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NEWSLETTER FROM IIT PATNA

Impulse

From the Director's Desk

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Dear Friends



First of all, I wish the entire IIT Patna fraternity a very promising New Year 2015. This year is going to be very challenging because of several reasons. The journey that IIT Patna undertook in 2008 from its transit campus at Patliputra colony is likely to achieve a new milestone in the shape of its permanent campus at Bihta. The campus will have more space for everyone but it would require the co-operation of IITP fraternity to make it liveable, lovable and likeable. Six years is a very short time for the growth of a premiere institute like IIT. Yet IIT Patna has made a distinct progress as regards its performance by students, faculty and staff members. The contribution of students and faculty to academic and corporate world is being realized in all spheres. IIT Patna is not confined merely to classrooms and laboratories but is also engaged in creating social awareness by organizing workshops, seminars and conferences on various issues. The spread of its academic cadence is being recognized in different circles. The institute is also committed to fulfil its social obligations by commingling intelligence and innovation to incubate the aspirations of society at large. My experience with IIT system says that nothing but a collective, concentrated and cumulative effort can culminate in scintillating success. IIT Patna family stands true to my belief. The trials and tribulations of the transit campus are soon going to be over as the preparation for the shift to the new and permanent campus is in full swing. The shift to the new habitat appears exciting and adventurous though the emergence of new challenges has to be anticipated. IITians, as I know, have adequate mettle to meddle with challenges and bring out remedies. Readiness to face challenges alone can bring resolutions. Through this volume of *Impulse*, the Newsletter from IIT Patna, I encourage students, faculty and staff members to reach an apogee in the world of technical education through their consistent academic excellence, innovative ideas and corporate social responsibility. I applaud the efforts of the editorial team of *Impulse* for showcasing the activities of IIT Patna fraternity and igniting everyone for more endeavours. I wish everyone a happy Spring and a rewarding semester ahead.

Partha Pratim Chakrabarti



Editorial

The editorial collective of *Impulse* greets all its readers a prosperous new year 2015, full of challenges and opportunities.

Time fleets fast and we most often keep wondering at its speed. With the passage of time, it only becomes imperative to look back in a while, and assess how we have fared in the past. A backward look can make us realize what we lost amid the passage of time and what we are to achieve in the times to come. *Impulse*, the newsletter from IIT Patna acts as a measuring rod of all our laurels and lapses. Like a mirror, it enables us to see what we are and where we are, as far as our academic achievements are concerned. It not only allows us to make our self-appraisal but also props up to take challenges ahead.

Impulse echoes the on-goings in the institute in various genres of academics supported by sports, literature and culture. This issue of Newsletter also focuses on the details of the ongoing projects, placements, various internships and scholarships that IIT Patna fraternity has received. The editorial team extends its gratitude to all the contributors for providing the required information (though after several reminders) about their academic achievements and their proud moments. We also put on record an appreciation for our students who always fill the literary corner with their imaginative sparks. In addition, the editorial team also expects faculty and staff to send their creative sparks in the form of poems and short-stories, for the next issue of *Impulse*. While the ultimate purpose of the Newsletter is to maintain and strengthen its reader's association with the institute, we also take a vow to move ahead and unleash our potentials to extract joys from the pleasant sojourn on the anvil.

Editors: Dr. Binod Mishra | Dr. Priyanka Tripathi, School of Humanities and Social Sciences

BOGs of IIT Patna



Mr. Ajai Chowdhry
Chairman



Prof. Partha P. Chakrabarti
Director IIT Kharagpur
(Additional Charge as Director IIT Patna)



Prof. Amitabha Ghosh
Former Director
IIT Kharagpur



Prof. Sriman Kr. Bhattacharya
Director
CBRI Roorkee



Prof. Ajay Chakrabarty
Vice-Chancellor, BIT Mesra



Dr. T. Mukherjee
Ex-Deputy MD
Tata Steel, Jamshedpur



Prof. Swapan Majumdar
Chairman
IWC, IIT Patna



Shri Tripurari Sharan
Principal Secretary,
Department of Science & Technology,
Government of Bihar



Mr. Subhash Pandey
Registrar, IIT Patna



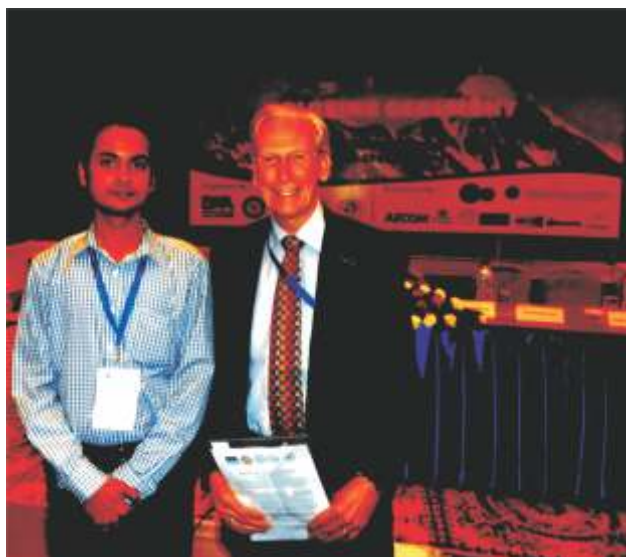
Prof. J.N. Sinha
Professor & Coordinator, Department
of Electrical Engineering, IIT Patna

New Appointments- Teaching



Dr. Jayakumar Balakrishnan
DST Inspire Faculty, Department of Physics

- **Dr. Subrata Hait** visited Kathmandu, Nepal to present his paper entitled "Performance Evaluation of High-growth Membrane Bio-reactor for Resource Recovery using Simulated Sewage", co-authored with V.Tare. He also chaired a technical session titled "Low Energy and Valued Products" in the IWA Specialized International Conference on 'Global Challenges: Sustainable Wastewater Treatment and Resource Recovery' during October 26–30, 2014.



Dr. Subrata Hait with Prof. Helmut Kroiss, President, International Water Association (IWA) in Kathmandu, Nepal

- **Dr. Manabendra Pathak** visited Chicago, USA to present his paper entitled "A Comparative Study of Subcooled flow Boiling in Uniform, Diverging Cross-section and Segmented Finned Microchannels" in ASME International Conference on Nanochannels, Microchannels, and Minichannels (ICNMM) during August 3-7, 2014.

Visitors to IIT Patna

Sr. No.	NAME OF THE SPEAKER AND AFFILIATION	TITLE OF TALK	DATE
1.	Shri Manoj Kumar Verma , Regional Director of RBI (Bihar and Jharkhand)	Financial Awareness	05.11.2014
2.	Sundar Gopal Das ISKCON	Spirituality and Technology	27.10.2014
3.	Dr. Miki Nishioka Associate Professor Department of Studies in Language and Society Graduate School of Language and Culture OSAKA University, Japan	Language Skills for Job	26.09.2014
4.	Prof. Jerzy Szpunar Chair Professor Department of Mechanical Engineering University of Saskatchewan, Canada	Advanced Materials for Clean Energy	12.09.2014
5.	Dr. Surendra Kumar former Director Armament Research & Development Establishment (ARDE), Pune	Advanced Materials for Clean Energy	12.09.2014

Invited Talks

- **Roy Utpal**, “International School and Discussion meeting on Light-Matter Interactions”, International Centre for Theoretical Studies, Indian Academy of Cultivation of Sciences, Kolkata, Dec. 08-22, 2014
- **Bharti Nalin**, was invited as a Resource Person in Regional Conference on 'Employment and Social Protection in South Asia' at New Delhi, jointly organized by IHD, ILO, UNESCAP and IDRC/CRDI, Dec. 15-16, 2014
- **Behera Ranjan Kumar**, “Green Energy Possibilities in Indian Context” Invited speaker in Research Conclave, Indian Institute of Technology, Kanpur, Dec. 10, 2014
- **Bharti Nalin**, was invited as a keynote speaker on “Geographical Indications (GI) and Bihar” in the UGC sponsored National Seminar on 'Intellectual Property Rights (IPRs) and Bihar' organized at LNMU Darbhanga, Nov. 29-30, 2014
- **Agrawal J**, Special Invitee in Committee of the Course & Studies (CCS) meeting, Department of Clinical Psychology, Lokopriya Gopinath Bordoloi Regional Institute of Mental Health, Tezpur. She also delivered a talk on “Rediscovering Indian Psychology”, Nov. 28, 2014
- **Bharti Nalin** was invited as a Resource Person on the topic “Issues in Research Methodology” in 'University Level Workshop on Research Methodology' in C. M. College, Darbhanga, Oct. 18, 2014
- **Hait Subrata**, "Sustainable Sanitation: Challenges and Opportunities", Magadh Mahila College, Patna University, Sep. 16, 2014
- **Mishra Binod**, “Strategies to Develop Effective Communication Skills among the Youths of Bihar”, Educational Leader's Summit organized by L. N. Mishra College of Business Management in association with Cambridge English Language Assessment (Part of University of Cambridge, UK), Hotel Patliputra Ashoka, Patna, Sep. 7, 2014
- **Behera Ranjan Kumar**, “Dynamics and Control of Active Dual Bridge Converter for All Solar Micro-grid” at Department of Computer Science and Electrical Engineering, Tennessee Tech University, Cookeville, Tennessee, USA, Aug. 5, 2014
- **Bharti Nalin**, participated as a Resource Person in a workshop on 'Women in the Informal Economy: Report of the Special Task Force' jointly organized by SEWA and ADRI, Aug. 01, 2014
- **Nishchal N. K.**, “Basics of Nanophotonics”, UGC Sponsored National Seminar on Nano Science & its Applications, Jagdam College, Chapra, Jul. 7-8, 2014

Dr. R. K. Behera with (Prof. Joseph J. Rencis, Dean &

Dr. Periasamy Rajan, Director
Center for Energy Systems Research)
Tennessee Technological University
Cookeville, USA.



Sponsored Projects

NAME OF PI	DEPARTMENT	TITLE	SPONSOR
Dr. Rishi Raj (PI) Dr. Sandip Kumar Saha, IIT Bombay(Co-PI)	EE	Flow Boiling Heat Transfer in Scalable Nanostructured Micro channels for High Heat Flux Application	SERB(DST)
Dr. Somnath Roy (PI) Dr. Somnath Sarangi (Co-PI)	EE	Immersed Boundary Simulation of low Reynolds Number Flow over Oscillating Airfoils	AR&DB
Dr. S.S Panda, Dr. Somnath Roy Dr. Somnath Sarangi	EE	Comprehensive Integrated Diagnostic Study of Clusters in State Bihar , India	Govt. of Bihar
Dr. Utpal Roy	Physics	Coherent Control & Interferometry using Bose-Einstein Condensate	DST
Dr. Jayakumar Balakrishnan	Physics	Innovation in Science Pursuit for Inspired Research (INSPIRE)	DST
Dr. Avik Samanta	Civil	Seismic Response, Damage and Vulnerability of Structures in Patna for Future Earthquakes	SERB(DST)

Workshop and Short Term Courses

Conference on Recent Trends in Information Optics & Quantum Optics (IOQO-2014)

The Department of Physics organized a Conference on Recent Trends in Information Optics & Quantum Optics (IOQO-2014), on November 7th and 8th, 2014. About 100 delegates from all over the country participated in the two days' technical event. There were two parallel technical sessions comprising 21 invited talks, 17 oral presentations, and 27 poster papers. Prof. Rajpal S. Sirohi, Padmashree and former Director IIT Delhi inaugurated the conference and Prof. Kehar Singh, former Emeritus fellow IIT Delhi delivered the keynote address.



Dr. G. Unnikrishnan and Prof. Kehar Singh



A participant during poster presentation in IOQO-2014



Delegates during Lunch (From left to right, Professor P. Senthikumar, Kehar Singh, A. K. Gupta, R. S. Sirohi, N. K. Nishchal, Joby Joseph)



Participants of IOQO-2014



Valedictory Function on 8th Nov. 2014
(From left to right, Professor J. Banerji, R. S. Sirohi, Kehar Singh, and P. K. Panigrahi)

Workshop on Issues in Solid Waste Management

Dr. Papia Raj organized a workshop on "Issues in Solid Waste Management", 11th October, 2014 at IIT Patna. The main purpose of the workshop was to create awareness about solid waste management in Patna. The workshop initiated segregation of solid waste at the source, by inaugurating four types of colour-coded and labelled dustbins for specific types of wastes. These dustbins are placed in the transit campus premises of IIT Patna. The workshop also held a Student Paper Competition, in which students from IIT Patna as well as various other academic institutions and colleges of Patna participated. The first prize was won by Mr. Chandrajeet Kumar, A. N. College, Patna



Colour-coded and labelled dustbins for specific types of wastes

Publications

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Payami S., **Behera R. K.**, **Iqbal A.** and **Al-ammari R.**, Common Mode Voltage and Vibration Mitigation of a Five-Phase Three-Level Npc Inverter Fed Induction Motor Drive System, *IEEE Journal of Emerging and Selected Topics in Power Electronics*, Vol-PP, Issue-99, 1, 2014

Verma Sudhanshu and **Kumar Preetam**, Compact Arc Shaped Antenna with Binomial Curved Conductor-Backed Plane for Multiband Wireless Applications, *IET Transactions on Microwave Antennas and Propagation*, DOI:10.1049/iet-map.2014.0427, 2014

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Szalay T. and Patra K., Investigation of Micro Drilling for Development of Tool Condition Monitoring System, International Conference on Innovative Technologies, IN-TECH 2014, Leiria, Portugal, Sep. 10-13, 2014

Raj R. and Wang E. N., Influence of Dynamic Wettability on Evaporation Kinetics of Microscopic Sessile Droplets, The 15th International Heat Transfer Conference, Kyoto, Japan, Aug. 10-15, 2014

Lu Z., Narayanan S., Hanks D. F., Raj R., Xiao R., Antao D. S. and Wang E. N., Modeling of Nanoporous Membranes for High Flux Thin Film Evaporation, The 15th International Heat Transfer Conference, Kyoto, Japan, Aug. 10-15, 2014

Pratap T. and Patra K., Machining of Microchannels using Micro-milling Process, International Colloquium on Materials, Manufacturing and Metrology (ICMMM2014), IIT Madras, Chennai, Aug. 8-9, 2014

Conference Presentations

Department of Civil and Environmental Engineering

Chakraborty Pradipta and **Popescu Radu**, Response Surface Model for Settlements of a Frame Structure founded on Liquefiable Soil, 15th Symposium on Earthquake Engineering, IIT Roorkee, Dec. 11-13, 2014

Puri Vishal, **Chakraborty Pradipta** and **Majumdar Swapan**, A Review of Low Cost Housing Technologies in India, 9th Structural Engineering Convention, IIT Delhi, Dec. 2014

Hait S., **Kapoor S.**, **Tare V.**, and **Bose P.**, Techno-economic Assessment of Treatment Options for Disinfection of Secondary Sewage Effluent, IWA Specialized International Conference on 'Global Challenges: Sustainable Wastewater Treatment and Resource Recovery', Kathmandu, Nepal, Oct. 26-30, 2014

Department of Mathematics

Tripathi Y. M., **Kumar Somesh** and **Petropoulos C.**, Estimation of the Lower Bounded Shape Parameter of a Pareto Distribution. Statistics & Society in the New Information Age: Challenges & Opportunities, organized by Institute of Applied Statistics Sri Lanka (IASSL), Colombo, Dec. 28-30, 2014

Das Satyajit and **Guha Debashree**, Weight Computation of Alternatives in a Decision-making Problem by Preference Relation, presented at International Conference on Soft Computing for Problem Solving (SocProS14), Assam, India, Dec. 27-29, 2014

Rastogi M. K. and **Tripathi Y. M.**, Estimating the Parameters of a Generalized Inverted Exponential Distribution under Hybrid Censoring. 8th International Conference of IMBIC on Mathematical Sciences for Advancement of Science and Technology, Kolkata, Dec. 21-23, 2014.

Suthar Sheela and **Prakash Om**, Adjacency Matrix and Energy of the Line Graph of the Zero Divisor Graph over ring n , in the National Meet of Research Students in Mathematical Sciences (NMRSMS) held at Department of Statistics, University of Jammu, Jammu, (Sponsored by SERB, DST), Dec.

Das Satyajit, **Dutta Bapi** and **Guha Debashree**, Weight Computation of Criteria in a Decision Making Problem by

Knowledge Measure, presented at International Conference on Soft Computing and Machine Intelligence, New Delhi, Sep. 26-27, 2014

Prakash Om and **Suthar Sheela**, Some Properties of the Nilradical and Non-nilradical Graphs Associated to the Zero-divisor Graph of Finite Commutative ring n , in the International Congress of Mathematicians (ICM)- 2014, held at Coex, Seoul, Korea, Aug. 13-21, 2014

Kumar A and **Srivastava P. K.**, Global Stability and Impact of Information on Infectious Disease Model with Optimal Treatment, International Conference on Mathematical Sciences-2014 (ICMS2014), 735-738, (ISBN-9789351072614), 2014

Department of Chemical and Biochemical Engineering

Samanta S.K., **Verma P.**, **Bhaduri S.** and **Mandal S. K.**, Advanced Hydrogen Production and Use of Solar Energy for Its Production Through Methane Cracking: A Review, International Conference on Electrical, Electronics, Engineering Trends, Communication, Optimization and Sciences (EEECOS 2014), Dhanekula Institute of Engineering & Technology, Vijayawada, Oct. 11-12, 2014

Department of Physics

Kumar D. and **Nishchal N. K.**, Digital holography for three-dimensional object recognition, 6th Bihar Science Conference; An International Conference on Science & Technology, Magadh Mahila College, Patna, Dec. 23-25, 2014

Nath Ajay and **Roy Utpal**, Ultracold Atoms at Negative Temperature, International Centre for Theoretical Studies Discussion meeting on Light-Matter interactions, Indian Academy of Cultivation of Sciences Kolkata, Dec. 19-22, 2014

Kumar D. and **Nishchal N. K.**, Performance Enhancement of Joint Fractional Correlator for Digital Holography based Three-Dimensional Object Recognition using Wavelet Filter, International Conference on Opto-electronics and Applied Optics (IEM-OPTRONIX-2014), IEM Kolkata, Dec. 17-18, 2014

Conference Presentations

Mehra I. and Nishchal N. K., Pan-Sharpener Image Optical Encryption, International Conference on Opto-Electronics and Applied Optics (IEM-OPTRONIX-2014), IEM Kolkata, Dec. 17-18, 2014

Rajput S. K. and Nishchal N. K., Simultaneous Encryption of Gray-Scale and Color Images, 12th International Conference on Fiber Optics and Photonics (PHOTONICS'14), Dec. 13-16, 2014

Kumar D. and Nishchal N. K., Digital Holography based Three-Dimensional Object Recognition using Binary Differential Joint Transform Correlator, 12th International Conference on Fiber Optics and Photonics (PHOTONICS'14), Dec. 13-16, 2014

Fatima A., Mehra I., and Nishchal N. K., Plasmonics-Based Keys for Optical Image Encryption, 12th International Conference on Fiber Optics and Photonics (PHOTONICS'14), Dec. 13-16, 2014

Mehra I. and Nishchal N. K., Optical Asymmetric Cryptosystem based on Axial Translation of Image Sensor, 12th International Conference on Fiber Optics and Photonics (PHOTONICS'14), Dec. 13-16, 2014

Fatima A., Mehra I., Kumar D., and Nishchal N. K., Plasmonics based Keys for Image Encryption that uses Exclusive OR Logic Operation, COMSOL Conference 2014, Bangalore, Nov. 13-14, 2014

Fatima A. and Nishchal N. K., Plasmonics for Information Security, Proc. of Conference on Recent Trends in Information Optics & Quantum Optics (IOQO-2014), IIT Patna, Nov. 7-8, 2014

Kumar D. and Nishchal N. K., Performance Evaluation of Nonlinear Joint Fractional Correlator for Three-Dimensional Objects Recognition, Proc. of Conference on Recent Trends in Information Optics & Quantum Optics (IOQO-2014), IIT Patna, Nov. 7-8, 2014

Rajput S. K., Kumar D., and Nishchal N. K., Hologram Watermarking using Phase-Retrieval Algorithm and Photon Counting Imaging, Proc. of Conference on Recent Trends in Information Optics & Quantum Optics (IOQO-2014), IIT Patna, Nov. 7-8, 2014

Mehra I. and Nishchal N. K., Gyrator Wavelet Transform for Optical Information Processing Applications, Proc. of Conference on Recent Trends in Information Optics & Quantum Optics (IOQO-2014), IIT Patna, Nov. 7-8, 2014

Nath Ajay and Roy Utpal, Solitary Waves in a Bichromatic Optical Lattice Potentials under two and three-body Interactions, International Seminar on Current Trends in Quantum Gases, BEC and Solitons, Panjab University, Chandigarh, Mar. 3-6, 2014

Department of Humanities and Social Sciences

Mishra Binod, Quintessence of Hope and Trust in Mulk Raj Anand's *The Bubble*, 59th All India English Teachers' Conference at Rajasthan Technical University, Kota, Dec. 19-21, 2014

Garg V. and Agrawal J., Psychology in Talent Management: Irrelevant or Irreplaceable? Poster presentation at National Symposium on Talent Management 'Present Practices & Future Challenges', DRDO, New Delhi, Dec. 13-14, 2014

Bharti Nalin, attended a training Programme for South Asian Young Labour Economist on 'Labour Economics: Theories, Methodologies and Research Issues', Dec. 2-13, 2014

Agrawal J., Murthy P. and Mehrotra S., What Makes Us Happy? : Exploring Personal Meaning of Happiness. Oral presentation at 3rd International Conference on Psychology & Allied Sciences, Amity University, Noida, Nov. 25-27, 2014

Gupta K., Agrawal J. and Sharma V., Role of Resilience & Sense of Coherence in Treatment Outcome of Psychiatric Patients. Oral presentation at 3rd International Conference on Psychology & Allied Sciences, Amity University, Noida, Nov. 25-27, 2014

Singh Smriti, Technology and the Language Classroom, 8th International Conference on Computer Assisted Language learning, Ahmedabad, Oct. 09-11, 2014

Singh Smriti, Employability Skills and the ESL Classroom, 9th International and 45th annual ELT@I Conference, Jaipur, Aug. 21-23, 2014

Students' Visit and Participation

Anuradha Yadav and **Prashant K Srivastava**, Mathematical Model of Smoking with Information, International Conference On Dynamical Systems And Mathematical Biology (ICDSMB 2014), Jadavpur University, Nov. 17-19, 2014

Anuj Kumar, Control of Infectious Diseases via Information-induced Vaccination and Limited Medication: A Mathematical Model, 80th Annual Conference of the Indian Mathematical Society, ISM Dhanbad, Dec. 27-30, 2014

Books Published

Dr. Binod Mishra edited the 52nd volume of *Indian Journal of English Studies*, which was released by Prof. N.S.Vyas, the Vice Chancellor of Rajasthan Technical University during 59th AESI conference held at Kota, Rajasthan, 19-21 December, 2014.

Web Lecture Book

Dr. Awalendra K. Thakur has completed a web lecture book entitled **Thermal Physics** under the National Programme on Technology Enhance Learning (NPTEL) Scheme of MHRD, Govt. of India

Dr. Awalendra K. Thakur has completed a web lecture book entitled **Solid State Ionics: An Introductory Course** under the National Programme on Technology Enhance Learning (NPTEL) Scheme of MHRD, Govt. of India

Awards/Fellowship and Honours

Dr. Akhilendra Singh, Assistant Professor, Department of Mechanical Engineering, was awarded "Best Teacher Award" for the year 2014. The award was given by the institute, sponsored by State Bank of India.

Dr. Ranjan Kumar Behera, Assistant Professor, Department of Electrical Engineering, selected as the featured engineer of the globe by EE Web: <http://www.eeweb.com/spotlight/interview-with-dr.-ranjan-kumar-behera>.

Dr. Sanjoy Kumar Parida, Assistant Professor, Department of Electrical Engineering has been selected for the prestigious "Bhaskara Advanced Solar Energy (BASE) Fellowship Program" supported by the Department of Science and Technology, Govt. of India, and the Indo-U.S. Science and Technology Forum (IUSSTF). For the Fellowship, he would be travelling to Tennessee Tech University, Cookeville for a period of "Three months".

Dr. M. Pathak, Assistant Professor, Department of Mechanical Engineering, received DST-ITS full travel support for attending ASME International Conference on Nanochannels, Microchannels, and Minichannels 2014 (ICNMM 2014) in Chicago, USA, August 3-7, 2014.

Dr. Binod Mishra, Associate Professor and Co-ordinator, Department of H.S.S., got elected unopposed as the Editor-in-Chief of *Indian Journal of English Studies* on 20th December, 2014 in 59th All India English Teachers' Conference (19-21 December, 2014) held in Rajasthan Technical University, Kota. The journal is being published by Association for English Studies in India since 1940 and Mishra has served one term as Editor of the journal from 2012-2014. Dr. Mishra's second term as Editor-in-Chief of IJES is up to December 2017.

Students' Visit and Participation

Dr. Nalin Bharti, Assistant Professor, Department of H.S.S., was awarded the Diploma of Appreciation for his presentation on 'Is Labor Law a Hindrance in India's Public Sector Reforms?' in the IV International Scientific Conference on the series of 'Public Sector in the Modern Economy' at University of Bialystok, Poland, 23-24 Oct, 2014.

Mr. Anuj Kumar, Research Scholar, Department of Mathematics, is awarded with IMS Prize for the year 2014 for presenting the best research paper in Bio-Mathematics section at the 80th Annual Conference of the Indian Mathematical Society held at ISM Dhanbad, Dec. 27-30, 2014. The title of paper is Control of Infectious Diseases via Information-Induced Vaccination and Limited Medication: A Mathematical Model.

Ms. Areeba Fatima, Research Scholar, Department of Physics, received Best Poster Award for the paper entitled "Plasmonics for Information Security," authored by A. Fatima and N. K. Nishchal, Proc. of Conference on Recent Trends in Information Optics & Quantum Optics (IOQO-2014), Nov. 7-8, 2014, IIT Patna.



Dr. Akhileendra Singh receiving "Best Teacher Award" for the year 2014 from Prof. J. N. Sinha and an official from SBI



Dr. Binod Mishra at Rajasthan Technical University, Kota during the release of 52nd Volume of Indian Journal of English Studies.

New PhD Students

SR.No.	NAME	DEPARTMENT	SR.No.	NAME	DEPARTMENT
1.	ENAM RIYAZ	Chemistry	15.	PRAMIT BISWAS	Electrical Engineering
2.	MUKTA SHAW	Chemistry	16.	MD. AKHLAQR RAHMAN	Electrical Engineering
3.	RANAJIT BERA	Chemistry	17.	AKASH AGARWAL	Electrical Engineering
4.	ACHINTYA JANA	Chemistry	18.	NIBEDITA NANDAN	Electrical Engineering
5.	MD. SHAD AKHTAR	Computer Science and Engineering	19.	MANISH ANAND	Electrical Engineering
6.	ROSHNI CHAKRABORTY	Computer Science and Engineering	20.	NEELAM SHARMA	Electrical Engineering
7.	RANJITA DAS	Computer Science and Engineering	21.	ARKABRATA GHOSH	Mathematics
8.	ANITA CHANDRA	Computer Science and Engineering	22.	DEBASHIS BHOWMIK	Mathematics
9.	DEBA PRASAD DASH	Center of Excellence on Advanced Systems Engineering	23.	RITESH	Mechanical Engineering
10.	MOHAMMAD IRSHA	Electrical Engineering	24.	SUMIT RAJ	Mechanical Engineering
11.	AJAY KUMAR YADAV	Electrical Engineering	26.	ABHAY KUMAR SINGH	Mechanical Engineering
12.	NARESH KUMAR VEMULA	Electrical Engineering	26.	SATHISH KUMAR	Materials Science and Engineering
13.	MAUSAM CHOUKSEY	Electrical Engineering	27.	SINGH SWARNIMA PREMKUMAR	Materials Science and Engineering
14.	CHANDAN KUMAR JHA	Electrical Engineering	28.	RAJA CHAKRABORTY	Physics

Training and Placement

Training and Placement Cell (TPC) of the Institute is actively engaged in developing relationship between IIT Patna and various Industrial organizations and employers of technical and scientific manpower. The Cell organizes summer internships for the pre-final year students and placement activities for the final year B. Tech, M.Tech & Ph.D students. The highest package so far offered is by Amazon India of Rs. 25 LPA and they have recruited 8 students. Some major recruiters who visited IIT Patna includes Tata Motors Mumbai, TCS Innovation Lab Kolkata, Snapdeal New Delhi, RockOn Technologies Bangalore, Hero MotoCorp Noida, Sigmoid Analytics Bangalore, Yodlee Infotech Bangalore, Mahindra & Mahindra Mumbai, Tricon Infotech Bangalore, ITC Infotech Bangalore, Browser Stack, DRDO, L&T ECC, Flipkart Bangalore, Capgemini Hyderabad, Bridge izi Bangalore, TCS (EIS & IT) and TCS DESS Kolkata, etc. In the first phase of Campus Placement 28 companies have given 73 & 14 offers to B.Tech and M.Tech students respectively and many recruiters have shown their interest to visit IIT Patna for second phase of the Campus Placement event. The summer internship for a period of 8-10 weeks is a compulsory component of B.Tech curricula for pre-final year students. The cell regularly arranges summer internships in various private companies, public sector undertakings and R&D organizations in addition to foreign Institutions and Organisations.

Events held at IIT Patna

Nebula, the Freshers' party is named after the star forming regions of space as this is where the future stars of IIT Patna are inducted into the IIT Patna community. Nebula was held on 6th August 2014 this academic year with IAS officer Chanchal Kumar as the chief guest who encouraged freshers to bring glory and laurels to their institute by their original and innovative ideas and no stone was left unturned to welcome the freshers. At Nebula, freshers were given a stage to showcase their talents and their breathtaking performances left everybody wanting for more. The event saw IIT Patna students performing Classical Indian, Western dance and dancing to the beats of fusion. The seniors welcomed their successors with songs and mimicry performances. The highlight of the event was a beautifully depicted thought provoking play on social evils. Nebula was finally brought to a close by a Fashion show which saw freshers along with last year's Mr. and Ms. Fresher walk the ramp, and put on a sizzling show.



M.Tech students on ramp during Nebula'14

3rd Year B.Tech girls performing classical dance



Freshers displaying their dancing skills at Nebula'14

Independence Day

Like every other year, Independence Day was celebrated at IIT Patna amid enthusiastic participation and performance by students. The National flag was hoisted by Prof. J. N. Sinha, who underlined the importance of this national festival and encouraged everyone to maintain the glory of our nation. The campus echoed with patriotic songs, speeches and the heart-warming performance of a street play on the life of a soldier, which was highly appreciated by the audience. The event came to its solemn end after certificates were distributed to the secretaries of various hostels for performing their duties well.

Janmashtmi

Janmashtmi was celebrated on 17th August 2014 amid fun and frolic. It became one of the most fun-filled events with heavy competition for Dahi Handi. A Dahi Handi was hung near the Chankya-I hostel where teams from other hostels also competed to break the Handi. To everyone's surprise, the team from 2nd year became successful and was declared victorious.

IIT Patna – Sports

IIT Patna is dedicated to providing the best physical education and sports facilities. Although located in the transit campus students strive their best to bring laurels to their institute. Regular sports training programme under the guidance of experienced coaches are arranged at IIT Patna. Various sports facilities available in IIT Patna campus are cricket, football, badminton, tennis, volleyball, basketball and athletics etc. The girls' basketball team, which was formed recently, participated in Indian College Basketball League organized by Basketball Federation of India from November, 11-19, 2014 and got 2nd place. Ms. Amolika Sinha, a fourth semester student, was judged as the most promising player of the tournament. IIT Patna students team enthusiastically participated in the 50th Inter IIT Sports Meet-2014, held at IIT Bombay from December, 12 -19, 2014. Our student contingent had 88 students including 72 boys and 16 girls who took part in various sports and performed well in events like badminton, tennis, basketball, volleyball, football, cricket and athletics. IIT Patna took part in women basketball competition for the first time. It was an amazing moment for IIT Patna to receive first position in the march-past competition among all sixteen IITs. Our staff team also participated in the 22nd Inter IIT Staff Sports Meet-2014, held at IIT Bombay from December, 22- 26, 2014 and performed relatively well.



Glimpses of 50th Inter IIT Sports Meet-2014 and 22nd Inter IIT Staff Sports Meet-2014 held at IIT Bombay

Marathon - "Run for Cause"

"Marking the first ever event to be held in the permanent campus of IIT Patna in Bihta, a marathon run was organized on the 9th of November 2014. This was one of the 16 marathons hosted by all individual IITs as a "Run for Cause" supporting the "Smile Foundation". The run stretched for 3 kilometres with about 300 enthusiastic IIT Patna members participating in it. One of the senior most faculty members, Prof. J. N. Sinha flagged off the event which lasted for about 30 minutes, followed by students and faculty taking glimpses of the construction work at Bihta."



Various Faculty Members along with Registrar present at the Marathon

Prof. J. N. Sinha flagging off the Marathon Event

A glimpse of participants running in the Marathon

Unnat Bharat Abhiyan Cell, IIT Patna

Unnat Bharat Abhiyan (UBA) is inspired by the vision of transformational change in rural development processes by leveraging knowledge institutions to help build the architecture of an inclusive India. The aim is to create a virtuous cycle between society and an inclusive academic system by providing knowledge and practices for emerging professions. In addition, it also encourages upgrading the capabilities of both the public and the private sectors by responding to the development needs of rural India. The current policy context urges institutions of national importance to adopt villages and develop appropriate technologies. IIT Delhi is the co-ordinating institute of UBA and each IIT has a UBA cell to channelize their resources. Dr. Aditya Raj, Assistant Professor, Humanities and Social Sciences, is the Coordinator of UBA Cell IIT Patna.

The UBA Cell, IIT Patna has formed an inter-disciplinary team of faculty members and support staff. The cell provides an opportunity for other available units to join hands in carrying forward its mission of channelizing energy with maximum outcome. For this purpose the Cell plans to work with NSS IIT Patna, on select themes around the permanent campus at Bihta. Few villages have been identified in this regard and efforts are on to develop them as model villages and later scale them up throughout Bihar. Suggestions, if any, are always welcome.

Plantation in the Bihta campus by Dr. P. P. Chakrabarti

IIT Patna has initiated a drive to make its permanent campus a clean, green and pollution free environment. In this regard, tree plantation is a major initiative. Prof. P. P. Chakrabarti, the Director led the plantation drive in Bihta campus on 13th August 2014 and encouraged everyone present to plant more and more trees. The staff members later planted many other trees.



Glimpses of tree plantation by Prof. P. P. Chakrabarti the Director, IIT Patna

Swachha Bharat Abhiyaan

Swachha Bharat Abhiyaan, an initiative of PMO, was launched at IIT Patna on 2nd October, 2014. Faculty members, staff members and students actively participated in the event. A pledge was administered by the Registrar, Mr. Subhash Pandey. A majority of faculty & staff members of the institute were also present on this occasion. It was decided that dealing with this important societal and sanitation issue could prove to be a great opportunity for institute of higher learning like IIT Patna. Everybody assured to strictly adhere to the pledge mission.



Faculty and staff members taking the pledge of Swachha Bharat Abhiyaan



Faculty and staff on a spree to cleanliness in the campus



Faculty and staff members contributing in Swachha Bharat Abhiyaan



The Registrar, IIT Patna starting the Swachha Bharat Abhiyaan



A glimpse of cleanliness drive in the hostel premises

FORTHCOMING EVENT

School of Humanities and Social Sciences is organizing a conference on *Sustainability and Development: Implications of ELT for Individual, Society and Ecology* on 3rd and 4th April, 2015. For details, please visit <http://www.iitp.ac.in/index.php/latest-news/1219-national-conference-on-sustainability-and-development.html>

Literary Corner

CHOICE IS A MYTH

I am in a dilemma now. And the thoughts and views of the speakers made it worse as no conclusion could be drawn from the discussion. Some have supported it and a couple of them have justified their views against it. I wonder what would have I said have I been called there to speak about it. We all live in a World where we take decisions or make choices, but here the question is how the choices have come. Before making any decision, we consider the feasibility of the choices that we have which means that there were some constraints that have influenced the choices, and if we are to believe that, can we draw any conclusion to the topic of this discussion which is 'Choice is a Myth'?

A 10 year school going kid dreamt of playing cricket and now he is the legend Sachin Tendulkar. Was his decision or choice of playing cricket enforced on him? In 1968, a young bachelor aged 26 quit his well-paying job in Calcutta, only because his heart desired something else, it wanted to act. Now he is the Bollywood legend Amitabh Bachchan. Siddharth Gautam, a prince born with three palaces built for his luxury staying, left all his kith and kin and the life of a king at an age of 29, simply because he felt that material wealth and pleasures are not the ultimate goal of life. He sat under a peepal tree and vowed not to rise until the truth was discovered. For 49 days he meditated and enlightened himself with the knowledge of sufferings in human life and their possible healings. He then travelled throughout the country and taught people about his discoveries, followers of which are today known as Buddhists and Siddharth himself is known as Gautam Buddha, the founder of Buddhism. Though his father had tried hard to keep him within the palaces and make him a great king, it was his choice to choose the way to live his life and make it worthy of living.

All these examples are now running through my mind as I head towards my hostel. Whatever they have done or decisions they have made seem to be completely on their own, and eventually they have succeeded in justifying them. But could there have been some other factors that have played on their minds and influenced the choices they made? In competitive exams, we are given with choices to answer, but again the choices are previously defined by some experts. In this way, we can argue that it is actually them who are deciding for us. But on the other hand, it solely lies on us to answer and which one of the given choices to pick, eventually knowing that some are wrong and some are correct to the questions asked. Thus, whatever choices we make, our target is to maximize our marks. Similarly, in life, whatever choices we make, the ultimate target we seek to achieve is to optimize the objective at hand. If we are given the freedom to do anything, it will be a chaotic display all around the World and no one will be left with any further choices to make. My thoughts have brought me to my destination for the moment, Chanakya Hall, for the evening tea. I shall have a homely discussion on this with my friends. I am still perplexed and in dilemma. Is choice is a myth?

Nilotpal Chakraborty, 1421CS10

PhD Research Scholar, Department of Computer Science and Engineering
Center of Excellence on Advanced Systems Engineering

महान कवि

शलैश कुडरर सिहं
1411CE14
डड. डडक. शोघररुथी

डक डुरसिदुड कवि अडररिडरि शहर के, अडररिडरि
कसुडे से गुजर रहे थे;
कि देखा
लुग कवि सडुडेलन के लिए डकडरिडरि हुे रहे थे।

डह कवि अडने कविता डुरड कुे रुक न डरडे,
कुड सुओर ओर डरणुडरल की ओर कडड डडरडे।

कुड डल इनुतजर के डरद
कविगण डुड डर आडे;
डक के डरद डक, कडु कविडुे ने कविता डरडरडे।

हर कविता नडु, अनसुनी, अडररिडरि सी लगी,
डर डक डरररन कवि की कविता तुे सुवरडरिडरि सी लगी।

डह कवि डरररशड डी डरनें,
कविता सडरडन तुक सुडड कुे कैसे रुक डरडे;
कविता सडरडत हुेते डी,
डडे डी आडर डररर लिये, डुड के निकट आडे।
सुडडररिडरि गुडु रसुडे हुड,
डरररन कवि से डुेले ---
“आडकी कविता तुे डललु कवि की
डललु कविता से डिलती डै।,.

डह सुनुते डी डरररन कवि के डसुतक डर
शीत डुरडु डें डी सुडेद डरनुड नजर आडे।
डेद सुलने के डड से,

डरडुडत करके डुेले---
“डरत कडर डै इसडे आशुकरुड की?
विडरर विडररुे से टकरर सकेते डै।,.

इस डर कवि डरररशड ने कहर ---
“सहडत हुुं डै आडके विडररुे से, कि
विडरर विडररुे से टकरर सकेते डै।
डर कडर कडुी,
सरडुीकिल डी डरररडु डरररर से टकरर सकेते डै?.,.

इससे डरले कि
कविता डुरी कर डेद
शुरुतओ के सडड सुल डरडे,
डरररन कवि सरर डर रसुकर डेर
डुडरल से डरगते नजर आडे।



Glimpses of Construction Activities at IIT Patna, Main Campus, Bihta



Administrative Building



Academic Block No- 03 Dept. of Mechanical, Electrical & Computer Sc. Engg.



Academic Block No- 04 Science Block (Physics, Chemistry & Math)



Academic Block No- 04, Main Gate



Academic Block No- 06 Dept. of Civil & Environmental, Material Science, Chemical & Biochemical, H.S.S.



Academic Block No- 09, Tutorial Block



Work Shop –A, B,C



Director's Bungalow



Hospital



Staff Quarter Type B



Road with street light post at roundabout portion in front of Administrative Building



Staff Quarter Type D



Boys Hostel (Front View)



Boys Hostel (Side View)

Editors : Dr. Binod Mishra (Associate Professor & Co-ordinator) and Dr. Priyanka Tripathi (Assistant Professor) School of Humanities and Social Sciences.

Technical Support : Mr. Ahmad Nishat (J.A., School of Basic Sciences & HSS)

Information for Impulse can be sent throughout the semester to the editorial team on impulse@iitp.ac.in

ACADEMIC CALENDAR FOR SPRING SEMESTER 2014-15

EVENT	DATE	DAY
Registration for all existing UG & PG students and Registration for all new PG entrants (PhD students)	Dec 29, 2014	Monday
First day of Instruction for B.Tech. and M.Tech. programmes	Dec 30, 2014	Tuesday
First day of Instruction for Ph.D. programme	Jan 05, 2015	Monday
Last date for late registration with fine	Jan 05, 2015	Monday
Last date for course adjustment for B.Tech. and M.Tech. programmes	Jan 06, 2015	Tuesday
Communicating the list of short attendance cases to respective Faculty Advisors/Supervisors	Feb 9-13, 2015	Monday to Friday
Mid Semester Examination (MSE)	Feb 16-21, 2015	Monday to Saturday
Last date for showing mid-semester answer copies to students	Feb 27, 2015	Friday
Mid Semester Review of UG projects (without affecting the regular classes)	Between March 02, 2015 and March 05, 2015	
Last date for Review of Mid semester performance of all students by Department UG & PG Program Committee and report of academically weak students to their Faculty Advisors/Supervisors	Mar 05, 2015	Thursday
Last date for assigning final-year-project to pre-final year B.Tech. and M.Tech. students	Mar 13, 2015	Friday
Last date for sending list of courses to be offered in next semester	Mar 18, 2015	Wednesday
Last date for assigning final-year-project to pre-final year B.Tech. and M.Tech. students	Mar 13, 2015	Friday
Last date for sending list of courses to be offered in next semester	Mar 18, 2015	Wednesday
Last date for General Time Table slot allocation for next semester	April 17, 2015	Friday
Course Evaluation Week/Course Pre-Registration Week/Submission of applications for changing the Branch for B.Tech. second semester students/ Communicating the final list of short attendance cases to Academic Section through their Faculty Advisors or Supervisors	Between April 20, 2015 and April 24, 2015	
Display of list of detained students in End Semester Examination due to short attendance by the Academic Section	April 24, 2015	Friday
Last day of Instructions	April 17, 2015	Friday
End Semester Examination (ESE)	April 20-25, 2015	Monday to Saturday
Last date for submission of Grades	April 30, 2015	Thursday
Last date for Department UG & PG Program Committee meeting for considering results of all students. Last date for submitting hard copies to the Institute UG & PG Program Coordinators	May 01, 2015	Friday
Last date for Make-up-Examinations for students having "I" and "X" grades and submission of letter grades to the Institute UG & PG Program Coordinators	May 03, 2015	Sunday
IAPC meeting	May 05, 2015	Tuesday
Declaration of Results	May 06, 2015	Wednesday
Submission of fee for Autumn Semester 2014-15	Between May 13, 2015 and the day of Registration for coming Autumn Semester 2015-16	
Last date for finalization of Branch Change	May 08, 2015	Friday
Registration for M.Tech. students for Third Semester	May 15, 2015	Friday
Summer Break begins (Only for UG students)	April 27, 2015	Monday
Summer Vacation (Only for Teachers)*	May 7 July 17, 2015	Thursday to Friday
Summer Break begins (Only for UG students)	April 27, 2015	Monday
*Teachers can avail their vacation leave according to the Institute rules.		
Industrial/Summer Training for B.Tech. students of all branches after sixth semester (8 weeks training during summer break)	Between April 28, 2015 and July 06, 2015	
Registration of students for the Summer Quarter (SQ)	May 19, 2015	Tuesday
SQ classes begin on	May 20, 2015	Monday
Mid-Term Examination for SQ	June 11-13, 2015	Monday
Conduct of written Test/interview by Departments for M.Tech. and PhD admissions	May 18-29, 2015	Monday to Friday
Last date for registration of students for supplementary courses	June 30, 2015	Tuesday
SQ classes end on	July 08, 2015	Wednesday
End-Term Examination for SQ & Exams for supplementary courses	July 09-11, 2015	Thursday to Saturday
Make-up-Examination for SQ	July 13-14, 2015	Monday and Tuesday
Last date for submission of grades for SQ and supplementary courses	July 15, 2015	Wednesday
IAPC meeting and declaration of Results of SQ and supplementary courses	July 16, 2015	Thursday