

The IITG Monitor

The Quarterly Newsletter

The 9th Annual Cytometry Society of India Symposium



The 3-day Symposium cum workshop was organized at the Indian Institute of Technology Guwahati 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 IIT Guwahati on 3–4 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 re-



searchers 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. A cultural evening was also held at IITG on 4th November 2016 in addition to technical sessions.



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BSBE

Prof. Rakhi Chaturvedi, attended the 2nd Global Summit on Plant Science at London, UK from 06.10.16 to 08.10.16.

Prof. Pranab Goswami, attended the 2nd World Biosummit & Expo at Dubai, UAE from 10.10.16 to 12.10.16.

Prof. Arun Goyal, attended the 14th International Conference of the Asian Crystallographic Association at Ta Quang Buu Library, Hanoi University of Science & Technology, Hanoi, Vietnam from 03.12.16 to 07.12.16.

Chemical

Prof. Vimal Katiyar, attended the 3rd International Conference Kathmandu Symposia on Advanced Materials (KaSAM - 2016) at Pokhara, Nepal from 17.10.16 to 20.10.16.

Dr. Nageswara Rao Peela, attended the HySA/ Catalysis Workshop on 'Fuel to Electricity' at Belmont Square Conference Centre, Capetown, South Africa from 26.10.16 to 27.10.16.

Prof. . Kaustubha Mohanty, attended the "EMN meeting on Ionic Liquids" at Chatrium Hotel Riverside, Bangkok, Thailand from 09.11.16 to 13.11.16.

Prof. Sasidhar Gumma, attended the 2016 AIChE Annual Meeting at Parc 55 San Francisco, Cyril Magnin II, San Francisco, USA from 13.11.16 to 18.11.16.

Dr. Prakash Kotecha, attended the "IEEE TENCON - 2016" at Marina Bay Sands, Singapore from 22.11.16 to 25.11.16.

Chemistry

Prof. G. Krishnamoorthy, attended the Aggregation Induced Emission: Faraday Discussion at South China University, Guangzhou, China from 18.11.16 to 20.11.16.

Prof. Jubaraj Bikash Baruah, 14th Conference of the Asian Crystallographic Association (AsCA 2016) at Hanoi University of Science & Technology, Hanoi, Vietnam from 04.12.16 to 07.12.16.

Civil

Prof. Arup Kumar Sarma, attended the "5th International Conference on Climate Change Adaptation 2016" at Toronto, Canada from 15.10.16 to 16.10.16.

Dr. Ankit Garg, attended the To visit University of Leeds, UK from 28.11.16 to 05.12.16.

Dr. K.Darunkumar Singh, attended the "8th International Conference on Steel & Aluminum Structures ICSAS 2016" at Hongkong from 07.12.16 to 09.12.16.

Prof. S.Talukdar, attended the "8th International Conference on Steel & Aluminum Structures (ICSAS 2016)" at Hongkong from 07.12.16 to 09.12.16.

Dr. Sri Harsha Kota, attended the 2016 AGU Fall Meeting at San Francisco, USA from 12.12.16 to 16.12.16.

Computer Science

Dr. Sanasam Ranbir Singh, attended the 26th International Conference on Computation Linguistics (COLING 2016) from 13.12.16 to 16.12.16.

Dr. Aryabartta Sahu, attended the 17th International Conference on Parallel and Distributed Computing, Application and Technologies (PDCAT-16) at Sun Yat-Sen University, Guangzhou, China from 16.12.16 to 18.12.16.

Design

Prof. Utpal Barua, attended the "2016 China Hangzhou G20 International Art Exhibition" symposium at Hangzhou city, China from 10.10.16 to 15.10.16.

Prof. Amarendra Kumar Das, attended the "Preventive Conservation of the Human Environment 6" at Warsaw, Poland from 24.10.16 to 25.10.16.

Prof. Ravi Mokashi Puneekar, attended the "ICDHS 2016" conference at Taipei, Taiwan from 26.10.16 to 28.10.16.

Mr. Avinash Shende, attended the "ICDHS 2016" conference at Taipei, Taiwan from 26.10.16 to 28.10.16.

Prof. Utpal Barua, attended the Silk Journey to Art World Tour Exhibition Singapore 2016 symposium at Singapore from 01.11.16 to 06.11.16.

Mr. Mriganka Madhukaillya, attended the 2016 Shanghai Biennale symposium at Shanghai, China from 03.11.16 to 19.11.16.

Prof. Utpal Barua, attended the Luxor International Painting Symposium at Luxor Studio, Egypt from 14.12.16 to 27.12.16.

Electronics

Dr. Prithwjit Guha, attended the “24th ACM International Conference on Multimedia” at Amsterdam, The Netherlands from 15.10.16 to 19.10.16.

Dr. Suresh Sundaram, attended the “15th International Conference on Frontiers in Handwriting Recognition ” at Shenzhen, China from 23.10.16 to 26.10.16.

Prof. Anup Kumar Gogoi, attended the “Technologies for Smart Nation (IEEE TENCON 2016)” at Marina Bay Sands, Singapore from 22.11.16 to 25.11.16.

Prof. Sanjay Kumar Bose, attended the “Technologies for Smart Nation (IEEE TENCON 2016)” at Marina Bay Sands, Singapore from 22.11.16 to 25.11.16.

Humanities

Dr. Dilwar Hussain, attended the “International Conference on well-being 2016 (ICWB 2016)” at SIM University, Singapore from 31.10.16 to 01.11.16.

Dr. Shakuntala Mahanta, attended the Second Language Approach to Prosody workshop at University of Graz, Graz, Austria from 18.11.16 to 19.11.16.

Dr. Hiranya Kumar Nath, attended the 86th Annual Meeting of Southern Economic Association (SEA) at Washington DC, USA from 19.11.16 to 21.11.16.

Prof. Arupjyoti Saikia, attended the ARI Conference on Disastrous Past: New Direction in Asian Disaster History at Asia Research Institute, National University of Singapore from 21.11.16 to 22.11.16.

Dr. Priyankoo Sarmah, attended the Technologies for Smart Nation (TENCON 2016) at Marina Bay Sands, Singapore from 22.11.16 to 25.11.16.

Mathematics

Dr. Ayon Ganguly, attended the International Conference on Mathematics, Statistics & Information Technology 2016 at Tanta University, Egypt from 20.12.16 to 22.12.16.

Mechanical

Dr. Prasenjit Khanikar, attended the “International Forum for Materials Testing” at Ulm, Germany from 08.10.16 to 15.10.16.

Dr. Amaresh Dalal, attended the “International Mechanical Engineering Congress & Exposition” conference at Phoenix, AZ, USA from 11.11.16 to 17.11.16 and the “69th Annual meeting at The APS Division of fluids Dynamics” at Portland, Oregon, USA from 20.11.16 to 22.11.16.

Dr. Deepak Sharma, attended the World Congress on Engineering and Applications (WCEA - 2016) at Bangkok, Thailand from 16.12.16 to 17.12.16.

Physics

Dr. Padma Kumar Padmanabhan, attended the “4th International Conference on Molecular Simulation” from 23.10.16 to 26.10.16 and Workshop on ReaxFF – Methods, Applications and Challenges on 27.10.16 at Shanghai, China.

Dr. D. Pamu, attended the 10th Asian Meeting on Electro Ceramics (AMEC 2016) at Taipei, Taiwan from 04.12.16 to 07.12.16.

Dr. Poulouse Poulouse, attended the International Workshop on Future Linear Colliders (LCWS2016) at Iwate University, Morioka, Japan from 05.12.16 to 09.12.16.

BSBE

Title: Metabolic engineering of *Bacillus megaterium* for enhanced production of D (-) pantothenic acid and its application for the development of functional foods

Funding Agency: DBT

Principal Investigator: Dr. Senthilkumar Sivaprakasam

Title: Development of electrochemical sensor integrated microfluidic system for label free multiplex detection of neurotransmitters in neuronal cell line

Funding Agency: DBT

Principal Investigator: Dr. Pranjal Chandra

Title: Genome and transcriptome sequencing of aromatic rices from North Eastern Region

Funding Agency: DBT

Principal Investigator: Dr. Latha Rangan

Title: Functional validation of yield related genes

Funding Agency: DBT

Principal Investigator: Dr. Lingaraj Sahoo

Title: Understanding the mechanism of ABC-type metal sequestering proteins: structure-based novel drug development against human pathogens

Funding Agency: DBT

Principal Investigator: Dr. Shankar Prasad Kanaujia

Title: Generation of transgene-free human induced pluripotent stem cells using non-genetic approaches for cell therapeutic applications

Funding Agency: DBT

Principal Investigator: Dr. Rajkumar P. Thummer

Title: Liposome Encapsulated Azadiradione for Triple Negative Breast Cancer Treatment

Funding Agency: DST

Principal Investigator: Dr. A.B. Kunnumakkara

Title: Development of bioelectronics genosensor for detection of pathogenic bacteria in biological fluids

Funding Agency: IITG

Principal Investigator: Dr. Pranjal Chandra

Title: Development of Transgenic chilli cv. Bhut Jolokia for resistance to viruses causing leaf curl disease using RNA Interference (RNAi)

Funding Agency: DBT

Principal Investigator: Dr. Lingaraj Sahoo

Title: Mapping the hierarchical participation of assembly factors during ribosome assembly

Funding Agency: DBT

Principal Investigator: Dr. B. Anand

Chemical

Title: Development of CO₂- Selective Ceramic Membrane for separation of CO₂ from Flue Gas and Natural Gas

Funding Agency: DST

Principal Investigator: Dr. Bishnupada Mandal

Title: Mass cultivation of Microalgae for the production of high value bio-fuel fractions through Hydro-Thermal liquefaction (HTL)

Funding Agency: MHRD and MNRE

Principal Investigator: Dr. Kaustubha Mohanty

Chemistry

Title: Unnatural Fluorescent Peptides and Polymers for the Detection of Explosives, Biological Threats Using Organic Field-Effect Transistors Based Sensors

Funding Agency: DBT

Principal Investigator: Dr. S.S. Bag

Title: Multilayer of Porous Micro-Capsules to Develop Robust Slippery Liquid Infused Porous Surface (SLIPS)

Funding Agency: BRNS

Principal Investigator: Dr. Uttam Manna

Title: Bioinspired Semi-conductive Peptides: Self-assembly, Nano-structures and Application in Organic-electronics

Funding Agency: SERB

Principal Investigator: Dr. Debapratim Das

Computer Science

Title: Formal verification of Optimizing Transformations of Programs and Optimizations for FPGAs

Funding Agency: IITG

Principal Investigator: Dr. Chandan Karfa

Title: A software tool for the planning and design of smart micro power grids

Funding Agency: MHRD, Ministry of Power

Principal Investigator: Dr. Arnab Sarkar

Title: e-Varaha:Information System for Safe Pork Production in North Eastern India

Funding Agency: Media Lab Asia, ITRA

Principal Investigator: Dr. Sukumar Nandi

Civil

Title: Development of Buckling-Restrained Braces for seismic Response Control of Multi storied buildings

Funding Agency: PWD, Govt. of Arunachal Pradesh

Principal Investigator: Dr. S.K. Deb

Design

Title: Research on Dhobi & Dhobighat-Phase II

Funding Agency: P&G

Principal Investigator: Dr. Keyur Sorathia

Title: Design intervention to reduce muscular fatigue during backpack mode of load carriage by Indian Army personnel

Funding Agency: DRDO

Principal Investigator: Dr. Sougata Karmakar

Electronics

Title: Image based systems for identification of individuals, breeds and diseases of pigs and goats

Funding Agency: Media Lab Asia (ITRA), Mumbai

Principal Investigator: Dr. Kannan Karthik

Mathematics

Title: Hypergeometric functions, algebraic, curves and

supercongruences

Funding Agency: IITG

Principal Investigator: Dr. Rupam Barman

Mechanical

Title: 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

Funding Agency: DSIR

Principal Investigator: Dr. Pinakeswar Mahanta

Physics

Title: Metamaterial enhanced wireless power transmission system

Funding Agency: MHRD and DST

Principal Investigator: Dr. S.K. Nayak

Title: Development of heteroatom doped nanoporous-graphene-gel and its stable nanohybrid for wearable energy textile

Funding Agency: SERB

Principal Investigator: Dr. Uday Narayan Maiti

CET

Title: IIT Professors Assisted Learning

Funding Agency: MHRD

Principal Investigator: Dr. Ashwini Kumar Sharma

Energy

Title: Membrane based efficient energy storage, clean energy generation and waste water treatment system

Funding Agency: DST

Principal Investigator: Dr. Senthilmurugan S

Patents

Title: Formulation of Polymer Nicotine Conjugates; **Inventor:** Vimal Katiyar, Medha Mili and Arvind Gupta.

Title: An environmentally sustainable algal process for remediation of phenol pollution coupled to clean energy production; **Inventor:** SanjuktaPatra, BSBE, Bhaskar Das.

Title: Method and Composition for cost effective fabrica

-tion of nano-metal particle implanted porous materials; **Inventor:** Syam Ukkandath Aravindakshan, Mahuya Dey and Ramgopal Uppaluri.

Title: A Direct Method for Esterification of Sulphonic acids with Alcohol, Oxyma and Oxime without any Catalyst, Additive or Activation; **Inventor:** Bhubaneswar Mandal and Jyoti Chandra



Dr. Mahendra Nath Pandey, Honourable Union Minister of State, Human Resource Development (Higher Education), Govt. of India visited IIT Guwahati on 28 October 2016.

Dr. Pandey visited the Central Instruments Facility (CIF) of IIT Guwahati and inaugurated the newly installed high capacity servo hydro press Universal Testing Machine (UTM) and interacted with the students and researchers.



Hon'ble Minister for HRD, Sri Prakash Javadekar addressed the higher educational institutions of India connected through NKN on 1 December 2016 as part of the Government mission towards creating a digital economy and to seek complete cooperation of all higher educational institutions. Prof. Gautam Biswas, Director, IIT Guwahati, along with faculty members, officials and students attended the lecture

Tenth Indian Conference on Computer Vision, Graphics and Image Processing (ICVGIP2016)

The Tenth Indian Conference on Computer Vision, Graphics and Image Processing (ICVGIP2016) was held during December 18 – 22, 2016 on the campus of the Indian Institute of Technology, Guwahati. Papers from ICVGIP2016 main conference were published by Association for Computing Machinery (ACM). Papers from its associated workshops were published by Lecture Notes on Computer Science (LNCS), Springer. Papers went through a double-blind peer review, and only around 30% were accepted.

The first day of the conference was dedicated to tutorials. In the morning there was a tutorial by Dr. Siddhartha Chaudhuri of IIT Bombay on the topic “The Semantics of Shape: Computational Methods for High -Level 3D Shape Analysis”. In the afternoon there was another tutorial by Mr. Pulkit Agrawal of UC Berkeley on the topic “Learning to Control from Visual Inputs”. On the second day workshops were held related to Medical Image Processing, Document Analysis and Recognition, Workshops on Digital Heritage and Computer Vision Applications along with Hands -on Industry tutorial by Mathworks India. The next days were devoted to oral presentations of accepted papers. There were three plenary speakers, namely: Prof. Ian Reid of University of Adelaide, Prof. C.V.Jawahar of IIIT Hyderabad and Prof. Kyoung Mu Lee of Seoul National University. There were poster sessions along with Doctoral Symposium Paper presentation on the evening of the third and fourth day. In addition there were two industry sessions on the third day, one delivered by Mr. Amod Anandkumar of Mathworks India and the other by Mr. Sundara R Nagalingam of NVIDIA

The conference conferred the Best Paper Award to Mr. Angshuman Paul and Ms. Dipti Mukherjee (from Indian Statistical Institute) and the Runner up to Mr. Binod Bhattarai of Normandie University, Gaurav Sharma of IIT Kanpur and Frederic Jurie of Normandie University. Also first, second and third place for the doctoral symposium were given to Mr. Talha Bin Masood of IISc Bangalore, Shankar Setty of BVBCET Hubli and Lokender Tiwari of IIIT Delhi. In addition IUPRAI Doctoral Dissertation awards were given to Pramod Sankar Kompalli of IIIT Hyderabad and Avishek Chatterjee of IISc Bangalore.

A cultural program was organized on the final day of the symposium. ICVGIP2016 was attended by approximately 320 participants.



Prof. Ian Reid of University of Adelaide delivering his plenary talk



Oral presentations being delivered during the ICVGIP Conference



Delegation of the United States Embassy



Mr. Joseph Pomper, Minister Counselor, US Embassy being welcomed by Prof. Gautam Biswas, Director IIT Guwahati on 03 November, 2016. Seen here on the left with officials of IIT Guwahati and that of the US Embassy.

Mr. Joseph Pomper, Minister Counselor, US Embassy and other officials during the visit also addressed the students of the Institute on opportunities for higher studies in the United States of America.



Prof. Biman Mandal (left) and Dimple Chouhan of IIT – Guwahati display the non-fibrous mat that heals wounds efficiently.

A team led by Prof. Biman B. Mandal from the Department of Biosciences and Bioengineering, Indian Institute of Technology (IIT) – Guwahati, and the corresponding author of the paper evaluated the potential of non-mulberry silk (wild silk) and mulberry silk (domesticated silk).

The mat is made of a non-protein polymer (PVA) mixed with silk protein and coated with an antibiotic and epidermal growth factor. It heals wounds that have all the layers of the skin removed and are as big as 6 mm in diameter.

While conventional dressing materials only absorb fluids and blood, the smart material expedites the healing process. It will be a big boon for diabetics, for whom wound-healing is very slow. The results were published recently in the journal *Acta Biomaterialia*.

When wound healing takes place normally, body cells in and around the wound along with progenitor cells are brought to the wound site for repair. But the recruitment of the cells to the wound site is slow and hence the healing takes time. But in this case, the wild silk has an amino acid sequence (RGD – arginine glycine aspartate), which possibly attracts more cells thus accelerating the healing process and also allowing the cells to attach better. Mulberry silk does not have this amino acid sequence and so the healing is comparatively slower.

AdMAT 16: IEEE Workshop on Advanced MATLAB 2016

On a popular demand from a large section of students, faculties and staff from different parts of the country, IEEE Student Branch IIT Guwahati organized a workshop on MATLAB for the third time on the 1st and 2nd October 2016 at IIT Guwahati premises. This workshop aimed towards a slightly advanced version of the earlier venture by the student branch with a prime objective of imparting MATLAB programming skills as applied to practical problems in different areas of Engineering such as Wireless Communications, Signal/Image Processing, Control Systems and Power systems. Faculties and research scholars working in various areas were the tutors. More than 100 participants including faculties from various colleges across India participated in it. The feedback from all was very satisfactory.



Two week course on “Flexible Multibody Dynamics”

Dr Arun K Banerjee was invited to teach a two week course on “Flexible Multibody Dynamics” for Masters and PhD students of Mechanical Engineering and Civil Engineering during winter semester break of 2016. Dr Banerjee accepted the invitation and the course has been on since 8th of December, 2016. Dr Banerjee is a well-known scientist in the area of flexible multibody dynamics, worked with Prof L E Malvern at the University of Florida for his PhD in Continuum Plasticity and later worked with Prof Thomas R Kane (who devised a new and simpler method for formulating equations of motion for complex mechanical systems) at Stanford University and published good number of papers in reputed journals. Dr Banerjee was Principal Research Scientist at Lockheed Martin (American global aerospace, defense, security and advanced technologies company) where he worked for 28 years besides teaching graduate level courses on dynamics in different universities.



All together 45 participants (mostly Masters and PhD students of Civil and Mechanical Engineering) registered for the course. In addition, some of the faculty members have also been attending the course. The course was formally inaugurated on 8th Dec, 2016 with a course plan where Dr Banerjee would conduct 2 hours of lecture classes followed by a 1 hour of tutorial class daily totalling 21 hours of lecture and 11 hours of tutorials. The course will continue till 22nd December, 2016.

In this course Dr Banerjee has started with basics of Rigid Body Dynamics and then went on to teach multi body dynamics and flexible multibody dynamics with practical examples especially from space craft dynamics. The difficulties of classical approaches in formulating equations of motion of complex mechanical systems and the Kane’s method in overcoming those difficulties have been explained in details.

At the end of the course, formal course feedback will be collected from the participants to assess the efficacy of the course. However, till now the participants have been impressed by the teaching of Dr Banerjee and they opine that this course will be immensely useful for pursuing further research on multi body dynamics especially in the area of robotics and space craft dynamics.



Training programme on Biogas and Vermicomposting to the team from Sakaar Sewa Samiti, Banaras, at the Centre for Energy, IIT Guwahati, from 3-7 October, 2016



Prof. Gautam Biswas, Director, IIT Guwahati, Prof. M. K. Charudhuri, Vice-Chancellor of Tezpur University, Prof. D. N. Buragohain, former Director IIT Guwahati, Prof. Rakhi Chaturvedi, Associate Dean, AER and others releasing the Alumni Newsletter during the IIT Guwahati Alumni Meet held on 06 November 2016. This was the first Alumni Meet held in IIT Guwahati.

58th Annual Conference of the Indian Society of Labour Economics

The 58th Annual Conference of the Indian Society of Labour Economics was organized by and held at the Indian Institute of Technology Guwahati from November 23-27 2016. Dr. Rajshree Bedamatta, of the Department of Humanities and Social Sciences was the organizing Secretary and Prof. Saundariya Borbora, the co-organising Secretary. This year's conference was held in collaboration with the OKD Institute of Social Change and Development and the Tata Institute of Social Sciences, Guwahati Campus. The conference was presided over by Prof. Ajit Ghose, National Fellow, Indian Council of Social Science Research (ICSSR) and Hon. Professor, Institute for Human Development (IHD), New Delhi (formerly of ILO, Geneva). The themes of the 58th Annual Conference were:

- ◆ Labour Market Institutions and Regulations
- ◆ Wages in India: Structure, Trends and Determination
- ◆ Education, Employment and Labour Markets

The conference was generously supported by the Work in Freedom Programme of International



Labour Organisation, Geneva; Action Aid India; Partnership for Economic Policy; and Indian Council of Social Science Research. A special panel on northeast titled *Development and Employment in North East India: Perspectives and Policies* were partnered by UNICEF, Assam Field Office and the Department of Humanities and Social Sciences, IIT Guwahati. The conference was attended by over 500 delegates from academic institutions in India and abroad.



A pre-conference event was organized on the 23rd of November which saw a panel discussion on the topic *Minimum Wages in Developing Countries: A Comparative Perspective*, followed by a book release *Labour and Development* brought out by Giri Institute of Development Studies, Lucknow and Indian Society of Labour Economics in honour of Professor T.S. Papola. The inaugural session of the conference saw a welcome address by Prof. Gautam Biswas, Director, IIT Guwahati. Opening remarks were made by Prof. Bhupen Sarmah, Director, OKD Institute of Social Change and Development, Dr. D. K. Srivastava, Deputy Director, TISS Guwahati, and Prof. Mrinal Kanti Dutta (then acting HOD) of the Dept of HSS, IIT Guwahati. Remarks were also made by Dr. Sher Verick, Deputy Director of ILO New Delhi. The ISLE President Prof. Deepal Nayyar, Professor Emeritus, JNU and former Vice-Chancellor of JNU addressed the gathering regarding the themes of the conference. The presidential address was given by Prof. Ajit Ghose, followed by a vote of thanks from Prof. Saundarjya Borbora and Prof. Preet Rustagi of IIT Guwahati and IHD, New Delhi respectively. The conference valedictory session was presided over by Virendra Kumar Malhotra, Member-Secretary, Indian Council of Social Science Research. Remarks were made by Prof. Atul Sarma, Chairman of the OKD Institute of Social Change and Development and Prof. Arupjyoti Saikia, HOD of Dept of HSS, IIT Guwahati. Closing remarks and vote of thanks were rendered by the organizing secretary, Dr. Rajshree Bedamatta, Associate Professor, Dept of HSS, IIT Guwahati and Director IHD, Prof. Alakh N. Sharma.



Frontiers in Chemical Sciences 2016 (FICS 2016) is a biennial flagship conference held by the Department of Chemistry, Indian Institute of Technology Guwahati. The conference has been started in the year of 2010. Thus, this is the fourth conference in the row. The main objective of this conference is to bring together the eminent scientists, technologists and young researchers, in particular assistant and associate professor levels, as well as research scholars from across the country as well as abroad and providing them a common platform for discussing



their excellent research works in the field of chemistry and its allied discipline.

There were about 200 participants in the conference. Prof. Armido Studer, chief guest of the conference, Prof. Gautam Biswas, patron of the conference and director of IIT Guwahati, Prof. B. K. Patel, chairman of the conference and head of Department of Chemistry, and Dr. Chandan Mukherjee, convener of the conference, inaugurated FICS 2016. The conference was being proceeded by three plenary lectures by three eminent scientists, Prof. G. Mugesh, Indian Institute of Science, Bangalore, Prof. Armido Studer, Institute of Organic Chemistry, Muenster University and Prof. Swagata D Gupta, Indian Institute of Technology Kharagpur. In addition, 25 invited lectures by distinguish scientists across the country as well as abroad, who are belonging to either well know institutes or well-known chemical companies *e.g.* Gulbrandsen, Momentive, have been delivered. The number of presentations by research scholars was 18. Additionally, other research scholars and scientists in the conference have presented 76 posters.

Prior to the commencing of the conference, a lecture series named as Prelude: A Step to Motivate has been arranged to motivate the research scholars on 7th December 2016. In the lecture series, Prof. Armido Studer, Institute of Organic Chemistry, Muenster University and Prof. Arun Chattopadhyay, Department of Chemistry, Indian Institute of Technology Guwahati, presented three lectures.



Best Poster Award for Shreya Mehrotra, Nandana Bhardwaj, Samit Kumar Nandi, Biman B. Mandal of BSBE, at International Conference of Young Researchers on Advanced Materials (IUMRS-ICYRAM 2016), Indian Institute of Sciences, Bangalore from 11-15 December 2016 for the poster titled 'Biomimetic mulberry and non-mulberry silk cell sheets for cardiac patch applications'.

Best Poster Award for Ankit Gangrade and Biman B. Mandal of BSBE, at Nanobiotech 2016, All India Institute of Medical Sciences (AIIMS, New Delhi), Organized by Indian Society of Nanomedicine (ISNM), from 24-26 November, 2016 for the poster titled 'Folic Acid Functionalized Carbon Nanotubes for Cancer Targeted Drug Delivery'.

Ms Anuma Singh, doctoral student at BSBE 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.

Rishikesh Shukla, BSBE, 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.

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

Mr. Prerak Gupta, a PhD student working on "Bioartificial Blood Vessels" has been selected for this year's prestigious "Indo-US Fulbright Fellowship" in Bioengineering. He is contemplated to work for 09 months with Prof. David Vorp, Dean of research, Swanson School of Engineering, University of Pittsburgh.

Ms. Shreya Mehrotra, is currently a PhD student working on "Bioartificial Heart" has been selected for this year's prestigious "Indo-US Fulbright Fellowship" in Bioengineering. She is contemplated to spend 09 months of her fellowship tenure with the research group of Prof. Ali Khademhosseini of Harvard Medical School.

Ms. Tushara L. Balabolu, a BTech 2016 batch student of Computer Science and Engineering of IIT Guwahati, has won the prestigious Aditya Birla Scholarship for the year 2016 in Engineering stream. The scholarship entails each scholar receiving an amount of Rs.65,000/- per annum.

Professor Sukumar Nandi, CSE, has been elected as Fellow of Indian National Academy of Engineering.

Madhulika Kumari, HSS, received 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

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

Devarshi Kashyap, Ph.D scholar of ME, received S. Rajeshwari award 2016 at National Conference on Emerging Biomaterials, Bharathiar University Coimbatore, 19-21 October 2016.

Best Paper Award for Ashish Kumar Rajak and Sachin D Kore at International Conference on Advances In Materials & Manufacturing, Hyderabad, Organized by Osmania University and DRDO, from 8-10 December, 2016, for the paper titled 'FEM Study of Electromagnetic Wire Crimping Process'.

Mr. Biswajit Pathak of ME, 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 of ME, 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 of ME, 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.

Somnath Chanda, G. Das and M. K. Purkait, of Environment, received 1st prize from Assam green tea leaves, IITG -TIC innovation competition on 29th October, 2016, IIT Guwahati for the paper titled 'Formulation of herbal cosmetics & nutraceuticals from'.

Subrat Kumar Mallick of Civil Engineering, received Best oral presentation award at International Conference on Contaminated Site Remediation held at Tamil Nadu Agricultural University, Coimbatore from 13-15 December 2016, for the presentation titled 'Involvement of individual biomass during the anoxic degradation of pollutants in simulated petroleum refinery wastewater at varied phenol Concentrations'.



Professor Utpal Barua, Department of Design has received Gold Medal for his visualization 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 have participated.

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