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National Conference on Manufacturing: Vision for Future



Prof. Gautam Biswas, Prof. V. K. Jain, Prof. P. Mahanta (L-R) on the dais during the inaugural session

The National Conference on Manufacturing: Vision for Future (MVF2013) was organised at IIT Guwahati during 12-13 October 2013.

The spirit behind the conference was to provide a common platform for the academia and the industry to interact and devise strategies for developing manufacturing technology and thereby contribute to the overall growth of the nation. This conference had detailed discussion on topics like advanced manufacturing processes, micro and nano

manufacturing, advanced welding processes, machining and finishing of advanced materials, manufacturing management, manufacturing challenges in North Eastern region of India, CAD, CAM, CIM, etc.

While inaugurating the conference Prof. Gautam Biswas, Director, IIT Guwahati expressed his views on the importance of micro and precision manufacturing. He also cited microfluidics as an example, where micromanufacturing technology needs to play big role in making various microfluidics devices to be practically realisable and affordable. He mentioned that microfluidics can help to devise many biochips for clinical pathology especially for the quick diagnosis of diseases. Prof. V. K. Jain of IIT Kanpur was the Chief Guest of the conference.



Prof. Gautam Biswas inaugurating the conference

The conference had invited talks by Prof. V. K. Jain; Prof. M. S. Shunmugam, Mechanical Engineering, IIT Madras; Mr. N. Saibaba, Chief Executive, Nuclear Fuel Complex, Hyderabad; Dr. Pulak M. Pandey, Mechanical Engineering, IIT Delhi, and papers by participating scholars and researchers. About fifty delegates registered in the conference. In addition, the conference was well attended by

students and researchers of universities of the region.

The conference was chaired by Prof. Pinakeswar Mahanta, HoD, Mechanical Engineering, IIT Guwahati and Prof. Uday S. Dixit, Mechanical Engineering, was the organising secretary.



Dr. Pulak M. Pandey speaking to the audience

Indo-European Winter Academy 2013



12th Indo-European Winter Academy 2013 was organised at IIT Guwahati during 9-15 December 2013. Six students from each of the seven older IITs (Bombay, Delhi, Guwahati, Kanpur, Kharagpur, Madras and Roorkee) and nine students from University of Erlangen-Nuremberg and KTH Stockholm participated in the event. Fifteen coordinating and other professors from the participating institutes also attended the Winter Academy. The event was inaugurated by Dr. R. P. Singh, Chairman, BOG, IIT Guwahati and Prof. Gautam Biswas, Director, IIT Guwahati. Students were distributed



Prof. Gautam Biswas inaugurating the Academy in the presence of Dr. R. P. Singh (2R) and other dignitaries

in three courses – Course 1: Modelling and Algorithms for Fluid Dynamics and Heat Transfer, Course 2: Computational Methods and Techniques, and Course 3: High Performance Computing with Applications in Electrical Engineering, Materials, and Processes. Each of the participating students delivered 45 minutes lecture on the pre-assigned topics. Every lecture was followed by 30 minutes question and answer. Apart from students, there were expert lectures by participating professors. The Winter Academy was coordinated by Prof. S. C. Mishra and Dr. D. N. Basu, Assistant Professor of Mechanical Engineering.

World Philosophy Day

Department of Humanities and Social Sciences celebrated the 'World Philosophy Day' on 15 November 2013. The event was sponsored by Indian Council of Philosophical Research, New Delhi. Prof. Nirmalya Narayan Chakraborty, former Member-Secretary of ICPR delivered a lecture on 'The Ethics of Feeding the Hungry'. Faculty, students and researchers of the Institute attended the programme.



Conference on Continuities and Discontinuities of Asian Engagement: Borders, Mobility and Identity in Northeast India and Asia



Distinguished social scientists, journalists, policy makers, members of advocacy groups and young researchers participated in the conference. Prof. Rakesh Gupta, former Professor, JNU, Dr. Rajat Ganguly, Associate Professor, Murdoch University, Australia, Prof. Girin Phukon, former Professor, Dibrugarh University, Prof. Dilip Barua, former Professor, Gauhati University, were distinguished speakers. Mr. B. G. Verghese, eminent journalist was the keynote speaker.

Conference on Borders, Mobility and Identity in Northeast India and Asia was held at IIT Guwahati from 17-18 October 2013. The main focus was to understand the challenges of connectivity facing the 'heterogeneous border regions' of Northeast India and Southeast Asia. These regions are ridden with unresolved civil conflicts, environmental insecurities, underdevelopment, inequity and weak political institutions. The talks featured on two major themes: a) historicising deep historical connections between India's northeastern frontiers with the surrounding polities of China, Myanmar, Nepal, Bangladesh and (b) problems of political membership embedded in the discourse of local governance and group claims on power redistribution, natural resources, indigeneity and territory.



Mr. Jishnu Barua, senior bureaucrat, Dr. Iftekhar Iqbal, Dhaka University, Dr. Nani Gopal Mahanta, Gauhati University, Dr. R. K. Debbarma, TISS Guwahati, Dr. K. K. Suan, Hyderabad University, amongst others delivered papers. Researchers from various institutions including IIT Guwahati, NEHU, JNU presented papers and also participated actively in the proceedings.

The conference was sponsored by ICSSR. Dr. Pahi Saikia, Assistant Professor, Humanities and Social Sciences, Prof. Patricia Uberoi, Honorary Fellow, Dr. Jabin T. Jacob, Assistant Director, Institute of Chinese Studies, Delhi and Mr. Dilip Gogoi, Assistant Professor, Cotton College were convener and co-conveners.



Workshop on Image and Speech Processing (WISP 2013)

Workshop on Image and Speech Processing (WISP 2013) was organised at IIT Guwahati during 13-14 December 2013 in collaboration with Centre of Excellence in Signal Processing (CESP), IIIT Hyderabad. The first WISP was held in IIT Madras in 2006. IIT Guwahati has hosted this workshop for the second time.

The workshop aims at conducting elaborate discussion on the recent progress in image and speech processing areas and their impact on various applications of information technology and thereby providing opportunity for students, teachers, scientists and engineers to interact with leading researchers in communication, speech, biometrics,

phonetics, image and signal processing areas. The workshop included invited talks from experts in these and related areas from India and abroad. Prof. Sadaoki Furui, Department of Computer Science, Tokyo Institute of Technology, Japan; Prof. B. Yegnanarayana, IIIT Hyderabad; Prof. Vijayakumar Bhagavatula, Carnegie Mellon University (CMU), USA ; Prof. Peri Bhaskararao, IIIT Hyderabad were among the invited speakers. Around 200 participants took part in the workshop. Prof. S. R. M. Prasanna, Electronics and Electrical Engineering, was the Chair, Dr. R. Sinha, Associate Professor, was the Co-Chair and Dr. L. N. Sharma, Technical Officer, Gr-I, was the Convener of the workshop.



IEEE Workshop on Graphics and Presentation (IWGP-2013)

IEEE Workshop on Graphics and Presentation (IWGP-2013) was held during 5-6 October 2013 at IIT Guwahati. The main objective of

Suite. The workshop dealt in details with the in and outs of designing softwares like Adobe Photoshop, Illustrator and Flash.

Prof. Pradeep G. Yammiyavar, and Dr. D. Udaya Kumar, Assistant Professor, of the Department of Design were the speakers. Apart from that, Mr. Abhijit Padun and Mr. Thomas G. Manih, Design student, gave detailed training to about 200 students who took part in the workshop.



the workshop was to provide the learners hands-on experience with some of the popular Adobe Creative



The workshop was organised by the IIT Guwahati student branch of Institute of Electrical and Electronics Engineers (IEEE).

International Conference on Magnetic Materials and Applications



The second International Conference on Magnetic Materials and Applications (MagMA-2013) was organised at IIT Guwahati during 5–7 December 2013 in association with Magnetism Society of India (MSI). The conference brought together eminent scientists, technocrats and young researchers from all over the world to a common gathering for sharing the recent developments took place in the subject of magnetism, magnetic materials and their applications. Some of the frontier topics of magnetism that were discussed and debated in the conference were – Soft and Hard Magnetic Materials and their Applications; Magnetic Thin Films, Particles and Nanostructures; Magnetic Recording, Memories, and Spintronics; Strongly Correlated

Electron System; Fundamental Magnetic Properties and Cooperative Phenomena; Novel Magnetic Materials and Device Applications; Magnet Industry-Product and Marketing; Interdisciplinary Topics in magnetism, etc. Keynote lecture, plenary sessions, invited talks, oral and poster presentations were part of the conference.

The conference was represented by around 375 participants. Prof. K. Inomata from Japan, Prof. Joel S. Miller and Prof. Samuel Bader from USA, Prof. Pedro Gorria from Spain, Prof. Per Nordblad from Sweden, and Prof. A. K. Raychaudhuri from SNBNCBS Kolkata presented plenary talks, while Prof. Koki Takanashi from Japan, Prof. David C. Jiles and Dr. Stuart S. P. Parkin from USA delivered plenary talks online (webinar) for the first time in such conferences. In addition, several invited talks were delivered by leading experts in the field of magnetism. A total of 320 papers by the delegates from eleven countries and eight areas were covered in 18 sessions. The proceeding of the conference is being published as a special issue in international peer reviewed journal *Physica B: Condensed Matter and Physics Procedia* (Elsevier).

Prof. A. Srinivasan, Department of Physics, IIT Guwahati and Dr. S. Pandian, DMRL, Hyderabad chaired the conference, while Dr. A. Perumal, Associate Professor, Physics, IIT Guwahati was the convener.



Workshop/Other Events Organised

A workshop on Microsoft “Mining Big Data on the Web” was organised by the Department of Computer Science and Engineering on 20 October 2013 where 80 students participated.

Microsoft in association with the Department of Computer Science and Engineering organised a programming and application development contest called Code.fun.do on 9-10 November 2013 for the students of the Institute. The event received good response from the students.

International Conference on Advanced Nanomaterials and Nanotechnology (ICANN-2013)



The third International Conference on Advanced Nanomaterials and Nanotechnology (ICANN-2013) was organised at IIT Guwahati during 1-3 December 2013. This major international conference on nanoscience and nanotechnology brought together eminent scientists, technologists and young researchers from several disciplines across the globe to discuss their research findings and newer directions of research.

ICANN-2013 focussed on advanced nanomaterials for nanoengineering and recent advances in nanotechnology, covering fields from theory and experiment to applications of nanostructured materials in technology. The scientific programme was consisted of plenary sessions, invited talks, oral and poster presentations. During these sessions topics like Synthesis and self assembly of nanomaterials, Nanoscale characterisation, Nanophotonics and Nanoelectronics,

Nanobiotechnology, Nanomaterials for Energy, Commercialisation of Nanotechnology, etc. were discussed.

Some of the speakers of the conference were Prof. A. Ajayaghosh, NIIST, Thiruvananthapuram; Prof. Engin Umut Akkaya, Bilkent University, Turkey; Prof. Namkyoo Park, Seoul National University, Korea; Prof. Shu Wang, ICCAS, China; Prof. T. Pradeep, IIT Madras; Prof. Amitabha De, Saha Institute of Nuclear Physics, Kolkata; Prof. Amitava Patra, IACS, Kolkata; Prof. Ashok K. Ganguli, IIT Delhi; Dr. J. Y. Kim, UNIST, Ulsan, Republic of Korea; Dr. Kenji Kiyohara, AIST Kansai, Japan; Prof. Mireille Blanchard-Desce, Bordeaux University, France; Dr. Pavle Radovanovic, University of Waterloo, Canada; Dr. Yukihiro Shimoi, AIST, Japan.

Prof. P. K. Iyer, Chemistry and Dr. D. K. Goswami, Associate Professor, Physics were the convener and joint convener of the conference.



Awards and Honours

Biotechnology

- Prof. Arun Goyal was invited as member editorial board of *Annals of Microbiology*, a Springer journal, in November 2013.



Dr. Vikash Kumar Dubey receiving DBT-Innovative Young Biotechnologist Award from Shri S. Jaipal Reddy, Minister of Science and Technology, Government of India

- Dr. Vikash Kumar Dubey received (a) B. M. Birla science prize (2012) in Biology on 21 December 2013 in Hyderabad. The award includes cash prize of rupees one lakh and a citation and (b) DBT-Innovative Young Biotechnologist Award on 17 December 2013 in Delhi. The award includes cash prize of rupees one lakh every year, a gold medal and a major project funding. The award was extended for another two years based on very good progress during first three years.

Chemistry

- Prof. Abu T. Khan took new responsibility as Vice-Chancellor of Aliah University at Kolkata from 1 October 2013 with deputation from IIT Guwahati for a period of 4 years.



Prof. Abu T. Khan

Civil Engineering

- Dr. T. V. Bharat, Assistant Professor, received the "IEI Young Engineers Award 2013-2014".
- Syed Humayun Basha, research student, received best paper award at the International Conference on Structural Engineering and Mechanics (ICSEM-2013) held at NIT Rourkela during 20-22 December 2013. Dr. Hemant B. Kaushik, Associate Professor, is the thesis supervisor of Syed Basha.



Dr. T. V. Bharat receiving IEI Young Engineers Award from Mr. Prestone Tynsong, Minister for Forest and Environment, Meghalaya

Computer Science and Engineering

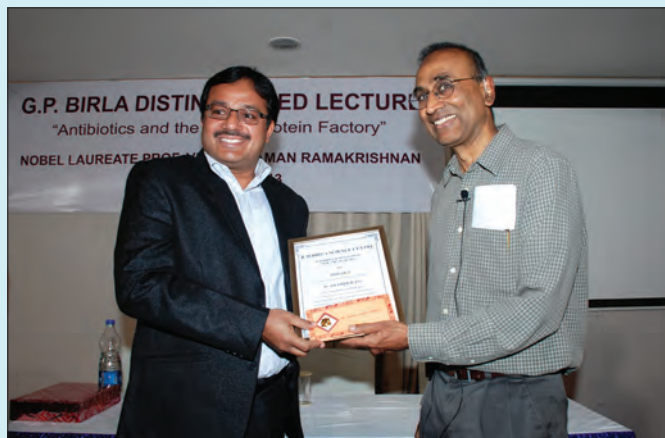
- Mr. Rishi Barua and Mr. Parag Agrawal, undergraduate students, received Innovative Student Project Award-2013 by Indian National Academy of Engineering (INAE) for their project title 'Learning Weakness of Players from Cricket Text Commentary'. Dr. V. Vijaya Saradhi was the faculty advisor.

Mechanical Engineering

- Dr. P. Muthukumar, Associate Professor, received Bhaskara Advanced Solar Energy Fellowship (BASE Fellowship), Indo - U.S. Science and Technology Forum, for visiting University of South Florida from May–November 2014.

Centre for the Environment

- Ms. Surya Singh, research student, received 2nd runner up for the best paper award in the International conference on Advances in Energy Research held in IIT Bombay during 10-12 December 2013. Ms. Singh is doing her research under the guidance of Dr. Anil Verma and Dr. C. Mukherjee.



Dr. Vikash Kumar Dubey receiving B. M. Birla science prize (2012) in Biology from Nobel Laureate Prof. Venkatraman Ramakrishnan

Conference on Foundations of Software Technology and Theoretical Computer Science



Foundations of Software Technology and Theoretical Computer Science (FSTTCS 2013) – the annual conference of the Indian Association for Research in Computing Science (IARCS) was held at IIT Guwahati during 12-14 December 2013.

The FSTTCS conference is a forum for presenting original

results in foundational aspects of Computer Science and Software Technology. The conference provided a suitable platform to discuss issues like Algorithms and data structures, Computational complexity, Combinatorial optimisation, Logic in computer science, etc.

Eminent scholars and scientists like Prof. Venkatesan Guruswami, Carnegie Mellon University, USA; Prof. Martin Hofmann, Ludwig Maximilian University, Germany; Prof.



Subhash Khot, Courant Institute of Mathematical Sciences, New York University, USA; Dr. Kazushige Terui, RIMS, Kyoto University, Japan gave lectures and shared their experiences with researchers from various parts of the country who took part in the conference. The research papers which were accepted and presented were published in *Leibniz International Proceedings in Informatics* (LIPIcs) as a free, open, electronic archive with access to all.

Dr. R. Inkulu, Assistant Professor, Department of Computer Science and Engineering, was the convener of the conference.



DeLCON Nodal Officers' Meeting

The 20th DBT's e-Library Consortium (DeLCON) Nodal Officers' Meeting was held for the first time in North Eastern India at IIT Guwahati on 28-29 October 2013. In the inaugural session chaired by Prof. B. Ravindran, Director of ILS and Chairperson DeLCON, Prof. Gautam Biswas, Director, IIT Guwahati delivered the inaugural speech and Dr. T. Madhan Mohan, Advisor, DBT spoke about the activities of DeLCON.

Fifty nodal officers attended the various interactive sessions of the meeting. The meeting was jointly coordinated by Dr. Utpal Bora, Dr. Ajaikumar B. Kunnumakkara both from the Department of Biotechnology, IIT Guwahati and Mr. DD Lal, NBRC, Maneswar, Haryana.



Publications (Research Journal/Book/Book Chapter)

Journals

Biotechnology

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B. Bose, 'Systems biology: A biologist's viewpoint', *Progress in Biophysics and Molecular Biology*, 113, 358-368, 2013

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P. Jain, B. Chakma, S. Patra and P. Goswami, 'Potential biomarkers and their applications for rapid and reliable detection of malaria', *BioMed Research International*, 2013 (Open access)

A. Ghosh, A. S. Luís, J.L.A. Brás, C.M.G.A. Fontes and A. Goyal, 'A novel thermostable recombinant endo-1,4- β -mannanase from *Clostridium thermocellum*: Biochemical characterisation and manno-oligosaccharides production', *Journal of Agricultural and Food Chemistry*, 61, 12333-12344, 2013

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N. Akhtar, A. Sharma, D. Deka, M. Jawed, D. Goyal and A. Goyal, 'Characterisation of cellulase producing *Bacillus* sp. for

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D. Kothari and A. Goyal, 'Structural characterisation of enzymatically synthesised dextran and oligosaccharides from *Leuconostoc mesenteroides* NRRL B-1426 dextranase', *Biochemistry (Moscow)*, 78 (10), 1164-1170, 2013

S. Khanna, A. Goyal and V.S. Moholkar, 'Production of n-butanol from biodiesel derived crude glycerol using *Clostridium pasteurianum* immobilised on amberlite', *Fuel*, 112, 556-561, 2013

U Bora, A. Sett, D. Singh, 'Nucleic acid based biosensors for clinical applications', *Biosensors Journal*, 1 (1), (DOI: 10.4172/2090-4967.1000104) 2013

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R. R. Rele and S. Talukdar, 'Longitudinal and transverse analysis of prestressed concrete multicell box girder', *Journal of the Indian Road Congress*, 74 (2), 175-187, 2013

N. Debnath, S.K. Deb and A. Dutta, 'Frequency band wise passive control of linear time invariant structural systems with H_{∞} optimisation', *Journal of Sound and Vibration*, 332 (23), 6044-6062, 2013

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Electronics and Electrical Engineering

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Centre for Energy

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Book and Book Chapter

Design

A. Chowdhury, R. Ramdas and S. Karmakar, 'Muscle computer interface: A review', *Lecture Notes in Mechanical Engineering*, Eds. A. Chakrabarti and R. V. Prakash, 411-421 (ISBN: 9788132210498) 2013

A. Chowdhury, S.M. Reddy, S. Karmakar, S. Ghosh and D. Chakrabarti, 'Is perception of product personality related with product usability? – A cognitive ergonomics perspective', *Ergonomics for Enhanced Productivity*, Eds. P. Parimalam, M.R. Premalatha and P. Banumathi, 177-182 (ISBN: 9789382880431) 2013

T. Patel, S. Karmakar, J. Sanjog, S. Kumar and A. Chowdhury, 'Digital human modelling for virtual ergonomic evaluation of tractor operator's workplace: A review', *Ergonomics for Enhanced Productivity*, Eds. P. Parimalam, M. R. Premalatha and P. Banumathi, 203-208 (ISBN: 9789382880431) 2013

Electronics and Electrical Engineering

N. Mishra, M.K. Bhuyan, T. Malathi, Y. Iwahori and R. J. Woodham, 'Pixel-wise background segmentation with moving camera', *Pattern Recognition and Machine Intelligence*, Springer-Verlag, Volume 8251, 423-429, 2013

Humanities and Social Sciences

S. Borbora, 'Livelihood issues in the context of inclusive growth', *Challenges of Inclusive Development: A Perspective from the Grassroots*, Eds. B. Saikia, D. Lahkar, EBH Publishers, 61-66, 2013

Mechanical Engineering

S. Bag and A. De, *Computational Models for GTA and Laser Welding Processes*, LAP Lambert Academic Publishing, Germany, (ISBN: 9783659429941) 2013

Workshop on Xilinx FPGA Architecture and Design Flow



A two day workshop on Xilinx FPGA Architecture and Design Flow was organised during 22-23 November 2013 at IIT Guwahati. The objective of this workshop is to provide hands-on lab experience in understanding the design flow and handling of Xilinx high-end field programmable gate array (FPGA) kits for electronic circuit design and verification.

The workshop was attended by about 100 participants, including scholars and researchers from NITs, state engineering colleges and other universities from the region as well as other parts of the country.



On the first day of the workshop, emphasis was laid on basic VLSI design and debugging, while on the second day, focus was given on training on advanced design and verification kits. Organisers believe that the workshop will help in disseminating information on modern electronic circuit designing and verification methodology among students, faculty members and researchers of the country.

Dr. Gaurav Trivedi, Assistant Professor, Department of Electronics and Electrical Engineering and Dr. Santosh Biswas, Assistant Professor, Department of Computer Science and Engineering were the conveners of the workshop.

New Research Projects

Biotechnology

Title: Role of store operated calcium entry in diabetes and hyperlipidemia induced vascular smooth muscle dysfunction;
Funding Agency: SERB; **Principal Investigator:** P. Sukumar

Deciphering the role and architecture of CRISPR Cas defense system in *Leptospira interrogans*; DBT; M. Kumar

Understanding the role of cellular cross talks for cartilage tissue repair using a 3D co-culture tissue model (RGYI); DBT; B.B. Mandal

Innovation in Science Pursuit for Inspired Research; SERB; B. B. Mandal

Elucidation of the substrate delivery and specificity mechanism of solute binding proteins cognate to the ABC transporters; SERB; S. P. Kanaujia

Forecasting air quality impacts of episodic conditions occurring at traffic intersections in a mixed use urban environment; IoENGG; S. B. Gokhale

Molecular Mechanism of Ribosome Assembly in Bacteria; DBT; B. Anand

Chemical Engineering

Centre of excellence on sustainable polymers; Dept. of Chemical and Petro Chemicals; Vimal Katiyar

Design and development of intelligent catalytic nanobots; SERB; D. Bandyopadhyay

Identification of competent alkali- surfactant- polymer formulations for enhanced oil recovery of Assam crude oil; SERB; P. Tiwari

Quantum chemical understanding of solvent extraction mechanism of metal ions in novel ionic liquid medium; BRNS; T. Banerjee

Studies on confinement -induced polymer crystallization by molecular simulation; CSIR; A.K. Dasmahapatra

Experimental and numerical investigation of suspension flow in Microfluidic Bifurcation channels; SERB; Anugrah Singh

Chemistry

Effect of electron donating and electron withdrawing substituents on single strand breaks in selected DNA fragment induced by low energy electron; SERB; M. Sarma

Effect of osmolytes urea and trimethylamine-N-oxide on hydrophobicity and protein folding/unfolding under confinement; SERB; S. Paul

Interacting molecules and nanoscale materials; CSIR; A. Chattopadhyaya

Understanding the Interaction between Cucurbituril and Amphiphilic Molecules in Aqueous Medium to prepare Novel

Self-assembled System; BRNS; D. Das

Civil Engineering

Determining the suitability of Assam aggregates of different sources as ingredient for microsurfacing; DST; T.L. Ryntathiang

Development of bioreactor system for simultaneous removal of multi- pollutants such as iron, nitrate, arsenic and fluoride from ground water; MoDW; P.K. Gosh

Humanities and Social Sciences

A typological map of the language-cognition interface in the domain of conceptual metaphor; DST; B. Som

Mechanical Engineering

Nanofinishing of freeform surfaces using magnetorheological fluid based finishing process; SERB; Manas Das

Improving productivity and product quality in machining of thin-walled components; SERB; S. K. Jhosi

Physics

Deposition and characterization of Ba₅Nb₄O₁₅-BaWO₄ films for complementary metal oxide semiconductor applications; SERB; D. Pamu

Development of Semiconductor Nanowire Based Advanced Bio-sensors for Biomedical Applications; CSIR; P.K. Giri

Magnetic and magneto resistance properties of multilayer structured CoFeB alloy films for spintronic applications; SERB; A. Perumal

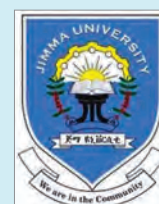
Centre for Energy

Investigating the effect of co-digestion and advance sludge pretreatment methods on the anaerobic conversion potential of the organic waste (RGY); DBT; V. V. Goud

Memoranda of Understanding

IIT Guwahati signed two new MoUs with the following universities:

- Macquarie University, Australia
- Jima University, Ethiopia



Inter IIT Sports Meet 2013



The 49th Inter IIT Sports Meet – the biggest sporting extravaganza of the entire IIT community consisting of 16 IITs – was held at IIT Guwahati during 16-23 December 2013. IIT Guwahati hosted this grand sport event for the second time after successfully conducting the 42nd Inter IIT Sports Meet in 2006. All the sixteen IITs took part in this event. It witnessed 3000 participants participating in different sports



like Athletics, Aquatics, Basketball, Badminton, Cricket, Football, Hockey, Table Tennis, Tennis, Squash, Volleyball and Weight Lifting. Moreover, the Inter IIT Sports Meet was also held for the employees of various IITs separately.

The Inter IIT Aquatics Meet of the 49th Inter IIT Sports



Meet was held – prior to the main events – during 1-4 October 2014. Mr. Elvis Ali Hazarika, renowned swimmer from Assam, was the chief guest for the Aquatics meet. 156 swimmers –



118 boys and 38 girls – of all the IITs took part in the meet. IIT Roorkee won the girls championship in swimming consecutively for the third time whereas IIT Madras won the boys championship in swimming. IIT Guwahati became one of the host institutes to have a second maximum number of aquatics meet records.

The main events of the Inter IIT was inaugurated on 16 December 2013 by Padma Bhushan (Sports) M. C. Mary Kom, five-times World Boxing champion, the only woman boxer to have won a medal in each one of the six world championships,



and the only Indian woman boxer to have qualified for the 2012 Summer Olympics. During the programme she also inaugurated the newly constructed badminton hall.

Details of the participants from all IITs for various meets and the organising team are given below:

	Men	Women	Total
Aquatics Meet	118	38	156
Main Meet	1653	355	2008

Staff Meet	600	55	655
Game Officials	-	-	175
Organising Team	-	-	300



The general championship for the boys was awarded to IIT Kanpur and girls to IIT Roorkee. The first and second runner up of general championship for the boys were awarded to IIT Madras and IIT Kharagpur sharing with IIT Bombay, respectively, while the girls were awarded to IIT Guwahati and IIT Kanpur, respectively. IIT Guwahati's Mr. Mahesh Dangi and Mr. Praveen Patidar made new records in weight lifting (Clean & Jerk and SNATCH Category). In order to promote girls participation in the sports, girls' volleyball



event was considered as the medal event for the first time in this meet.

The 21st Inter IIT Staff Sports Meet was inaugurated by Mr. Syed Zakaria Zuffri, former Assam Ranji skipper of Assam cricket team. A special event of 100M sprint was introduced



for the first time to encourage the participation from senior staff members with age 55 and above from various IITs. This event was conducted during the inaugural programme on 25 December 2013 and witnessed by the whole contingents, invitees, and spectators. Although the number of points secured by IIT Delhi and IIT Kanpur in the staff meet were the



same, IIT Kanpur bagged the general championship in men category by winning a maximum number of gold medals. The first and second runner up of the general championship for men were awarded to IIT Delhi and IIT Bombay, respectively. On the other hand, in the women category, the general championship was awarded to IIT Bombay, while the first and second runner up were given to IIT Kanpur and IIT Delhi respectively. IIT Guwahati bagged the fourth position in the women championship.



PhDs Completed During October–December 2013

Department/Centre	No. of Students
Biotechnology	5
Chemical Engineering	1
Chemistry	3
Civil Engineering	1
Electronics and Electrical Engineering	2
Humanities and Social Sciences	2
Mechanical Engineering	1
Physics	5
Centre for Energy	2
Centre for the Environment	1
Total	23

Short Term Course on Molecular Tools in Medical Biotechnology Investigations

A Quality Improvement Programme Short Term Course on Molecular Tools in Medical Biotechnology Investigations was held at IIT Guwahati during 2-6 December 2013. AICTE sponsors QIPs to enhance the knowledge and skill of the teachers working in the different engineering institutions in the country.

Medical Biology is a crucial area of research focussing identification, diagnosis and treatment of disease. The course intended to cover molecular tools - their underlying principle and detailed methodology including instrumentation. The course was taught in theory and lab sessions. Dr. Sanjukta Patra and Dr. Vishal Trivedi, Associate Professors, Biotechnology, were the course coordinators.

New Joinings



Senthilmurugan S.
Asst. Professor
Chemical Engineering



Sunanda Chatterjee
Asst. Professor
Chemistry



Gagan Kumar
Asst. Professor
Physics



Subhaditya Bhattacharya
Asst. Professor
Physics



Saurabh Mani Tripathi
Asst. Professor
Physics



Jayeeta Lahiri
Asst. Professor
Physics