	142	9	1	4
M. Gopi Kiran, Kannan Pakshirajan, Gopal Das	Heavy metal removal from multicomponent system by sulfate reducing bacteria: Mechanism and cell surface characterization	Journal of Hazardous Materials	2017	324	-	62	70
Shyamali Sarma, Vikash K Dubey, Vijayanand Suryakant Moholkar	Kinetic and thermodynamic analysis (with statistical optimization) of hydrogen production from crude glycerol using <i>Clostridium pasteurianum</i> .	Journal of Hydrogen Energy	2016	41	-	19972	19989
Mohapatra Jajati Keshari, Rout Manoranjan, Kumar Sachin	Genome Sequencing: Practice to Prophecy	Journal of Immunology and Immunopathology.	2016	18	2	73	85
Sharbani Kaushik, Mrinal K. Sarma, Pranab Goswami	FRET-guided surging of cyanobacterial photosystems improves and stabilizes current in photosynthetic microbial fuel cell	Journal of Materials Chemistry A	2017	DOI 10.1039/C7TA01137G		-	-
Nandana Bhardwaj, Yogendra Pratap Singh, Dipali Devi, Raghuram Kandimalla, Jibon Kotoky, Biman B. Mandal	Potential of silk fibroin/chondrocyte constructs of muga silkworm <i>Antheraea assamensis</i> for cartilage tissue engineering	Journal of Materials Chemistry B	2016	4	-	3670	3684

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Aruna Rani, Arun Goyal	A new member of family 8 polysaccharide lyase Chondroitin AC lyase (PsPL8A) from <i>Pedobacter saltans</i> displays endo- and exo-lytic catalysis	Journal of Molecular Catalysis B: Enzymatic	2016	134	NA	215	234
Anil Kumar Verma, Arun Goyal	A novel member of family 30 glycoside hydrolase subfamily 8 glucuronoxylan endo- β -1,4-xylanase (CtXynGH30) from <i>Clostridium thermocellum</i> orchestrates catalysis on arabinose decorated xylans	Journal of Molecular Catalysis B: Enzymatic	2016	129	-	6	14
Jagan Mohan Rao Tingirikari, Aruna Rani, Arun Goyal	Synthesis of superparamagnetic nanoparticles and coating with dextran produced by dextransucrase of <i>Weissella cibaria</i> JAG8	Journal of Polymer and the Environment	2016	DOI: 10.1007/s10924-016-0836-x		-	-
Ritesh Kumar, Pratyajit Mohapatra, Vikash Kumar Dubey	Exploring realm of proteases of <i>Leishmania donovani</i> genome and gene expression analysis of proteases under apoptotic condition .	Journal of Proteomics & Bioinformatics	2016	9	-	200	208
Paras Gupta, Latha Rangan, T. Venkata Ramesh, Mudit Gupta	Comparative analysis of contextual bias around the translation initiation sites in plant genomes	Journal of Theoretical Biology	2016	404	-	303	311
Ambuj Srivastava, Prerana Gogoi, Bhagyashree Deka, Shrayanti Goswami, Shankar Prasad Kanaujia	In silico analysis of 5-UTRs highlights the prevalence of Shine-Dalgarno and leaderless-dependent mechanisms of translation initiation in bacteria and archaea, respectively	Journal of Theoretical Biology	2016	402	-	54	61
Ruchika Bhardwaj, Sanjeev Kumar Singh, Vikash Kumar Dubey	Localization studies on LdBPK_070020, a conserved protein, of <i>Leishmania donovani</i>	Journal of Vector Borne Diseases	2016	53	-	375	378
L. Goswami, R. V. Kumar, N. Arul Manikandan, K. Pakshirajan and G. Pugazhenth	Simultaneous polycyclic aromatic hydrocarbon degradation and lipid accumulation by <i>Rhodococcus opacus</i> for potential biodiesel production	Journal of Water Process Engineering	2017	17	-	1	10
R. Vinoth Kumar, Lalit Goswami, Kannan Pakshirajan, G. Pugazhenth	Dairy wastewater treatment using a novel low cost tubular ceramic membrane and membrane fouling mechanism using pore blocking models	Journal of Water Process Engineering	2016	13	-	168	175
Sudipta Ghosh, Rajesh K. Singh, Vikash Kumar Dubey, Latha Rangan	Antileishmanial Activity of Labdane Diterpenes Isolated from <i>Alpinia nigra</i> Seeds	Letters in Drug Design and Discovery	2017	14	-	119	124
Abshar Hasan, Lalit M. Pandey	Kinetic studies of attachment and re-orientation of octyltriethoxysilane for formation of self-assembled monolayer on a silica substrate	Materials Science and Engineering C	2016	68	-	423	429

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Nisha Shankhwar, Manishekhar Kumar, Biman B. Mandal, A. Srinivasan	Novel polyvinyl alcohol-bioglass 45S5 based composite nanofibrous membranes as bone scaffolds	Materials Science and Engineering: C	2016	69	-	1167	1174
Sudhir Morla, Manisha Shah, Megha Kaore, Nitin Vasantrya Kurkure, Sachin Kumar	Molecular characterization of genotype XIIIb Newcastle disease virus from central India during 2006-2012: Evidence of its panzootic potential	Microb Pathog.	2016	99	-	83	86
Ketan Ganar, Manisha Shah, Bhupesh P. Kamdi, Nitin Vasantrya Kurkure, Sachin Kumar	Molecular characterization of chicken anemia virus outbreaks in Nagpur province, India from 2012-2015	Microb Pathog.	2017	102	-	113	119
Sudhir Morla, Pankaj Deka, Sachin Kumar	Isolation of novel variants of infectious bursal disease virus from different outbreaks in Northeast India	Microbial Pathogenesis	2016	93	-	131	136
Saket K. Singh, Bibhas K. Bhunia, Nandana Bhardwaj, Sween Gilotra, Biman B. Mandal	Reloadable Silk-Hydrogel Hybrid Scaffolds for Sustained and Targeted Delivery of Molecules	Mol Pharm.	2016	13	-	4066	4081
Archita Ghoshal, Siddhartha Sankar Ghosh	Antagonizing canonical Wnt signaling pathway by recombinant human sFRP4 purified from E. coli and its implications in cancer therapy	Molecular and Cellular Biochemistry	2016	418	1	119	135
Vicky Rajulapati, Arun Goyal	Molecular cloning, expression and characterization of family 8 carbohydrate esterase, pectin methylesterase (CtPME) from Clostridium thermocellum. Molecular Biotechnology	Molecular Biotechnology	2017	DOI: 10.1007/s12033-017-9997-7		-	-
Priyamvada Jain, Babina Chakma, Naveen Kumar Singh, Sanjukta Patra, Pranab Goswami	Aromatic surfactant as aggregating agent for aptamer-gold nanoparticle based detection of Plasmodium lactate dehydrogenase	Molecular Biotechnology,	2016	58	-	497	508
Mahesh Agarwal, Amaresh Kumar Sahoo, Biplab Bose	Receptor-Mediated Enhanced Cellular Delivery of Nanoparticles Using Recombinant Receptor-Binding Domain of Diphtheria Toxin	Molecular Pharmaceutics	2017	14	1	23	30
Rituparna Duarah, Yogendra Pratap Singh, Biman B. Mandal, Niranjana Karak	Sustainable Starch Modified Polyol Based Tough Biocompatible Hyperbranched Polyurethane with Shape Memory Attribute	New Journal of Chemistry	2016	40	-	5152	5163
R. Tamuli	Neurospora: A scientific journey by the orange mold since 1843	North East Bioline	2016	-	1	8	9

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K. N. R. Yoganand, R. Sivathanu, Siddharth Nimkar, B. Anand	Asymmetric Positioning of Cas1-2 Complex and Integration Host Factor Induced DNA Bending Guide the Unidirectional Homing of Protospacer in CRISPR-Cas Type I-E system	Nucleic Acids Research	2017	45	-	367	381
Krishan K. Thakur, Gautam Sethi, Ajaikumar B. Kunnumakkara, et al.	Therapeutic implications of toll-like receptors in peripheral neuropathic pain	Pharmacol Res	2017	115	-	224	232
Ashim Malakar, Himadree Tanaya Biswal, K. Anki Reddy, Manishekhar Kumar, Biman B. Mandal, G. Krishnamoorthy	Aggregation Induced Enhanced Emission of 2-(2-Hydroxyphenyl) benzimidazole: A Combined Experimental and Simulation Approach.	Photochemical and Photobiological Sciences	2016	15	-	937	948
Ganesan Padmavathi, Nand Kishor Roy, Ajaikumar B. Kunnumakkara, et al.	Butein in health and disease: A comprehensive review	Phytomedicine	2017	25	-	118	127
Anuma Singh, Iffat Jahan, Mrinal Sharma, Latha Rangan, Alike Khare, Aditya N. Panda	Structural characterization, in silico studies and in vitro antibacterial evaluation of furanoflavonoid from Karanj	Planta Medica Letters	2016	DOI: 10.1055/s-0042-105159		-	-
Shalini Singh, Vikash Kumar Dubey	Quantitative proteome analysis of Leishmania donovani under spermidine starvation.	Plos One	2016	11	4	-	-
Gaurav Jerath, Prakash Kishore Hazam, Sashi Shekhar, Vibin Ramakrishnan	Mapping the Geometric Evolution of Protein Folding Motor	PLOS one	2016	11	10	1	16
Lalit Goswami, R. Vinoth Kumar, N. Arul Manikandan, Kannan Pakshirajan, G. Pugazhenth	Anthracene biodegradation by oleaginous Rhodococcus opacus for potential biodiesel application	Polycyclic aromatic Compounds	2017	DOI:10.1080/10406638.2017.1302971		-	-
Sanjay Kumar, Ashish A. Prabhu, V. Venkata Dasu, Kannan Pakshirajan	Batch and fed-batch bioreactor studies for the enhanced production of glutaminase-free L-asparaginase from Pectobacterium carotovorum MTCC 1428	Preparative Biochemistry and Biotechnology	2017	47	1	74	80
Rocktotpal Konwarh, Bibhas K. Bhunia, Biman B. Mandal.	Opportunities and Challenges in Exploring Indian Nonmulberry Silk for Biomedical Application	Proceedings of the Indian National Science Academy (Invited)	2017	83	-	85	101
Arun Goyal, Virginia M. R. Pires, Catarina G. Dourado, et al.	The complexity of the Ruminococcus flavefaciens cellulosome reflects an expansion in glycan recognition	Proceedings of National Academy of Sciences (USA)	2016	113	-	7136	7141

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Arun Goyal, Aleš Štrancar, Guillaume Pierre, et al.	Optimized endodextranase-epoxy CIM® Disk reactor for the continuous production of molecular weight-controlled prebiotic isomalto-oligosaccharides	Process Biochemistry	2017	DOI: 10.1016/j.procbio.2017.04.017		-	-
Anil Kumar, Ranjit Ranbhor, Kirti Patel, Vibin Ramakrishnan, Susheel Durani	Automated Protein and Peptide Design: Landmarks and Operational Principles	Progress in Biophysics and Molecular Biology.	2017	DOI: 10.1016/j.pbiomolbio.2016.12.002		-	-
Suradip Das, Alejandro Carnicer-Lombarte, James W. Fawcett, Utpal Bora	Bio-inspired nano tools for neuroscience	Progress in neurobiology	2016	142	-	1	22
L. Goswami, M. M. Tejas Namboodiri, R. V. Kumar, K. Pakshirajan, G. Pugazhenth	Biodiesel production potential of oleaginous Rhodococcus opacus grown on biomass gasification wastewater	Renewable Energy	2017	105	-	400	406
Himanshu Sharma, Baskaran Anand	Fluorescence Bimolecular Complementation Enables Facile Detection of Ribosome Assembly Defects in Escherichia coli	RNA Biology	2016	13	-	872	882
Aanchal, Nadeem Akhtar, Kanika, Dinesh Goyal, Arun Goyal	Response surface methodology for optimization of microbial cellulase production	Romanian Biotechnological Letters	2016	21	5	11832	11841
Pawan Kumar Maurya, Prabhanshu Kumar, Shirisha Nagotu, Subhash Chand, Pranjali Chandra	Multi-target detection of oxidative stress biomarkers in quercetin and myricetin treated human red blood cells	RSC Adv	2016	6	-	53195	53202
Archita Ghoshal, Upashi Goswami, Asif Raza, Arun Chattopadhyay, Siddhartha Sankar Ghosh	Recombinant sFRP4 bound chitosan–alginate composite nanoparticles embedded with silver nanoclusters for Wnt/ β -catenin targeting in cancer theranostics	RSC Advances	2016	6	-	85763	85772
Bandhan Chatterjee, Amaresh Kumar Sahoo, Siddhartha Sankar Ghosh, Arun Chattopadhyay	Interactive luminescent gold nanocluster embedded dsDNA and cisplatin as model nanoparticles for cancer theranostics	RSC Advances	2016	6	-	113053	113057
Arupjyoti Borah, Shuchi Singh, Arun Goyal, Vijayanand S. Moholkar	An assessment of invasive weeds as multiple feedstocks for biofuels production	RSC Advances	2016	6	-	47151	47163
Jadi P. Kumar, Nandana Bhardwaj, Biman B. Mandal	Cross-Linked Silk Sericin-Gelatin 2D and 3D Matrices for Prospective Tissue Engineering Application	RSC Advances	2016	6	-	105125	105136

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Manishekhar Kumar, D. Jain, N. Bhardwaj, Prerak Gupta, Samit K. Nandi, Biman B. Mandal	Native honeybee silk membrane: A potential matrix for tissue engineering and regenerative medicine	RSC Advances	2016	6	-	54394	54403
Satyabrat Gogoi, Manishekhar Kumar, Biman B. Mandal, Niranjana Karak	A renewable resource based carbon dot decorated hydroxyapatite nanohybrid and its fabrication with waterborne hyperbranched polyurethane for bone tissue engineering.	RSC Advances	2016	6	-	26066	26076
Karabi Saikia, Yalavarthi Durga Sravani, Vibin Ramakrishnan, Nitin Chaudhary	Highly potent antimicrobial peptides from N-terminal membrane-binding region of E. coli MreB	Scientific Reports	2017	7	-	42994	-
Ritesh Kumar, Kartikeya Tiwari, Vikash Kumar Dubey	Methionine aminopeptidase 2 is a key regulator of apoptotic like cell death in Leishmania donovani	Scientific Reports	2017	7	1	95	-
Ali D. Malay, Biman B. Mandal, Siriporn Damrongsakkul, Keiji Numata, et al.	Relationships between physical properties and sequence in silkworm silks	Scientific Reports	2016	6		27573	27573
Sajitha Sasidharan, Prakash Kishore Hazam, Vibin Ramakrishnan	Symmetry-Directed Self-Organization in Peptide Nanoassemblies through Aromatic π - π Interactions	The Journal of Physical Chemistry B	2017	121	2	404	411
Rachayeeta Deb, Shirisha Nagotu	Versatility of peroxisomes: An evolving concept	Tissue and Cell	2017	49	2	209	226
Polakshee Gogoi, Ketan Ashok Ganar, S. Kumar	Avian paramyxovirus: A brief review	Transbound Emerg Dis.	2017	64	1	53	67
Nagendra N. Barman, S. Kumar, et al.	Classical Swine Fever in Wild Hog: Report of its Prevalence in Northeast India	Transbound Emerg Dis.	2016	63	5	540	547
Arghya Sett, Bibhuti Bhusan Borthakur, Jagannath Dev Sharma, Amal Chandra Katak, Utpal Bora	DNA Aptamer Probes for Detection of Estrogen Receptor α positive carcinomas	Translational Research (Mosby)	2017	183	-	104	120
Ramesh A. Moolam, Anuma Singh, R. G. Shelke, P.T. Scott, P. M. Gresshoff, Latha Rangan	Identification of two genes encoding microsomal oleate desaturases (FAD2) from the biodiesel plant <i>Pongamia pinnata</i> L	Trees	2016	30	4	1351	1360
Atul Kumar, Anshuman Bhanja, Jina Bhattacharyya, Bithiah Grace Jaganathan	Multiple roles of CD90 in cancer	Tumor Biology	2016	37	9	11611	11622

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Vasudevan Gowthaman, Monika Koul, Sachin Kumar	Avian infectious laryngotracheitis: A neglected poultry health threat in India	Vaccine	2016	34	36	4276	4277
Rakesh Kumar, Nagendra N. Barman, Elina Khatoon, Sachin Kumar	Development of single dilution immunoassay to detect E2 protein specific classical swine fever virus antibody	Veterinary Immunology and Immunopathology	2016	172	-	52	54

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Prodyut Dhar, Amit Kumar, Vimal Katiyar	Magnetic Cellulose Nanocrystals-based Anisotropic Polylactic Acid Nanocomposite Films: Influence on Electrical, Magnetic, Thermal and Mechanical Properties	ACS Applied Material & Interfaces	2016	8	28	18393	18409
B. Ravi, S. Chakraborty, M. Bhattacharjee, P. S. Gooh Pattader, D. Bandyopadhyay	Pattern Directed Ordering of Spin-dewetted Liquid Crystal Micro or Nanodroplets as Pixelated Light Reflectors and Locomotives	ACS Applied Materials and Interfaces	2017	9	1066	-	-
Ashim K. Basumatary, P. Vikram Singh, R. Vinoth Kumar, Alope Kumar Ghoshal, G. Pugazhenth	Development and characterization of MCM-48 ceramic composite membrane for the removal of Cr(VI) from aqueous solution	ASCE Journal of Environmental Engineering	2016	142	9	5013 -1	11
N. Arul Manikandan, Addis K. Alemu, Lalit Goswami, Kannan Pakshirajan, G. Pugazhenth	Waste Litchi Peels for Cr(VI) Removal from Synthetic Wastewater in Batch and Continuous Systems: Sorbent Characterization, Regeneration and Reuse Study	ASCE Journal of Environmental Engineering	2016	142	9	6001 -1	11
Akhilesh Kumar Pal, Vimal Katiyar	Nanoamphiphilic Chitosan Dispersed Poly (lactic acid) Bionanocomposite Films with Improved Thermal, Mechanical, and Gas Barrier Properties	Biomacromolecules	2016	17	8	2603	2618
Pritam Kumar Dikshit, Vijayanand S. Moholkar	Kinetic analysis of dihydroxyacetone production from crude glycerol by immobilized cells of Gluconobacter oxydans MTCC 904	Bioresource Technology	2016	216		948	957
A. Chandrasekarana, S. Ramachandran, Senthilmurugan Subbiah	Determination of kinetic parameters in the pyrolysis operation and thermal behavior of prosopis juliflora using Thermogravimetric Analysis	Bioresource Technology	2017	233	NA	413	422
Sushobhan Pradhan, Arup Jyoti Borah, Maneesh Kumar Poddar, Pritam Kumar Dikshit, V. S. Moholkar	Microbial Production, Ultrasound Assisted Extraction and Characterization of Biopolymer Polyhydroxybutyrate (PHB) from Terrestrial (P. hysterophorus) and Aquatic (E. crassipes) Invasive Weeds	Bioresource Technology	2017		doi .org/10.1016/j.biortech. 2017.03.117	-	-

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Shyamali Sarma, Avinash Anand, Vikash Kumar Dubey, V. S. Moholkar	Metabolic flux network analysis of hydrogen production from crude glycerol by <i>Clostridium pasteurianum</i>	Bioresource Technology	2017	doi.org/ 10.1016/j.biortech. 2017.03.168		-	-
Mitradip Bhattacharjee, Harshal Nemade, Dipankar Bandyopadhyay	Nano-Enabled Paper Humidity Sensor for Mobile Based Point-of-Care Lung Function Monitoring	Biosensors & Bioelectronics	2017	94	544	-	-
Ritesh S. Malani, Shubham Patil, Kuldeep Roy, Arun Goyal, V. S. Moholkar	Mechanistic analysis of ultrasound assisted biodiesel synthesis with Cu ₂ O Catalyst and mixed oil feedstock using continuous (packed bed) and batch (slurry) reactors	Chemical Engineering Science	2017	-	-	-	-
Samarshi Chakraborty, Manish Kumar, Kelothu Suresh, G. Pugazhenthii	Investigation of Structural, Rheological and Thermal Properties of PMMA/ONi-Al LDH Nanocomposites Synthesized via Solvent Blending Method: Effect of LDH Loading	Chinese Journal of Polymer Science	2016	34	6	739	754
Venkatanarasimha Rao Chelli, Animes Kumar Golder	Development of a bio-mediated technique of silver-doping on titania	Colloids and Surfaces A: Physicochem. Eng. Aspects	2016	506	-	557	565
Akhilesh Kumar Pal, Vimal Katiyar	Theoretical and analyzed data related to thermal degradation kinetics of poly (L-lactic acid)/chitosan-grafted-oligo L-lactic acid (PLA/CH-g-OLLA) bionanocomposite films	Data in Brief	2017	10	-	304	311
R. Vinoth Kumar, P. Monash, G. Pugazhenthii	Treatment of oil-in-water emulsion using tubular ceramic membrane acquired from locally available low cost inorganic precursors	Desalination and Water Treatment	2016	57	58	28056	28070
Ashim Kumar Basumatary, Alope Kumar Ghoshal, G. Pugazhenthii	Performance Assessment of MCM-48 Ceramic Composite Membrane by Separation of AlCl ₃ from Aqueous Solution	Ecotoxicology and Environmental Safety	2016	134	2	398	402
Joydip Chaudhuri, Manash Pratim Borthakur, Tapas Kumar Mandal, Gautam Biswas, Dipankar Bandyopadhyay	Electric field mediated spraying of miniaturized droplets inside microchannel, Seim Timung	Electrophoresis	2016	DOI: 10.1002/elps.201600311		-	-
J. Chaudhuri, S. Timung, C. B. Dandamudi, T. K. Mandal, D. Bandyopadhyay	Discrete electric field mediated droplet splitting in microchannels: fission, cascade, and Rayleigh modes	Electrophoresis	2016	38	2	278	286

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Saptak Rarotra, Tapas Kumar Mandal, Dipankar Bandyopadhyay	Microfluidic Electrolyzers for Production and Separation of Hydrogen from Naturally Abundant Solar Energy and Sea Water	Energy Technology	2016	DOI: 10.1002/ente.201600512 2016		-	-
Venkatanarasimha Rao Chelli, Subhendu Sekhar Bag, Animes Kumar Golder	A biosynthesis route to nearly spherical AgNPs using chayote fruit extract	Environ. Prog. Sustain. Energy	2016	36	1	192	199
Ashim Kumar Basumatary, Partha Pratim Adhikari, Aloke Kumar Ghoshal, G. Pugazhenth	Fabrication and performance evaluation of Faujasite (FAU) zeolite composite ultrafiltration membrane by separation of trivalent ions from aqueous solution	Environmental Progress and Sustainable Energy	2016	35	4	1047	1054
S. Kumar, B. Sarma, Ashok Kumar Dasmahapatra, Amaresh Dalal, Dipankar Narayan Basu	Field Induced Anomalous Spreading, Oscillation, Ejection, Spinning, and Breaking of Oil Droplets on Strongly Slipping Water Surface	Faraday Discussion	2016	DOI: 10.1039/C6FD00233A		NA	NA
Melakuu Tesfaye, Vimal Katiyar	Microwave assisted synthesis of biodiesel from soybean oil: Effect of poly (lactic acid)-oligomer on cold flow properties, IC engine performance and emission characteristics	Fuel	2016	170	-	107	114
Ravi Babu Valapa, G. Pugazhenth, Vimal Katiyar	Hydrolytic degradation behaviour of sucrose palmitate reinforced poly(lactic acid) nanocomposites	International Journal of Biological Macromolecules	2016	89	-	70	80
Srinu Nagireddi, Vimal Katiyar, Ramgopal Uppaluri	Pd(II) adsorption characteristics of glutaraldehyde cross-linked chitosan copolymer resin	International Journal of Biological Macromolecules	2017	94	-	72	84
Akhilesh Kumar Pal, Vimal Katiyar	Thermal Degradation Behavior of Nanoamphiphilic Chitosan Dispersed Poly(Lactic Acid) Bionanocomposite Films	International Journal of Biological Macromolecules	2017	95	-	1267	1279
Bisweswar Das, Binay Deogam, Bishnupada Mandal	Absorption of CO ₂ into novel aqueous bis(3-aminopropyl)amine and enhancement of CO ₂ absorption into its blends with N-methyldiethanolamine	International Journal of Greenhouse Gas Control	2017	60	60	172	185
Shyamali Sarma, Vikash Kumar Dubey, V. S. Moholkar	Kinetic and thermodynamic analysis (with statistical optimization) of hydrogen production from crude glycerol using Clostridium pasteurianum	International Journal of Hydrogen Energy	2016	41	44	19972	19989
Chandan Das, Arijit Das, Animes Kumar Golder	Optimality in microwave-assisted drying of Aloe Vera (Aloe barbadensis Miller) gel using response surface methodology and artificial neural network modeling	J. Inst. Eng. India Ser. E	2016	97	2	143	149

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Akhilesh Kumar Pal, Ananya Das, Vimal Katiyar	Chitosan from Muga silkworms (<i>Antheraea assamensis</i>) and its influence on thermal degradation behavior of poly(lactic acid) based biocomposite films	Journal of Applied Polymer Science	2016	133	31	-	-
Bisweswar Das, Binay Deogam, Yatindra Agrawal, Bishnupada Mandal	Measurement and Correlation of the Physicochemical Properties of Novel Aqueous Bis(3-aminopropyl) amine and Its Blend with N-Methyldiethanolamine for CO ₂ Capture	Journal of Chemical & Engineering Data	2016	61	7	2226	2235
A. Ghosh, D. Bandyopadhyay, A. Sharma	Influence of the mutable kinetic parameters on the adhesion and debonding of thin viscoelastic films	Journal of Colloid and Interface Science	2016	477	109	-	-
A. B. Desamala, Vinayak Vijayan, Anjali Dasari, Ashok Kumar Dasmahapatra, Tapas K. Mandal	Prediction of oil-water flow patterns, radial distribution of volume fraction, pressure and velocity during separated flows in horizontal pipe	Journal of Hydrodynamics	2016	28	4	658	668
S. S. Gaur, Prodyut Dhar, A. Sharma, Amrita Sonowal, A. Kumar, Vimal Katiyar	Thermo-mechanically stable sustainable polymer based solid electrolyte membranes for direct methanol fuel cell applications	Journal of Membrane Science	2017	526	-	348	354
Akshay Sridhar, Amit Kumar, Ashok Kumar Dasmahapatra	Multi-scale molecular dynamics study of cholera pentamer binding to GM1-phospholipid membrane	Journal of Molecular Graphics and Modelling	2016	68	-	236	251
Kelothu Suresh, R. Vinoth Kumar, G. Pugazhenthhi	Processing and characterization of polystyrene nanocomposites based on Co-Al layered double hydroxide	Journal of Science: Advanced Materials and Devices	2016	1	3	351	361
Payel Sen, Kelothu Suresh, R. Vinoth Kumar, Manish Kumar, G. Pugazhenthhi	A Simple Solvent Blending Coupled Sonication Technique for Synthesis of Polystyrene (PS)/ Multi-Walled Carbon Nanotube (MWCNT) Nanocomposites: Effect of Modified MWCNT Content	Journal of Science: Advanced Materials and Devices	2016	1	3	311	323
Ali Shemsedin Reshad, Pankaj Tiwari, Vaibhav V Goud	Thermal decomposition and kinetics of residual rubber seed cake and shell	Journal of Thermal Analysis and Calorimetry	2017	10.1007/ s10973-017-6136-4		-	-
R. Vinoth Kumar, Lalit Goswami, Kannan Pakshirajan, G. Pugazhenthhi	Dairy wastewater treatment using a novel low cost tubular ceramic membrane and membrane fouling mechanism using pore blocking models	Journal of Water Process Engineering	2016	13	1	168	175
Kanchapogu Suresh, G. Pugazhenthhi, R. Uppaluri	Fly Ash Based Ceramic Microfiltration Membranes for Oil-water Emulsion Treatment: Parametric Optimization using Response Surface Methodology	Journal of Water Process Engineering	2016	13	1	27	43
Ashim Kumar Basumatary, R. Vinoth Kumar, Kannan. Pakshirajan, G. Pugazhenthhi	Removal of trivalent metal ions from aqueous solution via cross flow ultrafiltration system using zeolite membranes	Journal of Water Reuse and Desalination	2017	7	1	66	76

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K. Suresh, Rijumoni Boro, R. Vinoth Kumar, G. Pugazhenthhi	Effect of Concentration and Temperature on Rheological Behaviour of Polystyrene Solution	Macromolecular Symposia	2016	362	1	87	100
Manish Kumar, Vijay Kumar, A. Muthuraja, S. Senthilvelan, G. Pugazhenthhi	Influence of Nanoclay on the Rheological Properties of PMMA/Organoclay Nanocomposites Prepared by Solvent Blending Technique	Macromolecular Symposia	2016	365	1	104	111
China M. Kaniganti, Charan Sai Bugadala, Ramagopal Uppaluri	Identification of optimal rate-enhanced silver ELP processes for silver ceramic composite membrane fabrication	Materials and Manufacturing Processes	2017	32	4	450	457
Ashim Kumar Basumatary, R. Vinoth Kumar, Kannan Pakshirajan, G. Pugazhenthhi	Iron(III) removal from aqueous solution using MCM-41 ceramic composite membrane	Membrane Water Treatment, An International Journal	2016	7	6	495	505
M. Kumar, N. Shanmuga Priya, S. Kanagaraj, G. Pakshirajan	Melt rheological behavior of PMMA nanocomposites reinforced with modified nanoclay	Nanocomposites	2016	2	3	109	116
Anki Reddy Katha	Aggregation induced enhanced emission of 2-(2-hydroxyphenyl)benzimidazole	Photochemical & Photobiological Sciences	2016	15	122	937	948
Anugrah Singh	Experimental investigation of interface deformation in free surface flow of concentrated suspensions	Physics of Fluids	2016	28	11	1	21
Maneesh Kumar Poddar, Sachin Sharma, Vijayanand S. Moholkar	Investigations in two-step ultrasonic synthesis of PMMA/ZnO nanocomposites by in situ emulsion polymerization	Polymer	2016	99	-	453	469
Prodyut Dhar, Siddharth Mohan Bhasney, Amit Kumar, Vimal Katiyar	Acid Functionalized Cellulose Nanocrystals and its Effect on Mechanical, Thermal, Crystallization and Surfaces Properties of Poly (lactic acid) Bionanocomposites Films: A Comprehensive Study	Polymer	2016	101	-	75	92
Neelima Tripathi, Vimal Katiyar	Thermal Degradation Kinetics of Poly (lactic acid)/Lactic Acid-grafted-Gum Arabic Bionanocomposite Films	Polymer Engineering and Science-In Revisions	2017	-	-	-	-
S. Kumar, Md. R. A. Faridi, A. K. Dasmahapatra, D. Bandyopadhyay	Magnetic Field Induced Push-Pull Motility of Liquibots	RSC Advances	2016	6	-	107049	107056
Arup Jyoti Borah, Shichi Singh, Arun Goyal, V. S. Moholkar	An assessment of the potential of invasive weeds as multiple feedstocks for biofuel production	RSC Advances	2016	6	52	47151	47163
S. Kumar, Md. R. A. Faridi, A. K. Dasmahapatra, D. Bandyopadhyay	Magnetic field induced push pull motility of liquibots	RSC Advances	2016	6	-	107049	107056

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Amrita Ranjan, Shuchi Singh, Ritesh S. Malani, V. S. Moholkar	Ultrasound-assisted bioalcohol synthesis: review and analysis	RSC Advances	2016	6	70	65541	65562
Venkatanarasimha Rao Chelli, Animes Kumar Golder	pH dependent size control, formation mechanism and antimicrobial functionality of bio-inspired AgNPs	RSC Advances	2016	6	-	95483	95493
Subbiah Senthilmurugan, S. Senthil	Reverse Osmosis Pressure Retarded Osmosis hybrid system: Modelling, simulation and optimization	Senthilmurugan subbiah	2016	389	-	78	97
Ashim Kumar Basumatary, R. Vinoth Kumar, Alope Kumar Ghoshal, G. Pugazhenth	Removal of FeCl ₃ from aqueous solution by ultrafiltration using ordered mesoporous MCM-48 ceramic composite membrane	Separation Science and Technology	2016	51	12	2038	2046
Subbiah Senthilmurugan, T. Venkatesh	Grey Water Treatment and Simultaneous Surfactant Recovery Using UF and RO Process	Separation Science and Technology	2016	-	-	1	12
D. Vasanth, G. Pugazhenth, R. Uppaluri	Preparation, characterization and performance evaluation of LTA zeolite-ceramic composite membrane by separation of BSA from aqueous solution	Separation Science and Technology	2017	52	4	767	777
C. M. Kaniganti, Ramagopal Uppaluri	Efficacy of reducing agent contacting pattern in Ag-SOEP electroless plating baths	Surface Engineering	2016	33	5	383	388
Versa Rani, Raj Kumar Das, Animes Kumar Golder	Fabrication of reduced graphene oxide-graphite paste electrode for H ₂ O ₂ formation and its implication for ciprofloxacin degradation	Surfaces and Interfaces	2017	7	-	99	105
Arijit Das, Chandan Das, Animes K. Golder	Evaluation of physico-chemical properties of dried aloe gel: Comparison among hot air, microwave-assisted and hybrid drying processes	The Natural Prod. J.	2017	6	3	219	226
Melakuu Tesfaye Alemea, Rahul Patwa, Remya Kommadath, Prakash Kotecha, Vimal Katiyar	Silk Nanocrystals Stabilized Melt Extruded Poly (Lactic Acid) Nanocomposite Films: Effect of Recycling on Thermal Degradation Kinetics and Optimization Studies	Thermochimica Acta	2016	643	-	41	52
S. Chakraborty, V. Rao Chelli, R. K. Das, A. S. Giri, A. K. Golder	Bio-mediated silver nanoparticle synthesis: mechanism and microbial inactivation	Toxicol. Environ. Chem.	2016	99	3	434	447
Maneesh Kumar Poddar, Sachin Sharma, V. S. Moholkar	Enhancement of thermal and mechanical properties of poly (MMA BA)/Cloisite 30B Nanocomposites by ultrasound assisted in situ emulsion polymerization	Ultrasonics Sonochemistry	2016	36	-	212	225
Medha Milli, Vimal Katiyar	Poly(L-lactide)-N-Heterocyclic Functionalised Drug conjugate Carriers for Controlled Drug Release: Synthesis & Mechanism Studies	Under Review	2017	-	-	-	-

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Uday Narayan Pan, Rumi Khandelia, Pallab Sanpui, Subhojit Das, Anumita Paul, Arun Chattopadhyay	Protein-Based Multifunctional Nanocarriers for Imaging, Photothermal Therapy, and Anticancer Drug Delivery	ACS Applied Materials & Interfaces	2016	-	-	-	-
Akhtar Hussain Malik, Parameswar Krishnan Iyer	Conjugated Polyelectrolyte Based Sensitive Detection and Removal of Antibiotics Tetracycline from Water	ACS Applied Materials & Interfaces	2017	9	-	4433	4439
Balakrishnan Muthuraj, Sudip Mukherjee, Chitta Ranjan Patra, Parameswar Krishnan Iyer	Amplified Fluorescence from Polyfluorene Nanoparticles with Aggregation-Induced Enhanced Emission for Live Cell Imaging and Cancer Theranostics	ACS Applied Materials & Interfaces	2016	8	-	32220	32229
A. Kalita, Sameer Hussain, Akhtar Hussain Malik, Ujjwol Barman, Namami Goswami, Parameswar Krishnan Iyer	Anion exchange induced strong π - π interactions in single crystalline naphthalene diimide for nitroexplosive sensing: An electronic prototype for visual on-site detection	ACS Applied Materials & Interfaces	2016	8	38	25326	25336
S. R. Chowdhury, M. Agarwal, N. Meher, B. Muthuraja, Parameswar Krishnan Iyer	Modulation of Amyloid Aggregates into Nontoxic Coaggregates by Hydroxyquinoline Appended Polyfluorene	ACS Applied Materials & Interfaces	2016	8	-	13309	13319
A. K. Sahoo, U. Goswami, D. Dutta, S. Banerjee, Arun Chattopadhyay, S. S. Ghosh	Silver nanoclusters embedded composite nanoparticles for targeted prodrug delivery in cancer theranostics	ACS Biomaterials Science & Engineering	2016	2	8	1395	1402
Deepanjalee Dutta, Arun Chattopadhyay, Siddhartha Sankar Ghosh	Cationic BSA Templated Au-Ag Bimetallic Nanoclusters as a Theranostic Gene Delivery Vector for HeLa Cancer Cells	ACS Biomaterials Science & Engineering	2016	2	11	2090	2098
S. Panda, A. Roy, S. Jyoti Deka, Vishal Trivedi, Debasis Manna	Fused Heterocyclic Compounds as Potent Indoleamine-2, 3-dioxygenase 1 Inhibitors	ACS Medicinal Chemistry Letters	2016	7	12	1167	1172
A. Sain Tanwar, S. Hussain, A. Hussain Malik, M. A. Afroz, Parameswar Krishnan Iyer	Inner Filter Effect Based Selective Detection of Nitroexplosive-Picric Acid in Aqueous Solution and Solid Support Using Conjugated Polymer.	ACS Sensors	2016	1		1070	1077
B. A. Mir, A. Banerjee, S. Kumar Santra, S. Rajamanickam, Bhisma K. Patel	Fe(III) catalyzed peroxide mediated C-3 functionalizations of flavones	Advanced Synthesis & Catalysis	2016	358	21	3471	3476
Prakash Ranjan Mohanta, Arghya Banerjee, Sourav Kumar Santra, Ahalya Behera, Bhisma K. Patel	Acyl-peroxy coumarins as ortho C-H acylating agent via a Pd(II) catalyzed redox neutral process	Advanced Synthesis & Catalysis	2016	358	13	2047	2052

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Anju Modi, Wajid Ali, Bhisma K. Patel	N,N-Dimethylamide as a methylene synthon for regioselective linkage of imidazo[1,2-a]pyridine	Advanced Synthesis & Catalysis	2016	358	13	2100	2107
Srinivasa Rao Manne, Kishore Thalluri, Rajat Subhra Giri, Jyoti Chandra, Bhubaneswar Mandal	Ethyl 2-(tert-Butoxycarbonyloxyimino)-2-cyanoacetate (Boc-Oxyma): An Efficient Reagent for the Racemization Free Synthesis of Ureas, Carbamates and Thiocarbamates via Lossen Rearrangement	Advanced Synthesis and Catalysis	2017	359	-	168	176
Akhtar Hussain Malik, Sameer Hussain, Parameswar Krishnan Iyer	Aggregation-Induced FRET via Polymer-Surfactant Complexation: A New Strategy for the Detection of Spermine.	Anal. Chem.	2016	88	-	7358	7364
Soham Samanta, Barun Kumar Datta, Madhurima Boral, Abhijit Nandana, Gopal Das	Multi-responsive turn-on flurogenic probe to sense Zn ²⁺ , Cd ²⁺ and Pb ²⁺ : Left-Right-Center emission signal swing	Analyst	2016	141	-	4388	4393
P. Barman, P. Upadhyay, A. S. Faponle, J. Kumar, S. S. Nag, D. Kumar, C. V. Sastri, S. P. de Visser	Deformylation Reaction by a Non-Heme Manganese(III)-Peroxo Complex via Initial Hydrogen Atom Abstraction	Angewandte Chemie International Edition	2016	55	-	11091	11095
Ramanjaneyulu Unnava, Manash J. Deka, Anil K. Saikia	Synthesis of Highly Substituted Pyrazole N-Oxide and Pyrazole from Propargyl amine	Asian Journal of Organic chemistry	2016	5	-	528	536
Dharm Dev, Jyoti Chandra, Nani Babu Palakurthy, Kishore Thalluri, Tapasi Kalita, Bhubaneswar Mandal	Benzoxazole and Benzothiazole Synthesis from Carboxylic Acid in Solution and on Resin by Ethyl 2-cyano-2-(2-nitro-benzenesulfonyloxy imino) acetate and para-Toluenesulfonic Acid	Asian Journal of Organic Chemistry	2016	5	5	663	675
Subhendu Sekhar Bag, Subhashis Jana, Manoj Kumar Pradhan	Synthesis and Photophysical Properties of Triazolyl-Donor/Acceptor Chromophores Decorated Unnatural Amino Acids and Application of Triazolylperylene Amino Acid in Sensing BSA	Bioorganic & Medicinal Chemistry	2016	24	16	3576	3595
Arup Mukherjee, Dipankar Srimani, Yehoshua Ben-David, David Milstein	Low-Pressure Hydrogenation of Nitriles to Primary Amines Catalyzed by Ruthenium Pincer Complexes. Scope and mechanism	Chem Cat Chem	2017	9	4	559	563
Anushree Dutta, Deepanjalee Dutta, Pallab Sanpuib, Arun Chattopadhyay	Biomimetically Crystallized Protease Resistant Zinc Phosphate decorated with Gold Atomic Clusters for Bio-Imaging	Chemical Communications	2016	53	-	1277	1280
S. K. Santra, A. Banerjee, S. Rajamanickam, N. Khatuna, Bhisma K. Patel	PdII/CuBr ₂ catalysed keto α -Csp ³ -H benzoylation of N,N-dialkylamides directed by o-hydroxy groups	Chemical Communications	2016	52	24	4501	4504

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Soham Samanta, Poulomi Dey, Aiyagari Ramesh, Gopal Das	A Solo Fluorogenic Probe for Real-time Sensing of SO ₃ ²⁻ and SO ₄ ²⁻ /HSO ₄ ⁻ in Aqueous Medium and Live Cells by Distinct Turn-On Emission Signals	Chemical Communications	2016	52	-	10381	10384
Prasenjit Sarkar, Archana Tiwari, Amrit Sarmah, Subhrajyoti Bhandary, Ram Kinkar Roy, Chandan Mukherjee	An Elusive Vinyl Radical Isolated as an Appended Unit in a Five-Coordinate Co(III)-Bis(Iminobenzosemiquinone) Complex Formed via Ligand-Centered C-S Bond Cleavage	Chemical Communications	2016	52	-	10613	10616
Manas Kumar Mondal, Archana Tiwari, Chandan Mukherjee	A Solid-State Valence Tautomeric Octahedral {CoII[(BQ-N-Cat)] ₂ } ₀ Complex Formation via Ligand-Centered Phenolic C-O Bond breaking and Co-O Bond making	Chemical Communications	2016	-	-	11995	11998
Suman Jyoti Deka, Ashalata Roy, Vibin Ramakrishnan, Debasis Manna, Vishal Trivedi	Danazol has potential to cause PKC translocation, cell cycle dysregulation, and apoptosis in breast cancer cells	Chemical Biology & Drug Design	2017	-	-	-	-
S. Kumar, A. Paul, S. Kalita, Anup Kumar Ghosh, Bhubaneswar Mandal, Amal Chandra Mondal	Protective effects of β -sheet breaker α/β hybrid peptide against Amyloid β induced neuronal apoptosis in vitro	Chemical Biology and Drug Design	2016	-	-	1	13
A. Saha, Subhankar Panda, Saurav Paul, Debasis Manna	Phosphate bioisostere containing amphiphiles: a novel class of squaramide-based lipids	Chemical Communications	2016	52	60	9438	9441
Balaram Pradhan, V. M. Vaisakh, G. G. Nair, D. S. Shankar Rao, S. Krishna Prasad, Achalkumar Ammathnadu Sudhakar	Effect of Atomic scale Difference on the Self-assembly of Thiophene based Polycatenars in Liquid Crystalline and Organogel state	Chemistry - A European Journal	2016	22	-	17843	17856
Adil Majeed Rather, Uttam Manna	Facile Synthesis of Tunable and Durable Bulk Superhydrophobic Material from Amine "Reactive" Polymeric Gel	Chemistry Materials	2016	28	23	8689	8699
Nibedita Behera, Vadivelu Manivannan	Selective Recognition of Zn ²⁺ Ion Using 2,4,-Bis(2-pyridyl)-5-(4-pyridyl)imidazole: Spectra and Molecular Structure	Chemistry Select	2016	1	-	4016	4023
Arkalekha Mandal, Bhisma K. Patel	A Three Component Synthesis of 2-Aryl-3-imidamide Substituted 1,2-Dihydroquinazolin-4(1H)-ones	ChemistrySelect	2017	2	4	1717	1722
Arkalekha Mandal, Bhisma K. Patel	Metal ion directed tautomeric polymorphism in a hydrazoneamide / hydrozonate system	ChemistrySelect	2017	2	1	494	503

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Suraj K. Pathak, Monika Gupta, Santanu K. Pal, Ammathnadu S. Achalkumar	Hexacatenars Exhibiting π - π Driven Supergelation, Aggregation Induced Blue Light Emission and Thermochromism	ChemistrySelect	2016	1	-	5107	5120
Ramanjaneyulu Unnava, Anil K. Saikia	Synthesis of Substituted Pyrazole N-Oxide and Pyrazole from Propargyl Amine	ChemistrySelect	2016	1	-	1816	1823
Kafeel Ahmad, Sonit Kumar Gogoi, Raihana Begum, Palashuddin Sk, Anumita Paul, Arun Chattopadhyay	An Interactive Quantum Dot and Carbon Dot Conjugate for pH-Sensitive and Ratiometric Cu ²⁺ Sensing	ChemPhysChem	2017	18	6	610	616
B. Pramanik, J. H. Mondal, N. Singha, S. Ahmed, J. Mohanty, Debapratim Das	A Viologen-Perylenediimide Conjugate as an Efficient Base Sensor with Solvchromic Property.	ChemPhysChem	2017	18	-	245	252
Utsab Manna, Biswajit Nayak, Gopal Das	Dual guest [(Chloride) ₃ -DMSO] encapsulated cation-sealed neutral trimeric capsular assembly: meta-substituent directed halide and oxyanion binding discrepancy of isomeric neutral di-substituted bis-urea receptors	Crystal Growth & Design	2016	16	-	7163	7174
Arkalekha Mandal, Bhisma K Patel, Rahul Shukla, Deepak Chopra	Impact of complementary electronic nature of C-X and M-X Halogens and Intramolecular X...O Interaction in Supramolecular Assemblies of Zn(II) Complexes of O-Halophenyl Substituted Hydrazides.	Crystal Engineering Communications	2017	19	12	1607	1619
Md. Najbul Hoque, Gopal Das	An overview in strategic approach for solid state recognition of hydrated anions	Crystal Engineering Communications	2017	19	-	1343	1360
Utsab Manna, Biswajit Nayak, Najbul Hoque, Gopal Das	Influence of the cavity dimension on encapsulation of halide within the capsular assembly and side-cleft recognition of sulphate-water cluster assisted by polyammonium tripodal receptor	Crystal Engineering Communications	2016	18	-	5036	5044
R. Dalapati, B. Sakthivel, A. Dhakshinamoorthy, A. Buragohain, A. Bhunia, C. Janiak, Shyam Biswas	A highly stable dimethyl-functionalized Ce(IV)-based UiO-66 metal-organic framework material for gas sorption and redox catalysis	Crystal Engineering Communications	2016	18	-	7855	7864
Utsab Manna, Romen Chutia, Gopal Das	Entrapment of Cyclic Fluoride-Water and Sulfate-Water-Sulfate Cluster Within the Self-assembled structure of Linear meta-Phenylene Diamine Based Bis-Urea Receptors: Positional Isomeric effect	Crystal Growth & Design	2016	16	-	2893	2903

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S. J. Deka, S. Gorai, D. Manna, V. Trivedi	Evidence of PKC Binding and Translocation to explain the anticancer mechanism of chlorogenic acid in breast cancer cells.	Current molecular medicine	2017	-	-	-	-
Hemanta Deka, Somnath Ghosh, Soumen Saha, Kuldeep Gogoi, Biplab Mondal	Effect of ligand denticity on the nitric oxide reactivity of cobalt(II) complexes	Dalton Transactions	2016	45	27	10979	10988
S. Ghosh, H. Deka, Y. B. Dangat, S. Saha, K. Gogoi, K. Vanka, Biplab Mondal	Reductive nitrosylation of nickel(II) complex by nitric oxide followed by nitrous oxide release	Dalton Transactions	2016	45	25	10200	10208
Manas kumar Mondal, Chandan Mukherjee	An Unprecedented One-Step Synthesis of Octahedral Cu(II)-Bis(iminoquinone) Complexes and their Reactivity with NaBH ₄	Dalton Transactions	2016	45	-	13532	13540
Sujit Mahato, Anuma Singh, Latha Rangan, Chandan K. Jana	Synthesis, In silico studies and In vitro evaluation for antioxidant and antibacterial properties of diarylmethylamines: A novel class of structurally simple and highly potent pharmacophore	European Journal of Pharmaceutical Science	2016	88	-	202	209
Richa Rakshit, Chandan Mukherjee	Secondary Interaction versus Intra-molecular π - π Interaction in Cu(II)-Diradical Complexes	European Journal of Inorganic Chemistry	2016	55	-	2731	2737
Saurav Paul, Ashalata Roy, Suman Jyoti Deka, Subhankar Panda, Vishal Trivedi, Debasis Manna	Nitrobenzofurazan derivatives of N-hydroxyamidines as potent inhibitors of indoleamine-2, 3-dioxygenase 1	European journal of medicinal chemistry	2016	121	-	364	375
Anupa Gogoi, Prasenjit Sau, Wajid Ali, Srimanta Guin, Bhisma K. Patel	Copper(II)-catalyzed synthesis of -indoloquinoxalin-6-ones through oxidative Mannich reaction	European Journal of Organic Chemistry	2016	7	-	1449	1453
Rajendra Maity, Subhas Chandra Pan	Dienamine-Mediated Asymmetric Inverse-Electron-Demand Hetero-Diels-Alder Reaction of Linear Deconjugated Enones: Diversity-Oriented Synthesis of 3,4-Dihydropyrans	European Journal of Organic Chemistry	2017	2017	4	871	874
K. Mondal, S. C. Pan	Lewis Acid Catalyzed [3+3] Annulation of Donor-Acceptor Cyclopropanes with γ -Hydroxyenones: Access to Highly Functionalized Tetrahydropyrans	European Journal of Organic Chemistry	2017	2017	3	534	537
S. K. Behera, A. Mukherjee, G. Sadhuragiri, P. Elumalai, S. Malaichamy, Manishekhar Kumar, Biman B. Mandal	Aggregation induced enhanced and exclusively highly Stokes shifted emission from an excited state intramolecular proton transfer exhibiting molecule	Faraday Discussions	2017	196	-	71	90

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Papu Kumar Naik, Pyarimohan Dehury, Sandip Paul, Tamal Banerjee	Evaluation of Deep Eutectic Solvent for the Selective Extraction of Toluene and Quinoline at T=308.15 K and p=1 bar	Fluid Phase Equilibria	2016	423	-	146	155
Ganesh Chandra Paul, Sridhar Banerjee, Chandan Mukherjee	Dioxygen Reactivity of an Iron Complex of 2-Aminophenol-Appended Ligand: Crystallographic Evidence of the Aromatic Ring Cleavage Product of the 2-Aminophenol Unit	Inorganic Chemistry	2017	56	-	729	736
Prasenjit Barman, Chivukula V. Sastri, Sam P. de Visser, et al.	Influence of Ligand Architecture in Tuning Reaction Bifurcation Pathways for Chlorite Oxidation by Non-Heme Iron Complexes	Inorganic Chemistry	2016	55	-	10170	10181
Krishna P. Bhabak, Debasish Bhowmick	Synthetic strategies of gold(I)-selenolates from ortho-substituted diaryldiselenides via selenol and selenenyl sulfide intermediates	Inorganica Chimica Acta	2016	450	-	337	345
Akshai Kumar, Alan S. Goldman, et al.	High yields of piperylene in the transfer dehydrogenation of pentane catalyzed by pincer-ligated iridium complexes	Journal of Molecular Catalysis A: Chemical	2016	426	-	368	375
A. Buragohain, S. Couck, P. Van Der Voort, J. F. M. Denayer, S. Biswas	Synthesis, Characterization and Sorption Properties of Functionalized Cr-MIL-101-X (X = -F, -Cl, -Br, -CH ₃ , -C ₆ H ₄ , -F ₂ , -(CH ₃) ₂) Materials	Journal of Solid State Chemistry	2016	238	-	195	202
Manash C. Das, Saurav Paul, Priya Gupta, Prosun Tribedi, Subhasis Sarkar, Debasis Manna, Surajit Bhattacharjee	3-Amino-4-Aminoximidofurazan derivatives: small molecules possessing antimicrobial and antibiofilm activity against Staphylococcus aureus and Pseudomonas aeruginosa	Journal of applied microbiology	2017	-	-	-	-
Suman Jyoti Deka, Narsimha Mamdi, Debasis Manna, Vishal Trivedi	Alkyl Cinnamates Induce Protein Kinase C Translocation and Anticancer Activity against Breast Cancer Cells through Induction of the Mitochondrial Pathway of Apoptosis	Journal of Breast Cancer	2016	19	4	358	371
Babulal Das	Screening of multicomponent crystals of L-tryptophan with three isomers of pyridine dicarboxylic acids	Journal of Crystal Growth	2016	447	-	67	72
Tridip Ranjan Chetia, Mohammad Shaad Ansari, Mohammad Qureshi	Graphitic carbon nitride as a photovoltaic booster in quantum dot sensitized solar cells: A synergistic approach for enhanced charge separation and injection	Journal of Materials Chemistry A	2016	4	15	5528	5541
Raj Kumar Gogoi, Kundan Saha, Jumi Deka, Dulu Brahma, Kalyan Raidongia	Solvent-driven responsive bilayer membranes of clay and graphene oxide	Journal of Materials Chemistry A	2017	5	-	3523	3533

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Sameer Hussain, Akhtar Hussain Malik, Parameswar Krishnan Iyer	FRET-assisted selective detection of flavins via cationic conjugated polyelectrolyte under physiological conditions.	Journal of Materials Chemistry B	2016	4,	-	4439	4446
Niranjan Meher, Sayan Roy Chowdhury, Parameswar Krishnan Iyer	Aggregation Induced Emission Enhancement and Growth of Naphthalimide Nanoribbons via J-Aggregation: Insight into Disaggregation Induced Unfolding and Detection of Ferritin at Nanomolar Level	Journal of Materials Chemistry B,	2016	4	-	6023	6031
Suresh Vasimalla, Nimmakayala V. V. Subbarao, Parameswar Krishnan Iyer	Low voltage, low cost, flexible and balanced ambipolar OFETs based on Br2PTCDI-C18/CuPc fabricated on an Al foil gate substrate with good ambient stability.	Journal of Materials Chemistry C	2016	4	-	7102	7109
B. Pradhan, S. K. Pathak, R. K. Gupta, M. Gupta, S. Kumar Pal, Ammathnadu S. Achalkumar	Star-shaped fluorescent Liquid Crystals derived from s-triazine and 1,3,4-oxadiazole moities	Journal of Materials Chemistry C	2016	4	-	6117	6130
S. K. Pathak, B. Pradhan, R. K. Gupta, M. Gupta, S. K. Pal, Ammathnadu S. Achalkumar	Aromatic π - π Driven Supergelation, Aggregation Induced Emission and Columnar Self-assembly of Star-shaped 1,2,4-Oxadiazole Derivatives	Journal of Materials Chemistry C	2016	4	-	6546	6561
Balaram Pradhan, Monika Gupta, Santanu Kumar Pal, Ammathnadu S. Achalkumar	Multifunctional hexacatenamesogen exhibiting supergelation, AIEE and its ability as a potential volatile acid sensor	Journal of Materials Chemistry C	2016	4	-	9669	9673
R. K. Gupta, D. Das, M. Gupta, S. K. Pal, Parameswar Krishnan Iyer, A. S. Achalkumar	Electroluminescent Room Temperature Columnar Liquid Crystals Based On bay-Annulated Perylenetetraesters	Journal of Materials Chemistry C	2017	5	-	1767	1781
Bhanita Sharma, Sandip Paul	Role of caffeine as an inhibitor in aggregation of hydrophobic molecules: A molecular dynamics simulation study	Journal of Molecular Liquids	2016	224	-	930	939
Gargi Borgohain, Sandip Paul	Effect of Non Polar Confinement on Protein Trp Cage Conformation in Aqueous Osmolyte Solutions	Journal of Molecular Liquids	2017	231	-	174	184
Gargi Borgohain, Sandip Paul	Folding/Unfolding of Protein Trp Cage Conformation in Aqueous Osmolyte Solutions Under Polar Confinement	Journal of Molecular Liquids	2017	233	-	431	441
Subhendu Sekhar Bag, Suman K. Das, Manoj Kumar Pradhan, Subhashis Jana	Hybridization Accompanying FRET Event in Labeled Natural Nucleoside-Unnatural Nucleoside Containing Chimeric DNA Duplexes	Journal of Photochemistry & Photobiology B: Biology	2016	162	-	669	673

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Tousif Hossen, Kalyanasis Sahu	Elucidating the H-Bonding Environment of Coumarin 102 in a Phenol–Cyclohexane Mixture by Molecular Dynamics Simulation: Implications for H-Bond-Guided Photoinduced Electron Transfer	Journal of Physical Chemistry A	2017	121	-	616	622
Bhanita Sharma, Sandip Paul	Action of Caffeine as an Amyloid Inhibitor in the Aggregation of Abeta16-22 Peptide	Journal of Physical Chemistry B	2016	120	34	9019	9033
Peddaboodi Gopikrishna, Parameswar Krishnan Iyer	Mono-Substituted Dibenzofulvene-based Luminogens: Aggregation-Induced Emission Enhancement and Dual-State Emission.	Journal of Physical Chemistry C	2016	120	-	26556	26568
Aparajita Phukon, Sudipta Ray, Kalyanasis Sahu	How Does Interfacial Hydration Alter during Rod to Sphere Transition in DDAB/Water/Cyclohexane Reverse Micelles? Insights from Excited State Proton Transfer and Fluorescence Anisotropy	Langmuir	2016	32	-	6656	6665
Aparajita Phukon, Sudipta Ray, Kalyanasis Sahu	Effect of Cosurfactants on the Interfacial Hydration of CTAB Quaternary Reverse Micelle Probed Using Excited State Proton Transfer	Langmuir	2016	32	-	10659	10667
S. K. Pathak, B. Pradhan, M. Gupta, S. K. Pal, A. S. Achalkumar	Liquid Crystalline Star-shaped Supergelator Exhibiting Aggregation Induced Blue light Emission	Langmuir	2016	32	-	9301	9312
Mostakim SK, Maciej Grzywa, Dirk Volkmer, Shyam Biswas	Zr(IV) and Ce(IV)-based metal-organic frameworks incorporating 4-carboxycinnamic acid as ligand: synthesis and properties	Microporous Mesoporous Materials	2017	237	-	275	281
Sandip Paul	Can Trimethylamine-N-Oxide Act to Influence the Self-Aggregation of tert-Butyl Alcohol?	Molecular Physics	2016	114	13	2098	2107
Gargi Borgohain, Sandip Paul	Temperature Mediated Switching of Protectant-Denaturant Behavior of Trimethylamine-N-Oxide and Consequences on Protein Stability from a Replica Exchange Molecular Dynamics Simulation Study	Molecular Simulation	2017	43	1	52	64
B. Pradhan, Nirmalangshu Chakraborty, R. Kumar Gupta, G. Shanker, A. S. Achalkumar	Nonsymmetrical cholesterol dimers constituting regioisomeric oxadiazole and thiadiazole cores: an investigation on structure-property correlation	New Journal of Chemistry	2017	41	-	879	888
Soham Samanta, Utsab Manna, Gopal Das	White light emission from simple AIE-ESIPT-Excimer tripled single molecular system	New Journal of Chemistry	2017	41	-	1064	1072
Arghya Banerjee, Satavisha Sarkar, Bhisma K. Patel	C-H functionalisation of cycloalkanes	Organic & Biomolecular Chemistry	2017	15	3	505	530

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G. Majji, S. K. Rout, S. Rajamanickam, S. Guin, B. K. Patel	Synthesis of esters via sp ³ C-H functionalisation	Organic & Biomolecular Chemistry	2016	14	35	8178	8211
Wajid Ali, Anju Modi, Ahalya Behera, Prakash Ranjan Mohanta, Bhisma K. Patel	Cs ₂ CO ₃ as Source of carbonyl and ethereal oxygen in Cu-catalyzed cascade synthesis of benzofuran [3,2-c]quinolin[5-H]ones	Organic & Biomolecular Chemistry	2016	14	25	5940	5944
Sujit Mahato, Chandan K. Jana	Iterative direct C(sp ³)-H functionalization of amines: diastereoselective divergent syntheses of α,α-disubstituted alicyclic amines	Organic Bio-molecular Chemistry	2017	15	-	1655	1660
Anil K. Saikia, Manash J. Deka, Upasana Borthakur	Highly Regioselective Synthesis of 4-Tosylthiomorpholine via Intramolecular Cyclization of N-Tethered Thioalkenols	Organic Bio-molecular Chemistry	2016	14	-	10489	10495
T. B. Raju, J. V. Vaghasiya, M. A. Afroz, S. S. Soni, P. K. Iyer	Influence of m-fluorine Substituted Phenylene Spacer Dyes in Dye-sensitized Solar Cells	Organic Electronics	2016	39	-	371	379
Anju Modi, Wajid Ali, Bhisma K. Patel	Organocatalytic regioselective concomitant thiocyanation and acylation of oxiranes using aroyl isothiocyanates	Organic Letters	2017	19	3	432	435
Mani Sengoden, Abhisikta Bhowmick, Tharmalingam Punniyamurthy	Stereospecific Copper-Catalyzed Domino Ring Opening and sp ³ C-H Functionalization of Activated Aziridines with N-Alkylanilines	Organic Letters	2017	19	1	158	161
Subhankar Panda, Pradip Maity, Debasis Manna	Transition Metal, Azide, and Oxidant-Free Homo- and Heterocoupling of Ambiphilic Tosylhydrazones to the Regioselective Triazoles and Pyrazoles	Organic Letters	2017	-	-	-	-
Santanu Ghosh, Chandan K. Jana	Aminofluorene-Mediated Biomimetic Domino Amination-Oxygenation of Aldehydes to Amides	Organic Letters	2016	18	22	5788	5791
Rajendra Maity, Chandan Gharui, Arun K. Sil, Subhas Chandra Pan	Organocatalytic Asymmetric Michael / Hemiketalization/Retero-aldol Reaction of α-Nitroketones with Unsaturated Pyrazolones: Synthesis of 3-Acyloxy Pyrazoles	Organic Letters	2017	19	3	662	665
D. A. Laviska, T. Zhou, A. Kumar, T. J. Emge, Karsten Krogh-Jespersen, Alan S. Goldman,	Single and Double C-H Activation of Biphenyl or Phenanthrene. An Example of C-H Addition to Ir(III) More Facile than Addition to Ir(I)	Organometallics	2016	35	-	1613	1623
A. Malakar, M. Kumar, A. Reddy, Himadree T. Biswal, Biman B. Mandal, G. Krishnamoorthy	Aggregation Induced Enhanced Emission of 2-(2'-Hydroxyphenyl) benzimidazole: A Combined Experimental and Simulation Approach	Photochemical & Photobiological Sciences	2016	15	7	937	948

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Telugu Bhim Raju, Jayraj V. Vaghasiya, Mohammad Adil Afroz, Saurabh S. Soni, Parameswar Krishnan Iyer	Design, Synthesis and DSSC performance of o-fluorine substituted phenylene spacer sensitizers: Effect of TiO ₂ thickness variation.	Physical Chemistry Chemical Physics	2016	18	-	28485	28491
Anamika Kalita, Anamika Dey, Parameswar Krishnan Iyer	Effect of inorganic/organic dual dielectric layer on the morphology and performance of n-channel OFETs.	Physical Chemistry Chemical Physics	2016	18	-	12163	12168
Avishek Banik, Mohammad Shaad Ansari, Tushar Kanta Sahu, Mohammad Qureshi	Understanding the role of silica nanospheres with their light scattering and energy barrier properties in enhancing the photovoltaic performance of ZnO based solar cells	Physical Chemistry Chemical Physics	2016	18	40	27818	27828
Saugata Sahu, Sanjay Dutta, G. Krishnamoorthy	An unusual deprotonation trend in 2-(2'-hydroxyphenyl)pyridoimidazoles	Physical Chemistry Chemical Physics	2016	18	43	29905	29913
Saugata Sahu, Minati Das, G. Krishnamoorthy	Switching between cis and trans anions of 2-(2'-hydroxyphenyl) benzimidazole: A molecular rotation perturbed by chemical stabilization	Physical Chemistry Chemical Physics	2016	18	16	11081	11090
Md. Najbul Hoque, Utsab Manna, Gopal Das	Discrepancy in anion coordination directed by isomeric pyridine-urea receptors: solid state recognition of hydrated anions	Polyhedron	2016	119	-	307	316
Sahnawaz Ahmed, Nilotpal Singha, Bapan Pramanik, Julfikar Hassan Mondal, Debapratim Das	Redox Controlled Reversible Transformation of a Supramolecular Alternating Copolymer to Radical Cation Containing Homo-polymer	Polymer Chemistry	2016	7	-	4393	4401
Archita Ghoshal, Upashi Goswami, Asif Raza, Arun Chattopadhyay, Siddhartha Sankar Ghosh	Recombinant sFRP4 bound Chitosan-Alginate Composite Nanoparticles Embedded with Silver Nanoclusters for Wnt/b-catenin targeting in Cancer Theranostics	RSC Advances	2016	6	-	85763	85763
Bandhan Chatterjee, Amaresh Kumar Sahoo, Siddhartha Sankar Ghosh, Arun Chattopadhyay	Interactive luminescent gold nanocluster embedded dsDNA and cisplatin as model nanoparticles for cancer theranostics	RSC Advances	2016	6	-	113053	113057
Madhulekha Gogoi, Arun Chattopadhyay	White light emission from quantum dot and a UV-visible emitting Pd-complex on its surface	RSC Advances	2016	6	-	103095	103105
Ahalya Behera, Wajid Ali, Manisha Tripathy, Diptimayee Sahoo, Bhisma K. Patel	Transition metal-free synthesis of α -ketoamides from arylmethyl ketones and alkylphosphoramides.	RSC Advances	2016	6	94	91308	91313

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Rupinder Singh, Abhijit Gogoi, Gopal Das	Benzothiazole based multi-analyte sensor for selective sensing of Zn ²⁺ and Cd ²⁺ and subsequent sensing of inorganic phosphates (Pi) in mixed aqueous medium	RSC Advances	2016	6	-	112246	112252
Sandeep Kumar Dey, Arghya Basu, Romen Chutia, Gopal Das	Anion Coordinated Capsules and Pseudocapsules of Tripodal Amide, Urea and Thiourea Scaffolds (REVIEW)	RSC Advances	2016	6	-	26568	26589
Bhanita Sharma, Sourav Kalita, Ashim Paul, Bhubaneswar Mandal, Sandip Paul	The role of caffeine as an inhibitor in the aggregation of amyloid forming peptides: a unified molecular dynamics simulation and experimental study	RSC Advances	2016	6	-	78548	78558
S. K. Behera, G. Sadhuragiri, P. Elumalai, M. Sathiyendiran, G. Krishnamoorthy	Exclusive Tautomer emission from a 2-(2-hydroxyphenyl)benzimidazole derivative	RSC Advances	2016	6	64	59708	59717
Priya Ghosh, Ashutosh Kumar Kautarya, Anil Saikia	Synthesis of 4-Trifluoromethane-sulfonate Substituted 5,6-Dihydropyrans and Their Application in Various C-C Coupling Reactions	RSC Advances	2016	6	-	44774	44781
P. Ghosh, M. Jyoti Deka, M. Borah, Anil K. Saikia	Synthesis of dihydroindeno[1,2-c]isochromene via cascade cyclization and Friedel-Crafts reaction	RSC Advances	2016	6	-	1066 56	1066 61
Srestha Basu, Amaresh Kumar Sahoo, Anumita Paul, Arun Chattopadhyay	Thumb Imprint Based Detection of Hyperbilirubinemia Using Luminescent Gold Nanoclusters	Scientific Reports	2016	6	-	-	-
Ashim Paul, Sourav Kalita, Sujan Kalita, Piruthivi Sukumar, Bhubaneswar Mandal	Disaggregation of Amylin Aggregate by Novel Conformationally Restricted Aminobenzoic Acid containing α/β and α/γ Hybrid Peptidomimetics	Scientific Reports	2017	7	40095	1	13
Rana Dalapati, Shyam Biswas	Post-synthetic modification of a metal-organic framework with fluorescent-tag for dual naked-eye sensing in aqueous medium	Sensors and Actuators B	2017	239	-	759	767
Rana Dalapati, S.N. Balaji, Vishal Trivedi, Laxmikanta Khamari, Shyam Biswas	A dinitro-functionalized Zr(IV)-based metal-organic framework as colorimetric and fluorogenic probe for highly selective detection of hydrogen sulphide	Sensors and Actuators B	2017	245	-	1039	1049
Ujjal Ghosh, Subhendu Sekhar Bag, Chandan Mukherjee	Bis-pyridobenzene as a fluorescence light-up sensor for Hg ²⁺ ion in water	Sensors and Actuators B	2017	238	-	903	907
Sujit Sarkar, Sabera Sultana, Kiran Indukuri, Anil K. Saikia	Synthesis of Isochroman Derivatives via Oxa Pictet-Spengler Reaction of Acrylyl Enol Ethers: Synthesis of (+)-Sonepiprazole	Synthesis	2016	48	-	1727	1733

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G. Murugavel, P. Sadhu, T. Punniyamurthy	Copper(II)-Catalyzed Nitroaldol (Henry) Reactions: Recent Developments	The Chemical Record	2016	16	4	1906	1917
Sujit Mahato, Chandan K. Jana	Classical-Reaction-Driven Stereo- and Regio-selective C(sp ³)-H Functionalization of Aliphatic Amines	The Chemical Record	2016	16	-	1477	1488
L. Gelis, N. Jovancevic, S. Veitinger, B. Mandal, H.D. Arndt, E. M. Neuhaus, Hanns Hatt	Functional Characterization of the Odorant Receptor 51E2 in Human Melanocytes	The Journal of Biological Chemistry	2016	291	-	17772	17786
Wajid Ali Anjali Dahiya, Ramdhari Pandey, Tipu Alam, Bhisma K. Patel	Microwave assisted cascade strategy for the synthesis of indolo[2,3-b]quinolones from 2-(phenylethynyl) anilines and aryl isothiocyanate.	The Journal of Organic chemistry	2017	82	4	2089	2096
Sourav Kumar Santra, Arghya Banerjee, Prakash Ranjan Mohanta, Bhisma K. Patel	Peroxide free Pd(II)-catalyzed ortho-arylation and ortho-halogenation of directing arenes	The Journal of Organic chemistry	2016	81	14	6066	6074
Pinaki Bhusan De, Sourav Pradhan, Tharmalingam Punniyamurthy	Stereoselective Copper-Catalyzed Cross-Coupling of Aziridines with Benzimidazoles via Nucleophilic Ring Opening and C(sp ²)-H Functionalization	The Journal of Organic chemistry	2017	82	6	3183	3191
Mani Sengoden, Ryo Irie, Tharmalingam Punniyamurthy	Enantiospecific Aluminium-Catalyzed (3+2) Cycloaddition of Unactivated Aziridines with Isothiocyanates	The Journal of Organic chemistry	2016	81	22	11508	11513
Vanaparthi Sathesh, Mani Sengoden, Tharmalingam Punniyamurthy	"On Water" C(sp ³)-H Functionalization/C-O/C-N Bonds Formations: Synthesis of Functionalized Oxazolidines and Imidazolidines	The Journal of Organic chemistry	2016	81	20	9792	9801
Utpal Nath, Subhas Chandra Pan	Organocatalytic Asymmetric Tamura Cycloaddition with α - Branched Nitroolefins: Synthesis of Functionalized 1-Tetralones.	The Journal of Organic Chemistry	2017	82	6	3262	3269
Keshab Mondal, Buddhadeb Mondal, Subhas Chandra Pan	Organocatalytic redox isomerization of electron-deficient allylic alcohols: Synthesis of 1,4-ketoaldehydes	The Journal of Organic Chemistry	2016	81	11	4835	4840
Upasana Borthakur, Madhurjya Borah, Manash J. Deka, Anil K. Saikia	Synthesis of Tetrahydro-1H-indeno[1,2-b] pyridine via Cascade Cyclization and Friedel-Crafts Reaction	The Journal of Organic Chemistry	2016	81	-	8736	8743
Madhurjya Borah, Upasana Borthakur, Anil K. Saikia	Diastereoselective Synthesis of Substituted Morpholines from N-Tethered Alkenols: Total Synthesis of (+)-Chelonin A	The Journal of Organic Chemistry	2017	82	-	1330	1339

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Y. Gapak, S. K. Yamsani, S. Sreedeeep, R. R. Rakesh	Long term permeability characteristics of geotextile-soil combinations used in multi-layer cover system	Advances in Civil Engineering Materials, ASTM	2017	-	-	-	-
S. Bordoloi, A. Garg, S. Sreedeeep	A review of physio-biochemical properties of natural fibers and their application in soil reinforcement	Advances in Civil Engineering Materials	2017	-	-	-	-
S. Bordoloi, A. Garg, S. Sreedeeep	Potential of uncultivated, abundant and harmful species Eicchornia crassipes as a natural geo-reinforcement material	Advances in Civil Engineering Materials	2017	-	-	-	-
R. Bharti, R. Kalimuthu, D. Ramakrishnan	Spectral pathways for exploration of secondary uranium: An investigation in the desertic tracts of Rajasthan and Gujarat, India.	Advances in Space Research	2015	56	8	1613	1626
Shovan Kumar Sahu, Sri Harsha Kota	Significance of PM2.5 air quality in the Indian capital Kota	Aerosol and Air Quality Research	2017	17	2	588	597
J. Dutta, A. K. Mishra	Consolidation behaviour of bentonites in the presence of salt solutions	Applied Clay Science	2016	120	-	61	69
Y. Gapak, G. Das, U. Yaramshetty, T. V. Bharat	Laboratory Determination of Volumetric Shrinkage Behavior of Bentonites: A Critical Appraisal	Applied Clay Science	2017	135	-	554	566
T. V. Bharat, D. S. Das	Physicochemical approach for analyzing equilibrium volume of clay sediments in salt solutions	Applied Clay Science	2017	136	-	164	175
J. Dutta, A. K. Mishra	Consolidation Behavior of Compacted Bentonites in the Presence of Heavy Metals	ASCE Journal of Hazardous, Toxic and Radioactive Waste	2017	21	3	-	-
C. Sekar, C. S. P. Ojha, B. R. Gurjar, M. K. Goyal	Modeling and Prediction of Hourly Ambient Ozone (O ₃) and Oxides of Nitrogen (NO) Concentrations Using Artificial Neural Network and Decision Tree Algorithms for an Urban Intersection in India	ASCE-Journal of Hazardous, Toxic, and Radioactive Waste	2016	20	4	A 401 5001	-
T. B. Devi, A. Sharma, B. Kumar	Turbulent characteristics of Vegetated Channel with downward seepage	ASME Journal of Fluids Engineering	2016	138	12	-	-
T. B. Devi, R. Daga, S. K. Mahto, B. Kumar	Drag and Turbulent characteristics of Mobile bed Channel with mixed vegetation densities under downward seepage	ASME Journal of Fluids Engineering	2016	138	7	1	13
V. Singh, M. K. Goyal	Analysis and trends of precipitation lapse rate and extreme indices over north Sikkim eastern Himalayas under CMIP5ESM-2M RCPs experiments	Atmospheric Research	2016	167	-	34	60

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T. B. Devi, B. Kumar	Hydrodynamics of Submerged vegetated Channel with downward Seepage	Canadian Journal of Civil Engineering	2017	44	3	174	181
F. Shaheen, B. Pradhan	Influence of sulfate ion and associated cation type on steel reinforcement corrosion in concrete powder aqueous solution in the presence of chloride ions.	Cement and Concrete Research	2017	91	-	73	86
D. Ramakrishnan, R. Bharti	Hyperspectral remote sensing and geological applications.	Current Science; Special Section: Hyperspectral Remote Sensing	2015	108	5	879	891
V. Deshpande, B. Kumar	Turbulent flow structures in alluvial channel with curved cross-sections	Earth Surface Processes and Landforms	2016	41	8	1073	1087
C. Marthong, A. Dutta, S. K. Deb	Experimental Fragility Functions for Exterior RC Beam-Column Connections before and after Rehabilitation	Earthquake and Structure, (Techno Press, Korea)	2016	10	6	1291	1314
B. Barman, A. Sharma, B. Kumar, A. K. Sharma	Multiscale characterization of Migrating Sand Wave in Mining Induced Alluvial channel	Ecological Engineering	2017	102	-	199	206
T. B. Devi, B. Kumar	Flow Characteristics in an alluvial channel partially covered with Submerged vegetation	Ecological Engineering	2016	94	-	478	492
T. K. Devi, B. Kumar	Experimentation on submerged flow over flexible vegetation patches with downward seepage	Ecological Engineering	2016	91	-	158	168
N. T. Singh, B. Singh	Performance of Single Pile and Group Piles in Piled Raft Analysis Based on the Elastic Approach	Electronic Journal of Geotechnical Engineering	2016	21	23	7871	7883
H. Vardhan, S. Bordoloi, A. Garg, A. Garg, S. Sreedeeep	Model for estimation of compressive strength of soil reinforced with fiber extracted from water hyacinth	Engineering computation, Emerald Group, UK.	2017	34 (2)	-	-	-
J. Dutta, A. K. Mishra	Influence of presence of heavy metals on the behaviour of bentonites	Environmental Earth Science, Springer	2016	75	-	993-1	993-10
V. Singh, M. K. Goyal	Changes in climate extremes by the use of CMIP5 coupled climate models over eastern Himalayas	Environmental Earth Sciences	2016	75	9	1	27
T. V. Reddy, S. Chauhan, S. Chakraborty	Adsorption isotherm and kinetics analysis of hexavalent chromium and mercury on mustard oil cake	Environmental Engineering Research	2017	22	1	95	107
V. Deshpande, B. Kumar	Advent of Sheet flow in Suction affected alluvial Channels	Environmental Fluid Mechanics	2016	16(1)	-	25	44

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Authors	Paper Title	Journal Name	Year	Volume	Issue Number	Starting Page	Ending Page
U. Bhautmage, S. Gokhale	Effects of moving-vehicle wakes on pollutant dispersion inside a highway road tunnel	Environmental Pollution	2016	218	-	783	793
K. Mukherjee, A. K. Mishra	The impact of scrapped tyre chips on the mechanical properties of liner materials	Environmental Processes	2017	4	1	219	233
C. Marthong, S. K. Deb, A. Dutta	Effect of loading rate on the epoxy repaired beam-column connections	European Journal of Environmental and Civil Engineering	2016	http://dx.doi.org/10.1080/19648189.2016.1248790		-	-
C. Marthong, A. Dutta, S. K. Deb	Study on size effect of RC and rehabilitated exterior beam-column connections under cyclic loading	European Journal of Environmental and Civil Engineering	2016	20	5	586	610
Anurag Sharma, Bimlesh Kumar	Probability Distribution functions of turbulence in seepage affected alluvial channel	Fluid Dynamics Research-IOP Science	2017	49	1	-	-
S. Moharana, H. Medhi, S. Dutta	Advanced vegetation indices for sensing paddy growth via hyperspectral measurements	Geocarto International	2016	32	7	1	18
D. Ramakrishnan, R. Bharti, K. D. Singh, M. Nithya	Thermal Inertia Mapping and its Application in Mineral Exploration: Results from Mamandur Polymetal Prospect, India.	Geophysical Journal International	2013	195	-	357	368
S. K. Patel, B. Singh	Strength and Deformation Behavior of Fiber-Reinforced Cohesive Soil Under Varying Moisture and Compaction States	Geotechnical and Geological Engineering	2017	DOI 10.1007/s10706-017-0207-y		-	-
S. K. Yamsani, S. Sreedeeep, R. R. Rakesh	Shear and seepage characteristics of drainage layer aggregates in multi-layered barrier system	Geotechnical and Geological Engineering, Springer	2017	-	-	-	-
S. K. Padhee, B. R. Nikam, S. Dutta	Using satellite-based soil moisture to detect and monitor spatiotemporal traces of agricultural drought over Bundelkhand region of India	GIScience & Remote Sensing	2017	54	2	144	166
T. B. Devi, A. Sharma, B. Kumar	Studies on emergent flow over vegetative channel bed with downward seepage	Hydrological Sciences Journal	2017	62	3	408	420
A. Chouksey, V. Lambey, B. R. Nikam, S. P. Aggarwal, S. Dutta	Hydrological Modelling Using a Rainfall Simulator over an Experimental Hillslope Plot	Hydrology	2017	4	1	1	20
D. Ramakrishnan, R. Bharti	Uraniferous Calcrete Mapping using Hyperspectral Remote Sensing.	IGARSS	2014	-	-	2902	2905
R. Bharti, D. Ramakrishnan, K. D. Singh, M. Nithya	Relevance of Mineral Texture on Bidirectional Reflectance and Emission Spectroscopy: Implications for Geological Remote Sensing.	IGARSS	2012	-	-	3046	3049

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D. Ramakrishnan, K. N. Kusuma, R. Bharti, M. Das	Relevance of Spectroscopic Approach in the Retrieval of Suspended Sediment Concentration (SSC) in Case-II waters: An Investigation in the High Turbid waters of Gulf of Cambay, India.	IGARSS	2012	-	-	4833	4836
T. D. Aneesh, Reji Srinivas, M. Archana Nair, R. P. Krishna, C. R. Ayishath Nabeela	Study of Groundwater recharge-ability in the context of urbanization using remote sensing and GIS, Ernakulam district, Kerala	IJRET	2016	5	18	42	49
A. Kumar, A. Julaganti, R. Choudhary, S. S. Porwal	Evaluation of state-of-the-art (SoA) warm mix asphalt with modified binders	Indian Highways	2016	44	12	23	31
S. Padhi, S. Gokhale	Benzene control from waste gas streams with a sponge-medium based rotating biological contactor	Int. Biodeterioration and Biodegradation	2016	109		96	103
V. Prasanth, A. M. Krishna, S. K. Dash	Pullout Tests Using Modified Direct Shear Test Setup for Measuring Soil-Geosynthetic Interaction Parameters	Int. Journal of Geosynthetics and Ground Engineering	2016	2	2	-	-
A. Sharma, M. K. Goyal	Bayesian network for monthly rainfall forecast: a comparison of K2 and MCMC algorithm	International Journal of Computers and Applications	2016	38	4	199	206
R. Lalthlamuana, S. Talukdar	A semi-analytical method in bridge vehicle dynamic interaction and its field study	International Journal of Dynamics and Control, Springer	2016	DOI: 10.1007/S40435-016-0269-3		-	-
S. K. Patel, B. Singh	Experimental Investigation on Strength Aspects of Glass Fiber-Reinforced Fine Grained Soil	International Journal of Earth Sciences and Engineering	2016	9	3	32	39
T. K. Deb, B. Singh	Numerical Analysis of Bucket Foundations Under Eccentric Lateral Loading in Medium Dense Sand	International Journal of Earth Sciences and Engineering	2016	9	3	60	65
D. Ramakrishnan, E. Chandrasekha, P. Ranjan, R. Bharti	A Methodology for Alleviating Water Scarcity of Malwa Region, Madhya Pradesh using Geospatial and Geophysical Techniques: Inferences from Salari Watershed	International Journal of Earth Sciences and Engineering	2014	7	1	132	141
A. Julaganti, R. Choudhary, S. S. Porwal, A. Kumar	Effect of reduction in production temperatures on properties of bituminous mixes with an organic WMA additive	International Journal of Engineering Sciences and Research Technology	2017	6	2	433	442

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A. K. Mishra, B. Kumar, V. Srikanth	Prediction of hydraulic conductivity for soil-bentonite mixture	International Journal of Environmental Science and Technology	2017	-	-	-	-
V. Srikanth, A. K. Mishra	A laboratory study on the geotechnical characteristics of sand-bentonite mixtures and the role of particle size of sand	International Journal of Geosynthetics and Ground Engineering	2016	2	3	1	10
K. Mukherjee, A. K. Mishra	Performance Enhancement of sand-bentonite mixture due to addition of fiber and geosynthetic clay liner	International Journal of Geotechnical Engineering	2017	11	2	107	113
A. Biswas, A. M. Krishna	Behaviour of circular footing resting on layered foundation: sand overlying clay of varying strengths	International Journal of Geotechnical Engineering	2017	-	-	-	-
Abdulkerim Bedewi Serur, A. K. Sarma	Evaluation of the ArcSWAT Model in Simulating Catchment Hydrology in Weyb River Basin, Bale Mountainous Area Of Southeastern Ethiopia	International Journal of Innovative and Emerging Research In Engineering	2016	3	-	3	11
S. Deori, R. Choudhary, D. Tiwari, S. Gangopadhyay	Calibration of HDM-4 models for Indian conditions of flexible pavement having modified bitumen in wearing course	International Journal of Pavement Engineering	2016	-	-	1	14
P. Dey, S. Talukdar	A hybrid approach to detect crack parameters using measured natural frequencies in thin walled angle section beam	International Journal of Steel Structure	2016	6	1	163	175
M. R. Sharma, A. R. Singh, G. S. Benipal	Elastic Stability of Concrete Beam-Columns Part I: Static Stability	International Journal of Structural Stability and Dynamics	2017	17	1	1	18
M. R. Sharma, A. K. Singh, G. S. Benipal	Elastic Stability of Concrete Beam-Columns, Part II: Dynamic Stability	International Journal of Structural Stability and Dynamics (IJSSD)	2017	17	1	1	20
S. K. Yamsani, S. Sreedeeep, R. R. Rakesh	Frictional and Interface Frictional Characteristics of Multi-Layer Cover System Materials and its Impact on Overall Stability	International Journal of Geosynthetics and Ground Engineering	2016	2 (3)	-	-	-
P. Barman, B. Singh	Influence of TyreBuffings and Cement on Strength Behaviour of Soil-Fly Ash Mixes	International Journal of Geosynthetics and Ground Engineering	2017	3	1	1	12
V. Shivpure, T. B. Devi, B. Kumar	Turbulent Characteristics of densely flexible submerged vegetated Channel	ISH Journal of Hydraulic Engineering	2016	22	2	220	226

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S. Moharana, S. Dutta	Spatial variability of chlorophyll and nitrogen content of rice from hyperspectral imagery	ISPRS Journal of Photogrammetry and Remote Sensing	2016	122	-	17	29
V. Yadav, A. K. Singh, U. D. Dixit	Experimental Validation of Strategy for the Inverse Estimation of Mechanical Properties and Coefficient of Friction in Flat Rolling	J. Inst. Eng. India Ser. C	2016	-	-	-	-
P. Halder, B. Singh	Effect of Geosynthetic Reinforcement on Pile-supported Embankment Constructed on Soft Soils	Journal of Civil Engineering & Environmental Technology	2016	3	7	596	601
D. Ramakrishnan, R. Bharti, K. D. Singh	Compositional Diversity of Near-Far side transitory zone around Naonobu, Webb and Sinus Successus craters: Inferences from Chandrayaan-1 Moon Mineralogy Mapper (M3) Data.	Journal of Earth System Sciences	2014	123	1	233	246
D. Ramakrishnan, M. Nithya, K. D. Singh, R. Bharti	A Field Technique for Rapid Lithological Discrimination and Ore Mineral Identification: Results from Mamandur Polymetal Deposit, India.	Journal of Earth System Sciences	2013	122	1	93	106
C. Marthong, A. Dutta, S. K. Deb	Effect of Cyclic Loading Frequency on the Behaviour of RC Beam-Column Connections	Journal of Earthquake Engineering	2016	20	7	1126	114
A. Das, S. K. Deb, A. Dutta	Comparison of Numerical and Experimental Seismic Responses of FREI Supported Un-reinforced Brick Masonry Model Building	Journal of Earthquake Engineering	2016	20	8	1239	1262
A. K. Mishra, B. Kumar, J. Dutta	Prediction of hydraulic conductivity of soil bentonite mixture using hybrid-ANN approach	Journal of Environmental Informatics	2016	27	2	98	105
S. Patil, S. Chakraborty	Effects of step-feeding and intermittent aeration on organics and nitrogen removal in a horizontal subsurface flow constructed wetland.	Journal of Environmental Science and Health – Part A Toxic/Hazardous Substances and Environmental Engineering	2017	52	4	403	412
T. Karmaker, S. Dutta	Prediction of short-term morphological change in large braided river using 2D numerical model	Journal of Hydraulic Engineering	2016	142	10	1	20
T. B. Devi, B. Kumar	Channel Hydrodynamics of Submerged, flexible vegetation with seepage	Journal of Hydraulic Engineering, ASCE	2016	142	11		

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S. Patowary, A. K. Sarma	A Modified Hydrodynamic Model for Routing Unsteady Flow in a River having Piedmont Zone	Journal of Hydrology and Hydromechanics	2016	65	1	60	67
R. Chavan, A. Sharma, B. Kumar	Effect of Downward seepage on Turbulent characteristics and Bed Morphology around Bridge piers	Journal of Marine Science and Application	2017	16	1	60	72
S. M. Laskar, S. Talukdar	Development of ultrafine slag based geopolymer mortar for use as repairing mortar	Journal of Materials in Civil Engineering, ASCE	2016	DOI: 10.1061/ (ASCE) MT.1943. 5533.00018 24		-	-
C. Malaya, S. Sreedeeep	Evaluation of different laboratory procedures for determining suction-water content relationship of cohesionless geomaterials	Journal of Materials in Civil Engineering, ASCE	2016	28 (2)	-	-	-
R. Choudhary, S. K. Singh, A. Kumar, S. S. Porwal	Permeability characteristics of bituminous premix carpet and mix seal surfacing	Journal of the Indian Roads Congress	2016	77	2	383	392
K. K. Sharma, S. Talukdar, K. Kalita	An exact method to determine natural frequencies and mode shapes in coupled bending-torsion vibration of non uniform thin walled section beams considering the effect of warping	Journal of Vibration Engineering and Technologies	2016	4(6)	-	539	554
D. Ramakrishnan, R. Bharti, M. Das	Reply to Comment on "A technique for estimation of suspended sediment concentration in very high turbid coastal waters: An investigation from Gulf of Cambay, India"	Marine Geology	2014	351	-	109	111
D. Ramakrishnan, R. Bharti, M. Das	A Technique for Estimation of Suspended Sediment Concentration in Very High Turbid Coastal Waters: An Investigation from Gulf of Cambay, India.	Marine Geology	2013	346	-	256	261
C. Rainieri, A. Dey, G. Fabbrocino, F. Santucci de Magistris	Interpretation of experimentally measured dynamic response of an embedded wall by finite element models	Measurement	2016	DOI: 10.1016/ j. measurement. 2016.05 .100		-	-
M. K. Goyal, A. Sharma	A fuzzy c-means approach regionalization for analysis of meteorological drought homogeneous regions in western India	Natural Hazards	2016	83	3	1831-	1847
S. N. Sahoo, P. Sreeja	Relationship between peak rainfall intensity (PRI) and maximum flood depth (MFD) in an urban catchment of Northeast India	Natural Hazards, Springer	2016	83		1527	1544
V. Deshpande, B. Kumar	Effect of downward seepage on the shape of an alluvial Channels	Proceeding of ICE-Water Management	2017	170	1	3	14

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R. Bharti, D. Ramakrishnan	Exploring the unusual uranium enrichment zones in the Thar Desert, India, using remote sensing, GIS and gamma-ray spectroscopy.	Remote Sensing Letters	2015	6	7	509	518
R. Sarmah, G. Barua	Analysis of three-dimensional transient seepage into ditch drains from a ponded field	Sadhana, Springer Publications	2017	DOI: 10.1007/s12046-017-0628-6		-	-
Fenglin Han, Sri Harsha Kota, Yungang Wang, Hongliang Zhang	Source apportionment of PM2.5 in Baton Rouge, Louisiana during 2009-2014. 2017	Science of the Total Environment	2017	586	-	115	126
D. Ramakrishnan, M. Nithya, R. Bharti, K. N. Kusuma, K. D. Singh	Measurement of thermal properties of select intact and weathered granulites and their relationship to rock properties.	SEG Geophysics	2012	77	3	D63	D73
S. S. Kumar, A. Murali Krishna, A. Dey	Evaluation of dynamic properties of sandy soil under high cyclic strains	Soil Dynamics and Earthquake Engineering	2017	97	-	157	167
R. Lalthlamuana, S. Talukdar	Identification of flexible vehicle parameters on bridge using particle filter method	Structural Engineering and Mechanics	2016	7	1	21	43
R. Lalthlamuana, S. Talukdar	Estimation of gross weight, suspension stiffness and damping of a loaded truck from bridge measurement	Structures & Infrastructure Engineering, Taylor & Francis	2017	doi.org/ 10. 80/ 15732479. 2017. 129508		-	-
M. R. Sharma, A. K. Singh, G. S. Benipal	Static and Dynamic Stability of Elastic Masonry Beam-Columns	The Indian Concrete Journal	2016	90	2	48	59
Shivam, Manish Kumar Goyal, Arup Kumar Sarma	Analysis of the Change in Temperature Trends in Subansiri River Basin for RCP Scenerious using CMIPS datasets	Theoretical and Applied Climatology, Springer	2016	127	311	1	13
P. Dey, S. Talukdar	Modal characteristics of cracked thin walled unsymmetrical cross-sectional steel beams curved in plan	Thin Walled Structures	2016	108	-	75	92
Suresh Nama, Akhilesh K. Maurya, Avijit Maji, Prasanta K. Sahu,	Vehicle Speed Characteristics and Alignment Design Consistency for Mountainous Roads	Transportation in Developing Economies	2016	2:23	-	1	11
Sanhita Das, Akhilesh Kumar Maurya	Time headway analysis for four-lane and two-lane roads	Transportation in Developing Economies	2017	3:29	-	1	18
R. P. Talukdar, S. Talukdar	Dynamic analysis of high speed MAGLEV vehicle-guideway system: An approach in block diagram environment	Urban Rail Transit, Springer	2016	2(2)	-	71	84

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D. Abhijit, S. Sreedeeep	Contaminant retention characteristics of fly ash-bentonite mixes	Waste Management and Research, SAGE	2016	35	1	40	46
V. Shivpure, A. Sharma, B. Kumar	Comparison of Bed Shear Stress in Plane and Curvilinear Bed Channel using Multiple Criteria	Water Resources	2016	43	1	79	85
Abdulkerim Bedewi Serur, Arup Kumar Sarma	Impact of Spatial Data Availability on Climate Change Prediction in the Weyib River in Ethiopia	Water Resources Management, Springer	2017	31	249	1	16
Maya Rajnarayan Ray, Arup Kumar Sarma	Influence of time discretization and input parameter on the ANN based synthetic streamflow generation	Water Resources Management, Springer	2016	30	13	4695	4711
H. M. Kalita, A. K. Sarma	An implicit scheme for shallow water flow with wet dry interface	Water Resources, Springer	2016	-	-	-	-
A. Sharma, T. T. Devi, B. Kumar	Turbulence in Continuous Flow Surface Aeration Systems	Water Science and Technology	2017	75	5	1148	1157
A. Sharma, B. Kumar	Probability Distribution of Turbulence in Curvilinear Cross Section Mobile bed channel	Water Science and Technology	2016	73	6	1471	1482

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P. P. Nair, A. Sarkar, N. M. Harsha, M. Gandhi, P. P. Chakrabarti, S. Ghose	ERfair Scheduler with Processor Suspension for Real-Time Multiprocessor Embedded Systems	ACM Trans. Design Autom. Electr. Syst. (ACM TODAES)	2016	22	1	19:01	19:25
R. Devaraj, A. Sarkar, S. Biswas	Fault-Tolerant Preemptive Aperiodic RT Scheduling by Supervisory Control of TDES on Multiprocessors	ACM Trans. Embed. Comput. Syst. (ACM TECS)	2017	16	3	81:1	81:25
Sibaji Gaj, Aditya Kanetkar, A. Sur, Prabin Kumar Bora	Drift-Compensated Robust Watermarking Algorithm for H.265/HEVC Video Stream	ACM Trans. Multimedia Comput. Commun. App	2017	13	1	11	24
S. Rana, A. Sur	Depth Based View Invariant Blind 3D Image Watermarking	ACM Trans. Multimedia Comput. Commun. Appl	2016	12	4	48	71
Tarun K. Agrawal, A. Sahu, Manojit Ghose, R. Sharma	Scheduling chained multiprocessor tasks onto large multiprocessor system	Computing	2017	-	-	-	-
Asish Mukhopadhyay, S. V. Rao, Sidharth Pardeshi, Srinivas Gundlapalli	Linear Layouts of weakly Triangulated graphs	Discrete Maths, Algorithms, and applications	2016	8	3	-	-

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T. Semwal, S. B. Nair	AgPi: Agents on Raspberry Pi	Electronics: MDPI Open Access	2016	5	72	-	-
P. K. Biswal, H. P. Sambho, S. Biswas	A Discrete Event System approach to On-line Testing of digital circuits with measurement limitation	Engineering Science and Technology, an International Journal	2016	19	3	1473	1487
B. Subba, S. Biswas, S. Karmakar	Intrusion Detection in Mobile Ad hoc Network: Bayesian Game Formulation	Engineering Science and Technology: an International Journal	2016	19	2	782	799
Rakesh Tripathi, S. Vignesh, T. Venkatesh	Optimizing Green Energy, Cost and Availability in Distributed Data Centers	IEEE Communication Letters	2016	21	3	500	503
Bala Prakasa Rao Killi, Seela Veerabhadreswara Rao	Optimal Model for Failure Foresight Capacitated Controller Placement in Software-Defined Networks	IEEE communications letters	2016	20	6	1108	1111
Hari Prabhat Gupta, S. V. Rao, T. Venkatesh	Sleep Scheduling Protocol for k-Coverage of Three-Dimensional Heterogeneous WSNs	IEEE transactions on vehicular technology	2016	65	10	8423	8431
M. Agarwal, S. Biswas, S. Nandi	Discrete Event System Framework for Fault Diagnosis with Measurement Inconsistency: Case Study of Rogue DHCP Attack	IEEE/CAA Journal of Automatica Sinica	2017	-	1	1	18
M. Agarwal, S. Purwar, S. Biswas, S. Nandi	Intrusion Detection System for PS-Poll DoS Attack in 802.11 Networks using Real Time DES	IEEE/CAA Journal of Automatica Sinica and Computer Applications	2016	-	11	1	16
M. Agarwal, D. Pasumarthi, S. Biswas, S. Nandi	Machine Learning Approach for Detection of Flooding DoS attacks in 802.11 Networks and Attacker Localization	International Journal of Machine Learning and Cybernetics	2016	7	6	1035	1051
Samit Bhattacharya	A Predictive Linear Regression Model for Affective State Detection of Mobile Touch Screen Users	International Journal of Mobile Human Computer Interaction	2017	9	1	30	44
A. R. Ashok Kumar, S. V. Rao, D. Goswami	Simpler, Efficient Location Based Routing for Data Center Network using IP address Hierarchy	International Journal of Network Management,	2016	26	6	492	514
S. Karmakar, P. Koutris, A. Pagourtzis, D. Sakavalas	Energy-efficient broadcasting in ad-hoc wireless networks,	Journal of Discrete Algorithms	2017	42	-	2	13
S. Chakraborty, S. Chakraborty, S. Nandi, S. Karmakar	Impact of redundant sensor deployment over data gathering performance: A model based approach	Journal of Network and Computer Applications	2016	67	-	26	42
Nilkanta Sahu, Arijit Sur	SIFT Based Video Watermarking Resistant to Temporal Scaling	Journal of Visual Communication and Image Representation	2017	45	-	77	86

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Sibaji Gaj, Anoop Rathor, A. Sur, Prabin Kumar Bora	A Robust Watermarking Scheme against Frame Blending and Projection Attacks	Multimedia Tools and Applications	2016	-	-	1	25
Nilkanta Sahu, Shuvendu Rana, Arijit Sur	MCDCT-TF based video watermarking resilient to temporal and quality scaling	Multimedia Tools and Applications	2016	75	24	16835	16860
Niladri Sett, Sanasam Ranbir Singh, Sukumar Nandi	Influence of edge weight on node proximity based link prediction methods: An empirical analysis	Neurocomputing	2016	172		71	83
Mamata Samal, V. Vijaya Saradhi, Sukumar Nandi	Scalability of Correlation Clustering	Pattern Analysis and Applications	2017	Online	-	1	17
Hari Prabhat Gupta, S. V. Rao, T. Venkatesh	Analysis of Stochastic Coverage and Connectivity in Three- dimensional heterogeneous directional wireless sensor networks	Pervasive and Mobile Computing	2016	29	-	38	56
S. Mondal, S. Mohanty S. Nandi	Energy Efficient Secure Communication Architecture for Wireless Sensor Network	Security and Communication Networks	2016	9	16	3314	3323
B. Subba, S. Biswas, S. Karmakar	False alarm reduction in signature-based IDS: game theory approach	Security and Communication Networks	2016	9	18	4863	4881

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T. Patel, J. Sanjog, A. Chatterjee, S. Karmakar	Statistical Interpretation of Collected Anthropometric Data of Agricultural Workers from Northeast India and a Comparison with National and International Databases.	IIE Transactions on Occupational Ergonomics and Human Factors	2016	4	4	197	210
Subir Day, Prasad Bokil	Study of Sound Symbolic Words in Hindi Comics	International Journal of Comic Arts	2016	1	18	260	277
Ravi Lingannavar, Pradeep G. Yammiyavar	A frame work for innovation for the use by SMES	International Journal of Engineering, Technology, management and applied Sciences	2016	-	-	-	-
T. Patel, J. Sanjog, S. Karmakar	Ergonomics perspective in agricultural research: a user-centred approach using computer-aided design (CAD) and digital human modeling (DHM) technologies	Journal of The Institution of Engineers (India): Series A	2016	97	3	333	342

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Charu Monga, Amarendra Kumar Das	Cultural construction: Design aesthetics, semiotics and semantics associated with Masks in Namghar- The Study of its Design Aspects in the Island of Majuli, India	Research into Design for Communities	2017	1	-	-	-
Charu Monga, Jayant Jain, Sunny Kumar, Sandeep Athavale	Context Rich Digital Games for Better Learnability in the IT Project Management Context	SGoCSL, Porto	2017	-	-	-	-

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Biswajit Dev Sarma, S. R. M. Prasanna	Acoustic-Phonetic Analysis for Speech Recognition: A Review	Accepted for IETE Technical Review	2017				
Sikandar Kumar, Sonali Chouhan	Performance analysis of cognitive decode-and-forward dual-hop relay networks over κ - μ shadowed channels	AEU - International Journal of Electronics and Communications	2016	70	9	1241	1248
Indrani Kar	An Indirect Adaptive Fuzzy Control Scheme for a Class of Nonlinear Systems	Asian Journal of Control	2016	18	3	1153	1158
Ajay Kumar Maddirala, Rafi Ahamed Shaik	Motion Artifact Removal from Electroencephalogram Signals using Singular Spectrum Analysis	Biomedical Signal Processing and Control	2016	30	-	79	85
Anurag Singh, S. Dandapat	Exploiting multi-scale signal information in joint compressed sensing recovery of multi-channel ECG signals	Biomedical Signal Processing and Control (Elsevier)	2016	29	-	53	66
S. Padhy, S. Dandapat	Third-order Tensor based Analysis of Multilead ECG for Classification of Myocardial Infarction	Biomedical Signal Processing and Control (Elsevier)	2016	31	-	71	78
Sibasankar Padhy, L. N. Sharma, S. Dandapat	Multilead ECG data compression using SVD in multiresolution domain	Biomedical Signal Processing and Control (Elsevier)	2016	23	-	10	18
M. Surya Prakash, Rafi Ahamed Shaik, Sagar Koorpati	An Efficient Distributed Arithmetic-Based Realization of the Decision Feedback Equalizer	Circuits Systems Signal Processing	2016	35	2	603	618
Anurag Singh, S. Dandapat	Weighted Mixed Norm Minimization based Joint Compressed Sensing Recovery of Multi-channel Electrocardiogram Signals	Computers and Electrical Engineering (Elsevier)	2016	-	-	-	-

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J. P. Medhi, S. Dandapat	An effective fovea detection and automatic assessment of diabetic maculopathy in color fundus images	Computers in Biology and Medicine (Elsevier)	2016	74	-	30	44
Anurag Singh, L. N. Sharma, S. Dandapat	Multi-channel ECG data compression using compressed sensing in eigenspace	Computers in Biology and Medicine (Elsevier)	2016	73	-	24	37
Tousif Khan Nizami, Arghya Chakravarty, Chitralekha Mahanta	Design and Implementation of a Neuro-Adaptive Backstepping Controller for Buck Converter fed PMDC-Motor	Control Engineering Practice (Elsevier)	2017	58	-	78	87
R. Sharma, S. R. M. Prasanna	A better decomposition of speech obtained using modified Empirical Mode Decomposition	Digital Signal Processing, Elsevier	2016	58	-	26	39
Debdeep Paul, Wen-De Zhong, Sanjay K. Bose	Energy Aware Pricing in a Three-Tiered Cloud Service Market	Electronics (Switzerland)	2016	5	4	-	-
L. N. Sharma	Information Theoretic Multiscale Truncated SVD for Multilead Electrocardiogram	Elsevier, Computer Methods and Programs in Biomedicine	2016	129	-	109	116
A. Singh, L. N. Sharma, S. Dandapat	Multi-channel ECG data compression using compressed sensing in eigenspace	Elsevier, Computers in Biology and Medicine	2016	73	-	24	37
Bidisha Sharma, S. R. M. Prasanna	Sonority Measurement using System, Source and Suprasegmental Information	IEEE / ACM Trans. Audio, Speech, Language Processing	2016	25	3	505	518
H. Guo, G. Shen, Sanjay K. Bose	Routing and Spectrum Assignment for Dual Failure Path Protected Elastic Optical Networks	IEEE Access	2016	4	7542207	5143	5160
Y. Li, A. Cai, G. Qiao, L. Shi, G. Shen, Sanjay K. Bose	Multi-Objective Topology Planning for Microwave-Based Wireless Backhaul Networks	IEEE Access	2016	4	7492174	5742	5754
Himanshu Sekhar Sahu, Sisir Kumar Nayak, Sukumar Mishra	Maximizing the Power Generation of a Partially Shaded PV Array	IEEE Journal of Emerging and Selected Topics in Power Electronics,	2016	4	2	626	637
Ripudaman Singh, Brijesh K. Rai, Sanjay K. Bose	A Novel Framework to Enhance the Performance of Contention Based Synchronous MAC Protocols	IEEE Sensors Journal	2016	16	16	6447	6457
A. K. Maddirala, Rafi Ahamed Shaik	Removal of EOG Artifacts From Single Channel EEG Signals Using Combined Singular Spectrum Analysis and Adaptive Noise Canceler	IEEE Sensors Journal	2016	16	23	8279	8287
Bidisha Sharma, S. R. M. Prasanna	Enhancement of Spectral Tilt in Synthesized Speech	IEEE Signal Processing Letters	2017	24	4	382	386

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Authors	Paper Title	Journal Name	Year	Volume	Issue Number	Starting Page	Ending Page
K. T. Deepak, S. R. M. Prasanna	Foreground Speech Segmentation and Enhancement using Glottal Closure Instants and Mel Cepstral Coefficients	IEEE Trans. Audio, Speech and Language Processing	2016	24	7	1205	1219
H. S. Sahu, S. K. Nayak	Extraction of Maximum Power from a PV Array Under Nonuniform Irradiation Conditions	IEEE Transaction on Electron Devices	2016	63	12	4825	4831
S. Mondal, R. Paily	An Efficient On-Chip Switched-Capacitor-Based Power Converter for a Microscale Energy Transducer	IEEE Transactions on Circuits and Systems II: Express Briefs	2016	63	3	254	258
Dheeraj Kumar Sinha, Amitabh Chatterjee, Ronald D. Schrimpf	Modeling Erratic Behavior Due to High Current Filamentation in Bipolar Structure under Dynamic Avalanche Conditions	IEEE Transactions on Electron Devices	2016	65	8	3185	3192
P. Sandeep, T. Jacob	Single Image Super-Resolution Using a Joint GMM Method	IEEE Transactions on Image Processing	2016	25	9	4233	4244
Chandan Kumar, Mahesh K. Mishra, Marco Liserre	Design of external inductor for improving performance of voltage controlled DSTATCOM	IEEE Transactions on Industrial Electronics	2016	63	8	4674	4682
A. Dalal, S. Nekkhalapu, P. Kumar	2-D Analytical Subdomain Model for Hybrid Dual-Rotor Motor	IEEE Transactions on Magnetics	2016	52	6	-	-
A. Sethi, S. Albarqouni, L. Wang, M. Baust, K. Steiger, et al.	Structure-Preserving Color Normalization and Sparse Stain Separation for Histological Images.	IEEE Transactions on Medical Imaging	2016	35	8	1962	1971
Neeraj Kumar, Amit Sethi	Fast Learning-Based Single Image Super-Resolution	IEEE Transactions on Multimedia	2016	18	8	1504	1515
P. Kumar, K. Dhaka	Performance Analysis of a Decode-and-Forward Relay System in κ - μ and η - μ Fading Channels	IEEE Transactions on Vehicular Technology	2016	65	4	2768	2775
Sikandar Kumar, Sonali Chouhan	Performance Analysis of MIMO Spectrum-Sharing Networks with Pre-Whitened Interfering Signals under Outdated Channel Information	IEEE Wireless Communications Letters	2016	5	2	156	159
C. M. Vikram, S. R. M. Prasanna	Epoch Extraction from Telephone Quality Speech Using Single Pole Filter	IEEE/ACM Trans. Audio, Speech, Language Processing	2016	PP	99	1	1
Xuejiao Zhao, Gangxiang Shen, Weidong Shao, Sanjay K. Bose	Energy Efficient and Bandwidth Guaranteed Design for Optical Network with Mixed Sleep-enabled and Non-sleep-enabled Router Cards	IEEE/OSA Journal of Lightwave Technology	2016	34	4	1072	1085
T. Malathi, M. K. Bhuyan	Asymmetric Occlusion Detection using Linear Regression and Weight-based Filling for Stereo Disparity Map Estimation	IET Computer Vision	2016	10	7	679	688

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Sunil Kumar, M. K. Bhuyan, Biplab Chakraborty	Extraction of Informative Regions of a Face for Facial Expression Recognition	IET Computer Vision	2016	10	16	567	576
S. Bhattacharjee, R. S. Kshetrimayum, R. Bhattacharjee	Printed monopole antennas on uniaxial substrate: Theory and Simulation	IET Electronics Letters	2016	52	10	796	798
Himanshu Sekhar Sahu, Sisir Kumar Nayak	Numerical approach to estimate the maximum power point of a photovoltaic array	IET Generation, Transmission & Distribution	2016	10	2	2670	2680
S. Rai, D. Lalani, S. K. Nayak, T. Jacob, P. Tripathy	Estimation of low-frequency modes in power system using robust modified Prony	IET Generation, Transmission & Distribution	2016	10	6	1401	1409
Bhoopal Rao Gangadari, Shaik Rafi Ahamed	Design of cryptographically secure AES like S-Box using second-order reversible cellular automata for wireless body area network applications	IET Healthcare Technology Letters2016	2016	3	3	177	183
Santanu Mishra, Ravindranath Adda, Saurabh Sekhar, Avinash Joshi, Akshay Rathore	Power transfer using portable surfaces in capacitively coupled power transfer technology	IET Power Electronics	2016	9	5	997	1008
M. Surya Prakash, Rafi Ahamed Shaik	DA Based Approach for the Implementation of the Block Adaptive Decision Feedback Equalizer	IET Signal Processing	2016	10	6	676	684
Y. Sunil, S. R. M. Prasanna, R. Sinha	Children's Speech Recognition Under Mismatched Condition: A Review	IETE Journal of Education	2016	57	2	96	108
Bidisha Sharma, S. R. M. Prasanna	Polyglot speech synthesis: A review	IETE Technical Review	2016	-	-	1	24
V. K. Pandey, I. Kar, C. Mahanta	Control of twin-rotor MIMO system using multiple models with second level adaptation	IFAC-PapersOnLine	2016	49	1	676	681
K. Ramesh, S. R. M. Prasanna	Glottal Opening Instants Detection using Zero Frequency Resonator	Int. Journal of Speech Technology	2016			1	15
M. Manohar, R. S. Kshetrimayum, A. K. Gogoi	Superwideband Antenna with Single Band Suppression	International Journal of Microwave and Wireless Technologies	2017	9	1	143	150
Arghya Chakravarty, Chitralekha Mahanta	Actuator fault-tolerant control (FTC) design with post-fault transient improvement for application to aircraft control	International Journal of Robust and Nonlinear Control (Wiley)	2016	26	10	2049	2074
B. Priya, S. Dandapat	Subspace filtering approach based on orthogonal projection for better analysis of stressed speech under clean and noisy environments	International Journal of Speech Technology (Springer)	2016	-	-	-	-

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Saurabh Pandey, Somanath Majhi	Limit Cycle based Exact Estimation of FOPDT Process Parameters under Input / Output Disturbances	International Journal of Systems Science	2016	48	1	118	128
RK Baruah, RP Paily	A surface-potential based drain current model for short-channel symmetric double-gate junctionless transistor	Journal of Computational Electronics	2016	15	1	45	52
Amit Sethi, L. Sha, A. Ramnath Vahadane, R. J. Deaton, N. Kumar, V. Macias, Peter H. Gann	Empirical comparison of color normalization methods for epithelial-stromal classification in H and E images	Journal of Computational Pathology	2016	7	17	-	-
Prasenjit Ghorai, Somanath Majhi, Saurabh Pandey	Dynamic Model Identification of a Real-Time Simple Level Control System	Journal of Control and Decision	2016	3	4	248	266
Prasenjit Ghorai, Somanath Majhi, Saurabh Pandey	Modeling and Identification of Real Time Processes based on Non-Zero Set point Autotuning Test	Journal of Dynamic Systems, Measurement and Control	2017	139	3	021010-1	021010-8
Ya Zhang, L. Li, Yongcheng Li, Sanjay Bose, Gangxiang Shen	Migration from Fixed to Flexible Grid Optical Networks with Sub-band Virtual Concatenation	Journal of Lightwave Technology (IEEE/OSA)	2017	DOI: 10.1109/JLT.2017.2685622		-	-
R. Roy, A. Dalal, P. Kumar	Prediction of high frequency core loss for electrical steel using the data provided by manufacturer	Journal of Magnetism and Magnetic Materials	2016	410		248	256
R. K. Tripathy, L. N. Sharma, S. Dandapat	Detection of Shockable Ventricular Arrhythmia using Variational Mode Decomposition	Journal of medical systems	2016	40	4	1	13
R. K. Tripathy, S. Dandapat	Detection of Cardiac Abnormalities from Multilead ECG using Multiscale Phase Alternation Features	Journal of medical systems	2016	6	40	1	9
Debdeep Paul, Wen-De Zhong, Sanjay K. Bose	Energy Efficient Cloud Service Pricing: A Two-Timescale Optimization Approach	Journal of Network and Computer Applications	2016	59	1	185	197
Debdeep Paul, Wen-De Zhong, Sanjay K. Bose	Energy efficiency aware load distribution and electricity cost volatility control for cloud service providers	Journal of Network and Computer Applications	2016	64	1	98	112
H. Chen, Y. Li, Sanjay K. Bose, W. Shao, L. Xiang, Y. Ma, G. Shen	Cost-minimized design for TWDM PON-based 5G mobile backhaul networks	Journal of Optical Communication and Networking (OSA)	2016	8	11	B1	B11
S. Shahnawazuddin, D. Thotappa, A. Dey, S. Imani, S. R. M. Prasanna, R. Sinha	Improvements in IITG Assamese Spoken Query System: Background Noise Suppression and Alternate Acoustic Modeling	Journal of Signal Processing Systems, Springer	2016	-	-	1	12
R. K. Das, S. Jelil, S. R. M. Prasanna	Development of Multi-Level Speech based Person Authentication System	Journal of Signal Processing Systems, Springer	2016	-	-	1	13

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Authors	Paper Title	Journal Name	Year	Volume	Issue Number	Starting Page	Ending Page
Tousif Khan Nizami, Chitralkha Mahanta	An Intelligent Adaptive Control of DC-DC Buck Converters	Journal of the Franklin Institute	2016	353	12	2588	2613
S. Shahnawazuddin, Rohit Sinha	Sparse coding over redundant dictionaries for fast adaptation of speech recognition system	Journal on Computer Speech & Language	2017	-	-	-	-
Sunil Kumar, M. K. Bhuyan, B. K. Chakraborty	Extraction of Texture and Geometrical Features from Informative Facial Regions for Sign Language Recognition	Journal on Multimodal User Interfaces, Springer	2017	-	-	1	13
T. Malathi, M. K. Bhuyan	Performance analysis of Gabor wavelet for extracting most informative and efficient features	Multimedia Tools and Applications, Springer	2017	76	-	8449	8469
M. Bhattacharjee, V. Pasumarthi, J. Chaudhuri, A. K. Singh, H. Nemade, D. Bandyopadhyay	Self-spinning nanoparticle laden microdroplets for sensing and energy harvesting	Nanoscale	2016	8	11	6118	6128
Raghvendra Kannao, Prithwijit Guha	Success based Locally Weighted Multiple Kernel Combination	Pattern Recognition	2017	68	4	38	51
Neeraj Kumar, Ruchika Verma, Amit Sethi	Convolutional neural networks for wavelet domain super resolution	Pattern Recognition Letters	2017	90	-	65	71
Biplab Ketan Chakraborty, M. K. Bhuyan, Sunil Kumar	Combining image and global pixel distribution model for skin colour segmentation	Pattern Recognition Letters, Elsevier	2017	88	-	33	40
L. D. Vignolo, S. R. M. Prasanna, S. Dandapat, H. Leonardo Rufiner, D. H. Milone	Feature optimisation for stress recognition in speech	Pattern recognition letters, North-Holland	2016	84	-	1	7
Gangxiang Shen, Guo Hong, Sanjay K. Bose	Survivable Elastic Optical Networks: Survey and Perspective	Photonic Network Communications	2016	16	1	71	87
K. Higashi, S. Fukui, Yuji Iwahori, Yoshinori Adachi, M. K. Bhuyan	New Feature for Shadow Detection by Combination of Two Features Robust to Illumination Changes	Procedia Computer Science, Elsevier	2016	96	-	896	903
S. Fukui, S. Hayakawa, Y. Iwahori, T. Nakamura, M. K. Bhuyan	Particle Filter Based Tracking with Image-Based Localization	Procedia Computer Science, Elsevier	2016	96	-	977	986
Mandar Maitra, Harshal B. Nemade	Simulation of longitudinal mode of vibration in piezoelectric monolayer MoS ₂	Procedia Engineering	2016	144	-	682	688
Sushanta Kundu, Harshal B. Nemade	Modeling and simulation of a piezoelectric vibration energy harvester	Procedia Engineering	2016	144	-	568	575
Basudeba Behera, Harshal B. Nemade	Modelling and Finite Element Simulation of a Surface Acoustic Wave driven Linear Motor	Procedia Engineering	2016	144	-	1411	1418

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A. Kumar, B. Sah, A. R. Singh, Y. Deng, He Xiangning, P. Kumar, R. C. Bansal	A review of multi criteria decision making (MCDM) towards sustainable renewable energy development	Renewable and Sustainable Energy Reviews	2017	69	-	596	609
Rajib Sharma, Leandro Vignolo, Gastón Schlotthauer, M. A. Colominas, H. Leonardo Rufiner, S. R. M. Prasanna	Empirical Mode Decomposition for adaptive AM-FM analysis of Speech : A Review	Speech Communication (Elsivier)	2016	88	-	39	64
Bhoopal Rao Gangadari, Shaik Rafi Ahamed	Low Power S-Box Architecture for AES Algorithm using Programmable Second Order Reversible Cellular Automata: An Application to WBAN	Springer Journal of Medical Systems	2016	40	12	-	-
V. K. Kanchetla, R. Shrestha, R. Paily	Multi-standard high-throughput and low-power quasi-cyclic low density parity check decoder for worldwide interoperability for microwave access and wireless fidelity standards	Systems Thinking Approach for Social Problems, Lecture Notes in Electrical Engineering	2016	10	2	111	120
R. K. Das, S. R. M. Prasanna	Exploring different attributes of source information for speaker verification with limited test data	The Journal of the Acoustical Society of America, AIP Publishing	2016	140	1	184	190

Journal Papers
Humanities and Social Sciences

Authors	Paper Title	Journal Name	Year	Volume	Issue Number	Starting Page	Ending Page
RohiniMokashi-Punekar	Education and its Contestatory Histories: Jotiba Phule's Interventions in Nineteenth Century Maharashtra	Dialog	2016	29		46	64
Avishek Parui	Fear of Flying	Economic & Political Weekly	2016	51	20	69	71
Hiranya K. Nath	A Note on the Cyclical Behavior of Sectoral Employment in the U.S.	Economic Analysis and Policy	2016	50		52	61
Deepankar Basu, Debarshi Das, Kartik Misra	Farmer Suicide in India: Trends across Major States, 1995-2011	Economic and Political Weekly	2016	51	21	61	65
N. Tripathi, et al.	The associations of dyadic coping and relationship satisfaction vary between and within nations: A 35-Nation study	Frontiers in Psychology	2016	7	1106	-	-

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Humanities and Social Sciences

Authors	Paper Title	Journal Name	Year	Volume	Issue Number	Starting Page	Ending Page
Archana Barua	Understanding Satya through Ahimsa: Gandhian approach to the reconstruction of meaning through deconstruction	GuJp	2016	1	1	57	75
Archana Barua, Pallavi Sharma	Analysing Gaze in Terms of Subjective and Objective Interpretation: Sartre and Lacan	Human Studies	2017	40	1	57	67
Avishek Parui	The White Mans Exile: Space, Consciousness and the Imperial Project in Joseph Conrad's <i>Heart of Darkness</i>	Indian Association for Commonwealth Literature and Language Studies Journal	2016	2	NA	9	17
Sambit Mallick	Inter-institutional Collaborative Networking in the Intellectual Property Rights Regime: Research in Plant Molecular Biology in India	International Journal of Biotechnology	2016	14	2	89	111
D. Hussain, R. P. Sarma	Socio-economic and Psychological Effects of Terrorist Bomb Blasts on the Life of Survivors: An Exploratory Study on affected individuals	Intervention: Journal of Mental Health and Psychosocial Support in Conflict Affected Areas	2016	14	3	189	199
Pankaj Singh, Sukanya Sharma	Thermal and spectroscopic characterization of archeological pottery from Ambari, Assam	Journal of Archaeological Science: Reports	2016	Reports 5		557	563
N. Sharma, D. Hussain	Current Status and Future Directions for Cultural Intelligence	Journal of Intercultural Communication Research	2017	46	1	96	110
Kaveri Deb, Bodhisattva Sengupta	Value-Added Trade and Empirical Distributions of RCA Indices	Journal of Quantitative Economics	2017	NA	NA	1	30
Sukanya Sharma	Re-living an Abandoned Space	Journal of Space and Culture	2016	4	1	1	4
Suparana Katyaini, Anamika Barua	Water Policy at science-policy interface: challenges and opportunities in India	Journal of Water Policy	2016	18	2	288	303
Avishek Parui	For the life of him he could not remember: Post-War Memory, Mourning and Masculinity Crisis in Katherine Mansfield: <i>The Fly</i>	Katherine Mansfield Studies	2016	8	Special Issue	113	124
Sohail Ahmed, Liza Das	Bhalonam and Daknam: Metaphors, Names and Naming in Jhumpa Lahiri's <i>The Namesake</i>	Negotiations	2016	4		44	51
Mithilesh Kumar Jha	Ethnic Identity, Regional Aspirations and Democratic Participation: A Comparative Analysis of Assam and Manipur	RabindraBharati Journal of Political Science	2016	XI		84	95

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Arupjyoti Saikia	Nature and Assam's present	Seminar	2017	690		20	24
Amarjyoti Mahanta	Price Competition in a Mixed Oligopoly Market	Seoul Journal of Economics	2016	29	2	165	180
Kaveri Deb, Bodhisattva Sengupta	On Empirical Distribution of RCA indices	Society and Management Review	2017	6	1	23	41
Gunjan Kumar, S. Borbora	Facilitation of Entrepreneurship: the Role of Institutions and Institutional Environment	South Asian Journal of Management	2016	23	3	57	77
N. Kipgen, A. Roy Chowdhury	Contested State-craft on the Frontiers of the Indian Nation: Hills-Valley Divide and the Genealogy of Kuki Ethnic Nationalism in Manipur	Studies in Ethnicity and Nationalism	2016	16	2	283	303
Mithilesh Kumar Jha	Book Review: Jyotirmaya Tripathy and Sudarsan Padmanabhan, eds. <i>The Democratic Predicament: Cultural Diversity in Europe and India</i> , New Delhi: Routledge, 2013	Studies in Indian Politics	2016	4	1	128	130
Mithilesh Kumar Jha	Book Review: <i>Performing Politics: Media Interviews, Debates and Press Conferences</i> by Geoffrey Craig, Polity, 2016	The London School of Economics and Political Science Review of Books	2017	-	-	-	-
Mithilesh Kumar Jha	Book Review: <i>India and the Islamic Heartlands: An Eighteenth-Century World of Circulation and Exchange</i> by Gagan D.S. Good, Cambridge University Press, 2016	The London School of Economics and Political Science Review of Books	2016	-	-	-	-
Mithilesh Kumar Jha	Book Review: <i>Benign Violence: Education In and Beyond the Age of Reason</i> , by Ansgar Allen, Palgrave Macmillan, 2015	The London School of Economics and Political Science Review of Books	2016	-	-	-	-
Hiranya K. Nath, Soumya K. Ghosh	Are bilateral real exchange rate stationary? Revisiting the evidence from India.	Theoretical Economics Letters	2016	6	5	1196	1204

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Mathematics

Authors	Paper Title	Journal Name	Year	Volume	Issue Number	Starting Page	Ending Page
Shubh Narayan Singh, K. V. Krishna	The Holonomy Decomposition of some Circular Semi-Flower Automata	Acta Cybernetica	2016	22	4	791	805
Arup Chattopadhyay, B. Krishna Das, Jaydeb Sarkar	Inner multipliers and Rudin type invariant subspaces	Acta Sci. Math. (Szeged)	2016	82	3-Apr	519	528

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D. K. Giri, R. K. Srivastava	Heisenberg uniqueness pairs for some algebraic curves in the plane	Advances in Mathematics	2017	310		993	1016
S. Das, K. Kapoor	Approximate Parameterized String Matching under Weighted Hamming Distance	AKCE International Journal of Graphs and Combinatorics	2016				
Jiten C. Kalita, Bidyut B. Gogoi	A biharmonic approach for the global stability analysis of 2D incompressible viscous flows	Applied Mathematical Modelling	2016	40	15-16	6831	6849
B. Deka	A priori error estimates for finite element approximations to the wave equation with interface	Applied Numerical Mathematics	2017	115		142	159
R. Barman, H. Rahman, N. Saikia	Counting points on Dwork hypersurfaces and p-adic hypergeometric function	Bulletin of Australian Math. Soc.	2016	94	2	208	218
Monica Clapp, Sweta Tiwari	Multiple solutions to a pure supercritical problem for the p-Laplacian	Calculus of Variations and Partial Differential Equations	2016	doi:10.1007/s00526-015-0949-4			
S. Prashanth, Sweta Tiwari, K. Sreenadh	Very singular problems with critical nonlinearities in two dimensions	Communications in Contemporary Mathematics	2016	DOI dx.doi.org/10.1142/S021919971650067X			
R. Dhanya, S. Prashanth, K. Sreenadh, Sweta Tiwari	Elliptic Problems in RN with Critical and Singular Discontinuous Nonlinearities	Complex Variables and Elliptic Equations	2016	61	12	1656	1676
Kalyan Manna, Siddhartha P. Chakrabarty	Global stability of one and two discrete delay models for chronic hepatitis B infection with HBV DNA-containing capsids	Computational and Applied Mathematics	2017	36	1	525	536
A. Srivastava, A. C. Nayak, K. Kapoor	On Del-Robust Primitive Words	Discrete Applied Mathematics	2016	206		115	121
S. K. Panda, S. Pati	Graphs with reciprocal eigenvalue properties	Electronic Journal of Linear Algebra	2016	31		511	514
Sameer Pawanekar, K. Kapoor, Gaurav Trivedi	NAP: A Nonlinear Analytical Hypergraph Partitioning Method	IETE Journal of Research	2017	63	1	60	70
H. R. V. Mittal, Jiten C. Kalita, Rajendra K. Ray	A class of finite difference schemes for interface problems with an HOC approach	International journal for numerical methods in Fluids	2016	82	9	567	606
N. Choudhury, S. N. Bora	Liquid sloshing in circular cylindrical container containing a two-layer fluid	International Journal of Advances in Engineering Sciences and Applied Mathematics	2016	8	4	240	248

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Dinesh Kumar, Siddhartha P. Chakrabarty	Additional Food Induced Turing Patterns for a Diffusive Predator–Prey Model	International Journal of Applied and Computational Mathematics	2017	3	1	165	183
S. Gowrisankar, S. Natesan	ϵ -Uniformly Convergent Numerical Scheme for Singularly Perturbed Delay Parabolic Partial Differential Equations	International Journal of Computer Mathematics	2017	94	5	902	921
A. Das, S. Natesan	Second-order uniformly convergent numerical method for singularly perturbed delay parabolic partial differential equations	International Journal of Computer Mathematics					
B. K. Sarma, Kalyan Sinha	The nonnegative Q-matrix completion problem	J. Algebra Comb. Discrete Struct. Appl.	2017	4	1	61	74
J. Sen Gupta, Rajen K. Sinha, G. M. M. Reddy, J. Jain	A posteriori error analysis of two-step backward differentiation formula finite element approximation for parabolic interface problems.	J. Scientific Computing	2016	69	1	406	429
A. Chaddha S. N.Bora	Approximate Controllability of impulsive neutral stochastic differential equations driven by Poisson jumps	Journal of Dynamical and Control Systems	2017	DOI: 10.1007/s10883-016-9348-1			
Monica Clapp, Sweta Tiwari	Existence and nonexistence of solutions to pure supercritical p-Laplacian problems	Journal of Fixed Point Theory and Applications	2017	19	1	375	385
Debopam Chakraborty, Anupam Saikia	Congruence relations for the fundamental unit of a pure cubic field and its class number	Journal of Number Theory	2016	166		76	84
K. Mondal, A. Karmakar, P. S. Mandal	Path Planning Algorithms for Mobile Anchors towards Range-free Localization	Journal of Parallel and Distributed Computing	2016	97		35	46
Sougata Biswas, Jiten C. Kalita	Moffatt vortices in the lid-driven cavity flow	Journal of Physics conference series	2016	759	1	012081-1	012081-7
Vinay Wagh, Arindam Dey	On the module of derivations of certain rings of invariants	Journal of Ramanujan Math Society	2017				
Barun Gorain, Partha Sarathi Mandal, Krishnendu Mukhopadhyaya	Generalized Bounded Tree Cover of a Graph	Journal on Graph Algorithms and Applications	2017	21	3	265	280
R. Alam, N. Behera	Recovery of eigenvectors of rational matrix functions from Fiedler-like linearizations	Linear Algebra Appl.	2016	510		373	394
R. B. Bapat, S. K. Panda, S. Pati	Strong reciprocal eigenvalue property of a class of weighted graphs	Linear Algebra Applications	2016	511		460	475

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S. K. Panda, S. Pati	On some graphs which possess inverses	Linear Multilinear Algebra	2016	64	7	1445	1459
G. M. M. Reddy, Rajen K. Sinha	On the Crank-Nicolson anisotropic a posteriori error analysis for parabolic integro-differential equations.	Mathematics of Computations	2016	85	301	2365	2390
Rami Atar, Subhamay Saha	An ϵ -Nash equilibrium for with high probability for strategic customers in heavy traffic	Mathematics of Operations Research	2016	doi:10.1287/moor.2016.0820			
Jacques Giacomoni, Sweta Tiwari, Guillaume Warnault	Quasi-linear parabolic problem with $p(x)$ -Laplacian: existence, uniqueness of weak solutions and stabilization	Nonlinear Differential Equations and Applications	2016	doi:10.1007/s00030-016-0380-3			
G. M. M. Reddy, Rajen K. Sinha	The backward Euler anisotropic a posteriori error analysis for parabolic integro-differential equations.	Numerical Method Partial Differential Equations	2016	32		1309	1330
Jiten C. Kalita, Shuvam Sen	α -, β -phenomena in the post symmetry break for the flow past a circular cylinder	Physics of Fluids	2017	29	3	033603-1	033603-12
R. Barman, A. Sachdeva	Proof of a limited version of Mao's partition rank inequality using a theta function identity	Research in Number Theory	2016	2		1	8
N. Choudhury, S. N. Bora	Linear sloshing frequencies in the annular region of a circular cylindrical container in presence of a rigid baffle	Sadhana	2017	DOI: 10.1007/s12046-017-0642-8			
Jitender Kumar, K. V. Krishna	Rank Properties of the Semigroup Reducts of Affine Near-Semirings over Brandt Semigroups	Semigroup Forum	2016	93	3	516	534
R. Alam, N. Behera	Linearizations for rational matrix functions and Rosenbrock system polynomials	SIAM J. Matrix Analysis Appl.,	2016	37		354	380
A. Biswas, H. Ishii, Subhamay Saha, L. Wang	On viscosity solution of HJB equations with state constraints and reflection control.	SIAM Journal on Control and Optimization	2017	55		365	396
A. Budhiraja, X. Liu, Subhamay Saha	Construction of asymptotically optimal control for crisscross network from a free boundary problem.	Stochastic Systems	2016	6		459	518
Kaushik Mondal, Partha Sarathi Manda	Range-Free Mobile Sensor Localization and A Novel Obstacle Detection Technique	Wireless Personal Communications	2017	92	2	351	380

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Authors	Paper Title	Journal Name	Year	Volume	Issue Number	Starting Page	Ending Page
Debasish Sarkar, Bhimavarapu Sambu Reddy, Sourav Mandal, M. Ravi Sankar, Bikramjit Basu	Uniaxial Compaction-Based Manufacturing Strategy and 3D Microstructural Evaluation of Near- Net Shaped ZrO ₂ Toughened Al ₂ O ₃ Acetabular Socket	Advanced Engineering Materials,	2016	18	9	1634	1644
S. Bhardwaj, A. Dalal	Mesosopic Analysis of Dynamic Droplet Behavior on Wetted Flat and Grooved Surface for Low Viscosity Ratio	ASME Journal of Heat Transfer	2017	139		052002-1	052002-11
R. Shufen, U. S. Dixit	A Finite Element Method Study of Combined Hydraulic and Thermal Autofrettage Process	ASME Journal of Pressure Vessel Technology					
S. M. Kamal, U. S. Dixit	A study on enhancing the performance of thermally autofrettaged cylinder through shrink-fitting	ASME. Journal of Manufacturing Science and Engineering	2016	138	9	94501	094501-5.
H. Sarangi, K. S. R. K. Murthy, D. Chakraborty	Accurate measurement of mixed mode (I/II) stress intensity factors using strain gages	ASTM: Journal of Testing and Evaluation	2017	45		1	12
Debaleena Chakraborty, D. Chakraborty, K. S. R. K. Murthy	A strain gage technique for the determination of mixed mode stress intensity factors of orthotropic materials.	Composite Structures	2017	160		185	194
P. Kumari, A. Singh, R. K. N. D. Rajapakse, S. Kapuria	Three-dimensional static analysis of Levy-type functionally graded plate with in-plane stiffness variation	Composite Structures	2017	168		780	791
P. Kumari, S. Behera	Three-dimensional free vibration analysis of levy-type laminated plates using multi-term extended Kantorovich method	Composites Part B: Engineering	2014	116		224	238
Ambesh Kumar, Satyajit Panda	Design of a 1-3 viscoelastic composite layer for improved free/constrained layer passive damping treatment of structural vibration	Composites Part B: Engineering	2016	96		204	214
C. Prasad, A. K. Dass	Use of an HOC scheme to determine the existence of multiple steady states in the antiparallel lid-driven flow in a two-sided square cavity	Computers & Fluids	2016	Vol.140		297	307
Hakeem Niyas, Sunku Prasad, P. Muthukumar	Performance investigation of a lab-scale latent heat storage prototype - Numerical results	Energy Conversion and Management	2017	135		188	199
B. K. Naik, Ankit Soni, Amit kumar, P. Muthukumar, C. Somayaji	Coupled Heat and Mass Transfer Analysis of an Adiabatic Dehumidifier – Unique Approach	Energy Procedia	2016	90		305	315
B. K. Naik, V. Choudhary, P. Muthukumar, C. Somayaji	Performance Assessment of a Counter Flow Cooling Tower – Unique Approach	Energy Procedia	2017	109		243	252

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B. K. Naik, P. Muthukumar	Empirical correlation based models for estimation of air cooled and water cooled condenser's performance	Energy Procedia	2017	109		293	305
D. V. N. Lakshmia, Apurba Layek, P. Muthukumar	Performance Analysis of Trapezoidal Corrugated Solar Air Heater with Sensible Heat Storage Material.	Energy Procedia	2017	109		463	470
P. Muthukumar, D. V. N. Lakshmia	Nucleation Enhancement Studies on Aqueous Salt Solutions	Energy Procedia	2017	109		174	180
B. K. Naik, A. Varshney, P. Muthukumar, C. Somayaji	Modelling and Performance Analysis of U Type Evacuated Tube Solar Collector Using Different Working Fluids	Energy Procedia	2016	90		227	237
Debaleena Chakraborty, K. S. R. K. Murthy, D. Chakraborty	Experimental determination of mode I stress intensity factor in orthotropic materials using a single strain gage.	Engineering Fracture Mechanics	2017	173		130	145
P. Kishore Kumar, M. Charan, S. Kanagaraj	Trends and challenges in lower limb prostheses	IEEE potentials	2017	36	1	19	23
B. N. Fetene, U. S. Dixit	A finite element modeling of laser bending of friction stir welded aluminum 5052-H32 sheets	Int. J. Mechatronics and Manufacturing Systems	2016	Vol. 9	no. 3	215	236
Akash Dutta, Argha Das, Shrikrishna N. Joshi	Optimum process parameters for efficient and quality thin wall machining using firefly algorithm	International Journal of Additive and Subtractive Materials Manufacturing	2017	1	1	3	22
V. K. Jain, K. K. Saren, V. Raghuram, M. Ravi Sankar	Force analysis of magnetic abrasive nano-finishing of magnetic and non-magnetic materials	International Journal of Advanced Manufacturing Technology	2016			1	11
Sachin Singh, A. S. Arjun Raj, M. Ravi Sankar, V. K. Jain	Finishing fore analysis and simulation of nanosurface in abrasive flow finishing process using medium rheological properties.	International Journal of Advanced Manufacturing Technology	2016	85	9	2163	2178
H. Srivastava, A. Dalal, K. C. Sahu, G. Biswas	Temporal Linear Stability Analysis of an Entry Flow in a Channel with Viscous Heating	International Journal of Heat and Mass Transfer	2017	109		922	929
M. Parmananda, S. Khan, A. Dalal, G. Natarajan	Critical Assessment of Numerical Algorithms for Convective-Radiative Heat Transfer in Enclosures with Different Geometries	International Journal of Heat and Mass Transfer	2017	108	11	627	644
P. Saha, G. Biswas, A. C. Mandal, S. Sarkar	Investigation of coherent structures in a turbulent channel with built-in longitudinal vortex generators	International Journal of Heat and Mass Transfer	2017	104		178	198

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A. Sinha, H. Chattopadhyay, A. K. Iyengar, G. Biswas	Enhancement of heat transfer in a fin-tube heat exchanger using rectangular winglet type vortex generators	International Journal of Heat and Mass Transfer	2016	101		667	681
R. Kalidasan, M. Yatin, D. K. Sarma, S. Senthilvelan, U. S. Dixit	An experimental study of cutting forces and temperature in multi-tool turning of grey cast iron	International Journal of Machining and Machinability of Materials	2016	18	5-6	540	551
V. Satheeshkumar, R. Ganesh Narayanan	Predicting the tensile behaviour of adhesively bonded sheets using equivalent geometrical heterogeneities	International Journal of Material Forming	2016	9	5	663	675
Sharad R. Valvi, Arun Krishnan, Sumitesh Das, R. Ganesh Narayanan	Prediction of microstructural features and forming of Friction Stir Welded sheets using Cellular Automata Finite Element (CAFE) approach	International Journal of Material Forming	2016	9	1	115	129
Chandras Patel, Pravin Ghatule, Sachin Dnyandeo Kore	Finite element analysis of effect of process parameters on electromagnetic free expansion of aluminium tube	International Journal of Materials and Product Technology	2017	54	1-Mar	165	178
Himanshu Chaudhary, Sachin D. Kore	Electromagnetic forming analysis of AA5182 at elevated temperatures	International Journal of Microstructure and Materials Properties	2016	11	1-Feb	105	118
R. Kalidasan, J. Vaibhav, S. Senthilvelan, U. S. Dixit	Double tool turning: machining accuracy, cutting tool wear and chip-morphology	International Journal of Precision Technology	2016	6	2	142	158
Arpan Kumar Mondal, Pankaj Biswas, Swarup Bag, Manas M. Mohapatra	Prediction of weld induced residual stress and angular distortion of single sided and double sided fillet joint by SAW process	International Journal of Steel Structures	2017	17	1	1	10
R. K. Arun, N. Priyadarshini, K. Chaudhury, N. Chanda, G. Biswas, S. Chakraborty	Paper-PDMS hybrid microchannel: a platform for rapid fluid-transport and mixing	J. Micromech. Microeng.	2016	26		105008-1	105008-9
Amitava Ghatak, P. S. Robi	High-temperature Tensile Properties and Creep Life Assessment of 25Cr35NiNb Micro-alloyed Steel	J. of Materials Engineering and Performance,	2016	25	5	2000	2007
P. Kalita , A. K.Dass	A novel hybrid approach with multidimensional –like effects for compressible flow computations	Journal of Computational Physics	2017	340		55	68
V. Yadav, U. S. Dixit, A. K. Singh	Experimental validation of strategy for the inverse estimation of mechanical properties and coefficient of friction in flat rolling	Journal of Institution of Engineers, Series (C)		DOI 10.1007/s40032-016-0293-2			

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Satyajit Panda	Performance of a short piezoelectric fiber-reinforced composite actuator in vibration control of functionally graded circular cylindrical shell	Journal of Intelligent Material Systems and Structures	2016	27	20	2774	2794
A. Srinivas Pavan Kumar, Satyajit Panda, Narravula H. Reddy	A comparative study on the smart damping capabilities of cylindrically orthotropic piezoelectric fiber-reinforced composite actuators in vibration control of simply supported/fully clamped isotropic annular plate	Journal of Intelligent Material Systems and Structures	2016	DOI: 1045389X16679291			
Arun Kumar Kadian, Pankaj Biswas	Effect of tool pin profile on the material flow characteristics of AA6061	Journal of Manufacturing Processes	2017	26		382	392
Ravi Kant, Shrikrishna N. Joshi	Thermo-mechanical studies on bending mechanism, bend angle and edge effect during multi-scan laser bending of magnesium M1A alloy sheets	Journal of Manufacturing Processes	2016	23	-	135	148
Ashish Kumar Rajak, Sachin D. Kore	Experimental investigation of aluminium-copper wire crimping with electromagnetic process: Its advantages over conventional process	Journal of Manufacturing Processes	2017	26	-	57	66
Sachin Singh, S. Deepu Kumar, M. Ravi Sankar	Experimental, Theoretical and Study of Nano Surface Roughness Generated during Abrasive Flow Finishing Process	Journal of Manufacturing Science and Engineering	2017	139	61014	1	12
Jyoti K. Doley, Sachin D. Kore	A Study on Friction Stir Welding of Dissimilar Thin Sheets of Aluminum Alloys AA 5052-AA 6061	Journal of Manufacturing Science and Engineering	2016	138	11	114502-1	6
Arvind K. Agrawal, R. Ganesh Narayanan	Joining of a tube to a sheet through end curling	Journal of Materials Processing Technology	2017	246	--	291	304
A. Prasad, K. Mahato, P. Chandra, A. Srivastava, S. N. Joshi, P. K. Maurya	Bioinspired Composite Materials: Applications in Diagnostics and Therapeutics	Journal of Molecular and Engineering Materials	2016	4	1	1	22
Piyush Singh, Pankaj Biswas, Sachin D. Kore	A three-dimensional fully coupled thermo-mechanical model for Self-reacting Friction Stir Welding in Aluminium alloy AA6061	Journal of Physics	2016	759	12047	1	6
Biplab Das, Pankaj Biswas	A Review of Plate Forming by Line Heating	Journal of Ship Production and Design	2017				
Debabrata Chakraborty, Debaleena Chakraborty, K. S. R. Krishna Murthy	Optimal strain gage location for determination of mode I stress intensity factor for orthotropic laminates using a single strain gage	Journal of Structural Mechanics	2016	2	3	179	184

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V. Satheeshkumar, R. Ganesh Narayanan	Experimental evaluation and prediction of formability of adhesive bonded steel sheets at different adhesive properties	Journal of Testing and Evaluation	2016	44	3	1	13
R. Kumar, S. D. Kore	Electromagnetic Crimping in Tube-to-Cylinder Configuration: Influence of the Base Profiles on the Joint Quality	Journal of Testing and Evaluation	2017	46	3	1	14
Shrikrishna Nandkishor Joshi, Gururaj Bolar	Three-Dimensional Finite Element Based Numerical Simulation of Machining of Thin-Wall Components with Varying Wall Constraints	Journal of The Institution of Engineers (India): Series C	2016	-	-	1	10
Sujoy Tikader, Pankaj Biswas, Asit Baran Puri	A Study on Tooling and Its Effect on Heat Generation and Mechanical Properties of Welded Joints in Friction Stir Welding	Journal of The Institution of Engineers (India): Series C, co-published bySpringer	2016			1	12
A. Singh, S. Panda, D. Chakraborty	Piezo-viscoelastically damped nonlinear frequency response of functionally graded plates with a heated plate-surface	Journal of Vibration and Control	2016	22	2	320	343
Satyajit Panda, Ambesh Kumar	A design of active constrained layer damping treatment for vibration control of circular cylindrical shell structure	Journal of Vibration and Control	2016	1.07755E+15			
R. K. Arun, P. Singh, G. Biswas, N. Chanda, S. Chakraborty	Energy generation from water flow over a reduced graphene oxide surface in a paper-pencil device	Lab-on-a-Chip	2016	16		3589	3596
R. Kant, S. N. Joshi	Numerical and Experimental Studies on the Laser Bending of Magnesium M1A Alloy.	Lasers in Engineering (Old City Publishing)	2016	23	1-4	39	62
B. N. Fetene, U. S. Dixit, H. Liao	Laser bending friction stir processed and cement coated sheets	Materials and Manufacturing Processes	2017				
P. S. Rama Sreekanth, N. Naresh Kumar, S. Arun, S. Kanagaraj	Effect of multi walled carbon nanotubes reinforcement and gamma irradiation on viscoelastic properties of Ultra high molecular weight polyethylene	Materials Research Innovations	2016	20		198	205
W. G. Jiru, M. Ravi Sankar, U. S. Dixit	Investigation of microstructure and microhardness in laser surface alloyed aluminum with TiO ₂ and SiC powders	Materials Today: Proceedings					
Manish Kumar, N. Shanmuga Priya, S. Kanagaraj, G. Pugazhenth	Melt rheological behavior of PMMA nanocomposites reinforced with modified nanoclay	Nanocomposites	2016	2	3	109	116

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Amitava Ghatak, P. S. Robi	Prediction of creep curve of HP40Nb steel using artificial neural network	Neural Comput. & Appli.	2017	DOI 10.1007/s00521-017-2851-9			
B. N. Fetene, Rajkumar Shufen, U. S. Dixit	FEM based neural network modelling of laser assisted bending	Neural Computing & Applications	2016				
P. Meshram, S. Bhardwaj, A. Dalal, S. Pati	Effect of Inclination Angle on Natural Convection Heat Transfer and Entropy Generation in Square Porous Enclosure	Numerical Heat Transfer Part A	2016	70	11	1271	1296
B. Nath, G. Biswas, A. Dalal, K. C. Sahu	Migration of a Droplet in a Cylindrical Tube in the Creeping Flow Regime	Physical Review E	2017	95		033110-1	033110-11
V. Pandey, G. Biswas, A. Dalal	Saturated Film Boiling at Various Gravity Levels Under the Influence of Electrohydrodynamic Forces	Physics of Fluids	2017	29		032104-1	032104-13
V. Pandey, G. Biswas, A. Dalal	Effect of Superheat and Electric Field on Saturated Film Boiling	Physics of Fluids	2016	28		052102-1	052102-19
S. Mahto, A. K. Gogoi, U. S. Dixit	A comparative study of improved dynamics of single link flexible revolute-jointed robotic manipulator	Procedia Engineering	2016	144		425	434
Sachin Singh Gautam, P. M. Dixit	Simulation of Large Deformation Elasto-plastic Impact Problems Using Two Different Objective Stress Measures	Procedia Engineering	2017	173		432	439
Poonam Kumaria, Aman Kumar Shakya	Two-Dimensional Solution of Piezoelectric Plate Subjected to Arbitrary Boundary Conditions using Extended Kantorovich Method.	Procedia Engineering	2017	173		1523	1530
D. Gayen, D. Chakraborty	Variation of Local Flexibility Coefficient of Functionally Graded Cracked Shafts	Procedia Engineering	2016	144		1443	1450
Ishwar Kapoor, R. Ganesh Narayanan, Scott Taylor, Vit Janik, Richard Dashwood	Predicting the warm forming behavior of WE43 and AA5086 alloys	Procedia Engineering	2017	173	--	897	904
Arpan Kumar Mondal, Anche Lohit, Pankaj Biswas, Swarup Bag, Das Manas	Prediction of weld induced distortion of large structure using equivalent load technique	Journal of Engineering Manufacture	2016	DOI: 10.1177/0954405416646309		1	14
Dawit Gudeta Gunjo, Pinakeswar Mahanta, P. S. Robi	CFD and experimental investigation of flat plate solar water heating system under steady state condition	Renewable Energy	2017	106		24	36
D. K. Rabha, P. Muthukumar, C. Somayaji	Experimental Investigation of Thin Layer Drying Kinetics of Ghost Chill Pepper (Capsicum Chinense Jacq.) Dried in a Forced Convection Solar Tunnel Dryer	Renewable Energy	2017	105		583	589

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D. K. Rabha, P. Muthukumar, C. Somayaji	Energy and exergy analyses of the solar drying processes of Ghost Chilli Pepper and Ginger.	Renewable Energy	2017	105		764	773
G. K. Kumar Lachireddi, P. Muthukumar, S. Sudhkar	Thermal comfort analysis of hostels in National Institute of Technology Calicut, India,	Sadhana	2017	42		63	73
Waleed Bin Rashid, Saurav Goel, J. Paulo Davim, Shrikrishna N. Joshi	Parametric design optimization of hard turning of AISI 4340 steel (69 HRC)	The International Journal of Advanced Manufacturing Technology	2016	82	1-Apr	451	462
Debaleena Chakraborty, K. S. R. K. Murthy, D. Chakraborty	Determination of KI in orthotropic laminates with double ended cracks using a single strain gage technique.	Theoretical and Applied Fracture Mechanics	2016	82		96	106
Amitava Ghatak, P. S. Robi	Modification of Larson–Miller Parameter Technique for Predicting Creep Life of Materials	Trans Indian Inst. Met.,	2016	69	2	579	583
Amitava Ghatak, P. S. Robi	Effect of Temperature on the Microstructure and Hardness of Service Exposed 25Cr35NiNb Reformer Tubes	Trans. Indian. Inst Met.	2016	69	3	823	827

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Partha P. Dey, Alikha Khare	Stoichiometric dependent optical limiting in PLD SiOx thin films	Advanced Mat. letters	2017	8	4	331	335
Rajkumar Modak, B. Deka, M. Manivel Raja, A. Srinivasan	Significant room temperature magneto-caloric effect in Ni-Mn-Sn thin films	Advanced Science Letters	2016	22	1	26	29
D. V. Ahluwalia	The theory of local mass dimension one fermions of spin one half	Advances in Applied Clifford Algebras	2017	-		1	39
Rajkumar Modak, B. Samantaray, P. Mandal, A. Srinivasan	Low Gilbert damping and in-plane magnetic anisotropy in Ni-Mn-Sn thin film with high L21 order	Applied Physics A: Materials Science and Processing	2016	122		252	258
Ravi K. Biroju, Biswajit Choudhury, P. K. Giri	Plasmon-enhanced strong visible light photocatalysis by defect engineered CVD graphene and graphene oxide physically functionalized with Au nanoparticles	Catalysis Science & Technology	2016	6	19	7101	7112
Bipul Deka, S. Ravi, A. Perumal, D. Pamu	Effect of Mn doping on magnetic and dielectric properties of YFeO3	Ceramics International	2017	43	1	1323	1334

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T. Ahmed, M. C. Kumar, P. Mathews, N. Rana, V. Ravindran	Pseudo-scalar Higgs boson production at threshold N3LO and N3LL QCD	European Physical Journal C	2016	76	6	355-1	355-18
T. Ahmed, M. Bonvini, M. C. Kumar, P. Mathews, N. Rana, V. Ravindran, L. Rottoli	Pseudo-scalar Higgs boson production at N3LO+N3LL	European Physical Journal C	2016	76	12	663	-
T. Ahmed, P. Banerjee, P. K. Dhani, M. C. Kumar, P. Mathews, N. Rana, V. Ravindran	NNLO QCD corrections to the Drell-Yan cross section in models of TeV-scale gravity	European Physical Journal C	2017	77	22	1	26
Sk. Noor Nabi, Saurabh Basu	Competition between external and synthetic magnetic fields on a spin-1 ultracold Bose gas	Europhysics Letters	2016	116	4	46001	-
B. Samantaray, A. Kr. Singh, Chandrima Banerjee, Anjan Barman, A. Perumal, P. Mandal	Perpendicular Standing Spin Wave and Magnetic Anisotropic Study on Amorphous FeTaC Films	IEEE Transaction on Magnetics	2016	52	7	7390102	-
R. R. Behera, M. R. Sankar, J. Swaminathan, I. Kumar, A. K. Sharma, Alike Khare	Experimental investigation of underwater laser beam micromachining (UW-LB μ M) on 304 stainless steel	International Journal of Advanced Manufacturing Technology	2016	85	9-Dec	1969	1982
C. Anil Kumar, D. Pamu	Microwave dielectric properties of low temperature fired Ba ₅ Nb ₄ O ₁₅ -BaWO ₄ ceramics supplemented with their own nanoparticles for LTCC applications	International Journal of Applied Ceramic Technology	2017	14	2	191	199
Nisha Shankhwar, Rajendra Kumar Singh, A. Srinivasan	Evolution of magnetic and bone mineral phases in heat treated bioactive glass containing zinc and iron oxides	International Journal of Applied Glass Science	2017	8	1	105	115
D. Borah, S. Patra, S. Sahoo	Sub-dominant Left-Right Scalar Dark Matter as Origin of the 750 GeV di-photon Excess at LHC	International Journal of Modern Physics A	2016	31	17	1650097	1650121
Maidul Islam, Gagan Kumar	Terahertz surface plasmons propagation through periodically tilted pillars and control on directional properties	J. Phys. D: Appl. Physics	2016	49	43	435104	-
Debashish Das, Rajkumar Biswas, Subhradip Ghosh	Systematic analysis of structural and magnetic properties of spinel CoB ₂ O ₄ (B=Cr, Mn and Fe) compounds from their electronic structures	J. Phys.: Condens. Matter	2016	28	44	1	9
Debashish Das, Subhradip Ghosh	First-principles investigations into the thermodynamics of cation disorder and its impact on electronic structure and magnetic properties of spinel Co(Cr _{1-x} Mn _x) ₂ O ₄	J. Phys.: Condens. Matter	2016	29	5	055805	-

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S. Bhattacharya, S. Patra, Nirakar Sahoo, Narendra Sahu	750 GeV diphoton excess at CERN LHC from a dark sector assisted scalar decay	JCAP	2016	1606	6	1	22
M. Gaffar, R. Kalita, B. R. Boruah	Experimental observation of the aberration effects on a radially polarized beam	JOSA A	2016	33	11	2178	2187
S. Chabungam, P. Borgohain, Subhradip Ghosh, Navdeep Singh, Munima B. Sahariah	Martensitic transformation and magnetism in Ni and Fe-rich compositions of Ni-Fe-Ga shape memory alloys	Journal of Alloys and Compounds	2016	689		199	207
Gone Rajender, P. K. Giri	Strain Induced Phase Formation, Microstructural Evolution and Bandgap Narrowing in Strained TiO ₂ Nanocrystals Grown by Ball Milling	Journal of Alloys and Compounds	2016	676		591	600
Mahesh Peddigari, Gyan Prakash Bharti, Alike Khare, D. Pamu	Optical and dielectric studies on radio frequency sputtered Gd ₂ O ₃ doped K _{0.5} Na _{0.5} NbO ₃ thin films for nonlinear photonic and microwave tunable device applications	Journal of Alloys and Compounds	2016	682		634	642
A. Gayen, G. K. Prasad, Srijani Mallik, Subhankar Bedanta, Perumal Alagarsamy	Effects of composition, thickness and temperature on the magnetic properties of amorphous CoFeB thin films	Journal of Alloys and Compounds	2017	694		823	832
Rajkumar Modak, B. Samantaray, P. Mandal, A. Srinivasan	Thickness dependent structural, magnetic and magneto-dynamic properties of Mn rich Ni-Mn-Sn alloy films	Journal of Alloys and Compounds	2017	692		529	534
B. Deka, A. Srinivasan, R. K. Singh, B. S. D. Ch. S. Varaprasad, Y. K. Takahashi, K. Hono	Effect of Co substitution for Mn on spin polarization and magnetic properties of ferrimagnetic Mn ₂ VAl	Journal of Alloys and Compounds	2016	662		510	515
Kh. Shantakumar Singh, A. K. Sharma	Effect of variation of magnetic field on laser ablation depth of copper and aluminum targets in air atmosphere	Journal of Applied Physics	2016	119	18	183301	-
S. Nayak, K. Dasari, D. C. Joshi, P. Pramanik, R. Palai, A. Waske, R. N. Chauhan, N. Tiwari, Tapati Sarkar, S. Thota	Low-temperature anomalous magnetic behavior of Co ₂ TiO ₄ and Co ₂ SnO ₄	Journal of Applied Physics (AIP)	2016	120	16	163905	-
D. Borah et al.	A White Paper on keV Sterile Neutrino Dark Matter	Journal of Cosmology and Astroparticle Physics	2017	1701	1	25	263
D. Borah, A. Dasgupta	Common Origin of Neutrino Mass, Dark Matter and Dirac Leptogenesis	Journal of Cosmology and Astroparticle Physics	2016	1612	12	34	49

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C. Anil Kumar, D. Pamu	Broadband and microwave dielectric studies on Ba ₅ Nb ₄ O ₁₅ ceramics supplemented with its nanoparticles for cryogenic electronic applications nanoparticles for LTCC applications	Journal of Electronic Materials	2017	46	2	917	928
D. Borah, A. Dasgupta	Charged Lepton Flavor violation and Neutrinoless Double Beta Decay in Left-Right Symmetric Models with Type I+II Seesaw	Journal of High Energy Physics	2016	2016	7	22	44
D. Borah, A. Dasgupta	Observable Lepton Number Violation with Predominantly Dirac Nature of Active Neutrinos	Journal of High Energy Physics	2017	1701	1	72	103
S. Jagan Mohan Rao, Deepak Kumar, Gagan Kumar, Dibakar Roy Chowdhury	Modulating the near field coupling through resonator displacement in planar terahertz metamaterials	Journal of Infrared, Millimeter and Terahertz Waves	2017	38	1	124	134
Bhargab Deka, Rajkumar Modak, Pralay Paul, A. Srinivasan	Effect of atomic disorder on magnetization and half-metallic character of Cr ₂ CoGa alloy	Journal of Magnetism and Magnetic Materials	2016	418		107	111
P. C. Shyni, Perumal Alagarsamy	Effect of annealing on structural and magnetic properties of Al substituted nanocrystalline Fe–Si–Co alloy powders	Journal of Magnetism and Magnetic Materials	2016	417		62	68
Akhilesh Kumar Singh, Jen-Hwa Hsu, Perumal Alagarsamy	Temperature dependent magnetic coupling between ferromagnetic FeTaC layers in multilayer thin films	Journal of Magnetism and Magnetic Materials	2016	418		21	29
Ravikumar Patta, Kisan Bhagaban, Perumal Alagarsamy	Thickness dependent ferromagnetism in thermally decomposed NiO thin films	Journal of Magnetism and Magnetic Materials	2016	418		86	91
Aneeta Manjari Padhan, P. Ravikumar, P. Saravanan, Perumal Alagarsamy	Enhanced magnetic properties of NiO powders by the mechanical activation of aluminothermic reduction of NiO prepared by a ball milling process	Journal of Magnetism and Magnetic Materials	2016	418		253	259
Junmoni Barman, P. D. Babu, S. Ravi	Exchange bias and magnetization reversal in Ni(Cr _{1-x} Fe _x) ₂ O ₄ (x=0–0.20)	Journal of Magnetism and Magnetic Materials	2016	418		300	305
Junmoni Barman, S. Ravi	Sign reversal of magnetization and exchange bias in Ni(Cr _{1-x} Al _x) ₂ O ₄ (x=0–0.50)	Journal of Magnetism and Magnetic Materials	2017	426		82	88
Tribedi Bora, S. Ravi	Study of critical behavior in ferromagnetic LaCr _{0.3} Mn _{0.7} O ₃	Journal of Magnetism and Magnetic Materials	2016	418		213	216
Bibhuti B. Dash, S. Ravi	Magnetization reversal and tunable exchange bias in GdCr _{1-x} Mn _x O ₃ (x = 0– 0.50)	Journal of Magnetism and Magnetic Materials	2017	429		281	286
R. Padam, S. Ravi, D. Pal	Evolution of ferrimagnetism in Co(Cr _{1-x} Al _x) ₂ O ₄ (x = 0.0 – 1.0)	Journal of Magnetism and Magnetic Materials	2016	418		231	235

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Authors	Paper Title	Journal Name	Year	Volume	Issue Number	Starting Page	Ending Page
Arnab Kumar Das, A. Srinivasan	Evidence of oxygen defect induced ferromagnetism in heat treated electrospun ZnO nanowires	Journal of Magnetism and Magnetic Materials	2016	404		190	196
Pallabi Gogoi, Pramod Sharma, Pamu Dobbidi	Microwave and broadband dielectric properties of Ni substituted MgTiO ₃ ceramics	Journal of material science: Material Electron	2016	27	9	9052	9060
Gone Rajender, P. K. Giri	Formation mechanism of graphene quantum dots and their edge state conversion probed by photoluminescence and Raman spectroscopy	Journal of Materials Chemistry C	2016	4	46	10852	10865
Omkar Tripathy, P. Padma Kumar	Molecular Dynamics Investigation of Ion Transport in Sr doped LaMnO ₃	Journal of Materials Science	2017	52	11	6542	6553
Ramakrishna Madaka, Venkanna Kanneboina, Pratima Agarwal	Evolution of nanostructure in hydrogenated amorphous silicon thin films with substrate temperature studied by Raman mapping, Raman scattering and spectroscopic ellipsometry	Journal of materials Science: Materials in electronics	2017	-		1	10
Ranjan Kalita, Md. Gaffar, Bosanta R. Boruah	The generation of arbitrary vector beams using a division of wavefront based setup	Journal of Optics (IOP)	2016	18	7	1	8
Sk. Noor Nabi, Saurabh Basu	Percolation analysis of a disordered spinor Bose gas	Journal of Physics B: Atomic, Molecular and Optical Physics	2016	49	12	125301 (Article no)	-
R. Padam, Swati Pandya, S. Ravi, S Ramakrishnan, A. K. Nigam, A. K. Grover, D. Pal	Study of the sign change of exchange bias across the spin reorientation transition in Co(Cr _{1-x} Fe _x) ₂ O ₄ (x = 0.00–0.125)	Journal of Physics Condensed Matter	2017	29	5	55803 (Article No)	-
Koijam Monica Devi, Amarendra K. Sarma, Gagan Kumar	Enhanced terahertz transmission through a periodic array of tapered rectangular apertures	Journal of Physics: Conference series	2016	759	1	012052 (Article No)	-
P. Kapri, S. Ganguly, Saurabh Basu	Tunneling conductance through normal metal-superconductor junctions: effects of Rashba spin orbit coupling and magnetic field	Journal of Physics: Conference Series (IOP)	2016	759	1	12031 (Article no)	-
Koushik Paul, Amarendra K. Sarma	Efficient shortcut techniques in evanescently coupled waveguides	Journal of Physics: Conference series (IOP)	2016	759	1	012056 (Article No)	-
Bijita Sarma, Amarendra K. Sarma	Atom assisted cavity cooling of a micromechanical oscillator in the unresolved sideband regime	Journal of Physics: Conference series (IOP)	2016	759	1	012059 (Article No)	-

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Jagan Mohan Rao, Deepak Kumar, Gagan Kumar, Dibakar Roy Chowdhury	Probing the near field inductive coupling in broadside coupled terahertz metamaterials	Journal of Selected Topics in Quantum Electronics	2016	23	4	7765087 (Article No)	-
Junmoni Barman, S. Ravi	Tunable exchange bias and bipolar switching of magnetization near room temperature	Journal of Superconductivity and Novel Magnetism	2016	29	11	2859	2865
Bipul Deka, S. Ravi, A. Perumal	Study of exchange bias in Mn-doped YFeO ₃ compound	Journal of Superconductivity and Novel Magnetism	2016	29	8	2165	2170
T. R. Gopalarao, S. Ravi	Effect of film thickness on electrical and magnetic properties of Nd _{0.8} Na _{0.2} MnO ₃	Journal of Superconductivity and Novel Magnetism	2017	-		1	6
T. R. Gopalarao, S. Ravi, D. pamu	Effect of Film Thickness in Electrical Resistivity and Magnetic Properties of Nd _{0.7} Sr _{0.3} MnO ₃ Thin Films	Journal of Superconductivity and Novel Magnetism	2016	29	10	2567	2572
Pratap Behera, S. Ravi	Influence of Al Substitution on Structural, Dielectric and Magnetic Properties of M-type Barium Hexaferrite	Journal of Superconductivity and Novel Magnetism	2016	-		1	9
Bijita Sarma, Amarendra K. Sarma	Controllable optical bistability in a hybrid optomechanical system	Journal of the Optical Society of America B	2016	33	7	1335	1340
Partha P. Dey, Alike Khare	Effect of substrate temperature on structural and linear and non linear optical properties of nano structures PLD a-SiC thin films	Mat. Res. Bull.	2016	84		105	117
Bhargab Deka, Ashis Kundu, Subhradip Ghosh, A. Srinivasan	Effect of electron-electron correlation and site disorder on the magnetic moment and half-metallicity of Co ₂ FeGa _{1-x} Si _x alloys	Materials Chemistry and Physics	2016	177		564	569
Mukesh Singh, Indrajeet Kumar, Alike Khare, Pratima Agarwal	Third order optical nonlinear studies on highly conducting vertically aligned carbon nanoflakes	Materials research express	2016	3	12	125005 (Article No)	-
Debashish Das, Shreemoyee Ganguly, Biplab Sanyal, Subhradip Ghosh	Effect of Fe doping in the structural, electronic and magnetic properties of CoCr ₂ O ₄ : insights from ab initio calculations	Materials Research Express	2016	3	10	106106 (Article No)	-
S. Kavita, V.V. Ramakrishna, A. Srinivasan, R. Gopalan	Structural and magnetic properties of the low temperature phase MnBi with ball milling	Materials Research Express	2016	3	5	56102	56110

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Nisha Shankhwar, Manishekhar Kumar, Biman B. Mandal, A. Srinivasan	Novel polyvinyl alcohol-bioglass 45S5 composite nanofibrous membranes as bone scaffolds	Materials Science and Engineering C	2016	69		1167	1174
Asha Yadav, Pratima Agarwal	Density of states measurements in a-Si:H and a-Si:H/nc-Si:H multilayer structures prepared by hot wire chemical vapor deposition	Materials Science in Semiconductor Processing	2017	61		5	10
Biplob Sarkar, Santabrata Das	Dynamical structure of magnetized dissipative accretion flow around black holes	Monthly Notices of the Royal Astronomical Society	2016	461	1	190	201
Kamal Kumar Paul, Ramesh Ghosh, P. K. Giri	Mechanism of Strong Visible Light Photocatalysis by Ag ₂ O – Nanoparticle- Decorated Monoclinic TiO ₂ (B) Porous Nanorods	Nanotechnology	2016	27	31	315703	315718
Ramesh Ghosh, P. K. Giri	Silicon nanowire heterostructures for advanced energy and environmental applications: a review	Nanotechnology	2016	28	1	12001	12027
Ravi K. Biroju, Shubhadeep Pal, Rahul Sharma, P. K. Giri, Tharangattu N Narayanan	Stacking sequence dependent photo-electrocatalytic performance of CVD grown MoS ₂ /graphene van der Waals solids	Nanotechnology	2017	28	8	85101	85113
Shreyasi Pal, Soumen Maiti, Uday Narayan Maiti, Kalyan Kumar Chattopadhyay	ZnO-(Cu/Ag)TCNQ heterostructure network over flexible platform for enhanced cold cathode application	Nanotechnology	2016	27	26	265601 (Article No)	-
T. Mishra, S. Greschner, L. Santos	Density induced geometric frustration of ultra-cold bosons in optical lattice	New Journal of Physics, Special issue on: Focus on Strongly Interacting Quantum Gases in one Dimension	2016	18	4	045016 (Article No)	-
Jyoti Prasad Deka, Samit Kumar Gupta, Amarendra K. Sarma	Controlling the dynamical behaviour of fiber ring resonators with balanced loss and gain	Nonlinear Dynamics	2017	87	2	1121	1126
Andrea Alberti, Paolo Gambino, Kristopher J. Healey, Soumitra Nandi	The Inclusive Determination of V _{cb}	Nucl. Part. Phys. Proc.	2016	273-275		1325	1329
Debaprasad Maity	Pre-heating in the framework of massive gravity	Nuclear Physics B	2016	910		259	272
Gyan Prakash Bharti, Alika Khare	Structural and linear and nonlinear optical properties of Zn _{1-x} Al _x O (0 < x < 0.10) thin films fabricated via pulsed laser deposition technique	Optical Material Exp.	2016	6	6	2063	2080

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Mahesh Peddigari, Srinivas Pattipaka, Gyan Prakash Bharti, Alika Khare, D. Pamu	Nonlinear optical properties of pulsed laser deposited Gd ₂ O ₃ and Dy ₂ O ₃ doped K _{0.5} Na _{0.5} NbO ₃ thin films	Optical Materials	2016	58		9	13
B. Pathak, B. R. Boruah	Zonal wavefront sensing with enhanced spatial resolution	Optics Letters	2016	41	23	5600	5603
M. Gaffar, R. Kalita, B. R. Boruah	Experimental demonstration of a light beam with superior aberration resilience	Optics Letters	2016	41	19	4425	4428
Ashish Bakshi, Bibhas Ranjan Majhi, Saurav Samanta	Gravitational surface Hamiltonian and entropy quantization	Phys. Lett. B	2017	765		334	338
Rabin Banerjee, Bibhas Ranjan Majhi, Saurav Samanta	Thermogeometric phase transition in a unified framework	Phys. Lett. B	2017	767		25	28
P. Poullose, Shibananda Sahoo, K. Sridhar	Exploring the Inert Doublet Model through the dijet plus missing transverse energy channel at the LHC	Phys. Lett. B	2017	765		300	306
K. V. Rajitha, Tarak N. Dey	Microwave-assisted arbitrary optical-pulse generation in a thermal vapor	Phys. Rev. A	2016	94	5	1	7
Manpreet Singh, T. Mishra	Three-body interacting dipolar bosons and the fate of lattice supersolidity	Phys. Rev. A	2016	94	6	063610	-
B. Bhuyan et al.	Search for the decay	Phys. Rev. D	2016	93		1	6
B. Bhuyan et al.	Search for a muonic dark force at BaBar	Phys. Rev. D	2016	94		1	7
B. Bhuyan et al.	Studies of charmed strange baryons in the lambda D final state at Belle	Phys. Rev. D	2016	94		1	10
Subhaditya Bhattacharya, Nirakar Sahoo, Narendra Sahu	Minimal vectorlike leptonic dark matter and signatures at the LHC	Phys. Rev. D	2016	93	11	1	18
Subhaditya Bhattacharya, Jose Wudka	Dimension-seven operators in the standard model with right handed neutrinos	Phys. Rev. D	2016	94	5	1	19
Subhaditya Bhattacharya, Sudip Jana, S. Nandi	Neutrino Masses and Scalar Singlet Dark Matter	Phys. Rev. D	2017	95	5	1	11
T. Fischer, S. Chakraborty, M. Giannotti, A. Mirizzi, A. Payez, A. Ringwald	Probing axions with the neutrino signal from the next galactic supernova	Phys. Rev. D	2016	94	8	1	19
A. Bandyopadhyay, P. Bhattacharjee, S. Chakraborty, K. Kar, S. Saha	Detecting supernova neutrinos with iron and lead detectors	Phys. Rev. D	2017	95	6	065022-1	065022-11

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Krishnakanta Bhattacharya, Bibhas Ranjan Majhi	Temperature and thermodynamic structure of Einstein's equations for a cosmological black hole	Phys. Rev. D	2016	94	2	1	10
Abhijit Mandal, Saurav Samanta, Bibhas Ranjan Majhi	Phase transition and critical phenomena of black holes: A general approach	Phys. Rev. D	2016	94	6	1	6
Bibhas Ranjan Majhi	Noncommutativity in near horizon symmetries in gravity	Phys. Rev. D	2017	95		1	6
Krishnakanta Bhattacharya, Bibhas Ranjan Majhi	Fresh look at the Scalar-Tensor theory of gravity in Jordan and Einstein frames from undiscussed standpoints	Phys. Rev. D	2017	95	6	1	18
H. Bhaumik, S. B. Santra	Dissipative stochastic sandpile model on small-world networks: Properties of non-dissipative and dissipative avalanches	Phys. Rev. E	2016	94	6	1	8
B. Roy, S. B. Santra	First-order transition in a percolation model with nucleation and preferential growth	Phys. Rev. E	2017	95	1	1	5
B. Bhuyan et al.	Search for $B \rightarrow K \tau^+ \tau^-$ at the BaBar experiment	Phys. Rev. Lett.	2017	118		1	8
S. Nayak, K. Dasari, D. C. Joshi, P. Pramanik, R. Palai, V. Sathe, R. N. Chauhan, N. Tiwari, S. Thota	Spectroscopic studies of Co ₂ TiO ₄ and Co ₃ O ₄ two-phase composites	Physica Status Solidi B	2016	253	11	2270	2282
Lalhrait Zuala, Pratima Agarwal	Thermal and structural studies of CdSe nanorods synthesized by solvothermal process	Physica Status Solidi-A	2016	213	7	1885	1893
Sangkha Borah, P. Padma Kumar	Ab Initio Molecular Dynamics Study of Se-IV Species in Aqueous Environment	Physical Chemistry Chemical Physics	2016	18	38	26755	26763
Sangkha Borah, P. Padma Kumar	Ab Initio Molecular Dynamics Investigation of Structural, Dynamic and Spectroscopic Aspects of Se (VI) Species in Aqueous Environment	Physical Chemistry Chemical Physics	2016	18		14561	14568
Koushik Paul, Amarendra K. Sarma	High-Fidelity Entangled Bell States via Shortcuts to Adiabaticity	Physical Review A	2016	94	5	1	6
Subhaditya Bhattacharya, Biswajit Karmakar, Narendra Sahu, Arunansu Sil	Unifying the flavor origin of dark matter with leptonic nonzero θ_{13}	Physical Review D	2016	93	11	1	5
D. Borah, M. Ghosh, S. Gupta, S. Prakash, S. K. Raut	Analysis of four-zero textures in the 3+1 neutrino framework	Physical Review D	2016	94	11	1	13
D. Borah	Light sterile neutrino and dark matter in left-right symmetric models without a Higgs bidoublet	Physical Review D	2016	94	7	1	13

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D. Borah	Non-zero θ_{13} with unbroken μ - τ symmetry of the active neutrino mass matrix in the presence of a light sterile neutrino	Physical Review D	2017	95	3	1	16
J.W. Chen, S.H. Dai, Debaprasad Maity, Y.L. Zhang	Engineering holographic phase diagrams	Physical Review D	2016	94		1	15
S. Bhattacharjee, Debaprasad Maity, Rupak Mukherjee	Constraining scalar-Gauss-Bonnet Inflation by Reheating, Unitarity and PLANCK	Physical Review D	2017	95		1	14
V. Baibhav, Debaprasad Maity	Boson Stars in Higher Derivative Gravity	Physical Review D	2017	95		1	9
D. Choudhury, A. Kundu, S. Nandi, S. K. Patra	Unified resolution of the R(D) and R(D) anomalies and the lepton flavor violating decay $h \rightarrow \mu \tau$	Physical Review D	2017	95		1	10
A. Kumar Saha, Arunansu Sil	Higgs Vacuum Stability and Modified Chaotic Inflation	Physics Letters B	2017	765		244	250
Kh. Shantakumar Singh, A. K. Sharma	Effect of lens focusing distance on laser-produced copper plasma in air in the presence of static transverse magnetic field	Physics of Plasmas	2016	23	12	1	9
Kh. Shantakumar Singh, A. K. Sharma	Spatially-resolved behavior of laser-produced copper plasma along expansion direction in the presence of static uniform magnetic field	Physics of Plasmas	2016	23	12	122104	-
B. Bhuyan et al.	Search for D_0 decays to invisible final states at Belle	Physics Review D	2017	95		1	8
Anuma Singh, Iffat Jahan, Mrinal Sharma, Latha Rangan, Alike Khare, Aditya N. Panda	Structural characterization in silico studies and in vitro antibacterial evaluation of furanoflavonoid from Karanj	Plant Medica Letters	2016	3	4	e91	e95
Ramesh Ghosh, P. K. Giri	Efficient Visible Light Photocatalysis and Tunable Photoluminescence from Orientation Controlled Mesoporous Si Nanowires	RSC Advances	2016	6	42	35365	35377
Sudin Ganguly, Saurabh Basu	Interplay of Rashba spin orbit coupling and disorder in the conductance properties of a four terminal junction device	The European Physical Journal B	2016	89	4	103	-
P. Kapri, Saurabh Basu	Tunneling conductance study of a metal-superconductor junction in the presence of Rashba spin orbit coupling	The European Physical Journal B	2017	90	2	33	-
Indrajeet Kumar, Alike Khare	Optical Non linearity in nanostructured carbon thin films fabricated by pulsed laser deposition technique	Thin solid films	2016	611		56	61
Camelia Das, S. Mohapatra, G. A. Vitthal, Perumal Alagarsamy	Magnetic properties of single-layer and multilayer structured $\text{Co}_{40}\text{Fe}_{40}\text{B}_{20}$ thin films	Thin Solid Films	2016	616		126	133

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N. K. Mund, D. Dash, C. R. Barik, V. V. Goud, L. Sahoo, P. Mishra, N. R. Nayak	Evaluation of efficient glucose release using sodium hydroxide and phosphoric acid as pretreating agents from the biomass of <i>Sesbaniagrandiflora</i> (L.) Pers.: a fast growing tree legume	Bio resource Technology	2017	236	-	97	105
M. K. Sarma, S. Kaushik, P. Goswami	Cyanobacteria: A metabolic power house for harvesting solar energy to produce bio-electricity and biofuels	Biomass and Bioenergy,	2016	90	-	187	201
A. Difusa, K. Mohanty, V. V. Goud	The chemo metrics approach applied to FTIR spectral data for the analysis of lipid content in microalgae cultivated in different nitrogen sources	Biomass Conversion and Bio refinery	2016	-	-	1	7
S. Pradhan, A. J. Borah, M. K. Poddar, P. K. Dikshit, L. Rohidas, V. S. Moholkar	Microbial Production, Ultrasound–Assisted Extraction and Characterization of Biopolymer Polyhydroxybutyrate (PHB) from Terrestrial (<i>P. hysterophorus</i>) and Aquatic (<i>E. crassipes</i>) Invasive Weeds	Bioresource Technology	2017	doi.org/10.1016/j.biortech.2017.03.117		-	-
S.Sarma, A. Anand, V. K. Dubey, V. S. Moholkar	Metabolic flux network analysis of hydrogen production from crude glycerol by <i>Clostridium pasteurianum</i>	Bioresource Technology	2017	doi.org/10.1016/j.biortech.2017.03.168		-	-
N. K. Mund, D. Dash, C. R. Barik, V. V. Goud, L. Sahoo, P. Mishra, N. R. Nayak	Chemical composition, pretreatments and saccharification of <i>Senna siamea</i> (Lam.) H.S. Irwin & Barneby: An efficient biomass producing tree legume	Bioresource Technology	2016	-	-	205	212
A. J. Borah, M. Agarwal, M. Poudyal, A. Goyal, V. S. Moholkar	Mechanistic investigation in ultrasound induced enhancement of enzymatic hydrolysis of invasive biomass species	BioresourceTechnology	2016	213	-	342	349
P. Das, M. Das, S. R. Chinnadayala, I. M. Singha, P. Goswami	Recent advances on developing 3rd generation enzyme electrode for biosensor applications	Biosensors and Bioelectronics	2016	79	-	386	397
D. K. Maravi, S. Kumar, P. K. Sharma, Y. Kobayashi, V. V. Goud, N. Sakurai, H. Koyama, L. Sahoo	Ectopic expression of AtDGAT1, encoding diacylglycerol O-acyltransferase exclusively committed to TAG biosynthesis, enhances oil accumulation in seeds and leaves of <i>Jatropha</i>	Biotechnology for Biofuels	2016	9	226	1	13
M. Agarwal, P. K. Dikshit, J. B. Bhasarkar, A. J. Borah, V. S. Moholkar	Physical insight into ultrasound-assisted biodesulfurization using free and immobilized cells of <i>Rhodococcus rhodochrous</i> MTCC 3552	Chemical Engineering Journal	2016	295	-	254	267

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R. S. Malani, S. Patil, K. Roy, S. Chakma, A. Goyal, V. S. Moholkar	Mechanistic analysis of ultrasound-assisted biodiesel synthesis with Cu ₂ O Catalyst and mixed oil feedstock using continuous (packed bed) and batch (slurry) reactors	Chemical Engineering Science	2017	doi.org/10.1016/j.ces.2017.03.041		-	-
A. Choudhury, L. Barbora, D. Arya, B. Lal, S. Subudhi, S. V. Mohan, S. Z. Ahammad, A. Verma	Effect of electrode surface properties on enhanced electron transfer activity in Microbial fuel cell	Engineering in Life Sciences	2016	17	2	186	192
D. Yadav, L. Barbora, L. Rangan, P. Mahanta	Tea waste and food waste as a potential feedstock for biogas production	Environmental Progress & Sustainable Energy	2016	35	5	1247	1253
P. Kalita, D. Das	Thermodynamic analysis of a modified solar still	IASH Journal of International Association for Small Hydro	2017	6	1	14	19
R. Timung, C. R. Barik, S. Purohit, V. V. Goud	Composition and anti-bacterial activity analysis of Citronella oil obtained by hydro-distillation: Process optimization study 2016, 94, 178-188.	Industrial Crops & Products	2016	94	-	178	188
D. Yadav, L. Barbora, L. Rangan, P. Mahanta	An assessment of duckweed as a potential lignocellulosic feedstock for biogas production	International Biodeterioration & Biodegradation	2016	http://dx.doi.org/10.1016/j.ibiod.2016.09.007		-	-
S. Sarma, V. K. Dubey, V. S. Moholkar	Kinetic and thermodynamic analysis (with statistical optimization) of hydrogen production from crude glycerol using Clostridium pasteurianum	International Journal of Hydrogen Energy	2016	41	44	19972	19989
S. Kaushik, M. K. Sarma, P. D. Thungon, M. Santhosh, P. Goswami	Thin films of silk-fibroin and its blend with chitosan strongly promote biofilm growth of Synechococcus sp. BDU 140432	Journal of Colloid and Interface Science	2016	479	-	251	259
S. Kaushik, M. K. Sarma, P. Goswami	FRET guided surging of cyanobacterial photosystems improves and stabilizes current in photosynthetic microbial fuel cell	Journal of Materials Chemistry A	2017	DOI: 10.1039/C7TA01137G		-	-
A. Yadav, P. Agarwal	Density of states measurements in a-Si:H and a-Si:H/nc-Si:H multilayer structures prepared by hot wire chemical vapor deposition	Material science in semiconductor proceeding	2017	61		5	10
A. Sharma, E. S. Prasad, H. Chaturvedi	Photon induced separation of bio-nano hybrid complex based on carbon nanotubes and optically active bacteriorhodopsin	Optical Materials Express	2016	6	4	986	992
A. J. Borah, S. Singh, A. Goyal, V. S. Moholkar	An assessment of the potential of invasive weeds as multiple feedstocks for biofuel production	RSC Advances	2016	6	52	47151	47163

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A. Ranjan, S. Singh, R. S. Malani, V. S. Moholkar	Ultrasound-assisted bioalcohol synthesis: review and analysis	RSC Advances	2016	6	70	65541	65562
P. Kalita, A. Dewan, S. Borah	A Review on Recent Developments in Solar Distillation	Sadhana	2016	41	2	203	223

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Lalit Goswami, N. Arul Manikandan, K. Pakshirajan, G. Pugazhenthii	Simultaneous heavy metal removal and anthracene biodegradation by the oleaginous bacteria <i>Rhodococcus opacus</i>	3 Biotech	2017				
N. N. Deshavath, M. Mood, V. V. Dasu, V. V. Goud, P. S. Rao, B. Tamal	Dilute acid pretreatment of sorghum biomass to maximize the hemicellulose hydrolysis with minimized levels of fermentative inhibitors for bioethanol production.	3 Biotech	2017				
Niva R. Mahanta, S. K. Nawaz Ali	Thermal Comfort in Built Environment through Shading: The Case of Guwahati City	Amity J. Engineering and Technology	2016	1	2	41	53
M. Gopi Kiran, K. Pakshirajan, Gopal Das	An overview of sulfidogenic biological reactors for the simultaneous treatment of sulfate and heavy metal rich wastewater	Chemical Engineering Science	2017	158		606	620
Biju P. Sahariah, J. Anandkumar, S. Chakraborty	Treatment of coke oven wastewater in an anaerobic–anoxic–aerobic moving bed bioreactor system.	Desalination and Water Treatment	2016	57	31	14396	14402
Papu Kumar Naik, Pyarimohan Dehury, Sandip Paul, Tamal Banerjee	Evaluation of Deep Eutectic Solvent for the selective extraction of toluene and quinoline at T=308.15 K and p=1bar.	Fluid Phase Equilibria	2016	423		146	155
H. Chetia, D. Kabiraj, D. Singh, P. V. Mosahari, S. Das, P. Sharma, K. Neog, S. Sharma, P. Jayaprakash, Utpal Bora	De novo transcriptome of the muga silkworm, <i>Antheraea assamensis</i> (Helfer)	Gene	2017	611			
Ajeet Singh, Poulami Datta, Lalit M. Pandey	Deciphering the mechanistic insight into the stoichiometric ratio dependent behavior of Cu(II) on BSA fibrillation	Int. J. Biological Macromolecules	2017	97		662	670
B. Das, T. K. Mandal, S. Patra	Biodegradation of phenol by a novel diatom BD11ITG-kinetics and biochemical studies	Inter.J. Environmental Science and Technology	2016	13	2	529	542

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M. Gopi Kiran, K. Pakshirajan, Gopal Das	Heavy metal removal from multicomponent system by sulfate reducing bacteria: Mechanism and cell surface characterization	J. Hazard. Mater	2017	324		62	70
Lalit Goswami, R. V. Kumar, N. Arul Manikandan, K. Pakshirajan, G. Pugazhenth	Simultaneous polycyclic aromatic hydrocarbon degradation and lipid accumulation by <i>Rhodococcus opacus</i> for potential biodiesel production	J. Water Process Engineering	2017	17		1	10
R. V. Kumar, L. Goswami, K. Pakshirajan, G. Pugazhenth	Dairy wastewater treatment using a novel low cost tubular ceramic membrane and membrane fouling mechanism using pore blocking models	J. Water Process Engineering	2016	13		168	175
Viswa B. Barua, Ajay Kalamdhad	Water Hyacinth To Biogas: A Review.	Pollution Research	2016	35		63	73
Lalit Goswami, R. V. Kumar, N. Arul Manikandan, K. Pakshirajan, G. Pugazhenth	Anthracene biodegradation by oleaginous <i>Rhodococcus opacus</i> for potential biodiesel application	Polycyclic aromatic Compounds	2017				
Lalit Goswami, M. M. Tejas Namboodiri, R. V. Kumar, K. Pakshirajan, G. Pugazhenth	Biodiesel production potential of oleaginous <i>Rhodococcus opacus</i> grown on biomass gasification wastewater	Renewable Energy	2017	105		400	406
Rajib L. Deka, C. Mahanta, K. K. Nath, M. K. Dutta	Spatio-temporal variability of rainfall regime in the Brahmaputra valley of North East India.	Theor, Appl, Climatol.	2016	124	3	793	806

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Ashish Singh, Anamika Dey, Dipjyoti Das, Parameswar K. Iyer	Effect of Dual Cathode Buffer Layer on the Charge Carrier Dynamics of rrP3HT:PCBM Based Bulk Heterojunction Solar Cell	ACS AMI	2017	8		10904	10910
Uday Narayan Pan, Rumi Khandelia, PallabSanpui, Subhojit Das, Anumita Paul, ArunbChattopadhyay	Protein-Based Multifunctional Nanocarriers for Imaging, Photothermal Therapy, and Anticancer Drug Delivery	ACS Appl. Mater. Interfaces	2016				
Bal Krishnan Muthuraj, Sudip Mukherjee, Chittaranjan Patra, Parameswar Krishnan Iyer	Amplified Fluorescence from Polyfluorene Nanoparticles with Dual State Emission and Aggregation Caused Red Shifted Emission for Live Cell Imaging and Cancer Theranostics	ACS Appl. Mater. Interfaces	2016	8	47	32220	32229

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Authors	Paper Title	Journal Name	Year	Volume	Issue Number	Starting Page	Ending Page
A. Kalita, S. Hussain, A. Hussain Malik, U. Barman, N. Goswami, Parameswar Krishnan Iyer	Anion-Exchange Induced Strong Interactions in Single Crystalline Naphthalene Diimide for Nitroexplosive Sensing: An Electronic Prototype for Visual on-Site Detection	ACS Appl. Mater. Interfaces	2016	8		25326	25336
Akhtar Hussain Malik, Parameswar Krishnan Iyer	Conjugated Polyelectrolyte Based Sensitive Detection and Removal of Antibiotics Tetracycline from Water	ACS Appl. Mater. Interfaces	2017	9	5	4433	4439
B. Ravi, S. Chakraborty, M. Bhattacharjee, S. Mitra, Abir Ghosh, P. S. Gooh Pattader	Pattern Directed Ordering of Spin-dewetted Liquid Crystal Micro or Nanodroplets as Pixelated Light Reflectors and Locomotives	ACS Applied Materials and Interfaces	2016	9	1	1066	1076
Deepanjalee Dutta, Arun Chattopadhyay, Siddhartha Sankar Ghosh	Cationic BSA Templated Bimetallic Nanoclusters as a Theranostic Gene Delivery Vector for HeLa Cancer Cells	ACS Biomaterials Science & Engineering	2016	2	11	2090	2098
A. Sahoo, U. Goswami, D. Dutta, S. Banerjee, A Chattopadhyay, S. S. Ghosh	Silver nanoclusters embedded composite nanoparticles for targeted prodrug delivery in cancer theranostics	ACS Biomaterials Science & Engineering	2016	2	8	1395	1402
T. Bhuyan, A. K. Singh, D. Dutta, A. Unal, S. S. Ghosh, Dipankar Bandyopadhyay	Magnetic Field Guided Chemotaxis of iMushbots for Targeted Anticancer Therapeutics	ACS Biomaterials Science & Engineering	2017			DOI: 10.1021/acsb iomaterials.7b00086	
Anamika Dey, Ashish Singh, Dipjyoti Das, Parameswar K. Iyer	High-Performance ZnPc Thin Film-Based Photosensitive Organic Field-Effect Transistors: Influence of Multilayer Dielectric Systems and Thin Film Growth Structure	ACS Omega	2017				
A. S. Tanwar, S. Hussain, A. Hussain Malik, M. A. Afroz, Parameswar Krishnan Iyer	An inner filter effect based selective detection of nitroexplosive-picric acid in aqueous solution and solid support using conjugated polymer	ACS Sensors	2016	1	8	1070	1077
Akhtar Hussain Malik, Sameer Hussain, Parameswar Krishnan Iyer	Aggregation-Induced FRET via Polymer-Surfactant Complexation: A New Strategy for the Detection of Spermine	Analytical Chemistry	2017	88	14	7358	7364
S. Vanitha, N. Chaubey, S. S. Ghosh, P. Sanpui	Recombinant human granulocyte macrophage colony stimulating factor (hGM-CSF): Possibility of nanoparticle-mediated delivery in cancer immunotherapy	Bioengineered	2016			1	4
Sharmila Narayanan, Pallab Sanpui, Lingaraj Sahoo, Siddhartha Sankar Ghosh	Tobacco phytophase: Successful expression in a heterologous system	Bioengineered	2017			1	5

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Mitradip Bhattacharjee, Harshal Nemade, Dipankar Bandyopadhyay	Nano-Enabled Paper Humidity Sensor for Mobile Based Point-of-Care Lung Function Monitoring	Biosensors & BioElectronics	2017	94		544	551
Ravi K. Biroju, Biswajit Choudhury, P. K. Giri	Plasmon-enhanced strong visible light photocatalysis by defect engineered CVD graphene and graphene oxide physically functionalized with Au nanoparticles	Catalysis Science & Technology	2016	6	19	7101	7112
Anushree Dutta, Deepanjalee Dutta, Pallab Sanpui, Arun Chattopadhyay	Biomimetically Crystallized Protease Resistant Zinc Phosphate decorated with Gold Atomic Clusters for Bio-Imaging	Chem. Commun.	2016	53		1277	1280
Dipjyoti Das, P. Gopikrishna, Ashish Singh, Anamika Dey, Parameswar Krishnan Iyer	Solution processed WPLEDs with good color stability and high color rendering index via a phosphor-sensitized system	Chemistry select	2017				
S. Timung, J. Choudhuri, M. P. Borthakur, T. K. Mandal, Gautam Biswas, D. Bandyopadhyay	Electric field mediated spraying of miniaturized droplets inside microchannel	Electrophoresis	2017	DOI: 10.1002/elps.201600311			
J. Choudhuri, S. Timung, C. B. Dandamudi, T. K. Mandal, Dipankar Bandyopadhyay	Discrete Electric Field Mediated Droplet Splitting in Microchannels: Fission, Cascade, and Rayleigh Modes	Electrophoresis	2017	38		278	
Saptak Rarotra, Tapas Kumar Mandal, Dipankar Bandyopadhyay	Microfluidic Electrolyzers for Production and Separation of Hydrogen from Naturally Abundant Solar Energy and Sea Water	Energy Technology	2017	DOI: 10.1002/ente.201600512			
S. Kumar, B. Sharma, Ashok K. Dasmahapatra, A. Dalal, D. N. Basu, Dipankar Bandyopadhyay	Field Induced Anomalous Spreading, Oscillation, Ejection, Spinning, and Breaking of Oil Droplets on Strongly Slipping Water Surface	Faraday Discussions	2017	DOI: 10.1039/C6FD00233A			
Brajesh Rawat, Roy Paily	Performance Evaluation of Bilayer Graphene/Nanoribbon Tunnel FETs for Digital and Analog applications	IEEE Transactions on Nanotechnology	2017	PP	99	1	1
Sharmila Narayanan, Pallab Sanpui, Lingaraj Sahoo, Siddhartha Sankar Ghosh	Unravelling the potential of a new uracil phosphoribosyltransferase (UPRT) from Arabidopsis thaliana in sensitizing HeLa cells towards 5-fluorouracil	International Journal of Biological Macromolecules	2016	91		310	316
Sharmila Narayanan, Pallab Sanpui, Lingaraj Sahoo, Siddhartha Sankar Ghosh	Heterologous expression and functional characterization of phytaspase, a caspase-like plant protease	International Journal of Biological Macromolecules	2017	95		288	293

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Sameer Hussain, Akhtar Hussain Malik, Parameswar Krishnan Iyer	FRET-assisted selective detection of flavins via cationic conjugated polyelectrolyte under physiological conditions	J. Mater. Chem. B	2016	4		4439	4446
Niranjan Meher, Sayan Roy Chowdhury, Parameswar Krishnan Iyer	Design, synthesis and DSSC performance of o-fluorine substituted phenylene spacer sensitizers: effect of TiO ₂ thickness variation	J. Mater. Chem. B	2016	4		6023	6031
Suresh Vasimalla, Nimmakayala V. V. Subbarao, Parameswar Krishnan Iyer	Low voltage, low cost, flexible and balanced ambipolar OFETs based on Br ₂ PTCDI-C18/CuPc fabricated on Al foil gate substrates with good ambient stability	J. Mater. Chem. C	2016	4		7102	7109
Sayan Roy Chowdhury, Mahesh Agarwal, Niranjan Meher, Balakrishnan Muthuraj, Parameswar Krishnan Iyer	Modulation of Amyloid Aggregates into Nontoxic Co-aggregates by Hydroxyquinoline Appended Polyfluorene	J. Mater. Chem. C ACS Appl. Mater. Interfaces	2016	8	21	13309	13319
Peddaboodi Gopikrishna, Parameswar Krishnan Iyer	Monosubstituted Dibenzofulvene-Based Luminogens: Aggregation- Induced Emission Enhancement and Dual-State Emission	J. Phys. Chem. C	2017	120		26556	26568
Abir Ghosh, Ashutosh Sharma, Dipankar Bandyopadhyay	Influence of the mutable kinetic parameters on the adhesion and debonding of thin viscoelastic films	Journal of Colloid & Interface Science	2016	477		109	122
Brajesh Rawat, Roy Paily	Performance Projection of Bilayer Graphene Nanoribbon FET through Quantum-Mechanical Simulation	Journal of Semiconductor Science and Technology	2016	32	12	125004	125012
Archita Ghoshal, Siddhartha Sankar Ghosh	Antagonizing canonical Wnt signaling pathway by recombinant human sFRP4 purified from E. coli and its implications in cancer therapy	Molecular and Cellular Biochemistry	2016	418	1	119	135
Ravi K. Biroju, Shubhadeep Pal, Rahul Sharma, P. K. Giri, Tharangattu N. Narayanan	Stacking sequence dependent photo-electrocatalytic performance of CVD grown MoS ₂ /graphene van der Waals solids	Nanotechnology	2017	28	8	85101	85113
Telugu Bhim Raju, Jayraj Vaghasiya, Mohammed Adil Afroz, Parameswar Krishnan Iyer	Influence of m-fluorine substituted phenylene spacer dyes in dye-sensitized solar cells	Organic Electronics	2016	39		371	379
Anamika Kalita, Anamika Dey, Parameswar Krishnan Iyer	The effect of inorganic/organic dual dielectric layers on the morphology and performance of n-channel OFETs	Phys. Chem. Chem. Phys	2016	18		12163	12168

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Dipjyoti Das, Peddaboodi Gopikrishna, Rahul Narasimhan, Ashish Singh, Anamika Dey, Parameswar Krishnan Iyer	White polymer light emitting diodes based on PVK: the effect of the electron injection barrier on transport properties, electroluminescence and controlling the electroplex formation	Phys.Chem.Chem.Phys.	2017	18		33077	33084
Anamika Dey, Ashish Singh, Dipjyoti Das, Parameswar K. Iyer	Photosensitive Organic Field Effect Transistor: Influence of ZnPc Morphology and Bilayer Dielectrics to Achieve Low Operating Voltage and Low Bias Stress Effect	Physical Chemistry Chemical Physics	2017	18		32602	32609
Telugu Bhim Raju, Jayraj Vaghasiya, Mohammed Adil Afroz, Parameswar Krishnan Iyer	Design, synthesis and DSSC performance of o-fluorine substituted phenylene spacer sensitizers: effect of TiO ₂ thickness variation	Physical Chemistry Chemical Physics	2016	18		28485	23491
Archita Ghoshal, Upashi Goswami, Asif Raza, Arun Chattopadhyay, Siddhartha Sankar Ghosh	Recombinant sFRP4 bound Chitosan-Alginate Composite Nanoparticles Embedded with Silver Nanoclusters for Wnt/b-catenin targeting in Cancer Theranostics	RSC Advances	2016	6		85763	85772
Bandhan Chatterjee, Amaresh Kumar Sahoo, Siddhartha Sankar Ghosh, Arun Chattopadhyay	Interactive luminescent gold nanocluster embedded dsDNA and cisplatin as model nanoparticles for cancer theranostics	RSC Advances	2016	6		113053	113057
Neha Arora, Siddhartha Sankar Ghosh	Functional Characterizations of Interactive Recombinant PTEN-Silica Nanoparticles for Potential Biomedical Applications	RSC Advances	2016	6		114944	114954
Sunny Kumar, Md. Rashid Ali Faridi, Ashok Kumar Dasmahapatra, Dipankar Bandyopadhyay	Magnetic Field Induced Push-Pull Motility of Liquibots,	RSC Advances	2016	6		107049	107056
Srestha Basu, Amaresh Kumar Sahoo, Anumita Paul, Arun Chattopadhyay	Thumb Imprint Based Detection of Hyperbilirubinemia Using Luminescent Gold Nanoclusters	Scientific Reports	2016	6			

Conference Papers

Biosciences and Bioengineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Ritesh Kumar, Vikash Kumar Dubey	Mechanistic elucidation of apoptosis in Leishmania : the important role of noncaspase proteases	9th TCS Annual event and Flow Cytometry workshop on "Flow Application on Basic, Applied and Clinical Biology" (FABACTCS 2016), IIT Guwahati	2016
Prachi Bhalla, Anil Kumar Saikia, Vikash Kumar Dubey	Synthesis of second generation of Antileishmanial drugs	9th TCS Annual event and Flow Cytometry workshop on "Flow Application on Basic, Applied and Clinical Biology" (FABACTCS 2016), IIT Guwahati	2016
Babina Chakma, Priyamvada Jain, Pranab Goswami,	Development of indicator displacement based detection of malaria targeting HRP II as biomarker for point- of- care and analytical settings	IUMRS-International Conference of Young Researchers on Advanced Materials (IUMRS-ICYRAM 2016) held at Indian Institute of Science, Bangalore	2016
Sharbani Kaushik, Pranab Goswami	CdTe quantum dots decorated silk fibroin with graphene blend,enhances light to current conversion efficiency of Synechococcus sp. biofilm grown on graphite anode in photo-microbial fuel cell (oral presentation)	IUMRS-International Conference of Young Researchers on Advanced Materials (IUMRS-ICYRAM 2016) held at Indian Institute of Science, Bangalore	2016
Priyanki Das, Pranab Goswami	Fuel cell based methanol biosensor using biocompatible graphite conductive ink on paper surface	IUMRS-International Conference of Young Researchers on Advanced Materials (IUMRS-ICYRAM 2016) held at Indian Institute of Science, Bangalore	2016
Phurpa Dema Thungon, Naveen Kumar Singh, Pranab Goswami,	Study of Peroxidase mimicking agents/ Nanoenzymes for development of alcohol biosensors	IUMRS-International Conference of Young Researchers on Advanced Materials (IUMRS-ICYRAM 2016) held at Indian Institute of Science, Bangalore	2016
Ketan Ganar, Nitin Vasantryo Kurkure, Sachin Kumar	Molecular characterization and phylogenomics of chicken anemia virus outbreak from Nagpur, India	"VIROCON 2016" Indian Institute of Horticultural Research, Bengaluru	2016
Nakul Yadav, Sudhir Morla, Ajay Kumar, Sachin Kumar	Inhibition of Migration of Human Oral Cancer cells in presence of Newcastle Disease Virus Bareilly strain	"VIROCON 2016" Indian Institute of Horticultural Research, Bengaluru	2016
Barnali Nath, Siraj A. Khan, Sachin Kumar	In vitro characterisation of Japanese encephalitis virus strain SA14-14-2: adaptation and propagation in baby hamster kidney cells	"VIROCON 2016" Indian Institute of Horticultural Research, Bengaluru	2016
Milind Singh, Sachin Kumar	Interaction between IBDV and NDV in vitro using Chicken fibroblast cell line	"VIROCON 2016" Indian Institute of Horticultural Research, Bengaluru	2016
Arun Goyal, Shadab Ahmed, Kedar Sharma, Vikas Gupta, Pedro Bule, Victor D. Alves, Carlos M. G. A. Fontes, Shabir Najmudin	Crystal structure and molecular determinants of substrate specificity of arabinofuranosidase from Clostridium thermocellum	14th International Conference of the Asian Crystallographic Association	2016

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Kedar Sharma, Anil Kumar Verma, Carlos M. G. A. Fontes, Shabir Najmudin, Arun Goyal	Solution structure analysis of full length glucuronoxylan endo- β -1,4-xylanase from <i>Clostridium thermocellum</i> by Small Angle X-Ray Scattering	14th International Conference of the Asian Crystallographic Association	2016
Arupjyoti Borah, Shuchi Singh, Arun Goyal, Vijayanand S. Moholkar	An assessment of invasive weeds as multiple feedstocks for biofuels production	24th European Biomass Conference and Exhibition	2016
Pranab Goswami, Ankana Kakoti	Development of DNA aptamers against human heart type fatty acid binding protein for early detection of acute myocardial infarction	2nd World Congress on Bio Summit & Molecular Biology Expo, Dubai, UAE	2016
Rakhi Chaturvedi, Peeyushi Verma	Anti-bacterial potential of calli induced from stem, flower and leaf explants of <i>Lantana camara</i> L.	38th Annual Meeting of the Plant Tissue Culture Association (India) and a National symposium on 'Plant Biotechnology: Current Perspectives on Medicinal and Crop Plants' organized by CSIR-IICB, Kolkata	2017
Archita Ghoshal, Upashi Goswami, Siddhartha Sankar Ghosh	Targeting Wnt pathway with Recombinant sFRP1 loaded Composite Nanoparticles for Cancer Therapy	3rd International Conference on Biotechnology and Bioinformatics	2016
N. A. Manikandan, K. Pakshirajan	Polyhydroxybutyrate (PHB) production by <i>Ralstonia eutropha</i> using bean gum industry refuse as a cheap feedstock	3rd International Conference on Challenges in Biotechnology and Chemical Engineering, Chidambaram	2016
Ritesh Kumar, Vikash Kumar Dubey	Understanding the role of methionine aminopeptidase 2 in programmed cell death of <i>Leishmania donovani</i> by studying the knockout mutants	3rd International Conference on perspective of cell signaling and molecular medicine. Bose Institute, Kolkata	2016
Kartikeya Tiwari, Vikash Kumar Dubey	Role of aspartate metabolism in the growth and infectivity of <i>Leishmania donovani</i>	3rd International Conference on perspective of cell signaling and molecular medicine. Bose Institute, Kolkata	2016
Smita Das, Priyamvada Jain, Babina Chakma, Pranab Goswami	Paper based electrochemical sensor for species specific detection of malaria	4th International Conference on Advanced Nanomaterials and Nanotechnology(ICANN) organized by Centre for Nanotechnology, IIT Guwahati	2016
Ritesh Kumar, Vikash Kumar Dubey	Effect of TNP-470 on the apoptotic processes of miltefosine treated <i>Leishmania donovani</i>	57 th Annual conference of Association of Microbiologists of India & International Symposium on Microbes and Biosphere: What's New What's next, Gauhati University	2016
Manisha Shah, Sachin Kumar	Effect on NDV replication in Chicken embryo fibroblast upon overexpression of Viperin	57th Annual Conference & International Symposium of Association of Microbiologists of India, Gauhati University	2016
Milind Singh, Sachin Kumar	Interaction between IBDV and NDV in vitro using Chicken fibroblast cell line	57th Annual Conference & International Symposium of Association of Microbiologists of India, Gauhati University	2016

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Barnali Nath, Siraj A. Khan, Sachin Kumar	In vitro characterisation of Japanese encephalitis virus strain SA14-14-2: adaptation and propagation in baby hamster kidney cells	57th Annual Conference & International Symposium of Association of Microbiologists of India, Gauhati University	2016
Nakul Yadav, Sudhir Morla, Ajay Kumar, Sachin Kumar	Inhibition of Migration of Human Oral Cancer cells in presence of Newcastle Disease Virus Bareilly strain	57th Annual Conference & International Symposium of Association of Microbiologists of India, Gauhati University	2016
Moushume Das, Sachin Kumar	Modulation of NDV replication in chicken embryo fibroblast following imadazole treatment	57th Annual Conference & International Symposium of Association of Microbiologists of India, Gauhati University	2016
Kartikeya Tiwari, Vikash Kumar Dubey	Unraveling the role of L-asparaginase in the growth and infectivity of Leishmania donovani	57th Annual conference of Association of Microbiologists of India & International Symposium on Microbes and Biosphere: What's New What's Next, Gauhati University	2016
Aman Prakash, Manish Kumar	Characterization of a novel Cas5 protein of CRISPR-Cas type I-B in pathogenic Leptospira interrogans	57th Annual Conference of Association of Microbiologists of India and International symposium on "Microbes and Biosphere" in Gauhati University	2016
Anusua Dhara, Manish Kumar	Cloning, expression and purification of Caseinolytic proteases of pathogenic Leptospira interrogans Copenhageni strain Fiocruz L1-130	57th Annual Conference of Association of Microbiologists of India and International symposium on "Microbes and Biosphere" in Gauhati University	2016
Bithorai Basumatary, Manish Kumar	Investigation of biochemical characteristics of a core Cas protein in CRISPR-Cas subtype-IC in Leptospira interrogans serovar Copenhageni strain Fiocruz L1-130	57th Annual Conference of Association of Microbiologists of India and International symposium on "Microbes and Biosphere" in Gauhati University	2016
Karukriti Kaushik Ghosh, Manish Kumar	Modulation of gene expression of Leptospira interrogans exposed to catecholamines and its role in host immune evasion	57th Annual Conference of Association of Microbiologists of India and International symposium on "Microbes and Biosphere" in Gauhati University	2016
Aruna Rani, Rwivoo Baruah, Arun Goyal	Biocompatible and antioxidant properties of chondroitin sulphate isolated from chicken keel bone for potential biomedical applications	57th International Annual Conference of The Association of Microbiologists of India (AMI-2016)	2016
Shweta Singh, Abhijeet Thakur, Arun Goyal	Strain improvement of Bacillus amyloliquefaciens SS35 by UV mutagenesis for producing hyperactive mutants for improved carboxymethyl cellulase activity	57th International Annual Conference of The Association of Microbiologists of India (AMI-2016)	2016
Abhijeet Thakur, Arun Goyal	Molecular cloning, expression and purification of xylanase of family 11 Glycoside Hydrolase (GH11) from Pedobacter saltans	57th International Annual Conference of The Association of Microbiologists of India (AMI-2016)	2016
B. Karthika, Kedar Sharma, Aruna Rani, Arun Goyal	Cloning, expression, purification and biochemical characterization of Heparinase II/III of family 12 polysaccharide lyase (PL12) from Pedobacter saltans	57th International Annual Conference of The Association of Microbiologists of India (AMI-2016)	2016

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Arun Dhillon, Arun Goyal	A novel family 35 Carbohydrate Binding Module (Rgl-CBM35) from <i>Clostridium thermocellum</i> binds rhamnogalacturonan I	57th International Annual Conference of The Association of Microbiologists of India (AMI-2016)	2016
Vicky Rajulapati, Arun Dhillon, Arun Goyal	Ultrasound assisted extraction of pectin polysaccharide from the waste fruit peels of <i>Citrus prelicata</i> , <i>Malus domestica</i> and <i>Ananas comosus</i>	57th International Annual Conference of The Association of Microbiologists of India (AMI-2016)	2016
Kedar Sharma, Arun Goyal	Cloning, expression and characterization of a xylanase from family 10 glycoside hydrolase (GH10) from <i>Pedobacter saltans</i> DSM12145	57th International Annual Conference of The Association of Microbiologists of India (AMI-2016)	2016
Priyanka Nath, Arun Dhillon, Arun Goyal	Protein engineering of endo β -1-4 glucanase (CtGH5) from <i>Clostridium thermocellum</i> by site-directed mutagenesis for development of mutant with enhanced activity	57th International Annual Conference of The Association of Microbiologists of India (AMI-2016)	2016
Rwivoo Baruah, Barsha Deka, Niharika Kashyap, V. S. Moholkar, Arun Goyal	Optimization and scale up of dextran production from <i>Weissella cibaria</i> RBA12	57th International Annual Conference of The Association of Microbiologists of India (AMI-2016)	2016
Krishan Kumar, Virginia M.R. Pires, Carlos M. G. A. Fontes, Arun Goyal	Purification and characterization of a thermostable endo- β -1, 3-glucanase (CtGH81) from <i>Clostridium thermocellum</i>	57th International Annual Conference of The Association of Microbiologists of India (AMI-2016)	2016
M. Gopi Kiran, Kannan Pakshirajan, Gopal Das	Sodium alginate immobilized sulfate reducing bacteria for batch and continuous removal of heavy metals	5th International conference on research frontiers in Chalcogen cycle science and Technology, Goa	2016
A. Sinharoy, K. Pakshirajan	Iron nanoparticle enhanced biodesulfurization with carbon monoxide utilizing bacteria	5th International conference on research frontiers in Chalcogen cycle science and Technology, Goa	2016
A. Sinharoy, K. Pakshirajan	Biological sulphate reduction with carbon monoxide utilizing bacteria	5th International conference on research frontiers in Chalcogen cycle science and Technology, Goa	2016
Trishna Anand, Jina Bhattacharyya, Bithiah Grace Jaganathan	Study of apoptosis in mesenchymal stem cells and differentiated cells	7th International Conference on Stem Cells and Cancer (ICSCC-2016): Proliferation, Differentiation and Apoptosis	2016
Neha Arora, Siddhartha Sankar Ghosh	Functional Stabilization of Recombinant PTEN onto Silica Nanoparticles for Potential Biomedical Applications	7th International Conference on Stem Cells and Cancer (ICSCC-2016): Proliferation, Differentiation and Apoptosis	2016
Md. Asif Raza, Siddhartha Sankar Ghosh	Therapeutic targeting of intercellular communication in cancer	7th International Conference on Stem Cells and Cancer (ICSCC-2016): Proliferation, Differentiation and Apoptosis	2016
Kartikeya Tiwari, Vikash Kumar Dubey	Investigating pyrimidine metabolism of <i>Leishmania donovani</i> through dihydroorotase mediated inhibition	9 th TCS Annual event and Flow Cytometry workshop on "Flow Application on Basic, Applied and Clinical Biology" (FABACTCS 2016), IIT Guwahati	2016

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J. Sumitha Banu, Arun Goyal, V. S. Moholkar	Comparative study of pretreatment methods for agrowaste pearl millet (<i>Pennisetum glaucum</i>) stalk for bioethanol production	9th NABS National Conference on New Biological Researches: Opportunities and challenges for sustainable development	2016
Kedar Sharma, Anil Kumar Verma, Carlos M. G. A. Fontes, Shabir Najmudin, Arun Goyal	Low-resolution structure of glucuronoxylan-xylanohydrolase (CtXynGH30) of family 30 glycoside hydrolase from <i>Clostridium thermocellum</i> by SAXS	Annual Symposium of the Indian Biophysical Society	2017
Nadeem Akhtar, Kanika Gupta, Dinesh Goyal, Arun Goyal	Evaluation of physicochemical characteristics of microwave alkali-acid pretreated leafy biomass of bamboo for efficient ethanol production	Asia Pacific Conference on Biotechnology for Waste Conversion	2016
Arup Jyoti Borah, Ajeet Singh, Mayank Agarwal, Arun Goyal, Vijayanand S. Moholkar	Comparative insight of ultrasound induced enhancement of enzymatic hydrolysis of invasive biomass species with mechanistic model and its study	Asia Pacific congress on catalysis	2017
Arup jyoti Borah, Ritesh Malani, Arun Goyal, V. S. Moholkar	Kinetic modelling of dilute acid hydrolysis of various weedy invasive species as feedstock for biofuel production.	Asia Pacific congress on catalysis	2017
Sunil kumar Sailapu, Deepanjalee Dutta, Arun Chattopadhyay, Siddhartha Sankar Ghosh	A bench top device for gene and protein analysis	Assam Biotech Conclave ,Guwahati Biotech park	2017
Manoj Kumar, A. Sinha Roy, K. Pakshirajan	Simultaneous carbon monoxide conversion and sulfate reduction by immobilized anaerobic biomass	Association of Microbiologist of India (AMI), Guahati university	2016
Inês Lobo Antunes, Kedar Sharma, Vikky Rajulapati, Arun Goyal	Biochemical and structure characterization of a xylanase from family 10 glycoside hydrolase (GH10) from <i>Pedobacter Saltans</i> DSM12145	CARBO-XXXI International Conference on "New Frontiers in Carbohydrate Chemistry and Biology"	2016
Abhijeet Thakur, Carlos M.G.A. Fontes, Arun Goyal	Expression, purification and biochemical characterization of xylanase of family 11 Glycoside Hydrolase (CtXyn11A) from <i>Clostridium thermocellum</i> ATCC27405	CARBO-XXXI International Conference on "New Frontiers in Carbohydrate Chemistry and Biology"	2016
Gundappa Saha, Bakulesh M. Khamar, Vikash Kumar Dubey	Role of host Caspase 1 in the progression of <i>Leishmania donovani</i> infection	Cell Biology of Infection National Centre for Biological Sciences, TIFR, Bangalore	2016
Sachin Kumar	Reverse genetics of Newcastle Disease virus an innovative tool for the development of recombinant vaccines	Global Symposium on Animal Health and XXIX annual convention of IAVMISID, Assam Agricultural University	2016
Moushume Das, Sachin Kumar	Recombinant phosphoprotein based single serum dilution ELISA for rapid serological detection of Newcastle disease virus	Global Symposium on Animal Health and XXIX annual convention of IAVMISID, Assam Agricultural University	2016
Barnali Nath, Sachin Kumar	Molecular characterization of Newcastle disease virus strains isolated from outbreaks in Northeast India during 2014-15	Global Symposium on Animal Health and XXIX annual convention of IAVMISID, Assam Agricultural University	2016

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M. Gopi Kiran, Kannan Pakshirajan, Gopal Das	Immobilized sulfate reducing bacteria for heavy metal removal from wastewater	ICWM- RECYCLE, IIT Guwahati	2016
M. M. T. Namboodiri, K. Pakshirajan	Chitosan Production by Aspergillus niger using cheaply available Domestic Wastewater	ICWM- RECYCLE, IIT Guwahati	2016
P. K. Baruah, A. Singh, L. Rangan, A. K. Sharma, A. Khare	Comparison of surface enhanced Raman scattering of silver and copper nanoparticles on furanoflavanoid karanjin	IN: International Conference on Fibre Optics and Photonics. Optical Society of America	2016
L. Goswami, K. Pakshirajan, G. Pugazhenthii	Biodegradation of polycyclic aromatic compounds in a binary substrate system by Rhodococcus opacus	Indo- EU Workshop on "Microbial electrochemical technologies for sustainability: Fuels, Chemicals and Remediation", CSIR-IICT, Hyderabad	2017
A. Sinharoy, K. Pakshirajan	Nanoparticle mediated enhanced biological carbon monoxide conversion using anaerobic microbial consortia	International conference of waste management, Recycle – 2016, IIT Guwahati	2016
Sajitha Sasidharan, Prakash Kishore Hazam, Jahnu Saikia, Vibin Ramakrishnan	Symmetry as a design element in directing self organization of peptide nano-assemblies	International Conference on "Advances in Biological Systems and Materials Science in Nano World	2017
Gaurav Pandey, Jahnu Saikia, Sajitha Sasidharan, Vibin Ramakrishnan	Modulation of peptide based nano structure assembly with physical perturbants	International Conference on "Advances in Biological Systems and Materials Science in Nano World"	2017
Abshar Hasan, Ajeet Singh, Lalit Pandey	Study on competitive protein adsorption on mono, mixed and hybrid self assembled monolayers	International conference on Advances in Biological Systems and Materials Science in NanoWorld (ABSMSNW-2017), IIT BHU	2017
Arup Jyoti Borah, Shyamali Sarma, Ritesh S. Malani, Arun Goyal, Vijayanand S. Moholkar	An assessment of various feedstock of invasive and noxious weeds as a potent candidate for bioethanol production	International Conference on Current Trends in Biotechnology	2016
Vikky Rajulapati, Arun Goyal	Biochemical characterisation of a recombinant pectin methylesterase (CtPME8) of family 8 carbohydrate esterase (CE8) from Clostridium thermocellum	International Conference on Current Trends in Biotechnology	2016
Ashutosh Gupta, Vikky Rajulapati, Debasish Das, Arun Goyal	Comparative analysis of bioethanol production involving saccharification by mixed recombinant clostridial enzymes using sugarcane leaves and kansi grass as sustainable feed stocks from north-east India	International Conference on Current Trends in Biotechnology	2016
J. Sumitha Banu, V. S. Moholkar, Arun Goyal	Comparative evaluation of pretreatment methods on agrowaste Sorghum bicolor stalk for bioethanol production	International Conference on Current Trends in Biotechnology	2016
Deepanjalee Dutta, Arun Chattopadhyay, Siddhartha Sankar Ghosh	Silver nanoparticle-gold nanocluster impregnated chitosan nanocarrier for cancer theranostic application	International Conference on Functional Materials, IIT Kharagpur	2016

Conference Papers
Biosciences and Bioengineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
L. Goswami, R. Vinoth Kumar, K. Pakshirajan, G. Pugazhenth	Industrial wastewater treatment using an indigenously built lost-cost ceramic membrane: Performance evaluation and mechanism	International Conference on Membrane Technology and its Applications, NIT Tiruchirappalli	2017
L. Goswami, R. Vinoth Kumar, K. Pakshirajan, G. Pugazhenth	An integrated batch biodegradation-microfiltration system for industrial wastewater treatment and biodiesel production using <i>Rhodococcus opacus</i>	International Conference on Recent Advancements in Chemical, Environmental & Energy Engineering, S. S. N. College of Engineering	2017
J. Sumitha Banu, Vijay S. Moholkar, Arun Goyal	Effect of dilute acid and alkali pretreatments on the holocellulose and lignin contents of Sorghum stalk for bioethanol production	International Conference on Sustainable Energy and Environmental Challenges (SEEC-2017)	2017
P. Datta, S. Tiwari, N. Kumar, L. M. Pandey	Bioethanol Production from Waste Breads Hydrolysate Using <i>Saccharomyces cerevisiae</i>	International Conference on Waste Management "Recycle" 2016. Organized by Association of Civil Engineers (ACE) & Waste Management Research Group (WMRG) at Indian Institute of Technology Guwahati	2016
L. Goswami, K. Pakshirajan, G. Pugazhenth	Simultaneous lipid accumulation and carotenoid production by oleaginous <i>Rhodococcus opacus</i> using biomass gasification wastewater in a batch stirred tank reactor	International symposium on Microbes and Biosphere: What's New What's Next, Gauhati University	2016
Tamanna Bhuyan, Siddhartha Sankar Ghosh	Plant Tissue Based Self-Propelling Catalytic Biomotors: A Review	International Symposium on Micro- and Nanomachines, Schloss Herrenhausen, Hannover	2016
Mrinal K. Sarma, M. G. Abdul Quadir, Rupam Bhaduri, Pranab Goswami,	<i>Synechococcus</i> sp BDU 140432 as anodic biocatalyst on polyaniline-polypyrrole copolymer coated electrodes for biofuel cell applications	IUMRS-International Conference of Young Researchers on Advanced Materials (IUMRS-ICYRAM 2016) Indian Institute of Science Bangalore, held at Indian Institute of Science Bangalore	2016
Priyamvada Jain, Babina Chakma, Sanjukta Patra, Pranab Goswami	Template structure dependent bright red silver nanoclusters for NAD ⁺ detection in enzyme catalyzed reactions	IUMRS-International Conference of Young Researchers on Advanced Materials (IUMRS-ICYRAM 2016), held at Indian Institute of Science Bangalore	2016
R. Surjith, K. Pakshirajan	Carotenoid production from marine algae using cheaply available Anaerobic digestate	MACB - 2016, Bharathidasan University	2016
Monika Chandravanshi, Shankar Prasad Kanauji	Heterogeneous behavior of metalloproteins toward metal ion binding and selectivity: insights from molecular dynamics studies	National Seminar on Crystallography-44 [NSC-44], IISER Pune	2016
Prerana Gogoi, Shankar Prasad Kanaujia	In silico analysis suggests that PH0702 and PH0208 encode for methylthioribose-1-phosphate isomerase and ribose-1, 5-bisphosphate isomerase, respectively, rather than aIF2B β and aIF2B δ	National Seminar on Crystallography-44 [NSC-44], IISER Pune	2016

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Ritesh S. Malani, Sushobhan Pradhan, Arun Goyal, Vijayanand S. Moholkar	Ultrasound-Assisted interesterification of waste cooking oil with heterogeneous catalyst	National Conference on Large Scale Multi-disciplinary systems of national Significance – Trends and Challenges	2016
Niharika Kashyap, Rwivoo Baruah, Vijay S. Moholkar, Arun Goyal	In situ production and analysis of Weissella cibaria RBA12 dextran in whole wheat sourdough	National Conference on Recent Advancement in Environmental Research	2016
Tanushree Paul, Vikky Rajulapati, Kedar Sharma, Arun Goyal	Molecular cloning, expression and purification of a recombinant Glycoside Hydrolase family 10 (GH10) xylanase	National Conference on Recent Advancement in Environmental Research	2016
J. Sumitha Banu, Vijay S. Moholkar, Arun Goyal	Comparative study of pretreatment methods for agrowaste finger millet (<i>Eleusine coracana</i>) stalk for bioethanol production	National Conference on Recent Advancement in Environmental Research	2016
Shweta Singh, Abhijeet Thakur, Arun Goyal	Enhancement of carboxymethyl cellulase activity of <i>Bacillus amyloliquefacians</i> SS35 by UV radiation induced mutagenesis	National Conference on Recent Advancement in Environmental Research	2016
L. Goswami, R. Vinoth Kumar, K. Pakshirajan, G. Pugazhenthii,	Batch biodegradation of polycyclic aromatic hydrocarbons (PAHs) in mixture using <i>Rhodococcus opacus</i>	National conference on Recent advancement in Environmental research, Center for the Environment, IIT Guwahati	2016
R. Surjith, K. Pakshirajan	Algae based lutein production from anaerobic digestate: a strategical approach	National conference on Recent advancement in Environmental research, Center for the Environment, IIT Guwahati	2016
L. Goswami, K. Pakshirajan, G. Pugazhenthii	Biomass gasification effluent derived biochar for simultaneous lipid accumulation and anthracene biodegradation by <i>Rhodococcus opacus</i>	National conference on Solid waste management, Department of Economics, T. H. B. College, at Tyagbir Hem Baruah College, Jamugurihat	2016
Deepanjalee Dutta, Arun Chattopadhyay, Siddhartha Sankar Ghosh	Au–Ag Bimetallic Nanoclusters embedded Cationic BSA nanocarrier for Suicide gene therapy and Bioimaging of HeLa cancer cells	National Seminar on Advances in Materials Science, Guwahati University	2017
L. Goswami, K. Pakshirajan, G. Pugazhenthii	Optimization of fatty acid methyl esters production from <i>Rhodococcus opacus</i> utilizing anthracene as the sole carbon source in a batch stirred tank reactor	National Seminar on Petroleum Biotechnology and Bioenergy, Tezpur University	2017
Sachin Kumar	Reverse Genetics of Newcastle disease virus	New Avenues in microbiology and biotechnology challenges and prospects, West Bengal State University	2016
S. Tiwari, P. Datta, L. M. Pandey	Bioremediation of heavy metal (Lead) through bio-sorption using a novel adsorbent	Recent Advancements in Environmental Research 2016 at Indian Institute of Technology Guwahati	2016
N. Akhtar, K. Gupta, A. Sharma, D. Goyal, Arun Goyal	Bacterial diversity in bioconversion of agricultural waste for energy	Recent Trends in Plant and Environmental Sciences	2017
Vibha Sinha, Kannan Pakshirajan, Rakhi Chaturvedi	Regeneration and reuse of <i>Tradescantia pallida</i> biomass for Cr(VI) removal from wastewater by biosorption	RECYCLE 2016 - International Conference on Waste Management, IIT Guwahati	2016

Conference Papers
Biosciences and Bioengineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Prakash Kishore Hazam, Gaurav Jerath, Vibin Ramakrishnan	Design of antibiotic peptides employing peptido-mimetic approach	Research conclave	2017
Manoj Kumar, A. sinharoy, K. Pakshirajan	Simultaneous carbon monoxide conversion and sulfate reduction by immobilized anaerobic biomass: batch and continuous studies	Research conclave, IIT Guwahati	2017
A. Kumar, A. Roy, D. Gohain, R. Tamuli	Calcineurin- a serine/threonine protein phosphatase and its role in calcium signalling	Research Conclave, IIT Guwahati	2017
Marak K. C.N., R. Tamuli	Understanding the molecular mechanism of calmodulin and calcium/calmodulin-dependent kinases in <i>Neurospora crassa</i>	Research Conclave, IIT Guwahati	2017
D. S. Ngiimeji, R. Tamuli	Cellular role of a Zinc transporter in <i>Neurospora crassa</i>	Research Conclave, IIT Guwahati	2017
Moushume Das, Sachin Kumar	Molecular Characterisation of an apoptotic strain of Newcastle disease virus from Northeast India	Symposium on biology and molecular pathogenesis of viruses. Department of Microbiology and Cell Biology, IISc Bangalore	2016
Ketan Ganar, Sachin Kumar	Avian paramyxovirus type-1 isolates in pigeon from India: A possible event of recombination between genotype VI and XIII	Symposium on biology and molecular pathogenesis of viruses. Department of Microbiology and Cell Biology, IISc Bangalore	2016
Sudhir Morla, Sachin Kumar	Molecular characterization and oncolytic activity of a newly isolated Newcastle disease virus isolate from North India	Symposium on biology and molecular pathogenesis of viruses. Department of Microbiology and Cell Biology, IISc Bangalore	2016
Abshar Hasan, Lalit M. Pandey	Formation of octyltriethoxysilane self-assembled monolayer on a silica substrate: A kinetic Study	The 3rd Int'l Conference on Surface and Interface of Materials (SIM 2017), Engineering Information Institute (Engii), Thailand	2017
Rakhi Chaturvedi, Radhika Rajendran	Development of Substantial Biotechnological methods for Production of Pharmaceutically Active Biometabolites from the Genus <i>Spilanthus</i>	World Congress on In Vitro Biology, San Diego	2017
Rakhi Chaturvedi, Vartika Srivastava	Development of Reproducible Micropropagation Method and Screening of Bioactive Metabolites from <i>Tinospora cordifolia</i> (Willd.) Miers ex Hook. F. Thoms	World Congress on In Vitro Biology, San Diego	2017
Arun Goyal, Virginia M. R. Pires, Catarina G. Dourado, Luis M. A. Ferreira, et al.	The complexity of the <i>Ruminococcus flavefaciens</i> cellulosome reflects an expansion in glycan recognition	XIV Cell Wall Meeting	2016
D. Gohain, R. Tamuli	Understanding the functions of neuronal calcium sensor-1 (NCS-1) of <i>Neurospora crassa</i> and its rat orthologue	XL All India Cell Biology Conference & International Symposium on Functional Genomics and Epigenomics, Gwalior	2016
A. Kumar, R. Tamuli	Aspartic acid in catalytic domain of calcineurin is essential for <i>Neurospora crassa</i>	XL All India Cell Biology Conference & International Symposium on Functional Genomics and Epigenomics, Gwalior	2016
A. Roy, R. Tamuli	Studies on the molecular mechanism of Calcineurin regulatory subunit in <i>Neurospora crassa</i>	XL All India Cell Biology Conference & International Symposium on Functional Genomics and Epigenomics, Gwalior	2016

Conference Papers

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Akhilesh Kumar Pal, Vimal Katiyar	Chitosan Extraction from Muga Silkworms and its Effect on Thermal Degradation of Poly(lactic acid) Films	11th Asia Pacific Chitin and Chitosan Symposium & 5th Indian Chitin and Chitosan Society Symposium, Kochi	2016
Akhilesh Kumar Pal, Vimal Katiyar	Non-isothermal Degradation Kinetics of Lactic Acid Oligomer-g-Chitosan Dispersed Poly(lactic acid) Films Prepared by Solution Casting Method	11th Asia Pacific Chitin and Chitosan Symposium & 5th Indian Chitin and Chitosan Society Symposium, Kochi	2016
Prodyut Dhar, Surendra Singh Gaur, Amit Kumar, Vimal Katiyar	Bio-compatible gel formation and its application in drug delivery studies	252nd American Chemical Society National Meeting & Exposition, Philadelphia	2016
Prodyut Dhar, Surendra Singh Gaur, Amit Kumar, Vimal Katiyar	Synthesis of magnetic cellulose nanocrystals for high performance applications	252nd American Chemical Society National Meeting & Exposition, Philadelphia	2016
Prodyut Dhar, Amit Kumar, Vimal Katiyar	Self-propelling cellulose nanocrystal based nanobots with high catalytic activity	252nd American Chemical Society National Meeting & Exposition, Philadelphia	2016
Prodyut Dhar, Amit Kumar, Vimal Katiyar	Recyclable polylactic acid/cellulose nanocomposite films processed by reactive extrusion approach	252nd American Chemical Society National Meeting & Exposition, Philadelphia	2016
Prodyut Dhar, Amit Kumar, Vimal Katiyar	Polymorphic cellulose nanocrystals based bionanocomposites with tunable mechanical, barrier and thermal properties	252nd American Chemical Society National Meeting & Exposition, Philadelphia	2016
Saptak Rarotra, T. Kumar Mandal, Dipankar Bandyopadhyay	Electrolytic Production of Hydrogen Energy by Water-Splitting in Polymer based Micro reactors	5th Symposium on Advanced Biological Inorganic Chemistry SABIC-2017	2017
Arvind Gupta, Vimal Katiyar	Studies on Modified Chitosan Assisted Poly (lactic acid) Stereocomplexation	Advances in Sustainable Polymers (ASP-2016), Kyoto	2016
Akhilesh Kumar Pal, Vimal Katiyar	Isothermal Crystallization Kinetics of Poly (Lactic Acid)/OLLA-g-Chitosan Bionanocomposite Films	Advances in Sustainable Polymers (ASP-2016), Kyoto	2016
Gourhari Chakraborty, Gopal Pugazhenthii, Vimal Katiyar	PLA based conductive biomaterial for the detection of liquid solvents	Advances in Sustainable Polymers(ASP-2016), Kyoto	2016
Shasanka Sekhar Borkotoky, Vimal Katiyar	Effect of Chitosan and Cellulose Nanocrystals in the Surface Morphology and Wetting of Biodegradable Poly(lactic acid) Foams	Advances in Sustainable Polymers(ASP-2016), Kyoto	2016
Arbind Prasad, M. Ravi Sankar, Vimal Katiyar	Fabrication and Invitro studies of Biodegradable strands shaped polymeric pin for fixation of Proximal Interphalangeal Joints	Advances in Sustainable Polymers(ASP-2016), Kyoto	2016
R. Borgohain, B. Prasad, M. Barooah, Bishnupada Mandal	Cellulose Acetate/ Carbon Nanotube Mixed Matrix Membrane for CO ₂ Separation	ASP-16, KIT, Japan	2016
Ch.V. Rao, A. K. Singh, A. K. Golder	One pot green synthesis of pt-co bimetallic nanoprisms using plant extract	CHEMCON-2016	2016

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
S. Kumar, B. Sharma, A. Dalal, D. Basu, A. K. Dasmashapatra, Dipankar Bandyopadhyay	Field Induced Anomalous Spreading, Oscillation, Ejection, Spinning, and Breaking of Oil Droplets on Strongly slipping Water Surface	Chemical Physics of Electroactive Materials, Faraday Discussion	2017
B. Sharma, S. Kumar, A. Dalal, D. Basu, A. K. Dasmashapatra, D. Bandyopadhyay	Instability and bursting of aqueous on a dielectric coated electrode	Compflu 2016, IIIT Hyderabad	2016
Ch. V. Rao, R. K. Das, S. R. Dash, P. Ghosh, S. R. Golder	A biological route of AgNPs synthesis: Size control and functionality	GIFU-IITG Joint Symposium on Food Engineering, Biotechnology, Biomaterials and Renewable Energy-2016	2016
Babul Prasad, Rajashree Borgohain, Mridusmita Barooah, Bishnupada Mandal	Novel Amine/Chitosan Thin-Film Composite Membrane for CO ₂ Separation from Flue Gas	Gifu-IITG Joint Symposium, Gifu	2016
N. R. Peela, D. Kunzru	Microchannel Reactors for Ethanol to FC-Grade Hydrogen Production	HySA Workshop on Fuel to Electricity	2016
M. Bhattacharjee, V. Pasumarthi, J. Chaudhuri, A. K. Singh, H. Nemade, D. Bandyopadhyay	Organic vapour detection using nanoparticle laden droplet and the effect of viscosity and vapour-source distance	IEEE International Conference on Emerging Electronics (ICEE-2016), IIT Bombay	2016
Ch.V. Rao, R. K. Das, S. R. Dash, S. Saha, A. K. Golder	A bio-mediated route of AgNPs synthesis and photocatalyst activation	IITG-KIT Joint Symposium on Soft and Biobased Materials-2016	2016
Rajashree Borgohain, Babul Prasad, Mridusmita Barooah, Bishnupada Mandal	Cellulose acetate/amine functionalized carbon nanotube mixed matrix membrane for CO ₂ separation	Indian Chemical Engineering Congress (CHEMCON 2016)	2016
Mridusmita Barooah, Babul Prasad, Rajashree Borgohain, Bishnupada Mandal	Synthesis and characterization of crosslinked PVA membrane containing diethanolamine carrier for CO ₂ /N ₂ separation	Indian Chemical Engineering Congress (CHEMCON 2016)	2016
A. K. Singh, K. K. Dey, Arun Chattopadhyay, T. K. Mandal, Dipankar Bandyopadhyay	Intelligent pH responsive chemo-magnetotactic microbots	International Conference on Advances in Biological Systems and Materials Science in NanoWorld (ABSMSNW-2017) IIT BHU	2017
Abir Ghosh, Dipankar Bandyopadhyay, Ashutosh Sharma	Contact Instability Induced High Aspect Ratio Ordered Micro/Nano-Structures in Adhesion and Debonding of Thin Viscoelastic Films in the Presence of Homogeneous and Heterogeneous Contactor	International Conference on Emerging Trends in Nanoscience and Nanotechnology (ICETINN – 2017), Sikkim Manipal Institute of Technology	2017
Shirsendu Mitra, Abir Ghosh, Dipankar Bandyopadhyay	A Computational Study on Travelling Wave Periodic Column/ Hole Formation Employing Electric Field Lithography	International Conference on Emerging Trends in Nanoscience and Nanotechnology (ICETINN– 2017), Sikkim Manipal Institute of Technology	2017

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Surjendu Maity, Sunny Kumar, Ashok Kumar Dasmahapatra, Dipankar Bandyopadhyay	Wettability of water droplet on PDMS and Graphene micro/nano patterned surface	International Conference on Emerging Trends in Nanoscience and Nanotechnology 2017, SMIT	2017
Amit Kumar Singh, K. K. Dey, A. Chattopadhyay, T. K. Mandal, Dipankar Bandyopadhyay	Alkaline pH taxis of iron-nanoparticle laden polymeric micromotors	International Conference on Functional Materials (ICFM-2016), IIT Kharagpur	2016
M. Bhattacharjee, V. Pasumarthi, J. Chaudhuri, A. K. Singh, H. Nemade, D. Bandyopadhyay	Organic vapor sensing with energy harvesting using nanoparticle laden droplets	International Conference on Functional Materials (ICFM-2016), IIT Kharagpur	2016
S. Thakur, M. Bhattacharjee, A. K. Dasmahapatra, D. Bandyopadhyay	Effect of varying semiconducting salt concentrations on the in-situ preparation of gold-cadmium sulphide nanocomposites	International Conference on Functional Materials (ICFM-2016), IIT Kharagpur	2016
Saptak Rarotra, Mitradip Bhattacharjee, Dipankar Bandyopadhyay	Effect of microwave assisted annealing on CdS nanoparticles	International Conference on Functional Materials (ICFM-2016), IIT Kharagpur	2016
Gourhari Chakraborty, G. Pugazhenthii, Vimal Katiyar	Poly lactic acid (PLA) based conductive biomaterial for the detection of Alcohols	International Conference on Polymer Science and Technology, MACRO 2017	2017
Medha Milli, Kazunari Masutani, Shinichi Sakurai, Yoshiharu Kimura, Vimal Katiyar	Synthesis and Characterization of Stereo-Di-Block Polylactides with Varying Block Length Compositions	International Conference on Polymer Science and Technology, MACRO 2017	2017
Rahul Patwa, Melakuu Tesfaye Alemea, Manash Jyoti, Amit Kumar, Vimal Katiyar	An investigation of the viscoelastic and thermal behavior of silk nanoparticles/polylactic acid nanocomposites	International Conference on Polymer Science and Technology, MACRO 2017	2017
Shasanka Sekhar Borkotoky, Vimal Katiyar	Surface wettability behaviour of functionalized-gum arabic dispersed poly (lactic acid) bionanocomposite foams	International Conference on Polymer Science and Technology, MACRO 2017	2017
Narendren S, Rahul Patwa, Vimal Katiyar	Electrospun nanofibers of pla composite with silk nanoparticles (snp): thermal, mechanical and wetting properties	International Conference on Polymer Science and Technology, MACRO 2017	2017
Akhilesh Kumar Pal, Vimal Katiyar	Melt extruded poly lactic acid/chitosan-grafted-oligo l-lactic acid bionanocomposite films for high gas barrier applications	International Conference on Polymer Science and Technology, MACRO 2017	2017
Surendra Singh Gaur, Prodyut Dhar, Akanksha Sharma, Amrita Sonowal, Amit Kumar, Vimal Katiyar	Fabrication of poly(vinyl chloride)-chitosan-cellulose nanocrystals based solid electrolyte membrane for direct methanol fuel cells: a sustainable approach	International Conference on Polymer Science and Technology, MACRO 2017	2017

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Amit Kumar Singh, T. K. Mandal, Dipankar Bandyopadhyay	Chemically Powered Locomotion of Magneto-Catalytic Paper microjets	International Symposium on Micro- and Nanomachines, Hannover, Germany	2016
Prodyut. Dhar, Amit Kumar, Vimal Katiyar	Recyclable polylactic acid grafted cellulose nanocrystal films through reactive extrusion Approach	MACRO 2017	2017
Siddharth Bhasney, Rahul Patwa, Amit Kumar, Vimal Katiyar	Coconut oil plasticized poly (lactic acid): influence of coconut oil on morphological, rheological and gas barrier properties	MACRO 2017	2017
Naba Kumar Kalita, Rahul Patwa, Prodyut Dhar, Vimal Katiyar	Effect of Hydrolytic Degradation on the Wettability Behaviour of Bio-filler Reinforced Poly(lactic acid) Extruded Bionanocomposites	MACRO 2017	2017
Monika Singh, Vimal Katiyar	Thermal Degradation and Mechanistic Study of Guar Gum, Xanthan Gum and Gum Arabic using Hyphenated TGA-FTIR Analysis: A Comparative Study	MACRO 2017	2017
Md. Rashid Faridi, Sunny Kumar, A. K. Dasmahapatra, Dipankar Bandyopadhyay	Motions of soft liquibots under magnetic field	Microfluidics, Liquid Handling and Lab on a Chip-2017	2017
T. Bhuyan, A. K. Singh, D. Dutta, S. S. Ghosh, D. Bandyopadhyay	Plant Tissue Based Self-Propelling Catalytic Biomotors: A Review	MNM 2016, International Workshop on Micro- and Nanomachines, Hannover	2016
B. Sharma, S. Kumar, A. Dalal, D. Basu, A. K. Dasmashapatra, D. Bandyopadhyay	Directional motion of Nanoparticle Laden Droplets on Micro-Fiber Highway	Nano India 2017, IIT Delhi	2017
Amit Kumar Singh, T. K. Mandal, Dipankar Bandyopadhyay	Self-propelling manganese dioxide nanoparticle-based Paper microengines	Nanoparticle Assembly: From Fundamentals to Applications, Faraday Discussion, IIT Bombay	2016
Nayan Mani Das, Sunny Kumar, Dipankar Bandyopadhyay	UV-Ozone Treated Catalytic Inhibition of Polystyrene Droplets over Graphene Oxide Nano-Sheets	NANOSMAT 2016, University of Aveiro	2016
V. V. Kulkarni, A. K. Golder, P. K. Ghosh	Effect of sludge acidification on speciation behavior of heavy metals in battery wastewater sludge during electrochemical remediation	Recycle 2016	2016
A. K. Singh, Ch. V. Rao, A. K. Golder	Study of BSA protein interaction with bio-mediated AgNPs	Reflux 2017 The Annual Chemical Engineering Symposium	2017
P. Bose, C. Mukherjee, A. K. Golder	Electrochemical reduction of carbon dioxide: Effect of metal complexes	Reflux 2017 The Annual Chemical Engineering Symposium	2017
S. K. Yedla, A. K. Golder, N. R. Peela	Production of 5-hydroxymethylfurfural (5hmf) from fructose over h-mor catalyst	Reflux 2017 The Annual Chemical Engineering Symposium	2017

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
M. Yash, Ch. V. Rao, A. K. Golder	Development of a bio-mediated palladium doping on TiO ₂ photo catalyst using oxalis extract	Reflux 2017 The Annual Chemical Engineering Symposium	2017
S. R. Dash, S. S. Bag, A. K. Golder	Biosynthesis of silver nanoparticles and their application in electrochemical sensing of ascorbic acid	Reflux 2017 The Annual Chemical Engineering Symposium	2017
S. K. Yedla, A. K. Golder, N. R. Peela	One pot production of 5-hydroxymethyl furfural (5hmf) from fructose by using different solid acid catalysts	Reflux 2017 The Annual Chemical Engineering Symposium	2017
B. Sharma, S. Kumar, A. Dalal, D. Basu, A. K. Dasmashapatra, D. Bandyopadhyay	On demand manipulation of nanoparticle laden nanoparticle microdroplets	Reflux 2017, IIT Guwahati	2017
M. Bhattacharjee, H. Nemade, D. Bandyopadhyay	Nanoparticle based lung monitoring device	REFLUX-2017, IIT Guwahati	2017
B. Sharma, S. Kumar, A. Dalal, D. Basu, A. K. Dasmashapatra, D. Bandyopadhyay	Morphology of Electrified droplets on dielectric coated electrode	Research Conclave 2017, IIT Guwahati	2017
M. Bhattacharjee, V. Pasumarthi, J. Chaudhuri, A. K. Singh, H. Nemade, D. Bandyopadhyay	Microfluidic vapour sensor and energy harvester	Research Conclave- 2017, IIT Guwahati	2017
Sunny. Kumar, A. K. Dasmahapatra, D. Bandyopadhyay	Dynamics of liquibots under magnetic field	Research Conclave 2017, IIT Guwahati	2017

Conference Papers

Chemistry

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
P. Barman, C. V. Sastri	Deformylation Reaction by a Non-heme Manganese(III)-Peroxo Complex via Initial Hydrogen Atom Abstraction	FICS – 2016, IIT Guwahati	2016
G. Gogoi, M. Qureshi	A Noble Metal Free Approach in Integrating g-C ₃ N ₄ And MoS ₂ on Cd _{0.5} Zn _{0.5} S as an Efficient System For Enhanced Photocatalytic Activity	ICANN-2016, Jamia Millia Islamia, New Delhi	2016
R. Bhaskaran, M. Sarma	Low Energy Electron Induced Single Strand Breaks in Sugar-Phosphate-Sugar Fragment	NCCP – 2017, Assam University	2017
B. Phukan, C. Mukherjee	Synthesis of Water-Soluble and Water-Coordinated Mn(II) and Gd(III) Complexes for High Field (14.1 T) MRI Study	11th CRSI-RSC symposium, Gauhati University	2017

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
S. Rao Manne, B. Mandal	Peptide Hydroxamic Acids synthesis from Carboxylic Acid using Ethyl 2-(tert-Butoxycarbonyloxyimino)-2-cyanoacetate (Boc-Oxyima)	19th CRSI National Symposium in Chemistry	2016
R. Gattu, A. T. Khan	Regioselective synthesis of C1-functionalised 3-arylbenzo[f] quinoline through one pot three component reaction of 2-naphthylamine, aryl carbaldehyde and ketoester	19th CRSI National Symposium in Chemistry	2016
P. Sadhu, T. Punniyamurthy	Copper(II)-Mediated 8-Amino quinoline Amide Directed Regio selective N-arylation of Azoles via Cross-Dehydrogenative Coupling	19th CRSI National Symposium in Chemistry, North Bengal University	2016
G. Bharathiraja, G. Sathishkannan T. Punniyamurthy	Synthesis of Highly Functionalized Thiophenes via 5-exo-dig Cyclization of 1,3-enynes with Mercaptoacetaldehyde	19th CRSI National Symposium in Chemistry, North Bengal University	2016
D. Sar, R. Bag, A. Yashmeen, S. S. Bag, T. Punniyamurthy	Vanadium-Catalyzed C-H Oxidative Synthesis of Substituted Pyrazoles and Fluorescence Switch-On Sensing of BSA Protein	19th CRSI National Symposium in Chemistry, North Bengal University	2016
R. S. Giri, B. Mandal	Lewis Acid based Side Chain Modification of Aspartic Acid and Glutamic Acid during Solid Phase Peptide Synthesis	20th CRSI National Symposium in Chemistry	2017
J. Chandra, D. Dev, B. Mandal	Synthesis of Benzoxazole and Benzothiazole using Ethyl 2-Cyano-2-(2-nitrobenzene sulfonyl oxyimino) acetate (o-NosylOXY) both Solution And Solid Phase	20th CRSI National Symposium in Chemistry	2017
R. Bag, D. Sar, T. Punniyamurthy	Aerobic Dioxygenation of Alkenes with N-Hydroxy phthalimide (NHPI) and N-Hydroxy benzotriazole (HOBt)	20th CRSI National Symposium in Chemistry, Gauhati University	2017
P. B. De, S. Pradhan, T. Punniyamurthy	Copper-catalyzed stereospecific ring opening of aziridines /aerobic oxidative C-H amination: a facile route to imidazobenzimidazoles	20th CRSI National Symposium in Chemistry, Gauhati University	2017
S. Nath, S. K. Pathak, A. S. Achalkumar	Columnar Self Assembly of Luminescent Star shaped and Polycatenars: Structure property correlation	20th CRSI National Symposium in Chemistry, Gauhati University	2017
P. Barman, C. V. Sastri	Long-Range Electron Transfer Triggers Mechanistic Differences between Iron(IV)-Oxo and Iron(IV)-Imido Oxidants.	20th CRSI National Symposium in Chemistry, Gauhati University	2017
R. K. Gupta, D. Das, P. K. Iyer, A. S. Achalkumar	Host-Guest OLEDs based on Perylene based Room Temperature Columnar Liquid Crystals	20th CRSI National Symposium in Chemistry, Gauhati University	2017
R. Bag, D. Sar, T. Punniyamurthy	Direct Aerobic Dioxygenation of Alkenes with N-Hydroxy phthalimide (NHPI) and N-hydroxybenzotriazole (HOBt)	21st International Conference on Organic Synthesis (ICOS 21), IIT Bombay	2016

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
P. B. De, S. Pradhan, T. Punniyamurthy	Copper-catalyzed regioselective ring opening of aziridines /aerobic oxidative C-H amination: a facile route to imidazobenzimidazoles	21st International Conference on Organic Synthesis (ICOS 21), IIT Bombay	2016
S. Boris, B. Li, L. Chao, A. Kumar, A. S. Goldman, F.E. Celik	Flow-through heterogeneous transfer alkane dehydrogenation effected by pincer-ligated iridium catalysts	252nd ACS National Meeting & Exposition, Philadelphia	2016
B. Li, T. Zhou, T. Emge, A. Kumar, F. Celik, K. Krogh-Jespersen, A.S. Goldman	Tail-to-tail dimerization of styrene via dehydrogenative coupling of styrene C-H bonds by a pincer iridium complex	252nd ACS National Meeting & Exposition, Philadelphia	2016
B. Das	Screening of Multicomponent crystals of L-Tryptophan with different isomers of PDAs	44th National Seminar on Crystallography, IISER Pune	2016
V. Satheesh, M. Sengoden, T. Punniyamurthy	Synthesis of Substituted Oxazol idines and Imidazol idines via Intramolecular C(sp ³)-H Functionalization	53rd ACC, Indian Chemical Society, Gitam University, Vizag	2016
B. Phukan, C. Mukherjee	Synthesis of Gd(III) Complex for High Field (14.1 T) MRI Study	ACS on Campus, IIT Guwahati	17
M. S. Ansari, M. Qureshi	Rational design of hierarchical ZnO Super structures for efficient charge transfer: mechanistic and photo voltaic studies of hollow, mesoporous, cage-like nanostructures with compacted 1D building blocks	CRSI-2017, Gauhati University / Research Conclave 2017, IIT Guwahati	2017
R. K. Gupta, D. Das, P. K. Iyer, A. S. Achalkumar	Electroluminescent Room Temperature Columnar Liquid Crystals Based On bay-Annulated Perylene tetraesters	FICS 2016, IIT Guwahati	2016
B. Phukan, C. Mukherjee	A Water-Soluble, Bis(Aquated) and High Relaxivity Gd(III) Complex for High Field (14.1 T) MRI Study	FICS 2016, IIT Guwahati	2016
A. S. Patra, M. Qureshi	Robust oxygen production by ruthenium doped lanthanum manganite from photocatalytic water oxidation	FICS-2016, IIT Guwahati	2017
M. S. Ansari, M. Qureshi	Graphitic carbon nitride as a photovoltaic booster in quantum dot sensitized solar cells: a synergistic approach for enhanced charge separation and injection	FICS-2016, IIT Guwahati	2017
A. Banik, M. Qureshi	Understanding the role of silica nanospheres with their light scattering and energy barrier properties in enhancing the photovoltaic performance of ZnO based solar cells	FICS-2016, IIT Guwahati and CRSI-2017, IIT Guwahati	2017
G. Gogoi, M. Qureshi	MoS ₂ loaded Quarternary Cu ₂ ZnSnS ₄ Semiconductor for Enhanced Photocatalytic Activity	FICS-2016, IIT Guwahati, CRSI-2017, IIT Guwahati	2017
S. Mahato, A. Singh, L. Rangan, C. K. Jana	Synthesis, in silico studies and in vitro evaluation for antioxidant and antibacterial properties of diarylmethylamines: A novel class of structurally simple and highly potent pharmacophore	Flow Application on Basic, Applied and Clinical Biology (FABACTCS2016) organized by BSBE, IIT Guwahati/BBCI	2016

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
S. Saha, B. Mondal	Reaction of a Co(III)-peroxo complex and NO: Formation of a Peroxynitrite Intermediate	Frontier in Chemical Science, IIT Guwahati	2016
D. Dev, J. Chandra, B. Mandal	Benzoxazole and Benzothiazole Synthesis from Amino Acid in Solution and On resin by Ethyl 2-Cyano-2-(2-nitrobenzene sulfonyloxyimino) acetate and para-Toluenesulfonic Acid	Frontiers in Chemical Sciences 2016	2016
R. S. Giri, B. Mandal	On resin Lewis Acid based Peptide Modification on Asp or Glu	Frontiers in Chemical Sciences 2016	2016
S. Rao Manne, B. Mandal	Synthesis of Peptide Hydroxamic Acids Directly From Carboxylic Acid using Ethyl 2-(tert-Butoxycarbonyloxyimino)-2-cyanoacetate (Boc-Oxyima)	Frontiers in Chemical Sciences 2016	2016
T. Kalita, D. Dev, B. Mandal	Synthesis of Benzoxazole and Benzothiazole from Carboxylic Acids by Ethyl 2-Cyano-2-(2-nitro benzenesulfonyloximino) acetate and para-Toluene sulfonic Acid	Frontiers in Chemical Sciences 2016	2016
R. Gattu, A. T. Khan	Regioselective synthesis of C1-functionalised 3-arylbenzo[f]quinoline through one pot three component reaction of 2-naphthylamine, aryl carbaldehyde and ketoester	Frontiers in Chemical Sciences 2016	2016
S. R. Sahu, S. Dutta	Complexity and Non-linear dynamics in biological systems	GIAN workshop, NIT Durgapur	2016
D. Mahanta, S. Dutta	Pinning of 3D chemical waves to highly branched heterogeneities	Hands-on research in complex systems school 2016, ICTP, Trieste	2016
A. S. Patra, M. Qureshi	Graphene oxide coupled ruthenium doped lanthanum manganites for efficient oxygen production from photocatalytic water oxidation	ICANN-2016, Jamia Millia Islamia	2016
V. Satheesh, M. Sengoden, T. Punniyamurthy	A Metal Free Synthesis of Oxazolidines via sp ³ C-H Functionalization/C-O Bond Formation	International Symposium on Nature Inspired Initiatives in Chemical Trends, IICT Hyderabad	2016
D. Mahesh, P. Sadhu, T. Punniyamurthy	Copper(II)-Catalyzed Oxidative Cross-Coupling of Anilines, Primary Alkyl Amines and Sodium Azide : Synthesis of 2-Aryl Benzimidazoles	International Symposium on Nature Inspired Initiatives in Chemical Trends, IICT Hyderabad	2016
P. Barman, G. Mukherjee, C. V. Sastri	Influence of Ligand Architecture in Tuning Reaction Bifurcation Pathways for Chlorite Oxidation by Non-Heme Iron Complexes	National Seminar on Recent Developments in Synthesis and Catalysis, Dibrugarh University	2017
M. S. Ansari, M. Qureshi	Ethyl Cellulose and Cetrimonium Bromide Assisted Synthesis of Mesoporous, Hexagon Shaped ZnO Nanodisks with Exposed $\pm\{0001\}$ Polar Facets for Enhanced Photo-voltaic Performance in Quantum Dot Sensitized Solar Cells	Reflux 2017, IIT Guwahati	2017

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
A. Banik, M. Qureshi	Dual Function of SiO ₂ nanospheres in enhancing the photovoltaic performance of ZnO based solar cell	Research Conclave, IIT Guwahati	2017
R. Bag, D. Sar, T. Punniyamurthy	Dioxygenation of Alkenes in air with N-Hydroxyphthalimide (NHPI) and N-Hydroxy benzotriazole (HOBt)	Research Conclave, IIT Guwahati	2017
P. B. De, S. Pradhan, T. Punniyamurthy	Stereo-invertive Copper-Catalyzed Cross-Coupling of Aziridines with Benzimidazoles via Nucleophilic Ring Opening and C(sp ²)-H Functionalization	Research Conclave, IIT Guwahati	2017
M. K. Mondal, C. Mukherjee	SOLID STATE VALANCE TAUTOMERISM IN AN OCTAHEDRAL Co COMPLEX	SABIC 2017, Kolkata	2017
P. Barman, C. V. Sastri	Grab the Hydrogen First: Deformylation Reaction by a Non-heme Manganese(III)-Peroxo Complex	SABIC-2017, Kolkata	2017
S. Saha, B. Mondal	Reactions of a nitrosyl complex of Cobalt porphyrin With hydrogen peroxide: Putative Formation of Peroxynitrite intermediate	Symposium on Advanced Biological Inorganic Chemistry, Kolkata	2017
V. Satheesh, M. Sengoden, T. Punniyamurthy	"On Water" C(sp ³)-H Functionalization/C-O Bond Formation: Synthesis of Functionalized Oxazolidines	XII J-NOST, CDRI-LUCKNOW	2016
D. Mahesh, P. Sadhu, T. Punniyamurthy	Copper(II)-Catalyzed Oxidative Cross-Coupling of Anilines, Primary Alkyl Amines and Sodium Azide Using TBHP: A Route to 2-Substituted Benzimidazoles	XII J-NOST, CDRI-LUCKNOW	2016

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Anuj Kishor Budhkar, Akhilesh Kumar Maurya	Modeling Gap-Maintenance in Heterogeneous No Lane-Discipline Traffic	1st International Conference on Transportation Infrastructure and Materials (ICTIM 2016) Proceeding in DEStech Transactions on Engineering and Technology Research	2016
Sulaem Musaddiq Laskar, Sudip Talukdar	Effect of Addition of Flyash and Superplasticizer on Ultra-Fine Slag Based Geopolymer Mortar	10th Structural Engineering Convention, held in CSIR-SERC, Chennai	2016
Palash Dey, S. Talukdar	Vibration Based Damage Detection in a Channel Section Steel Beam using Response Surface and Genetic Algorithm	10th Structural Engineering Convention, held in CSIR-SERC, Chennai	2016
R. Choudhary, K. Murkute, A. Kumar	Evaluation of properties of reclaimed polyethylene terephthalate modified bituminous concrete mixes	12th International Conference on Transportation Planning and Implementation Methodologies for Developing Countries (TPMDC), IIT Bombay	2016

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Printal C. Halder, Luckystar Syiemiong, Teiborlang L. Ryntathiang	Evaluation of microsurfacing mix for pavement preventive maintenance with type ii aggregate	12th Transportation Planning and Implementation Methodologies for Developing Countries	2016
P. S. Bokare, A. K. Maurya	Study of acceleration-deceleration behavior of various vehicle types in India	14th World Conference on Transport Research, Tongji University, Shanghai	2016
S. Dey, A. K. Maurya	Vehicle category-wise speed-volume relationship under heterogeneous traffic condition for two-lane bidirectional traffic	14th World Conference on Transport Research, Tongji University, Shanghai	2016
G. Mahapatra, S. Das, A. K. Maurya	Effect of sample size and bin size variation on traffic speed study	14th World Conference on Transport Research, Tongji University, Shanghai	2016
A. K. Budhkar, A. K. Maurya	Study of inter-vehicular lateral gaps in mixed traffic stream with weak lanediscipline	14th World Conference on Transport Research, Tongji University, Shanghai	2016
R. Choudhary, A. Kumar, K. Murkute	Incorporation of waste PET in bituminous concrete mixes	16th Annual International Conference on Pavement Engineering and Infrastructure, LJMU, Liverpool	2017
M. L. Pattanaik, R. Dutta, R. Choudhary, B. Kumar, A. Kumar	Effect of aggregate physical properties on frictional resistance of OGFC mixes	16th Annual International Conference on Pavement Engineering and Infrastructure, LJMU	2017
D. Basu, A. Dey	1D nonlinear ground response analysis of soils in IIT Guwahati and liquefaction potential identification	16th World Conference on Earthquake Engineering (16WCEE), Santiago, Chile	2017
R. S. Verma, S. K. Deb, A. C. Borsaikia	Experimental Study on Seismic Performance of External RC Beam-Column Connections Made Using RCA	16th World Conference on Earthquake, 16WCEE 2017, Santiago, Chile	2017
P. Talukdar, R. Bora, A. Dey	Stability analysis of ash pond dyke under static, pseudo-static and seismic conditions	CESDOC, Guwahati	2016
P. Das, T. V. Bharat	Laboratory experimental techniques for determination of diffusion coefficients for landfill liner facilities - a review	CESDOC, Guwahati	2016
A. K. Sarma	Vegetative Measures for Sustainable Solution to Erosion Problems under Changing Climate	CESDOC, Guwahati	2016
C. Pradhan, V. Chembolu, S. Dutta	Impacts of River Interventions on Alluvial Channel Morphology	21st International Conference on Hydraulics, Water Resources and River Engineering (Hydro-2015)	2016
P. Talukdar, R. Bora, A. Dey	Forensic investigation of the failure of a marginally stable hill slope	5th International Conference on Forensic Geotechnical Engineering (5ICFGE), Bangalore	2016
S. Kashyap, A. Murali Krishna, A. Dey	Analysis of Active MASW Test Data for a Convergent Shear Wave Velocity Profile	5th International Conference on Geotechnical and Geophysical Site Characterization (ISC'5), Queensland	2016
A. Jana, A. Dey	Effectiveness of geotextile with reinforced soil walls backfilled with fine soil	6th Asian Regional Conference on Geosynthetics (6ARCG) – Geosynthetics for Infrastructure Development, New Delhi	2016

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
B. Barman, B. Kumar, A. K. Sarma	What follows after sediment mining-a preliminary investigation	6th International and 43rd National Conference on Fluid Mechanics and Fluid Power	2016
N. Sharma, K. Dasgupta, A. Dey	Finite Element Modeling Intricacies for SSI Studies	6ICRAGEESD 2016, New Delhi	2016
S. Dhar, A. G. Ozcebe, R. Paolucci, A. Dey, L. Petrini, K. Dasgupta	Effect of Pile-supported Integral Bridge Structure on the Seismic Response of Foundation Soil	6ICRAGEESD 2016, New Delhi	2016
A. Singhai, S. S. Kumar, A. Dey	Site-Specific 1-D Nonlinear Effective Stress GRA with Pore Water Pressure Dissipation	6ICRAGEESD 2016, New Delhi	2016
Rajya Lakshmi Garaga, Harsha Kota	Characterization of PM10 and its impact on human health during annual festival of lights (Diwali) in Northeast India	American Geophysical Union	2016
M. Nithya, D. Ramakrishnan, Rishikesh Bharti, K. D. Singh	Potential of remote spectroscopy and thermal inertial studies in base metal exploration: inferences from Mamandur prospect, India	An international conference on geospatial technologies and applications (Geomatrix'12), CSRE, IIT Bombay	2012
Rishikesh Bharti, D. Ramakrishnan	Application of Hyperspectral and Thermal Remote Sensing in Earth and Planetary Exploration	DAAD-iGNA	2013
Shreedevi Moharana, Subashisa Dutta	Mapping of Biophysical Parameters of Rice Agriculture System from Hyperspectral Imagery	EGU General Assembly 2017	2017
D. Ramakrishnan, N. Radhika, K. D. Singh, Rishikesh Bharti	A Fast Procedure for Field and Satellite Spectral Deconvolution and its Ramification in Automated Detection of Materials	Geosummit, Sathyabhama University, Chennai	2011
Rishikesh Bharti, H. Hiwrale, K. D. Singh, M. Nithya, D. Ramakrishnan	Hyperspectral BRDF of high and low albedo rocks and its influence on abundance estimation	Geosummit, Sathyabhama University, Chennai	2011
M. Pushpan, A. Jana, A. Murali Krishna, A. Dey, S. Sreedeeep	Stability assessment of a rock slope using finite element modeling	Geotechniques for Infrastructure Projects, Thiruvananthapuram	2017
S. S. Kumar, A. Murali Krishna, A. Dey	Local strain measurements in triaxial tests using on-sample transducers	IGC 2016, IIT Madras	2016
C. P. Sarma, A. Murali Krishna, A. Dey	Geotechnical characterization of hill slope soils of Guwahati region	IGC 2016, IIT Madras	2016
A. Jana, P. Mithresh, A. Dey, S. Sreedeeep, Murali A. Krishna	Static and dynamic slope stability assessment of a Himalayan rock slope	IGC 2016, IIT Madras	2016
D. Basu, A. Dey	Nonlinear 1D ground response analysis of soil profile using different procedures	IGC 2016, IIT Madras	2016
P. Talukdar, A. Dey	Effect of varying geometrical configuration of sheet piles on exit gradient and uplift pressure	IGC 2016, IIT Madras	2016

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S. Mukherjee, A. Dey	Analysis of laterally loaded fixed headed single pile in multilayered soil using P-Y approach	IGC 2016, IIT Madras	2016
R. Chakraborty, A. Dey	Effect of toe cutting on hill-slope stability	IGC 2016, IIT Madras	2016
J. Hazarika, A. K. Sarma	A Study on Impact of Climate Change in Temperature and Precipitation Characteristics of Cherrapunjee, Meghalaya	HYDRO-2016	2016
V. Srikanth, Anil Kumar Mishra	Atterberg limits of sand-bentonite mixes and the influence of sand composition	IGC 2016, IIT Madras	2016
K. Mukherjee, Anil Kumar Mishra	Influence of glass fiber on the behaviour of sand-bentonite mixture	IGC 2016, IIT Madras	2016
Jagori Dutta, Purabi Das, Anil Kumar Mishra	A study on the combined effect of salt solutions on the swelling and hydraulic behaviour of bentonites	IGC 2016, IIT Madras	2016
S. K. Patel, B. Singh	Investigation of Glass Fiber Reinforcement Effect on the CBR Strength of Cohesive Soil	IGC 2016, IIT Madras	2016
T. K. Deb, B. Singh	Behaviour of Bucket Foundations in Sandy Bed Subjected to Eccentric Lateral Loading	IGC 2016, IIT Madras	2016
P. Halder, B. Singh	Soft Soil Response and Behaviour of Piles Under a Geotextile Reinforced Embankment	IGC 2016, IIT Madras	2016
K. Bora, B. Singh	Comparative Study on Response of Piles in Disconnected and Conventional Piled Raft Foundations in Sandy Soil	IGC 2016, IIT Madras	2016
Rishikesh Bharti, S. K. Srivastava, S. P. Aggarwal, V. K. Dadhwal	Database Creation and Modeling for Estimating Atmospheric/Soil CO ₂ Consumption in Chemical Weathering Process	Indian Society of Remote Sensing	2011
R. N. Sahoo, Rishikesh Bharti, Rinki, V. K. Sehgal, P. Chanda, S. Pargal, V. K. Gupta	Trend Analysis of Cropping Sequence of Trans Gangetic Plains of India from Time Series SPOT- VGT- NDVI products	Indian Society of Remote Sensing	2011
Reddy S. Bali, Krishna A. Murali, A. C. Borsaikia	Feasibility Study of Sand-Tire Chips Mixtures as Backfill Material in Retaining Walls	Indo-US Bilateral Workshop Establishing Linkages Between Geo-environmental Practices and Sustainability, Chicago	2016
P. Sagarika, J. Hazarika, A. K. Sarma	Potential Impact of Climate Change on Rainfall Intensity-Duration-Frequency Curves of Guwahati city	International Conference on Civil Engineering for Sustainable Development-Opportunities and Challenges	2016
Banasri Sarma, Arup Kumar Sarma	Assessing Applicability of Ecological Management Practices (EMPs) in hilly Urban Watershed management.	International Conference on Civil Engineering for Sustainable Development-Opportunities and Challenges	2016
M. Debnath, C. Mahanta, A. K. Sarma	Fertilizers Input and Corresponding Changes in Plant Nutrient Availability in a Rice Cultivated Soil of Assam	International Conference on Emerging Technologies in Agricultural and Food Engineering	2016

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Jnyanendra Kumar Prusty, Bulu Pradhan	Geopolymer concrete with agro-industrial products as partial replacement of source material – a review	International Conference on Recent Advances in Mechanics and Materials (ICRAMM-2016)	2016
P. Halder, B. Singh	Pile Supported and Basal Reinforced Embankment Over Soft Clay: A Case Study	International Conference on Soil and Environment, ICSE-2016, Bangalore	2016
S. K. Patel, B. Singh	Effect of Compaction State on Unconfined Compressive Strength of Glass Fiber Reinforced Fine-Grained Soil	International Conference on Soil and Environment, ICSE-2016, Bangalore	2016
T. K. Deb, B. Singh,	Influence of Load Eccentricity and Aspect Ratio on Lateral Load Capacity of Bucket Foundation Installed in Medium Dense Sand	International Conference on Soil and Environment, ICSE-2016, Bangalore	2016
D. S. Das, T. V. Bharat	Theoretical characteristics of equilibrium sediment volume of clays	International conference on Soil and Environment	2016
G. Das, T. V. Bharat	Shrinkage behavior of clay soils: An experimental study. International conference on Soil and Environment	International conference on Soil and Environment	2016
P. Das, S. R. Man Parvesh, T. V. Bharat	Salt diffusion in compacted plastic clay: Experimental and theoretical evaluation	International conference on Soil and Environment	2016
B. Solanki, Y. Gopak, T. V. Bharat	Capillary barrier effects in unsaturated layered soils. International conference on Soil and Environment	International conference on Soil and Environment	2016
Abdulkerim Bedewi Serur, A. K. Sarma	Statistical Downscaling of Daily Temperature and Precipitation Data from Coupled Model Inter-Comparison Project 5 (CMIP): In Weyb River Watershed, Bale Mountainous Area, Ethiopia	International Conference on Water, Environment, Energy and Society	2016
R. Chakraborty, A. Dey	Multiple nonlinear regression analysis for slope stability using limit equilibrium method	International Geotechnical Engineering Conference on Sustainability in Geotechnical Engineering Practices and Related Urban Issues, Mumbai	2016
A. Jana, A. Dey	Unsaturated behaviour of geotextile in earth retaining structure under rainwater infiltration	International Geotechnical Engineering Conference on Sustainability in Geotechnical Engineering Practices and Related Urban Issues, Mumbai	2016
Shreedevi Moharana, Subashisa Dutta	Non-destructive Measurement of Nitrogen and Chlorophyll Content in Indian Rice Varieties	International Symposium on Plant Biotechnology for Crop Improvement (ISPBCI 2017)	2017
Aparimita Priyadarshini Naik, Biplab Ghosh, P. Sreeja	Estimating soil hydraulic properties using mini disc infiltrometer	ISH - Hydro 2016 International	2016
A. Anjaneyulu, Kamaljit Ray, Subashisa Dutta	Hydrological Model Development for Urban Flash Flood Early Warning System using Weather RADAR Input	ISRS - ISG National Symposium on Recent Advances in Remote Sensing and GIS with Special Emphasis on Mountain Ecosystems	2016

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Shreedevi Moharana, Subashisa Dutta	Mapping of Chlorophyll And Nitrogen of Paddy Crop From Hyperspectral Imagery	ISRS - ISG National Symposium on Recent Advances in Remote Sensing and GIS with Special Emphasis on Mountain Ecosystems	2016
R. Chakraborty, A. Dey	Stability of hill-slope using FE and LE analyses	National Conference on Engineering Problems and Application of Mathematics: EPAM 2016, Agartala	2016
R. Choudhary, S. K. Singh, A. Kumar	Permeability characteristics of premix carpet	National Conference on Fifteen years of PMGSY, IIT Roorkee	2016
A. Raj, S. Barman, A. C. Borsaikia, U. S. Dixit	Stress-strain behavior of materials used in a building wall system made of AAC blocks	National Conference on Sustainable Mechanical Engineering: Today & Beyond, Tezpur	2017
T. K. Deb, B. Singh	Effect of Lateral Loading on the Response of Bucket Foundation Supporting Offshore Wind Turbine in Sandy Seabed	National Conference on Sustainable Mechanical Engineering: Today and Beyond, SMETB, Tezpur	2017
S. Patowary, A. K. Sarma	Safe IDF curves from daily rainfall data for Guwahati City	National Conference on Water Resources and Flood Management with Special Reference to Flood Modelling	2016
S. K. Padhee, Subashisa Dutta	Performance of 3T model to estimate Evapotranspiration after time and terrain correction in the Eastern Himalayas	National Symposium on Recent Advances in Remote Sensing and GIS with Special Emphasis on Mountain Ecosystems	2016
B. Madhulatha, A. Dey	Numerical investigation of failure of reinforced segmental retaining wall	North-East Students Geo-Congress: NESGC 2016, Agartala	2016
D. Basu, A. Dey	Nonlinear ground response analysis for parametric study of sandy deposit incorporating Non-Masing criteria	North-East Students Geo-Congress: NESGC 2016, Agartala	2016
A. Jana, A. Dey	Conflicting behavior of geotextiles in reinforced clay wall	North-East Students Geo-Congress: NESGC 2016, Agartala	2016
R. Acharyya, N. Sharma, A. Dey, K. Dasgupta	3D finite element modeling of a large-sized pile group	North-East Students Geo-Congress: NESGC 2016, Agartala	2016
R. Chakraborty, A. Dey	Numerical investigation of slope instability induced by hydraulic and seismic actions	North-East Students Geo-Congress: NESGC 2016, Agartala	2016
T.V. Ngo, S. K. Deb, A. Dutta, N. Ray, A. J. Mitra	Performance evaluation of fiber reinforced elastomeric isolators under cyclic loading	Proc. of 8th World Congress on Joints, Bearing and Seismic Systems for Concrete Structures, Atlanta	2016
T. V. Ngo, A. Dutta, S. K. Deb	Predicting stability of a prototype un-bonded fibre reinforced elastomeric isolator by finite element analysis	Proc. of Int. Conf. on Computational Methods, 7th ICCM2016, Berkeley	2016
R. Lalthlamuana, S. Talukdar	Conditions of visibility of bridge natural frequency in vehicle vertical acceleration	Procedia Engineering, Elsevier	2016
P. Dey, S. Talukdar	Influence of Warping on Modal Parameters of Thin-Walled Channel Section Steel Beam	Procedia Engineering, Elsevier	2016

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A. C. Mahendra Reddy, S. Talukdar	Fatigue life estimation of Warren type steel truss bridge	Proceedings of 2nd International Conference on Fatigue, Durability and Fracture Mechanics held in IISc Bangalore	2016
P. Dey, S. Talukdar	Health monitoring of an open section thin-walled curved beam based on crack parameters	Proceedings of 2nd International Conference on Fatigue, Durability and Fracture Mechanics held in IISc Bangalore	2016
R. Bayyavarappu, S. Talukdar, R. Lalthlamuana	Effect of rise to span ratio on the behavior of a steel arch bridge for different types of hanger arrangement	Proceedings of 8th International Conference on Steel and Aluminium structures, Eds: B. Young and Y. Cai, The University of Hong Kong	2016
K. Mukherjee, A. K. Mishra	Hydro-mechanical behaviour of sand-bentonite mixture reinforced with scrap tyre	Recycle-2016, Guwahati	2016
J. Dutta, A. K. Mishra	Consolidation Characteristics of Bentonite in the Presence of Heavy Metals	Recycle-2016, Guwahati	2016
V. Srikanth, A. K. Mishra	Strength characteristics of sand-bentonite mixtures and the influence of sand type	Recycle-2016, Guwahati	2016
Maharshi Kintada, Arbind K. Singh	Failure Analysis of Composite Cylindrical Shells Using Continuum Damage Mechanics	SEC 2016 Chennai	2016
Bandita Barman, A. K. Sarma	A Study on River Bed Degradation due to Mining of Coarser Top Sediment Layer	Sixth International Congress on Computational Mechanics and Simulation	2016
S. Dhar, K. Dasgupta	Comparison of Natural Vibration Characteristics of Integral Abutment Bridge With and Without Soil Structure Interaction	Structural Engineering Congress (SEC 2016)	2016
N. Sharma, K. Dasgupta, A. Dey	Importance of Inclusion of Soil Structure Interaction Studies in Seismic Design of RC Frames	Structural Engineering Congress (SEC 2016)	2016
S. Kaushik, K. Dasgupta	Seismic Response of Exterior RC Slab-Shear Wall Assemblage Using Non-Linear Static and Dynamic Analyses	Structural Engineering Congress (SEC 2016)	2016
A. Gogoi, B. Bhuyan, N. Sharma, K. Dasgupta	Nonlinear Static Behaviour of RC Frame Buildings During Construction Stages	Structural Engineering Congress (SEC 2016)	2016
P. Mehta, S. Kumar, V. Kumar, S. Bandawala	Locations of Balance Points on Design and Actual P-M Interaction Curves for RC Sections	Structural Engineering Congress (SEC 2016)	2016
Sathishraj Mani, Bulu Pradhan	A study on compressive strength and corrosion behaviour of reinforcing steel in chloride contaminated fly ash based geopolymer concrete	Structural Engineering Convention (SEC-2016)	2016
Smrati Jain, Bulu Pradhan	Corrosion performance of steel in self-compacting concrete exposed to chloride environment	Structural Engineering Convention (SEC-2016)	2016
Arya Anuj Jee, Bulu Pradhan	Durability of fly ash added reinforced concrete in chloride and composite chloride-sulfate environment	Structural Engineering Convention (SEC-2016)	2016

Conference Papers

Civil Engineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
N. Sharma, K. Dasgupta, A. Dey	Importance of inclusion of soil structure interaction studies in design codes	Structural Engineering Convention (SEC-2016), Chennai	2016
L. Shiveshwari, H. N. Sinha, Rishikesh Bharti	Detection of Coal Fires Using Remote Sensing Images.	The Indian Science Congress Association (ISCA): Everyman's Science.	2012
Subhadipto Poddar, Geetimukta Mahapatra, A. K. Maurya	Study of lateral placement and speed on urban roads	Transportation Planning and Implementation Methodologies for Developing Countries, IIT Bombay	2016
Arunabha Banerjee, A. K. Maurya	Comparison of pedestrian behaviour on different types of facilities for a commercial area in North Eastern India	Transportation Planning and Implementation Methodologies for Developing Countries, IIT Bombay	2016
Anuj Kishor Budhkar, Nilanjan Adhikari, Akhilesh Kumar Maurya	Lateral gap maintained by vehicles under constrained conditions	Transportation Planning and Implementation Methodologies for Developing Countries, IIT Bombay	2016
Mohammad Hashem Askariyeh, Suriya Vallamsundar, Joe Zietsman, Harsha Kota, Qi Ying	Evaluation of AERMOD for near-road pollutant dispersion	Transportation Research Board 96th Annual Meeting	2017

Conference Papers

Computer Science and Engineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Basant Subba, Santosh Biswas, Sushanta Karmakar	Enhancing performance of anomaly based intrusion detection systems through dimensionality reduction using principal component analysis	016 IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS)	2016
Biswajit Bhowmik, Santosh Biswas, Jatindra Kumar Deka	A Reliability-Aware Topology-Agnostic Test Scheme for Detecting, and Diagnosing Interconnect Shorts in on-Chip Networks	18th IEEE International Conference on High Performance Computing and Communications (HPCC 2016), Sydney	2016
Biswajit Bhowmik, Santosh Biswas, Jatindra Kumar Deka	When Clustering Shows Optimality Towards Analyzing Stuck-at Faults in Channels of on-Chip Networks	18th IEEE International Conference on High Performance Computing and Communications (HPCC 2016), Sydney	2016
S. Rana, S. Gaj, A. Sur, P. Bora	Detection of Fake 3D Video Using CNN	18th International Workshop on Multimedia Signal Processing (MMSP 2016)	2016
S. Rana, S. Gaj, A. Sur, P. Bora	Segmentation Based 3D Depth Watermarking using SIFT	18th International Workshop on Multimedia Signal Processing (MMSP 2016)	2016
S. Gaj, S. Rana, A. Sur, P. Bora	A Drift Compensated Reversible Watermarking Scheme for H.265/HEVC	18th International Workshop on Multimedia Signal Processing (MMSP 2016)	2016
B. Bhowmik, J. K. Deka, S. Biswas	Towards a Scalable Test Solution for the Analysis of Interconnect Shorts in on-Chip Networks	2016 IEEE 24th International Conference on Modeling, Analysis, and Simulation of Computer and Telecommunication Systems (IEEE MASCOTS 2016)	2016

Conference Papers

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
B. Bhowmik, J. K. Deka, S. Biswas	On-Line Testing of Coexistent Stuck-at and Open Faults in NoC Interconnects	2016 IEEE 28th Region Ten Conference (IEEE TENCON 2016)	2016
B. Bhowmik, J. K. Deka, S. Biswas	A Concurrent Approach to Detect and Diagnose Shorts in Interconnects of on-Chip Networks	2016 IEEE 28th Region Ten Conference (IEEE TENCON 2016)	2016
Basant Subba, Santosh Biswas, Sushanta Karmakar	Enhancing effectiveness of intrusion detection systems: A hybrid approach	2016 IEEE International Conference on Advanced Networks and Telecommunications Systems	2016
Biswajit Bhowmik, Jatindra Kumar Deka, Santosh Biswas, Bhargab B. Bhattacharya	A Topology-Agnostic Test Model for Link Shorts in On-Chip Networks	2016 IEEE International Conference on Systems, Man, and Cybernetics • SMC 2016 • Budapest	2016
Biswajit Bhowmik, Jatindra Kumar Deka, Santosh Biswas, Bhargab B. Bhattacharya	On-Line Detection and Diagnosis of Stuck-at Faults in Channels of NoC-based Systems	2016 IEEE International Conference on Systems, Man, and Cybernetics • SMC 2016 • Budapest	2016
Biswajit Bhowmik, Santosh Biswas, Jatindra Kumar Deka, Bhargab B. Bhattacharya	Detecting and Diagnosing Open Faults in NoC Channels on Activation of Diagonal Nodes	2016 IEEE International Conference on Systems, Man, and Cybernetics • SMC 2016 • Budapest	2016
Biswajit Bhowmik, Santosh Biswas, Jatindra Kumar Deka, Bhargab B. Bhattacharya	One Poison is Antidote Against Another Poison	2016 IEEE International Conference on Systems, Man, and Cybernetics • SMC 2016 • Budapest	2016
B. Bhowmik, J. K. Deka, S. Biswas	An On-Line Test Solution for Addressing Interconnect Shorts in on-Chip Networks	22nd IEEE International Symposium on On-Line Testing and Robust System Design (IOLTS-2016), Catalunya	2016
B. Bhowmik, S. Biswas, J. K. Deka	An Odd-Even Scheme to Prevent a Packet from Being Corrupted and Dropped in Fault Tolerant NoCs	22nd IEEE International Symposium on On-Line Testing and Robust System Design (IOLTS-2016), Catalunya	2016
S. Dutt, S. Nandi, G. Trivedi	A Comparative Survey of Approximate Adders	26th International Conference Radioelektronika	2016
S. Tripathi, S. Acharya, R. D. Sharma, S. Mittal, S. Bhattacharya	Using Deep and Convolutional Neural Networks for Accurate Emotion Classification on DEAP Dataset	29th AAAI conf Innovative Application 2017 (IAAI 2017)	2017
Sukanta Dey, Satyabrata Dash, Sukumar Nandi and Gaurav Trivedi	Markov Chain Model using Levy Flight for VLSI Power Grid Analysis	29th International Conference on VLSI Design	2017
A. Tripathi, A. Sarkar, P. P. Chakrabarti	Migration Aware Low Overhead ERfair Scheduler	30th Int. Conf. on VLSI Design (VLSID '17)	2017
V. Kochar, A. Sarkar	Real Time Resource Allocation on a Dynamic 2-level Symbiotic Fog Architecture	6th Int. Symp. on Embedded computing & system Design (ISED '16)	2016
Keshab Nath, Swarup Roy, Sukumar Nandi	Incremental Approach for Detecting Arbitrary and Embedded Cluster Structures	6th International Conference on Model & Data Engineering (MEDI)	2016

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
M. S. I. Saikia, P. Kumar, S. Bhattacharya, T. Venkatesh	Estimating Attention and Understanding Level of Students in a Large Classroom Environment	8th IEEE int conf Technology for Education (T4E 2016), Mumbai	2016
S. A. Kondaveeti, S. Vidyapu, S. Bhattacharya	Improved Gaze Likelihood based Web Browsing	8th int conf Human-Computer Interaction (IndiaHCI 2016), Mumbai	2016
Sonia, M. Singh, R. D. Baruah, S. B. Nair	A Voting-Based Sensor Fusion Approach for Human Presence Detection	8th International Conference on Human Computer Interaction	2016
N. Gangwar, T. Semwal, S. B. Nair	CARE: An IoT based System for Passenger Service and Comfort in Railways	9th International Conference on COMMunication Systems & NETworkS (COMSNETS)	2017
S. Kumar, D. P. Goswami, A. Sarkar, A. Sur	Buffer Aware Three Level Scheduler for Video Streaming over LTE	9th International Conference on COMMunication Systems and NETworkS (COMSNETS 2017)	2017
R. Devaraj, A. Sarkar, S. Biswas	Real-time scheduling of non-preemptive sporadic tasks on uniprocessor systems using supervisory control of timed DES	American Control Conference	2017
Loitongbam Gyanendro Singh, Lenin Laitonjam, Sanasam Ranbir Singh	Automatic Syllabification for Manipuri language	COLING 2016	2016
Biswajit Bhowmik, Jatindra Kumar Deka, Santosh Biswas	CHARKA: A Reliability-Aware Test Scheme for Diagnosis of Channel Shorts Beyond Mesh NOCs	Design, Automation and Test in Europe, DATE-2017, The European Event for Electronic System Design and Test, Lausanne	2017
S. Rana, S. Gaj, A. Sur	View Invariant 3D Video Watermarking using Depth Based Embedding	Digital Image Computing: Techniques and Applications (DICTA 2016)	2016
S. Gaj, S. Rana, A. Sur, P. Bora	A Robust Watermarking Scheme against Frame Blending, Projection and Content Adaption	Digital Image Computing: Techniques and Applications (DICTA 2016)	2016
Nayantara Kotoky, V. Vijaya Saradhi	Right to Information Query Modeling via Graded Response Model	ECML PKDD 2016, Proceedings of the first workshop on data science for social good	2016
M. R. Arun, P. Abraham Jisha, John Jose	A Novel Energy Efficient Multicasting Approach For Mesh NoCs	Elsevier, Procedia Computer Science	2016
Rajlakshmi Saikia, Sanasam Ranbir Singh	Generating Manipuri English pronunciation dictionary using sequence labelling problem	IALP 2016	2016
Rishi sharma, Ranu vikram, Bala Prakasa Rao Killi, Seela Veerabhadreswara Rao	CO2 Penalty and Disaster Aware Data Center and Service Placement for Cost Minimization	ICDCIT	2017
B. Bhowmik, J. K. Deka, S. Biswas, B. B. Bhattacharya	One Poison is Antidote Against Another Poison	IEEE 29th International Conference on Systems, Man, and Cybernetics (IEEE SMC 2016)	2016

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Computer Science and Engineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
B. Bhowmik, J. K. Deka, S. Biswas, B. B. Bhattacharya	Detecting and Diagnosing Open Faults in NoC Channels on Activation of Diagonal Nodes	IEEE 29th International Conference on Systems, Man, and Cybernetics (IEEE SMC 2016)	2016
B. Bhowmik, J. K. Deka, S. Biswas, B. B. Bhattacharya	On-Line Detection and Diagnosis of Stuck-at Faults in Channels of NoC-Based Systems	IEEE 29th International Conference on Systems, Man, and Cybernetics (IEEE SMC 2016)	2016
B. Bhowmik, J. K. Deka, S. Biswas, B. B. Bhattacharya	A Topology-Agnostic Test Model for Link Shorts in on-Chip Networks	IEEE 29th International Conference on Systems, Man, and Cybernetics (IEEE SMC 2016)	2016
Bala Prakasa Rao Killi, Seela Veerabhadreswara Rao	Controller Placement with planning for failures in Software-Defined Networks	IEEE ANTS	2016
Biswajit Bhowmik, Jatindra Kumar Deka, Santosh Biswas	Towards a Scalable Test Solution for the Analysis of Interconnect Shorts in on-Chip Networks	IEEE Conference on Modelling, Analysis and Simulation of Computer and Telecommunication Systems (MASCOTS-2016), Imperial College, London	2016
B. Subba, S. Biswas, S. Karmakar	Enhancing Performance of Anomaly based Intrusion Detection Systems through dimensionality reduction using Principal Component Analysis	IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS)	2016
B. Subba, S. Biswas, S. Karmakar	Enhancing effectiveness of Intrusion Detection Systems: A Hybrid Approach	IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS)	2016
S. Nikhil, T. Semwal, S. B. Nair	Immuno-Inspired Behaviour Adaptation in Multi-Robot Systems	IEEE International Conference on Systems, Man and Cybernetics (IEEE SMC)	2016
S. Kumar, S. Sriram, A. Sarkar, A. Sur	A Three Level Adaptive Video Streaming Framework Over LTE	IEEE International Conference on Systems, Man, and Cybernetics (IEEE SMC)	2016
B. Bhowmik, S. Biswas, J. K. Deka	An Odd-Even Scheme to Prevent a Packet from Being Corrupted and Dropped in Fault Tolerant NoCs	IEEE International Symposium on On-Line Testing and Robust System Design (IEEE IOLTS 2016)	2016
B. Bhowmik, S. Biswas, J. K. Deka	An On-Line Test Solution for Addressing Interconnect Shorts in on-Chip Networks of timed DES	IEEE International Symposium on On-Line Testing and Robust System Design (IEEE IOLTS 2016)	2016
Achyut Mani Tripathi, Rashmi Dutta Baruah	Anomaly Detection in Data Streams Based on Graph Coloring Density Coefficients	IEEE Symposium Series on Computational Intelligence	2016
Biswajit Bhowmik, Santosh Biswas, Jatindra Kumar Deka	On-line Testing of Coexistent Stuck-at and Open Faults in NoC Interconnects	IEEE TENCON - 2016, Singapore	2016
Biswajit Bhowmik, Jatindra Kumar Deka, Santosh Biswas	A Concurrent Approach to Detect and Diagnose Shorts in Interconnects of on-Chip Networks	IEEE TENCON - 2016, Singapore	2016
B. Bhowmik, J. K. Deka, S. Biswas	Charka: A Reliability-Aware Test Scheme for Diagnosis of Channel Shorts Beyond Mesh NoCs	IEEE/ACM DATE 2017	2017

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Computer Science and Engineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Niladri Sett, Subhrendu Chattopadhyay, Sanasam Ranbir Singh, Sukumar Nandi	A Time Aware Method for Predicting Dull Nodes and Links in Evolving Networks for Data Cleaning	IEEE/WIC/ACM Web Intelligence 2016	2016
Akash Anil, Sanasam Ranbir Singh, Ranjan Sarmah	Personalised PageRank as a Method of Exploiting Heterogeneous Network for Counter Terrorism and Homeland Security	IEEE/WIC/ACM Web Intelligence 2016	2016
N. Sett, S. Chattopadhyay, S. R. Singh, S. Nandi	A time agnostic method for predicting dull nodes and links in evolving networks for data cleaning	IEEE/WIC/ACM International Conference on Web Intelligence	2016
R. Devaraj, A. Sarkar, S. Biswas	Fault-Tolerant Scheduling of Non-preemptive Periodic Tasks using SCT of Timed DES on Uniprocessor Systems	IFAC 2017 World Congress	2017
P. P. Nair, R. Devaraj, A. Sen, A. Sarkar, S. Biswas	DES based Modeling and Fault Diagnosis in Safety-critical Semi-Partitioned Real-time Systems	IFAC 2017 World Congress	2017
Debanjan Sadhukhani, S. V. Rao,	Critical Sensor Density for Event-Driven Data-Gathering in Delay and Lifetime Constrained WSN	in 14th International Conference on Wired and Wireless Interenet Communications (WWIC)	2016
Sandeep Vidyapu, Samit Bhattacharya, V. Vijaya Saradhi	Study on the Effect of Multimodality and Gender on Visual Attention of Webpages and Design Principles	India HCI 2016	2016
Nayantara Kotoky, V. Vijaya Saradhi	Right to Information Query Modeling via Item Response Theory	Indian Workshop on Machine Learning, 2016, IIT Kanpur	2016
S. Kumar, Dheeraj Puri Goswami, A. Sarkar, A. Sur.	Buffer Aware Three Level Scheduler for Video Streaming over LTE	International Conference . on Communication Systems & Networks (COMSNET 2017)	Jan-17
V. Kochar, D. P. Goswami, M. Agarwal, Sukumar Nandi	Contrast Various Tests For Primality	International Conference on Accessibility to Digital World (ICADW)	2016
Abhimanyu Singh, Pawan Singre, Mayank Agarwal, Sukumar Nandi	Security Issues in Software Define Network and its Applications	International Conference on Accessibility to Digital World (ICADW)	2016
A. K. Singh, S. Kumar, M. Agarwal, Sukumar Nandi	Survey and Analysis of Modern Authentication System	International Conference on Accessibility to Digital World (ICADW)	2016
S. Katiyar, P. Sharma, M. Agarwal, Sukumar Nandi,	Differential Cryptanalysis of Substitution Permutation Network	International Conference on Accessibility to Digital World (ICADW)	2016
Dipankar Bora, Ben Thomas, Sukumar Nandi, Gaurav Trivedi	Application Specific Processor Design Implementation to Monitor Seismic Activity	International Conference on Accessibility to Digital World (ICADW)	2016
Sonia, M. Singh, Rashmi Dutta Baruah, Shivashankar B. Nair	A Voting- Based Sensor Fusion Approach for Human Presence Detection	International Conference on Intelligent Human Computer Interaction	2016
M. Ghose, A. Sahu, S. Karmakar	Energy Efficient Scheduling of Real Time Tasks on Large Systems	International Conference on Parallel and Distributed Computing, Applications and Technologies	2016

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
M. Ghose, A. Sahu, S. Karmakar	Energy Efficient Online Scheduling of Aperiodic Real Time Tasks on Large Multi-threaded Multiprocessor Systems	International IEEE India Conference (INDICON)	2016
B. Bhowmik, S. Biswas, J. K. Deka	Impact of NoC Interconnect Shorts on Performance Metrics	National Conference on Communication (NCC-2016)	2016
A. Bhandari, M. Agarwal, S. Biswas, S. Nandi	Intrusion Detection System for Identification of Throughput Degradation Attack on TCP	National Conference on Communication (NCC-2016)	2016
B. Subba, S. Biswas, S. Karmakar	A Neural Network Based System for Intrusion Detection and Attack Classifi-	National Conference on Communications (NCC)	2016
S.Vignesh, R. Tripathi, T. Venkatesh	Minimizing the Cost of Designing Fault-tolerant CDN Data Centers	Proc. of IEEE International Conference on Advanced Networks and Telecommunication Systems (ANTS), Bengaluru	Nov-16
R. Tripathi, S. Vignesh, T. Venkatesh	Towards Cost-Effective Capacity Provisioning for Fault-tolerant Green Distributed Data Centers	Proc. of IEEE International Conference on Advanced Networks and Telecommunication Systems (ANTS), Bengaluru	Nov-16
Hema K. Yarnagula, T. Venkatesh	Score-based Objective Quality of Experience Assessment of DASH Adaptation Algorithms	Proc. of IEEE International Conference on Advanced Networks and Telecommunication Systems (ANTS), Bengaluru	Nov-16
Hema K. Yarnagula, V. Ramkumar, T. Venkatesh	A Measurement Study of Energy Consumption and QoE Trade-offs for DASH in Mobile Devices	Proc. of IEEE International Conference on Advanced Networks and Telecommunication Systems (ANTS), Bengaluru	Nov-16
B. Shilpa, T. Venkatesh	An Overlay Management Strategy to Improve Peer Stability in P2P Live Streaming Systems	Proc. of IEEE International Conference on Advanced Networks and Telecommunication Systems (ANTS), Bengaluru	Nov-16
Rakesh Tripathi, S. Vignesh, T. Venkatesh	Minimizing Cost of Provisioning in Fault-tolerant Distributed Data Centers with Durability Constraints	Proc. of IEEE International Conference on Communications (ICC), Malaysia	May 2016
Parikshit Juluri, T. Venkatesh, Deep Medhi	QoE Management in DASH Systems using the Segment-aware Rate Adaptation Algorithm	Proc. of IEEE/IFIP Network Operations and Management Symposium (NOMS), Istanbul	Apr-16
Basant Subba, Santosh Biswas, Sushanta Karmakar	A Neural Network based system for Intrusion Detection and attack classification	Proceedings of 2016 Twenty Second National Conference on Communication	2016
S Sahu, A. Anand, K. Oruganty, M. Gattu	Relation extraction from clinical texts using domain invariant convolutional neural network	Proceedings of the 15th Workshop on Biomedical Natural Language Processing (ACL-BioNLP)	2016
T. Semwal, S. Nikhil, S. S. Jha, S. B. Nair	TARTARUS: A Multi Agent Platform for Bridging the gap between Cyber and Physical Systems	Proceedings of the 2016 Autonomous Agents and Multi Agent Systems Conference (AAMAS-2016)	2017
S. Sahu, A. Anand	Recurrent neural network models for disease name recognition using domain invariant features	Proceedings of the 54th Annual Meeting of the Association for Computational Linguistics (ACL)	2016
C. Karfa	Replication strategies for FPGAs	Synopsys India Technical Conference	2016
Midhul Varma, Hema K. Yarnagula, T. Venkatesh	WebRTC-based Peer Assisted Framework for HTTP Live Streaming	The Ninth International Conference on COMMunication Systems and NETWORKS (COMSNETS '17)	Jan-17

Conference Papers

Design

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Arunita Paul, Ganesh Suresh Jadhav, Urmi R. Salve	Risk Factors Involved in Carpal Tunnel Syndrome: A Review	14 th International Conference on Humanizing Work and Work Environment HWWE-2016	2016
Ganesh S. Jadav, Arunita Paul, Urmi R. Salve	Manual Material Handling Trolley: Case Study	14thInternational Conference on Humanizing Work and Work Environment HWWE-2016	2016
Md. Sarfaraz Alam, Urmi Ravindra Salve	Impact of Vibration and Wrist Posture Combined on CTS in Manufacturing Unit Workers	14thInternational Conference on Humanizing Work and Work Environment HWWE-2016	2016
Urmi Ravindra Salve, Amitabha De	Trunk Muscle Strength: An Indicator of Back Pain	14thInternational Conference on Humanizing Work and Work Environment HWWE-2016	2016
Anmol Srivastava, Pradeep G. Yammiyavar	Design of Multimodal Instructional Tutoring Agents Using Augmented Reality and Smart Learning Objects	18th International Conference on Multimodal Interaction (ICMI), Tokyo	2016
Anmol Srivastava, Pradeep G. Yammiyavar	Enriching Student Learning Experience using Augmented Reality and Smart Learning Objects	18th International Conference on Multimodal Interaction (ICMI), Tokyo	2016
Jithin K. C. T., Pallavi Yellamelli, Sharmistha Banerjee	Exploring Material Selection using Intangible and Sensorial Properties	1st International Conference on Creativity and Cognition in Art and Design, ICCCAD	2017
Anmol Srivastava, Pradeep G. Yammiyavar	Minimizing Cognitive Load of Students in Practical Engineering Laboratories Through Augmented Reality Applications	3rd Annual Conference on Cognitive Science (ACCS), IIT Gandhinagar	2016
Needa Jamil, Vysak A. S., Aditya Parihar, Sharmistha Banerjee	Understanding the Hope Harbingers –ASHA, the women foot soldiers of India’s National Rural Health Mission	6th International Conference on Research and Design, iCoRD’17	2017
Shiva Ji, Sharmistha Banerjee, Ravi Mokashi Puneekar	Assessment of GRIHA and LEED on the parameters of Sustainable Design and Development of Buildings	6th International Conference on Research and Design, iCoRD’17	2017
Prarthana Majumdar, Sharmistha Banerjee	The Challenges to Sustainable Growth of the Micro Scale Kuhila Craft Industry in India	6th International Conference on Research and Design, iCoRD’17	2017
Prarthana Majumdar, Shiva Ji, Sharmistha Banerjee	Consumer Preferences and Value Proposition Disconnect— Assam Rattan and Bamboo Furniture Industry	6th International Conference on Research and Design, iCoRD’17	2017
Toney Sebastian, Pradeep G. Yammiyavar, Stevan Jones	Brand Selection in Planned Purchasing: An Analysis of Asian User Behavior	ACP 2017, Japan Asian Conference on Psychology and the Behavioral Sciences 2017	2017
Sanjog J., R. L. Baruah, T. Patel, S. Karmakar	Redesign of Work-Accessories Towards Minimizing Awkward Posture and Reduction of Work Cycle Elements in an Indian Shop-Floor Workstation	Applied Human Factors and Ergonomics Conference 2016. Proceedings-Advances in Ergonomics in Design [Springer International Publishing]	2016
Ganesh S. Jadav, Arunita Paul, Urmi R. Salve	Design of manual material handling trolley for spool loading and unloading: Case study, 6th International & 27th All India Manufacturing Technology	Design and Research Conference (AIMTDR-2016)	2016

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Ravi Lingannavar, Pradeep G. Yammiyavar	Prioritization of design elements influencing innovation in product design	Humanizing work, and work environment, HWWE 2016	2016
Satish Shivarudraiah, Pradeep G. Yammiyavar	Usability as a Metric to Evaluate the Designing of Public Space	HWWE 2016 International Conference on Humanizing Work and Work Environment, NIT Jalandhar	2016
N. Yein, S. Pal	A Review on Preventive Interventions for Elderly Fall Problems related to Balance	HWWE2015 Conference Proceeding ISBN No 978-93-5258-836-7	2017
Pal. S., Kundu. A., Rana. N. and Yein. N.	Study of forearm muscle activity with regard to hand grip strength for different elbow-wrist posture	HWWE2015 Conference Proceeding	2017
Sahoo. B.B., Pal. S. and Yein. N	Design concept of adjustable cane-chair for elderly in virtual environment	HWWE2015 Conference Proceeding	2017
Deepshika Jha, Pradeep G. Yammiyavar	Moods evoked by Traditional Indian Textiles - An Exploratory Study	ICCCAD 2017 International Conference on Creativity and Cognition in Art and Design, National Institute of Design (NID), India and National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore	2017
Avinash Shende, Ravi Mokashi Punekar	Design of an Entrepreneurial Model in Product Development and Strategy for Marketing of Handicraft Products in the Northeast of India	ICDHS_2016_Taipei	2016
N. Yein, S. Pal	Technological Assistance for Fall Among Aging Population	ICoRD 2017 Conference Proceedings	2017
A. Bhattacharjee, S. Pal	Review on Sustainable Lighting Design in Art Galleries to Balance Between Visibility and Conservation of Light Sensitive Art Exhibits. In Research into Design for Communities, Volume 2, Smart Innovation, Systems and Technologies	ICoRD 2017 Conference Proceedings	2017
Toney Sebastian, Pradeep G. Yammiyavar, Stevan Jones	Cross-Category Application of Design Strategies: A Study of Package Graphics	ICQPROM 2017 IEEE Conf. International Conference on Quality, Productivity, Reliability, Optimisation & Modelling	2017
Toney Sebastian, Pradeep G. Yammiyavar, Stevan Jones	Behavioral Differences in Planned and Impulsive Buying: A Study of Indian Users	ICQPROM 2017 IEEE Conf. International Conference on Quality, Productivity, Reliability, Optimisation & Modelling	2017
Anmol Srivastava, Pradeep G. Yammiyavar	Augmenting Tutoring of Students using Tangible Smart Learning Objects: An IOT based approach to Assist Student Learning in Laboratories	IEEE International Conference on Internet of Things and Application (IOTA), MIT Pune	2016
T. Patel, J. Sanjog, A. Chatterjee, A. Shroff, S. S. Prusty, S. Mohapatra, S. Karmakar	Virtual Ergonomics Evaluation of a Design Concept of Manual Powered Portable Paddy Thresher Suitable for Hilly Region Agriculture.	In: A. Chakrabarti and D. Chakrabarti (eds.), ICoRD '17 - Research into Design for Communities	2017
I. K. Verma, S. Karmakar	Driver Distraction: Methodological Review	In: A. Chakrabarti and D. Chakrabarti (eds.), ICoRD '17 - Research into Design for Communities	2017

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
T. Goswami, A. Chowdhury, S. Karmakar	Framework of a KE application software development for emotive design: A computational cognitive science perspective	In: A. Chakrabarti and D. Chakrabarti (eds.), ICoRD '17 - Research into Design for Communities	2017
H. Sharma, S. Karmakar, D. Chakrabarti	Exploring the Purchase Experience of Assam Silk as a Memento Among the Tourists to Strengthen the Bond Between Visitors and Native People	In: A. Chakrabarti and D. Chakrabarti (eds.), ICoRD '17 - Research into Design for Communities	2017
S. Bora, A. Chatterjee, S. Karmakar, D. Chakrabarti	Implementation of Ergonomic Design Intervention to Improve Workplace Amenities for Assam Policewomen	In: A. Chakrabarti and D. Chakrabarti (eds.), ICoRD'17 - Research into Design for Communities	2017
S. P. Ojha, Pradeep G. Yammiyavar	Methods to capture and model craftsmen's tacit knowledge in traditional designs	International Conference of Research into Design, Icord'17, IIT Guwahati	2017
S. P. Ojha, R. Lingannavar, Pradeep G. Yammiyavar	A matrix framework proposal for evaluating innovation criteria of a design process output during product conceptualization	International Conference of Research into Design, Icord'17, IIT Guwahati	20117
Venkateshwarlu Varala, Pradeep G. Yammiyavar	A preliminary semantic study on communication and perception of energy meter graphics	International Conference of Research into Design, Icord'17, IIT Guwahati	2017
Anmol Srivastava, Pradeep G. Yammiyavar	Students' Feedback into Enriching Learning Experiences for Design of Smart Devices and Applications	International Conference of Research into Design, Icord'17, IIT Guwahati	2017
Pradeep G. Yammiyavar	Keynote Foreseeing Future trends in Design Education: Bridging Natural Sciences and Artificial Sciences with Creative Design Curriculum	International Conference of Research into Design, ICORD'17, IIT Guwahati	2017
Toney Sebastian, Pradeep G. Yammiyavar	Modeling Design Strategies for Package Graphics: A Study of Hair Care Products among Young Indian Users	International Conference of Research into Design, ICORD'17, IIT Guwahati	2017
Toney Sebastian, Pradeep G. Yammiyavar	Domestic and Global Designs in Hair Care: A Study of Aesthetic Preferences of Indian Users	International Conference of Research into Design, Icord'17, IIT Guwahati	2017
Ravi Lingannavar, Pradeep G. Yammiyavar	A review of techniques for Indian small scale industries in effecting innovation through design	International Conference on Design and Manufacturing ICONDM-16, Kanchipuram	2016
Toney Sebastian, Pradeep G. Yammiyavar	Transforming Brand Archetype Using Package Graphics: An Empirical Study	International Conference on Design and Manufacturing ICONDM-16, Kanchipuram	2016
Toney Sebastian, Pradeep G. Yammiyavar	Translating User Behavior Models to Design Strategy: A Theoretical Model	International Conference on Design and Manufacturing ICONDM-16, Kanchipuram	2016
Toney Sebastian, Pradeep G. Yammiyavar	Product Selection in Planned Purchasing: Asian User Behavior and its Implications to Designers	International Conference on Design and Manufacturing ICONDM-16, Kanchipuram	2016
Toney Sebastian, Pradeep G. Yammiyavar, Stevan Jones	Design Strategies Using Customization: A Study of Indian User Perceptions	International Conference on Design and Manufacturing ICONDM-16, Kanchipuram	2016

Conference Papers

Design

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Venkateshwarlu Varala, Pradeep G. Yammiyavar	Communicating Importance of Sustainability Through GUI Displays: A case study on domestic Electricity Energy Meters	RAER 2016, IITG National Conference on Recent Advances in Environmental Research	2016
P. C. Kalita, S Das	Design Intervention for Livelihood and Hygiene for Street Vending of Panipuri	Research into Design for Communities: Proceedings of ICoRD 2017	2017
Zuk Nechemia Turbovich, Iko Avital, Gedalya Mazor, A. Kumar Das, P. C. Kalita	Personal 3D printer: Self-Design and Manufacturing	Research into Design for Communities: Proceedings of ICoRD 2017	2017
Alon Weiss, Iko Avital, A. Kumar Das, Gedalya Mazor, P. C. Kalita	WIT- 'What Ideality Tool' for Product Design	Research into Design for Communities: Proceedings of ICoRD 2017	2017
P. C. Kalita, A. Kumar Das	System Design for Customized Silk Products of Assam	The Eleventh International Conference on Design Principles & Practices: 2017, Toronto	2017

Conference Papers

Electronics and Electrical Engineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
A. Chetan, R. K. Tripathy, S. Dandapat	Cardiac arrhythmia classification from multilead ECG using multiscale non-linear analysis	2015 IEEE UP Section Conference on Electrical Computer and Electronics, UPCON 2015	2016
S. Josephine, S. Chouhan, A. Mahanta	Estimation of integration interval for energy detectors in UWB using compressed sensing	2016 8th International Conference on Communication Systems and Networks, COMSNETS 2016	2016
Arghya Chakravarty, Chitralkha Mahanta	Compensating Actuator Failures in Near Space Vehicles using Adaptive Finite Time Disturbance Observer based Backstepping Controller	2016 European Control Conference (ECC 16), Aalborg	2016
M. Das, C. Mahanta	Disturbance observer based optimal second order sliding mode controller for nonlinear systems with mismatched uncertainty	2016 IEEE 1st International Conference on Control, Measurement and Instrumentation, CMI 2016	2016
B. K. Kushwaha, G. Rituraj, P. Kumar, P. Bauer	Mathematical model of series-parallel compensation for contactless power transfer system	2016 IEEE International Power Electronics and Motion Control Conference, PEMC 2016	2016
C. U. Reddy, K. K. Prabhakar, A. K. Singh, P. Kumar	Flux estimation in DTC for wide speed range	2016 IEEE Power and Energy Society General Meeting, PESGM 2016	2016
M. Singh, P. Kumar, I. Kar, N. Kumar	A real-time smart charging station for EVs designed for V2G scenario and its coordination with renewable energy sources	2016 IEEE Power and Energy Society General Meeting, PESGM 2016	2016
Tousif Khan Nizami, Chitralkha Mahanta	Chebyshev Neural Network Based Adaptive Backstepping Control of DC-DC Boost Converter	2016 IEEE Seventh India International Conference on Power Electronics (IICPE-2016), Punjab	2016

Conference Papers
Electronics and Electrical Engineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Hong Guo, Gangxiang Shen, Sanjay K. Bose	Routing and Spectrum Assignment for 1+1:1 Lightpath Services in Elastic Optical Networks	2016 International Conference on Computing, Networking and Communications (ICNC)	2016
Tousif Khan Nizami, Chitralkha Mahanta	A Single Layer Hermite Neural Network Based Direct Adaptive Control of DC-DC Buck Converter	2016 International Conference on Soft Computing and Machine Intelligence (ISCMi 2016), Dubai	2016
R. Kannao, P. Guha	TV commercial detection using success based locally weighted kernel combination	22nd International Conference on Multi-Media Modeling, MMM 2016, Miami	2016
Sunil Dutt, Sukumar Nandi, Gaurav Trivedi	A comparative survey of approximate adders	26th International Conference Radioelektronika (RADIOELEKTRONIKA)	2016
Satyabrata Dash, Deepak Joshi, Gaurav Trivedi	CMOS analog circuit optimization via river formation dynamics	26th International Conference Radioelektronika (RADIOELEKTRONIKA)	2016
Sunil Dutt, Harsh Patel, Sukumar Nandi, Gaurav Trivedi	Exploring Approximate Computing for Yield Improvement via Re-design of Adders for Error-Resilient Applications	29th International Conference on VLSI Design and 2016 15th International Conference on Embedded Systems (VLSID)	2016
Satyabrata Dash, Krishna Lal Baishnab, Gaurav Trivedi	Applying River Formation Dynamics to Analyze VLSI Power Grid Networks	29th International Conference on VLSI Design and 2016 15th International Conference on Embedded Systems (VLSID)	2016
Dheeraj Kumar Sinha, Amitabh Chatterjee, Vishnuram Abhinav, Gaurav Trivedi, Victor Koldyaev	A Novel Capacitorless DRAM Cell Design Using Band-Gap Engineered Junctionless Double-Gate FET	29th International Conference on VLSI Design and 2016 15th International Conference on Embedded Systems (VLSID)	2016
Vishnuram Abhinav, Dheeraj Kumar Sinha, Amitabh Chatterjee, Forrest Brewer	A Novel Co-design Methodology for Optimizing ESD Protection Device Using Layout Level Approach	29th International Conference on VLSI Design and 2016 15th International Conference on Embedded Systems (VLSID)	2016
G. Baruah, S. Majhi, C. Mahanta	Fractional order PID controller design for an SOPDT model by online tuning method	2nd Indian Control Conference, ICC 2016	2016
R. Kannao, P. Guha	A novel local success weighted ensemble classifier	3rd IAPR Asian Conference on Pattern Recognition, ACPR 2015, Kuala Lumpur	2016
K. Biswas, I. Kar	Maximum principle in finding free final-time optimal trajectory of mobile robot for moving target tracking	3rd Indian Control Conference	2017
A. Chaudhari, I. Kar	Adaptive control of under actuated systems using neural networks	3rd Indian Control Conference	2017
R. Roy, A. Dalal, K. K. Prabhakar, P. Kumar	A general relation between supply harmonics and reactive power of an induction motor	42nd Conference of the Industrial Electronics Society, IECON 2016	2016
A. Dalal, P. Kumar, R. Roy	Analytical model for permanent magnet motor with non-linear ferromagnetic material property	42nd Conference of the Industrial Electronics Society, IECON 2016	2016
A. Kumar, Y. Deng, X. He, P. Kumar	A Multi Criteria Decision based rural electrification system	42nd Conference of the Industrial Electronics Society, IECON 2016	2016

Conference Papers

Electronics and Electrical Engineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
G. Rituraj, B. K. Kushwaha, P. Kumar	3-D analytical modeling of magnetic field for air core rectangular coil in contactless power transfer system	42nd Conference of the Industrial Electronics Society, IECON 2016	2016
K. K. Prabhakar, M. Ramesh, A. Dalal, C. Upendra Reddy, A. K. Singh, P. Kumar	Efficiency investigation for electric vehicle powertrain with variable DC-link bus voltage	42nd Conference of the Industrial Electronics Society, IECON 2016	2016
M. Francis, R. Rajesh, P. Guha	PD-Shift: Patch detector shift based tracker	5th National Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics, NCVPRIPG 2015 IIT Patna	2016
R. Kannao, D. Dandi, S. Yellapu, Prithwijiit Guha	News program detection in TV broadcast videos	ACM Multimedia 2016	2016
Chandan Kumar, Zhixiang Zou, Marco Liserre	Smart Transformer Application for Improving Performance of Loads in Partial Disconnection of MV/HV Power System	Annual IEEE Energy Conversion Congress & Exposition (ECCE 2016)	2016
P. Ghorai, S. Majhi, S. Pandey	Dynamic Model Identification of a Real-Time Simple Level Control System	Control and Decision	2016
M. Golhar, Y. Iwahori, M. K. Bhuyan, K. Funahashi, K. Kasugai	A Robust Method for Blood Vessel Extraction in Endoscopic Images with SVM-based Scene Classification	ICPRAM 2017	2017
Y. Iwahori, H. Hagi, Y. Usami, R. J. Woodham, A. Wang, M. K. Bhuyan, K. Kasugai	Automatic Polyp Detection from Endoscope Image Using Likelihood Map Based on Edge Information	ICPRAM 2017	2017
Abhishek Vahadane, Neeraj Kumar, Amit Sethi	Learning based super-resolution of histological images	IEEE 13th International Symposium on Biomedical Imaging (ISBI)	2016
M. Chaudhury, N. K. Meena, R. S. Kshetrimayum	Local search based near optimal low complexity detection for large MIMO System	IEEE ANTS	2016
A. Bhowal, R. S. Kshetrimayum	Large Scale MIMO performance analysis over Cascaded α - μ MIMO channel for M2M Communication	IEEE COMSNETS	2017
A. Bhowal, R. S. Kshetrimayum	End to End Performance Analysis of M2M Cooperative System over Cascaded α - μ Channels	IEEE COMSNETS	2017
Arobindra Saikia, Chitralekha Mahanta	Integrated Control of Active Front Steer Angle and Direct Yaw Moment Using Second Order Sliding Mode Technique	IEEE First International Conference on Power Electronics, Intelligent Control and Energy systems (ICPEICES 2016), Delhi Technological University	2016
K. Biswas, A. S. Kundu, I. Kar	Real-time energy-optimal moving target tracking by holonomic vehicle	IEEE INDICON	2017
Tousif Khan N., Chitralekha Mahanta	Single Layer Type II Chebyshev Neural Network Based Adaptive Backstepping Control of DC-DC Buck Converter	IEEE Indicon 2016, IISc Bangalore	2016

Conference Papers
Electronics and Electrical Engineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Arobindra Saikia, Chitralkha Mahanta	Lateral Stability Enhancement of Vehicles Using Adaptive Sliding Mode Based Active Front Steering and Direct Yaw Moment Control	IEEE Indicon 2016, IISc Bangalore	2016
Joseph Sanam, Sanjib Ganguly, A. K. Panda, Damodar Panigrahy	Forecasting of AELC and TESC of Distribution Systems with the Optimal Allocation of DSTATCOM	IEEE Innovative Smart Grid Technologies - Asia (ISGT-Asia), Melbourne	2016
Gaurav Kumar Yadav, Prakhar Shukla, Amit Sethi	Action recognition using interest points capturing differential motion information	IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)	2016
P. Samal, S. Mohanty, S. Ganguly	Effect of DSTATCOM allocation on the performance of an unbalanced radial distribution systems	IEEE International Conference on Engineering and Technology (ICETECH)	2016
Ruchika Verma, Neeraj Kumar, Amit Sethi, Peter H. Gann	Detecting multiple sub-types of breast cancer in a single patient	IEEE International Conference on Image Processing (ICIP)	2016
Joseph Sanam, Sanjib Ganguly, A. K. Panda	Allocation of DSTATCOM and DG in distribution systems to reduce power loss using ESM algorithm	IEEE International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES)	2016
Tousif Khan Nizami, Chitralkha Mahanta	Fast Neuro-Adaptive Control of DC-DC Buck Converters: Design and Implementation	IEEE Power and Energy Conference (PECI), University of Illinois, USA	2017
Chandan Kumar, Mahesh K. Mishra, Marco Liserre	LCL Filter Based UPQC Configuration for Power Quality Improvement	IEEE Power and Energy Society General Meeting (PESGM)	2016
P. Rathore, K. Dhaka, S. K. Bose	Multicasting in wireless networks with correlated links	IEEE Region 10 Conference (TENCON), Singapore	2016
S. Baghel, Banriskhem Khongla, S. R. M. Prasanna, Prithwijit Guha	Shouted/Normal Speech Classification using Speech Specific Features	IEEE TENCON 2016	2016
Anurag Singh, S. Dandapat	Exploiting Interchannel Correlation in Multichannel Compressed Sensing ECG Systems	IEEE UPCON-2015, IIT Allahabad	2016
Tokiko Shiina, Yuji Iwahori, Yohei Takada, Boonserm Kijirikul, M. K. Bhuyan	Reducing Misclassification of True Defects in Defect Classification of Electronic Board	IEEE/ACIS ICIS 2017	2017
Nabanita Adhikary, Chitralkha Mahanta	Kinematic Control of a 6 DOF Robotic Manipulator Using Sliding Mode	Indian Control Conference (ICC 2017), IITGuwahati	2017
Nabanita Adhikary, Chitralkha Mahanta	Hybrid Impedance Control of Robotic Manipulator Using Adaptive Backstepping Sliding Mode Controller with PID Sliding Surface	Indian Control Conference (ICC 2017), IITGuwahati	2017
Arobindra Saikia, Chitralkha Mahanta	Vehicle Stability Enhancement Using Sliding Mode Based Active Front Steering and Direct Yaw Moment Control	Indian Control Conference (ICC 2017), IITGuwahati	2017
Arghya Chakravarty, Tousif Khan Nizami, Chitralkha Mahanta	Real Time Implementation of an Adaptive Backstepping Control of Buck Converter PMDC-Motor Combinations	Indian Control Conference (ICC 2017), IITGuwahati	2017

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Vinay Pandey, Indrani Kar, Chitralekha Mahanta	Controller Design for a 3-DOF Helicopter Model Using Multiple Models with Second Level Adaptation	Indian Control Conference (ICC 2017), IITGuwahati	2017
S. Shahnawazuddi, Patri Satya Karthik, R. Sinha	Exploring the role of pitch-adaptive cepstral features in context of children's mismatched ASR	International Conference on Signal Processing and Communications, IEEE	2016
Mohd. Mansoor Khan, Ramesh Kumar Sonkar	Analytical Model for gain modulation in Thulium doped fiber amplifiers(TDFA) operating in S-Band regime	International Conference on Light and Light based technologies, Tezpur	2016
D. Dutta, S. S. Acharjee, J. Bharadwaj, P. B. Phukon, J. Islam, R. K. Sonkar	Modelling and Design of an LED Street Lamp	International Conference on Light and Light based technologies, Tezpur	2016
T. Chadha, V. Choudhary, R. Jain, R. Paul, M. Rawat, R. K. Sonkar	Non-Invasive in vivo Hemoglobin Measurement of Human Blood	International Conference on Light and Light based technologies, Tezpur	2016
O. P. Singh, R. Sinha	Low complexity language recognition exploiting ensemble of random subspace	International Conference on Signal Processing and Communications, Bangalore	2016
O. P. Singh, R. Sinha	Language Recognition via Sparse Coding over Learned Dictionary	International conference on Signal Processing and Integrated Network (SPIN), Delhi	2017
O. P. Singh, R. Sinha	Sparse Representation Classification based Language Recognition using Elastic Net	International conference on Signal Processing and Integrated Network, Delhi	2017
Smarajit Das	On the decoding delay of rate-1/2 complex orthogonal designs	International Symposium on Information Theory	2016
G. Sreeram, Rohit Sinha	Semi-Coupled Dictionary Based Automatic Bandwidth Extension Approach for Enhancing Children's ASR	Interspeech 2016	2016
S. Shahnawazuddin, A. Dey, R. Sinha	Pitch-Adaptive Front-End Features for Robust Children's ASR	Interspeech 2016	2016
Arghya Chakravarty, Chitralekha Mahanta	Finite Time Actuator Failure Compensation in near Space Vehicles using an Observer based Backstepping Method	National Conference on Large Scale Multi-Disciplinary Systems of National Significance: Trends & Challenges (LAMSYS-2016), ISRO, Sriharikota	2016
Tousif Khan Nizami, Chitralekha Mahanta	Experimental Investigation on an Adaptive Backstepping Control of Buck Converter PMDC Motor Combination	National Conference on Large Scale Multi-Disciplinary Systems of National Significance: Trends & Challenges (LAMSYS-2016), ISRO, Sriharikota	2016
P. Samal, S. Mohanty, S. Ganguly	Simultaneous capacitor allocation and conductor sizing in unbalanced radial distribution systems using differential evolution algorithm	National Power System Conference	2016
R. S. Sangam, R. S. Kshetrimayum	Approximate design equation for iris width calculation of iris substrate integrated waveguide (SIW) band pass filters	NCC	2017

Conference Papers

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Hiroyasu Usami, Yuji Iwahori, Boonserm Kijirikul, M. K. Bhuyan, Aili Wang, Kunio Kasugai	Obtaining Shape from Endoscope Image Using Medical Suture with Two Light Sources	PATTERNS 2017	2017
Yohei Takada, Tokiko Shiina, Hiroyasu Usami, Yuji Iwahori, M. K. Bhuyan	Defect Detection and Classification of Electronic Circuit Boards Using Keypoint Extraction and CNN Features	PATTERNS 2017	2017
Hemant Kathania, Syed Shahnawazuddin, Rohit Sinha	Improving Children Speech Recognition in Acoustically Mismatched Condition Using Eigenvoices and Feature Projections	Proc. 23rd National Conference on Communications	2017
Kuruvachan K. George, Rohan Kumar Das, Sarfaraz Jelil, K. Arun Das, C. Santhosh Kumar, S. R. M. Prasanna, Ashish Panda	AMRITATCS-IITGUWAHATI Combined System for the Speakers I n the Wild (SITW) Speaker Recognition Challenge	Proc. IEEE TENCON 2016	2016
Akhil Babu Manam, Tummala Sai Revanth, Rohan Kumar Das, S. R. M. Prasanna	Speaker Verification using Acoustic Factor Analysis with Phonetic Content Compensation in Limited and Degraded Test Conditions	Proc. IEEE TENCON 2016	2016
Salil Mamodiya, Lav Kumar, Rohan Kumar Das, S. R. M. Prasanna	Exploring Acoustic Factor Analysis for Limited Test Data Speaker Verification	Proc. IEEE TENCON 2016	2016
Deepshikha Mahanta, Bidisha Sharma, Priyankoo Sarmah, S. R. M. Prasanna	Text to Speech Synthesis System in Indian English	Proc. IEEE TENCON 2016	2016
Himakshi Choudhury, Subhasis Mandal, S. R. M Prasanna	Comparative Study of Markov Model based Synthesis and Recognition System	Proc. IEEE TENCON 2016	2016
Himakshi Choudhury, Subhasis Mandal, S. R. M. Prasanna	Optimization of HMM Parameters for Online Handwriting Synthesis	Proc. IEEE TENCON 2016	2016
B. K. Khonglah. S. R. M. Prasann	Speech/ Music Classification using Vocal Tract Constriction aspect of speech	Proc. Indicon, 2016	2016
H. Choudhury, S. Mandal, S. Devnath, S. R. M. Prasanna, S. Sundaram	Combining HMM and SVM based Stroke Classifiers for Online Assamese Handwritten Character Recognition	Proc. Indicon, 2016	2016
B. Sharma, S. R. M. Prasanna	Improvement of Syllable based TTS System in Assamese using Prosody Modification	Proc. Indicon, 2016	2016
B. Sharma, S. R. M. Prasanna	Speech Synthesis in Noisy Environment by Enhancing Strength of Excitation and Formant Prominence	Proc. Interspeech, 2016	2016

Conference Papers

Electronics and Electrical Engineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
R. K. Das, S. Jelil, S. R. M. Prasanna	Exploring Session Variability and Template Aging in Speaker Verification for Fixed Phrase Short Utterances	Proc. Interspeech, 2016	2016
S. Kalita, L. Horo, P. Sarmah, S. R. M. Prasanna, S. Dandapat	Analysis of Glottal Stops in Assam Sora Language	Proc. Interspeech, 2016	2016
Bidisha Sharma, S. R. M. Prasanna	Pause Insertion in Assamese Synthesized Speech Using Speech Specific Features	Proc. NCC 2017	2016
S. Jelil, R. K. Das, S. R. M. Prasanna, R. Sinha	Role of Voice Activity Detection Methods for the Speakers in the Wild Challenge	Proc. NCC 2017	2016
N. S. Protima, C. M. Vikram, S. R. M. Prasanna	Vowel Onset Point Based Characterization of Velopharyngeal Activity Using Imaging Techniques	Proc. NCC 2017	2016
Nagaraj Adiga, S. R. M. Prasanna	Source modeling for HMM based speech synthesis using integrated LP residual	Proc. of ICASSP	2016
S. Pandey, S. Majhi	Limit cycle based identification of second order processes with time delay	Proc. of IEEE 2nd Indian Control Conference, IIT Hyderabad	2016
D. Oiwa, S. Fukui, Y. Iwahori, T. Nakamura, M. K. Bhuyan	Tracking with Probabilistic Background Model by Density Forests	Proc. of IEEE/ACIS ICIS 2016	2016
A. Paul, R. K. Das, R. Sinha, S. R. M. Prasanna	Countermeasure to Handle Replay Attacks in Practical Speaker Verification Systems	Proc. SPCOM, 2016	2016
R. K. Das, S. Jelil, S. R. M. Prasanna	Significance of Constraining Text in Limited Data Text-independent Speaker Verification	Proc. SPCOM, 2016	2016
S. Mandal, H. Choudhury, S. R. M. Prasanna, S. Sundaram	Frequency Count Based Two Stage Classification for Online Handwritten Character Recognition	Proc. SPCOM, 2016	2016
Sunil Kumar, M. K. Bhuyan, Biplab Ketan Chakraborty	An Efficient Face Model for Facial Expression Recognition	Proceedings 22nd NCC 2017	2017
Biplab Ketan Chakraborty, M. K. Bhuyan, Sunil Kumar	Adaptive Propagation-based Skin Segmentation Method for Color Images	Proceedings 22nd NCC 2017	2017
Y. Iwahori, D. Yamaguchi, T. Nakamura, B. Kijirikul, M. K. Bhuyan, K. Kasugai	Estimating Reflectance Parameter of Polyp Using Medical Suture Information in Endoscope Image	Proceedings ICPRAM	2016
Hidenobu Inoue, Yuji Iwahori, Boonserm Kijirikul, M. K. Bhuyan	Defect Classification of Electronic Board Using Bag of Features and Color Information	Proceedings ITC-CSCC	2016
Parveen Malik, Kannan Karthik	Limitation of PFA-EVENTS as a Forensic Tool	Proceedings of International Conference on Signal Processing and Integrated Networks (SPIN 2017)	2017

Conference Papers
Electronics and Electrical Engineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
S. Mondal, R. Paily	An Efficient on Chip Power Management Architecture for Solar Energy Harvesting Systems	Proceedings of the IEEE International Conference on VLSI Design	2016
M. M. Vinaya, R. Paily, A. Mahanta	Power Optimization of LNA for LTE Receiver	Proceedings of the IEEE International Conference on VLSI Design	2016
P. K. Manchi, R. Paily, A. K. Gogoi	Design and Implementation of Low-Power Digital Baseband Transceivers for IEEE802. 15.6 Standard	Proceedings of the IEEE International Conference on VLSI Design	2016
V. C. Sekhar, S. Bora, M. Das, P. K. Manchi, S. Josephine, R. Paily	Design and Implementation of Blind Assistance System Using Real Time Stereo Vision Algorithms	Proceedings of the IEEE International Conference on VLSI Design	2016
Shashi Kumar, Yuji Iwahori, M. K. Bhuyan	PCB Defect Classification Using Logical Combination of Segmented Copper and Non-Copper Part	Processing CVIP	2016
Sunil Kumar, M. K. Bhuyan, Biplab Ketan Chakraborty	Uncorrelated multiview discriminant locality preserving projection analysis for multiview facial expression recognition	Processing ICVGIP '16	2016
Biplab Ketan Chakraborty, M. K. Bhuyan, Sunil Kumar	Fusion-based skin detection using image distribution model	Processing ICVGIP ' 16	2016
Biplab Ketan Chakraborty, M. K. Bhuyan, Sunil Kumar	A Weighted Skin Probability Map for Skin Color Segmentation	Processing WiSPNET	2016
Neeraj Kumar, Ruchika Verma, Ashish Arora, Abhay Kumar, Sanchit Gupta, Amit Sethi, Peter H. Gann	Convolutional neural networks for prostate cancer recurrence prediction	SPIE, Medical Imaging	2017
Raghvendra Kannao, Prithwijiit Guha	Generic TV Advertisement Detection using Progressively Balanced Decision Trees.	Tenth Indian Conference on Computer Vision, Graphics and Image Processing (ICVGIP 2016)	2016
Raghvendra Kannao, Prithwijiit Guha	Story Segmentation in TV News Broadcast Videos	The 23rd International Conference on Pattern Recognition (ICPR 2016)	2016
Tanmay Shankar, Santosha Kumar Dwivedy, Prithwijiit Guha	Reinforcement Learning via Recurrent Convolutional Neural Networks	The 23rd International Conference on Pattern Recognition (ICPR 2016)	2016
Gitimoni Saikia, Saroj Shivagunde, Vijaya Saradhi, Raghvendra Kannao, Prithwijiit Guha	Multiple Kernel Learning Using Data Envelopment Analysis and Feature Vector Selection and Projection	The 23rd International Conference on Pattern Recognition (ICPR 2016)	2016
Taslish Chadha, Vineet Chaudhary, Rohit Jain, Riya Paul, Megha Rawat, Ramesh Sonkar	Noninvasive in-vivo Measurement of Hemoglobin and Glucose Concentration of Human Blood	The International Conference on Fiber Optics and Photonics, Kanpur	2016

Conference Papers

Electronics and Electrical Engineering

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
P. K. Dixit, Y. Iwahori, M. K. Bhuyan, K. Kasugai, A. Vishwakarma	Polyp Shape Estimation from Endoscopy Video using EKF Monocular SLAM with SFS Model Prior	WISPNET	2017
A. Vishwakarma, M. K. Bhuyan	Infrared and Visible Image Fusion Using NSST and Phase Stretch Transform	WISPNET	2017

Conference Papers

Humanities and Social Sciences

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Deepshikha Mahanta, Bidisha Sharma, Priyankoo Sarmah, S. R. M. Prasanna	Text to Speech Synthesis System in Indian English	2016 IEEE Region 10 Conference (TENCON)	2016
Priyankoo Sarmah, Biswajit Dev Sarma, Nagaraj Adiga, Pamir Gogoi, S. R. M. Prasanna	Dual Channel Signal Analysis of Oral and Nasal Consonants	2016 IEEE Region 10 Conference (TENCON)	2016
Sishir Kalita, Luke Horo, Priyankoo Sarmah, S. R. M. Prasanna, S. Dandapat	Analysis of Glottal Stop in Assam Sora Language	Interspeech 2016	2016
Lipokmar Dzuwichu, G. Amarjit Sharma, Manjeet Baruah	State, Religion and Mystification of Naga Movement	Fixity and Fluidity: History, Politics and Culture of North East India	2016
Rahul Shukla, Sambit Mallick	Construction of a Sustainable Energy Source: The Case of Jatropha in Indian Context	Technologies for Development: From Innovation to Social Impact	2016
Ratan Deka, Liza Das	Quest for Place in Emotionally Displaced Space: Strategies of Countering Trauma in Jahnabi Barua's <i>Rebirth</i> and Bhabendra Nath Saikia's <i>Antoreep</i>	Reflections of the Changing Indian Society	2016
A. I. Twaha, S. Mahanta	Morphological Focus Marking in Standard Colloquial Assamese	Formal Approaches to South Asian Languages, UMASS, AMherst	2016
K. Das, S. Mahanta	Focus marking and pitch register modification in Boro	Proceedings of Speech Prosody 2016	2016
A. Gope, S. Mahanta	Correlation between Sylheti Tone and Phonation	Proceedings of Speech Prosody 2016	2016
A. I. Twaha, S. Mahanta	The Phonology of Contrastive Focus in Standard Colloquial Assamese	Proceedings of the Annual Meetings on Phonology 3, 2015	2016
S. Mahanta, K. Das, A. Gope	On the Phonetics and Phonology of Focus marking in Boro	Proceedings of the Annual Meetings on Phonology 3, 2015	2016

Conference Papers
Humanities and Social Sciences

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Bornali Phukon, Biswajit Dev Sarma, Shakuntala Mahanta, S. R. M. Prasanna	Automatic Phonetic Alignment Tool Based on Hidden Markov Model as a Plugin Tool of Praat for the Languages of Northeast India	Proceedings of 3rd WILDRE, Workshop on Indian Language Data: Resources and Evaluation.	2016
S. Mahanta, A. Gope	Perception of Lexical Tones in Sylheti	Proceedings of Tonal Aspects of Languages, Buffalo, New York	2016
K. Das, S. Mahanta	Tonal Alignment and Prosodic Word domain in Boro	Proc. Tonal Aspects of Languages 2016	2016
A. Twaha, S. Mahanta	Phonetic cues to contrastive focus in Standard Colloquial Assamese	Proc. Tonal Aspects of Languages 2016	2016

Conference Papers
Mathematics

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
A. C. Nayak, A. Srivastava, K. Kapoor	On Exchange-Robust and Subst-Robust Partial Primitive Words	17th Italian Conference on Theoretical Computer Science	2016
Manjanna Basappa, Ramesh K. Jallu, Gautam K. Das, Subhas C. Nandy	The Euclidean k-Supplier Problem in 2D	Algorithms for Sensor Systems - 12th International Symposium on Algorithms and Experiments for Wireless Sensor Networks (ALGOSENSORS)	2016
Debasish Pattanayak, Kaushik Mondal, H. Ramesh, Partha Sarathi Mandal	Fault-Tolerant Gathering of Mobile Robots with Weak Multiplicity Detection	International Conference on Distributed Computing and Networking (ICDCN'17)	2017
Barun Gorain, Partha Sarathi Mandal, Krishnendu Mukhopadhyaya	Approximation Algorithms for Generalized Bounded Tree Cover	International Workshop on Algorithms and Computation (WALCOM 2016)	2016
Ramesh K. Jallu, Gautam K. Das	Liar's Domination in 2D	Third International Conference on Algorithms and Discrete Applied Mathematics (CALDAM)	2017
Arup Chattopadhyay, Kalyan B. Sinha	A new proof of the Helton-Howe-Carey-Pincus trace formula	XXXIV Workshop in Geometric Methods in Physics, Biatowieza, Poland, 2015	2016

Conference Papers

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Sachin Singh Gautam, P. M. Dixit	Simulation of Large Deformation Elasto-Plastic Impact Problems Using Two Different Objective Stress Measures	11th International Symposium on Plasticity and Impact Mechanics (IMPLAST 2016), IIT Delhi	2016
Rasmi Ranjan Behera, M. Ravi Sankar	Effect of surface texturing on microstructure and property of 304 stainless steel laser surface alloyed with SiC-Co	27th MRSI North East Symposium on Advanced Materials for Sustainable Applications (MRSI-2016), NEIST Jorhat	2016
V. Pandey, G. Biswas, A. Dalal	Saturated Film Boiling in Reduced Gravity with Applied Electric Field	4th International Conference on Computational Methods for Thermal Problems, Gerogia Tech., USA	2016
S. Behera, P. Kumari	Natural frequency of orthotropic laminated plate using extended Kantorovich method	60th Congress (an International Conference) of Indian Society of Theoretical and Applied Mechanics	2016
Sachin Singh Gautam, P. M. Dixit	Comparison of Two Objective Stress Measures for Elasto-Plastic Problems	AIMTDR-2016, College of Engineering, Pune	2016
Pritam Kumar Rana, R. Ganesh Narayanan, Satish V. Kailas	Influence of Rotational Speed on the Friction Stir Spot Welding of Polymer Core Sandwich Sheets	AIMTDR-2016, College of Engineering, Pune	2016
Tinu P. Saju, R. Ganesh Narayanan	Effect of Tool Rotational Speed on the Mechanical Performance of Joints Fabricated by Friction Stir Forming of Dissimilar Grade Aluminum Alloy	AIMTDR-2016, College of Engineering, Pune	2016
Biplab Das, Pankaj Biswas	Prediction of Heating Lines for Plate Forming by Laser Line Heating	AIMTDR-2016, College of Engineering, Pune	2016
Piyush Singh, Pankaj Biswas, Sachin D. Kore	Finite Element and Experimental Study of Self-Reacting Friction Stir Welding of Aluminium Alloy AA6061-T6	AIMTDR-2016, College of Engineering, Pune	2016
M. Ravi Sankar, V. K. Jain, J. Ramkumar, Shivesh Kumar Sareen, S. Singh	Nano finishing of Al alloy/SiC metal matrix composites using soft silicon based polymer Rheological abrasive medium	AIMTDR-2016, College of Engineering, Pune	2016
Kishor Kumar Gajrani, M. Ravi Sankar, Divyansh Bhatnagar, M. Manohar	Influence of mechanical micro-textured cutting tool on chip formation during machining of hardened AISI H-13 steel	AIMTDR-2016, College of Engineering, Pune	2016
Kishor Kumar Gajrani, P. S. Suvin, Satish Vasu Kailash, M. Ravi Sankar	Comparative studies on thermal, rheological behavior of eco-friendly cutting fluids and their machining performance	AIMTDR-2016, College of Engineering, Pune	2016
M. R. Sankar, V. K. Jain, S. Asopa, P. Ranjan, R. Balasubramaniam	Abrasive Flow Nano Finishing of High Aspect Channels using Different Polymer Rheological Abrasive Medium	AIMTDR-2016, College of Engineering, Pune	2016
Rasmi Ranjan Behera, M. Ravi Sankar	Laser Surface Cladding of Titania-Hydroxyapatite Functionally Graded Bio-coatings on Ti-6Al-4V Alloy	AIMTDR-2016, College of Engineering, Pune	2016
S. M. Kamal, U. S. Dixit	Fatigue Life Enhancement of Thermally Autofrettaged Cylinders through Shrink-fit	AIMTDR-2016, College of Engineering, Pune	2016

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
S. Garg, R. Kant, S. N. Joshi, U. S. Dixit	A Study on Straightening of Bent Aluminium 5052 Sheets Using Laser Line Heating	AIMTDR-2016, College of Engineering, Pune	2016
V. Sharma, P. M. Pandey, A. Roy, U. S. Dixit	Study of Surface Integrity in Conventional and Ultrasonic Assisted Turning with Self-lubricating Cutting Inserts	AIMTDR-2016, College of Engineering, Pune	2016
Raushan Kumar, Anoop K. Dass	A New Kinetic Flux Corrected Scheme for 1D Euler Equations of Gasdynamics	6th International and 43rd National Conference on Fluid Mechanics and Fluid Power 2016	2016
Dhrubajyoti Kashyap, Anoop K. Dass	Multiple Relaxation Time Lattice Boltzmann Simulation of Flows over Two Circular Cylinders in Tandem Arrangement	6th International and 43rd National Conference on Fluid Mechanics and Fluid Power 2016	2016
Subhra Sankar Kalita, Dhrubajyoti Kashyap, Anoop K. Dass	GPU Accelerated Lattice Boltzmann Method Applied to Mixed Convection in a Differentially Heated Square Cavity	6th International and 43rd National Conference on Fluid Mechanics and Fluid Power 2016	2016
R. Kumar, K. Dev, A. Dalal	Numerical Study of Fluid Flow and Heat Transfer inside Sharp Edged Wavy Channel	6th International and 43rd National Conference on Fluid Mechanics and Fluid Power 2016	2016
P. Meshram, S. Bhardwaj, A. Dalal	Numerical Study of Two Dimensional Natural Convection Inside a Porous Square Cavity with Top Wall Sinusoidally Heated and Others Cooled	6th International and 43rd National Conference on Fluid Mechanics and Fluid Power 2016	2016
S. Kotoky, A. Dalal, G. Natarajan	Numerical Study of Effects of Particle Diameter and Particle Volume Fractions on Dispersed Gas-Particle Flows Through Vertical Channels	6th International Congress on Computational Mechanics and Simulation, IIT Bombay	2016
S. Bhardwaj, A. Dalal	Three-Dimensional Deformation of a Droplet on a Square Duct Wall Considering Wetting Effects	6th International Congress on Computational Mechanics and Simulation, IIT Bombay	2016
P. Borgohain, A. Dalal, H. Gadgil, G. Natarajan	Numerical Modelling of Laminar Diffusion Flames Over a Hybrid Unstructured Grid	6th International Congress on Computational Mechanics and Simulation, IIT Bombay	2016
M. Parmananda, S. Khan, A. Dalal	Numerical Simulation of Natural Convection With Radiative Heat Transfer in a Cavity	6th International Congress on Computational Mechanics and Simulation, IIT Bombay	2016
B. V. Ramanaiah, B. Manikanta, Mamilla Ravi Sankar, Manisha Malhotra, Kishor Kumar Gajrani	Experimental study of deflection and surface roughness in thin wall machining of aluminum alloy	7th International Conference of Materials Processing and Characterization (ICMPC), GRIET, Hyderabad	2017
Abhishek Singh, N. Arul Manikandan, M. Ravi Sankar, K. Pakshirajan, L. Roy	Experimental investigation and surface morphology of bio-micromachining on copper	7th International Conference of Materials Processing and Characterization (ICMPC), GRIET, Hyderabad	2017
Animesh Nandy, Debabrata Chakraborty, Mahesh S. Shah	Optimal sensors/actuators placement in Smart structure using island model parallel genetic algorithm	7th International Conference on Computational Methods (ICCM2016), UC Berkeley	2016

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
G. Bolar, S. N. Joshi	Experimental investigation on surface quality and dimensional accuracy during curvilinear thin-wall machining	7th International Conference on Materials Processing and Characterization ICMPC, MANIT Bhopal and Gokaraju Rangaraju Institute of Engineering and Technology, Hyderabad	2017
P. V. S. S. Sridhar, Pankaj Biswas, Pinakeswar Mahanta	Effect of Process Parameters on Tensile Strength of Submerged Arc Welded Austenitic Stainless Steel	AIMTDR Conference Pune	2016
P. V. S. S. Sridhar, Pankaj Biswas, Pinakeswar Mahanta	Experimental and Numerical Prediction of Thermal history in Single Sided Single pass Submerged Arc Welding of Austenitic Stainless Steel	AIMTDR Conference Pune	2016
Ramesh Kumar, Jyoti Doley, Sachin D. Kore	Finite element modeling and analysis of electro-magnetic pulse welding of aluminium tubes to steel bars	AIP Conference Proceedings	2016
Ramesh Kumar, Sachin D. Kore	Pulse Electromagnetic Cladding of Al-Tube on DP Steel Rod	All India Manufacturing Technology, Design and Research Conference (AIMTDR-2016)	2016
Nilav J. Sarmah, Anil Borah, U. S. Dixit	Analytical and Experimental Investigations on Temperature Distribution in Laser Line Heating	All India Seminar on Recent Trends in Mechanical Engineering, Institution of Engineers (India), Guwahati	2016
B. Sarma, S. Kumar, A. Dalal, D. N. Basu, A. K. Dasmahapatra, D. Bandyopadhyay	Instability and Breaking of Aqueous Droplet on a Dielectric Coated Electrode	Comflu 2016, IIT Hyderabad	2016
Ashish Kumar Rajak, Sachin D. Kore	FEM Study of Electromagnetic Wire Crimping Process	ICAMM 2016	2016
Chitrarth Prasad, Anoop K. Dass	An examination of multiplicity of steady states for two- and four-sided lid-driven cavity flows through an HOC scheme	ICCM2016, Berkeley	2016
Ashish Kumar Rajak, Ikshit Gupta, Sachin D. Kore	Finite Element Analysis of Electromagnetic Wire Crimping Using Different Types of Actuator at Constant Length	ICEM 2016	2016
Ashish Kumar Rajak, Sachin D. Kore	Electromagnetic Hemming of Aluminum Sheets using FEM	ICMMD 2016	2017
P. Kumari, A. Shakya	Two-Dimensional Solution of Piezoelectric Plate Subjected to Arbitrary Boundary Conditions using Extended Kantorovich Method	IMPLAST, IIT Delhi	2016
A. Das, B. Salunkhe, G. Bolar, S. N. Joshi	A comparative study on performance of approaches for machining of thin-wall components	In: Proceedings of 6th International & 27th All India Manufacturing Technology, Design and Research Conference AIMTDR, College of Engineering, Pune	2016
Arvind K. Agrawal, R. Ganesh Narayanan, Satish V. Kailas	End Forming Behaviour of Friction Stir Processed Aluminum Tubes at Different Tool Traverse Speeds	International Conference on Advances in Materials & Manufacturing (ICAMM-2016), Hyderabad	2016

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
S. Kirtania, D. Chakraborty	Determination of Thermoelastic Properties of Carbon Nanotube/Epoxy Composites Using Finite Element Method	International Conference on Emerging Trends in Nanoscience and Nanotechnology, SMIT, Sikkim	2017
P. Muthukumar, D. V. N. Lakshmia	Nucleation Enhancement Studies on Aqueous Salt Solutions	International Conference on Recent Advancement in Air Conditioning and Refrigeration, RAAR 2016, Bhubaneswar	2016
B. Kiran Naik, V. Choudharya, P. Muthukumar, C. Somayaji	Performance Assessment of a Counter Flow Cooling Tower – Unique Approach	International Conference on Recent Advancement in Air Conditioning and Refrigeration, RAAR 2016, Bhubaneswar	2016
B. Kiran Naik, P. Muthukumar	Empirical correlation based models for estimation of air cooled and water cooled condenser's performance	International Conference on Recent Advancement in Air Conditioning and Refrigeration, RAAR 2016, Bhubaneswar	2016
D. V. N. Lakshmia, Apurba Layek, P. Muthukumar	Performance Analysis of Trapezoidal Corrugated Solar Air Heater with Sensible Heat Storage Material.	International Conference on Recent Advancement in Air Conditioning and Refrigeration, RAAR 2016, Bhubaneswar	2016
D. Gayen, D. Chakraborty, R. Tiwari	Finite Element Analysis for Free Vibration Analysis of Functionally Graded Shaft	ISTAM 2016, VIT Vellore	2016
Rasmi Ranjan Behera, Palaganti Madhu Babu, Mahesh Yogi, Kishor Kumar Gajrani, M. Ravi Sankar	Fabrication of Micro-Channels on 304 Stainless Steel (SS-304) Using Nd:YAG Laser Beam Micro-Machining	IV International Conference on Production & Industrial Engineering (CPIE-2016), NIT Jalandhar	2016
S. Garg, S. N. Joshi, U. S. Dixit	Straightening of mechanically bent aluminium 5052 sheets using friction stir processing	IVth International Conference on Production and Industrial Engineering (CPIE-2016), Dr. B.R. Ambedkar National Institute of Technology, Jalandhar	2016
U. S. Dixit, V. Yadav, V. Sharma, P. M. Pandey, A. Roy, V. V. Silberschmidt	Estimation of cutting forces in conventional and ultrasonic-vibration assisted turning using inverse modelling	IVth International Conference on Production and Industrial Engineering (CPIE-2016), Dr. B.R. Ambedkar National Institute of Technology, Jalandhar	2016
R. Kalidasan, S. Sentilvelan, U. S. Dixit	The influence of machining parameters on surface roughness in double tool turning process	IVth International Conference on Production and Industrial Engineering (CPIE-2016), Dr. B.R. Ambedkar National Institute of Technology, Jalandhar	2016
W. G. Jiru, M. R. Sankar, U. S. Dixit	Improving acid corrosion resistance of pure aluminium by laser surface alloying with magnesium and manganese	IVth International Conference on Production and Industrial Engineering (CPIE-2016), Dr. B.R. Ambedkar National Institute of Technology, Jalandhar	2016
K. K. Gajrani, D. Ram, M. R. Sankar, U. S. Dixit, P. S. Suvin, K. Vasu	Machining of hardened AISI H-13 steel using minimum quantity indigenously developed eco-friendly cutting fluid	IVth International Conference on Production and Industrial Engineering (CPIE-2016), Dr. B.R. Ambedkar National Institute of Technology, Jalandhar	2016
Ketema Bobe Bonga, Woldetinsay Gutu Jiru, Mamilla Ravi Sankar, U. S. Dixit	Experimental investigations on advanced surface finishing of silicon carbide using continuous wave CO2 laser	IVth International Conference on Production and Industrial Engineering (CPIE-2016), Dr. B.R. Ambedkar National Institute of Technology, Jalandhar	2016

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Ramesh Kumar, Sachin D. Kore	Finite element modelling and analysis of the effect of frequency on the electromagnetic compression of tubes	Journal of Physics: Conference Series	2016
Piyush Singh, Pankaj Biswas, Sachin D. Kore	A three-dimensional fully coupled thermo-mechanical model for Self-reacting Friction Stir Welding of Aluminium AA6061 sheets	Journal of Physics: Conference Series	2016
V. Satheeshkumar, R. Ganesh Narayanan	Assessment of Formability of Adhesive Bonded Steel Sheets by Geometrical Heterogeneities	International Conference on Advances in Materials and Manufacturing (ICAMM 2017), NIFFT Ranchi	2017
N. Devarani, S. N. Joshi	Surface alloying of Ti-6Al-4V on P20 mold steel using electric discharge processing (EDP)	Materials Today Proceedings: International Conference on Emerging Trends in Materials and Manufacturing Engineering IMME	2017
Rasmi Ranjan Behera, Abshar Hasan, Sandeep Bhoi, M. Ravi Sankar, Lalit Mohan Pandey	Osteoblast Interaction with Laser Coated HA and TiO ₂ -HA Coatings on Ti-6Al-4V Alloy	National Conference on Emerging Biomaterials (NCEB-2016), Bharathiar university, Coimbatore	2016
Chandan Kr. Mondal, Arpan Kr. Mondal, Dipankar Bose, Pankaj Biswas, Swarup Bag	Effect of surface activating elements on weld bead geometry of mildsteel welds by submerged arc welding	National Welding Seminar (NWS 2016), Kolkata	2016
Nirupam Mondal, Arpan Kumar Mondal, Dipankar Bose, Pankaj Biswas, Swarup Bag	Development of a new heat source model and thermo-mechanical analysis of submerged arc welding	National Welding Seminar (NWS 2016), Kolkata	2016
P. V. S. S. Sridhar, Manish Kushwaha, Pankaj Biswas, Pinakeswar Mahanta	Experimental Investigation of Submerged Arc Welding of Austenitic Stainless Steel	National Welding Seminar, Kolkata	2016
Sachin D. Kore	Key Note Talk on Electromagnetic Manufacturing	NCARIMMIEM-2016	2016
Kishor Kumar Gajrani, M. Ravi Sankar	Past and current status of eco-friendly vegetable oil based metal cutting fluids	Procedia: Material Science	2017
Kishor Kumar Gajrani, M. Ravi Sankar	State of the art on micro to nano textured cutting tools	Procedia: Material Science	2017
P. Kumari, A. Yadav, A. Singh	Two-dimensional static analysis of composite plate subjected to arbitrary boundary conditions using extended Kantorovich method	Proceedings of ICCMS2016, IIT Bombay	2016
P. Kumari, A. Singh	Three-dimensional analytical solutions for FGM plate with varying material properties in in-plane directions using extended Kantorovich method	Proceedings of Structural Engineering convention (SEC) CSIR-SERC, Chennai	2016
Saurav Suman, Pankaj Biswas, P. V. S. S. Sridhar	Numerical prediction of welding distortion in submerged arc welded butt and fillet joints	Proceedings of the 4th International Conference on Design and Manufacturing, 2016: ICONDM, Kancheepuram	2016

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
P. Parmananda, A. Dalal, G. Natarajan	A Consistent Approach for Simulating Natural Convection with Radiative Heat Transfer in Participating Media	Proceedings of the 8th International Symposium on Radiative Transfer, Cappadocia, Turkey	2016
H. Deka, G. Biswas, A. Dalal	Formation and Penetration of a Vortex Ring on Drop Coalescence	Proceedings of the ASME 2016 International Mechanical Engineering Congress & Exposition, Phoenix, AZ, USA	2016
Kishor Kumar Gajrani, Subrat Kumar Mallick, Mamilla Ravi Sankar	Comparative Studies on Mineral Oil, Eco Friendly Bio-Cutting Fluids Treatment and their Machining Performance	Proceedings of the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB), Tezpur University	2017
Mamilla Ravi Sankar, Kishor Kumar Gajrani	Cutting Fluid Emissions and Eco-Friendly Cutting Fluid for Sustainable Machining	Proceedings of the National Conference on Sustainable Mechanical Engineering: Today and Beyond (SMETB), Tezpur University	2017
Kishor Kumar Gajrani, Subrat Kumar Mallick, Praveen Verma, M. Ravi Sankar	Bio-degradability and machining performance comparison of mineral oil and bio-cutting fluids	Recycle - 2016, International Conference on Waste Management, IIT Guwahati.	2016
Debaleena Chakraborty, D. Chakraborty, K. S. R. K. Murthy	Mode I SIF Determination of orthotropic laminates with double ended cracks using a single strain gage	Structural Integrity Conference and exhibition -SICE 2016, Bangalore	2016
S. M. Kamal, U. S. Dixit, Qiang Liu, Vadim V. Silberschmidt, Anish Roy	Thermo-elasto-plastic finite element stress analysis of thick-walled cylinder and its comparison with plane stress and plane strain analyses	WCCM XII & APCOM VI 2016 Congress, COEX, Seoul	2016

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Physics

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
S. Nayak, D. C. Joshi, P. Pramanik, M. Krautz, A. Waske and S. Thota	Structural and Magnetic properties of Cu doped Cobalt Orthotitanate	2nd International Conference on Materials Science and Technology (ICMST-2017)	2016
P. Pramanik, D. C. Joshi, S. Nayak, S Sambasivam, B. C. Choi, S. Thota	X-ray Photoelectron Spectroscopy and Optical properties of MnCo ₂ O ₄ Nanostructures	2nd International Conference on Materials Science and Technology (ICMST-2017)	2016
D. C. Joshi, S. Nayak, P. Pramanik, K. Dasari, R. Palai, Md. Qureshi, S. Thota	Compositional dependence of structural and X-ray photoelectron spectroscopic studies of Zn _{1-x} Ni _x O/NiO Two-Phase Composites	2nd International Conference on Materials Science and Technology (ICMST-2017)	2016
Ramakrishna Madaka, V. Kanneboina, Pratima Agarwal	Hydrogenated amorphous silicon solar cells on low cost photo paper	2nd International Conference on Solar Energy Photovoltaic, KIIT university, Bhubneswar	2016

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
V. Kanneboina, Ramakrishna Madaka, Pratima Agarwal	Influence of hydrogen plasma treatment on the performance of c-Si/a-Si:H heterojunction solar cells	2nd International Conference on Solar Energy Photovoltaic, KIIT university, Bhubneswar	2016
Asha Yadav, Pratima Agarwal	Laser induced selective crystallization of amorphous silicon thin film for device applications	2nd International Conference on Solar Energy Photovoltaic, KIIT university, Bhubneswar	2016
S. Thota, K. Dasari, S. Nayak, D. C. Joshi, P. Pramanik, A. Waske, T. Sarkar	Low-Temperature anomalous magnetic behavior of TiCo ₂ O ₄	5th IEEE International Conference on Microwave Magnetics	2016
S. Thota, D. C. Joshi, S. Das, S. Nayak, P. Pramanik	Effect of substrate induced strain on the structural and magnetic ordering of Pr _{0.7} Ca _{0.3} MnO ₃ /SrTiO ₃ superlattices grown by Pulsed Laser Deposition	5th International Conference on Magnetic Materials and Applications (ICMAGMA-2017)	2017
D. C. Joshi, T. Sarkar, S. Nayak, P. Pramanik, S. Das, S. Thota	Magnetic Properties of Zn _{1-x} Ni _x O/NiO two-phase Nanocomposites	5th International Conference on Magnetic Materials and Applications (ICMAGMA-2017)	2017
S. Nayak, D. C. Joshi, P. Pramanik, A. Banerjee, S. Thota	Tunable Exchange-Bias and Magnetic Compensation Temperature of Two-Phase Spinel composites of (1-x)(Co ₃ O ₄)+x(Co ₂ TiO ₄)	5th International Conference on Magnetic Materials and Applications (ICMAGMA-2017)	2017
K. Dasari, S. Nayak, D. C. Joshi, R. Palai, S. Thota	Temperature Dependence of Micro-Raman Spectroscopy of Co ₂ TiO ₄ , Co ₃ O ₄ and Their Composites	5th MRS Fall Meeting, Boston, Massachusetts	2016
Sk. Noor Nabi, Saurabh Basu	Disordered spin dependent interactions in a spinor (S=1) Bose gas: A percolation analysis	62th DAE-Solid State Physics Symposium, Amity University, Noida	2015
Srinivas Pattipaka, P. Mahesh, D. Pamu	Structural and dielectric properties of lead free Bi _{0.5} Na _{0.5} TiO ₃ ceramics	AIP Conference Proceedings	2016
P. Mahesh, D. Pamu	Raman, dielectric and AC-conductivity behaviour of Dy ₂ O ₃ contained K _{0.5} Na _{0.5} NbO ₃ ceramics	AIP Conference Proceedings	2016
Sobhit Singh, M. S. Seehra, P. Pramanik, S. Thota	Finite-Size effects in the Optical and Magnetic Properties of MnCo ₂ O ₄ Nanostructures	American Physical Society	2017
Gone Rajender, P. K. Giri	Graphene Quantum Dots and TiO ₂ Nano Hybrid for enhanced Photocatalytic Application	Annual Physics meet	2017
Ramakrishna Madaka, V. Kanneboina, Pratima Agarwal	Hydrogenated amorphous silicon solar cells on low cost photo paper and flexible substrates	Annual Physics meet, 2nd department day Physics, IIT Guwahati	2017
V. Kanneboina, Ramakrishna Madaka, Pratima Agarwal	Hydrogen plasma treatment on the performance of c-Si/a-Si:H heterojunction solar cells	Annual Physics meet, 2nd department day, Physics, IIT Guwahati	2017
Deepak Kumar, S. Jagan Mohan Rao, Gagan Kumar, Dibakar Roy Chowdhury	Displacement Induced Resonances' Tuning in Near Field Coupled Planar Terahertz Metamaterials	International conference "Frontiers of Physics and Plasma Science"	2016

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Kamal Kumar Paul, P. K. Giri	Surface Plasmon Induced Enhanced Visible Light Photocatalytic Activity of Silver Nanoparticle Decorated TiO ₂ Nanorods Heterostructure	International Conference on Emerging Trends in Nanomaterials Science & Technology (ICETNMST)	2017
Larionette P. L. Mawlong, Ravi K. Biroju, P. K. Giri	Low Temperature Raman and Photoluminescence Studies of Monolayer and Few Layer MoS ₂	International Conference on Emerging Trends in Nanomaterials Science & Technology (ICETNMST)	2017
G. Pradhan, R. Kesharwani, A. Khare, A. K. Sharma	Thickness dependent optical properties of MoS ₂ thin films probed by spectroscopic ellipsometry	International Conference on Fiber Optics and Photonics, IIT Kanpur	2016
P. K. Baruah, A. Singh, L. Rangan, A. K. Sharma, A. Khare	Comparison of surface enhanced Raman scattering of silver and copper nanoparticles on furanoflavanoid karanjin	International Conference on Fiber Optics and Photonics, IIT Kanpur	2016
Koijam Monika Devi, Amarendra K. Sarma, Gagan Kumar	Surface plasmon polariton nonlinear waves in a dielectric-metal-dielectric multilayer structure	International conference on Fiber optics and Photonics-Photonics, 2016	2016
Koushik Paul, Amarendra K. Sarma	Creation of entangled states via Transitionless Quantum Driving	International conference on Fiber optics and Photonics-Photonics, 2016	2016
Bijita Sarma, Amarendra K. Sarma	Strong antibunching in a Kerr-type optomechanical cavity	International conference on Fiber optics and Photonics-Photonics, 2016	2016
Sk. Obaidulla, Sumaiya Parveen, P. K. Giri	Study of growth dynamics of VOPc organic thin films on ITO coated glass substrate	International Conference on Functional Materials (ICFM 2016)	2016
Bipul Deka, S. Ravi, A. Perumal, D. Pamu	Study of Electric Modulus and Scaling Behavior in YFeO ₃	TECHNOVA-2016	2016
Junmoni Barman, S. Ravi	Study of Tunable Exchnage Bias Behavior on Ni(Cr1-xMnx)2O4	TECHNOVA-2016	2016
Bipul Deka, S. Ravi, A. Perumal	High temperature weak ferromagnetism in Fe doped PbTiO ₃	TECHNOVA-2016	2016
Bijita Sarma, Amarendra K. Sarma	Photon blockade in an optomechanical cavity with Kerr-type nanostructured materials	International conference on Light and Light based technologies	2016
Gyan Prakash Bharti, Alike Khare	Multiphoton absorption induced photoluminescence in AZO thin films	International Conference on Light and Light Based Technologies (ICLLT 2016), Department of Physics, Tezpur University	2016
Rahul Kesarwani, Alike Khare	Surface structural analysis of plasmonic film using power spectral density technique	International Conference on Light and Light Based Technologies (ICLLT 2016), Department of Physics, Tezpur University	2016
P. K. Baruah, A. K. Sharma, A. Khare	Effect of laser energy on silver nanoparticles produced by pulsed laser ablation in distilled water	International Conference on Light and Light based Technologies (ICLLT), Tezpur University	2016
G. Pradhan, A. K. Sharma	Optical analysis of 2D-layered molybdenum disulfide thin films	International Conference on Light and Light based Technologies (ICLLT), Tezpur University	2016

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Aakansha, Bipul Deka, S. Ravi	Magnetic and Dielectric properties of Y _{3-x} Sm _x Fe ₅ O ₁₂	International Conference on Magnetic Materials and Applications (ICMAGMA)	2017
Tribedi Bora, S. Ravi	Effect of particle size on the magnetic properties of Nd _{0.8} K _{0.2} MnO ₃	International Conference on Magnetic Materials and Applications (ICMAGMA)	2017
Pratap Behera, S. Ravi	Effect of Zn doping on structural and magnetic properties of Ba ₂ (Co _{1-x} Zn _x) ₂ Fe ₁₂ O ₂₂ hexaferrite	International Conference on Magnetic Materials and Applications (ICMAGMA)	2017
Bibhuti B. Dash, S. Ravi	Effect of Yttrium substitution on the magnetic properties of GdCrO ₃	International Conference on Magnetic Materials and Applications (ICMAGMA)	2017
Pratap Behera, S. Ravi	Investigation of crystal structure and magnetic properties of Mg doped Y-type barium hexaferrite	International Conference on Material Science (ICMS)	2017
Bibhuti B. Dash, S. Ravi	Study of magnetization reversal in SmCr _{0.85} Mn _{0.15} O ₃	International Conference on Material Science (ICMS)	2017
Junmoni Barman, S. Ravi	Study of Exchange Bias effect in Ni(Cr _{0.85} Al _{0.15}) ₂ O ₄	International Conference on Materials Science and Technology (ICMST)	2016
Pratap Behera, S. Ravi	Effect of Al-substitution on structural and magnetic properties of barium hexaferrite	International Conference on Materials Science and Technology (ICMST)	2016
G. Pradhan, A. K. Sharma	2D Layered MoS ₂ Films Growth via Pulsed Laser Deposition Technique	International Conference on Nanomaterials and Nanotechnology (ICNANO-2017)	2017
S. Nayak, D. C. Joshi, P. Pramanik, S. Thota	Synthesis and Characterization of MgCo ₂ O ₄ Nanorods for Fuel Cell Applications	International Conference on Nanomaterials and Nanotechnology (ICNANO-2017)	2017
P. Pramanik, S. K. Singh, R. Soni, D. C. Joshi, S. Nayak, S. Thota	Quantum-size effects in MnCo ₂ O ₄ Nanocrystals	International Conference on Nanomaterials and Nanotechnology (ICNANO-2017)	2017
R. Soni, R. George, D. C. Joshi, P. Pramanik, S. Nayak, S. Thota	Mott Variable-Range Hopping Conduction Mechanism in Ferroelectric KNbO ₃ -NiO	International Conference on Nanomaterials and Nanotechnology (ICNANO-2017)	2017
R. George, R. Soni, D. C. Joshi, P. Pramanik, S. Nayak, S. Pittala, S. Thota	A dynamical study of lead-free KNaNbO ₃ -MnO ₂	International Conference on Nanomaterials and Nanotechnology (ICNANO-2017)	2017
Aakansha, Bipul Deka, S. Ravi	Study of Dielectric Relaxation of Y ₃ Fe ₅ O ₁₂ above Room Temperature	International Conference on Technologically Advanced materials and Asian Meeting on Ferroelectricity (ICTAM-AMF)	2016
Deepak Kumar, S. Jagan Mohan Rao, Gagan Kumar, Dibakar Roy Chowdhury	Modulating the Fundamental Resonances in Near Field Coupled Planar Terahertz Metamaterials	International conference Photonics-2016	2016
Maidul Islam, Dibakar Roy Chowdhury, Gagan Kumar	Terahertz guided mode propagation in a planar plasmonic waveguide and slow light properties	International conference Photonics-2016	2016
S. Chattopadhyay, S. B. Santra	Disorder induced hysteresis in diluted kinetic Ising model	JPCS	2016

Conference Papers

Physics

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Bipul Deka, S. Ravi	Positive temperature coefficient of coercivity and resistivity in Fe doped PbTiO ₃ ceramics	National Conference in Advances in Material Science	2017
Junmoni Barman, S. Ravi	Study of Magnetic Compensation Behavior in Mn(Cr _{1-x} Fe _x) ₂ O ₄	National Conference in Advances in Material Science	2017
Bibhuti B. Dash, S. Ravi	Study of structural and magnetic properties of Mn substituted GdCrO ₃	National Conference in Advances in Material Science	2017
Joydip Ghosh, Ramesh Ghosh, P. K. Giri	Fluorescence Quenching Based Glucose Sensing By Al Doped ZnO Thin Films	National Conference on Nanoscience and Nanotechnology-16 (NCRANNT-2016)	2016
Ruma Das, R. Ghosh, P. K. Giri	Effect of Ball Milling on the Photophysical Properties of Nanodiamond	National Conference on Nanoscience and Nanotechnology-16 (NCRANNT-2016)	2016
N. Somorjit Singh, H. B. Nemade, P. K. Giri	Synthesis and Characterization of Reduced Graphene Oxide	National Conference on Nanoscience and Nanotechnology-16 (NCRANNT-2016)	2016
Larionette P. L. Mawlong, Ravi K. Biroju, P. K. Giri	The Effect of Rapid Thermal Annealing on the Two Dimensional MoS ₂ Layers Grown By Chemical Vapour Deposition	National Conference on Nanoscience and Nanotechnology-16 (NCRANNT-2016)	2016
D. C. Joshi, S. Nayak, P. Pramanik, R. George, R. Soni, K. Dasari, S. Thota	X-ray Photoelectron Spectroscopic Studies of Na Doped NiO	National Seminar on Advances In Material Science	2017
S. Nayak, J. Dhillon, S. K. Deshpande, D. C. Joshi, P. Pramanik, R. George, S. Thota	Dynamic ac-Conductivity Studies of Cobalt-Orthotitanate	National Seminar on Advances In Material Science	2017
R. George, R. Soni, D. C. Joshi, S. Nayak, P. Pramanik, S. Ghosh, S. Thota	Thermal Hysteresis in NaNbO ₃ -NiO Two-Phase Composites	National Seminar on Advances In Material Science	2017
R. Soni, D. C. Joshi, S. Nayak, P. Pramanik, R. George, S. Ghosh, S. Thota	On the nature of diffused first-order phase transition in NaNbO ₃ -MnO ₂ two-phase composites	National Seminar on Advances In Material Science	2017
P. Pramanik, S. Ghosh, D. C. Joshi, S. Nayak, S. Thota	Structural, Magnetic, Micro-Raman and Electron Spin Resonance Studies of MnCo ₂ O ₄ Bulk and Nanostructures	National Seminar on Advances In Material Science	2017
Asha Yadav, Pratima Agarwal	Visible photoluminescence in nc-Si:H/a-Si:H superlattice structures prepared by PECVD technique	NCRANNT - 2016, North Eastern Hill University, Shillong, India	2016
Pilik Basumatary, Pratima Agarwal	Study of compact TiO ₂ layer for Perovskite solar cell	NCRANNT - 2016, North Eastern Hill University, Shillong, India	2016
S. Bhattacharya, B. Melić, J. Wudka	Pion-like dark matter	Nucl. Part. Phys. Proc.	2016

Conference Papers

Physics

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Rahul Kesarwani, Harsh Chaturvedi, Alike Khare	Plasmonic interaction between copper nanoparticles and metallic single walled carbon nanotubes	Photonics-2016, International Conference on Fiber Optics and Photonics, IIT Kanpur	2016
Eshita Mal, Alike Khare	Studies on Laser produced Tungsten Plasma using LIBS	Photonics-2016, International Conference on Fiber Optics and Photonics, IIT Kanpur	2016
Sasmita Behera, Alike Khare	Characterization of Alpha-Al ₂ O ₃ sapphire thin film fabricated by Pulsed Laser Deposition	Photonics-2016, International Conference on Fiber Optics and Photonics, IIT Kanpur	2016
A. Manjari Padhan, M. Satish, P. Saravanan, Perumal Alagarsamy	Dynamics of mechanical activation on aluminothermic reduction process and magnetic properties of NiO powders	Proceeding of International Conference on Magnetic Materials and Applications	2017
Camelia Das, Perumal Alagarsamy	Tuning the magnetic properties of stripe domain structured CoFeB films using stack structure with spacer layer thickness dependent interlayer coupling	Proceeding of International Conference on Magnetic Materials and Applications	2017
Amol Nande, Patta Ravikumar, A. Perumal	Effect of Oxidation on the Structural, Vibrational, Magnetic and Electrical Properties of Fe Thin Films	Proceedings of DAE Symposium	2016
Nitin Yadav, B. Bhuyan et al.	Cosmic Muon induced EM showers in NovA Detector	Proceedings of Science (ICHEP 2016)	2017
Kamal Nath, B. Bhuyan et al.	Recent results on charmless B ₀ and B ₀ s decays from Belle	Proceedings of Science (ICHEP 2016)	2017
Samit Kumar Gupta, Amarendra K. Sarma	Dynamics of interactions of two Peregrine solitons in the continuous Schrödinger system with parity-time (PT)-symmetric nonlinearity	Progress in Quantum Physics with Non-Hermitian Operators (PHHQ16)	2016
Ramesh Ghosh, P. K. Giri	Silver Nanoparticle Decorated Silicon Nanowires for Diverse Range of Applications	Recent Advances in Nanoscience and Nanotechnology (NCRANNT-2016)	2016
Kamal Kumar Paul, P. K. Giri	Enhanced Visible Light Absorption and Photocatalytic Activity of Pd Nanoparticle Decorated CuO/TiO ₂ Nanobelts Heterostructure	Recent Advances in Nanoscience and Nanotechnology (NCRANNT-2016)	2016
Gyan Prakash Bharti, Alike Khare	Efficient near band edge photoluminescence in Zn 1-xAl xO thin films	Research Conclave -2017, Indian Institute of Technology Guwahati	2017
Rahul Kesarwani, Partha Pritam Dey, Alike Khare	Spectroscopic Ellipsometry studies of PLD Si thin film	Research Conclave -2017, Indian Institute of Technology Guwahati	2017
P. K. Baruah, K. S. Singh, S. Goswami, E. Mal, A. K. Sharma, A. Khare	Application of laser induced breakdown for nanoparticle synthesis and as a powerful spectroscopic technique	Research Conclave -2017, Indian Institute of Technology Guwahati	2017
Gone Rajender, P. K. Giri	Study of Graphene Quantum Dot-TiO ₂ Nanoparticle Heterojunction and the Interfacial Charge Transfer for Visible light Photocatalytic Application	Research Conclave, 2017	2017

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Physics

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Junmoni Barman, S. Ravi	Sign Reversal of Magnetization and Exchange Bias Field in Ni(Cr _{1-x} Fe _x) ₂ O ₄ (x = 0.30 & 0.40)	Research Conclave, 2017	2017
R. Soni, R. George, D. C. Joshi, P. Pramanik, S. Nayak, S. Ghosh, S. Thota	Lead-free Ferroelectric KNbO ₃ -NiO Two Phase Composite	Research Conclave, 2017	2017
R. George, D. C. Joshi, R. Soni, P. Pramanik, S. Nayak, S. Thota	Dielectric Behavior of lead-free Ferroelectric NaNbO ₃ -NiO Two phase Composite	Research Conclave, 2017	2017
Ramakrishna Madaka, V. Kanneboina, Pratima Agarwal	Hydrogenated amorphous silicon (a-Si:H) thin film solar cells on flexible substrates	Research Conclave-2017, IIT Guwahati, Guwahati, India	2017
V. Kanneboina, Ramakrishna Madaka, Pratima Agarwal	Influence of hydrogen plasma treatment on the performance of c-Si/a-Si:H heterojunction solar cells	Research Conclave-2017, IIT Guwahati, Guwahati, India	2017
Satendra Kumar, P. Poulouse	Influence of Anomalous VVh and VVhh on Determination of Higgs Self-coupling	Springer Proc. Phys.	2016
Deepanjali Goswami, Poulouse Poulouse	Identification of Type-III Seesaw Fermionic Triplet at the International Linear Collider	Springer Proc. Phys.	2016
Ramakrishna Madaka, Pilik Basumatary, Pratima Agarwal	Study of Morphological Evolution In Hydrogenated Amorphous Silicon (a-Si:H) Thin Films By Atomic Force Microscopy	UGC-SAP (DRS II) sponsored National Conference on Hard and Soft Condensed Matter Physics, Tezpur university	2017
Ramakrishna Madaka, Y. Asha, V. Kanneboina, Pilik Basumatary, Pratima Agarwal	Evolution of nanostructure in hydrogenated amorphous silicon thin films with substrate temperature studied by Raman mapping, Raman scattering and spectroscopic ellipsometry	UGC-SAP (DRSIII) sponsored National Seminar on Advanced Materials Science, Gauhati University	2017
Pilik Basumatary, Pratima Agarwal	Synthesis of uniform MAPbI ₃ thin film for large area Perovskite solar cells using thermal evaporation	UGC-SAP (DRSIII) sponsored National Seminar on Advanced Materials Science, Gauhati University	2017
Junmoni Barman, S. Ravi	Sign Reversal of Magnetization and Exchange Bias Field near Room Temperature	Xth National Conference of Physics Academy of North East (PANE)	2016
Sk. Noor Nabi, Saurabh Basu	Disorder, three body interaction and Bose glass phase in a spinor atomic gas	XXVII IUPAP Conference on Computational Physics (CCP2015), IIT Guwahati	2016
Sk. Noor Nabi, Saurabh Basu	Three body interaction effects on the phase diagram of spinor bosons	XXVII IUPAP Conference on Computational Physics (CCP2015), IIT Guwahati	2016
Sudin Ganguly, Saurabh Basu	Spin dependent disorder in a junction device with spin orbit couplings	XXVII IUPAP Conference on Computational Physics (CCP2015), IIT Guwahati	2015
Sunayana Dutta, Saurabh Basu	Condensate characteristics of bosons in a tilted optical lattice	XXVII IUPAP Conference on Computational Physics (CCP2015), IIT Guwahati	2015

Conference Papers

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
A. J. Borah, S. Singh, A. Goyal, V. S. Moholkar	An assessment of invasive weeds as multiple feedstocks for biofuels production	24th European Biomass Conference and Exhibition, Amsterdam	2016
S. Bera, A. S. Roy, D. Das, K. Mohanty	Optimisation of phenol degradation by a native mixed bacterial culture isolated from crude oil contaminated sites in Assam	57th Annual Conference of Association of Microbiologists of India (AMI2016) & International Symposium on Microbes and Biosphere, What's New and What's Next	2016
A. J. Borah, A. Singh, M. Agarwal, A. Goyal, V. S. Moholkar	Comparative insight of ultrasound induced enhancement of enzymatic hydrolysis of invasive biomass species with mechanistic model and its study	Asia Pacific congress on catalysis, Mumbai	2017
A. J. Borah, R. Malani, A. Goyal, V. S. Moholkar	Kinetic modelling of dilute acid hydrolysis of various weedy invasive species as feedstock for biofuel production	Asia Pacific congress on catalysis, Mumbai	2017
S. Kaushik, P. Goswami	Development of cyanobacterial biofilm for biofuel cell applications using chitosan as biofilm inducing biomaterial	CHEMCON 2015 Proceedings	-
J. R. Pati, P. Mahanta, J. De Wilde	Experimental and Compare Study of Wheat Drying in Rotating Fluidized Bed in a Static Geometry (RFB-SG) and Conventional Bubbling Fluidized Bed (BFB) Dryer	ETAE, IIT Kharagpur	2016
A. Yadav, P. Agarwal	Laser induced selective crystallization of amorphous silicon thin film for device applications	ICSEP-2016, KIIT Bhubneswar	2016
A. J. Borah, S. Sarma, R. Malani, A. Goyal, V. S. Moholkar	An assessment of various feedstock of invasive and noxious weeds as a potent candidate for bioethanol production	International Conference on Current Trends in Biotechnology, VIT University, Vellore, Tamil Nadu	2016
A. J. Chaudhari, V. Kulkarni, N. Sahoo	Raw Biogas as a Future Fuel for I.C.Engines- A Socio-Economic Development Route for Farmers in INDIA	International Conference on Emerging technologies in Agricultural Engineering, IIT Kharagpur	2016
P. Kalita, D. Das, H. Pathak	Investigation of water depth effect on distillate production	International Conference on Energy Efficient Technologies for Sustainability (ICEETS)	2016
R. Kesarwani, H. Chaturvedi, A. Khare	Plasmonic interaction between copper nanoparticles and metallic single walled carbon nanotubes	International Conference on Fibre Optics and Photonics, Kanpur	2016
P. Kalita, D. Das	Performance improvement of a novel flat plate photovoltaic thermal system using copper oxide nanoparticle- water as coolant	International conference on Nano for Energy and Water & Indo-French Workshop on Water Networking, University of Petroleum and Energy Studies (UPES), Dehradun	2017
S. Kaushik, P. Goswami,	CdTe quantum dots decorated silk fibroin with graphene blend, enhances light to current conversion efficiency of Synechococcus sp. biofilm grown on graphite anode in photo-microbial fuel cell (oral presentation)	IUMRS-International Conference of Young Researchers on Advanced Materials (IUMRS-ICYRAM 2016) IISc Bangalore	2016
P. Das, P. Goswami	Fuel cell based methanol biosensor using biocompatible graphite conductive ink on paper surface	IUMRS-International Conference of Young Researchers on Advanced Materials (IUMRS-ICYRAM 2016) IISc Bangalore	2016

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
M. K. Sarma, M. G. A. Quadir, R. Bhaduri, P. Goswami,	Synechococcus BDU 140432 as anodic biocatalyst on polyaniline-polypyrrole copolymer coated electrodes for biofuel cell applications	IUMRS-International Conference of Young Researchers on Advanced Materials (IUMRS-ICYRAM 2016) IISc Bangalore	2016
R. Malani, S. Pradhan, V. S. Moholkar, A. Goyal	Ultrasound-Assisted interesterification of waste cooking oil with heterogeneous catalyst	National Conference on Large Scale Multi-disciplinary systems of national Significance – Trends and Challenges, SHAR, ISRO, Srijharikota, Andhra Pradesh	2016
A. Yadav, P. Agarwal	Visible photoluminescence in nc-Si:H/a-Si:H superlattice structures prepared by PECVD technique	NCRANNT – 2016, NEHU	2016
P. Basumatary, P. Agarwal	Study of compact TiO ₂ layer for Perovskite solar cell	NCRANNT – 2016, NEHU	2016
A. Yadav, P. Agarwal	Study of photoluminescence in a-Si:H/nc-Si:H multilayer structures prepared by rf-PECVD technique	NSAMS-2017 Gauhati University	2017
P. Basumatary, P. Agarwal	Synthesis of uniform MAPbI ₃ thin film for large area Perovskite solar cells using thermal evaporation	NSAMS-2017 Gauhati University	2017
J. Kumari, V. Ghritlahre, S. Bhardwaj, P. Agarwal	Review on recent advancement in 2D Transition Metal Dichalcogeniides (MoSe ₂ , MoS ₂ , WS ₂)	Research Conclave-2017, IIT Guwahati	2017
A. Yadav, P. Basumatary, J. Kumari, V. Ghritlahre, S. Bhardwaj, P. Agarwal	Research activities in Solar Energy Lab	Research Conclave-2017, IIT Guwahati	2017

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
N. N. Deshavath, S. K. Sahoo, M. M. Panda, S. Mahanta, D. S. N. Goutham, V. V. Goud, V. V. Dasu, Annapurna Jetty	The cost effective stirred tank reactor for cellulase production from alkaline pretreated agriculture waste biomass.	6th int. conference on solid waste management (6thIconSWM 2016), Jadavpur University, Kolkata	2016
Poulami Datta, Sakshi Tiwari, Lalit M. Pandey	Bioethanol Production from Waste Breads Using Saccharomyces cerevisiae	6th Int. Conference on Solid Waste Management "ISWMAW" 2016	2016
Ch. V. Rao, R. K. Das, S. R. Dash, S. Saha, P. Ghosh, A. K. Golder	A biological route of AgNPs synthesis: Size control and functionality	GIFU-IITG Joint Symposium on Food Engineering, Biotechnology, Biomaterials and Renewable Energy-2016, GIFU University, GIFU, Japan	2016
Ch. V. Rao, R. K. Das, S. R. Dash, S. Saha, P. Ghosh, A. K. Golder	A bio-mediated route of AgNPs synthesis and photocatalyst activation	IITG-KIT Joint Symposium on Soft and Biobased Materials-2016, Kyoto Institute of Technology, Japan	2016

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Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
S. Chanda, G. Das, M. K. Purkait	Formulation of herbal cosmeceuticals&neutraceuticals from Assam green tea leaves	IITG-TIC innovation competition, IIT Guwahati	2016
L. Goswami, R. Vinoth Kumar, K. Pakshirajan, G. Pugazhenth	An integrated batch biodegradation-microfiltration system for industrial wastewater treatment and biodiesel production using Rhodococcus opacus	Int. Conf. on Recent Advancements in Chemical, Environmental & Energy Engineering, , organized by Dept of Chemical Engineering, S. S. N. College of Engineering, Chennai	2017
L. Goswami, R. Vinoth Kumar, K. Pakshirajan, G. Pugazhenth	Industrial wastewater treatment using an indigenously built lost-cost ceramic membrane: Performance evaluation and mechanism.	Int. Conference on Membrane Technology and its Applications, organized by Deptt of Chemical Engineering, NIT Tiruchirappalli	2017
L. Goswami, K. Pakshirajan, G. Pugazhenth	Simultaneous lipid accumulation and carotenoid production by oleaginous Rhodococcus opacus using biomass gasification wastewater in a batch stirred tank reactor.	Int. symposium on Microbes and Biosphere: What's New What's Next, Gauhati University	2016
N. N. Deshavath, V. V. Dasu, V. V. Goud	Effect of particle size on lignocellulosic biomass conversion into fermentable sugars for the production of bioethanol.	Int. Conference on Nano for Energy and Water (NEW) & Indo French Workshop on Water Networking, Dehradun	2017
Poulami Datta, Sakshi Tiwari, Niteesh Kumar, Lalit M. Pandey	Enzymatic Hydrolysis of Waste Breads Using Saccharomyces cerevisiae and Subsequently Bioethanol Production	Int. Conference on Waste Management (Recycle 2016)	2016
Sakshi Tiwari, Poulami Datta, Lalit M. Pandey	Bioremediation of heavy metal (Lead) through bio-sorption using a novel adsorbent	Nat. Conference on Recent Advancements in Environmental Research 2016	2016
Viswa B. Barua, Ajay Kalamdhad	Effect of microwave pretreatment on the hydrolysis of water hyacinth.	Nat. Conference on Recent Advancements in Environmental Research held at IIT Guwahati	2016
Papu Kr. Naik, Sandip Paul, Tamal Banerjee	Seperation of aromatic hydrocarbon from diesel oil using deep eutectic solvent	Nat. conference on Recent Advancements in Environmental Research, IIT Guwahati	2016
L. Goswami, K. Pakshirajan, G. Pugazhenth	Optimization of fatty acid methyl esters production from Rhodococcus opacus utilizing anthracene as the sole carbon source in a batch stirred tank reactor.	Nat. Seminar on Petroleum Biotechnology and Bioenergy, organized by Dept. of MBBT and Dept. of Energy, Tezpur University	2017
L. Goswami, K. Pakshirajan, G. Pugazhenth	Biomass gasification effluent derived biochar for simultaneous lipid accumulation and anthracene biodegradation by Rhodococcus opacus	National conf. on Solid waste management, Dept. of Economics, T. H. B. College, at Tyagbir Hem Baruah College, Jamugurihat, Assam	2016
Tanushree Paul, Arun Goyal	Molecular cloning, expression and purification of a recombinant GlycosideHydrolase family (GH10) xylanase from Pedobactersaltans DSM 12145	National Conference on "Recent Advancements in Environmental Research 2016", IIT Guwahati	2016
L. Goswami, R. Vinoth Kumar, K. Pakshirajan, G. Pugazhenth	Batch biodegradation of polycyclic aromatic hydrocarbons (PAHs) in mixture using Rhodococcus opacus.	National conference on Recent advancement in Environmental research	2016
Viswa B. Barua, Ajay Kalamdhad	Effect of hot air oven pretreatment on the hydrolysis of water hyacinth	RECYCLE- International Conference on Waste Management, 2016, IIT Guwahati	2016

Conference Papers**Centre for the Environment**

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
U. Jayakrishnan, Deepmoni Deka, Gopal Das	Wastewater as feedstock for production of biodegradable plastics	RECYCLE- International Conference on Waste Management, 2016, IIT Guwahati	2016
S. Chanda, G. Das, M. K. Purkait	Magnetically responsive carbon based adsorbent for removal of congo red	Recycle-2016: Int. conference on waste management, IIT Guwahati	2016
Poulami Datta, Pankaj Tiwari, Lalit M. Pandey	Understanding The Role Of Biosurfactants In MEOR Application To Assam Oil Fields	Reflux 2017	2017
U. Jayakrishnan, D. Deka, G. Das	Acidogenic potential of biogas plant sludge	Research Conclave 2017	2017
Papu Kr. Naik, Mood Mohan, Tamal Banerjee, V. V. Goud	Experimental and Qunatum calculations for the dissolution of cellulose/hemicellulose in ionic liquids	Workshop on introduction to Gaussian: Theory and Practice, New Delhi	2017

Conference Papers**Centre for Nanotechnology**

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Anamika Dey, Ashish Singh, Anamika Kalita, Dipjyoti Das, Parameswar K. Iyer	High Performance, Low Operating Voltage n-Type Organic Field Effect Transistor Based on Inorganic- Organic Bilayer Dielectric System	Journal of Physics: Conference Series	2016

Conference Papers**Centre for Rural Technology**

Authors	Paper Title	Name of Conference/ Workshop/ Seminar/ Symposia Proceedings	Year
Biswanath Saha, A. S. Kalamdhad	Review paper on Partheniumhysterophorous	Research conclave, 2017	2017
Biswanath Saha, A. S. Kalamdhad	Awarness on Partheniumhysterophorous	Reflux, 2017	2017
Bibhuti Ranjan Bhattacharjya, Sashindra Kr. Kakoty	Designing Integrated Education for Promotion of Innovation and Entrepreneurship	World Youth Conference 2016, organized by International Youth Committee at Vigyan Bhawan	2016

Book

Name of Author	Name of Book	Publisher	Vol.	Page	ISBN	Year
Biosciences and Bioengineering						
Satinder Kaur Brar, Saurabh Jyoti Sarma, Kannan Pakshirajan	Platform Chemical Biorefinery: Future Green Industry	Elsevier		528	9780128029800	2016
Chemical Engineering						
Subrata Kumar Majumder	Hydrodynamics and transport processes of inverse bubbly flow	Elsevier		462	9780128032879	2016
Tamal Banerjee	Phase Equilibria in Ionic Liquid Facilitated Liquid Liquid Extractions	CRC Press		250	9781498769488	2017
Civil Engineering						
A. K. Sarma, V. P. Singh, S. A. Kartha, R. K. Bhattacharjya	Urban Hydrology, Watershed Management and Socio-Economic Aspect	Springer		369	9783319401959	2016
M. N. Rao, Razia Sultana, Sri Harsha Kota	Solid and Hazardous Waste Management: Science and Engineering	Elsevier				2016
Manish Kumar Goyal	Engineering Hydrology	PHI Learning Pvt. Ltd.		356	9788120352438	2016
Electronics and Electrical Engineering						
Rakhesh Singh Kshetrimayum	Fundamentals of MIMO Wireless Communications	Cambridge University Press		348	9781108415699	2017
Mathematics						
Arup Chattopadhyay, Kalyan B. Sinha	Geometric Methods in Physics (Trends in Mathematics)	Springer International Publishing, Birkhauser		12	9783319317564	2016
Mechanical Engineering						
U. S. Dixit, M. Hazarika, J. P. Davim	A Brief History of Mechanical Engineering	Springer, Switzerland				2017

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Biosciences and Bioengineering						
Y. P. Singh, S. Mehrotra, J. P. Kumar, B. K. Bhunia, N. Bhardwaj, Biman B. Mandal	Tissue Engineering Therapies for Ocular Regeneration	Biomaterials & Nanotechnology for Tissue Engineering	CRC Press (Taylor and Francis Group)	173-210	9781498743730	2017
C. S. Krishna Murthy, Biman B. Mandal	Biomaterials based on natural and synthetic polymer fibers	Trends in biomaterials	Pan Stanford Publishing	121-157	9789814613989	2016
P. Mullai, M. K. Yogeswari, S. Vishali, M. M. Tejas Nambodiri, B. D. Gebrewold, E. R. Rene, K. Paksirajan	Aerobic treatment of effluents from textile industries	Current Developments in Biotechnology and Bioengineering	Elsevier	3-27	9780444636638	2016
A. Sinha Roy, A. Chingkheihunba, K. Pakshirajan	An overview of production, properties and uses of biodiesel from vegetable oil	Green Fuels Technology	Springer International Publishing	83-105	9783319302034	2016
R. Vinoth Kumar, K. Pakshirajan, G. Pugazhenth	Petroleum versus biorefinery based platform chemicals	Platform Chemical Biorefinery: Future Green Industry	Elsevier	33-53	9780128029800	2016
R. Vinoth Kumar, K. Pakshirajan, G. Pugazhenth	Malic and succinic acid – potential C4 platform chemicals for polymer and biodegradable plastic production	Platform Chemical Biorefinery: Future Green Industry	Elsevier	159-179	9780128029800	2016
N. Arul Manikandan, R. Vinoth Kumar, G. Pugazhenth, K. Pakshirajan	Biorefinery and possible deforestation	Platform Chemical Biorefinery: Future Green Industry	Elsevier	307-322	9780128029800	2016
S. P. Kanaujia	Understanding the toxic metal binding proteins and peptides in	Metal-Microbe Interactions and Bioremediation: Principles and Applications for Toxic Metals	CRC Press, Taylor & Francis Group		9781498762427	2017
Ritesh S. Malani, Arun Goyal, Vijayanand S. Moholkar	Ultrasound-Assisted Biodiesel Synthesis: A Mechanistic Insight	Biofuels, Technology, challenges and Prospects	Springer	103-135	9789811037900	2017
S. G. Gupta, A. B. Kunnumakkara, B. B. Aggarwal	Curcumin, the Holistic Aven-Grade	In Innovative Approaches in Drug Discovery	Elsevier	343-349		2016

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Name of Author/s	Name of Chapter/Paper	Name of Book	Publisher	Page	ISBN	Year
Chemical Engineering						
Ali Shemsedin Reshad, Pankaj Tiwari, Vaibhav V. Goud	Production of Biodiesel from Renewable Resources	Biofuels: Production and Future Perspectives	CRC Press		9781498723596	2016
Manjunath Reddy, Pankaj Tiwari	Petroleum reservoir simulation of two-phase flow	Fluid Mechanics and Fluid Power - Contemporary Research	Springer		9788132227410	2016
Prasanna Venkatesh R.	Contamination removal from UV and EUV photomasks	Developments in Surface contamination and surface cleaning	Elsevier	135-174	9780323431576	2016
R. Vinoth Kumar, Kannan Pakshirajan, G. Pugazhenth	Petroleum versus biorefinery based platform chemicals	Platform Chemical Biorefinery: Future Green Industry	Elsevier	33 - 53	9780128029800	2016
R. Vinoth Kumar, Kannan. Pakshirajan, G. Pugazhenth	Malic and succinic acid potential C4 platform chemicals for polymer and biodegradable plastic production	Platform Chemical Biorefinery: Future Green Industry	Elsevier	159-79	9780128029800	2016
Mahboob Alam, Santosh K. Yedla, Sandup Tshering Bhutia, Vaibhav V. Goud, Nageswara Rao Peela	Advancement in development of biodiesel production in last two decades: an Indian overview on raw materials, synthesis, byproducts and application	Sustainable Biofuels Development in India	Springer International Publishing			2017
Ritesh S. Malani, Arun Goyal, V. S. Moholkar	Ultrasound-Assisted Biodiesel Synthesis: A Mechanistic Insight. In Biofuels: technology, challenges and prospects	Green energy and technology series	Springer Science + Business Media, Singapore (2017)	103-135		2017
Chemistry						
S. Sarkar, A. Banerjee, B. K. Patel	Transition Metal Catalyzed Synthesis of Heterocycles					
Via Multicomponent Reactions	Multicomponent Reactions: Synthesis of Bioactive Heterocycles	Taylor and Francis		139-181	9781498734127	2017
Civil Engineering						
A. K. Sarma, Vijay P. Singh	Handbook of Applied Hydrology Second Edition	Brahmaputra River Basin	McGraw-Hill Professional	105-1-105-6	978071835091	2016

Name of Author/s	Name of Chapter/Paper	Name of Book	Publisher	Page	ISBN	Year
M. Debnath, C. Mahanta, A. K. Sarma	Fertilizers Input and Corresponding Changes in Plant Nutrient Availability in a Rice Cultivated Soil Of Assam, India, Precision Farming and Resource Management	Precision Farming and Resource Management	Excel India Publishers	351-359	9789386256294	2016
Bandita Barman, Bimlesh Kumar, A. K. Sarma	Experimental study on mining pit migration	Development of water resources in India	Springer		9783319551241	2017
Archana M. Nair, Lekshmi Mohanlal, C. R. Ayishath Nabeela, T. D. Aneesh, Reji Srinivas	Study on the Impact of Land use changes on urban hydrology of Cochin, Kerala	Urban Hydrology, Watershed Management and Socio-Economic Aspects	Springer/ Water Sci., Technol Library	69-82		2016
S. B. Reddy, A. M. Krishna, A. Ch. Borsaikia	Feasibility Study of Retaining Walls Backfilled with Sand-Tire Chip Mixtures	Geoenvironmental Practices and Sustainability	Springer Nature Singapore Pvt. Ltd.		9789811040764	2017
B. Chaudhary, H. Hazarika, A. M. Krishna	Effect of Backfill Reinforcement on Retaining Wall Under Dynamic Loading	Geotechnical Hazards from Large Earthquakes and Heavy Rainfalls	Springer, Tokyo	535-544	9784431562054	2017
S. B. Reddy, A. M. Krishna	Sand - Tire Chips Mixtures for Sustainable Geo-engineering Applications	Sustainability Issues in Civil Engineering	Springer	223-241	9789811019289	2017
Goyal Manish Kumar, C. S. P. Ojha, Rao Y. Surampalli, A. Choudhury	Adapting to Climate Change: Water Management Strategy	Green Technologies for Sustainable Water Management	American Society Civil Engineers		9780784414422	2016
A. Dey, M. C. Koch	Numerical study of the impact of pile driving on the position of the neutral plane	Geotechnical Special Publication GSP 279	American Society of Civil Engineers	101-111	9780784480465	2017
Computer Science and Engineering						
Biswanath Dey, S. Chakraborty, S. Nandi	Optimal Cluster Head Positioning in Heterogeneous Sensor Networks	Soft Computing Applications in Sensor Networks, Editors Sudip Misra, Shankar K. Pal	CRC Press	153-167	9781482298758	2016
Design						
Subir Day, Prasad Bokil	Look at that Sound! - Visual Representation of Sound in Indian Comics,	Research into Design for Communities, Volume 2	Springer Nature	821-832	9789811035203	2017
Subhajit Chandra, Prasad Bokil, D. Udaya Kumar	Legibility: Same for All Scripts!	Research into Design for Communities, Volume 2	Springer Nature	833-844	9789811035203	2017

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Name of Author/s	Name of Chapter/Paper	Name of Book	Publisher	Page	ISBN	Year
Pratul Ch. Kalita	Application of Cloud Computing, MS Excel and Google Docs for Effective Supply Chain Management in MSMEs	Agricultural Marketing Systems in India: A comprehensive exploration with Manufacturing and Services Sector	Biotech Books	101-113	9788176223614	2016
Electronics and Electrical Engineering						
Shashi Kumar, Yuji Iwahori, M. K. Bhuyan	PCB Defect Classification Using Logical Combination of Segmented Copper and Non-copper Part	Advances in Intelligent Systems and Computing	Springer LNCS	523-532		2016
Humanities and Social Sciences						
Debarshi Das	Agricultural Investment in India in Recent Decades: A Political Economic Note of Its Causes and Consequences	Economic Challenges for the Contemporary World: Essays in Honour of Prabhat Patnaik	Sage Publishing	286-299	9351508781	2016
Archana Barua	Pandit-prabar Vijay Krishna Deva Sarma Devar Boronia Vyaktitvat Sraddha reebhumuki	Dr. Vijaykrishna Devasarma: Praññ pathikrit	Asom Sahitya Sabha	62-67		2016
Debapriya Basu	All Things Done Unto Edifying: Anne Dowriche and the Play of History	Disnarration: The Unsaid Matters	Orient Blackswan	54-68	9788125062387	2016
Indraneel Dutta, Rajshree Bedamatta	Literacy and Education	Assam Human Development Report 2014	Government of Assam	70-89		2016
U. Saikia, J. Chalmers, G. Dasverma, J. Baruah, R. Bedamatta, A. Barua	Subjective Well-being	Assam Human Development Report 2014	Government of Assam	164-181		2016
Rohini Mokashi Puneekar, Rajashree Borgohain	Modern Quests, Ancient Lore: Reading Poetry in English from Northeast India	Emergent Identities Literature	Headword			2016
Mrinal Kanti Dutta, Ira Das	Economic performance of the north-eastern region in the post-liberalisation period	Rethinking Economic Development in Northeast India: The Emerging Dynamics	Routledge	50-68	9781138201781	2017
Hiranya K. Nath, Raju Mandal	Services Trade in Emerging Market Economies	Business Analytics and Cyber Security Management in Organizations	IGI Global	64-83	9781522509028	2016
Dibya Jyoti Borah, Liza Das	Who Speaks, Who listens? Representing Tribal Women in Assamese Literature	Writing from the Periphery: Women's Writing in the Northeast	North Eastern Hill University, Shillong	155-166		2016

Name of Author/s	Name of Chapter/Paper	Name of Book	Publisher	Page	ISBN	Year
Ratan Deka, Liza Das	Narrating Memory and Collective Trauma: A Reading of Rita Choudhury's <i>Mākām</i>	Writing from the Periphery: Women's Writing in the North-East	North Eastern Hill University, Shillong	222-229		2016
Mechanical Engineering						
U. S. Dixit	Some Strategies for Achieving Green Manufacturing	Annual Technical Volume of Production Engineering Board		58-63		2016
R. Kalidasan, S. Senthilvelan, U. S. Dixit	Double-tool turning	Metal Cutting Technologies: Progress and Current Trends	De Gruyter, Oldenbourg, Berlin			2016
A. Bajpai, J. Manik, M. Parmananda, A. Dalal, G. Natarajan	Computation of Variable Density Flows on Hybrid Unstructured Grids	Fluid Mechanics and Fluid Power - Contemporary Research	Springer	431-438	9788132227410	2017
D. Das, A. Dalal	Numerical Simulation of Solidification and Melting Problems on Unstructured Grid	Fluid Mechanics and Fluid Power - Contemporary Research	Springer	439 - 448	9788132227410	2017
H. M. Sathisha, A. Dalal	3D Unsteady Numerical Simulation of All-Vanadium Redox Flow Battery	Fluid Mechanics and Fluid Power - Contemporary Research	Springer	457-466	9788132227410	2017
G. N. Sunil, A. Dalal, G. Natarajan	Computation of Flow Coupled with the Electric Field on Unstructured Grid	Fluid Mechanics and Fluid Power - Contemporary Research	Springer	467-476	9788132227410	2017
S. Kotoky, A. Dalal, G. Natarajan	Eulerian-Eulerian Modeling of Dispersed Laminar Gas-particle Flows over an Unstructured Grid	Fluid Mechanics and Fluid Power - Contemporary Research	Springer	1101-1110	9788132227410	2017
J. Manik, A. Dalal, G. Natarajan,	A Hybrid Grid Based Algebraic Volume of Fluid Method for Interfacial Flows	Fluid Mechanics and Fluid Power - Contemporary Research	Springer	1111-1120	9788132227410	2017
P. Randive, S. Bhardwaj, A. Dalal	Lattice Boltzmann Modelling of Capillarity-Induced Resonance of Blob Inside a Circular Tube	Fluid Mechanics and Fluid Power - Contemporary Research	Springer	1121-1130	9788132227410	2017
Sachin Singh, Deepu Kumar, M. Ravi Sankar, V. K. Jain	Magnetic abrasive finishing process and Modelling	Nanofinishing Science and Technology: Basic and Advanced Finishing and Polishing Processes	Taylor and Francis group CRC Press	75-110	9781315404097	2017

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Name of Author/s	Name of Chapter/Paper	Name of Book	Publisher	Page	ISBN	Year
Sachin Singh, M. Ravi Sankar, V. K. Jain	Abrasive flow finishing process and Modelling	Nanofinishing Science and Technology: Basic and Advanced Finishing and Polishing Processes	Taylor and Francis group CRC Press	179-214	9781315404097	2016
Devarshi Kashyap, S. Kanagaraj	Injectable Biomaterials for Endovascular applications	Advances in Polymer Materials and Technology	CRC press, USA	635-650	9781498718813	2016
B. Bhaskar, S. Arun, P. S. Rama Sreekanth, S. Kanagaraj	Biomaterials in Total Hip Joint Replacements: The evolution of basic concepts, trends and current limitations: A review	Trends in Biomaterials	Pan Stanford	175-210	9789814613989	2016
Deepak Mylavarapu, Manas Das, Ganesh Narayanan R.	Prediction of Temperature Evolution During Self-Pierced Riveting of Sheets	Handbook of Research on Manufacturing Process Modeling and Optimization Strategies	IGI Global	381-398	9781522524410	2017
Physics						
Nisha Shankhwar, K. Sharma, G. P. Kothiyal, A. Srinivasan	Bioactive Glass and Glass-Ceramics Containing Iron Oxide: Preparation and Properties	Trends in Biomaterials	Pan Stanford	1-47	9789814613989	2016
Subhash Thota, Sobhit Singh	Nature of Magnetic Ordering in Cobalt-Based Spinels	Magnetic Spinels- Synthesis, Properties and Applications	InTech	75-98	9789535129745	2017
Centre for Energy						
R. S. Malani, A. Goyal, V. S. Moholkar	Ultrasound-Assisted Biodiesel Synthesis: A Mechanistic Insight	Green energy and technology series. Biofuels: technology, challenges and prospects	Springer Science + Business Media	103-135	-	2017
P. Kalita, M. Borah, R. Kataki, D. Yadav, D. Patowary, R. Patowary	Biogas and Fuel Cell as Vehicular Fuel in India	Sustainable Biofuels Development in India	Springer International Publishing	87-133	-	2017
Centre for the Environment						
Bhaskar Das, Sanjukta Patra	Antimicrobials: Meeting challenges of antibiotic resistance through nanotechnology. Therapeutic Nanostructures	Nanostructures for Antimicrobial Therapy	Elsevier			2017

DETAILS OF RESEARCH AND DEVELOPMENT PROJECTS

NEW RESEARCH PROJECTS

New Research projects received during the year 2016-2017 are given below:

Sl. No.	Principal Investigator	Project Title	Funding Agency	Co-investigators	Amount Sanctioned (in ₹)	Duration
Biosciences and Bioengineering						
1.	Dr. Anil Mukund Limaye	Investigations into estrogen regulation of tumor cell derived ECM remodeling genes and the role of key transcription factors	DBT	Dr. Ashish Anand	5482000	3 years
2.	Dr. Gurvinder Kaur Saini	Engineering Entomopathogenic Fungi, <i>Metarhizium anisopliae</i> and <i>Beauveria bassiana</i> to express heterologous insect specific toxins	DBT	-	3448000	3 years
3.	Dr. Kannan Pakshirajan	Hydrogenogenic carbon monoxide conversion under mesophilic condition using anaerobic granular sludge biomass for biodesulphurization	DBT	Prof. G. Pugazhenth	3870000	3 years
4.	Dr. Latha Rangan	Genome and transcriptome sequencing of aromatic rices from North Eastern Region	DBT	Dr. Sudip Mitra	5021000	3 years
5.	Dr. Shankar Prasad Kanaujia	Understanding the mechanism of ABC-type metal sequestering proteins: structure-based novel drug development against human pathogens	DBT	Dr. V.K. Dubey	5123000	3 years
6.	Dr. Sachin Kumar	Development of reverse genetic based recombinant Newcastle disease virus model for understanding immune response in patients infected with Hepatitis C virus	DBT	Dr. Vishal Trivedi	4223000	3 years
7.	Dr. Shirisha Nagotu	Organelle dynamics and cellular ageing in yeast	DBT	Dr. Rajkumar P. Thummer	5129000	3 years
8.	Dr. A. B. Kunnumakkara	Liposome Encapsulated Azadiradione for Triple Negative Breast Cancer Treatment	DST	-	630000	2 years

Sl. No.	Principal Investigator	Project Title	Funding Agency	Co-investigators	Amount Sanctioned (in ₹)	Duration
9.	Dr. A. Goyal	Cloning, Expression, Biochemical and in vitro Analysis of Therapeutic Chondroitin Lyase Oligosaccharides from Pedobacter saltans	CSIR	-	2196000	3 years
10.	Dr. B. Anand	Mapping the hierarchical participation of assembly factors during ribosome assembly	DBT	-	9796000	3 years
11.	Dr. Biplab Bose	Investigation to understand cell signaling in Noisy Environment	ICMR	Prof. S. S. Ghosh	1396000 (First year grant)	-
12.	Dr. Biplab Bose	Diphtheria toxin derived peptides for possible therapeutic uses	SERB	Dr. B. Mandal	4738000	3 years
13.	Dr. Biman B. Mandal	North East Silk Biomaterial Based Injectable Hydrogels for Drug Delivery and Tissue Engineering	DBT	-	13405200	3 years
14.	Dr. Biman B. Mandal	Silk based bioengineered small diameter vascular conduits	DBT	Dr. P. Sukumar	4323000	3 years
15.	Dr. Bithiah Grace Jaganathan	Study of RhoA signaling in bone metastasis of breast cancer	SERB	-	4055000	3 years
16.	Dr. Bithiah Grace Jaganathan	BMP signalling in Osteolytic bone metastasis of breast cancer	ICMR	Dr. Anil Mukund Limaye	978500	-
17.	Dr. Debasish Das	Production of Hydrocarbon oil via hydrothermal Liquification (HTL) of recycled from HTL unit	ONGC	Dr. Soumen Kumar Maiti	18172300	4 years
18.	Dr. Kusum Kumari Singh	To investigate how Apoptosis and Splicing-Associated Protein (ASAP) complex interface with splicing and connects Exon Junction Complex (EJC)	SERB	Dr. Shankar Prasad Kanaujia	4296145	3 years
19.	Dr. Lalit Mohan Pandey	Mechanistic Insight of Shear Induced Aggregation of Proteins and the Effect of Transition Metal Ions	SERB	-	4632100	3 years
20.	Dr. Lingaraj Sahoo	Functional validation of yield related genes	DBT	-	5650000	3 years
21.	Dr. Lingaraj Sahoo	Development of Transgenic chilli cv. Bhut Jolokia for resistance to viruses causing leaf curl disease using RNA Interference (RNAi)	DBT	-	4873000	3 years
22.	Dr. Manish Kumar	Study on Caseinolytic proteases of Leptospira interrogans, a promising target for treating bacterial infection	SERB	Dr. S. P. Kanaujia	6997500	3 years
23.	Dr. Nitin Chaudhary	Investigations into structural organization and curvature-dependent membrane binding of alpha-synuclein	DBT	Dr. Vibin Ramakrishnan	6323000	3 years
24.	Dr. Pranjal Chandra	Development of electrocatalytic aptamer-nanosensor for bacterial exotoxin detection	SERB	-	3800000	5 years
25.	Dr. Pranjal Chandra	Nanoenzymatic aptamer based electrocatalytic biomedical device prototype for diagnostic and therapeutic applications	SERB	Dr. Anil Mukund Limaye	4714600	3 years

Sl. No.	Principal Investigator	Project Title	Funding Agency	Co-investigators	Amount Sanctioned (in ₹)	Duration
26.	Dr. Pranjal Chandra	Development of electrochemical sensor integrated microfluidic system for label free multiplex detection of neurotransmitters in neuronal cell line	DBT	Dr. Shirisha Nagotu	5978000	3 years
27.	Dr. Rakhi Chaturvedi	Mapping Yellow Mosaic Virus (YMV) tolerance trait loci in Vigna radiata (L)" Wilczek using doubled haploids	DBT	-	4223000	3 years
28.	Dr. Rajkumar P. Thummer	Direct reprogramming of human fibroblasts to functional cardiomyocytes for cell therapy	SERB	Dr. Shirisha Nagotu	4012360	3 years
29.	Dr. Rajkumar P. Thummer	Generation of transgene-free human induced pluripotent stem cells using non-genetic approaches for cell therapeutic applications	DBT	Dr. Shirisha Nagotu	5131000	3 years
30.	Dr. Shirisha Nagotu	Peroxisomes and inter-organelle communication in a cell	SERB	Dr. Rajkumar P. Thummer	3194950	3 years
31.	Dr. Senthilkumar Sivaprakasam	Metabolic engineering of Bacillus megaterium for enhanced production D (-) pantothenic acid and its application for the development of functional foods	DBT	Dr. Anil Mukund Limaye	3673000	3 years
32.	Dr. Gargi Goswami (Mentor: Dr. Debasish Das)	Production of bio oil hydrous of microalgae Chlorella sp	SERB	-	1920000	2 years
33.	Dr. Pranjal Chandra	Development of bioelectronics genosensor for detection of pathogenic bacteria in biological fluids	IITG	-	500000	2 years
34.	Dr. Kannan Pakshirajan	Novel biological treatment process for water recycle-reuse and energy conservation in refinery industry	DST	Prof. G. Pugazhenthii, Dr. A. B. Kunnumakkara	4275300	3 years
Chemical Engineering						
35.	Dr. Anugrah Singh	Studies on shear thickening suspensions for liquid body armor-applications	DRDO	Dr. Rajesh Kumar Upadhyay	3927833	2 years
36.	Dr. Bishnupada Mandal	Development of CO ₂ - Selective Ceramic Membrane for separation of CO ₂ from Flue Gas and Natural Gas	DST	Dr. M.K. Purkait	5861700	3 years
37.	Dr. Chandan Das	Assessment of corrosion of the steel liner of the water conductor system of Kopili H.E. Plant and suggestion for selection of corrosion resistance system for the steel liner including a model study	NEEPCO	Dr. Sukhomay Pal	2897000	-
38.	Dr. Kaustubha Mohanty	Mass cultivation of Microalgae for the production of high value bio-fuel fractions through Hydro-Thermal liquefaction (HTL) (Imprint)	MHRD and MNRE	-	23700000	3 years

Sl. No.	Principal Investigator	Project Title	Funding Agency	Co-investigators	Amount Sanctioned (in ₹)	Duration
39.	Dr. Nanda Kishore	Experimental and Numerical Study on Upgradation of Bio-oil using Catalytic Hydrodeoxygenation	BRNS	-	2479000	3 years
40.	Dr. Nageswara Rao Peela	Design and fabrication of an integrated optofluidic device for solar irradiated water-splitting using bio-synthesized metal/TiO ₂ photocatalysts	DST	Dr. Animes Kumar Golder	4419200	3 years
41.	Dr. Partho Sarathi Gooh Pattader	An experimental investigation on the instability, self organization and micro-patterning of blended polymer and nanoparticle incorporated polymer thin film	SERB	-	4564394	3 years
42.	Dr. Rajesh Kumar Upadhyay	Design and development of a membrane reformer prototype for production of Ultra-Pure Hydrogen from Methanol for Fuel Cell based vehicle and power generators	DST	Dr. Amit Kumar, Dr. Pankaj Tiwari	11436150	3 years
43.	Dr. R. Prasanna Venkatesh	Formulation and Characterization of Slurry for Copper Chemical Mechanical Polishing	CSIR	-	1200000	3 years
44.	Dr. S.K. Majumder	Removal of pharmaceutical derivatives present in waste water by advanced oxidation integrating with microstructure and rotating packed bed of grapheme (G)/Graphene oxide (GO)/GO-metal nanocomposites	DST	Prof. Pallab Ghosh	1988125	3 years
45.	Dr. Senthilmurugan S	Continuous processing for production of biotech therapeutics (UAY)	MHRD	Dr. Senthilkumar S	3370000	3 years
46.	Dr. Vimal Katiyar	Indo-Japan Expert Committee Meeting on Symposium on advances in sustainable polymers (ASP-16)	DST	Dr. Amit Kumar	550000	
47.	Dr. V.V. Goud	Integrated biorefinery approach towards production of sustainable fuel and chemicals from Algal biobased systems	DBT	Prof. Lingaraj Sahoo	7641321	4 years
48.	Dr. Purabi Bhagabati, Mentor: Dr. Vimal Katiyar	Design and Development of Biodegradable Flexible Polymer Bionanocomposites Blown films for Targeted Food Packaging Applications	SERB	-	1920000	2 years
49.	Dr. Tamal Banerjee	Nanoparticle dispersed deep eutectic solvents as low cost heat transfer fluid for concentrated solar power (Imprint)	MHRD	Dr. Dipankar Bandyopadhyay	6096000	3 years
50.	Dr. Dipankar Bandyopadhaya	Microfluidic prototypes to characterize rheological behaviours of biological and complex fluids	SERB	Dr. Partho Sarathi Gooh Pottader	5666540	3 years
51.	Dr. Kaustubha Mohanty	Low-cost process development for the production of Xylitol from waste agricultural biomass with special focus on delignification and downstream processing	DBT	Prof. G. Pugazhenth	3895000	3 years

Sl. No.	Principal Investigator	Project Title	Funding Agency	Co-investigators	Amount Sanctioned (in ₹)	Duration
Chemistry						
52.	Dr. Srikanth Turlapati, Mentor: Dr. A.S. Achalkumar	Synthesis of bent core liquid crystals exhibiting room temperature blue phases	SERB	-	1920000	2 years
53.	Dr. Animesh Das	Incorporation of Pendant Lewis Pairs into Secondary Coordination Sphere of the Metal ions: Cooperative Substrate Binding and Activation	SERB	-	4620000	3 years
54.	Dr. Bhubaneswar Mandal	Effect of naturally occurring as well as synthetic cyclic molecules on inhibition of beta amyloid aggregation in vivo and in vitro	DBT	-	4726000	3 years
55.	Dr. Chandan Mukherjee	Synthesis, Characterization and Utilization of Radical-Containing Transition metal complexes for mechanistic understanding and catalysis	SERB	-	4840000	3 years
56.	Dr. Debapratim Das	Bioinspired Semi-conductive Peptides: Self-assembly, Nano-structures and Application in Organic-electronics	SERB	-	4895000	3 years
57.	Dr. Debasis Manna	Development of Novel Inhibitors of AKT: An Unorthodox Approach Targeting the Pleckstrin Homology Domain	DBT	-	8053000	3 years
58.	Dr. Dipankar Srimani	N-Heterocyclic Nitrenium Based Pincer Ligand and their Transition Metal Complexes: Exploring Potential Catalytic Application	SERB	-	4730000	3 years
59.	Dr. Priyanka Dutta (Mentor: Dr. P.K. Iyer)	Development of smart optically active electroactive hybrid block copolymer- biomacromolecule- quantum dot nanocomposites for ultrasensitive detection of biological analytes by electrical and fluorescence techniques	SERB	-	1920000	2 years
60.	Dr. Pavan Kumar Kancharla	Dissecting the mechanistic understanding of sialic acid glycosylations utilizing ^o -2-phenylcyanoethane as a novel multipurpose protecting group: Application towards the synthesis of Legionaminic acid and its glycosides	SERB	-	4973000	3 years
61.	Dr. Shyam Prasad Biswas	Development of Highly Stable Zr(IV) and Hf(IV) Based Metal-Organic Framework Materials for Applications in Gas Storage, Separation and Chemical Sensing	SERB	-	4510000	4 years
62.	Dr. S.S. Bag	Unnatural Fluorescent Peptides and Polymers for the Detection of Explosives, Biological Threats Using Organic Field-Effect Transistors Based Sensors	DBT	-	5423000	3 years
63.	Dr. T. Punniyamurthy	Asymmetric synthesis of five membered heterocycles using chiral epoxide and aziridines	CSIR	-	1582000	3 years
64.	Dr. Uttam Manna	Multilayer of Porous Micro-Capsules to Develop Robust Slippery Liquid Infused Porous Surface (SLIPS)	BRNS	-	2491500	

Sl. No.	Principal Investigator	Project Title	Funding Agency	Co-investigators	Amount Sanctioned (in ₹)	Duration
65.	Dr. Hidayath Ulla (Mentor: Dr. A.S. Achalkumar)	Discotic liquid crystals for organic light emitting devices	SERB	-	1920000	2 years
66.	Dr. Ritush Kumar (Mentor: Prof. B.K. Patel)	Ruthenium catalyzed C-H bond activation followed by carbo/-heterocyclization of Arenes/Heteroarenes	SERB	-	1920000	2 years
67.	Dr. Braja Gopal Das, Mentor: Prof. B.K. Patel	N-O/N-O-N type chiral bi/tridentate ligands and their metal complexes	SERB	-	3500000	5 years
68.	Dr. Himani Kalita, Mentor: Dr. P.K. Iyer	Stimuli sensitive polymer-biomolecule conjugates as tumor targeted theranostic agents for combination chemotherapy	SERB	-	1920000	2 years
69.	Dr. Kathirvelan Devarajan Mentor: Dr. T. Punniyamurthy	Design and synthesis of polycyclic heteroarenes using rhodium catalyzed C-H activation and their live cancer cell imaging	SERB	-	1920000	2 years
70.	Dr. Mohan Kasula; Mentor: Dr. S.S. Bag	Design and synthesis of Triazolyl donor/acceptor unnatural nucleosides and Oligonucleotide probes containing fused aromatic triazolyl base containing nucleosides	SERB	-	1920000	2 years
71.	Ms. Samiyara Begum, Mentor: Dr. A. K. Gupta	Design and Development of new and promising G-quadruplex stabilizers	SERB	-	1920000	2 years
72.	Dr. Subhajit Ghosh Mentor: Dr. D. Das	Synthesis and application of PEG-tailed Multistimuli-Responsive Smart Hydrogels	SERB	-	1920000	2 years
73.	Dr. Suresh Kumar, Mentor: Dr. C.V. Sastri	A computational study for Optimizing Adsorption of Small Molecules Nano-Porous Solids	SERB	-	1920000	
74.	Ms. Tanur Sinha, Mentor: Dr. Debapratim Das	Bioinspired Semi-conductive Self-assembled Peptide-based Nano-Structures and their Applications	SERB	-	1920000	2 years
75.	Dr. Gaurav Shukla, Mentor: Prof. B.K. Patel	Visible Light Photoredox Catalysis with Transition Metal Complexes: Application towards the Synthesis of Cross-Coupled Precursors for Biologically Relevant Molecules	SERB	-	1920000	2 years
76.	Dr. Subhasish Roy, Mentor: Prof. T. Punniyamurthy	Development of C-H Activation for Medicinally Important Heterocycles Synthesis	SERB	-	1920000	2 years
77.	Dr. Vivek Kumar, Mentor: Prof. T. Punniyamurthy	Transition-Metal-Catalyzed C-H Activation/Isonitrile Insertion Reactions for the Synthesis of Diverse Nitrogen Heterocycles	SERB	-	1920000	2 years
78.	Dr. Hemant Kumar Singh, Mentor: Dr. A.S. Achalkumar	Design, Synthesis and Characterization of Functional Columnar Liquid Crystals	SERB	-	1920000	2 years

Sl. No.	Principal Investigator	Project Title	Funding Agency	Co-investigators	Amount Sanctioned (in ₹)	Duration
79.	Dr. Kaustuv Banerjee; Mentor: Dr. Shyam P. Biswas	Synthesis of Mixed-Metal Metal-Organic frameworks and their composites for analytical sensing, photovoltaic and charge storage applications	SERB	-	1920000	2 years
80.	Dr. Akshai Kumar Alape Seetharam	Fluorine and Boron doped pi conjugated organic materials via transition metal catalyzed C-F activation	BRNS	-	1998800	3 years
Civil Engineering						
81.	Dr. Ankit Garg	A study on soil-water hyacinth interaction for reinforcement	SERB	-	1890000	3 years
82.	Dr. Archana M Nair	Evidence comparison between Tharsis and Deccan Volcanic Provinces based on Geomorphology and Lithology	ISRO, Bangalore	-	1564000	3 years
83.	Dr. Sri Harsha Kota	Particulate Matter in North-East India: Source Identification and Mitigation Strategies	SERB	-	2479740	3 years
84.	Dr. Hrishikesh Sharma	Development of BHISM for Blast and Impact Resistant Design and Testing of Products (Uchhtar Avishkar Yojana)	MHRD	Dr. Amit Shelke	12500000	
85.	Dr. Rajan Choudhary	Use of Industrial Waste Steel Slag in Design of Open Graded Asphalt Friction Courses	DST	Dr. A. K. Maurya	9615200	3 years
86.	Dr. Rishikesh Bharti	Geological and fluvial studies of Martian surface using the data of thermal infrared imaging spectrometer and Mars colour camera	ISRO, Bangalore	Prof. S. Dutta	1798200	3 years
87.	Dr. Ravi K	Developing a sustainable construction practice to improve the resiliency of embankments of Brahmaputra using Bio-Mediated soil treatment and its impact on the river bank ecology	SERB	-	4446670	3 years
88.	Dr. Subashisa Dutta	Rejuvenation of springs and spring-fed streams in Mid-Himalayan Basins using spring sanctuary concept	GBPIHED	-	1629600	3 years
89.	Dr. S.K. Deb	Development of Buckling-Restrained Braces for seismic Response Control of Multi storied buildings	PWD, Govt. of Arunachal Pradesh	-	610000	2 years & 6 months
90.	Dr. Ruhul Amin Reza (Mentor: Dr. Mohammed Jawed)	Assessment of arsenic, iron and fluoride concentration in the surface/ underground water of five highly populated & effected districts of Assam and development of low cost material for their removal	SERB	-	1920000	2 years
91.	Dr. Nilotpal Das (Mentor: Dr. Manish Kumar Goyal)	Evaluation of Health risk assessment of consuming rice irrigated with contaminated groundwater in Brahmaputra Flood Plains	SERB	-	1920000	2 years
92.	Dr. Manish Kumar Goyal	Assessment of impact of climate change on crop wate requirements and productivity of major crop in Sikkim, Himalayan region of NorthEast India	DST	-	11593131	3 years

Sl. No.	Principal Investigator	Project Title	Funding Agency	Co-investigators	Amount Sanctioned (in ₹)	Duration
Computer Science and Engineering						
93.	Dr. Arnab Sarkar	A software tool for the planning and design of smart micro power grids (Imprint)	MHRD, Ministry of Power	Dr. Santosh Biswas	5844000	3 years
94.	Dr. John Jose	Performance and energy optimization in many core processors using dynamic cooperation of cache memory, NoC and DRAM controller	SERB	-	1970960	3 years
95.	Dr. Rashmi Dutta Baruah	Estimation of petro-physical properties from seismic attributes and well logs using advanced artificial intelligence	ONGC	Prof. P.K. Das	6139389	3 years
96.	Dr. Sukumar Nandi	e-Varaha:Information System for Safe Pork Production in North Eastern India	Media Lab Asia, ITRA	Dr. S. Ranbir Singh, Dr. T. Venkatesh, Dr. S. Bhattacharya, Dr. P.K. Iyer	6750000	2 years
97.	Dr. S. Ranbir Singh	Design and Development of opinion mining and sentiment analysis of Social Media Content to assess security threats	DeitY	Dr. Priyankoo Sarmah and Prof. Sukumar Nandi	11140000	3 years
98.	Dr. Chandan Karfa	Formal verification of Optimizing Transformations of Programs and Optimizations for FPGAs	IITG	-	500000	2 years
Design						
99.	Dr. A.K. Das	Design modification, prototyping and user testing of a semi-automatic handloom	DST	-	800000	2 years
100.	Dr. Keyur Sorathia	Design & Development of Software	Office of the Deputy Comm., Kamrup	-	360000	6 months
101.	Dr. Keyur Sorathia	Research on Dhobi & Dhobighat-Phase II	P&G	-	USD 50000	2 years
102.	Dr. Sougata Karmakar	Design intervention to reduce muscular fatigue during backpack mode of load carriage by Indian Army personnel	DRDO	Dr. Urmi R. Salve	975000	2 years
103.	Dr. Keyur Sorathia	A Mobile-based Virtual Reality Platform for Training and Educating Community Health Workers (CHWs) (Imprint)	MHRD	-	4496000	18 months
104.	Dr. Keyur Sorathia	A web and mobile phone based service for health administrators, medical officers and health workers to track/monitor progress of Tuberculosis (TB) patients in (real-time) (Imprint)	MHRD	Dr. Pratul Chandra Kalita	4087000	2 years

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Electronics and Electrical Engineering						
105.	Dr. Sisir Kumar Nayak	Feasibility study of wireless power transfer using metamaterial	MTRDC	Prof. H.B. Nemade	980400	-
106.	Dr. Gaurav Trivedi	Development of ESD I/O Pads for CCD Image Sensor for 0.18 μm SCL Foundry	ISRO	Dr. Amitabh Chatterjee (Visiting Asst. Professor)	1936000	2 years
107.	Dr. Kannan Karthik	Image based systems for identification of individuals, breeds and diseases of pigs and goats	Media Lab Asia (ITRA), Mumbai	Prof. P.K. Bora, Dr. M.K. Bhuyan	3324000	2 years
108.	Dr. Sanjib Ganguly	Development of prototype fuel-cell battery hybrid energy system for DC traction motor	SERB	-	2222000	3 years
Mathematics						
109.	Dr. Neelam Saikia, Mentor: HOD Maths	Hypergeometric series in the p-adic setting, truncated hypergeometric series and supercongruences	DST	-	3500000	5 years
110.	Dr. Rupam Barman	Hypergeometric functions, algebraic, curves and supercongruences	IITG	-	270000	2 years
Mechanical Engineering						
111.	Dr. Amaresh Dalal	Course on Turbulence Modelling	TATA STEEL	-	110000	-
112.	Dr. Balkrishna Mehta	Thermo-hydrodynamics of evaporating meniscus of conventional fluid and ferrofluids under externally imposed magnetic field inside heated mini-channels	SERB	-	4492990	3 years
113.	Dr. Mamilla Ravi Sankar	Design and development of automated flexible abrasive flow finishing (AF-AFF) process for finishing of micro to macro complex features	DST	Dr. Vimal Katiyar	5229620	3 years
114.	Dr. Pankaj Biswas	Development of Plasma Arc Assisted Friction Stir Welding Process for Low Carbon Steels	DRDO	Dr. S.D. Kore	4340000	3 years
115.	Dr. Pranab Kumar Mondal	Experimental investigation on the roughness-surface wettability coupling in capillary filling in microchannel	SERB	Prof. Gautam Biswas	4839810	3 years
116.	Dr. Pinakeswar Mahanta	Support to TePP Outreach cum Cluster Innovation Centre (TOCIC) at Indian Institute of Technology Guwahati under Promoting Innovations in Individuals, Start-ups and MSMEs (PRISM) scheme of DSIR	DSIR	Dr. S.D. Kore	1200000	1 year
117.	Dr. Sachin D. Kore	Feasibility Studies and Optimization of Electromagnetic Pulse Welding of Tubes for Nuclear Reactor Application	BRNS	Dr. Sisir K. Nayak	16425000	3 years

Sl. No.	Principal Investigator	Project Title	Funding Agency	Co-investigators	Amount Sanctioned (in ₹)	Duration
118.	Dr. Sachin Singh Gautam	Development of a nonlinear finite element based framework for elasto-plastic contact problems	ISRO	-	1250400	18 months
119.	Dr. U.S. Dixit	Design and Development of proper bonding mechanism for individual AAC block units in wall system of a structure	DST	Dr. Arun Borsaikia	4098352	3 years
120.	Dr. S. K. Kakoty	Coupled Modelling and Analysis of Gas Foil Bearings with Active Bearing Seating	SERB	Dr. Karuna Kalita	2557500	2 years
121.	Dr. Manmohan Pandey	Investigations on hydrodynamics, flow regimes and heat transfer characteristics of flow boiling in mini- and microchannels	SERB	Prof. Anugrah Singh	5895560	3 years
122.	Dr. Poonam Kumari	Analytical solution for boundary layer stresses in piezoelectric plates with longitudinally functionally graded materials	SERB	-	2396020	3 years
123.	Dr. S. Kanagaraj	Preservation of residual hearing by localized delivery of nanoceria based solid solution and composite as an antioxidant in cochlear implants	DBT	Dr. A.B. Kunnumakkara and Dr. P. Sukumar	5798000	3 years
Physics						
124.	Dr. S.K. Nayak	Metamaterial enhanced wireless power transmission system (Imprint)	MHRD and DST	-	6444000	3 years
125.	Dr. Alike Khare	Indigenous development of technology for differentiating Synthetic Lab grown Diamond from Natural Diamond (UAY)	MHRD	Dr. Harsh Chaturvedi	10000000	
126.	Dr. Poulouse Poulouse	Exploring the Higgs Sector of Inert Doublet Model in the Presence of Scalar Triplets	SERB	-	2508000	3 years
127.	Dr. Saurabh Basu	Role of spin orbit coupling in spintronic devices:Search for new topological state of matter	SERB	-	2159520	3 years
128.	Dr. Uday Narayan Maiti	Development of heteroatom doped nanoporous-graphene-gel and its stable nanohybrid for wearable energy textile	SERB	-	5190548	3 years
129.	Dr. Manpreet Singh (Mentor: Dr. Tapan Mishra)	Equilibrium and non-equilibrium properties of ultracold atoms with multibody interactions in optical lattices	SERB	-	1920000	2 years

Sl. No.	Principal Investigator	Project Title	Funding Agency	Co-investigators	Amount Sanctioned (in ₹)	Duration
Centre for Educational Technology						
130.	HoC, CET	Global Initiative on Academic Network (GIAN) programme	MHRD	-	7344000	
131.	HOC, CET	Massive online open courses (MOOCs) compliant e-creation	MHRD	-	4350000	3 years
132.	HOC, CET	Strengthening Implementation Arrangements in (TEQIP) Phase-III	NPIU	-	724500	8 weeks
133.	Dr. Ashwini K. Sharma	IIT Professors Assisted Learning	MHRD	-	1000000	
134.	HOC, CET	Teachers Training Camps (TTC) under RMSA-Rashtriya Avishkar Abhiyan for Physics, Chemistry and Mathematics	RMSA, Assam	-	1074317	2 years
Centre for Linguistics Science and Technology						
135.	Dr. SRM Prasanna	NASOSPEECH: Development of Diagnostic system for Severity Assessment of the Disordered Speech	DBT	Prof. S. Dandapat & Dr. Avishek Srivastava	3791000	3 years
136.	Dr. SRM Prasanna	ARTICULATE+: A system for automated assessment and rehabilitation of persons with articulation disorders (Imprint)	MHRD	Prof. S. Dandapat, Dr. Avishek Srivastava	13746000	3 years
Centre for Energy						
137.	Dr. Debasish Das	Microalgae for sustainable fuel and food technology: coupling photovoltaic airlift photobioreactor (PAPB) and energy efficient electrochemical harvesting (EECH) technology	BCIL	-	10743200	3 years
138.	Dr. Kaustubha Mohanty	Development of sustainable cost effective process for the removal of Nitrogen and Phosphorous from wastewater using microalgae coupled with carbon sequestration	CSIR	-	1102500	3 years
139.	Dr. Sisir Kumar Nayak	Development and performance analysis of nanofluid based dielectric fluid as an insulant and coolant in power transformers	SERB	-	5602840	2 years
140.	Dr. Senthilmurugan S	Membrane based efficient energy storage, clean energy generation and waste water treatment system	DST	Dr. Sri Harsha Kota	12919200	3 years
141.	Dr. V.V. Goud	Pilot scale study for biodiesel production using waste rubber seeds as raw material (Uchchatar Avishkar Yojana)	MHRD	Dr. Harsh Chaturvedi	41050000	
142.	Dr. Kuntal Jana; Mentor: Prof. P. Mahanta	Experimental investigation of co-gasification of biomass with coal in circulating fluidized bed gasifier for sustainable energy solution	SERB	-	1920000	2 years
143.	Dr. Pankaj Kalita	Development of renewable energy technology package for clean power generation in remote utility	SERB	-	5165710	3 years

Sl. No.	Principal Investigator	Project Title	Funding Agency	Co-investigators	Amount Sanctioned (in ₹)	Duration
Centre for the Environment						
144.	Dr. Kaustubha Mohanty	Development of ceramic membrane based process for treatment and recycling of textile effluent towards zero discharge concept	DST	Dr. Senthilmurugan S	4206137	3 years
145.	Dr. Utpal Bora	Whole genome sequencing and functional genomics of golden silk moth <i>Antheraea assamensis</i>	Central Silk Board	-	330000	3 years
Centre for Nanotechnology						
146.	Dr. S.S. Ghosh	Novel nanocluster based targeted anticancertheranostics	DBT	Prof. Arun Chattopadhyay and Dr. B. Bose	6847000	3 years
147.	Gayatri Natu	Improving the stability and photoconversion efficiency of organolead halide perovskite solar cells (OHPSC) with novel nanostructured p-type semiconductors	DST	-	3500000	-
Centre for Rural Technology						
148.	Dr. Sudip Mitra	Assessing the bio-availability of nutrients and reduction of heavy metals in soils amended with inorganic and organic wastes in the presence of AM fungi and biochar	DBT	Prof. Latha Rangan	2963000	3 years

Major Consultancy Projects Received During 2016-2017

Title	Principal Investigator	Clients
Vetting of Development Works of JNV Saiha (Mizoram) : Phase-A	Dr. Arunasis Chakraborty	JNV
Proof checking of RCC bridge no. 4/1 on the road from NH-31 at 841 km to Kanuri via Golokganj town over river Gangadhar	Dr. A. Dutta	M/s Hi-Tech Construction, Guwahati
Proof checking of the work Detailed Design & Drawing of Foundation, Substructure & Superstructure and River Training/Protection Works etc. for Rail cum Road Bridge over River Ganga at Ghazipur	Dr. A. Dutta	Rail Vikas Nigam Limited
Proof checking of design and drawings for Shalimar station development projects for S.E. Railway	Dr. A. Dutta	STUP Consultants Pvt Ltd
Solid waste Management in tourist areas, Sikkim	Dr. Ajay Kalamdhad	Sikkim Biodiversity Cons. & Forest Mgmt
Water Resources and Flood & Erosion Risk Mitigation Planning in Assam	Dr. Arup Kumar Sarma	Assam State Disaster management Authority, Dispur, Ghy
Model Study of Tidding river under project Udayak in Lohit District of Arunachal Pradesh	Prof. Arup Kumar Sarma	
Hydrological and hydrodynamic study of Brahmaputra River for Ascertaining Suitability of the Proposed Water Intake Location of GWSP south Central zone at Kharguli	Prof. Arup Kumar Sarma	
Estimating Sediment and Water Yield from Hills of Guwahati City	Dr. Arup Kumar Sarma	Assam State Disaster management Authority
Hydraulic Transient Analysis for NTPC, Gadawara	Prof. Arup Kumar Sarma	Jindal Water Infrastructure Pvt Ltd.
Design of Water storage reservoir in the additional land of NIT Meghalaya at Sohra (Cherrapunjee)	Prof. Arup Kumar Sarma	NIT Meghalaya, Shillong
Performance Analysis of GRW structure at North Lakhimpur, Assam	Dr. A. Murali Krishna	M/s Flexituff International Ltd., Guwahati
Seismic Retrofitting of CAU Complex, Imphal	Dr. A. Shelke	
Study on the Changes in Hydrology and Geomorphology and its impacts on the Riverine Protected Areas	Prof. Chandan Mahanta	
Consultancy service for retrofitting/rehabilitation of earthquake damage building Directorate complex, Imphal	Dr. K.D. Singh	Executive Engineer, Building Division No.1, PED Manipur
Evaluation of Cores of Bituminous Mix	Dr. Rajan Choudhary	Project Director, Project Implementation Unit (PIU)
Performance Evaluation of Flood management Schemes at Rivers of Dimapur District, Nagaland	Prof. S. Dutta	Chief Engineer, Department of Irrigation and Flood Control, Nagaland

Digital Processing of the entire lease area laid down in environmental clearance	Prof. Subashisa Dutta	Lafarge Umiam Mining Pvt. Ltd., Shillong
Sampling and Analysis of Coal Seams	Dr. Bishnupada Mandal	Government of India, Ministry of Coal, Coal Controller's Organisation
Vetting of computational fluid dynamic analysis of a hydro turbine runner flow profiles thereby validating its design	Prof. Gautam Biswas	BHEL, Bhopal
Consultancy service for retrofitting/rehabilitation of earthquake damage building Minister at Secretariat, Imphal	Dr. K.D. Singh	Executive Engineer, Building Division No.1, PED Manipur

Research Projects Completed During 2016-2017

Principal Investigator	Project Title	Sponsoring Agency	Amount Sanctioned (₹ in Lakh)	Co-Investigator	Duration
Biosciences and Bioengineering					
B. Anand, S. Ramaswamy	Molecular Mechanism of Target Recognition and Cleavage by the CRISPR-Cas Bacterial Immune System	DBT	122.96	-	3
B. Anand	Structural and Functional Characterization of Adaptation Stage of CRISPR-Cas System in Mycobacterium tuberculosis	DBT	59.182	Nitin Chaudhary	3
Nitin Chaudhary	Structural organization of huntingtin exon 1 fibrils	DST-SERB	23.8	-	3
Pranab Goswami	Development of Bioelectrodes for Biofuel Cell Applications (Implemented in the Centre for Energy)	MNRE	33.72	P. Mahanta	3
Ajaikumar B. Kunnumakkara	An Investigation of the Therapeutic Potential of Butein, Isolated from Toxicodendron vernicifluum Against Human Oral Squamous Cell Carcinoma	DST	22.55	-	3
Manish Kumar	Modulation of gene expression in Leptospira interrogans exposed to human catecholamine hormone	SERB, DST	23.5	-	3
Manish Kumar	Deciphering the role and architecture of CRISPR/Cas defense system in Leptospira interrogans	DBT	47.95	Shankar Prasad Kanaujia	3
Biman B. Mandal	Stimulation of stem cell differentiation on silk fiber reinforced composite with tunable strength and degradation towards enhanced osteogenesis	DST	23.00	-	3
Biman B. Mandal	Bioengineered silk vascular grafts for blood vessel engineering.	DAE - BRNS	17.00	-	3
Biman B. Mandal	Mechanically strong silk composite matrices for bone tissue engineering.	ICMR	10.00	-	3
Shankar Prasad Kanaujia	Structural and functional studies of translation initiation factors from Pyrococcus horikoshii OT3	DBT	52.90	Vikash Kumar Dubey	3
Shankar Prasad Kanaujia	Elucidation of the substrate delivery and specificity mechanism of solute-binding proteins cognate to the ABC transporters	DST	24.00	-	3
Arun Goyal	Synthesis, structure and application analyses of glucans from hyper-producing LAB strains from North-east Indian microbial diversity	DBT	26.65	-	2

Principal Investigator	Project Title	Sponsoring Agency	Amount Sanctioned (₹ in Lakh)	Co-Investigator	Duration
Bithiah Grace Jaganathan	Study of Cancer Promoting Role of CD90/THY1 in Leukemia Associated Stroma	DBT	25	A. M. Limaye	3
Bithiah Grace Jaganathan	BMP signalling in osteolytic bone metastasis of breast cancer	ICMR	20	A. M. Limaye, G. Gogoi (AMCH)	2
Chemical Engineering					
A. K. Golder	Toxic metal hazard from sludge generated during reduction of Cr(VI) from waste water by zero-valent iron (Fe ⁰)	IIT Guwahati	4.2		
Pankaj Tiwari	Identification of Competent Alkali-Surfactant-Polymer Formulations for Enhanced Oil Recovery of Assam Crude Oil	DST	6.8	Ramgopal V. S. Uppaluri	3
Pankaj Tiwari	Study of Interaction between Pneumatic Spray Nozzle and Bubbling gas Fluidized Bed using Radioactive Particle Tracking (RPT) and I ¹³¹ -ray Densitometry	BRNS	23.4	Rajesh Upadhyay	3
Vimal Katiyar	Green PACK	Ministry of Food Processing Industries	30	Amit Kumar	
Vimal Katiyar	BioThermosets	DST	22	Amit Kumar	
Vimal Katiyar	sb-PLA for Engineering Application	IIT Guwahati	5	Amit Kumar	
Ramagopal Uppaluri	Virtual Mass Transfer Lab	MHRD	15	Anil Verma	6
Ramagopal Uppaluri	Low cost ceramic membranes for juice clarification	DBT	18.87	-	3
Ashok Kumar Dasmahapatra	Studies on Confinement-Induced Polymer Crystallization by Molecular Simulation	SERB, DST	30.02	-	3
Chemistry					
Anil K. Saikia	Stereoselective Synthesis of Substituted Tetrahydro pyrans and Their Nitrogen and Sulfur Analogues	CSIR	18.0	-	3
Bhubaneswar Mandal	Arresting pre fibrillar aggregates of Alzheimer's amyloid by synthetic antibodies	DBT	56.0	Amal Chandra Mondal, JNU	3
Debasis Manna	Development of Nitro benzofurazan, Indazole, Triazole and Triazine derivatives as Potent and Selective Inhibitors of Indoleamine 2,3 Dioxygenase	DST	25.0	-	3
Debasis Manna	Design, Synthesis and Biological activities of Protein Kinase C	CSIR	21.0	-	3

Principal Investigator	Project Title	Sponsoring Agency	Amount Sanctioned (₹ in Lakh)	Co-Investigator	Duration
M. Sarma	Effect of Electron Donating and Electron Withdrawing Substituents on Single Strand Breaks in Selected DNA Fragment Induced by Low Energy Electron	DST	29.46	-	3
A. S. Achalkumar	Luminescent Discotic Liquid Crystals for the Application in Organic Light Emitting Diodes	BRNS-DAE	25.0	-	3
A. S. Achalkumar	Design and Synthesis of polyphilic Discotic Liquid Crystals	DST-SERB	50.0	-	3
Chandan K. Jana	Asymmetric Total Syntheses of Potential Anticancer Natural Products, Phomoarcherin A & B and Their Synthetic Analogs	CSIR	14.8	-	3
Chandan Mukherjee	Radical-Containing Transition Metal-Complex Catalyzed Aerial Oxidation of Alcohols to Aldehydes	IIT Guwahati	5.0	-	2
Chandan Mukherjee	Synthesis of Sensitizers for Dye Sensitized Solar Cell	BRNS	23.51	-	3
Chandan Mukherjee	Development of Water Oxidation Catalysts, Single-Molecule Magnets (SMMs), and Magnetic Resonance Imaging (MRI) Contrast Agents, Employing a Common Backbone	DST	24.2	-	3
Debapratim Das	Self-assembled Stimuli Responsive Peptide Based Polymeric Soft-materials using Cucurbituril	DST	26.0	-	3
Debapratim Das	Understanding the Interaction between Cucurbituril and Amphiphilic Molecules in Aqueous Medium to Prepare Novel Self-assembled Systems	BRNS	23.0	-	3
Sandip Paul	The Role of Aqueous Solutions of Trimethylamine-N-Oxide (TMAO) on the Pressure Induced Hydrophobic Interactions and the Pressure Induced Hydrogen Bond Properties and Dynamics	DST	21.382	-	3
Sandip Paul	Counteraction of Osmolyte Trimethylamine-N-Oxide on Pressure Induced and Urea Induced Denaturation of Proteins BPTI and Rnase A: Molecular Dynamics Simulation Study	CSIR	10.62	-	3
Sandip Paul	The mechanism of bioprotective effect of trehalose through hydrophobic and hydrogen bonding interactions on peptide and polypeptide: A molecular dynamics simulation study	BRNS	24.245	Debasis Manna	3
Subhas Chandra Pan	Asymmetric Organocatalytic Tandem Cyclization and Cycloaddition Reactions with 1-Acetylcyclohexene	DAE	17.0	-	3
Subhas Chandra Pan	N-Vinyl and N-Alkynylpyridinium and – Ammonium Tetrafluoro- borate Salts: New Electrophilic Reagents in Asymmetric Organo catalysis	DST SERB	26.9	-	3

Principal Investigator	Project Title	Sponsoring Agency	Amount Sanctioned (₹ in Lakh)	Co-Investigator	Duration
Computer Science and Engineering					
Sanasam Ranbir Singh	Design and development of social security threat assessment framework through opinion mining and sentiment analysis of Social Media Content	DeiTY		Sukumar Nandi, Priyankoo Sarma	2016-2016
Design					
Sougata Karmakar	Massive online open access course (MOOC) on Digital Human Modeling and Simulation for Virtual Ergonomics Evaluation	NPTEL, MHRD	3	-	3 months
Keyur Sorathia	District online – a web based e-governance portal for Kamrup district administration	Govt. of Assam	3.6	-	6 months
Electronics and Electrical Engineering					
Praveen Kumar	Dual Mechanical Port Based Electric Vehicle Power train	DST	54.99	S. Majhi	2
P. K. Bora	Development of Robust Document Image understanding System for Document in Indian Scripts (OCR)-Phase-II	DIT	28.75	M. K. Bhuyan, S. Das	5
Prithwijit Guha	Multimodal Broadcast Analytics – Structured Evidence Visualization for Events of Security Concern	DEITY	139.51	S.R.M. Prasanna, S. R. Singh, S. Nandi	4
S. R. M. Prasanna	Development of text to speech systems in Assamese and Manipuri Languages	DEiTY	109.00	R. Singh	2
Sonali Chouhan	Advanced Embedded Systems Laboratory	Intel India Pvt. Ltd	05.12	H. Kapoor	4
Humanities and Social Sciences					
Priyankoo Sarmah	A Broad Sociolinguistic Study of Vowel Variation in Assamese	ICSSR	15	-	30
Sukanya Sharma	Pottery Making and its Prospects for Rural Employment: Kumar and Hira Communities of Assam	ICSSR	7	-	24
Mathematics					
Partha Sarathi Mandal	GIAN Programme	MHRD	5.44	Stefan Schmid	1
Bhupen Deka	A Posteriori L (L2) Error Bounds for Finite Element Methods to the Wave Equation with Discontinuous Coefficient	IIT Guwahati	3.2	-	2
Mechanical Engineering					
A. Dalal	Numerical Modeling of All-Vanadium Redox Flow Battery	SERB, DST	16.08	-	3

Principal Investigator	Project Title	Sponsoring Agency	Amount Sanctioned (₹ in Lakh)	Co-Investigator	Duration
P. Muthukumar	Development of Thermal Energy Storage Systems for Solar Thermal Power Plant	DST	128	-	4
S. Kanagaraj	Studies on thermal conductivity of nanofluids	Tata Consultancy	0.552	-	1 month
Physics					
Saurabh Basu	Phases of the interacting Bose Gas: Simulating quantum phenomena at large length scales	CSIR	22.00	-	4
Bipul Bhuyan	Collaboration by Indian Physicists on Neutrino Projects at Fermi Lab, USA	DST-DAE	131.48	-	5
A. Perumal	Magnetic and magnetoresistance properties of multilayer structured CoFeB alloy films for spintronic applications	SERB	39.46	-	3
Amarendra K. Sarma	Optical force in a two and three level atomic system superimposed to an intense ultra-short pulsed laser field beyond the rotating wave approximation	CSIR	11.72	-	3
P. K. Giri	Development of Semiconductor Nanowire Based Advanced Bio-Sensors for Biomedical Applications	CSIR	20.00	P. Goswami	3
S. Ravi	Neutron Power diffraction studies in transaction element LaCrO ₃	UGC-DAE-CSM, Mumbai	3.00	-	2
D. Pamu	Preparation and Characterization of Ba ₅ Nb ₄ O ₁₅ -BaWO ₄ Bulk and Thin Films for CMOS Applications	DST-SERB	15.00	-	3
Centre for Energy					
M. De	Development of supported noble metal catalysts using surfactant assisted electroless plating process for the dehydrogenation of light alkanes	DST	39.4	R. Uppaluri, M. Qureshi	3
N. Sahoo	Laser based calibration methodology for thermal sensors in combustion measurements	DRDO	12.40	V. N. Kulkarni	2
P. Mahanta	Sub Project Title – ‘Small-scale Anaerobic Digestion’ under the Rural Hybrid Energy-Enterprise Systems (RHEES), Indo – UK Collaborative Research Initiative on ‘Bridging the Urban and Rural Divide’	DST	82.684	P. S. Robi, A. K. Das, K. Kalita, L. Barbora	3
V. V. Goud	Phototrophic biofilm based waste water recycling for sustainable water usage in rubber latex coagulation	DBT	8.90	-	2
Centre for the Environment					
V. K. Dubey	Variations in proteome profile of legume plants in response to heavy metal toxicity	DST	23.28	Anil Verma	3

Principal Investigator	Project Title	Sponsoring Agency	Amount Sanctioned (₹ in Lakh)	Co-Investigator	Duration
Ranjan Tamuli	Molecular investigation of epigenetic modifications caused by environmental pollution using <i>Neurospora crassa</i> as a model system	DBT	55.00	Utpal Bora	3
M. K. Purkait	Treatment of contaminated drinking water using electrocoagulation technique	DRL, Tezpur (DRDO)	9.72	-	3
A. K. Ghoshal	Petroleum Wastewater treatment in packed Bed reactor using suitable Microorganism(s)	CSIR	16.00	-	3
Gopal Das	Synthesis, Characterization of Metal Oxides and Their Application to Wastewater Treatment.	CSIR	16.88	-	3
Centre for Nanotechnology					
Arun Chattopadhyay	Newer Chemical and Physical Methods of Engineering Devices with Nanoscale Functional Components	DST	92	-	5
Arun Chattopadhyay	Engineering Nanoscale Materials and their Applications in nanotechnology	DST	2.02	-	3
Arun Chattopadhyay	Novel Nanoscale Materials: Generation, Characterization, and Device Applications	DST	190.60	-	3
Arun Chattopadhyay	Development of Nanoscale Materials for Bacteria Removal from Surface Water	DRL	9.98	S. S. Ghosh	2
Siddhartha S. Ghosh	Nanoscale materials with therapeutic implications	DBT	102.62	A. Chattopadhyay, A. Ramesh, B. Bose	3
Siddhartha S. Ghosh	Novel nanoscale materials targeted towards antimicrobial and anticancer activities	DBT	169	A. Chattopadhyay, Biplab Bose	3
Dipankar Bandyopadhyay	Design and Development of Intelligent Catalytic Nanobots	DST Nano Mission	43	Tapas K. Mandal	3
Dipankar Bandyopadhyay	A computational study on the phase separation induced pattern formation employing ultrathin films	CSIR	16.5	-	4
Pravat K. Giri	Controlled Growth and Studies on Semiconductor Nanowire Heterostructures for Solar Photovoltaic Applications	BRNS	25	-	3
Parameswar K. Iyer	Design and development and fabrication of OLED, organic solar cells and organic TFTs based on molecular, polymeric and composite materials	DST	649.89	M. Qureshi, D. Goswami, A. Srinivasan	5

Principal Investigator	Project Title	Sponsoring Agency	Amount Sanctioned (₹ in Lakh)	Co-Investigator	Duration
Dipankar Bandopadhyay	External Field Driven Flow Induced micro/nano scale Patterning, Mixing, Heat and Mass transfer in micro/nano Fluidic Devices	DST SERB	45	Tapas K. Mandal	3
Dipankar Bandopadhyay	A combined experimental and theoretical study on the instability and patterning of thin liquid crystal films	DST Fast Track	9.5	-	3
Dipak Kumar Goswami	Fabrication and Characterization of Organic thin film transistor	DST	34.60	-	3
A. Khan	Development of Stimuli Sensitive Nanogels/Nanoparticles for Controlled Release System	DST	10	-	3
Centre for Educational Technology					
Ratnajit Bhattacharjee	Virtual Lab-Pilot Phase	MHRD	200	R. Sinha, S. Majhi, R. Uppaluri, A. K. Verma, R. Tiwari, S. K. Dwivedy	6

PART IV

APPENDICES

Faculty

Officers and Scientific Staff (Group A)

Degree Awardees

Progress in Construction Works

Right to Information

Equal Opportunity cum Special Reservation

Summary of Institute Accounts



Appendix–I**FACULTY****Biosciences and Bioengineering****Professor**

- 1 Bora, U.
- 2 Chaturvedi, R.
- 3 Dasu, V.V.
- 4 Dubey, V.K.
- 5 Ghosh, S.S.
- 6 Goswami, P.
- 7 Goyal, A.
- 8 Pakshirajan, K.
- 9 Ramesh, A.
- 10 Rangan, L.
- 11 Sahu, L.
- 12 Saini, G.K.
- 13 Swaminathan, R.

Associate Professor

- 1 Baskaran, A.
- 2 Bose, B.
- 3 Chaudhary, N.
- 4 Das, D.
- 5 Jaganathan, B.G.
- 6 Kanaujia, S.P.
- 7 Kumar, S.
- 8 Kunnumakkara, A.B.
- 9 Limaye, A.M.
- 10 Mandal, B.B.
- 11 Patra, S.
- 12 Ramakrishnan, V.
- 13 Sivaprakasam, S.
- 14 Tamuli, R.
- 15 Trivedi, V.

Assistant Professor

- 1 Gupta, C.N. (From 23.01.2017)
- 2 Chandra, P.
- 3 Kobayashi, Y. (Visiting Assistant Professor)
- 4 Kumar, M.
- 5 Maiti, S.K.
- 6 Nagotu, S.
- 7 Pandey, L.M.

- 8 Satpati, P.
- 9 Singh, K.K.
- 10 Sukumar, P.
- 11 Thummer, R.P.

Chemical Engineering**Professor**

- 1 Banerjee, T.
- 2 Ghosh, P.
- 3 Ghoshal, A.K.
- 4 Gumma, S.
- 5 Majumder, S.K.
- 6 Mandal, B.
- 7 Mohanty, K.
- 8 Moholkar, V.S.
- 9 Pugazhenthii, G.
- 10 Purkait, M.K.
- 11 Saha, P.K.
- 12 Singh, A.
- 13 Uppaluri, R.G.V.S.

Associate Professor

- 1 Bandyopadhyay, D.
- 2 Das, C.
- 3 Dasmahapatra, A.K.
- 4 De, M.
- 5 Golder, A.K.
- 6 Goud, V.V.
- 7 Katiyar, V.
- 8 Kishore, N.
- 9 Kotecha, P.
- 10 Kumar, A.
- 11 Mandal, T.K.
- 12 Murugan, S.S.
- 13 Upadhyay, R.K.

Assistant Professor

- 1 Anandalakshmi, R.
- 2 Rajaraman, P. V.
- 3 Gupta, R.
- 4 Katha, A.R.

- 5 Pattader, P.S.G.
- 6 Peela, N.R.
- 7 Tiwari, P.
- 8 Vairakannu, P.

Chemistry

Professor

- 1 Baruah, J.B.
- 2 Chattopadhyay, A.
- 3 Das, G.
- 4 Gupta, A.K.
- 5 Iyer, P.K.
- 6 Khan, A.T.
- 7 Krishnamoorthy, G.
- 8 Manivannan, V.
- 9 Mondal, B.
- 10 Patel, B.K.
- 11 Paul, A.
- 12 Punniyamurthy, T.
- 13 Ray, M.
- 14 Saikia, A.K.

Associate Professor

- 1 Bag, S.S.
- 2 Das, D.
- 3 Dutta, S.
- 4 Jana, C.K.
- 5 Kundu, L.M.
- 6 Mandal, B.
- 7 Manna, D.
- 8 Mukherjee, C.
- 9 Pan, S.C.
- 10 Panda, A.N.
- 11 Paul, S.
- 12 Qureshi, M.
- 13 Sahu, K.
- 14 Sarma, M.
- 15 Sastri, C.V.
- 16 Sudhakar, A.A.

Assistant Professor

- 1 Bhabak, K.P.
- 2 Biswas, S.P.
- 3 Chatterjee, S.
- 4 Das, A.
- 5 Kancharla, P.K.
- 6 Mahata, K.
- 7 Manna, U.
- 8 Raidongia, K.
- 9 Seetharam, A.K.A.
- 10 Srimani, D.

Civil Engineering

Professor

- 1 Barua, G.
- 2 Bhattacharjya, R.K.
- 3 Chakraborty, S.
- 4 Deb, S.K.
- 5 Dutta, A.
- 6 Dutta, S.
- 7 Ghosh, P.K.
- 8 Gokhale, S.B.
- 9 Jawed, M.
- 10 Mahanta, C.
- 11 Ryntathieng, T.L.
- 12 Sarma, A.K.
- 13 Sekharan, S.
- 14 Singh, A.K.
- 15 Singh, B.
- 16 Singh, K.D.
- 17 Talukdar, S.

Associate Professor

- 1 Bharat, T.V.
- 2 Chakraborty, A.
- 3 Choudhury, R.
- 4 Kalamdhad, A.
- 5 Kartha, S.A.
- 6 Kaushik, H.B.
- 7 Krishna, A.M.
- 8 Kumar, B.
- 9 Mallikarjuna, C.
- 10 Maurya, A.K.
- 11 Mishra, A.K.
- 12 Pekkatt, S.
- 13 Pradhan, B.
- 14 Singh, L.B.

Assistant Professor

- 1 Bharati, R.
- 2 Das, S.
- 3 Dasgupta, K.
- 4 Dashora, A.
- 5 Dey, A.
- 6 Garg, A.
- 7 Goyal, M.K.
- 8 Hazra, B.
- 9 K., Ravi
- 10 Kota, H.
- 11 Kumar, A.
- 12 Nair, A.M.
- 13 Ranjani, G.I.S.
- 14 Sarma, H.
- 15 Shelke, A.
- 16 Siddagangaiah, A.K.

Computer Science and Engineering**Professor**

- 1 Barua, G.
- 2 Bhaduri, P.
- 3 Das, P.K.
- 4 Deka, J.K.
- 5 Goswami, D.
- 6 Kapoor, H.K.
- 7 Nair, S.B.
- 8 Nandi, S.
- 9 Rao, S.V.
- 10 Sajith, G.
- 11 Malhotra, V.M. (Visiting Professor since 25.07.16)

Associate Professor

- 1 Bhattacharya, S.
- 2 Biswas, S.
- 3 Inkulu, R.
- 4 Karmakar, S.
- 5 Mitra, P.
- 6 Sahu, A.
- 7 Saradhi, V.V.
- 8 Singh, S.R.
- 9 Sur, A.
- 10 Venkatesh, T.

Assistant Professor

- 1 Anand, A.
- 2 Awekar, A.C.
- 3 Baruah, R.D.
- 4 Jose, J.
- 5 Joshi, S.B. (Upto 20.05.2016)
- 6 Karfa, C. (From 01.08.2016)
- 7 Kenkireth, B.G.
- 8 Kesh, D.
- 9 Sarkar, A.
- 10 Shannigrahi, S. (Upto 13.06.2016)

Design**Professor**

- 1 Barua, U.
- 2 Chakrabarti, D.
- 3 Das, A.K.
- 4 Punekar, R.M.
- 5 Yammiyavar, P.G.

Associate Professor

- 1 Karmakara, S.
- 2 Kumar, D.U.
- 3 Sorathia, K.B.

Assistant Professor

- 1 Banerjee, S.
- 2 Bokil, P.

- 3 Das, S.
- 4 Dhar, Debayan (From 30.03.2017)
- 5 Gokhale, S.M.
- 6 Iqbal, S.
- 7 Kalita, P.C.
- 8 Madhukailya, M.
- 9 Majhi, M.
- 10 Monga, C.
- 11 Nath, N.
- 12 Pal, S.
- 13 Roy, S.
- 14 Salve, U.R.
- 15 Shende, A.
- 16 Singh, A.
- 17 Srivastava, A.
- 18 Upadhyay, P.

Electronics and Electrical Engineering**Professor**

- 1 Bhattacharjee, R.
- 2 Bora, P.K.
- 3 Bose, S.K.
- 4 Dandapat, S.
- 5 Gogoi, A.K.
- 6 Mahanta, A. (Visiting Professor)
- 7 Mahanta, C.
- 8 Majhi, S.
- 9 Nemade, H.B.
- 10 Palathinkal, R.P.
- 11 Prasanna, S.R.M.
- 12 Singh, K.R.
- 13 Sinha, R.

Associate Professor

- 1 Ahamed, S.R.
- 2 Bhuyan, M.K.
- 3 Kar, I.
- 4 Karthik, K.
- 5 Kumar, P.
- 6 Nayak, S.K.
- 7 Rajesh, A.
- 8 Sethi, A.

Assistant Professor

- 1 Adda, R.
- 2 Chatterjee, A. (Visiting Assistant Professor)
- 3 Chouhan, S.
- 4 Das, S.
- 5 Dhaka, K.
- 6 Ganguly, S.
- 7 Guha, P.
- 8 Jacob, T.
- 9 Krishnaswamy, S.
- 10 Kumar, C.
- 11 Mallajosyula, A.T.

- 12 Nallam, N.
- 13 Nath, S.
- 14 Rai, B.K.
- 15 Sekhawat, H.S.
- 16 Shrestha, G.B. (Upto 16.08.2016)
- 17 Sonkar, R.K.
- 18 Sundaram, S.
- 19 Tripathy, P.
- 20 Trivedi, G.

Humanities and Social Sciences

Professor

- 1 Barua, A.
- 2 Barua, K. (Upto 30.06.2016)
- 3 Borbora, S.
- 4 Das, L.
- 5 Dutta, M.K.
- 6 Nath, H.K. (Visiting Professor since 05.08.2016)
- 7 Punekar, R.M.
- 8 Saikia, A.
- 9 Tripathi, N.

Associate Professor

- 1 Barua, A.
- 2 Bedamatta, R.
- 3 Das, D.
- 4 Kashyap, N.
- 5 Mahanta, S.
- 6 Mallick, S.
- 7 Ray, S.
- 8 Sarmah, P.
- 9 Sharma, S.
- 10 Som, B.
- 11 Venkataraman, P.

Assistant Professor

- 1 Basu, D.
- 2 Hussain, D.
- 3 Jha, M.K.
- 4 Kipgen, N.
- 5 Mahanta, A.
- 6 Parui, A.
- 7 Saikia, P.
- 8 Sengupta, B.
- 9 Thomas, J.

Mathematics

Professor

- 1 Alam, R.
- 2 Bora, S.N.
- 3 Dalal, D.C.
- 4 Kalita, J.C.
- 5 Pati, S.
- 6 Prasad, M.G.P.

- 7 Saikia, A.
- 8 Sarma, B.K.
- 9 Selvaraju, N.
- 10 Sinha, R.K.
- 11 Srinivasan, N.

Associate Professor

- 1 Barman, R. (From 01.07.2016)
- 2 Bora, S.
- 3 Chakrabarty, S.P.
- 4 Das, G.K.
- 5 Dekka, B.
- 6 Kapoor, K.
- 7 Krishna, K.V.
- 8 Mandal, P.S.

Assistant Professor

- 1 Bandyopadhyay, S.
- 2 Bhattacharjya, B.
- 3 Chakrabarty, A.K.
- 4 Chattopadhyay, A.
- 5 Dey, A.K.
- 6 Dutta, S.
- 7 Ganguly, A. (From 28.06.2016)
- 8 Kamal, S.
- 9 Kumar, P.
- 10 Palaparthi, A.S.S.K.
- 11 Ramesh, H.
- 12 Saha, S. (From 25.07.2016)
- 13 Srikanth, K.V.
- 14 Srivastava, R.K.
- 15 Swain, J.
- 16 Tiwari, S.
- 17 Upadhyay, S.
- 18 Wagh, V.V.

Mechanical Engineering

Professor

- 1 Biswas, G. (Director)
- 2 Chakraborty, D.
- 3 Dass, A.K.
- 4 Dixit, U.S.
- 5 Dwivedy, S.K.
- 6 Kakoty, S.K.
- 7 Kanagaraj, S.
- 8 Mahanta, P.
- 9 Mishra, S.C. (Upto 08.02.2017)
- 10 Murthy, K.S.R.K.
- 11 Muthukumar, P.
- 12 Pandey, M.
- 13 Robi, P.S.
- 14 Saha, U.K.
- 15 Sahasrabudhe, A.D.
- 16 Sahoo, N.
- 17 Senthilvelan, S.

18 Tiwari, R.

Associate Professor

- 1 Bag, S.
- 2 Bandopadhyaya, D.
- 3 Banerjee, A.
- 4 Biswas, P.
- 5 Dalal, A.
- 6 De, A.K.
- 7 Joshi, S.N.
- 8 Kalita, K.
- 9 Kore, S.D.
- 10 Kulkarni, V.N.
- 11 Narayanan, R.G.
- 12 Natarajan, G.
- 13 Pal, S.
- 14 Panda, S.
- 15 Somayaji, C.

Assistant Professor

- 1 Basu, D.N.
- 2 Das, M.
- 3 Gautam, S.S.
- 4 Gavara, M.R.
- 5 Khanikar, P.
- 6 Kumar, B.
- 7 Kumari, P.
- 8 Manadal, P.K.
- 9 Mehta, B.
- 10 Rajendraswamy, S.D.
- 11 Reddy, A.N.
- 12 Shankar, M.R.
- 13 Sharma, D.

Physics

Professor

- 1 Agarwal, P.
- 2 Alagarsamy, P.
- 3 Basu, S.
- 4 Ghosh, S.
- 5 Giri, P.K.
- 6 Khare, A.
- 7 Khijwania, S.K.
- 8 Poullose, P.
- 9 Ravi, S.
- 10 Santra, S.B.
- 11 Setlur, G.S.
- 12 Srinivasan, A.
- 13 Ahluwalia, D.V. (Visiting Professor since 22.08.2016)

Associate Professor

- 1 Bhuyan, B.
- 2 Boruah, B.R.
- 3 Das, S.
- 4 Dey, T.N.

- 5 Kadolkar, C.Y.
- 6 Nandy, M.K.
- 7 Padmanabhan, P.K.
- 8 Pal, D.
- 9 Pamu, D.
- 10 Sarma, A.K.
- 11 Sharma, A.K.
- 12 Sil, A.
- 13 Thota, S.

Assistant Professor

- 1 Bhattacharya, S.
- 2 Borah, D.
- 3 Chakrabarti, S.K.
- 4 Chakraborty, S.
- 5 Kumar, G.
- 6 Kumar, M.C.
- 7 Maiti, U.N.
- 8 Maity, D.
- 9 Majhi, B.R.
- 10 Mishra, P.K.
- 11 Mishra, T.
- 12 Nandi, S.
- 13 Pandey, K.
- 14 Raha, U.

Centre for Energy

Assistant Professor

- 1 Chaturvedi, H. (Visiting Assistant Professor)
- 2 Kalita, P.
- 3 Sreenivasan, K. (Upto 19.05.2016)

Centre for Linguistic Science and Technology

Visiting Faculty

- 1 Samudravijaya, K. (From 01.12.2016)

Centre for Rural Technology

Associate Professor

- 1 Mitra, S. (From 19.01.2017)

Assistant Professor

- 1 Singha, S.
- 2 Khwairakpam, M. (From 09.03.2017)

OFFICERS AND SCIENTIFIC STAFF (GROUP A)

Officers (Group A)

Name	Designation	Dept./Section
Das, U. C.	Registrar	
Barua, S. K.	Academic Registrar	Academic Affairs
Goswami, D. J.	Joint Registrar	Administration
Hazarika, P.	Joint Registrar	Finance and Accounts
Bhuyan, K.	Deputy Registrar	Establishment and QIP
Boro, D.	Deputy Registrar	PIO & EO-cum-SRC
Haokip, T. T.	Deputy Registrar	S&P
Sharma, D.	Deputy Registrar	R&D
Boishya, L. D.	Assistant Registrar	Finance and Accounts
Borgohain, P.	Assistant Registrar	Faculty Affairs
Choudhury, S.	Assistant Registrar	Establishment
Das, G.	Assistant Registrar	Medical and QIP
Das, K. C.	Assistant Registrar	Admn. (Rectt.)
Dutta, D.	Assistant Registrar	Internal Audit
Kakati, M.	Assistant Registrar	Students' Affairs
Konwar, L. K.	Assistant Registrar	Public Relations
Mandal, S.	Assistant Registrar	R&D
Phukan, A.	Assistant Registrar	Director's Office
Salhotra, N. D.	Assistant Registrar	Legal Cell
Shynret, A. W.	Assistant Registrar	AA&ER
Goswami, A. (Retd. on 31.08.2016)	Superintending Engineer (Elect.)	Engineering Section
Singh, T. J.	Superintending Engineer (Civil)	Engineering Section
Bhagawati, D.	Exe. Engineer (Elect.)	Engineering Section
Roy, N.	Exe. Engineer (Civil)	Engineering Section
Barman, K.	Asst. Exe. Eng. (Elect.)	Engineering Section
Dutta, D.	Asst. Exe. Eng. (Civil)	Engineering Section
Gogoi, A. K.	Asst. Exe. Eng. (Civil)	Engineering Section
Sarma, N. K.	Asst. Exe. Eng. (Civil)	Engineering Section
Senapati, S.	Asst. Exe. Eng. (Elect.)	Engineering Section
Guha, T. K.	Librarian	LNB Central Library
Deka, S.	Assistant Librarian	LNB Central Library
Rajbangshi, R. K.	Assistant Librarian	LNB Central Library
Borthakur, M.	Chief Medical Officer (SAG)	Medical
Barua, L.	Chief Medical Officer (NFSG)	Medical
Baruah, A. K.	Chief Medical Officer (NFSG)	Medical
Gohain, B. B.	Sr. Security Officer	Security

Scientific Staff (Group A)

Name	Designation	Department/Centre
Das, S.	Sr. Technical Officer	Electronics and Electrical Engineering
Dutta, P. K.	Sr. Technical Officer	Computer and Communication Centre
Sharma, L. N.	Sr. Technical Officer	Electronics and Electrical Engineering
Acharyya, K.	Technical Officer Gr. I	Nanotechnology
Barbora, L.	Technical Officer Gr. I	Centre for Energy
Borah, B.	Technical Officer Gr. I	Computer Science and Engineering
Borah, M. M.	Technical Officer Gr. I	Computer and Communication Centre
Borgohain, C.	Technical Officer Gr. I	Central Instruments Facility
Borsaikia, A. C.	Technical Officer Gr. I	Civil Engineering
Das, B.	Technical Officer Gr. I	Chemistry
Das, M. P.	Technical Officer Gr. I	Electronics and Electrical Engineering
Das, P.	Technical Officer Gr. I	Nanotechnology
Das, S.	Technical Officer Gr. I	Computer and Communication Centre
Deka, D.	Technical Officer Gr. I	Centre for the Environment
Ghosh, J. K.	Technical Officer Gr. I	Computer and Communication Centre
Inam, I.	Technical Officer Gr. I	Computer and Communication Centre
Islam, J.	Technical Officer Gr. I	Computer and Communication Centre
Kachari, N. A.	Technical Officer Gr. I	Computer Science and Engineering
Kalita, R.	Technical Officer Gr. I	Chemical Engineering
Paul, P.	Technical Officer Gr. I	Mechanical Engineering
S. Josephine	Technical Officer Gr. I	Electronics and Electrical Engineering
Saikia, G. K.	Technical Officer Gr. I	Computer and Communication Centre
Saikia, J.	Technical Officer Gr. I	Civil Engineering
Saikia, R.	Technical Officer Gr. I	Mechanical Engineering
Sarma, S.	Technical Officer Gr. I	Physics
Senapati, K. K.	Technical Officer Gr. I	Central Instruments Facility
Baruah, A. M.	Technical Officer Gr. II	Chemistry
Baruah, D.	Technical Officer Gr. II	Centre for Energy
Biswanath, H.	Technical Officer Gr. II	Chemical Engineering
Gogoi, D.	Technical Officer Gr. II	Central Instruments Facility
Kalita, K.	Technical Officer Gr. II	Civil Engineering
Kalita, S.	Technical Officer Gr. II	Civil Engineering
Kumar, P.	Technical Officer Gr. II	Chemical Engineering
Kumari, N. K. P.	Technical Officer Gr. II	Centre for the Environment
Pathak, D.	Technical Officer Gr. II	Computer and Communication Centre
Sevda, S.	Technical Officer Gr. II	Biosciences and Bioengineering
Sharma, H.	Technical Officer Gr. II	Design
Tamuli, B.	Technical Officer Gr. II	Design
Dutta, R. C.	Asst. Physical Education Officer	Students' Affairs
Saikia, D.	Asst. Physical Education Officer	Students' Affairs
Das, N. K.	Asst. Workshop Supdt.	Mechanical Engineering

Appendix-III

DEGREE AWARDEES

In the 18th Convocation held on 22 June 2016, a total number of 1265 students received their BTech, BDes, MA, MSc, MTech, MDes and PhD degrees as given below:

Programme	Degree Awarded
BTech/BDes	
Biotechnology	47
Chemical Engineering	61
Chemical Science and Technology	33
Civil Engineering	73
Computer Science and Engineering	88
Design	37
Electronics and Communication Engineering	81
Electronics and Electrical Engineering	48
Engineering Physics	34
Mathematics and Computing	46
Mechanical Engineering	82
Total	630
MSc	
Chemistry	47
Mathematics and Computing	38
Physics	44
Total	129
MA	
Development Studies	22
Total	22

Programme	Degree Awarded
MTech/MDes	
Biotechnology	32
Chemical Engineering	46
Civil Engineering	80
Computer Science and Engineering	46
Design	26
Electronics and Electrical Engineering	47
Mechanical Engineering	79
Total	356
PhD	
Biosciences and Bioengineering	6
Chemistry	30
Chemical Engineering	19
Civil Engineering	10
Computer Science and Engineering	4
Design	8
Electronics and Electrical Engineering	6
Humanities and Social Sciences	4
Mechanical Engineering	21
Mathematics	5
Physics	9
Centre for Energy	2
Centre for the Environment	2
Centre for Nanotechnology	2
Total	128
Grand Total	1265

Gold and Silver Medalists**President of India Gold Medal**

Vrinda Kochar
BTech (Computer Science and Engineering)

Silver Medals

Vijay Viswanath
BTech (Electronics and Communication Engineering)

Kalind Baraya
BTech (Mechanical Engineering)

Bhanu Prakash Agrawal
BTech (Civil Engineering)

Adarsh Sharma
BTech (Biotechnology)

Richa Motwani
BTech (Chemical Engineering)

Yogesh Singh
BTech (Electronics and Electrical Engineering)

Vineeth S. Bhaskara
BTech (Engineering Physics)

Tushar Kant Garg
BTech (Chemical Science and Technology)

Adarsh Kumar
BTech (Mathematics and Computing)

Needa Jamil
BDes (Design)

Atri Dey
MSc (Physics)

Rajarshi Panigrahi
MSc (Chemistry)

Prerona Chatterjee
MSc (Mathematics and Computing)

Prerna Sah
MA (Development Studies)

Dr. Shankar Dayal Sharma Gold Medal

Bhavin Mandalaywala
BTech (Mechanical Engineering)

List of students who have fulfilled the requirements for award of B.Tech. degree in Computer Science and Engineering

Sl. No	Roll No	Name
1.	120101001	A SAI SUSHANTH
2.	120101002	ABHINAV MITTAL
3.	120101003	ABHINAV RAVI
4.	120101004	ABHISHEK GOYAL
5.	120101006	AKRITI KUMARI
6.	120101007	AKSHAY VERMA
7.	120101008	AMAN JAIN
8.	120101009	ANAND KUMAR KESHRI
9.	120101010	ANIMESH KARMAKAR
10.	120101012	AYANTIKA DEY
11.	120101013	BABUL DOLEY
12.	120101014	BANGARU KRISHNA SAI SRIKAR
13.	120101016	BENDKHALE D. CHANDRASHEKHAR
14.	120101017	BHARAT NARAYAN GUPTA
15.	120101018	CHANDRAGIRI VINAY
16.	120101020	DEVESH
17.	120101021	DHEERAJ KHATRI
18.	120101022	DHEERAJ PURI GOSWAMI
19.	120101023	DINESH MAHAUR
20.	120101024	GAJJELA SRIDHAR
21.	120101025	GAJURI ABHISHEK SINGH
22.	120101026	GANJI CHANDRAKANTH
23.	120101027	GANJI SAI KUMAR
24.	120101028	GAURAV MADHUKER
25.	120101029	HIMANSHU GOYAL
26.	120101030	JAI RAM SINGH
27.	120101032	KAZIPETA SHARATH
28.	120101034	KHAN AKIB NAWEED
29.	120101035	KOLLA PRAVEEN KUMAR
30.	120101036	KONAKANCHI R. GOPI CHOWDARY
31.	120101037	KUNAL KHANDELWAL
32.	120101038	KURUKUNDA VENKATA NEEHAR
33.	120101039	KUSHAL SRIVASTAVA
34.	120101040	MANISH SHARMA
35.	120101041	MOHIT
36.	120101042	MONIKA SRIVASTAVA
37.	120101043	MURALI RAGHU BABU B
38.	120101045	NISHANT GUPTA
39.	120101046	DESHPANDE OJAS ANIKET
40.	120101047	PANDEY VINEET KUMAR
41.	120101048	PARAG GANGIL
42.	120101049	PARAG R ADHAU
43.	120101050	PINTU KUMAR
44.	120101051	POKKULA SATHWIK SAI
45.	120101052	PREET SAI MUTNEJA
46.	120101053	PULKIT ARORA
47.	120101054	RADHIKA PATODIYA
48.	120101055	RAJA KUMAR
49.	120101056	RAJAT AGRAWAL
50.	120101057	RANU VIKRAM
51.	120101058	RAVINDRA SINGH GURJAR

52.	120101059	RAVURU ANIL KUMAR	14.	120102019	CHILAKANI MAHESH
53.	120101060	RISHI SHARMA	15.	120102021	DEEPANKER SINGH
54.	120101062	ROSHAN NATHANI	16.	120102022	GAGANDEEP
55.	120101063	SACHIN MITTAL	17.	120102023	GANI SIVA KUMAR
56.	120101064	SAI ANIRUDH KONDAVEETI	18.	120102024	GOPI SAI TEJA
57.	120101065	SAMBIT PADHI	19.	120102025	GOTTIMUKKULA ABHIRAM
58.	120101066	SANDEEP SAMATAM	20.	120102026	GULSHAN CHAUHAN
59.	120101067	SHRIRAJ BHARDWAJ	21.	120102028	HARISH BOHARA
60.	120101068	SHUBHAM SHUKLA	22.	120102029	ISHAN MISHRA
61.	120101069	SIDDHESH SHYAM KHANDELWAL	23.	120102030	JITESH KUMAR SAPAWAT
62.	120101070	SOHAM BALKRISHNA KONDALKAR	24.	120102031	KAMAL RAWAT
63.	120101071	SUKHPAL SINGH	25.	120102032	KANDIMALLA BHARATH KUMAR
64.	120101072	SURAJ RAUTELA	26.	120102033	KANETKAR SALIL SHARAD
65.	120101073	SWAPNIL AGARWAL	27.	120102034	KARIVEDA THARUN
66.	120101074	TIPIREDDY SHUBHAKAR REDDY	28.	120102035	KASA RAKESH
67.	120101075	VANGALA VISHWADEEP	29.	120102036	KOMANDLA VAMSHIDHAR REDDY
68.	120101076	VASIREDDY GOPICHAND	30.	120102037	MD DANISH KALIM
69.	120101077	VASU GHATOLE	31.	120102038	MUKESH CHAUDHARY
70.	120101079	VIKRAM BISHNOI	32.	120102039	NARENDRA KUMAR MEENA
71.	120101080	VISHAL KUMAR	33.	120102041	PATNANA V. MANIKANTA
72.	120101081	ANKIT KUMAR	34.	120102042	PAWAN KUMAR DIXIT
73.	120101082	V. VENKATA SATYANARAYANA	35.	120102044	PRABALAKANTI DASH
74.	120101083	ABHIJEET SINGH	36.	120102045	PRACHI MISHRA
75.	120101084	RAHUL AGGARWAL	37.	120102047	PRASHANT KUMAR SINHA
76.	120101085	VRINDA KOCHAR	38.	120102048	PRASHANTH JAMPANA
77.	120101086	SUBHOJEET	39.	120102050	RAHUL KUMAR
78.	120101087	ABHISHEK SEN	40.	120102053	SALIL MAMODIYA
79.	120101088	SANKALP NAVNEET BIHANI	41.	120102054	SANUJ SHARMA
80.	11010124	JYOTHSNA P	42.	120102055	SHIVANI GUPTA
81.	11010128	KHANIN DEKA	43.	120102056	SHREYANK NISHANT
82.	11010130	M KRISHNA KANTH	44.	120102057	SHUBHAM JAIN
83.	11010131	M PRUDHVI RAJ CHOWHAN	45.	120102058	SIMANDHAR JAIN
84.	11010135	MAMIDI PRASHANTH	46.	120102059	SNEHA SINGH
85.	11010141	MOON SUSHANT SHARAD	47.	120102060	SUSHANT KUMAR
86.	11010148	P MANIKANTA REDDY	48.	120102061	T SAI REVANTH
87.	09010118	JASVINDAR SINGH SINGARIYA	49.	120102062	TARUN REDDY YADAMA
88.	09010157	VIBHUTI KUMAR	50.	120102063	THOUTAM KALYAN SAGAR
			51.	120102064	TOLAPU RAMAKRISHNA
			52.	120102065	TUMMALA SAI REVANTH
			53.	120102067	VARCHIT BANSAL
			54.	120102068	VEERESH
			55.	120102069	VINAY KUMAR JATOTH
			56.	120102070	VISHAL JHA
			57.	120102071	VISHNUMOLAKALA RAGHU SAGAR
			58.	120102072	YUGESH CHANDRAKAPURE
			59.	120102073	PHANIKRISHNA U
			60.	120102074	SATTWIK NANDI
			61.	120102075	KRISHNENDU GHOSH
			62.	120102076	LAV KUMAR
			63.	120102077	VIJAY VISWANATH
			64.	120102078	RAJEEV DAIPURIYA
			65.	120102079	ANMOL RAMRAIKA
			66.	120102080	SUBRAHMANYA SAI TARUN KALLURI
			67.	120102081	ATUL KUSHWAHA
			68.	120102082	PRAANSHU GOYAL
			69.	11010210	ANIL PRABHALA

List of students who have fulfilled the requirements for award of B.Tech. degree in Electronics and Communication Engineering

Sl. No	Roll No	Name
1.	120102001	ABHIJAT BISWAS
2.	120102002	ABHIMANYU CHAWLA
3.	120102003	ABHISHEK
4.	120102005	ABHISHEK YADAV
5.	120102006	ABHRA GHOSH
6.	120102007	AJAY KAARAN GUPTA
7.	120102008	AKHIL BABU MANAM
8.	120102009	ANAND SAURABH
9.	120102010	ANKIT AGARWAL
10.	120102011	ANKIT KUMAR
11.	120102012	ANKUR KUNDER
12.	120102013	ANUBHAV PHUKAN
13.	120102018	BORELLY ANJANEYULU

70.	11010214	BANDARU SRIRAM	40.	120103049	PRAMOD KUMAR
71.	11010223	DEEPA RAM	41.	120103052	RAMATH MALLIKARJUNA NAIK
72.	11010226	GAURAV JAIN	42.	120103054	RONIT SHAW
73.	11010234	JINENDRA SONI	43.	120103055	SAI KRISHNA KISHORE NORI
74.	11010236	KAKUMANI MANOJKUMAR	44.	120103056	SALEEM AHMAD
75.	11010242	KUMPATI SAMPATH KIRAN	45.	120103057	SAMANT SAURABH YESHWANT
76.	11010243	LOKESH PANDIYAR	46.	120103060	SANKAR BISWAS
77.	11010259	RAYAPATI PRABHAT	47.	120103061	SHASHWAT RISHI TIWARI
78.	10010205	AKSHYA SINGH	48.	120103062	SHUBHAM
79.	10010242	PAVANDEEP SINGH	49.	120103063	SINGH SURAJ KUMAR
80.	10010255	SHALINI SUMAN	50.	120103066	SUDHANSU KUMAR BEHERA
81.	09010208	ASHWANI KUMAR	51.	120103068	SUNDAR SUMAN
			52.	120103069	SUNIL KUMAR BAGI
			53.	120103070	SURAKASULA MANOJKUMAR
			54.	120103071	S. MANIKANTA SAI MANOHAR
			55.	120103072	TANJAVOORU VIVEK TEJA
			56.	120103073	TARENDRA KUMAR THAKUR
			57.	120103074	T. GANDLA HARI SHANKAR
			58.	120103075	UDIT PANWAR
			59.	120103076	VEERAVALLI SANTOSH KUMAR
			60.	120103077	VIJAY SINGH RAJPOOT
			61.	120103078	VISHAL KUMAR SINGH
			62.	120103080	VIVEK DAMODAR DANDGE
			63.	120103082	SANTOSH KUMAR
			64.	120103083	KALIND BARAYA
			65.	120103084	SAURAV MOHANTY
			66.	120103085	SUMAN MANDAL
			67.	120103086	TANMAY SHANKAR
			68.	120103087	VITTAL SURYA LAKSHYA
			69.	120103088	PAAWAN TALWAR
			70.	120103089	PALLI PRASANTH
			71.	120103090	ROUSHAN SINHA
			72.	120103091	HARISH CHOUDHARY
			73.	120103092	GOGIREDDY SAI PRANEETH REDDY
			74.	120103093	KUMAR DEEPAK
			75.	120103094	MAYANK GARG
			76.	120103095	ARUN KUMAR
			77.	11010313	BOLLU BHARATH KUMAR
			78.	11010338	MUNAGALA GIRIDHAR
			79.	11010340	NAKHALE JAYANT VASANT
			80.	11010353	RASETTY MANJUNADH
			81.	11010381	RAHUL TUMMALA
			82.	10010302	ABHISHEK KUMAR

List of students who have fulfilled the requirements for award of B.Tech. degree in Mechanical Engineering

Sl. No	Roll No	Name
1.	120103001	ABHIJEET KUMAR SINHA
2.	120103002	ABHIJEET SINGH RATHORE
3.	120103003	ABHISHEK KUMAR GUPTA
4.	120103004	ABID HAQUE
5.	120103007	AKSHAY SAXENA
6.	120103008	AMAN RAJVARDHAN
7.	120103009	AMAR SINGH
8.	120103010	AMIT KUMAR
9.	120103011	ANKIT ASHOK GONDOLE
10.	120103012	ANKIT SONI
11.	120103013	ANKUR GUPTA
12.	120103014	ANMOL MUKATI
13.	120103015	ANSHUL AGARWAL
14.	120103016	ANSHUL PADYAL
15.	120103017	ANUBRATA SAIKIA
16.	120103018	ANURAG SAO
17.	120103019	ARPAN SEN
18.	120103021	ASHISH KUMAR SONI
19.	120103022	AVNISH GOYAL
20.	120103024	BANDARU SAMBA MURTHY
21.	120103025	BHAVIN MANDALAYWALA
22.	120103027	BODDEDA AKASH
23.	120103028	DEVANG AGARWAL
24.	120103029	DEVENDRA PRAKASH MEENA
25.	120103030	DHAWALE ADITYA NANDAKUMAR
26.	120103031	GAYAM BHANU TEJA
27.	120103032	GONDRALA SUDHEER KUMAR
28.	120103033	GYANA RANJAN MALLICK
29.	120103034	ISHWAR KAPOOR
30.	120103037	KESHAV SHARMA
31.	120103038	KULDEEP DAS
32.	120103039	KUNUKU SURAJ
33.	120103040	LOKESH KUMAR DESWAL
34.	120103041	MADHURENDRA KUMAR
35.	120103042	MAHESH CHANDRA BHARTI
36.	120103044	NAMAN KANSAL
37.	120103045	NAVEEN MADAPANA
38.	120103046	PARALIKAR SWAPNIL KISHOR
39.	120103047	PAWAN KUMAR VERMA

List of students who have fulfilled the requirements for award of B.Tech. degree in Civil Engineering

Sl. No	Roll No	Name
1.	120104001	ABHINAV ANAND
2.	120104002	ABHISHEK ARORA
3.	120104003	AJAY SINGH MEENA
4.	120104004	AKASH YADAV
5.	120104005	AKSHAY JAIN
6.	120104006	AMIT KUMAR MEENA
7.	120104007	AMIT SATHI
8.	120104008	ANKIT KUMAR

9.	120104009	APURBAJYOTI BISWASI
10.	120104010	ARPAN BANERJEE
11.	120104011	ARPIT DEORAO MESHARAM
12.	120104013	BALUSU SURYAPRASANNA KUMAR
13.	120104014	BANAVATH RAJESH
14.	120104015	BHANU PRAKASH AGRAWAL
15.	120104016	BINGI ANAMI
16.	120104017	BUDDI PRAKASH MEENA
17.	120104018	CHALLA MANIKANTA
18.	120104020	DAVE ANIRUDDHA MAHESH
19.	120104022	DHANRAJ MEENA
20.	120104023	GAGANDEEP SINGH RANDHAWA
21.	120104024	GOPARAJU V N S MANOHAR UTTEJ
22.	120104025	HIMANSHU GUPTA
23.	120104027	HIMANSHU GUPTA
24.	120104028	J INDRA KIRAN KUMAR REDDY
25.	120104029	JAI PRAKASH MAHAUR
26.	120104030	JAYANT JOSHI
27.	120104031	JITENDRA KUMAR
28.	120104032	JUTHIKA DAS
29.	120104033	KAMALAMPET RAJEEV DATTA
30.	120104034	KANHEIYA LAL JAIN
31.	120104035	KATHRAM MADHUSUDHAN REDDY
32.	120104036	KOUTHARAPU ADITYA
33.	120104039	MAN PARVESH SINGH RANDHAWA
34.	120104040	MEGHA
35.	120104041	M. SULTAN MOHIDEEN ZILANI
36.	120104042	MUDDUNURU RAKSHITH KUMAR
37.	120104043	NAVEEN SHARMA
38.	120104044	NEDUNURI KOUNDINYA
39.	120104045	NINAD SHRINIVAS PATE
40.	120104048	PAWAN KUMAR
41.	120104049	POLIMERA VINOD KUMAR REDDY
42.	120104050	PRAFFUL BAHETI
43.	120104051	PRATEEK KUMAR
44.	120104054	RAJESH KUMAR
45.	120104055	RAJESH PANWAR
46.	120104056	RAKESH RANJAN
47.	120104057	REKULWAR SHUBAM
48.	120104058	RISHABH DAGA
49.	120104059	RISHAV KEDIA
50.	120104060	RITESH KUMAR AGRAWAL
51.	120104062	SANDEEP
52.	120104063	SATYA PRAKASH PATEL
53.	120104064	SHIVAM SINGH BAGHEL
54.	120104065	SHIVENDRA SINGH
55.	120104066	SHRIRAM KUSHWAHA
56.	120104067	SHYAM SUNDER GARG
57.	120104070	SUJAN SINGH DANGI
58.	120104072	SUMIT GOYAL
59.	120104073	SUMIT KUMAR MAHTO
60.	120104074	TARKESHWAR KUMAR
61.	120104075	TARUN KUMAR SAHU
62.	120104076	TEJ RAM MEENA
63.	120104077	VENKATA SAI CHAITANYA DUDALA
64.	120104078	VISHAL VAIBHAV

65.	120104079	YALLA SAI CHARAN
66.	120104080	SHUBHAM MOURYA
67.	11010412	AVVARU VENKATA NAVEEN
68.	11010420	DESAI HARDIK PARIMALBHAI
69.	11010434	KOTU KRISHNA SIDDHARTHA
70.	11010446	PRABAL GANDHI
71.	11010466	V S BHARADWAJ
72.	11010471	YANDA SURYA SHARATH CHANDRA
73.	09010411	ARVIND KUMAR

List of students who have fulfilled the requirements for award of B.Tech. degree in Biotechnology

Sl. No	Roll No	Name
1.	120106001	ABHAY SHARMA
2.	120106002	ADARSH SHARMA
3.	120106003	ADITI MAKHIJA
4.	120106004	ALAKESH
5.	120106005	ALJAPUR VINEETH
6.	120106007	ANSHUMAN BHANJA
7.	120106008	ANUJ
8.	120106009	ARAVIND MADHAMSETTY
9.	120106011	ASHUTOSH SAXENA
10.	120106013	AYUSH KHARE
11.	120106014	BAHADUR DANGI
12.	120106015	BHARAT SINGH
13.	120106016	BOJANKI PHANEENDRA KUMAR
14.	120106018	DIVYA
15.	120106019	JASTI APOORVA
16.	120106020	JOYDEEP DAS
17.	120106021	GAURAV ANIL JUMDE
18.	120106024	MANTRI MOUNIKA
19.	120106027	NITEESH KUMAR
20.	120106029	PRATEEK HEMANI
21.	120106030	PRATYAJIT MOHAPATRA
22.	120106031	PUTTA SHRAVAN
23.	120106032	RAJA SEKAR V
24.	120106033	RAJAT SURI
25.	120106034	RAJENDRA MEENA
26.	120106035	RAMAVATHU SUNIL KUMAR
27.	120106036	RITU MISHRA
28.	120106037	ROHIT GAURAV
29.	120106038	SACHIN KUMAR
30.	120106039	BEHARA SAI CHAND
31.	120106041	SANDESH ARYA
32.	120106042	SANJU SINHA
33.	120106044	SAURABH JAIN
34.	120106045	SAURABH SARKAR
35.	120106047	SHASHI SHEKHAR
36.	120106049	SUMIT KUMAR YADAV
37.	120106050	SURAJ DASHARATH PATIL
38.	120106051	TANMAY SHARMA
39.	120106052	VIKASH KUMAR
40.	120106053	VIKRANT
41.	120106054	VISHAL CHAUDHARY
42.	11010601	ABHISHEK BENIWAL

43.	11010611	AYUSH SINGHAL
44.	11010616	DAIMALU BAGLARY
45.	11010623	LAL MIKSHAM PURUSHOTTAM
46.	11010629	RAM KUMAR
47.	10010635	ROHIT KUMAR

List of students who have fulfilled the requirements for award of B.Tech. degree in Chemical Engineering

Sl. No	Roll No	Name
1.	120107001	AASHISH SUTHAR
2.	120107002	ADESH KUMAR
3.	120107003	ADITYA RATNA
4.	120107004	AKANKSHA SHARMA
5.	120107005	AKSHAY JHA
6.	120107007	AMRITA SONOWAL
7.	120107008	ANUPAM MISHRA
8.	120107009	ANURAG JHAVER
9.	120107011	BAILORE VIKHYAT ACHARYA
10.	120107012	BIPIN KUMAR
11.	120107013	BURHAN USMAN K V
12.	120107015	CHARAN SAI BUGUDALA
13.	120107016	CHELLI KIRAN KUMAR
14.	120107017	DAYMA PARITOSH VIJAY
15.	120107018	DILIP KUMAR BUNKAR
16.	120107019	DIVESH SHARMA
17.	120107020	GANDE AJAY KUMAR
18.	120107021	GUPTA VIKASKUMAR HARIPRASAD
19.	120107023	HARSH GARG
20.	120107025	JITENDRA KUMAR
21.	120107026	KAILASH BHAKAL
22.	120107028	KANCHARLA SAMHITHA
23.	120107029	KAUSHAL KUMAR
24.	120107031	KULDEEP SINGH
25.	120107033	MD RASHID ALI FARIDI
26.	120107034	MOHIT KUMAR
27.	120107035	NILAY KUMAR
28.	120107036	NISHANT TOSHNIWAL
29.	120107037	PANKAJ KUMAR
30.	120107039	PRATAP CHOPARA
31.	120107040	PRATAP KHAPARDE
32.	120107041	PRIYA ASHOKKUMAR CHOUDHARY
33.	120107043	RAVI CHAUDHARY
34.	120107044	RAVINDER KUMAR
35.	120107045	RIKI BISWAS
36.	120107046	RISHAB BANSAL
37.	120107047	SAGAR GARG
38.	120107052	SAYANTAN DUTTA
39.	120107053	SHASHANK KATARIA
40.	120107054	SHIKHAR SAXENA
41.	120107055	SHIVANSH RAI
42.	120107056	SHIVRAJ
43.	120107058	SHUBHAM VIJAY DAHAT
44.	120107061	SONU KUMAR RUDRA
45.	120107062	SUSHANT JAMDAR
46.	120107064	V VINEET

47.	120107068	VIKASH YADAV
48.	120107069	YATINDRA AGRAWAL
49.	120107070	RICHA MOTWANI
50.	11010711	BAGGU JANARDHANA RAO
51.	11010718	JAYANT SWAMI
52.	11010723	KUSHAL MITRUKA
53.	11010725	MAHENDRA KARWASARA
54.	11010729	MOHIT ARUN KANDOI
55.	11010744	SAKSHAM AGARWAL
56.	11010750	SHUBHANGI PARDE
57.	11010753	TANMAY MAHESHWARI
58.	11010757	VIKAS PANDEY
59.	11010762	VIRENDRA KUMAR BHANSALI
60.	10010759	VIKRAM SINGH MEENA
61.	09010716	BERI PRADEEPRAJ

List of students who have fulfilled the requirements for award of B.Tech. degree in Electronics and Electrical Engineering

Sl. No	Roll No	Name
1.	120108001	ABHAY KUMAR
2.	120108003	ABHISHEK KUMAR
3.	120108004	ABHISHEK RANJAN
4.	120108005	AKUL PRATAP SINGH TOMAR
5.	120108006	ALAPATI VENU GOPAL
6.	120108007	AMAN ASHWIN
7.	120108009	ANKIT BANSAL
8.	120108011	DHANU VARDHAN SINGH JHALA
9.	120108013	DINABANDHU BEHERA
10.	120108014	GAURAV SINHA
11.	120108015	HIMANSHU UPADHYAY
12.	120108016	JITENDRA KHATIK
13.	120108017	KUNAL VERMA
14.	120108018	KUYA NIKHIL
15.	120108019	MD ARIF
16.	120108020	MITHOON KUMAR
17.	120108021	NAYANMONI BAISHYA
18.	120108022	NEERATI MAHESH
19.	120108023	N. TIRUMALA VENKATA SATYA DEV
20.	120108024	PANKAJ MANSION
21.	120108026	PRAKHAR TOSNIWAL
22.	120108027	RAHUL GHOSH
23.	120108028	RAJESH KUMAR
24.	120108029	RAVI KIRAN M
25.	120108030	RUPESH NARAYAN
26.	120108031	SANCHIT GUPTA
27.	120108032	SHAHZAD ALAM
28.	120108034	SOMITRA BALDUA
29.	120108035	SURABHI BHARGAVA
30.	120108036	SWAPNIL GUPTA
31.	120108037	THRINADHA PRADEEP KUMAR P
32.	120108038	TULENDRA NATH SAIKIA
33.	120108039	URVASHI BENIWAL
34.	120108041	VIKAS JAIN
35.	120108043	DEVAVRAT TOMAR

36.	120108044	HEMENDRA SINGH RANA
37.	120108045	ISHT DWIVEDI
38.	120108046	NEIL G MEHTA
39.	120108047	YOGESH SINGH
40.	120108048	AYUSH PATHANIA
41.	120108049	NAMAN JAIN
42.	120108050	RISHABH JAIN
43.	120108051	ASHIMA JAIN
44.	11010802	ADARSH MISHRA
45.	11010805	AMARENDRA TIWARI
46.	11010807	ASHEESH MEENA
47.	11010822	NARENDRA KUMAR
48.	11010839	VISHAL KAILASH GAWADE

List of students who have fulfilled the requirements for award of B.Tech. degree in Chemical Science and Technology

Sl. No	Roll No	Name
1.	120122001	AASHUTOSH SHIVHARE
2.	120122002	ADITYA JAIN
3.	120122003	AJAY
4.	120122004	AKASH DEWANAND MASIRKAR
5.	120122005	ANUJ SUMAN
6.	120122006	ASHUTOSH KUMAR KAUTARYA
7.	120122009	ATUL KUMAR
8.	120122010	AZMEERA SANTHOSH KUMAR
9.	120122011	GADE SAI CHANDER
10.	120122012	GAURAV AGRAWAL
11.	120122014	HIMANI YADAV
12.	120122015	INDELA SRAVYA
13.	120122018	KULDEEP
14.	120122019	LAKSHYA KUMAR GUPTA
15.	120122020	LAVANYA PAWAR
16.	120122022	MANAS PRATIM KAKATI
17.	120122023	NANDAN HALOI
18.	120122025	PANKAJ KUMAR VERMA
19.	120122027	PUSHKAR KUMAR
20.	120122028	RAHUL KADYAN
21.	120122031	ROCHITA SUNDAR
22.	120122032	ROHAN JAIN
23.	120122033	SAMIR KUMAR
24.	120122035	SAURABH KUMAR VERMA
25.	120122038	AMEYA PRAMOD SAWANT
26.	120122039	SHREYA RAINA
27.	120122040	SHREYASH RAI
28.	120122041	SOURABH CHORARIA
29.	120122042	SUNIL KUMAR
30.	120122044	TULIKA AGRAWAL
31.	120122045	TUSHAR KANT GARG
32.	11012231	SHREYAS RAMAN
33.	11012238	THADURU OM PRAKASH REDDY

List of students who have fulfilled the requirements for award of B.Tech. degree in Engineering Physics

Sl. No	Roll No	Name
1.	120121001	ABHIJITH M G
2.	120121002	ABHINAV JINDAL
3.	120121004	AKSHAY SHARAD KHOCHIKAR
4.	120121005	ANKIT ISRANI
5.	120121006	ARPIT KR AGRAWAL
6.	120121007	VINEETH S. BHASKARA
7.	120121008	BHOOPENDRA BAHADUR SINGH
8.	120121009	C R RAKESH
9.	120121011	DHAWAD ANIKET ANANT
10.	120121013	HARSHA SHAKSHI
11.	120121017	K. SRINIVASA KARTHEEK
12.	120121018	KRISHN KUMAR MEENA
13.	120121020	KUMAR SANU
14.	120121021	KUNAL KUMAR
15.	120121022	KURMAPU BALA KRISHNA
16.	120121023	MENUKA JAISWAL
17.	120121026	P SHRAVAN KUMAR
18.	120121027	PERI SAI PRADEEP
19.	120121028	P. VISHNU PRANEETH REDDY
20.	120121029	PRIYA MEENA
21.	120121030	PULIDINDI SANDEEP
22.	120121033	SAKRE NIRMIT DEEPAK
23.	120121036	SAURABH SRIVASTAVA
24.	120121037	SRICHARAN VEGGALAM
25.	120121038	SUDHIR YADAV
26.	120121039	SUMAN BHARTI
27.	120121040	SUMIT YADAV
28.	120121043	VISHAL BAIBHAV
29.	120121044	ZUBIN PRIYANSH
30.	11012102	ABHISHEK KUMAR
31.	11012128	PUSHPA RANI MURMU
32.	11012129	PYDI RAM MOHAN
33.	10012118	KRISHAN KUMAR MEENA
34.	09012115	KAUSTUBH KRUSHNARAO KURVE

List of students who have fulfilled the requirements for award of B.Tech. degree in Mathematics and Computing

Sl. No	Roll No	Name
1.	120123001	ABHILASH KUMAR JHA
2.	120123002	ADARSH KUMAR
3.	120123003	AJINKYA ATMARAMJI SHEJUL
4.	120123004	AKSHAY YADAV
5.	120123006	ANMOL KALIA
6.	120123007	ANUJ KHARE
7.	120123008	ANUPAM ANAND
8.	120123009	ARVIND CHOUDHARY
9.	120123010	B VIKASH
10.	120123013	DEVENDRA RATNAM

11.	120123014	DHANWANTHARI RAMAKRISHNAN	16.	120205023	LOLLA SRUZAN
12.	120123015	DIPANJAN SARKAR	17.	120205024	MANCHU PRUDHVI
13.	120123016	GREESHMA BALABHADRA	18.	120205026	MARAPALLY SRAVAN KUMAR
14.	120123019	HITESH MAHIPAL	19.	120205028	MEENAL MANDIL
15.	120123021	JAYANTA DEVNATH	20.	120205032	PEDDINTI NARESH KUMAR
16.	120123022	KUNAL KISHORE SINGH	21.	120205033	POOJA DHAKA
17.	120123024	LOKHANDE TATHAGAT NITISH	22.	120205034	POULAMI CHAKRABORTY
18.	120123025	MAHENDRA SINGH CHAUHAN	23.	120205036	RITESH RANJAN SINGH
19.	120123026	NEERAJ YADAV	24.	120205037	ROHAN S VIJAY
20.	120123027	PADALKAR BHAGYASHREE UDAY	25.	120205038	SAMADRITA DAS
21.	120123028	PRANVENDRA CHATURVEDI	26.	120205039	SAURABH KUMAR SINGH
22.	120123029	PRIYA	27.	120205040	SHOBHIT GUPTA
23.	120123033	SAI SUMANA PAGIDIPALLI	28.	120205041	SIDHANT GOYAL
24.	120123035	SHUBHAM GOYAL	29.	120205043	UDDIPANA BAISHYA
25.	120123037	SHUBHAM PANDEY	30.	120205044	VISHRAM MEENA
26.	120123038	SOMYA ANAND	31.	120205045	VODELA SHASHANK PRAKASH
27.	120123039	SONAKSHI VERMA	32.	120205046	VYSAK. A. S
28.	120123040	SOUMYA WADHWA	33.	120205047	YENGGHOM MANTESHORI DEVI
29.	120123042	SWARAJ PAUL	34.	120205048	NEEDA JAMIL
30.	120123043	TANVI ARVIND JADHAV	35.	11020515	KUSHAGRA SINHA
31.	120123044	UJJWAL KUMAR KANSAL	36.	11020522	PORIKA ASHISH NAYAK
32.	120123045	UPPALA RAJESH	37.	10020519	K THARANI DHARAN
33.	120123047	VASUDHA KHANDELWAL			
34.	120123048	RITVIK SARAF			
35.	120123049	VIBHANSHU			
36.	120123050	MRIDUL KAVIDAYAL			
37.	120123051	ADITYA SHARMA			
38.	120123052	ANUVRATA CHITRANSHI			
39.	120123053	UTKARSH DIXIT			
40.	120123054	DHRUV KOHLI			
41.	11012302	AMIT KAJI			
42.	11012319	LOKESH MEENA			
43.	11012329	RAGHAV MITTAL			
44.	11012332	RAVINDRA GAHLOT			
45.	11012337	SIRIPURAPU BHARGAV			
46.	11012339	SRIKANT RAVINDRAN			

List of students who have fulfilled the requirements for award of B.Des. degree in Design

Sl. No	Roll No	Name
1.	120205001	ABHINAB SONOWAL
2.	120205003	ABHRANEEL SARMA
3.	120205005	ADITYA VIKRAM
4.	120205006	AHIRRAO SUWARDHAN NARENDRA
5.	120205009	ANMOL SINGH
6.	120205012	BANAPURAM VANDANA
7.	120205013	BANDILA SUBHAKAR RAVITEJA
8.	120205014	BOLLAREDDY MADHURI BHAVANA
9.	120205015	DEEPIKA MITTAL
10.	120205016	DHVANIL MAHESH PATEL
11.	120205017	DIPENDRA SINGH NAMDEO
12.	120205018	DIPTI KUMARI
13.	120205020	JASPREET SINGH KHASRIA
14.	120205021	KUNAL RATHORE
15.	120205022	KUSHAGRA KUSHWAHA

List of students who have fulfilled the requirements for award of M.Sc. degree in Physics

Sl. No	Roll No	Name
1.	142121001	ABHISIKTA BARMAN
2.	142121002	AMAN SANGAL
3.	142121003	ANANYA ADHIKARI
4.	142121004	ANANYA DAS
5.	142121005	ANIRUDDHA PAN
6.	142121006	ANKAN MUKHOPADHYAY
7.	142121007	ANWESHIKA PATTANAYAK
8.	142121008	ARGHYAJIT DATTA
9.	142121009	ARNAB DAS
10.	142121010	ATRI DEY
11.	142121011	AVIK PAUL
12.	142121012	AYAN BISWAS
13.	142121013	BABY KOMAL
14.	142121014	BISWAJIT GHOSH
15.	142121015	BRATATI BHAT
16.	142121016	DIGANTA PARAI
17.	142121017	DIPENDRANATH MANDAL
18.	142121018	GAURAV YADAV
19.	142121019	GITANJALI JANA
20.	142121020	IRABATI CHAKRABORTY
21.	142121021	JAY DEEP GUPTA
22.	142121022	JITENDRA KUMAR
23.	142121023	JYOTSNA DHILLON
24.	142121024	KUWAR ARPIT ANAND
25.	142121025	LAISHRAM BIDYARAJ SINGH
26.	142121027	MAITRAYEE MANDAL
27.	142121028	MRINMOY BASAK
28.	142121030	NILANJANDEV BHAUMIK
29.	142121032	PRAHLAD SAHAY YADAV

30.	142121033	PRIYANTA BARMAN	37.	142122038	STHITADHI MAITI
31.	142121034	PURBI ADHYA	38.	142122039	SUBHAJIT BAL
32.	142121035	RADHIKA SARKAR	39.	142122040	SUBHENDU GHOSH
33.	142121036	RAFIQUL ALAM	40.	142122041	SUCHITRA MITRA
34.	142121037	RAJKUMAR BISWAS	41.	142122042	SUROJIT BHUNIA
35.	142121038	RAKESH SARKAR	42.	142122043	SUSHOVAN HENS
36.	142121039	RINKU MAJI	43.	142122044	SUSMITA PAUL
37.	142121040	RONSON DEY	44.	142122045	SWAPNESWAR MONDAL
38.	142121041	SANCHARI PAL	45.	142122046	TAMAL PAL
39.	142121042	SHUBHAM SAINI	46.	142122047	TANMAY KUMAR SARKAR
40.	142121044	SOURAV PATRA	47.	142122048	TANMOY MANDAL
41.	142121045	SUPRIYA KUMAR DIGER			
42.	142121047	SUTAPA DEY			
43.	142121048	VIVEK PATEL			
44.	132121020	NAGENDRA KUMAR			

List of students who have fulfilled the requirements for award of M.Sc. degree in Chemistry

Sl. No	Roll No	Name
1.	142122001	ANINDITA BHATTACHARYA
2.	142122002	ANWESHA CHAKRABORTY
3.	142122003	ARABINDA MAJHI
4.	142122004	AVISEK DUTTA
5.	142122005	AVISIKTA BERA
6.	142122006	BHIM MAJHI
7.	142122007	BISWANATH MAITY
8.	142122008	DEBARATI DEY
9.	142122009	DEBASISH BARMAN
10.	142122010	DEBAYAN CHAKRABORTY
11.	142122011	DULU BRAHMA
12.	142122013	GOBINDA DOLAI
13.	142122014	GOURAB BHASKAR
14.	142122015	JYOTISH NATH
15.	142122016	KANU DAS
16.	142122017	KASTURI GANGULI
17.	142122018	KAUSHAL KISHOR YADAV
18.	142122019	KHADIMUL ISLAM
19.	142122020	LAXMIKANTA KHAMARI
20.	142122021	MANNU JAIN
21.	142122022	MIHIR MANNA
22.	142122023	NERSWN NARZARY
23.	142122024	PAYEL DOWARI
24.	142122025	PRAVAS DOLUI
25.	142122026	PRIYA SONOWAL
26.	142122027	RAJARSHI PANIGRAHI
27.	142122028	RAM DHARI PANDEY
28.	142122029	RINKU DUTTA
29.	142122030	RISHA RANI DAIMARY
30.	142122031	ROHIT CHAUDHURI
31.	142122032	RUPAM ROY
32.	142122033	SHUBHAM SRIVASTAVA
33.	142122034	SOHEL REJA
34.	142122035	SOUMITA CHAKRABORTY
35.	142122036	SOURAV GHOSH
36.	142122037	SOURAV MONDAL

List of students who have fulfilled the requirements for award of M.Sc. degree in Mathematics and Computing

Sl. No	Roll No	Name
1.	142123001	AAYUSHI KOOLWAL
2.	142123002	AMIT KUMAR
3.	142123003	AMIT KUMAR BISWAS
4.	142123004	ARPITA SIKDER
5.	142123005	ARUN KUMAR
6.	142123006	BISWAJIT PANDIT
7.	142123008	CHANDRA SHEKHAR SHARMA
8.	142123009	DEEPAK VERMA
9.	142123012	GAJENDRA BABU
10.	142123013	GOPAL MAITI
11.	142123014	GYATI KHANNA
12.	142123016	KIRAN DEVI
13.	142123017	MADHUKAR
14.	142123020	MISHRA HEMANT K. VIJAY SHANKAR
15.	142123021	MUKESH KUMAR AGRAHARI
16.	142123022	NIMISH KUMAR MAHAPATRA
17.	142123023	PANKAJ KUMAR SINGH
18.	142123024	PAWAN KUMAR SHAW
19.	142123025	PINTU PAUL
20.	142123026	PRABHAKAR NAMDEV
21.	142123028	PRANALI ROY CHOWDHURY
22.	142123029	PRERONA CHATTERJEE
23.	142123031	RIJUBRATA KUNDU
24.	142123033	SARADA PRASAD KUNDU
25.	142123034	SAYANI SAHA
26.	142123035	SHAMIK DAS
27.	142123036	SHRUTI KWATRA
28.	142123037	SHUBHA GUPTA
29.	142123038	SHYAM SWARUP MONDAL
30.	142123039	SOMENATH KUIRY
31.	142123041	SUBHASIS GHORA
32.	142123042	SUBRATA RANA
33.	142123043	SULTAN ANSARY
34.	142123044	SUNIL KUMAR
35.	142123046	TRIPTI AGRAWAL
36.	132123045	USHA SINGH
37.	122123007	ASHWANI KUMAR
38.	122123030	RAJIV SONOWAL

List of students who have fulfilled the requirements for award of M.A. degree in Development Studies

Sl. No	Roll No	Name	Sl. No	Roll No	Name
1.	142241001	ABHIGYA	10.	142241014	N JOYSON
2.	142241002	AISHWARYA KAR	11.	142241016	PRANOY DAS
3.	142241003	ANKITA KARMAKAR	12.	142241017	PRERNA SAH
4.	142241005	ASHEESH RANJAN SRIVASTAVA	13.	142241018	PRITISHREE BORGOHAIN
5.	142241007	DHAABAN DHEER DEKAA	14.	142241019	RAJPAL RAWAT
6.	142241009	MADHAB BONIA	15.	142241020	RINTU BORAH
7.	142241010	MANISHA DUTTA	16.	142241021	S VEIHOTELOU
8.	142241011	MEGHRAJ KHINCHI	17.	142241023	SATADRU CHAKRABORTY
9.	142241013	MRIDUL KUMAR BHARALI	18.	142241024	SUCHINEY BUHPHANG
			19.	142241025	SUJATA BORTHAKUR
			20.	142241026	SUNAM DAS
			21.	142241027	THANG CHUNG HOI KHELMA
			22.	142241028	YOVA KUMAR BORO

List of students who have fulfilled requirements for award of M.Tech. degree in Computer Science and Engineering

Sl. No.	Roll No	Name	Project Title
1.	124101019	ABHAY KUMAR SINGH	Network Resource Discovery: Mobile Agents versus Traditional Approaches – A Comparative Study
2.	134101004	ABDUL SIKANDAR	Real time Audio Streaming in Classroom Environment on IEEE 802.11n Wireless Network
3.	134101006	PARAS VISHNOI	Low Overhead QoE Aware Resource Allocation for Multi-view Video Flows in LTE
4.	134101008	SUNNY SETHI	Low Overhead Frame Based Fair Scheduler for Real-Time Multiprocessor Systems
5.	134101011	SHWETANK SINGH	Improved Results on Non-2-Colorable Uniform Hypergraphs with Few Hyperedges
6.	134101016	SAPTARSHI BASU	Effect of User's Temporal Characteristics on Link Prediction
7.	134101020	ANKUR CHAUDHARI	Avabodhaka: An Interaction System for Enhancing User Experience in a Large Classroom
8.	134101022	MUKESH VERMA	Handling Security Issue in EEOLSR Using Static Bayesian Game Approach
9.	134101023	ASHUTOSH AGRAWAL	Exploring the Effect of Node Proximity Based Link Prediction Methods on Collaborative Filtering
10.	134101024	SAYAN BANERJEE	GPU Based Acceleration of X-Ray Image Enhancement for Cargo Scanning Application
11.	134101028	VIVEK KUMAR CHAURASIA	Dynamic Cache Partitioning with Promotion and Insertion Policies for Chip Multiprocessors
12.	134101031	PRASHANT SAHDEV	Evaluating Social Circles of an Ego as Topological Cohesive Sub-graphs based on Ground Truth Social Circles
13.	134101034	MUNEEB T H	Evaluating Distributed Word Representations of Bio-medical Text
14.	134101035	P SRI HARI	A Grid based approach for Network Lifetime Enhancement of Wireless Sensor Networks Using Multiple Mobile Sinks
15.	134101039	PRANJAL PROTIM BORAH	Mapping of Multiphase Applications onto Mesh Multi-core Architecture
16.	134101040	AAKASH BHARTI	Cost and Deadline Constraints DAG Scheduling on Cloud
17.	134101041	RUPESH KUMAR KOSHARIYA	Quality of Experience measurement of YouTube videos
18.	134101046	PANDYA HARDIK JITENDRAKUMAR	Scheduling online tasks on on-chip multiprocessor with power constraint

Sl. No.	Roll No	Name	Project Title
19.	134101053	ANKUR MEENA	Optimal Energy Resource and Secondary Storage Deployment in Microgrids to Achieve Targeted Profits
20.	134101056	NETSANET GETACHEW ASSELE	Reviewing Community Scoring Functions in Complex Networks
21.	134101064	ANOOP KUMAR RATHORE	A Robust Watermarking Scheme Against Frame Blending and Projection Attack
22.	134101066	PRABHAT SONI	Network Traffic Classification using clustering on PCGs
23.	134101067	YASHDEEP SINGH	Data Delivery by Energy-Constrained Mobile Agents
24.	134101072	V NANI KALYAN	De-Centralized Directory Structure for Performance enhancement in Virtualization of 4-4 1-4 Architecture
25.	134101073	SUSMITA MANDAL	A Secure Routing Protocol for Delay Tolerant Network-Trust based Approach
26.	144101001	S VIGNESH	Cost aware Capacity Provisioning for Fault-tolerant Geo-distributed data Centers
27.	144101002	DIPANGSHU DUTTA	Speaker Recognition and Discrimination based i-vectors
28.	144101003	SUMEET GARG	Cost Efficient Algorithms For Speed Scalable Processors
29.	144101005	VOODA RAM KUMAR	Understanding the tradeoffs between QoE and energy consumption in DASH mobile video streaming
30.	144101007	THAKUR NITISH PRAVIN	Algorithms for Visibility and Minimum Link Path Problems in Simple Polygons
31.	144101008	GHADAGE SANDEEP ASHOK	Simulation of Energy Efficient Scheduling on CloudSim using Multiprocessor Scheduling Technique
32.	144101013	HARDEEP SINGH	Condensed Nearest Neighbour for maintenance of case based Reasoning system
33.	144101014	DOSHI NIMIT NIRANDBHAI	Pattern Avoidance in Words
34.	144101023	SIMARJOT KAUR	Deep Learning For Time Series Prediction
35.	144101024	SAMIR SALIM SHAIKH	Parallel Discrete Event Simulation On GPU Using CUDA
36.	144101032	PRAGENDRA SAHU	QoE Aware Resource Allocation for Multicasting Scalable
37.	144101033	APURV SINGH	Algorithms for Minimum Degree Spanning Tree and Spanning Tree Enumeration
38.	144101037	NIKHIL S	Behaviour Arbitration in Robots: Integrating Emotion and Immuno-Inspired paradigms
39.	144101057	JITENDER PAL SINGH	Adaptive streaming support for UAV monitoring to enhance quality of feed
40.	144101059	ROHIT SINGH VERMA	Scheduling Real Time Periodic Mixed Criticality Task Graph
41.	144101060	SABOOR AHMED	Effect of Z-axis motion in 3D Saliency
42.	144101065	KULKARNI SUJATA SURENDRA	Heuristic based Spoken Word Characterization using Acoustic Phonetic Features
43.	144101072	PATEL DIPTESHKUMAR PANKAJBHAI	Towards a New Model for Inferring Social Ties from Common Activities in Twitter
44.	144101074	SACHIN CHANNAPPA KATTI	Maximizing Speaker Identification Performance using Dimension Reduction
45.	144101077	GIBRAN IQBAL	Analyzing the Effect of Task Migration and Frequency Scaling on Temperature of Chip Multi- Processors.
46.	146201001	V A AMARNATH	Completed M.Tech degree under Dual (MTech+PhD) programme

List of students who have fulfilled requirements for award of M.Tech. degree in Electronics and Electrical Engineering with specialization in Signal Processing

Sl. No.	Roll No	Name	Project Title
1.	134102014	BIRI CHANAKYA REDDY	Signal Processing applications in robust dynamic PHASOR estimation
2.	134102017	KATIKELA BHASKAR REDDY	Generating and Identifying patterns in shuffles
3.	134102019	SATYA KARTHIK PATRI	Pitch Adaptive Cepstral Features for Addressing Acoustic Mismatch in Context of Children's ASR
4.	134102022	YASEEN FARHAN	Registration of Differently Exposed Images
5.	134102023	GANJI SREERAM	Block Sparse Coding over Speaker-Channel Learned Dictionary for Speaker Verification Task
6.	134102024	PERLA RAMAKRISHNA	Methods for Video Forensics
7.	134102027	PRIYADARSAN U S	Hilbert Transform Based Interpolation for Single Image Super-resolution
8.	134102029	THALLAPALLY PRADEEP KUMAR	Orthogonal Moments Based Identification of Leaves of Medicinal Plants
9.	134102031	FRANKLIN XESS	Crowd Simulation in Virtual Environment and Motion Mapping of Single Entity from Real to Virtual World
10.	134102039	RAJUL GUPTA	HIERARCHICAL CLASSIFICATION OF BROADCAST NEWS VIDEOS USING BAGGED ELM
11.	134102046	RATNAKARAM RAJESH	VISUAL OBJECT TRACKING IN AN ENHANCED MEAN-SHIFT FRAMEWORK
12.	134102063	TOM K SEBASTIAN	Privacy preserving face detection and its extension to recognition based on composite masks
13.	134102064	OLYVIA KUNDU	Pedestrian Detection in Images
14.	134102066	T.V. VISHNU	A Domain and Content Independent Fingerprint Verification Mechanism based on Eigen decompositions

List of students who have fulfilled the requirements for award of M.Tech. degree in Electronics and Electrical Engineering with Specialization in Power and Control

Sl. No.	Roll No	Name	Project Title
1.	134102053	SHYAM KUMAR SINGH CHOUDHARY	Modeling and Analysis of dynamics for large power systems
2.	134102054	VISHAL BADLAS	Modeling of Partial Discharge in the Solid Dielectric Material
3.	134102056	ADITYA DILIP CHAUDHARI	Adaptive Control of a Class of Under-Actuated Mechanical Systems
4.	134102057	OM PRAKASH DUBEY	Estimation of noise level of a power transformer
5.	134102059	NAWAB ALAM	Relay Feedback approach for Parameter Extraction of Li-ion battery and its State of Charge estimation using higher order sliding mode observer
6.	134102062	MONISHA PATHAK	TRAJECTORY TRACKING OF ROBOTIC MANIPULATOR USING SLIDING MODE CONTROL
7.	134102076	SIBABRATA PRADHAN	Estimation and detection of winding dislocation of power transformers
8.	144102060	MALOTH RAMESH	DC-DC Converter for EV Drivetrain

List of students who have fulfilled requirements for award of M.Tech. degree in Electronics and Electrical Engineering with specialization in VLSI

Sl. No.	Roll No	Name	Project Title
1.	134102004	NIJIL N	Design of a 32-bit custom processor for real time applications
2.	134102005	PULICHARLA RAVINDRAREDDY	Efficient Algorithm for Intra Prediction in HEVC
3.	134102007	KIRAN B	8-Path Harmonic Rejection Mixer for Full Band Mobile TV
4.	134102008	VISHNURAM ABHINAV	Design of nanometer scale protection for High Speed I/O Driver
5.	134102009	ALLURI RAVI	Efficient VLSI Architecture for De-Blocking in HEVC
6.	134102011	NUNAVATH ANIL KUMAR	Analytical Modeling and Simulation for Thermal Behaviour of Nanoscale Devices
7.	134102012	J TRUPTI KUMAR	Two Dimensional Numerical Simulator for modeling NDC region in SNDC Devices
8.	134102047	KUNCHE RAJA ASHOK	Optimization of Two-stage CMOS Op-Amp in 0.18um Technology using Geometric Programming

List of students who have fulfilled requirements for award of M.Tech. degree in Electronics and Electrical Engineering with specialization in Communication Engineering

Sl. No.	Roll No	Name	Project Title
1.	134102030	VEPURI PRASANNA VANI	An Investigation into BeamSpace MIMO Based Wireless Communication
2.	134102032	POCHA NAVEEN KUMAR REDDY	Transmit reference communication scheme using SAW devices
3.	134102034	MANDALI PRANEETH	Mutual Information Based Extended Min-Sum Algorithm for Non-Binary LDPC Codes
4.	134102036	BAHADURSHA ESWAR V N M PRASAD	Applications of Game Theory in Communication Engineering
5.	134102037	JHA AMITKUMAR VIDYAKANT	On the Solvability of 4S/3t Sum-Networks
6.	134102040	SHARMA DHIRENDRAKUMAR LAXMAN	Spectrum Sensing for Cognitive Radio using MIMO Antenna Beamforming
7.	134102043	DANDUBOYINA RAJA GOPAL	Compressive Wideband Power Spectrum Estimation
8.	134102045	VINAY KUMAR BOINI	Investigation on Certain Aspects of Photoconductive Antenna & Wireless Communication in the Terahertz Band
9.	134102049	SOURAV DAS	Transceiver Design for Multi-terminal Systems
10.	134102050	RAMKUMAR UIKEY	Microstrip Filter Design for Ultra-wideband Applications
11.	134102051	TINAMONI TAYE	Effect of Spatial Correlation on Antenna Correlation and Spectrum Sensing in Cooperative Systems
12.	134102069	GEORGE JOSEPH	Analysis of Large MIMO Systems
13.	134102071	PUSULURI YOGITHA KRISHNA	Performance Analysis of Dual Hop AF Relay Systems in presence of Co-channel Interference
14.	134102072	POTNURU VINOD KUMAR	Generation of De Bruijn Sequences
15.	134102073	LOKESH SAINI	NETWORK CODING FOR DISTRIBUTED STORAGE SYSTEM
16.	144102070	GURINDER SINGH	An investigation into FDTD methods for various applications
17.	144102090	POLKAM ARAVIND	Distributed Space Time Coding for Co-operative relay

List of students who have fulfilled requirements for award of M.Tech. degree in Mechanical Engineering with specialization in Machine Design

Sl. No.	Roll No	Name	Project Title
1.	134103004	ASISH KUMAR PANDA	Prediction of Flow Blockages and Impending of Cavitations in Centrifugal Pumps Using Support Vector Machine Algorithms Based on Vibration Measurements
2.	134103008	ANURAG KUMAR SONI	Experimental determination of mode I SIF for sharp V-notches in isotropic materials using single strain gage technique
3.	134103011	NEELAM SAI MOHAN REDDY	Crack growth analysis and fatigue life prediction of gas turbine rotor discs
4.	134103012	ASHISH SURESH PATIL	Design and Development of Miniaturized Vibration Energy Harvester
5.	134103013	DHAVALA VIJAYA RAGHAVA	Dynamic Analysis of Three Layered Sandwich Plate with MRE Core
6.	134103014	PRITAM AKHULY	Computational Fluid Dynamics simulation of MR polishing fluid for finishing in Magnetic Field Assisted Finishing process
7.	134103015	NIKHIL SHARMA	Nonlinear Dynamic Analysis of Cutting Tool in Turning Process
8.	134103018	SOORAJ CHACKO	Virtual Realization of Poking of an Elastic Object
9.	134103020	BHAGWANT SAYAPPA PADOOLKAR	Experimental determination of mode I stress intensity factor (KI) in cracked plates of composite materials
10.	134103021	MEDURI KALYAN	Multi-objective Optimisation of Needle and Tapered Roller Bearings using NSGA-II
11.	134103022	AKSHAY RAMCHANDRA MALI	Solution of linear time periodic dynamical systems
12.	134103023	RAVI KANT SONI	Analysis of Foil Thrust Bearing
13.	134103025	VIKAS PRASAD	Estimation of Spline Fitted Speed-dependent Active Magnetic Bearing Parameters in Flexible Rotor Systems
14.	134103026	PRAVEEN KUMAR	Nonlinear Dynamic Analysis of piezoelectric Based Energy Harvester
15.	134103027	PANATHULA CHANDRA SEKHAR	Reduction of stress concentration in plates with cutouts through the design of graphite-epoxy graded composite patches
16.	134103028	SUBHAJIT SANFUI	Efficient Assembly of Finite Element Matrices on GPU using Modified Sparse Storage Formats
17.	134103030	ASHISH VASANT GAJBHIYE	Parametric Curve Representation for Topology Optimization of Structures Using Genetic Algorithm
18.	134103031	NITESH SINGH	Experimental Investigation of Fracture Behaviour of Hybrid FRP Laminate Composites
19.	134103032	KALPANA SHANKHWAR	Analysis of temperature and thermal stresses in ultra short pulsed laser welding
20.	134103033	HEMANTH KUMAR K	Design of an active magnetic bearing for controlling
21.	134103039	VIBHOOTI NARAYAN MISHRA	Design of a viscoelastic composite layer for improved active constrained layer damping of structural vibration
22.	134103041	RAJDEEP ANIL ALAWEKAR	Application of Topology Optimization for Minimizing Structural Dynamic Deflections
23.	134103050	SANDEEP KUMAR	Modeling of Multi tool turning process
24.	134103070	SYED NAYAB RASOOL	Implementation of cavitation algorithm

Sl. No.	Roll No	Name	Project Title
25.	134103080	ABHISHEK KUMAR	Bilevel Programming for Structural Optimization
26.	134103090	NISHIKET PANDEY	Numerical Investigation of the Effect of Different Coatings on Laser Forming of Mild Steel Sheets
27.	144103006	PRIYAM SRIVASTAVA	DESIGN AND FABRICATION OF MINIATURIZED VIBRATION ENERGY HARVESTER FOR WIRELESS SENSOR NETWORKS
28.	144103008	GIRISH GUPTA	Finite Element Modeling and Behaviour Analysis of BCW based Motor
29.	144103009	MANE NISHIKANT MARUTI	Development of Finite Element Method for Fluid-Structure Interaction Problem
30.	144103012	ARNIKA VERMA	Bending Fatigue Performance Evaluation of Polymer Gears
31.	144103014	UTPAL KIRAN	Assembly of Finite Element Matrices on Graphics card
32.	144103025	SURYA PRATAP SINGH	B-splines Filtering for Topology Optimization of 3D Continua
33.	144103026	KOLUSU GOPALA KRISHNA	3D finite element simulation of crack growth in a gas turbine compressor disc
34.	144103038	ADARSH SHRIVASTAVA	Actuation capability of a piezoelectric composite disc actuator with varying electro-elastic properties

List of students who have fulfilled requirements for award of M.Tech. degree in Mechanical Engineering with specialization in Fluids and Thermal Engineering

Sl. No.	Roll No	Name	Project Title
1.	134103024	PRAMOD KUMAR SAHU	Estimation of Temperature Distribution in Laser Line Heating
2.	134103034	ARITRA MUKHERJEE	Analysis of Dual Phase Lag Heat Conduction in Planar, Cylindrical and Spherical Geometry Using Lattice Boltzmann Method
3.	134103036	SANKHADIP MANNA	Investigation of fluid flow and forced convective heat transfer around two circular cylinders in tandem placed near a wall
4.	134103038	WASIM AKHTAR	Least squares based mesh less approach for incompressible fluid flows
5.	134103044	MANOJKUMAR S PATIL	Performance Testing of Metal Hydride Based Compressor Driven Cooling System
6.	134103047	MAYUR KRISHNANI	Computational Stability Appraisal of Single-phase Natural Circulation Loop
7.	134103053	GAURAV KUMAR	Mixed convection of water in single and double lid driven cavities with density inversion
8.	134103054	RISHIKESH KUMAR SINGH	Thermal Product Determination of Coaxial Surface Junction Thermocouples in Short Duration Transient Experiments
9.	134103055	BHIM KUMAR CHOURE	Development of Solar Thermal Energy System for Solar Thermal Power plant
10.	134103056	ASHUTOSH SAHU	FEM AND EXPERIMENTAL STUDY ON ELECTROMAGNETIC FORMING AND PERFORMANCE OF Al SHEETS
11.	134103059	RAJ KUMAR GANGWAR	Experimental Investigation of a Diesel Engine Run On Preheated Rice Bran Biodiesel
12.	134103062	K SEETHARAMARAJU	Calibration and Characterization of Thin Film Gauges for Short Duration Experiments with Step Heat Loads
13.	134103063	SUMAN KUMAR	Finite element modelling of heat transfer in ultra-short pulse laser heating using non-Fourier heat conduction
14.	134103064	KUNDAN KUMUD	Numerical Simulation on Magnetic field assisted TIG welding process
15.	134103067	VIPUL PRATAP SINGH	Analytical model of energy distribution in friction stir welding process

Sl. No.	Roll No	Name	Project Title
16.	134103068	SATYENDRA NATH BARO	Development and Experimental Investigation on a Supercritical Natural Circulation Loop
17.	134103069	SONARAM BRAHMA	Numerical Simulation of Flows in Supercritical Fluid Systems
18.	134103071	SHUBHAM SINGH	Investigation of Orientation and Scale-Up Effect on Fluidized Bed Grain Driver
19.	134103072	VISHWAJIT JAGANNATH GHATAGE	Analysis of Combined Mode Heat Transfer on a porous medium using Lattice Boltzmann Method
20.	134103073	SUBODH DIWAN	Thin Layer Solar Drying of Bhut Jolokia Chilli
21.	134103079	ANUPAM DHARA	A numerical study of natural convection in an axisymmetric enclosure
22.	134103083	KALLAMADI NAGARJUNA	Development of electromagnet for Drying
23.	134103088	ARJUN JOHN K	Analysis of Radiative Heat Transfer in a 1-D and a 2-D Participating Medium Using Lattice Boltzmann Method
24.	134103089	GOLAK KUNTI	Study of oscillatory natural convection on a vertical enclosure
25.	134103091	YENNAMANENI AKSHAY KUMAR	Computation of High-Speed Flows on Unstructured Meshes Using AUFS Scheme and Venkatakrisnan Limiter
26.	134103096	MOHAN KUMAR	Oil Debris Detection in Lubricating Oil Tank using Capacitive Sensor
27.	134103101	GOGINENI SAI PHANINDRA	Parallelization of Hybrid Unstructured Grid Based CFD Solver
28.	134103103	L SHIVA	Numerical Simulation of Gas-Liquid Two-Phase Flows With Homogeneous Equilibrium Model on Unstructured Grid
29.	144103045	SALMAN KHAN	Numerical simulations of coupled flow-radiative heat transfer problems in participating media using P1 approximation and unstructured meshes
30.	144103050	DEVAVRAT KASHYAP	Computation of High-Speed Flows on Unstructured Meshes
31.	144103080	ANKIT VARSHNEY	PERFORMANCE ANALYSIS OF U-TYPE EVACUATED COLLECTOR

List of students who have fulfilled requirements for award of M.Tech. degree in Mechanical Engineering with specialization in Computer Assisted Manufacturing

Sl. No.	Roll No	Name	Project Title
1.	134103082	YOGENDRA SINGH RAJPOOT	Cellular Automata Finite Element modeling of friction stir welding process at different tool configurations
2.	134103086	BHUKYA DEVENDAR	Fabrication and Characterization of Hydroxyapatite Scaffold from Fish Scales
3.	134103087	PREMANANDA EKKA	End Forming Studies on Single and Concentric Tubes
4.	134103116	AKASH DUTTA	Parametric Design Optimization Thin Wall Machining Operation
5.	134103118	MANISH KUSHWAHA	Numerical and Experimental Study on Effect of Operating Parameters on Submerged Arc Welding of AISI-304 Stainless Steel
6.	134103125	AMRITAVA SARKAR	Development of Thermal Barrier Coating for high temperature applications
7.	144103088	SALUNKHE BHUSHAN SIDHARTH	MACHINING THIN-WALLS: EXPERIMENTAL INVESTIGATION AND OPTIMIZATION
8.	144103103	MIKEL AZKUE EGIA	Maintenance asset criticality and RAM-LCC analysis: A boiler fleet case study
9.	144103118	SAURABH GARG	Straighten of bent sheets using laser line heating and friction stir processing

List of students who have fulfilled requirements for award of M.Tech. degree in Mechanical Engineering with specialization in Computational Mechanics

Sl. No.	Roll No	Name	Project Title
1.	134103092	SUSOBHAN PATRA	Numerical Simulation of Swimming Mechanism of Microorganism
2.	134103093	VIVEK MADHUKAR BADHE	Particle Sedimentation using diffuse interface immersed boundary method
3.	134103094	ABHISHEK YADAV	Analysis of Free Corner Effect in Composite Plate using Extended Kantorovich Method
4.	134103097	JITENDRA S	Computation of Flows with Multi-Relaxation Lattice Boltzmann Method
5.	144103093	CHITRARTH PRASAD	Computation of Compressible and Incompressible Flows Using Transient Higher-Order Compact (HOC) Schemes

List of students who have fulfilled requirements for award of M.Tech. degree in Civil Engineering with specialization in Structural Engineering

Sl. No.	Roll No	Name	Project Title
1.	134104003	AKHIL THOMAS	INFLUENCE OF MASONRY PROPERTIES ON LATERAL LOAD BEHAVIOR OF MASONRY INFILLED RC FRAMES
2.	134104004	PROTIK BISWAS	Seismic Analysis of Integral Abutment Bridge-Soil Domain Using Scaled Boundary Finite Element Method
3.	134104005	AVIDESH GOYAL	Numerical and experimental investigations of the effect of single circular perforation in stainless steel hollow circular stub column under axial compression
4.	134104006	ATUL KUMAR AGRAWAL	SIMPLIFIED 3D MODELLING OF HORIZONTALLY CURVED STEEL I-GIRDER BRIDGE
5.	134104007	YADAV HARSHAD GAJANAN	Influence of Axial Load on low Cyclic Fatigue Behaviour of RC Columns
6.	134104008	SIDDHARTHA SHARMA	Retrofitting of Un-reinforced Masonry Structures
7.	134104009	HIJASUL HAQUE TV	Investigation of Seismic Vulnerability of RC Portal Frame
8.	134104010	SUDHI SHARMA P V	Reliability Analysis of Composite Thin Plates
9.	134104012	KORE ROHIT RAOSAHEB	Analysis of granular chain sensor for measuring impact force
10.	134104013	RESEEM M HAMEED	Passive Vibration Control of Wind Turbine Tower using Tuned Column Damper
11.	134104014	UNNIKRISHNAN BM	FE modelling of concrete, HyFRC specimens and improvement using Extended Finite Element Method
12.	134104016	KATCHALLA BALA KISHORE	Probabilistic Deformation capacity Model for RC Column & RC beam Subject to Blast Loading
13.	134104018	RUPAM PRATIM TALUKDAR	Dynamic Analysis of High Speed MAGLEV Vehicle Guideway system in urban rapid transportation
14.	134104019	PRASANTA KAR	Structural behaviour of hollow, concrete filled, soil-filled mild steel tubular stub columns of square, L-,T- and +- cross sectional shapes, under axial compression
15.	134104020	RADHEY SHYAM VERMA	Performance Evaluation of RCA in Beam-Column Connections under Cyclic Loading
16.	134104021	LALROSIAMA ZOTE	Chloride ingress and chloride induced steel reinforcement corrosion in self-compacting concrete
17.	134104045	WAYCHAL AVINASH ANANT	Development of Impact Resisting Structure using Granular Chain

Sl. No.	Roll No	Name	Project Title
18.	134104046	GURAV NARENDRA BASAVRAJ	Effect of fly ash content, molarity of sodium hydroxide solution and admixed sodium chloride dosages on fresh and hardened properties of geopolymer concrete
19.	134104104	AKHIL KILAPARTHY SIVANAND	Probabilistic Capacity estimation of nuclear containment structural component (R.C. SLAB) subjected to impact

List of students who have fulfilled requirements for award of M.Tech. degree in Civil Engineering with specialization in Water Resources Engineering and Management

Sl. No.	Roll No	Name	Project Title
1.	134104056	TINESH PATHANIA	Simulation of Advective-Dispersive Transport in a Porous Medium using the Operator Splitting technique
2.	134104059	BANDARU GOUTHAM RAJEEV GANDHI	Detection and Management of virus sources in Ground water aquifer
3.	134104060	SWARUP DANGAR	Daily Suspended Sediment Concentration estimation with Feed-forward neural network: A case study of the Missouri river
4.	134104062	BANDITA BARMAN	Morphological Modelling of Alluvial River with Aggregate Mining
5.	134104063	ANURAG SHARMA	Turbulent Characteristics in Curvilinear Cross-Section Mobile bed channel
6.	134104064	VIVEK GUPTA	Application of Machine learning and data mining for Hydro-climatic modeling
7.	134104065	CHEMBOLU VINAY	Advanced geospatial technologies for investigating River-wetland interaction and morphological change studies
8.	134104066	VARSHA SHIVPURE	Analysis turbulence characteristics of flow of Submerged Flexible Vegetated Channel
9.	134104068	A ANJANEYULU	Designing of a Flash flood warning system for Delhi City using Weather RADAR and TRMM products
10.	134104069	VIKAS SHARMA	Study of sediment dynamics in a stretch of Brahmaputra River with CCHE 2D Simulations
11.	134104070	JAGADISH TALUKDAR	Finite Element Model of 1-D Richards's equation and Solute transport with sorption
12.	134104071	HEERALAL NANDMEHAR	Flow and Transport Experiments on Migration of Landfill Leachates through Variably Saturated Soil Columns
13.	134104072	RUNART BORO	Comparative Assessment of Methodologies used for Infiltration Determination
14.	144104057	ASHUTOSH SHARMA	Identification of homogeneous drought regions and regional drought prediction in Western India
15.	144104063	MANAS KHAN	Assessment of spatially-explicit annual water-balance model in two river basins in India

List of students who have fulfilled requirements for award of M.Tech. degree in Civil Engineering with specialization in Geotechnical Engineering

Sl. No.	Roll No	Name	Project Title
1.	134104025	SHIBAYAN BISWAS	Passive Remote MASW: experimental investigation and dispersion analysis
2.	134104026	GEORGE MOSES K	Analysis and Design of Tunnels in Weak Rock
3.	134104030	PRASHANT KUMAR	Effect of plasticity on SWCC of soil
4.	134104033	MOTURU MOHAN VENKAT PHALGUN	Design and Analysis of Embankments with PVDs on Soft Soil

Sl. No.	Roll No	Name	Project Title
5.	134104037	JOYDEV SAHA	A study on the effect of grain size of sand on the hydraulic and compressibility behaviour of sand bentonite mixtures
6.	134104038	DHANESH SING DAS	Equilibrium Sediment volume of plastic clays in electrolyte solutions
7.	134104039	PUSHKAL PRATAP	Study on horizontal load-deformation behavior of bucket foundations
8.	134104040	PURABI DAS	A study on the combined effect of salt solutions on the swelling and hydraulic behavior of bentonites
9.	134104105	MICHAEL CONRAD KOCH	Effect of Pile Driving on Negative Skin Friction: Intricacies of FE Simulation
10.	134104106	ANSEL JOSE	Study on strength and deformation characteristics of fibre-reinforced cohesive soil
11.	134104107	METTA NIRANJAN BHATLU	Evaluation of permeability of bentonite-fly ash mixes
12.	144104091	A BALAJI MUDALIYAR	A study on the influence of tyre chips and glass fibre on sand-bentonite mixtures

List of students who have fulfilled requirements for award of M.Tech. degree in Civil Engineering with specialization in Environmental Engineering

Sl. No.	Roll No	Name	Project Title
1.	124104096	SHASHANK CHAUDHARY	Performance Monitoring of Facultative Lagoon – Polishing Pond System of Domestic Wastewater Treatment of IIT Guwahati Campus
2.	134104080	KULKARNI PRATIK PRAKASH	Oxidation of sulfide to elemental sulphur during denitrification and characterization of elemental sulphur particles formed in a microaerobic reactor
3.	134104081	GARAGA RAJYA LAKSHMI	Evaluation of Filter Media of Traditional Filter Units of Assam and Performance Monitoring of a Filter Unit under Field Conditions
4.	134104082	PERLA HARISH	Removal of Lead and Zinc Using Adsorbent Prepared From Aegle marmelos correa Shell
5.	134104083	SHRAVANI SUBHASH KAMAL	Assessment and optimization of electrocoagulation as an alternative to conventional chemical coagulation for the treatment of petroleum refinery wastewater
6.	134104084	SWAGATAM PATNAIK	A sustainable approach to Urban Hydrological System: A Case Study of Guwahati City
7.	134104085	SUDHAL SHRUTI RAJENDRA	Effect of Non-continuous Aeration on Reactor Performance and Aerobic Biomass of a Lab-scale Activated Sludge Process
8.	134104086	BHOITE UDAY RAMRAO	A Statistical Model to predict Spatiotemporal Air Quality
9.	134104087	AVISHEK LAHA	Biosorption of Lead Metal through Bacterial (Bacillus Badius AK) Dry Mass
10.	134104088	THUMMALURU VISHNUVARDHAN REDDY	Batch studies on removal of hexavalent chromium from wastewater by low cost adsorbent, mustard oil cale(MOC)
11.	134104089	VIVEK FRANCIS	Effects of Pretreatment on Anaerobic Digestion of Food Waste
12.	134104090	EJJADA MEENA	CHARACTERIZATION OF REDUCED GRAPHENE OXIDE(GO) FOR APPLICATION IN WASTEWATER TREATMENT TO REMOVE ORGANICS
13.	134104091	CHAMARTHI OJASWINI	EVALUATION OF ARSENIC ADSORPTION BY VARIOUS MEDIA
14.	134104092	GANGARAJU VIDYASAGAR	Using CFD to simulate indoor air quality at a workplace

Sl. No.	Roll No	Name	Project Title
15.	134104093	KIRAN CHANDRA MUTHU PM	Life Cycle Assessment of Guwahati Municipal Solid Waste Management System
16.	134104094	KAMBLE AMOL VASANT	Artificial Neural Network (ANN) and Genetic Algorithm (GA) Models for the prediction of Ambient Noise Levels at Traffic Intersection
17.	134104095	DHANANJAY SINGH SHYAMAL	Efficiency of cement as an adsorbent and nalgonda technique on fluoride removal from real contaminated groundwater
18.	134104096	SACHIN CHAUHAN	Adsorption of mercury(II) from wastewater using mustard oil cake

List of students who have fulfilled requirements for award of M.Tech. degree in Civil Engineering with specialization in Transportation Systems Engineering

Sl. No.	Roll No	Name	Project Title
1.	134104031	DIBYATONU CHATTOPADHYAY	EFFECT OF FILLER TYPES AND CONTENT ON PERFORMANCE OF OPEN GRADED BITUMINOUS MIXES
2.	134104041	VINAMRA MISHRA	Evaluation of Properties of Bitumen Modified with Zycotherm and Study of Permeability in Premix Carpet
3.	134104042	SAIKAT PANJA	Development of Improved Open Graded Premix Carpet for Single Laying with Seal Coat by Cold Mix Technology
4.	134104043	SANHITA DAS	Time Headway Analysis of Vehicles on Indian Roads
5.	134104044	SHREYA DEY	Study of Vehicle Speeds on Indian Roads
6.	134104047	UGALE DIPAK ARJUN	EFFECT OF WMA ADDITIVES ON MIX DESIGN PARAMETERS OF BITUMINOUS BASE COUSES
7.	134104049	IRAGANABOINA NAVEEN CHANDRA	Determination of choice set availability to the individual trip makers in case of flexible public or intermediate public transport network
8.	134104051	PRANAB KAR	Heterogeneous traffic flow modeling using cell transmission model
9.	134104053	RAHUL SINGH	Evaluation of Engineering Properties of Soil-Aggregate Mixture with Different Additives
10.	134104054	SHIV KUMAR SINGH	EVALUATION OF PERMEABILITY CHARACTERISTICS OF PREMIX CARPET
11.	134104061	SURESH NAMA	Study of Vehicle Speed on Curves in Hilly Terrain
12.	144104049	SUVIN P V	Macroscopic analysis and modeling of heterogeneous traffic
13.	144104076	PRIYESH DATTATRAYA BABAR	Investigations on COMBINED EFFECT OF AGING AND MOISTURE DAMAGE IN PERFORMANC OF BITUMINOUS MIXTURE
14.	144104077	SHIVRAJ SUBHASH BORADE	AN INTEGRATED APPROACH TO GENERATE PAVEMENT MAINTENANCE STRATEGIES FOR FLEXIBLE PAVEMENTS

List of students who have fulfilled requirements for award of M.Tech. degree in Civil Engineering with specialization in Infrastructure Engineering and Management

Sl. No.	Roll No	Name	Project Title
1.	134104075	SUMAN DEY	Effect of mineral admixtures and curing condition on properties of high performance concrete
2.	134104079	AJIT KRO	Procurement Protocol for Municipal Solid Waste Public Private Partnership Projects

List of students who have fulfilled requirements for award of M.Tech. degree in Biotechnology

Sl. No.	Roll No	Name	Project Title
1.	134106003	UMESH KUMAR	Molecular characterization of a Newcastle disease virus isolated from vaccinated commercial poultry farms in Eastern India
2.	134106008	ANKUR MISHRA	Identification , Purification and Characterization of hemin detoxifying factor(s) from macrophages
3.	134106010	SHAGUN SRIVASTAVA	Overexpression, Purification and Characterization of the Huntingtin Exon I Domain
4.	134106013	GOWTHAM SELVARAJ	Studies on lipid productivities of <i>Chlorella pyrenoidosa</i> under mixotrophic growth with phenol as substrate
5.	134106019	NIKHIL GUPTA	Lipid production by <i>Rhodococcus opacus</i> using dairy wastewater for potential biodiesel application: Batch, fed-batch and continuous bioreactor study
6.	134106022	AMRUTHA BASKER	Structural and Evolutionary Dynamics of the Sensory and Regulatory RNAs
7.	134106027	PEVEKAR VINAYAK SURESH	Development of an Electrostatic and Structure Based Molecular Profiling Tool to Assist Protein and Peptide Design
8.	134106028	SUMANTH GOVATHATI	Screening and Optimization of Lipid inducer for single stage lipid rich cultivation of <i>Chlorella</i> sp. FC2 IITG targeted towards biodiesel production
9.	134106037	VINOH SWU	BMP signaling in cancer cell migration
10.	144106002	PREETI CHAUHAN	Antibiofilm potential of Zinc Oxide Nanocomposite Loaded with a Bactericidal Synthetic Amphiphile
11.	144106003	MRINAL SHARMA	Karanjin exhibits proestrogenic effect on MCF-7 breast cancer cell line
12.	144106004	PALLAVI	Understanding role of temperature on host cells in malaria like conditions
13.	144106005	ROHIT P JAMES	Fungal chitosan production from Kraft black liquor
14.	144106006	MIMI ADHIKARY	Composite silk scaffolds for bone and cartilage tissue engineering
15.	144106011	SONA SHARMA	Development of novel antileishmanial compounds
16.	144106012	PRIYANKA DUBEY	Flux balance analysis of wild type <i>Zymomonas mobilis</i> ZM4 and its mutant ZW658
17.	144106015	ADITYA GOPALAKRISHNA RAO	Investigating the structure and dynamics of monomeric chorismate mutase from molecular dynamics simulations
18.	144106017	SAKSHI TIWARI	Bioremediation of soils contaminated with crude oil and heavy metals
19.	144106018	VIVEK PRAKASH	Effect of Advanced glycation end products on the expression and function of neutrophil store operated calcium entry
20.	144106020	RAMYA M	Investigation of cytotoxic effects of labdane diterpenes from <i>Alpinia nigra</i> seed on mammalian breast cancer cells
21.	144106022	SMITA DAS	Aptamer as biorecognition system for detection of malaria in an electrochemical transducer based platform
22.	144106023	MD RAMIZ RAZA	Composite Plant in Cowpea for Functional Analysis of VuSTOP1 Transcription Factor for Tolerance to Rhizotoxic Al ³⁺ ions
23.	144106026	VIKAS RANJAN	Fabrication of Scaffolds by Electrospinning and its Characterization
24.	144106028	ROHIT SHESHRAO GHODKE	Optimization of Hyaluronic Acid Production Utilizing the Biochemical Constituents of Palmyra Palm Jaggery Based Medium

Sl. No.	Roll No	Name	Project Title
25.	144106031	KETAN ASHOK GANAR	Characterization of avian paramyxovirus and chicken anemia virus isolated from different outbreak in India
26.	144106032	KANCHAN CHAUHAN	Cloning, over expression, purification and functional characterization of small ribosomal subunit rRNA methyltransferase (RsmA) from <i>Pyrococcus horikoshii</i>
27.	144106033	SANDEEP INIGO SURIN	Development of a novel vector using MC11 promoter from <i>Metarhizium anisopliae</i> for improved fungal expression
28.	144106035	KAUSHALESH GUPTA	Effect of allelic differences on stochastic gene expression
29.	144106037	GARGI MUKHOPADHYAY	Studies of recombinant Glutathione-S-transferase stabilized nanoparticles for possible biochemical applications
30.	144106038	NAVEEN BIJALWAN	An In silico approach to analyse Ponatinib derivatives to target tyrosine kinases for CML treatment
31.	144106039	MANJU NAGAR	Molecular characterization of phospholipase C-8 subtype genes from the model filamentous fungus <i>Neurospora crassa</i>
32.	144106040	AKASH	Establishment and scale-up of cell suspension cultures from in vitro cell lines of <i>Tinospora cordifolia</i> for bioactive metabolite production

List of students who have fulfilled requirements for award of M.Tech. degree in Chemical Engineering with specialization in Petroleum Science and Technology

Sl. No.	Roll No	Name	Project Title
1.	134107002	VASUKIRAN MANDAVA	Numerical Investigation of Critical Reynolds Number of Power-law Non-Newtonian Fluids Flow past Solid Spheres
2.	134107003	JOYDIP CHAUDHURI	Electric and Magnetic Field Induced Instabilities in Micro and Nano Systems
3.	134107004	MALLADI DASARADHI SUBRAMANYAM	Upgradation of Bio-oil in Upflow Fixed Bed Reactor – A Numerical Study
4.	134107005	LOKESH LOHANI	Synthesis of Carbon Nanotubes and their Use for the Modification of Polysulfone Membranes
5.	134107006	SHIVA SHUKLA	SYNTHESIS OF ALUMINA SUPPORTED PALLADIUM CATALYST BY ELECTROLESS PLATING
6.	134107008	SUSHMA CHAKRABORTY	Synthesis and Characterization of Cds Nanoparticles by treating Cadmium infused industrial effluent through Liquid Membrane Technology
7.	134107009	RISHIKET KUNDU	Recovery of elemental sulphur using gamma-alumina catalyst
8.	134107011	GOURAV CHATTERJEE	Thermochemical Conversion of Cassia Siamea Seed to Transportation Fuel
9.	134107012	ADITI SHARMA	Experimental Studies on Alkali-Surfactant-Polymer (ASP) based enhanced oil recovery of Assam Crude Oil
10.	134107013	PARTHA PRATIM ADHIKARI	Fabrication of MCM-41 and MCM-48 Composite Membranes for the Separation of and from Aqueous Solution
11.	134107014	ANKAN SHRIVASTAVA	Experimental and Power plant simulation studies on underground coal Gasification
12.	134107015	PATRALI MUKHERJEE	APPLICATIONS OF NOVEL MCM 41 FOR DRUG DELIVERY
13.	134107016	ABHISHEK KUMAR	Molecular Simulation Studies on Poly(lactic acid)-based Nanocomposites
14.	134107017	SATYENDRA PATEL	Hydrodynamics of Bubble Swarms of Low to Moderate Volume Fractions in Contaminated Power-law Liquids

Sl. No.	Roll No	Name	Project Title
15.	134107018	CHINTA SIVADURGAPRASAD	Multi-Objective Optimization Production Planning in Petrochemical Industries
16.	134107019	SADU SURYA VENKATA VINAY BABU	Stability of Aqueous Foams in the Presence of Ionic Surfactants and Alcohols
17.	134107020	ABHIJEET SACHAN	Gas adsorption on MOF-519 metal organic frameworks
18.	134107022	KOKKILIGADDA LEELA VENKATA SAGAR	Gas adsorption on MOF-519 metal organic frameworks
19.	134107023	ABHIPSIT KUMAR SINGH	A Numerical Study on Mixed Convective Heat of Circular and Elliptical Cylinders
20.	134107024	SUNIL PRAKASH	Electrochemical Investigation of Carbon Steel Corrosion in Naphthenic acid
21.	134107025	MEDITHI VIKAS	Experimentation and Stochastic Modelling for axial dispersion in slurry bubble column reactor
22.	134107026	AVINASH BOMBARDE	Experimental Investigation of Liquid Cooled Pebble Bed Reactor
23.	134107027	PREM SAGAR PILLAJETTI	Experimental and Numerical Investigation of Underground Coal Combustion and Classification
24.	134107031	VIKAS KUMAR SINGH	Absorption of CO ₂ into Novel Aqueous Blended Amine Solution: Studies on Physiochemical Properties of the Solvent
25.	144107021	ANEM KARTHIK	CHEMICAL INDUECD ENHANCED OIL RECOVERY FOR ASSAM CRUDE ADSORPTION STUDIES

List of students who have fulfilled requirements for award of M.Tech. degree in Chemical Engineering with specialization in Materials Science and Technology

Sl. No.	Roll No	Name	Project Title
1.	134107029	DEBASHIS TARAFDER	Studies on Fabrication of Cellulose Nanocrystals and its Application in Preparation of Poly(lactic acid) Bionanocomposites
2.	134107030	ANANYA DAS	Synthesis and Characterization of Chitosan and Film Processing of Chitosan based bionanocomposite
3.	134107034	MAYANK AGARWAL	Mechanistic Investigations in Ultrasound-assisted Biochemical Processes
4.	134107037	SNIGDHA CHAKRABORTY	Experimental Studies on the Instability of Thin Liquid Crystal Films
5.	134107043	SIDDHARTH THAKUR	Self-organized Micro-patterning of Thin Conducting Polymer Films for Photovoltaic Applications
6.	134107044	PYARIMOHAN DEHURY	Liquid-Liquid Extraction and Conceptual Process Design for the Extraction of Lower Alcohols
7.	134107045	SENTHIL S	Reverse Osmosis-Pressure Retarded Osmosis Hybrid System, Modeling and Simulation
8.	134107046	VERSHA RANI	Application of Electro-Chemically generated H ₂ O ₂ for Treatment of Wastewater
9.	134107052	PRIYANKA DEORAO HAJARE	Heteroatom modified templated carbon for hydrogen storage
10.	134107056	RAJANI KANT BARO	Experimental and Numerical Investigation of Gas-Solid Flow in circulating fluidized bed
11.	134107059	JONNALAGADDA SUVARDHAN	Preparation & Characterization of Bio-waste Heterogeneous Catalyst for the Epoxidation of Non-edible Oil
12.	134107060	PHILIP BERNSTEIN SAYNIK	Development of an efficient Bioleaching process for the extraction of metals from spent catalysts

Sl. No.	Roll No	Name	Project Title
13.	134107061	SACHIN SHARMA	Sonochemical Synthesis and Characterisation of Poly (MMA-co-BA)/ Cloisite 30B and P(MMA-co-BA)/ZnO Nanocomposites
14.	134107064	SATYADIP CHAKRABORTY	Biological Fabrication and Applications of Metal and Metal Doped Nanoparticles
15.	134107068	SATARUPA DUTTA	Paper Based Optical α -Amylase Sensor for a Potential MEMS Device
16.	134107072	PIYAL MONDAL	Preparation and Characterization of Hydrophilic PVDF-Co-HFP Membrane for Protein Separation
17.	144107031	SURJENDU MAITY	Field Induced Enhanced Efficiency of Microfluidic Reactors
18.	144107032	SHREYA MUKHERJEE	Computational Study of Self-propelling Objects
19.	144107044	RIT PRATIK MISHRA	Adsorption and separation of gases and gas mixtures in zeolitic imidazolate frameworks: A molecular simulation study
20.	144107053	ABHILASH KUMAR	Effect of dimethylsulfoxide on naphthenic acid corrosion of carbon steel
21.	144107065	RAJIB METE	Green synthesis of biodiesel from rohu fish(Labeo Rohita) waste and studies on its rheological and cold flow properties

List of students who have fulfilled requirements for award of M.Des. degree in Design

Sl. No.	Roll No	Name	Project Title
1.	144205001	ARPAN JYOTI MAHANTA	Designing a Human-Powered Electric Vehicle
2.	144205002	NILUTPAL BORGOHAIN	Energy responds form: Form responds Energy
3.	144205003	KESHAV VENKATESH	Self-Asisted Instructional Design for Fitness Enthusiasts
4.	144205004	HRIDAY GAMI	Tales from the Cellular Underworld: An on Demand Audio Service for Cancer Patients and caregivers
5.	144205005	NIKHIL M	SPOTLIGHT: Building a Healthy Arts Ecosystem among people
6.	144205006	POONAM SURESH WAGLE	DECODE: Awareness on Dyslexia and Design of a Learning aid for Dyslexic children
7.	144205007	TRIDIB DAS	Guwahati – An illustrative journey
8.	144205008	ANUMEHA AKHIL SUCCENA	M-Health Application Design For Lifestyle Modification in Diabetic Users
9.	144205009	BETSON JOSEPH GEORGE	A Backpacking Designer's Journal: Exploration in Travel & Creative Collaboration
10.	144205010	VIKASH KUMAR SINGH	Design Porter Access System for Indian Railway
11.	144205011	DIGJOT SINGH	Empowering Fitness Enthusiasts in a Gym Environment
12.	144205012	GUNJAN SOBHANI	Demystifying Computational Thinking Concepts Using Instructional Design
13.	144205013	AKASH MOHAN	Learning aids for Rural primary schools in Assam
14.	144205014	VIVEK	Exterior Design of a Small Smart Car for Renault targeting urban India of the Year 2030
15.	144205015	SURJMANI LAISHRAM	E-Healthcare Intervention In Empowering Diabetes Ecosystem in India
16.	144205016	SREENATH S P	Nissan Autonomous Car for the year 2025
17.	144205017	ADITYA SINGH YADAV	Project X: Interactive location based digital 3D game
18.	144205018	ASHUTOSH GUPTA	North East India Railway Map and Information Guide
19.	144205019	DURGESH BHAWSAR	BOOND : Design System for Water Purification for Rural Areas In Guwahati

Sl. No.	Roll No	Name	Project Title
20.	144205020	SHWETA GUPTA	Awareness Campaign on Organ Donation
21.	144205021	BHAVISH KUMAR CHOUHAN	Farming Anatomy, A brief about local agricultural tools of Assam
22.	144205022	SENTHIL KUMAR B	Breaking the binary-Creating Inclusive Workplace for LGBTQ People
23.	144205023	KOPPU NARESH KUMAR	3D printed concept Car
24.	144205024	BALLA TEJ KUMAR	Designing a Security Solution to Control Residential Burglaries in Semi Urban Areas
25.	144205025	HONLUNG RAGUI	Design of a Modern Typeface in Meetai Mayek Script
26.	144205026	AAKASH YAMBA	Research and Documentation on Tibetan calligraphy

List of students who have fulfilled requirements for award of Ph.D. degree in Computer Science and Engineering

Sl. No.	Roll No	Name	Project Title
1.	05610105	RAJENDRA PAMULA	Data Pruning Based Outlier Detection
2.	08610101	ROHIT TRIPATHI	Dynamic Internet Pricing with Service Level Agreements for Clients with Multi-ISP Connections
3.	10610110	NILKANTA SAHU	Robust Watermarking for Scalable Video Sequence
4.	10610112	SHIRSHENDU DAS	Effective Utilisation of LLCs by Managing Associativity, Placement and Mapping

List of students who have fulfilled requirements for award of Ph.D. degree in Electronics and Electrical Engineering

Sl. No.	Roll No	Name	Project Title
1.	08610205	KUNTAL DEKA	INVESTIGATIONS ON BINARY AND NON-BINARY LDPC CODES
2.	08610211	SUNIL Y	IMPROVING CHILDREN'S SPEECH RECOGNITION UNDER MISMATCHED CONDITION USING ARTIFICIAL BANDWIDTH EXTENSION
3.	09610203	SAM DARSHI	MODELING AND ANALYSIS OF ASYNCHRONIZED INTERFERENCE IN WIRELESS NETWORKS
4.	10610212	BRIJESH KUMBHANI	Performance Analysis of MIMO Systems: Transmit Antenna Selection, Cooperative Communications and Spatial Modulation
5.	10610227	ATUL KUMAR	Differential Chaos Shift Keying Modulation for Cooperative and Spatial Diversity Communication Systems
6.	11610234	RATUKL KUMAR BARUAH	MODELLING AND SIMULATION OF SHORT CHANNEL JUNCTIONLESS TRANSISTOR FROM AN ANALOG DESIGN PERSPECTIVE

List of students who have fulfilled requirements for award of Ph.D. degree in Mechanical Engineering

Sl. No.	Roll No	Name	Project Title
1.	08610308	SACHINDRA MAHTO	SHAPE OPTIMIZATION OF REVOLUTE-JOINTED FLEXIBLE MANIPULATORS
2.	09610307	AMITAVA GHATAK	CREEP CORRELATION OF MICRO-ALLOYED HP40Nb REFORMER STEEL
3.	09610309	JAGANNATH SARDAR	Design and Development of Low Cost Cement Reinforced Polymeric Composite Material for Fabrication of Automotive Parts
4.	09610317	MANJULA DAS	INVESTIGATION ON BIOGAS GENERATION AND PURIFICATION USING LIGNOCELLULOSIC BIOMASS AND CATTLE DUNG
5.	10610306	ARAVINDA KUMAR M.S.	Design and Non-Linear Frequency-Response Analysis of Smart Functionally Graded Plates using a 1-3 Piezoelectric Composite
6.	10610310	THRI SEKHAR REDDY GANJI	CHARACTERIZATION OF CYLINDRICAL AND ELLIPTICAL TEXTURED JOURNAL BEARING

Sl. No.	Roll No	Name	Project Title
7.	10610318	T. MOASUNEP JAMIR	Gas Foil Bearing: Effect of Foil Materials and Stability Analysis Using Different Models for Foil Structure
8.	10610319	RAVI KANT	Assessment of Feasibility, Productivity and Product Quality during Laser Based Bending of Magnesium Alloy Sheets
9.	10610321	NIRAJ KUMAR MISHRA	Development of Self-Aspirated Two-Layer Porous Radiant Burners for LPG Cooking Applications
10.	10610322	YADIAH NIRSANAMETLA	Experimental investigation and Numerical Modeling of Deep Penetration Laser and GTA Welding Processes
11.	10610324	DEEPATI ANIL KUMAR	TRANSIENT THERMAL ANALYSIS AND EXPERIMENTAL INVESTIGATIONS OF FRICTION STIR WELDING ON SIMILAR AND DISSIMILAR MATERIALS
12.	10610327	SATHISHA H M	THERMO-ELECTRO-HYDRODYNAMIC INVESTIGATIONS OF ALL-VANADIUM REDOX FLOW BATTERY USING LUMPED MODEL AND NUMERICAL SIMULATION
13.	10610329	GANGADHARA KIRAN KUMAR L	Thermal Comfort Analysis of Buildings with Emphasis on Roof Types
14.	10610330	A. MUTHURAJA	DEVELOPMENT AND PERFORMANCE EVALUATION OF TUNGSTEN CARBIDE BASED SELF LUBRICATING CUTTING TOOL
15.	10610335	BISWAJIT PARIDA	EXPERIMENTAL INVESTIGATION MODELING AND OPTIMIZATION OF FRICTION STIR WELDING PROCESS
16.	11610309	BHASKOR JYOTI BORA	STANDARDIZING THE SPECIFICATIONS OF A BIOGAS RUN DUAL FUEL DIESEL ENGINE FOR STATIONARY APPLICATIONS
17.	11610317	PALLEKONDA RAMESH BABU	EXPERIMENTAL AND COMPUTATIONAL INVESTIGATIONS OF FORCE PREDICTION METHODOLOGY FROM FORCE BALANCES FOR SHORT DURATION APPLICATIONS
18.	11610327	N. SHANMUGA PRIYA	SYNTHESIS AND CHARACTERIZATION OF HIGH OXYGEN STORAGE CAPACITY NANOPARTICLES DISPERSED DIESEL FOR THE EMISSION REDUCTION AND PERFORMANCE ENHANCEMENT OF A DIRECT INJECTION ENGINE
19.	126103030	S. ARUN	Design, development and testing of user friendly, light weight and inexpensive artificial limb for trans-femoral amputees.
20.	126103035	SANDEEP SINGH	MODEL BASED FAULT AND SYSTEM PARAMETER IDENTIFICATION IN ROTOR-AMB SYSTEMS WITH BREATHING CRACK
21.	126103037	PHYU PHYU THANT	EXPERIMENTAL INVESTIGATION OF CEREAL CROP DRYING IN AN INCLINED BUBBLING FLUIDIZED BED

List of students who have fulfilled requirements for award of Ph.D. degree in Civil Engineering

Sl. No.	Roll No	Name	Thesis Title
1.	09610413	DIBYENDU PAL	Analysis and Modeling of Vehicular Movement in no-lane-disciplined Heterogeneous Traffic Stream
2.	09610417	WAIKHOM ROSHAN SINGH	COMPOSTING OF FLOATING BIOMASS (PHUMDI AND SALVINIA NATANS) OF LOKTAK LAKE (MANIPUR, INDIA)
3.	10610413	ABHIJIT DEKA	A Study on the Water Retention and Contaminant Retention Behaviour of Fly Ash, Bentonite and Its Mixes
4.	10610416	VISHAL DESHPANDE	Hydrodynamics of Alluvial Channel with Downward Seepage
5.	10610418	ARGHADEEP BISWAS	INFLUENCE OF SUBSOIL STRENGTH ON PERFORMANCE OF GEOSYNTHETIC-REINFORCED FOUNDATIONS
6.	11610402	R. LALTHLAMUANA	IDENTIFICATION OF VEHICLE PARAMETERS FROM BRIDGE DYNAMIC RESPONSE

Sl. No.	Roll No	Name	Thesis Title
7.	11610406	JAGORI DUTTA	A STUDY ON THE EFFECT OF SALTS ON THE SWELLING, HYDRAULIC AND CONSOLIDATION BEHAVIOUR OF BENTONITES
8.	11610428	DEB DULAL TRIPURA	Structural Behaviour of Unreinforced and Reinforced Cement Stabilised Rammed Earth Columns under Axial Compression
9.	126104034	V. SUDHARSAN VARMA	COMPOSTING OF VEGETABLE WASTE THROUGH DIFFERENT COMPOSTING TECHNIQUES
10.	136104018	VISHAL SINGH	Hydrological and Hydrodynamic Modeling under Climate Change Scenarios in Snow-Glacier Induced Himalayan Catchment

List of students who have fulfilled requirements for award of Ph.D. degree in Design

Sl. No.	Roll No	Name	Thesis Title
1.	09610501	K K BALAKRISHNAN	PRODUCT SERVICE SYSTEMS APPROACH TO DESIGN FOR SUSTAINABILITY
2.	09610502	VIKASH KUMAR	Development of a Morphological Approach in Sustainable Product Designing
3.	10610504	KEYUR SORATHIA	Gestural Interfaces for Maternal Healthcare: A Case Study of Rural Assam, North-East India
4.	11610501	SANJOG J	Ergonomic design interventions for improvement of shop-floor working conditions in the Indian small and medium scale injection-molded plastic furniture manufacturing industries
5.	11610503	SHRUTI HEMANI	Influence of Urban Forms on Social Sustainability: A case of Guwahati, Assam
6.	126105003	ANIRBAN CHOWDHURY	Influence of Anthropomorphic Product Appearance on Purchase Intention: A Cognitive Ergonomics Perspective
7.	126105007	THANESWER PATEL	Ergonomic Design Modification of 'Pedal Operated Paddy Thresher' Adoptable for Agricultural Needs of Northeast India
8.	126105008	HAILU GEBRETSADIK TEKLEMARIAM	Evaluation of Virtual Product and Usability of Haptic Feedback Systems (A case study of Phantom Omni force feedback device)

List of students who have fulfilled requirements for award of Ph.D. degree in Biosciences and Bioengineering

Sl. No.	Roll No	Name	Thesis Title
1.	10610607	SUDEEP GOSWAMI	Antibacterial Activity and Potential Therapeutic Applications of Pyridine-based Synthetic Amphiphiles
2.	10610612	SURADIP DAS	ARTIFICIAL SCAFFOLDS FOR NEURAL TISSUE ENGINEERING
3.	10610617	SOUMYADEEP CHAKRABORTY	Molecular cloning, expression, structural and functional characterization of pectate lyase of family 1 polysaccharide lyase (PL1) from Clostridium thermocellum ATCC 27405 and its applications in production of immobilized magnetic nanoparticle for bioscouring and pectic oligosaccharides inhibiting colon cancer cells
4.	10610621	MOUSUMI DAS	Studies on redox system of Leishmania donovani: Understanding drug resistance process and discovery of novel drug candidates
5.	11610601	ARNISH CHAKRABORTY	Characterization and activity profiling of candidate drugs against PFD0975w from Plasmodium falciparum
6.	11610628	SHALINI SINGH	Exploring Leishmania Biochemistry to Understand Effect of Spermidine Starvation and Identification of Novel Drug Candidates

List of students who have fulfilled requirements for award of Ph.D. degree in Chemical Engineering

Sl. No.	Roll No	Name	Thesis Title
1.	09610728	RUHIT JYOTI KONWAR	Templated Carbons for Hydrogen Storage Application
2.	10610702	SANJIB BARMA	Amine functionalized ordered mesoporous silica materials and its applications towards adsorbent and membrane for CO ₂ capture
3.	10610704	ASHISH KUMAR THOKCHOM	Microfluid Flow and Particle Transport in Evaporating Drops
4.	10610705	KAMAL KUMAR BHATLURI	Liquid Membrane based Technology for the Separation of Toxic Heavy Metals from Industrial Effluents
5.	10610715	V. RAVI BABU	Studies on the properties of Graphene and Sucrose Palmitate Reinforced Poly(lactic acid) Nanocomposite Films
6.	10610716	BANDI CANDRA SEKHAR	Optimal Design of Multi-stage Flash (MSF), Reverse Osmosis (RO) and Hybrid MSF-RO Seawater Desalination Processes Using Differential Evolution Algorithm
7.	10610718	T. ANIL KUMAR	FLOW PATTERN-BASED TRANSPORT PROCESSES OF GAS-NON-NEWTONIAN FLOW IN HELICAL COIL
8.	11610701	VIKRANTH VOLLI	Preparation and Characterization of Flyash Based Catalyst for Transesterification of Mustard Oil
9.	11610702	venu BABU BORUGADDA	Synthesis of Bio-lubricant Basestocks: Substitute to Conventional Lubricants
10.	11610705	SANKAR CHAKMA	MECHANISTIC INVESTIGATIONS IN HYBRID ADVANCED OXIDATION PROCESSES FOR DEGRADATION OF RECALCITRANT POLLUTANTS
11.	11610706	SNIGDHA KHUNTIA	REMOVAL OF AMMONIA, ARSENIC AND DYESTUFFS FROM WATER BY OZONE MICROBUBBLES
12.	11610707	ANJANI RAVI KIRAN GOLLAKOTA	CFD MODELING AND SIMULATIONS OF CATALYTIC HYDROTREATMENT OF BIO-OIL
13.	11610709	SUJOY BOSE	Development of a Low-cost Catalytic Membrane Reactor for Sulfur Recovery
14.	11610710	RAJEEV PARMAR	HYDRODYNAMICS AND MINERAL BENEFICIATION EFFICIENCY OF IONIC MICROBUBBLE
15.	11610712	MANISH KUMAR SINHA	Preparation and Characterization of Fouling Resistant Ultrafiltration Membrane
16.	11610715	JAYKUMAR BABA BHASARKAR	Physical Features of Ultrasound-Enhanced Desulfurization of Liquid Fuels
17.	126107008	DHARAMASHIBHAI VIHABHAI RABARI	Experimental, Modelling and Optimization Insights for the Enhancement of Butanol Production using Phosphonium based Ionic Liquids
18.	126107025	V SHYAM KUMAR YADAV	Electrochemical and Photo Electrochemical Studies for CO ₂ Reduction and Dye Removal using CO ₃ O ₄ as Anode
19.	126107031	ASHIM KUMAR BASUMATARY	Fabrication, Characterization of Zeolite-Ceramic Composite Membranes and Their Application in Separation of Metal Ions from Aqueous Solution

List of students who have fulfilled requirements for award of Ph.D. degree in Physics

Sl. No.	Roll No	Name	Thesis Title
1.	08612109	HIMANSHU SHEKHAR JHA	Growth and Study of Cubic Silicon Carbide (3C-SiC) Thin Films by Hot Wire Chemical Vapour Deposition Technique
2.	09612116	SATENDRA KUMAR	Study of Electroweak Symmetry Breaking through Higgs and Gauge Boson Couplings

Sl. No.	Roll No	Name	Thesis Title
3.	09612117	MUKESH SINGH	Synthesis and Study of Different Carbon Nanomaterials: Diamond like Carbon, Carbon Nanoflakes and Graphene Thin Films
4.	09612126	BHARGAB DEKA	COMPOSITION DEPENDENT PROPERTIES OF QUATERNARY FULL HEUSLER ALLOYS EXHIBITING FERROMAGNETISM, ANTIFERROMAGNETISM AND FERRIMAGNETISM
5.	09612132	SURESH BABU M	Vortex state studies in a weakly pinned low T _c superconductor – Ca ₃ Rh ₄ Sn ₁₃
6.	10612103	MD. GAFFAR	Effect of aberrations on tightly focused cylindrical vector beams
7.	10612106	VIPIN KUMAR	Optical Properties of 2D Carbon Based Materials
8.	10612107	NISHA SHANKHWAR	PREPARATION AND CHARACTERIZATION OF NANOCOMPOSITES FOR BIOMEDICAL APPLICATIONS
9.	126121011	RANJAN KUMAR BHUYAN	Development of bulk and thin films of Mg ₂ TiO ₄ based ceramics for microwave applications

List of students who have fulfilled requirements for award of Ph.D. degree in Chemistry

Sl. No.	Roll No	Name	Thesis Title
1.	09612203	ASWINI KALITA	Nitric oxides reactivity of Copper(II), Manganese(II) and Iron(III) complexes with N-donor and O-donor ligands
2.	09612209	RUMI KHANDELIA	Interactive Proteins and Nanoscale Particles for Cancer Therapeutics
3.	09612225	MD. PALASHUDDIN SK	Versatile Applications of Carbon Nanoparticles
4.	10612201	PRITHIVIRAJ KHAKHLARY	Supramolecular aspects, ion recognitions, metal complexes and antimalarial activity of quinoline derivatives
5.	10612204	B. MUTHURAJ	Design and Synthesis of Fluorescent Probes for Applications in Sensors and Modulating Amyloid β Fibrils
6.	10612205	SANTHOSH KUMAR ALLA	Studies Toward Metal-Free Synthesis of Benzofused Azoles Using Hypervalent Iodine
7.	10612207	SUKHAMOY GORAI	Membrane Binding Mechanism of Phosphoinositide Interacting Domains and Development of Their Inhibitors
8.	10612208	JAYANTA KR. NATH	Self assemblies, ion recognitions by some cyclic imides and related first row transition metal complexes
9.	10612209	RAMA GHOSH	Gold and Copper Based Nanomaterials for Potential Theranostic Applications
10.	10612210	ROMEN CHUTIA	Anion and Ion-Pair Directed Self-Assembly of Urea Functionalized Molecules
11.	10612211	RADHAKRISHNAN K	Synthesis and Physical Studies of 2-Aminopyrimidine and Uracil Derivatives as Nucleobase Analogues and Oligonucleotides
12.	10612216	KANHU CHARAN ROUT	Development of fluorescent sensors for reactive nitrogen species like nitric oxide and nitrite ion
13.	10612217	PRASANTA RAY BAGDI	Copper Oxide Nanoparticles Assisted Synthesis of 1,4-Triazole Based New Organic Molecules And Facile Access to N-Heterocycles Using Multicomponent Reactions
14.	10612218	NILUFA KHATUN	Transition Metal-Catalyzed Synthesis of Anhydrides, Ketones, Esters and 2H-Benzotriazoles via C–H Bond Functionalization
15.	10612221	ARGHYA BANERJEE	Transition Metal Catalyzed Formation of C–C and C–O Bonds: A Substrate Based C–H Functionalization Approach

Sl. No.	Roll No	Name	Thesis Title
16.	10612224	SUBRATA PAUL	Molecular Dynamics Simulation Studies on Counteraction of Temperature-Induced and Urea-Conferred Protein Denaturation by Trehalose Molecules
17.	10612225	SATYAPRIYA BHANDARI	Chemical Reactions on the Surface of Quantum Dots
18.	10612226	MD. NAJBUL HOQUE	An Endeavor in Receptor Design for Solid State Recognition of Anions/Hydrated Anions
19.	10612227	VIKASH KUMAR	Reactivity of copper(II) complexes with NO _x (X=1, 2): Development of NO ₂ sensors
20.	10612229	DIPANKAR BARPUZARY	Design and Development of Novel Structured ZnO Based Semiconductor/Dye Sensitized Solar Cells
21.	10612232	AJAZ AHMAD DAR	Synthesis of Sulfur Containing Organic Compounds Using Multicomponent Reactions (MCRs): Their Biological and Photophysical Studies
22.	10612233	CHANDANI RANI DAS	Identification of Factors Governing Chiral Resolution of 1-Phenylethylamine and Few Amino alcohols Using Metallo-organic Host
23.	10612237	MAJJI GANESH	Oxidative C–O Bond Formation via C–H Functionalization under Metal Free Conditions
24.	10612240	ANUPAL GOGOI	Copper Catalyzed Synthesis of Five and Six Membered Nitrogen Containing Heterocycles
25.	10612241	ABHIJIT GOGOI	Benzimidazole and Benzothiazole Based Chemosensors For Biologically Important Analytes
26.	10612244	ASHIM PAUL	Development of New Strategies for Peptide Based Drug Design against Alzheimer's Disease
27.	11612217	JULFIKAR HASSAN MONDAL	Cucurbit[8]uril Assisted Vesicle Formation by Viologen Amphiphiles: A Systematic Analysis and Application
28.	11612219	SABERA SULTANA	Synthesis of Alkenols and Their Use in Construction of Oxygen Heterocycles
29.	11612226	BARUN KUMAR DATTA	Design and synthesis of Fluorogenic and Chromogenic probes for the Detection of Ionic Guests in Solution and Biological medium
30.	11612246	NABAJEET BARMAN	Anomalous Modulation of Photoinduced Electron Transfer of Coumarin Acceptors in Solvent Mixtures: Effect of Excited-State Hydrogen Bonding

List of students who have fulfilled requirements for award of Ph.D. degree in Mathematics

Sl. No.	Roll No	Name	Thesis Title
1.	09612308	KALYAN SINHA	ON COMPLETION PROBLEMS FOR SOME CLASSES OF MATRICES
2.	09612311	JHUMA SEN GUPTA	A POSTERIORI ERROR ANALYSIS OF FINITE ELEMENT METHOD FOR PARABOLIC INTERFACE PROBLEMS
3.	10612305	BARUN GORAIN	Approximation Algorithms for Sweep Coverage in Wireless Sensor Networks
4.	10612307	NEELAM CHOUDHARY	Linear sloshing in vertical circular cylindrical containers with different configurations under the influence of surface tension
5.	10612308	PUNIT SHARMA	EIGENVALUE BACKWARD ERRORS OF POLYNOMIAL EIGENVALUE PROBLEMS UNDER STRUCTURE PRESERVING PERTURBATIONS

List of students who have fulfilled requirements for award of Ph.D. degree in Humanities and Social Sciences

Sl. No.	Roll No	Name	Thesis Title
1.	09614102	PALLAVI SHARMA	Problem of the Other in Jean Paul Sartre's Existential Phenomenology
2.	09614112	MRIDUSMITA DUARA	EVOLVING INTRICACIES OF INDUSTRIAL RELATIONS: A STUDY OF SELECTED TEA ESTATES IN ASSAM
3.	11614105	TULIKA SINGH	A Study of Cue Characteristics on Prospective Memory: Exploring the Role of Sleep
4.	126141006	KAVERI DEB	Indices of Comparative Advantage: A Study with Focus on Differences between Gross Trade and Value-Added Trade

List of students who have fulfilled requirements for award of Ph.D. degree in Energy

Sl. No.	Roll No	Name	Thesis Title
1.	09615106	MADHURI DAS	Development of Nanocomposite Based Bioelectrodes using Alcohol Oxidase and Laccase as Biocatalysts for Bioelectronic Applications
2.	09615107	AMRITA DIFUSA	Studies on Cultivation Strategies and Biodiesel Production from Selected Microalgae Species of North-East India

List of students who have fulfilled requirements for award of Ph.D. degree in Environment

Sl. No.	Roll No	Name	Thesis Title
1.	09615203	SAMARPITA BASU	CO ₂ Sequestration using Microalga <i>Scenedesmus obliquus</i> SA1 isolated from Bio-diversity Hotspot Region of Assam
2.	11615202	SURYA SINGH	Direct Electrochemical Reduction of Gaseous Carbon Dioxide to Value Added Products: Investigations on Electrocatalysts

List of students who have fulfilled requirements for award of Ph.D. degree in Nanotechnology

Sl. No.	Roll No	Name	Thesis Title
1.	10615301	BIROJU RAVI KUMAR	Fabrication and Characterization of CVD Graphene Based Hybrid Nanostructures for Photoconductive and Photocatalytic Applications
2.	10615305	NIMMAKAYALA V.V. SUBBARAO	Fabrication and Characterization of Highly Environmental Sustainable Organic Field-Effect Transistors with Tri-layer Gate Dielectrics

PROGRESS IN CONSTRUCTION WORKS

Sl. No.	Works	Cost of works (₹ in lakhs)	Physical Progress		Total Progress upto 31.03.2017		Remarks
			Upto 31.03.16	During 2016-2017	Physical	Financial (₹ in lakhs)	
1.	Married Scholars hostel and Dormitory Building (96 flat let 6712 sqm floor area)	2532.53	85%	15%	100%	1732.63	Completed and handed over.
2.	Boys' Hostel 10 (956 capacity with 31050 sqm floor area)	8228.00	85%	10%	95%	6564.96	Pile Works: Complete. Block A & B: All 528 rooms in these two blocks are handed over. Dining and Kitchen area: Kitchen, Dining along with food court at 1st floor are under use. Central common Facilities: All common facilities including games rooms, security, Warden and care taker's Office etc. are under occupation. Block C: All 324 rooms are handed over. Block D: Out of 152 rooms 108 rooms are ready.
3.	Boys' Hostel 11 (1152 capacity with 34785 sqm floor area)	9665.03	5%	40%	45%	3776.67	The foundation work has been completed. Superstructure work is going on. The work is expected to be completed by March 2018
4.	Extension of Academic Complex						
a)	(Phase-IV & Classroom) Department of Chemistry, EEE & ME Class room (9875 sqm floor area)	6094.68	65%	20%	85%	5679.62	Phase-IV The expansion work of Chemistry, EEE and Mechanical Department has been completed and is in use. Class Room Complex: At present finishing work including HVAC and electrical works for 18 nos. 120 capacity halls is complete. For 6 nos. 200 capacity halls, structural works of roof is in progress. The work is expected to be completed within July 2017.

Sl. No.	Works	Cost of works (₹ in lakhs)	Physical Progress		Total Progress upto 31.03.2017		Remarks
			Upto 31.03.16	During 2016-2017	Physical	Financial (₹ in lakhs)	
b)	Research Building Complex (1850 sqm per floor)	5675.00	35%	30%	65%	3165.80	At present finishing work is in progress. The work is expected to be completed within October 2017.
c)	(Phase – V) DoD, CSE, Physics, Chemical Engg, HSS, Mathematics, And Centre for Nanotechnology (19045 sqm floor area)	6944.74	65%	15%	80%	2886.54	Work was allotted in March 2015. DoD, CSE, Physics, Chemical, HSS and Math: All structural work is complete. Finishing items are going on. Work shall be ready by October 2017 Nanotechnology Centre: All piling works are done and pile caps are completed & about 75% structural work is complete.
5.	Residential Building						
	Prefabricated residential quarters (1440 sqm)	470.10	-	25%	25%	60.61	The foundation works completed and the superstructure work is going on. It will be completed by July 2017
	Other Works						
6.	Guest House 2 (15090 sqm floor area)	4059.00	45%	35%	80%	2937.77	As on date around 80% works have been completed. Out of 165 rooms, 32 nos. rooms were already completed and under use from November 2015. Now it is scheduled to complete the balance work by October 2017
7.	Boundary wall phase-IV (4.7 Km)	1772.55	80%	20%	100%	1653.30	The work has been completed.
8.	Dormitory for Security (2875 sqm floor area)	808.00	40%	30%	70%	517.12	Finishing work is in progress. The buildings are expected to be completed by June 2017.
9.	Maintenance of Internal Road phase-II (8.5Km)	1105.97	-	80%	80%	884.00	The APWD (NH) has taken up the work from November 2016 and almost 80% of work has been completed so far. The work is under progress and hope to be completed within July 2017.
10.	Pre-Primary School Building and Daycare Centre (2500 sqm floor area)	835.58	-	45%	45%	364.00	Presently the superstructure work is going on. The work is expected to be completed by July 2017.
11.	Estate Office (3000 sqm floor area)	1011.51	-	15%	15%	145.07	Presently the foundation and structural work is going on. The work is expected to be completed by April 2018

Sl. No.	Works	Cost of works (₹ in lakhs)	Physical Progress		Total Progress upto 31.03.2017		Remarks
			Upto 31.03.16	During 2016-2017	Physical	Financial (₹ in lakhs)	
12.	Boundary wall Phase-V (3.9 Km)	1849.00	-	2%	2%	22.00	The work has been started and is expected to be completed within January 2018
13.	Parking area including open hut, cycle repairing, bike repairing and external toilet in Market Complex	112.06	-	85%	85%	66.55	The 85% work has been completed till April 2017. It is expected to be completed the balance work in all respect by the end of May 2017.
14.	Dormitory for Guest House (2155 sqm floor area)	488.86	-	20%	20%	64.23	The piling work has been completed and the pile cap and foundation works are under progress now
15.	Electrical & AC Infrastructure	87.22	80%	20%	100%	87.22	25 Kwp solar plant has been installed in computer and communication centre.

RIGHT TO INFORMATION

About Right to Information

The Right to Information Act, 2005 empowers the citizen of India to get any information from the public authorities. The preamble to the Act states that it has been enacted to set out the practical regime of Right to Information for citizens to secure the right to access to information held by or under the control of public authorities. The legislative intent behind the enactment of the RTI Act is to foster transparency and accountability in the working of every Public Authority, bridge the gap between the information provider and the information seeker, enhance efficiency in administration of public authorities, mitigate corruption and promote good governance.

Salient features of the RTI Act

Public Authority

As per Section 2(h) of the RTI Act, a “public authority” means any authority or body or institution of self- government established or constituted –

- (a) by or under the Constitution;
- (b) by any other law made by Parliament;
- (c) by any other law made by State Legislature;
- (d) by notification issued or order made by the appropriate Government, and includes any –
 - (i) body owned, controlled or substantially financed;
 - (ii) non-Government organization substantially financed, directly or indirectly by funds provided by the appropriate Government.

Meaning of Right to Information

As per Section 2(j) of the RTI Act, 2005, “right to information” means the right to information accessible under this Act which is held by or under the control of any public authority and includes the right to—

- (i) inspection of work, documents, records;
- (ii) taking notes, extracts, or certified copies of documents or records;
- (iii) taking certified samples of material;

- (iv) obtaining information in the form of diskettes, floppies, tapes, video cassettes or in any other electronic mode or through printouts where such information is stored in a computer or in any other device.

Restriction from Disclosure

The right to seek information from a public authority is not absolute. Sections 8 and 9 of the Act enumerate the categories of information which are exempt from Such information are exempt from disclosure which affects, the sovereignty and integrity of the country and also its security and strategic, scientific or economic interest, commercial confidence, trade secrets, or intellectual property, information causing breach of privilege of Parliament or the State Legislature, information prohibited by any court of law. It also provides provisions for protecting the privacy of an individual. Certain intelligence and security organizations have also been exempted from disclosure of information, except the information pertaining to the allegations of corruption and human rights violations.

Suo-Motu Disclosure

Section 4 of the Act provides for an elaborate manual for mandatory disclosure on various aspects of structure and functioning of Public Authorities and requires that they make suo-motu disclosure in public interest. This is the essential ingredient for broadening and deepening of the transparency regime. The said Section also emphasizes the need for using electronic means for record upkeep, management and dissemination of information.

Three tier system under RTI Act

The Act provides three levels for getting access to information.

The Public Information Officer (PIO) is required to provide information sought by an RTI applicant within 30 days of the receipt of a request unless it is exempted from disclosure or relates to a third party or to other Public Authority in which case it is transferred to that Public Authority within 5 days of the receipt of the application.

Second Level is First Appellate Authority (FAA) i.e. Registrar, an officer senior in rank to PIO in the Institute to whom an RTI applicant may address his/her first appeal, if he/she does not get the required information within the specified time or is aggrieved by the decision of PIO. Together the PIO and the FAA constitute the cutting edge of this 'practical regime of information' as envisaged in the preamble of the Right to Information Act.

Third Level is Central Information Commission to whom an information seeker can file a second appeal against the order of First Appellate Authority (FAA), if he/she is not satisfied or does not receive an order from FAA within the specified time.

Complaint

A direct complaint can also be filed before the Commission in certain circumstances, such as (i) where the Public Authority has not appointed a CPIO/PIO or (ii) the CPIO/PIO has refused to accept a RTI application, or (iii) the CPIO/PIO has not given a response within the specified time or (iv) the CPIO/PIO has given incomplete, misleading or false information or (v) where unreasonable fee has been demanded by CPIO/PIO.

Details of officials designated as APIO, PIO and Appellate Authority u/s 5 (1) and 5 (2) of the RT/ Act during reporting year 2016-17

Assistant Public Information Officer (APIO)

Ms. Nandeeta Das Salhotra
Assistant Registrar (Legal) and Nodal Officer (RTI-MIS Portal)
IIT Guwahati 781 039

Public Information Officer (PIO)

Mr. Dilip Boro
Deputy Registrar (Equal Opportunity Cell and Special Reservation Cell)
IIT Guwahati 781 039

First Appellate Authority (FAA)

Mr. U. C. Das
Registrar
IIT Guwahati 781 039

Status of RT/ applications and first appeals in the Institute and their disposal

The Institute received a total of 187 RTI applications during 2016-17. Out of these 1 RTI application was related to the functioning of other public authority, hence was transferred. Further, 32 RTI applications were transferred to this Institute from other public authorities. During the reporting year, a total of 10 appeals were filed under Section 19 (1) of RTI Act and the same were disposed by the designated Appellate Authority.

Submission of Online Quarterly Returns

The RTI Cell has been submitting periodical online quarterly returns.

Appointment of an Assistant Public Information Officer (APIO)

The Institute appointed an Assistant Public Information Officer (APIO) in August 2016. The Assistant Public Information Officer (APIO) is also the Nodal Officer for handling the RTI-MIS Portal.

Designation of deemed Public Information Officers (DPIOs) and Alignment in (RTI-MIS) Portal

The Institute RTI Request & Appeal Management Information System (RTI-MIS) has been initiated. The Departments/ Centres/ Sections are in the process to designate deemed Public Information Officers (DPIOs) for alignment in (RTI-MIS) Portal.

EQUAL OPPORTUNITY CUM SPECIAL RESERVATION

As per directive of the MHRD with regard to implementation of Scheduled Castes Sub Plan (SCSP) and Tribal Sub Plan (TSP) in IIT Guwahati and subsequent decision of the 80th, BoG Meeting a full-fledged Equal Opportunity cum Special Reservation Cell was set up in 2015.

The Special Reservation Cell (SRC) is responsible for enforcement of the Government orders of reservation in posts and services of the Institute in respect of ST, SC, PWDs and OBC.

Objectives and Activities

- To collect data regarding implementation of affirmative action/policies in respect of admission, appointment to teaching and non-teaching positions at IIT Guwahati, and analyze the data showing trends and changes towards fulfilling requirements.
- To implement the reservation policy for SC/ST/PWD & OBC students and employees

Annual Returns: The Institute submits regularly the Annual Returns concerning SC/ST to the concerned department.

Grievances Register: Grievances Register for Scheduled Castes and Scheduled Tribes employees and students is maintained as per rule. This year no grievance has been registered.

Implementation of Scheduled Castes Sub Plan (SCSP) and Tribal Sub Plan (TSP) in IIT Guwahati

Learning Equipment: 158 new laptops as an important learning equipment were distributed to the 2016 July batch undergraduate, MSc and MA SC/ST students under Scheduled Castes Sub Plan (SCSP) and Tribal Sub Plan (TSP) programme. Beneficiaries are (SC, Male 85 and Female 16, ST Male 44 and Female 13).

Book Allowances: This year 135 undergraduate, MSc and MA SC/ST students have benefited under Book Allowances scheme.

Assistantship and their Extension: Under this programme

assistantship is provided to such regular SC/ST PhD students who could not complete their PhD programme as per the Institute norms but is continuing the same. Based on satisfactory annual academic progress review of such students, assistantship may be extended to a maximum period of one year or till submission of thesis, whichever is earlier. This year 31 regular SC/ST PhD students have been benefited with this assistantship.

EQUAL OPPORTUNITY CELL (EOC)

The Institute is committed to ensure equal opportunities for all and responsive to the needs and constraints of the disadvantaged social sections. A cell has been created to look after such issues.

Objectives: Facilitate effective implementation of policies and programmes for disadvantaged sections, to extend guidance and counselling with respect to academic, financial, social and other matters and to enhance the diversity within the Institute.

Activities Undertaken

New Scholarship Scheme to Persons with Disabilities (PWDs) students from Govt. of Assam, pursuing Medical and Technical Education under Budget Announcement 2016-17.

Under this scheme 27 IITG PWDs students have applied and their applications were forwarded to the Directorate of Social Welfare, Assam.

As per directive of MHRD w.e.f. July 2016 semester all PWDs students are extended tuition fee waiver.

Internal Transport

There are 90 Persons with Disabilities (PWDs) students in campus. Steps have been taken to arrange transport facilities for smooth movement of such persons inside the campus. Regular meetings with the PWDs students are held to understand their issues and problems and take suitable measures to address the same.

Access-Audit for Barrier Free Campus

Various steps have been taken towards creation of a Barrier Free Environment in line of “The Persons With Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995”. (The Right of Persons with Disabilities Bill, 2014). Similarly, as per directive of the MHRD, the Institute has constituted a committee to conduct accessibility audit in campus. Measures like putting special ramps, signage, disabled-friendly toilets, lifts, disabled-friendly ATMs, wheel chairs, user-friendly website to Persons with Disabilities (PWDs), proactive inclusiveness of Persons with Disabilities sports, cultural and technical events, etc. have been arranged to facilitate persons with disabilities.

Guidelines for Conducting Written Examination

Steps have been taken to follow guidelines of the Ministry of Social Justice and Empowerment, Department of Disability Affairs for conducting written examination for Persons with Disabilities.

Guidance and Counselling

The Institute provides guidance and counselling to students with respect to academic, financial, social and other matters and support to avoid stress related problems.

The outgoing students are also given guidance and counselling with regard to higher studies/ job/ self-employment/ tap financial resources for entrepreneurship, etc.

Appendix-VII

SUMMARY OF INSTITUTE ACCOUNTS**Balance Sheet as on 31 March 2017**

Sources of Funds	Current Year	Previous Year
CORPUS/CAPITAL FUND	10,128,205,282	10,999,048,890
DESIGNATED/ EARMARKED / ENDOWMENT FUNDS	667,851,623	568,251,124
CURRENT LIABILITIES & PROVISIONS	3,429,624,472	3,132,033,859
TOTAL	14,225,681,377	14,699,333,873

Application of Funds	Current Year	Previous Year
FIXED ASSETS		
Tangible Assets	8,959,601,506	8,460,066,944
Intangible Assets	59,803,877	40,910,279
Capital Works-In-Progress	3,149,022,313	2,689,169,577
INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS		
Long Term	788,992,193	659,798,160
Short Term	-	-
INVESTMENTS - OTHERS	72,976,509	106,982,050
CURRENT ASSETS	2,153,980,501	1,405,850,266
LOANS, ADVANCES & DEPOSITS	541,304,477	1,336,556,596
TOTAL	15,725,681,377	14,699,333,873

Income and Expenditure Account for the year ended on 31 March 2017

Particulars	Current Year	Previous Year
INCOME		
Academic Receipts	277,050,771	224,853,407
Grants / Subsidies	-	2,088,289,992
Income from investments	-	-
Interest earned	1,621,825	1,000,832
Other Income	45,280,256	33,342,231
Prior Period Income	735,023	137,924
TOTAL (A)	324,687,875	2,347,624,386
EXPENDITURE		
Staff Payments & Benefits (Establishment expenses)	1,315,937,258	1,162,602,793
Academic Expenses	743,929,312	642,348,502
Administrative and General Expenses	222,417,620	209,698,568
Transportation Expenses	24,761,934	21,230,065
Repairs & Maintenance	320,213,948	228,832,543
Finance costs	104,625	55,453
Depreciation	480,862,239	409,266,676
Other Expenses	-	-
Prior Period Expenses	737,116	461,758,031
TOTAL (B)	3,108,964,053	3,135,792,630
Balance being excess of Income over Expenditure (A-B)	(2,784,276,177)	(788,168,245)
Transfer to / from Designated Fund		
Building fund		
Others (specify)		
Balance Being Surplus / (Deficit) Carried to Capital Fund	(2,784,276,177)	(788,168,245)

Receipt and Payment Account for the Period Ended on 31 March 2017

RECEIPTS		Current Year	Previous Year	PAYMENTS		Current Year	Previous Year
I.	Opening Balance			I.	Expenses		
	a) Cash Balances	232,000	161,000		a) Establishment Expenses	1,058,937,276	708,111,881
	b) Bank Balance				b) Academic Expenses	620,435,287	608,212,015
	i. In Current accounts	221,803,694	265,595,158		c) Administrative Expenses	120,633,411	205,095,037
	ii. In Deposit accounts	1,028,566,846			d) Transportation Expenses	784,546	17,358,016
	iii. Savings accounts		1,046,984,456		e) Repairs & Maintenance	137,522	182,817,987
II.	Grants Received				f) Prior period expenses	176,683	71,844
	a) From Government of India	3,420,000,000	2,275,000,000		g) Finance Cost	104,625	70,993
	b) From State Government	-	-	II.	Payments against Earmarked/ Endowment Funds	104,842,524	131,315,205
	c) From others	-	-	III.	Payments against Sponsored Projects/Schemes	407,173,757	472,296,176
	d) Grants in aid receivable for 15-16 received during the year	546,500,000		IV.	Payments against Sponsored Fellowships/Scholarships	22,170,695	24,519,459
				V.	Investments and Deposits made		
III.	Academic Receipts	436,942,025	355,366,409		a) Out of Earmarked/Endowments funds	140,000,000	289,300,000
IV.	Receipts against Earmarked/ Endowment Funds	160,789,045	140,032,515		b) Out of own funds (Investments- Others}	200,000,000	1,670,253,000
V.	Receipts against Sponsored Projects/Schemes	692,302,426	800,774,298	VI.	Term Deposits with Scheduled Banks	110,869,228	-
VI.	Receipts against sponsored Fellowships and Scholarships	19,385,815	24,398,300	VII.	Expenditure on Fixed Assets and Capital Works - in- Progress		
VII.	Income on Investments from	-	44,750,126		a) Fixed Assets	168,022,402	304,144,820
	a) Earmarked/Endowment funds				b) Capital Works- in- Progress	24,048,893	672,041,903
	b) Other investments			VIII.	Other Payments including statutory payments	568,014,115	665,780,157

VIII.	Interest received on						
	a) Bank Deposits	8,851,893		IX.	Refunds of Grants	7,462,954	
	b) Loans and Advances			X.	Deposits and Advances	2,622,058,919	932,850,196
	c) Savings Bank Accounts	10,760,964		XI.	Other Payments	220,400	122,442,104
IX.	Investments encashed	289,344,466		XII.	Closing balances		
X.	Term Deposits with Scheduled Banks encashed	155,774,565	2,281,445,789		a) Cash in hand	254,000	232,000
XI.	Other income (including Prior Period Income)	35,636,178	16,983,428		b) Bank balances		
XII.	Deposits and Advances	703,751,045	930,896,554		In Current Accounts	539,216,461	221,803,694
XIII.	Miscellaneous Receipts including Statutory Receipts	365,829,234	69,635,642		In Savings Accounts	1,400,288,540	1,028,566,846
XIV	Any Other Receipts - Fixed Assets/ Direct-Indirect expenses	19,382,044	5,259,657		In Deposit Accounts	-	-
	TOTAL	8,115,852,238	8,257,283,332		TOTAL	8,115,852,238	8,257,283,332

