



# The IITG Monitor

The Quarterly Newsletter

## US AMBASSADOR TO INDIA, MR. RICHARD RAHUL VERMA

His Excellency, Richard Rahul Verma, the Ambassador of the United States of America to India, on 2<sup>nd</sup> September, 2015, addressed the students and faculty of IITG on Indo-US ties and how academic cooperation between these two great nations can be tapped for mutual benefit. His Excellency, Richard Verma stressed on the opportunities and developments in higher education and research in US and also about possibilities of student and faculty exchange under various programmes.



*His Excellency, Richard Rahul Verma, US Ambassador to India, seen here with Prof. Gautam Biswas, Director IITG, Prof. R.M. Punekar, Dean AER, Prof. Chandan Mahanta, Dean Students' Affairs, Prof. S.R.M. Prasanna, Dean R&D, and others.*

## GERMAN ACADEMIC EXCHANGE SERVICE (DAAD)

Representatives of the German Academic Exchange Service or DAAD which is the largest German support organisation in the field of international academic co-operation visited IIT Guwahati on 31<sup>st</sup> August, 2015. They interacted with the faculty and students of IIT Guwahati

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- α US Ambassador at IITG
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and highlighted the various initiatives being taken by the respective governments of India and Germany on initiating and enhancing grants for academic and research projects between India and Germany.

*DAAD executive, Mr. Apoorv Mahendru speaking to the faculty and students of IITG*



## Conference/ Seminar Abroad

**Dr. Rajaram Swaminathan**, Dept. of BSBE, presented a Paper at Maritim Hotel and International Congress Center Dresden-ICCD, Germany from 18.07.15 to 22.07.15.

**Dr. Lingaraj Sahoo**, Dept. of BSBE, presented a Invited talk at Gifu University held at Japan from 25.08.15 to 27.08.15.

**Dr. Biman Behari Mandal**, Dept. of BSBE, attended the “4<sup>th</sup> TERMIS World Congress” held at Boston, MA, USA from 08.09.15 to 11.09.15.

**Dr. Tamal Banerjee**, Dept. of Chemical Engg., attended the :Lberoamerican Meeting on Ionic Liquids, 2015” held at Madrid, Spain from 02.07.15 to 03.07.15.

**Dr. Chandan Das**, Dept. of Chemical Engg., attended the “2<sup>nd</sup> International Conference on Desalination using Membrane Technology” held at Singapore Expo Convention and Exhibition Centre, Singapore from 26.07.15 to 29.07.15.

**Dr. Vimal Katiyar**, Dept. of Chemical Engg., attended the “International Conference on Biopolymers and Bioplastics” held at San Fransisco, USA from 10.08.15 to 12.08.15.

**Dr. G. Pugazhenth**i, Dept. of Chemical Engg., attended the “5<sup>th</sup> International Conference on Environment, 2015” held at Penang, Malaysia from 18.08.15 to 19.08.15.

**Dr. Amit Kumar**, Dept. of Chemical Engg., attended the “International Conference on Chemical, Biological and Environmental Engineering (ICBEE) 2015” held at Novotel Milano Nord Ca’ Granda, Milan, Italy from 14.09.2015. to 15.09.2015.

**Dr. Ramgopal V.S. Uppaluri**, Dept. of Chemical Engg., attended the “Indo-US collaboration on CO<sub>2</sub> flooding” held at Oklohama State University, USA from 15.09.15 to 16.09.15.

**Dr. Sumana Dutta**, Dept. of Chemistry, attended the conference on “Complexity and Synergetics” held at Hannover, Germany from 08.07.15 to 11.07.15.

**Dr. Ashish Kumar Gupta**, Dept. of Chemistry, attended the “Gordon Research Conference on Quantum Control of Light & Matter” held at Mount Holyoke College, South Hadley, MA, USA from 02.08.15 to 07.08.15.

**Dr. S. Talukdar**, Dept of Civil Engg., attended the “8th International Conference on Advances in Steel Structures (ICASS’2015)” held at Lisbon, Portugal from 21.07.15 to 24.07.15.

**Dr. A. K. Maurya**, Dept of Civil Engg., attended the “11<sup>th</sup> International Conference of Eastern Asia Society for Transportation Studies (EASTS2015)” held at Cebu City, Philippines from 11.09.15 to 14.09.15.

**Dr. Arijit Sur**, Dept. of CSE, attended the “European Signal Processing Conference (EUSIPCO 2015)” held at Nice, France from 31.08.15 to 04.09.15.

**Dr. Samit Bhattacharya**, Dept. of CSE, attended the “Affective Computing and Intelligent Interaction (ACII 2015)” held at Grand New World Hotel, Xi’an, China from 21.09.15 to 24.09.15.

**Dr. Sougata Karmakar**, Dept. of Design presented an invited talk at MED BY held at SCE, Israel from 05.07.15 to 09.07.15.

**Dr. Rakesh Singh Kshertrimayum**, Dept. of EEE, attended the “2015 IEEE International Conference on Digital Signal Processing” held at Singapore from 21.07.15 to 24.07.15.

**Dr. Praveen Kumar**, Dept. of EEE, attended the “2015 IEEE Power & Energy Society General Meeting” held at Denver , Colorado, USA from 26.07.15 to 30.07.15.

**Dr. S. R. M. Prasanna**, Dept. of EEE, presented a paper at “INTER SPEACH” held at Dresden, Germany from 06.09.15 to 10.09.15.

**Dr. Rohini Mokashi Punekar**, Dept. of HSS, delivered a talk in a workshop from 06.07.15 to 09.07.15 at the New Silk Road Program 2015 held at Changsha, China.

**Dr. Shakuntala Mahanta**, Dept. of HSS, attended the “ProVar-Workshop on Prosodic Variation, 2<sup>nd</sup> Workshop of the project Interactive Atlas of the Prosody of Portuguese” held at Lisbon, Portugal on 09.07.15.

**Dr. Archana Barua**, Dept. of HSS, attended the Annual Conference of the “International Society for Environmental Ethics” held at Kiel, Germany from 22.07.15 to 25.07.15.

**Dr. Krishna Barua**, Dept. of HSS, attended the “35th International Conference on Critical Thinking and Educational Reform” held at Berkeley, California, USA from 25.07.2015 to 30.07.2015.

**Dr. Priyankoo Sarmah**, Dept. of HSS, attended the “18th International Congress of Phonetic Sciences (ICPhS2015)” to be held at SECC Glasgow, UK from 10.08.15 to 14.08.15.

**Dr. Bodhisattva Sengupta**, Dept. of HSS, attended a Workshop at University of Limerick, Ireland from 17.08.15 to 19.08.15.

**Dr. Priyankoo Sarmah**, Dept. of HSS, visited Diponegoro University, Semarang, Indonesia as Invited Speaker at “Language Maintenance and Shift V International Seminar (LAMAS V)” from 02.09.15 to 03.09.15.

**Dr. Bidisha Som**, Dept. of HSS, attended the “Architectures and Mechanisms for Language Processing (AMLap 2015)” held at University of Malta, Malta from 03.09.15 to 05.09.15.

**Dr. Priyankoo Sarmah**, Dept. of HSS, attended the “INTERSPEECH 2015” held at Dresden, Germany from 06.09.15 to 10.09.15.

**Dr. Swaroop Nandan Bora**, Department of Maths, attended the “8th International Congress on Industrial and Applied Mathematics” held at CNCC, Beijing, China

**Dr. S. Senthilvelan**, Dept. of ME, attended the “The twenty-third Annual International Conference on Composites / Nano Engineering (ICCE-23)” held at Chengdu, China from 12.07.15 to 18.07.15.

**Dr. Satyajit Panda**, Dept. of ME, attended the “ASME 2015 Conference on Smart Materials, Adaptive Structures and Intelligent Systems” held at Colorado, USA from 21.09.15 to 23.09.15.

**Dr. Atanu Banerjee**, Dept. of ME, attended the “ASME 2015 Conference on Smart Materials, Adaptive Structures and Intelligent Systems” held at Colorado, USA from 21.09.15 to 23.09.15.

**Dr. P. K. Giri**, Dept. of Physics, attended the “ANM 2015 – International Conference on Advanced Nanomaterials” held at Aveiro, Portugal from 20.07.15 to 22.07.15.

**Dr. Padma Kumar Padmanabhan**, Dept. of Physics attended the “Advanced Materials World Congress (AMWC 2015)” held at Stockholm, Sweden from 23.08.15 to 26.08.15.

**Dr. Girish S. Setlur**, Dept. of Physics, attended the “Advanced Materials World Congress” held at Stockholm, Sweden from 23.08.15 to 26.08.15.

**Dr. P. K. Giri**, Dept. of Physics “Microscopy Conference 2015” held at Georg – August University Gottingen, Germany from 06.09.15 to 11.09.15.

**Dr. Sunil Kumar Khijwania**, Dept. of Physics, attended the “International Conference on Optical Fiber Sensors, OFS” held at Curitiba (Parana), Brazil from 28.09.15 to 02.10.15.



**Distinguished Lecture Series, Ministry of External Affairs  
Govt. of India  
Speaker: Ms. Bhaswati Mukherjee**

Ms. Bhaswati Mukherjee, a former Ambassador of India to The Netherlands & Permanent Representative of India to UNESCO visited IIT Guwahati on September 10, 2015, as part of the Distinguished Lecture Series. She spoke on India’s multilateral engagement in the quest to strengthen international peace and security.



Techniche 2015 - the annual Techno-Management Festival of the Institute - was organized from 3<sup>rd</sup> to 6<sup>th</sup> September, 2015. From its beginning in 1999, Techniche has grown to become one of the premier Techno-Management festivals of the nation. With a reach of thousands of colleges and school students from across the country, Techniche plays a phenomenal role in bringing out the true potential of the young generation.

One of the main attractions of Techniche was the Lecture Series, where eminent scientists, Nobel laureates, entrepreneurs and intelligentsia from around the world delivered lectures on their work, shared their experiences and thus greatly inspired the students. This

year people from diverse spheres of technology and management visited the Institute. Among them were Daniel Domscheit-Berg (A German technology activist), Claude Nicollier (one of the most renowned astronauts of the 20th century), Rajdeep Sardesai (A senior journalist and author of the best-selling book, '2014: The Election that Changed India'), Jean-Baptiste Kempf (An open source developer, a multimedia specialist, the president of the VideoLAN non-profit organization and one of the lead developers of the open source VLC media player),

Anousheh Ansari (An Electrical Engineering and the first Iranian in space).

Industrial Conclave, has been, and forges ahead as an ideal interface between the



Anousheh Ansari



MANAV, the first India humanoid robot



Daniel Domscheit-Berg





the industry and the students to inspire, motivate and train them for the battle for success in life. In this 3 day long, high profile event, eminent personalities from various spheres shared their invaluable experiences which helps the young minds understand the internal dynamics of the ever growing industry with enthralling corporate workshops, and networking lunch on all days to ensure personal interaction with the bigwigs. The past editions saw the likes of Mr. Marten Pieters (MD and CEO, Vodafone India), Ms. Vinita Bali (Former CEO and MD, Britannia Industries Ltd), Mr. Arun Iyer (National Creative Director, Lowe Lintas India) among others, the Conclave has ceaselessly grown bigger and better, every year. This year keynote lectures were delivered by Chet Kamat (MD and CEO, Oracle Financial Services), Neil Wilson (COO, PwC India), Tapan Singhel (MD and CEO, Bajaj Allianz General Insurance), Pankaj Dubey (MD, Polaris India), among others.

The three day event started with the well known Guwahati Half Marathon promoting awareness with the theme 'UNITY RUN FOR PEACE'. Amit Kumar Saroha, an Arjuna Award recipient in 2013 and also a para-athletics coach for the Haryana Sports Department, appreciated all the participants for keeping up their spirits irrespective of the weather condition. He also exhorted the participants to aim higher and take a step forward at all times.

Some of the events Techniche-2015 witnessed were Chess competitions, robotics, paper presentations, brain churning quizzes, online events, panel discussions, parliamentary debates, management events, other competitions Mock Press, Spelling Bee, MUN, Di'verse'ified, and the international school olympiad technothlon which had a participation of over 1.5 lakh school students. Like every year, a blood donation camp was also organized during Techniche 2015.



Vikas Swarup



Vishal Kothari



M.S. Pannirselvam



Rajdeep Sardesai

## Awards and Honours

Dr. Bhubaneswar Mandal, Dept. of Chemistry, Winner of the "Outstanding Faculty Award (VIFFA-2015)" conferred by the Venus International Foundation, 5th July, 2015.

Dr. Arun Goyal, Dept. of BSBE, Invited to Chair a session in "Update on Advances in Cancer Research", September 10, 2015, B. Barooah Cancer Institute, Guwahati, Assam, India.

## Visitors/Invited Lectures/Seminars

### BSBE

Prof. Takahisa Nishizu, Faculty of Applied Biological Sciences, Gifu University, Japan; 'Thermodynamically-Based Evaluation Method of Whipped Cream Texture'; 11<sup>th</sup> August, 2015.

Mr. Kazutaka Kusunoki, Faculty of Applied Biological Sciences, Gifu University, Japan; 'Transcriptomics of Tree species for Understanding Stress Response'; 15<sup>th</sup> September, 2015.

Prof. Yoshiharu Yamamoto, Faculty of Applied Biological Sciences, Gifu University, Japan; 'Prediction-oriented promoter analysis to study environmental response of higher plants'; 17<sup>th</sup> September, 2015.

### CHEMISTRY

Prof. Ryo Irie, Kumamoto University, Japan; 'New synthetic approaches to heterohelices based on catalytic domino cyclization'; 18<sup>th</sup> September, 2015.

### CIVIL

Dr. A Senthil Kumar, IIRS (ISRO), Dehradun; 'Earth Remote Sensing: Social Benefits and Challenges'; 21<sup>st</sup> July, 2015.

### EEE

Mr. Amit Raje, Aartech Solonics Limited, Bhopal; 'Entrepreneurial Opportunities in the Power Sector'; 7<sup>th</sup> July, 2015.

### HSS

Dr. Indranil Dutta, EFLU Hyderabad; 'Static and dynamic models of formant transitions towards coronal place categorization in Malayalam'; 28<sup>th</sup> July, 2015.

Dr. Yahia Mahmoud, Lund University, Sweden; 'Modernization, Development Studies and Modernity'; 6<sup>th</sup> August, 2015.

Paul Wallace, University of Missouri; 'The 2014 Elections A Year Later: Modi the Modernizer or Hindu Extremist?'; 20<sup>th</sup> September, 2015.

### MATHS

Prof. Anant Shastri, IIT Bombay; 'Introduction to Lie Groups'; 6<sup>th</sup> - 7<sup>th</sup> July, 2015.

Prof. Parvati Shastri, University of Mumbai; 'On the fifteen theorem of Conway-Schneeberger-Bhargava'; 7<sup>th</sup> July, 2015.

Dr. Subhamay Saha, Technion-Israel Institute of Technology, Haifa, 'Construction of Asymptotically Optimal Control for a Stochastic Network from a Free Boundary Problem'; 27<sup>th</sup> August, 2015.

Dr. Nishant Chandgotia; 'Finite diameter of the path space in Graphs'; 31<sup>st</sup> August, 2015.

### PHYSICS

Dr. Sovan Chakraborty, Postdoctoral Fellow at Max Planck Institute for Physics; München, Germany; 'Neutrino Astrophysics: What we have learned and the way forward'; 10<sup>th</sup> August, 2015.

Prof. Sanjib Sabhapandit, RRI, Bangalore; 'Fluctuations and large deviations in nonequilibrium systems'; 31<sup>st</sup> August, 2015.

Dr. Abhishek Iyer, Department of Theoretical Physics Tata Institute of Fundamental Research (TIFR); 'Bulk RS models, electroweak precision tests and 125 GeV Higgs'; 9<sup>th</sup> September, 2015.

Dr. Moon Moon Devi, Postdoctoral Fellow, Department of Particle Physics & Astrophysics, Weizmann Institute of Science, Israel; 'Direct Detection of Dark Matter'; 22<sup>nd</sup> September, 2015.

## Patents

**Inventor:** Bora U and Das S, **Title:** Silk based electrically conductive nerve conduit and the method for preparing the same (Application No. 721/Kol/2015).

**Inventor:** Dr. Vimal Katiyar and Neelima Tripathi, **Title:** Biobased Adhesive -Formulation for Structural Applications. (Application No. 980/KOL/2015).

**Inventor:** Dr. Vimal Katiyar and Akhilesh Kumar Pal, **Title:** Dispersible Biobased Additive Formulations for Biodegradable Polymer Packaging (Application No. 981/KOL/2015).

**Inventor:** Santanu Konwar and B. R. Boruah, **Title:** Free space optical communication system apparatus and a method thereof (Application No. 2153/DEL/2015).



## NATIONAL WORKSHOP ON 'TIME SERIES ECONOMETRICS'



*Inauguration Ceremony: From left Sanghamitra Baruah (Research Scholar, IITG), Prof M K Dutta (IITG), Prof M P Bezbaruah (Gauhati University), Prof B Kamaiah (Univ of Hyderabad), Prof M G Prem Prasad (DOAA, IITG), Prof A Saikia (HOD, HSS, IITG), Dr B Sengupta (IITG)*

A five-day National Workshop on 'Time Series Econometrics' was organized by the Department of Humanities and Social Sciences, IIT Guwahati during 6<sup>th</sup> to 10<sup>th</sup> July, 2015. The event was sponsored by The Indian Econometric Society (TIES) and Indian Council of Social Science Research-NER (Shillong). The workshop primarily catered to the needs of the students, researchers and academicians of north eastern region in using time series and panel data analysis techniques in academic research. To accomplish this, the workshop arranged theoretical lectures supplemented by hands-on-practice. A total of 62 participants, covering all the North Eastern States as well as West Bengal took part in the workshop.

Prof. M. P. Bezbaruah (Gauhati University), Prof. Bandi Kamaiah (University of Hyderabad), Prof. Nityananda Sarkar (ISI-Calcutta) and Prof. Pami Dua (Delhi School of Economics) participated as guest lecturers.

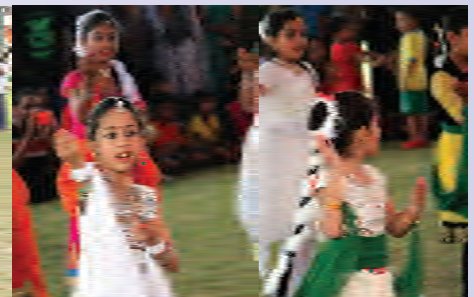
Prof. M. K. Dutta and Dr. B. Sengupta were the coordinators of the workshop.



*Dr B Sengupta, Prof B Kamaiah and Prof M K Dutta with participants.*



The 69<sup>th</sup> Independence Day of India was celebrated on 15<sup>th</sup> August, 2015 in the Institute campus. The Director of the Institute, Prof. Gautam Biswas, hoisted the tricolour and addressed the gathering. This was followed by colourful cultural programmes presented by the students of the Institute, Akshara School and children of the campus. Employees and students of the Institute and residents of the campus were present throughout the function.





**BSBE**

**Title:** Investigation into estrogen regulation of cystatin expression in Breast Cancer cells and its role in proliferation and migration.

**Funding Agency:** DBT.

**Principal Investigator:** Dr. Anil Mukund Limaye.

**Title:** Study of cancer promoting role of CD90/THY1 in leukemia associated stroma.

**Funding Agency:** DBT.

**Principal Investigator:** Dr. Bithiah Grace Jabanathan.

**Title:** INSPIRE.

**Funding Agency:** DST.

**Principal Investigator:** Dr. Lalit Mohan Pandey.

**Title:** Mechanistic Insights into the Adaption Stage of CRISPR-Cas Immune System.

**Funding Agency:** DBT.

**Principal Investigator:** Dr. B. Anand.

**Title:** Adenoviral vector based diagnostics for Japanese Encephalitis Virus.

**Funding Agency:** ICMR.

**Principal Investigator:** Dr. Sachin Kumar.

**Title:** Thermodynamic basis of specificity in RNA splicing by Group II introns.

**Funding Agency:** IITG.

**Principal Investigator:** Dr. Priyadarshi Satpati.

**CIVIL**

**Title:** INSPIRE.

**Funding Agency:** DST.

**Principal Investigator:** Dr. Abhishek Kumar.

**Title:** Protective health and usage monitoring system using phononic crystal for aerospace.

**Funding Agency:** DST.

**Principal Investigator:** Dr. Amit B. Shelke.

**Title:** Assessment of snowmelt and glacier melt runoff contribution in upstream part of Teesta river catchment using hydrological modeling and field based measurements.

**Funding Agency:** SERB.

**Principal Investigator:** Dr. Manish Kumar.

**Title:** A study on vegetation root water uptake induced surface settlement.

**Funding Agency:** IITG.

**Principal Investigator:** Dr. Ankit Garg.

**Title:** Development of a real-time low cost structural health monitoring system.

**Funding Agency:** IITG.

**Principal Investigator:** Dr. Budhadya Hazra.

**Title:** Studying air quality during Commonwealth Games in 2010 at New Delhi

**Funding Agency:** IITG.

**Principal Investigator:** Dr. Sri Harsha Kota.

**Title:** Seismic site classification of Guwahati city and development of design response spectra considering detailed in-situ geotechnical and geophysical studies.

**Funding Agency:** IITG.

**Principal Investigator:** Dr. Abhishek Kumar.

**Title:** Urban Black Carbon Global Impacts and Local Mitigations.

**Funding Agency:** SERB.

**Principal Investigator:** Dr. Sharad B. Gokhale.

**CHEMISTRY**

**Title:** Copper-peroxynitrite complexes and phenol ring nitration.

**Funding Agency:** SERB.

**Principal Investigator:** Dr. Biplab Mondal.

**CHEMISTRY**

**Title:** Copper-peroxynitrite complexes and phenol ring nitration.

**Funding Agency:** SERB.

**Principal Investigator:** Dr. Biplab Mondal.

**Title:** Metal and Oxidant Free Stereoselective sp<sup>3</sup>C-H Arylation: Facile Access to Optically Active Disubstituted N-heterocycles and Their Applications in Synthesis.

**Funding Agency:** SERB.

**Principal Investigator:** Dr. Chandan K. Jana.

**Title:** Structure-Reactivity Correlations of High Valent Metal Intermediates Bearing Structurally Tunable Coordination Spheres.

**Funding Agency:** SERB.

**Principal Investigator:** Dr. C.V. Sastri.

**Title:** Integration of photoredox catalysis with chiral bronsted acids: towards enantioselective synthetic routes of versatile structural motifs.

**Funding Agency:** DST.

**Principal Investigator:** Dr. Dipankar Srimani.

**Title:** Ionic Analogues of Semiconductor p-n junction: Ion Transport Through Heterojunctions of Cation-Anion Selective Nanofluidic Channel Networks.

**Funding Agency:** IITG.

**Principal Investigator:** Dr. Kalyan Raidongia.

**Title:** Stimuli Responsive Superhydrophobic Materials for Triggered Drug Release.

**Funding Agency:** IITG.

**Principal Investigator:** Dr. Uttam Manna.

**Title:** Design and Synthesis of Pincer Complexes with First Row Transition Metals: Exploring Potential Catalytic Application.

**Funding Agency:** IITG.

**Principal Investigator:** Dr. Dipankar Srimani.

**Title:** Development of Synthetic Organoselenium compounds as Chemopreventive Agents for the treatment of cancer.

**Funding Agency:** IITG.

**Principal Investigator:** Dr. Krishna Pada Bhabak.

**Title:** New opportunities with a New Calcium Based Lewis Acid Catalysts.

**Funding Agency:** IITG.

**Principal Investigator:** Dr. Animesh Das

**Title:** Organic Materials via Catalyst: Heteroatom Doped pi-conjugated molecules via Transition Metal Catalyzed C-H Activation Reactions.

**Funding Agency:** IITG.

**Principal Investigator:** Dr. Akshal Kumar Alape Seetharam

**Title:** Study of nanoparticle-fluorophore interaction inside surfactant assemblies.

**Funding Agency:** SERB.

**Principal Investigator:** Dr. Kalyanasis Sahu.

**Title:** Asymmetric Organocatalytic Benzylic C-H Activation: Application to the synthesis of SUGiol and its Derivatives with Biological Study.

**Funding Agency:** SERB.

**Principal Investigator:** Dr. S.Chandra Pan.

**Title:** Studies Toward Regioselective C-H Activation for C-C and C-H Bonds Formation

**Funding Agency:** SERB.

**Principal Investigator:** Dr. T. Punniyamurthy.

**Title:** Luminescent Metallomesogens for Organic light emitting diodes:synthesis and characterization.

**Funding Agency:** SERB.

**Principal Investigator:** Dr. Nirmalangshu Chakraborty (Mentor: Dr. A.S. Achalkumar).

## CHEMICAL

**Title:** Pyrolysis and combustion studies of waste plastics to yield targeted value added chemicals

**Funding Agency:** SERB.

**Principal Investigator:** Dr. Pankaj Tiwari.

## DESIGN

**Title:** Design and evaluation of effective Interactive Voice Response System (IVRs).

**Funding Agency:** IITG.

**Principal Investigator:** Mr. Abhishek Shrivastava.

**Title:** A Documentary Film & Documentation of Craft Practice on the Banks of Bramhaputra in Assam.

**Funding Agency:** IITG.

**Principal Investigator:** Dr. Charu Monga.

**Title:** Design of a Mechanical Trade Water Pump for the North East using a Frugal Design Approach.

**Funding Agency:** IITG.

**Principal Investigator:** Dr. Pankaj Upadhyay.

**Title:** Product Analysis using Lifecycle approach considering user, designer and birds eye perspective

**Funding Agency:** IITG.

**Principal Investigator:** Dr. Suradip Das.

## MECHANICAL

**Title:** Calibration method of High Frequency Thermal Sensors for localized temperature and heat flux measurements in Gas Turbine and internal Combustion Engine Application.

**Funding Agency:** ARDB.

**Principal Investigator:** Dr. N. Sahoo.

## PHYSICS

**Title:** B-Physics at Belle and Belle II experiments at KEK Japan.

**Funding Agency:** SERB.

**Principal Investigator:** Dr. Bipul Bhuyan.

**Title:** Development of (K, Na)NbO<sub>3</sub> ceramics modified with LiTaO<sub>3</sub> and LiNbO<sub>3</sub> for piezo and pyroelectric sensor applications.

**Funding Agency:** BRNS.

**Principal Investigator:** Dr. D. Pamu.

**Title:** THz active and passive waveguide components using engineered plasmonic metamaterials on s/c surface

**Funding Agency:** BRNS.

**Principal Investigator:** Dr. Gagan Kumar.



**Title:** Molecular Dynamics Study Electronics Sensing of DNA Translocating through Protein nanopores.

**Funding Agency:** DBT.

**Principal Investigator:** Dr. Swati Bhattacharya.

**CET**

**Title:** Scheme for Financial Assistance for Setting up of Electronics and ICT Academics.

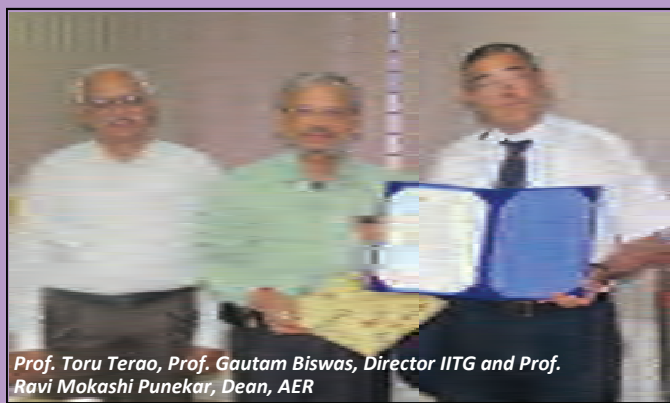
**Funding Agency:** DEITY.

**Principal Investigator:** Dr. Ratnajit Bhattacharjee.



*The Director of the Institute Prof. Gautam Biswas welcoming the freshers on the Orientation Day - July 2015.*

*Prof. Toru Terao & Prof. Gautam Biswas signing the MoU between IIT Guwahati & Kagawa University, Japan on 03.08.15 in IITG.*



*Prof. Toru Terao, Prof. Gautam Biswas, Director IITG and Prof. Ravi Mokashi Puneekar, Dean, AER*



Prof. Gautam Biswas, Director, Indian Institute of Technology Guwahati with representative of the Semi-Conductor Labs, Department of Space, Govt. of India, Chandigarh, who visited IIT Guwahati on August 07, 2015 to sign an Memorandum of Understanding with IITG



Dr. A. K. A. Seetharam  
Assistant Professor  
Chemistry



Dr. Kusum K. Singh  
Assistant Professor  
BSBE



Dr. Balkrishna Mehta  
Assistant Professor  
Mechanical



Dr. John Jose  
Assistant Professor  
Computer Science



Dr. Pranjal Chandra  
Assistant Professor  
BSBE



Dr. R. P. Thummer  
Assistant Professor  
BSBE



Dr. Shirisha Nagotu  
Assistant Professor  
BSBE



Dr. Y. Kobayashi  
Visiting Assistant Profes-  
sor, BSBE



Dr. Pankaj Kalita  
Assistant Professor  
Energy



Dr. Ravi. K  
Assistant Professor  
Civil



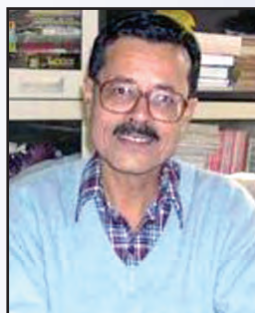
Dr. Chandan Kumar  
Assistant Professor  
EEE



Dr. Rishikesh Bharti  
Assistant Professor  
Civil



Dr. A. T. Mallajosyula  
Assistant Professor, EEE



Prof. Anil Mahanta  
Visiting Professor, EEE



Dr. M. K. Jha  
Assistant Professor Hu-  
manities



Dr. Harsh Chaturvedi  
Visiting Assistant Profes-  
sor, Energy