

Prajwalam

Biannual Newsletter of IIT Ropar



Vol -1 Issue -2 (July 2012)

DIRECTORS' MEET (NEW IITs)

The first meeting of Directors of new IITs was hosted by IIT Ropar and was held on June 25, 2012 in the conference room of IIT Ropar.



Left to Right : Prof. Sudhir K. Jain (IIT Gandhinagar), Prof. Timothy A. Gonsalves (IIT Mandi), Prof. Madhusudan Chakraborty (IIT Bhubaneswar), Prof. M. K. Surappa (IIT Ropar), Prof. Prem K. Kalra (IIT Jodhpur), Prof. Anil K. Bhowmick (IIT Patna), Prof. Pradeep Mathur (IIT Indore), Sh. A. Palanivel, Registrar (IIT Ropar)

Eol

IT Ropar has been allotted ~501 acres of land at a scenic location near the banks of the river Satluj by the State Government of Punjab near the city of Rupnagar. The lower foot hills of the Shivaliks are visible on the other side of the bank of the Satluj. The Institute aims to develop a "Sustainable-Intelligent-Environment Friendly Campus" having academic departments and research centres in various disciplines of engineering, natural sciences, humanities, management, social sciences and other fields along with residential and activities centre for its students, faculty and staff. The Institute had invited an expression of interest for the selection of a consultant firm for Conceptualization & Preparation of Master Plan of IIT Ropar along with Architectural Design of Buildings and its Services in Phase I, and has received a huge response from national and international firms to its invitation. The second stage of the selection of a consultant for the said task is underway.

CONTENTS

Page 1	: Directors' Meet, Eol, MoU;
Page 2-4	: Approved Projects, Consultancy, Invited Lectures, Publications, Conferences Attended;
Page 5	: New Recruits, Park;
Page 6-7	: Charette and Map;
Page 8-9	: Research Activities, Honours, Achievements;
Page 10	: Extracurricular Activities;
Page 11	: Visitors, Facilities;
Page 12	: Academic Calendar

MoU

A memorandum of understanding was entered into between Talwar and Talwar Consultants and Prototype Development and Innovation Fund Board of Indian Institute of Technology Ropar. The concerned parties discussed the innovative idea of Patent Review Platform, and it was decided that the Entrepreneur and the Industry Partner, TTC, would set up a Special Purpose Vehicle (Company or LLP) to take forward the activities.



APPROVED PROJECTS

- 1) **Harpreet Singh (in collaboration with Drs David McPhail and S Barbara**, Materials Department, Imperial College London), Surface engineering and friction-stir processing, Funded by British Council, 40,000 GBP
- 2) **Himanshu Tyagi**, Sustainable Energy Fellowship Workshop & Collaborative Projects, Funded by University of New South Wales (Contestable Funding for International Strategic Projects 2012), 30,000\$ AUD (Approx. Rs 15 lakhs), Jan – Dec 2012 (1 year)
- 3) **Nitin Auluck**, Duplication Based Real-Time Scheduling Algorithms for Heterogeneous Multiprocessors, Funded by Department of Science and Technology, Government of India, Rs. 14.16 lakhs, approved on February 21, 2012. (3 years)

CONSULTANCY

- 1) **Design an effective noise barrier for the baffle range**, Dr. Navin Kumar (Principal Investigator), DRDO, New Delhi, (amount 17.1 lakhs)
- 2) **Microsoft Machine Translation and Speech Research**, Dr. Somdev Kar (Consultant), Appen Butler Hill Group and Microsoft Corporation, USA, (amount approx. 10 lakhs)

INVITED LECTURES

Ranjana Sodhi

- 1) "Synchrophasor Assisted Voltage Stability Monitoring including Optimal PMU Placement" in National Workshop on Wide Area Monitoring and Control of Power Systems using Synchrophasor Technology, April 13-14 2012, IIT Kanpur.

Kamal Kumar Chowdhury

- 1) "Incremental language processing: Electrophysiological evidence from Hindi" at CFILT, IIT Bombay on 2nd May 2012.

Dharmendra Tripathi

- 1) "Mathematical Modelling of Peristaltic Flows of Fractional Viscoelastic Fluids and Nanofluids" is delivered in National Conference on "Industrial Mathematics and Soft Computing" during 26th and 27th May 2012 KIIT University, Bhubaneswar.

Rajyashree Khushu-Lahiri

- 1) "Performativity of Language and Amitav Ghosh's The Hungry Tide and Sea of Poppies", presented at the conference on "Performing South Asia at Home and Abroad" at The 12th Annual South Asian Literary Association Conference in Seattle, USA during January 4-5, 2012.
- 2) "Language- Literature Interface: An Intercultural Study of Kiran Desai" 2012 MLA Annual Convention, held at Seattle, USA during January 5-8, 2012.

Nitin Auluck

- 1) An invited talk in a High Performance Parallel Computing Workshop organized by the Department of Physics, Punjab University on March 3, 2012.

Himanshu Tyagi

- 1) "Energy Sustainability: An Indian Context" at the Powertech Labs Inc., Surrey, British Columbia, Canada, November 2011.
- 2) "New & Renewable Energy Resources in India", at the NRC Institute for Fuel Cell Innovation, Vancouver, British Columbia, Canada, Nov. 2011.
- 3) "Solar Energy: Nanofluids-Based Direct Absorption Solar Collectors", at the Simon Fraser University, Surrey, British Columbia, Canada, Nov. 2011.
- 4) "Development & Usage of Clean Energy Resources" at the Simon Fraser University, Burnaby, British Columbia, Canada, Nov. 2011.
- 5) "Harvesting Solar Energy Using Nanofluids-Based Concentrating Solar Collection" at the School of Photovoltaic & Renewable Energy Engineering (SPREE), University of New South Wales (UNSW), Sydney, NSW, Australia, Apr 2012.

PUBLICATIONS

Books/Journal Papers:

Asoka Biswas

- 1) **Biswas, A.**, and Brumer, P. "Generic Construction of Kraus Operators: d-level Systems in a Thermal Bosonic Bath." Israel Journal of Chemistry 52.5 (2012): 461-466.

Debaprasad Mandal

- 1) Dutta, G., **Mandal, D.**, and Gupta, B. D. "Pyrazine Bridged Dicobaloximes with Bis(thiophenyl)glyoxime and their Molecular Oxygen Insertion." Journal of Organometallic Chemistry 706-707 (2012): 30-36.

Dharmendra Tripathi

- 1) **Tripathi, D.** and Bég, O. A. "A Study of Unsteady Physiological Magneto-fluid Flow and Heat Transfer through a Finite Length Channel by Peristaltic Pumping." Proceedings of the Institution of Mechanical Engineers, Part H, Journal of Engineering in Medicine (2012): 1-14.
- 2) **Tripathi, D.**, Bég, O. A., and Curiel-Sosa, J. L. "Homotopy Semi-Numerical Simulation of Peristaltic Flow of Generalized Oldroyd-B Fluids with Slip Effects." Computer Methods in Biomechanics and Biomedical Engineering I (2012): 1-10.
- 3) **Tripathi, D.** "Peristaltic Hemodynamic Flow of Couple-Stress Fluids Through a Porous Medium with Slip Effect." Transport in Porous Media 92.3 (2012): 559-572.
- 4) **Tripathi, D.** "A Mathematical Study on Three Layered Oscillatory Blood Flow Through Stenosed Arteries." Journal of Bionic Engineering 9.1 (2012): 119-131.

- 5) **Tripathi, D.** "A Mathematical Model for Swallowing of Food Bolus through the Oesophagus Under the Influence of Heat Transfer." *International Journal of Thermal Sciences* 51 (2012): 91-101.

Harpreet Singh

- 1) Arora, H. S., **Singh, H.** and Dhindaw, B. K. "Numerical Simulation of Temperature Distribution using Finite Difference Equations and Estimation of the Grain Size during Friction Stir Processing." *Materials Science and Engineering: A* 543.1 (2012): 231-242.
- 2) Gill, S. S., Singh, J., **Singh, H.** and Singh, R. "Metallurgical and Mechanical Characteristics of Cryogenically Treated Tungsten Carbide (WC-Co)." *The International Journal of Advanced Manufacturing Technology* 58.1 (2012): 119-131.
- 3) Bala, N., **Singh, H.**, Prakash, S. and Karthikeyan, J. "Investigations on the Behavior of HVOF and Cold Sprayed Ni-20Cr Coating on T22 Boiler Steel in Actual Boiler Environment." *Journal of Thermal Spray Technology* 21.1 (2012): 144-158.
- 4) Singh, A. H., **Singh H.**, and Dhindaw B. K. "Some Observations on Microstructural Changes in a Mg-based AE42 Alloy subjected to Friction Stir Processing." *Metallurgical and Materials Transactions. B, Process Metallurgy and Materials Processing Science* 43.1 (2012): 92-108.
- 5) Gill, S. S., Singh, R., Singh, J. and **Singh, H.** "Adaptive Neuro-Fuzzy Inference System Modeling of Cryogenically Treated AISI M2 HSS Turning Tool for Estimation of Flank Wear." *Expert Systems with Applications* 39.4 (2012): 4171-4180.
- 6) Bhandari, S., **Singh, H.**, Kansal, H. K. and Rastogi, V. "Slurry Erosion Studies of Hydroturbine Steels under Hydro Accelerated Conditions." *Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology* 226.3 (2012): 239-250.

Himanshu Tyagi

- 1) Khullar, V. and **Tyagi, H.** "A Study on Environmental Impact of Nanofluid-Based Concentrating Solar Water Heating System." *International Journal of Environmental Studies* 69.2 (2012): 220-232.

Narinder Singh

- 1) Saluja, P., Kaur, N., **Singh, N.** and Jang, D. O. "A Benzimidazole-based Fluorescent Sensor for Cu²⁺ Displacement Approach." *Tetrahedron Letters* 53.26 (2012): 3292-3295.
- 2) Kim, M. J., Kaur, K., **Singh, N.** and Jang, D. O. "Benzimidazole-based Receptor for Zn²⁺ Recognition in a Biological System: A Chemosensor Operated by Retarding the Excited State Proton Transfer." *Tetrahedron* 68.27-28 (2012).
- 3) Sharma, H., Kaur, N. and **Singh, N.** "Imine Linked 1,8-Naphthalimide: Chromogenic Recognition of Metal Ions, Density Function Theory and Cytotoxic Activity." *Inorganica Chimica Acta* 391 (2012): 83-87.
- 4) Goh, H., Kim, M. J., Saluja, P., **Singh, N.** and Jang, D. O. "Dipodal Fluorescent Chemosensor for Iodine." *Tetrahedron Letters* 53.30 (2012): 3900-3902.
- 5) Sharma, H., Kaur, N., Pandiyan, T. and **Singh, N.** "Surface Decoration of ZnO Nanoparticles: A New Strategy to Fine Tune the Recognition Properties of Imine Linked Receptor." *Sensors and Actuators B: Chemical* 166-167 (2012): 467-472.
- 6) Saluja, P., Sharma, H., Kaur, N., **Singh, N.** and Jang, D. O. "Benzimidazole-based imine-linked Chemosensor: Chromogenic Sensor for Mg²⁺ and Fluorescent Sensor for Cr³⁺." *Tetrahedron* 68.10 (2012): 2289-2293.
- 7) Kaur, K., Bhardwaj, V. K., Kaur, N. and **Singh, N.** "Imine Linked Fluorescent Chemosensor for Al³⁺ and Resultant Complex as a Chemosensor for HSO₄⁻ Anion." *Inorganic Chemistry Communications* 18 (2012): 79-82.
- 8) Kaur, K., Kaur, N. and **Singh, N.** "Imine Coupled ZnO based Fluorescent Chemosensor for the Simultaneous Estimation of Al³⁺ and Cr³⁺." *Materials Letters* 80 (2012): 78-80.

Navin Kumar

- 1) **Kumar, N.** and Singh, S. P. "Vibration Control of Curved Panel Using Smart Damping Mechanical Systems and Signal Processing." *Vibration Control of Curved Panel Using Smart Damping* 30 (2012): 232-247.
- 2) **Kumar, N.** and Pochiraju, K. "Dynamics of Virial Stress in Gold Lattice after Crack Initiation." *Proceedings of the Institution of Mechanical Engineers, Part C, Journal of Mechanical Engineering Science* 226 (2012): 359-366.

Prabal Banerjee

- 1) Pandey, G., Kumar, R., **Banerjee, P.** and Puranik, V. G. "One-Step Stereospecific Strategy for the Construction of the Core Structure of the 5,11-Methanomorphanthridine Alkaloids in Racemic as well as in Optically Pure Form: Synthesis of (±)-Pancracine and (±)-Brunsvigine." *European Journal of Organic Chemistry* 2011.24 (2011): 4571-4587.
- 2) Lejkowski, M., **Banerjee, P.**, Schüller, S., Münch, A., Runsink, J., Vermeeren, C. and Gais, Hans-Joachim. "Asymmetric Synthesis of Densely Functionalized Medium-Ring Carbocycles and Lactones through Modular Assembly and Ring-Closing Metathesis of Sulfoximine-Substituted Trienes and Dienynes." *Chemistry - A European Journal* 18.12 (2012): 3529-3548.

Rajendra Srivastava

- 1) Prathap, M. U. A., Kaur, B. and **Srivastava, R.** "Hydrothermal Synthesis of CuO Micro-/Nanostructures and their Applications in the Oxidative Degradation of Methylene Blue and Non-Enzymatic Sensing of Glucose/H₂O₂." *Journal Colloidal and Interface Science* 370 (2012): 144-154.
- 2) Prathap, M. U. A., Thakur, B., Shilpa N. S. and **Srivastava, R.** "Synthesis of Mesostructured Polyaniline using Mixed Surfactants, Anionic Sodium Dodecylsulfate and Non-ionic Polymers and their Applications in H₂O₂ and Glucose Sensing." *Colloids and Surfaces B: Biointerfaces* 89 (2012): 108-116.

- 3) Kore, R. and **Srivastava, R.** "Synthesis of Triethoxysilane Imidazolium based Ionic Liquids and their Application in the Preparation of Mesoporous ZSM-5." *Catalysis Communication* 18 (2012): 11-15.

Rajyashree Khushu-Lahiri

- 1) **Khushu-Lahiri, R.** and Rao, S. "India on a Platter: a Study of Gurinder Chadha and Paul Mayeda Berges' Cinematic Adaptation of the Mistress of Spices." *Postcolonial Text, Literary Reprinted in Contemporary Criticism*, Gale: Cengage Learning 226 (2012).

Ranjana Sodhi

- 1) **Sodhi, R.,** Sriavstava, S. C. and Singh. S. N. "A Simple Scheme of Wide Area Detection of Impending Voltage Instability." *IEEE Transactions on Smart Grid* 3.2 (2012): 818-827.

T. J. Dhillip Kumar

- 1) **Kumar, T. J. D.** and Kumar, S. "Low-energy Rotational Inelastic Collisions of $H^+ + CO$ System." *Journal of Chemical Physics* 136.4 (2012).

Harpreet Kaur

- 1) **Kaur, H.** "RFID Technology in Libraries", Thanuskodi, S. (Ed.), *ICT Applications in Academic Libraries*, SSDN Publishers & Distributors, New Delhi, (2012): 109-119.

Tarvinder Singh Handa

- 1) **Handa, T. S.** "The Future Public Library Services in ICT Environment with Special Reference to India." *Radix International Journal of Research in Social Sciences*, 1.2 (2012): 30-41.

Conference Proceedings:

Himanshu Tyagi

- 1) Khullar, V., **Tyagi, H.**, Phelan, P. E., Otanicar, T. P., Singh, H., & Taylor, R. A., "Solar Energy Harvesting Using Nanofluids-Based Concentrating Solar Collector", Paper No. MNHMT2012-75329, ASME 2012 3rd Micro/Nanoscale Heat & Mass Transfer International Conference, Atlanta, Georgia, USA, Mar. 3-6, 2012.
- 2) Taylor, R., Coulombe, S., Otanicar, T., Phelan, P., Gunawan, A., Lv, W., Rosengarten, G., Prasher, R., and **Tyagi, H.**, "Critical Review of Novel Applications and Uses of Nanofluids", Paper No. MNHMT2012-75189, ASME 2012 3rd Micro/Nanoscale Heat & Mass Transfer International Conference, Atlanta, Georgia, USA, Mar. 3-6, 2012.

Navin Kumar

- 1) **Kumar, N.** and Pochiraju, K. Dynamics of Virial Stress in Gold Lattice after Crack Initiation, *Proceedings of the Institution of Mechanical Engineers, Part C, Journal of Mechanical Engineering Science*, 2012.
- 2) Saini, K. and **Kumar, N.** "Effect of Axial Relaxation on the Torsional Behavior of Cracked Nanowires", *ICSSD -2012*, 4-6th January 2012, MNIT Jaipur, India.
- 3) Saini, K. and **Kumar, N.** "Mechanical Response of Gold Nano-wires under Torsion", 7th Annual IEEE International Conference on Nano/Micro Engineered and Molecular Systems, 5-8 March, 2012, Kyoto, Japan.
- 4) Saini, K. and **Kumar, N.** "Effect of Crack Position and Orientation on the Mechanical Properties of Gold Nanowires under Torsional Loading", *ICONSAT - 2012*, January 20-23, 2012, Hyderabad, India.

Subhendu Sarkar

- 1) Dhillon, P. K. and **Sarkar, S.** "Dual Growth Modes in Ion Bombarded Si Surfaces." *AIP Conference Proceedings* 1447 (2012): 757-758.

CONFERENCES ATTENDED

Himanshu Tyagi

Dr. Himanshu Tyagi attended the ASME 2012 3rd Micro/Nanoscale Heat & Mass Transfer International Conference which was held at Atlanta, Georgia, USA from Mar. 3-6, 2012. At this conference he presented a paper titled "Solar Energy Harvesting Using Nanofluids-Based Concentrating Solar Collector" during the conference.

Navin Kumar

Karanvir Saini and Navin Kumar, "Mechanical Characteristics of Cracked Gold Nano-wires under Torsional Loading", *Materials Science & Technology 2012, Conference & Exhibition*, 2012 Columbus, Ohio, United States.

Karanvir Saini, Navin Kumar, "Effect of axial relaxation on the torsional behavior of cracked nano-wires", *ICSSD -2012*, 4-6th January 2012, MNIT Jaipur, India

Karanvir Saini, Navin Kumar, "Effect Of Crack Length On Torsional Mechanical Characteristics Of Gold Nano-Wires", 9th International Workshop on Nano-mechanical Sensing 2012, June 6th to June 8th 2012, IIT Bombay, India

Rano Ringo

Rano Ringo, "Rabindranath Tagore's Treatment of Childhood in his Plays Daak Ghar (The Post Office) and Achalatayan (The Immovable Establishment)", *Conference of the International Journal of Arts and Sciences*, May 21-24, Ryerson University, Toronto, Canada.

LIST OF NEW RECRUITS (JANUARY TO JUNE 2012)

FACULTY

1	Dr. Ashutosh Mishra	Visiting Faculty	January 2012
2	Dr. Ravibabu Mulaveesala	Assistant Professor	January 2012

NON-TEACHING STAFF

1	Sh. Vipin Kumar	Jr. Accounts Officer	January 2012
2	Sh. Ravinder Singh	Jr. Assistant	January 2012
3	Ms. Sapna	Jr. Assistant	January 2012
4	Ms. Poonam	Jr. Assistant	January 2012
5	Sh. Jitender Pal	Jr. Accountant	January 2012
6	Ms. Poonam Rani	Jr. Assistant	January 2012
7	Mr. Vijay Kumar	Jr. Supdt.	January 2012
8	Mr. Inderpreet Singh	Jr. Assistant	January 2012
9	Mr. Amod Kanhere	Jr. Supdt.	January 2012
10	Mr. Ashish Kumar Singh	Jr. Supdt.	January 2012
11	Mr. Vikas	Pharmacist	January 2012
12	Sh. CS Sham Sundar	Assistant Registrar (Acad and SA)	June 2012
13	Mr. Nitin Jain	Jr. Hindi Translator	June 2012



Ravibabu



Sham Sunder



Vipin Kumar



Amod Kanhere



Ashish Kumar Singh



Vijay Kumar



Vikas



Inderpreet Singh



Jitender Pal



Nitin Jain



Poonam



Poonam Rani



Ravinder Singh



Sapna

CHILDREN'S PARK

A children's park has come up with the diligent efforts of the faculty and staff members. The park, which became functional in June 2012, has now become a hub of children's joyful activities. Among the chief attractions, are a see-saw, a swing and two slides.



CHARETTE

A design charette for the new campus was organized, and separate meetings with the students, research scholars, and faculty members were conducted for gathering their views. The Director also participated actively in the event. Many fresh, innovative and creative ideas were brought to the brainstorming sessions.

The vision of the institute is to create a sustainable, intelligent, environment-friendly, pedestrian-oriented, harmonious, multi-disciplinary campus. In keeping with this vision, some of the ideas that were floated in the meeting with the students are: a comfortable, sound proof library with a café; an iconic building with Punjabi architecture; modern, state of the art, well equipped class rooms; independent faculty chambers, large multipurpose auditorium; pleasant, clean, wi-fi equipped cafeteria;



proper ventilated, state of the art, well equipped laboratories, modern computer labs; centrally air conditioned dorms/hostels; a radio station, an airplane strip; a pedestrian oriented circulation pattern; Rupnagar-Chandigarh connection with a sleek monorail; a cricket field in the middle of the campus; a traditional Indian market of a suitable size to meet the needs of campus population with post office, banks, health center etc.

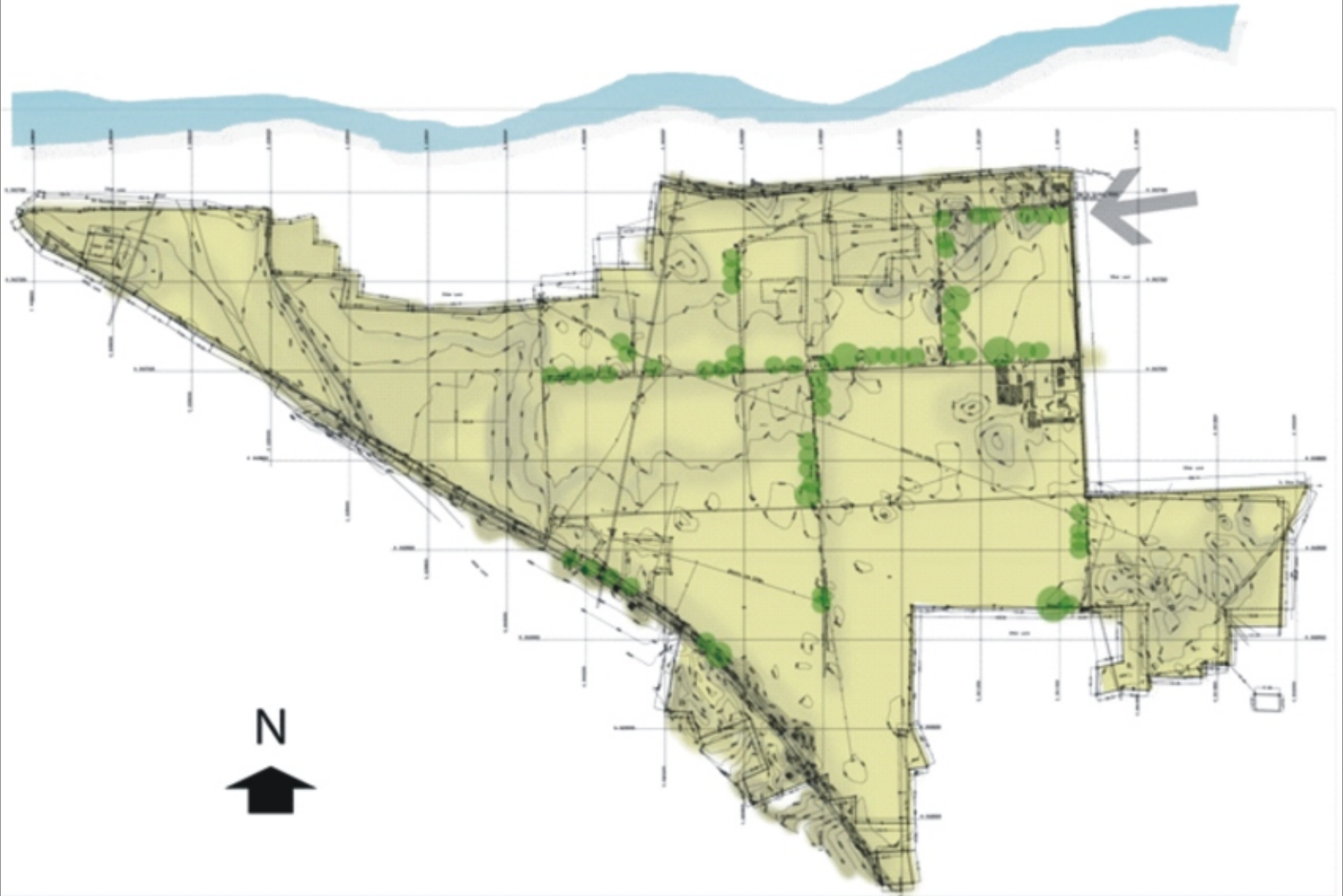
Faculty members put forth ideas such as the provision of a day care center, a faculty recreation hall, a guest house, modern and adequate laboratories, proper housing, a connection to Sutlej River, a pedestrian oriented campus, Punjabi architecture with Harappan civilization display, consideration of sun path while designing buildings, a radio station, and an airplane strip.

The project of planning and designing the Master Plan of a new campus is progressing well. We are at a stage interacting with the Consultants to select one as a finalist. The Institute thanks each and every one in supporting, helping assisting, guiding, and contributing in the process of planning and designing of the master plan for a new campus – it is your legacy.

UG Student Charette	May 01, 2012
Faculty Charette	May 18, 2012
PG Student Charette	May 31, 2012
Library Staff Charette	June 08, 2012



OUTLINE MAP OF THE NEW CAMPUS OF IIT ROPAR



The new campus of IIT Ropar is situated on the Banks of Satluj River in Rupnagar. Size of the campus is approximately 500 acres



RURAL TECHNOLOGY ACTION GROUP (RuTAG) CENTRE-IIT ROPAR



The vision of RuTAG Centre IIT Ropar is to become an innovative rural technology development group comprising academicians, scientists, personnel from NGOs, Governmental agencies and technical institutes, traditional craftsmen and artisans, farmers and social entrepreneurs with a passion to serve the rural people.

It aims to develop state-of-the-art science & technology resources, equipments, human resources and research facilities to innovate rural technologies by utilizing the existing and creative know-how with the involvement of people from rural areas and NGOs. The proposed activities of the RuTAG centre are carried out as a team work. The team may include academicians, scientists, personnel from NGOs, Governmental agencies and technical institutes, traditional craftsmen and artisans, farmers and social

entrepreneurs. The major inputs are taken from the end users i.e. villagers and NGOs. This information is vital in order to define the problem and identify technology gaps. In addition, NGOs are expected to play an instrumental role during phases such as design and manufacturing, conduct of workshops/skill development programs. The centre can share some part of the grant with some reliable NGOs. The know-how available with traditional craftsmen and artisans, farmers and social entrepreneurs can also be important, which can form a basis for newer innovations for rural folks. Even their skill will be utilized to manufacture the products at a local level. The state governmental offices such as State Councils for Science and Technology (Punjab, Haryana and Himachal Pradesh) can also be contacted for cooperation to achieve the objectives of the centre. The faculty of the institute and other technical institutions play major role as and when required on the basis of the requirements of the specific tasks. Besides, some consultants/ technical assistants may also be hired as and when needed. The students of the institute also develop and fabricate some products for the rural people.

ANUSANDHAN 2012

Research Scholars' Day (Anusandhan 2012) was organized on February 2, 2012 in IIT Ropar. This was an important milestone in the history of the Institute. This event provided a unique opportunity to research scholars to present their work to an audience consisting of their fellow research students, faculty members and experts from different reputed institution from India and abroad. During this one-day symposium, invited lectures, oral and poster presentations by research scholars at IIT Ropar were organized. The First Research Scholar's Day was inaugurated by the honourable Director, Prof. M. K. Surappa. This was followed by the Inaugural talk by Prof. Jas Pal Badyal from the Department of Chemistry, Durham University, U.K. During the inaugural speech, Prof. M. K. Surappa stressed on the need for quality research work so that IIT Ropar could find visibility in the list of global academic institutions in the near future. During this one day symposium, lectures were organized across the disciplines. Eminent Professors like Prof. Somanth Biswas, Department of Computer Science and Engineering, IIT Kanpur; Prof. Arvind, Department of Physics, IISER Mohali, and Prof. Bhaskar Dasgupta, Department of Mechanical engineering, IIT Kanpur shared their research experiences through their motivational talks during the invited lecture session. Further, the research scholars of IIT Ropar impressed the audience with their quality work, talks, and poster presentation skills during oral and poster presentation sessions. Ten research scholars gave oral presentations whereas others made 18 poster presentations. The efforts put in by the faculty members and their students for this research scholars' day were appreciated. This overall event was well organized and ended on time with the commendable and impressive efforts of the convener of Anusandhan 2012, Dr. Rajendra Srivastava.



HONOURS

Rajyashree Khushu-Lahiri

Dr. Lahiri has been nominated to stand for election to the executive committee of the Division on Linguistic Approaches to Literature, Modern Language Association of America for the term beginning on 7 January 2013 and run through the close of the January 2018 convention.

Himanshu Tyagi

Dr. Himanshu Tyagi was awarded the 'International Travel Award' by the Department of Science & Technology (DST), Govt. of India (Jan 2012) for attending the ASME 2012 3rd Micro/Nanoscale Heat & Mass Transfer International Conference at Atlanta, Georgia, USA from Mar. 3-6, 2012.

STUDENT ACHIEVEMENTS

- Mr. Sriramprasad Pemmasani, a student in the first batch from the Department of Electrical Engineering has topped with 100 percentile in the Common Admission Test (CAT) held in 2011 and has opted for Management studies in IIM-Ahmedabad, one of the top-notch B-school in India.
- One of the students in Dr. Himanshu Tyagi's research group, Mr. Vivek Vishwakarma, has received an offer for PhD admission from the Department of Mechanical & Aerospace at the University of Texas. Vivek plans to join the university in Fall 2012 and work under the guidance of Dr. Ankur Jain in the field of heat transfer and energy conversion.

INTERNSHIPS

A few of our 2009 batch students received internship from various reputed universities.

- The University of Southern California - Viterbi School of Engineering, Los Angeles offered internship to two students from Dept. of Computer Science and Engineering, Rohit Aggarwal and Shruti Tripathy.
- Aston University, UK offered internship to seven students- Tanya Garg, Sonu Kumar Giri, Madhu Rani and Ankita from Dept. of Computer Science and Engineering, Nikant Vohra from Dept. of Electrical Engineering and Rahul Gulati and Ashwanth Salevendra from Dept. of Mechanical Engineering.
- Ankita from Dept. of Mechanical Engineering was offered internship by University of Missouri, Kansas.

DESIGN FAIR

The School of Mechanical, Materials and Energy Engineering (SMME) at the Indian Institute of Technology Ropar organized a design fair on 18 April 2012. Students from all branches displayed their products designed in the Product design and realization I (guided by Dr. Prabir Sarkar) and Product design and realization II (guided by Dr. Harpreet Singh) courses. The products were evaluated by the faculty and staff of the institute. Patents have been applied for some of these designs. The director of IIT Ropar, Prof. Surappa, visited the design fair and encouraged the students. The lists of products that were displayed in the design fair are as follows:

In Product design and realization I: Economic semi-automatic dishwasher, Seed planting device (practical rural problem, Rutag project), Syringe crusher (medical device, Rutag project), Traffic signal system (for Ropar road authority), Laser security system for home (going for a long vacation, use this one), Stick for blind people with proximity sensor, Compact land waste utilizing device with dryer (to avoid burning of biomass in agricultural land), U turn warning system (road safety device), Sports shoe cleaner, Floor cleaner, Water jet alarm, and Micro freezer.

In Product design and realization II: Rolling blackboard with auto erase, Spin to clean, Seed cracker, Easy juicer, Automated moving and lifting vehicle, Paddle powered refrigerator, Garlic sowing machine, 3-D lifter, and Stair climbing wheelchair.



NCC

NCC annual training camp was organized by 3 Punjab (I) COP at Kharar, Punjab from 27 December 2011 to 7 January 2012. In this camp the cadets learned about the command and control of the armed forces and the way of their living. They also understood the importance of discipline and time management. Students went through various physical exercises and drill practices, and had interactive sessions with many army officers. They also practised shooting during training. A cultural program was organized at the end of the camp where our students performed a play.



REPUBLIC DAY

At IIT Ropar, the 63rd Republic Day was celebrated with fervour. Students gathered together on the occasion. Faculty and staff members were also present along with their families. The programme started with the unfurling of the National Flag and the delivery of a speech by the Director, Prof. M. K Surappa. The flavour of Punjab was added to the occasion by Dr. Harpreet Singh with his speech in Punjabi. The security guards and the NCC cadres of IIT Ropar presented the Director with a Guard of Honour. The students performed NCC parade and cultural programmes to commemorate the Republic Day. The celebrations ended with refreshments for all present.



BAISAKHI

IT Ropar celebrated Baisakhi, one of the main festivals of Punjab, with ardour. The programme began with a "Sukhmani Sahib Path" that was held at the college auditorium. The Path was followed by a langar that was organized by the students, the academic staff and the support staff, along with Dr. Harpreet Singh who is a faculty member of the Institute. For the occasion, the college auditorium was decorated with posters and flowers. A slide show of the verses of the Guru Granth Sahib translated in English and Hindi was also projected on the screen to ensure that the Non-Punjabi speakers comprehend the verses as they were recited. A recital of traditional baisakhi poems by two children from a local school and a historical description of the festival by a first-year student were the highlights of the day. People streamed in the auditorium throughout the day to offer their prayers to Guru Granth Sahib.



VISITORS

Dr. Krishna Vijayaraghavan, Simon Fraser University, Canada	January 2012
Prof. Somnath Biswas, IIT Kanpur	February 2012
Prof. Bhaskar Dasgupta, IIT Kanpur	February 2012
Prof. Doo Ok Jang, Yonsei University, South Korea	February 2012
Prof. Jongmin Kang, Sejong University, South Korea	February 2012
Prof. T. Pandiyan, UNAN, Mexico	February 2012
Ms. Margret Law, University of Alberta, Canada	March 2012
Prof. Harmohinder Singh, NC A&T State University, USA	March 2012
Prof. Jas Pal Badyal, Durham University, UK	April 2012

LIBRARY UPDATES

E-Resources collection of Central Library is growing steadily. The current year saw a considerable addition to the existing resources. The Library now also subscribes to new e-resources of some of the reputed publishers, such as: ACLS Humanities E-Books; Advances in Vibration Engineering; AIP Digital Archive; ASME Digital Archive; Association for Psychological Science Journals; IMechE Current Journals and Digital Archive; International Journal of Acoustics and Vibration; International Journal of Condition Monitoring; Language Journal; Low Frequency Noise, Vibration and Active Control; Sage Journals; Springer Lecture Notes in Physics; Thieme Journals. Separate electronic resource centre rich in educational CD's and DVD's is now available to the users of the library. Users can also access online resources in the electronic resource centre. Additional information about the Library can be had from the Library webpage of the Institute.

Visitor: For the purpose of developing library and research partnership Ms. Margaret Law, Director of International Relations, University of Alberta visited the institute on March 7, 2012. During the visit she had discussion with faculty and library staff about the specific ways of sharing rare copies of digitized resources, building an information infrastructure base by developing expertise in librarianship and library collections; conducting training programs and workshops.



NEW LABORATORIES

Laboratory	Department
Embedded System Lab	Electrical Engineering
Dielectric Insulation Testing Lab	Electrical Engineering
Optics Lab	Physics

NEW WEBSITE

The website of IIT Ropar has been updated. The new website is more user-friendly, more informative, and more appealing. One can access it at <http://www.iitrpr.ac.in>.

SME SPRING CHALLENGE

The Society of Mechanical Engineers (SME), formed by the Mechanical Engineering students of IIT Ropar, announced its inaugural engineering contest (SME Spring Challenge 2012) on February 17, in the following three categories: (i) Proposal for a Waste Management and Recycling Service for our transit campus; (ii) Energy Efficiency Roadmap for our transit campus; (iii) Glider Design And Fabrication. The competition was declared open to all IIT Ropar students with the stipulation that at least one team member was a member of the SME. The competition was held in the 3rd week of April. The SME also published the inaugural issue of its newsletter, Yantriki, on April 20, 2012.

CORRIGENDUM

There were some inadvertent mistake in Vol-I Issue-I (January 2012) of Prajwalam. The designation of Dr. Daya Ram Gaur in the Faculty List at page 3 has been erroneously mentioned as Assistant Professor. It should be read as Associate Professor. Likewise, the title, Dr., was missing from the name of Dr. Ranjana Sodhi on the same page in the previous issue of the newsletter.

We welcome your valuable suggestions and advices for further improvement of **Prajwalam**.
Please write us at newsletter@iitrpr.ac.in or contact **Editorial Board**

ACADEMIC CALENDAR FOR IST SEMESTER OF AY 2012-2013

Activity	Dates
Reporting by new students (UG)	July 23 (Mon)
Orientation for new students (UG)	July 24 (Tuesday-Morning)
Registration for new students (Ph.D)	July 24 (Tuesday-Before noon)
Registration for new students (UG)	July 24 (Tuesday-After noon)
Registration validation for continuing students(UG & Ph.D)	July 25 (Wed)
Commencement of classes	July 26 (Thu)
Late registration and finalization of registration	Aug 01 (Wed)
Last date for course ADD/DROP	Aug 03 (Fri)
Last date for adding courses in lieu of courses dropped on Aug 02, 2012	Aug 07 (Tue)
Mid- term evaluation of projects for UG	Sep 13(Thu) - Sep 14(Fri)
MID SEMESTER EXAMINATION	Sep 19 (Wed) - Sep 21(Fri)
Last date for return of marked answer scripts of mid semester examination	Sep 28 (Fri)
Last date for AUDIT and WITHDRAWAL	Oct 03 (Wed)
Last date for getting Mid - semester course evaluation form filled	Oct 03(Wed)
Last date for departments to float courses for next semester	Oct 05(Fri)
Cultural festival [No classes on Oct 12 (Fri)]	Oct 12(Fri) - Oct 13(Sat)
Last date for submission of project reports	Oct 29(Mon)
Course registration for next semester	Oct 31(Wed)- Nov 02(Fri)
Project Viva – Voce	Nov 01(Thu) - Nov 02(Fri)
Last date for getting course evaluation forms filled	Nov 09(Fri)
Last day of classes	Nov 16 (Fri)
MAJOR EXAMINATION	Nov 19 (Mon) - Nov 24 (SAT)
Last date for grades to reach UG/Ph.D section	Nov 30(Fri)
Winter vacation starts	Dec 03 (Mon)
Display of grades by UG/Ph.D Section	Dec 10(Mon)
Last date for the progress report submission for Ph.D	Dec 28(Fri)
Winter vacation ends	Dec 31(Mon)

EDITORIAL BOARD

Dr. Rano Ringo, Dept of Humanities & Social Sciences
Dr. Shubhrangshu Dasgupta, Dept of Physics
Dr. Somdev Kar, Dept of Humanities & Social Sciences

Dr. Dinesh K.S., Deputy Librarian
Mr. Anurag Dadheech, (B.Tech – EE, 4th Year)
Mr. Arink Verma, (B.Tech – CSE, 4th Year)

CONTACTS

Registrar
Mr. A. Palanivel
 Tel. +91-881-227078 (Office)
 Fax +91-1881-223395
 Email: registrar@iitrpr.ac.in

Professor Incharge (Academics & Research)
Prof. P. K. Raina
 Tel. +91-1881-242146 (Office)
 Email: deanar@iitrpr.ac.in

Professor Incharge (Student Affairs)
Prof. Sanjoy Roy
 Tel. +91-1881-242174 (Office)
 Email: roys@iitrpr.ac.in

INSTITUTE ADDRESS

Indian Institute of Technology Ropar
 Nangal Road
 Rupnagar, Punjab-140001 (INDIA)
 Website: www.iitrpr.ac.in