Connections

IIT Gandhinagar



2013-2014, Volume VI, Issue IV April - June 2014

Connections is the quarterly newsletter for friends of IIT Gandhinagar

Institute News

IITGN DIRECTOR REAPPOINTED



IITGN Director **Prof Sudhir K Jain** has been reappointed for a second five-year term, effective June 2014. Prof Jain, an internationally renowned scholar in earthquake engineering and professor of civil engineering at IIT Kanpur, joined IIT Gandhinagar as its first director in June

2009 on a five-year term. Prof Jain said, "At IITGN, we are

privileged to have the unparalleled opportunity to build an institution from the ground up and we have set ourselves the ambitious task of becoming one of the world's leading institutions of higher learning over the next decade. We have recruited world-class faculty, developed an exceptionally innovative undergraduate curriculum and built several distinctive centers and programmes. Undoubtedly, the next five years will be as enriching and exciting as the last five as we pursue the goal of global leadership in education."

IITGN'S CONSTRUCTION WORKERS' WELFARE PROGRAMME WINS NATIONAL HUDGO AWARD



IIT Gandhinagar's Construction Workers' Welfare Programme won the National HUDCO Award for Best Practices to Improve the Living Environment 2013-14, April 25, 2014. The award recognizes both institutional commitments to construction workers' welfare and safety, as well as the efforts of

Nyasa, the community volunteer programme of the institute. The Institute ensures dignified and sanitary housing conditions for construction workers by including special conditions in all its contracts that make it obligatory for contractors to construct clean, hygienic and well ventilated workers' housing with adequate water supply, electrical and sanitation facilities. The contractors are required to implement safety measures. A comprehensive group insurance cover is also required for all workers and their supervisory staff. In addition, regular health camps are organized for the workers.

DISTINGUISHED VISITORS

The Union Minister for Human Resource Development Smt Smriti Zubin Irani visited IITGN on June 13, 2014. During her visit she interacted with students and visited Institute laboratories. Prof Sudhir K Jain delivered a presentation on IITGN, on the innovative developments in the Institute. Smt Irani also discussed the challenges faced by new IITs and met an IITGN alumnus who has become an entrepreneur.



Reaching Out

Prof Achal Mehra participated in the University Partners meeting of Underwriters Laboratories Inc. in Chicago during May 5-8, 2014. Prof Mehra also delivered a presentation on **Internationalisation at IIT Gandhinagar** at the Pan

IIT Conference in Toronto, Canada, during June 6-8, 2014 and visited several Canadian Universities, including University of Toronto, McMaster University, and the University of Waterloo.

Support for the Institute

Dr Prabhakar Goel has joined the growing list of significant benefactors of the Institute. His donation will enable the Institute to recruit outstanding faculty and international visitors. Dr Goel holds a BS degree from IIT Kanpur (1970) and a PhD in Electrical Engineering from



Carnegie Mellon University (1974). Dr Goel held positions in engineering and technical management with IBM and Wang Laboratories. In 1990 Dr Goel was recognized as **Entrepreneur of the Year** for New England by Inc

magazine and Ernst Young. Since 1992 Dr Goel has been a private venture capitalist involved with several companies. He currently serves on the boards of InsideVault Inc and FusionOps Inc. Dr Goel is an active philanthropist and has supported many organizations with his contributions, most notably the **Foundation for Excellence** which he founded in 1994. FFE has funded over 13,000 students in India at the college level. Dr Goel is also a founding member of The Indus Entrepreneur (TiE), which provides a forum for networking and promotes entrepreneurship among members of the Indus region communities.

Faculty News

AWARDS AND RECOGNITION

The Gujarat Institute of Civil Engineers and Architects (GICEA) felicitated **Prof Sudhir K**Jain on May 17, 2014 and awarded him an Honorary Membership.



The felicitation is in recognition of his significant contributions to the field of earthquake engineering practice and for his selfless service to a diverse and dynamic learning community of India. GICEA is a premier institute of civil engineers and architects and is a non-government organization.

Prof Bireswar Das's paper **Zero Knowledge** and **Circuit Minimization** with Prof Eric Allender has been selected for the **Best Paper Award** in the 39th International Symposium on Mathematical Foundations of Computer Science (MFCS 2014). The award is sponsored by



ence (MFCS 2014). The award is sponsored by The European Association for Theoretical Computer Science (EATCS).

SCHOLARS-IN-RESIDENCE

Prof Satyaki Roy, Associate Professor, IIT Kanpur

Prof Shatarupa Thakurta Roy, Assistant Professor, IIT Kanpur

SPONSORED PROJECTS

- Smart non-invasive health monitoring device for elderly sponsored by IEEE Region10 Humanitarian Technology (HT). Principal investigator: Prof Uttama Lahiri, Electrical Engineering.
- Development of a self-contained, PV-powered domestic toilet and wastewater treatment system sponsored by Bill and Melinda Gates Foundation with a subcontract from Caltech to IITGN. Principal investigator: Prof Babji Srinivasan, Chemical Engineering.

NEW FACULTY

The following faculty joined IITGN during this quarter:

V N Prabhakar

Visiting Faculty, Archaeology PhD, Kurukshetra University, Date of Joining: 01.04.14

Indranath Sengupta

Associate Professor, Mathematics PhD, IISc Bangalore, Date of Joining: 22.04.14

Madhumita Sengupta

Assistant Professor, Humanities PhD, University of Calcutta, Date of Joining: 22.04.14

Activities at IITGN

INDIA AT ISCTE

On June 24, 2014 faculty members and students from IITGN and ISCTE-IUL organized an event **India at IS-CTE** in Lisbon, Portugal to celebrate the ongoing partnership and intellectual exchange between the two universities. Faculty members who attended the event included **Prof Rosa Marie Perez, Prof Nuno Guimaraes, Prof Jorge**

Louca, Prof Jaison Manjaly, Prof Meera Mary Sunny and Prof Srinivas Reddy. It was also attended by UG and PG students Bruno Gaminha, Pedro Pombo, Hamza Mohd Zubair, Kinley Mehra and Anshul Gupta. The event concluded with dance and music performances by Lajja Sambhavnath, Srinivas Reddy and Stephen Bull.

IITGN TEAMS UP WITH SPACE APPLICATIONS CENTRE (SAC) OF ISRO FOR RESEARCH COLLABORATION

IITGN is teaming up with the Space Applications Centre (SAC) of Indian Space Research Organization (ISRO) for research collaboration in the areas of electronics, signal and image processing, and electro-optical systems modeling. Director of IITGN **Prof Sudhir K Jain** and SAC Director **Shri A S Kiran Kumar** signed a Memorandum of Understanding (MoU) on May 26, 2014 at SAC to promote active collaboration between the two institutes. Under the MoU, IITGN students will undertake research internships at SAC on joint research projects of common interest to IITGN and SAC. In turn, IITGN will host scientists from SAC who wish to engage in teaching and research, and those interested in pursuing a higher degree.

INDUSTRY PARTNERSHIP RETREAT

As a part of IIT Gandhinagar's plan to expand and scale-up its engagement and communication with industry a Industry Partnership Retreat held on May 9, 2014 saw around 30 leading industrialists like Shri Aamir Akhtar, CEO - Lifestyle fabric - Denim, Arvind Ltd, Ahmedabad; Shri Vimal Ambani, Managing Director, Tower Overseas Ltd, Ahmedabad; Shri Partho Ghose, Executive Vice President, Business Development, KHS Machinary Pvt Ltd, Ahmedabad; Shri D K Gupta, Executive Vice President, Larsen & Toubro Limited, Mumbai; Shri Kel Kearns, Director Manufacturing, Ford India, Sanand; Shri Piyush Mathur, President, Indian Operations, Nielsen India; Shri K Sridhar, Managing Director, Ricoh Innovations Pvt Ltd, Bangalore; and Prof Mahesh Tandon, Managing Director, Tandon Consultants Pvt Ltd, New Delhi; among others to discuss ways to strengthen industry-academia relationship.

LECTURES / WORKSHOPS

- Breaking the tradition- whole crude oil fractionation then hydrotreating or whole crude oil hydrotreating then fractionation? by Prof Iqbal M Mujtaba, University of Bradford, UK, April 2, 2014.
- Influence of low-level stimulus features on high-level stimulus categorization behavioral and neural evidence by Dr Bhuvanesh Awasthi, University of Wisconsin-Madion, USA, April 4, 2014.
- Structural engineering design and practice: examples and career advice by Mr John Pao, President, Bogdonov Pao Associates Ltd, Vancouver, Canada, April 7, 2014.
- Leveraging your knowledge and skills for success in your professional career by Prof Vinay Khanna, visiting faculty at premier institutes in India, April 14, 2014.
- The Pakistan paradox instability and resilience by Prof Christophe Jaffrelot, a French political scientist specializing in South Asia, April 14, 2014.

SUMMER RESEARCH INTERNSHIP (SRIP) 2014

The Summer Research Internship Programme (SRIP) 2014 was organized during May - July at IITGN to foster research activities of students. The applicants were asked to choose among 68 project titles spread across various disciplines offered by IITGN faculty. A total of 171 students participated in SRIP 2014. Of them 88 were from IITGN and 83 from 44 other institutions across India. Towards the end of SRIP 2014, a poster session was organized on July 11, 2014 to showcase the research outputs of the summer interns. **Prof Gauray, Prof Shanmuganathan Raman** and **Prof Pranab Mohapatra** coordinated the event with guidance from Associate Dean **Prof Bhaskar Datta**.



- Water treatment technologies and over all view on recent advancements in water treatment by Dr T N V V Rao, head, Water Solution, UL, April 15, 2014.
- Community water treatment technologies and experience with the existing plants by Mr Ravindra Sewak, director, Safe Water Network, April 15, 2014.
- Education abroad engineering, privatization, and the new middle class in neoliberalizing India by Dr Aalok Khandekar, Maastricht University, Netherlands, April 16, 2014.
- BIAcore (SPR) for studying biomolecular interactions by Dr Annette Person, GE Healthcare Life Science, Sweden, May 19, 2014.
- Microcalorimetry: Technology and applications by Dr Natalia Markova, GE Healthcare Life Science, Sweden, May 19, 2014.
- Workshop on Design and Development of Indoor Remotely Controlled Airships by Prof Rajkumar S Pant, IIT Bombay, May 1, 2014.

Student and Staff Activities

ACHIEVEMENTS

- Anurag Pillutla and Om Margaj, 2nd year Mechanical Engineering students have been selected for the GE Foundation Scholar Leaders Program to receive a scholarship amount of \$2250 each for the next two years. They participated in the "Energize to Innovate" workshop organized by the GE Foundation at the Jack F Welch Technology Centre, Bangalore from June 15-18, 2014.
- Abhishek Navarkar received the Charpak Scholarship to pursue his internship at the Institute of Mechanics and Engineering, Bordeaux.
- Krishna Kumar Saxena, MTech 2nd year, Materials Science and Engineering, working under the supervision of Prof Jyoti Mukhopadhyay has received German DAAD fellowship to carry out Master's thesis research work at Institut Fur Umformtechnik, Universitat Stuttgart, Stuttgart, Germany.
- The team comprising Mihir M Bhalerao, Parag Chitnis and Om Margaj under the guidance of Prof Anule-kha Dhara was judged 'meritorious' in the Mathematical Contest in Modeling (MCM) 2014. The MCM is organized by the Consortium for Mathematics and Its Applications (COMAP), a US-based non-profit organization.

UDAAN'14

UDAAN'14 - the formal dinner night for the graduating batch (BTech, MTech and PhD) was held on April 13, 2014. The event was attended by nearly 300 members, including faculty, staff and students. The event included musical performances, and speeches by graduating students and faculty members on their IITGN experiences. The event was orga-

nized and conducted by **Eepsit Tiwari**, **Saurabh Singhal** and team.

SUMMER CAMP

The Institute organized a summer camp during June 9 to June 24, 2014. Sixteen members participated in the camp, which offered yoga, swimming, aerobics, and cycling.

MECHANISM/GADGET OPEN HOUSE

The 2011 BTech mechanical engineering batch held a Gadget/Mechanism open house display of prototypes they developed for the course- Synthesis and Analysis of Mechanisms, April 21, 2014. Students worked in groups to identify problems that they would like to address with a mechanism or mechanical gadget and eventually developed a preliminary prototype. The prototypes include sugarcane leaf remover, multiple-degree-of-freedom washing machine, panipuri machine, police barricade, battery swapping machine for electric vehicles, tree planter, embroidery thread cutting machine, foot-operated tap, dosa preparing machine, human exoskeleton for weight lifting, and under-car mechanic trolley, among others.

STUDENT BODY ELECTION

The following students were declared elected on April 9, 2014 as office bearers for the academic year 2014-15:

General Secretary : Akash Keshav Singh
Technical Secretary : Chitranshu Kumar
Sports Secretary : Krishan Kumar Meena

Academic Secretary : Harsh Gupta
Cultural Secretary : Mudit Rathor

Sports News

VIBES'14

Won the Championship Trophy at Nirma University Sports Festival by defeating Institute of Business Management (44-42), April 14, 2014. Krishan Meena's performance was outstanding in the finals. The performance of Manoj Kumar, Sanjay Meena, Prince Singh and Ashish Anarse was also commendable throughout the tournament.

ANNUAL SPORTS AWARDS FOR ACADEMIC SESSION 2013-2014

Best Player of the Year (boys)

Best Upcoming Player of the Year (boys)

Best Player of the Year (girls)

Best Upcoming Player of the Year (girls)

Best Player of the Year (faculty)

Best Player of the Year (staff)

Badminton Open (singles)

Badminton Open (doubles)
Badminton Open Singles (girls)

Badminton Open Doubles (girls)

Table Tennis Open

Chess Open

Inter Departmental Championship (boys) Inter Departmental Championship (girls) Animesh Kumawat

Aditya Shah

Nisha Rawat

Srija Vaddineni

Naran Pindoria

Santosh Raut Ishan Upadhyay

Kanak Sharma and Pranshul Saini

Aishwariya Agarwal

Aparna Arya and Pratyusha Challa

Nikhil Sharma Mayank Jain

Chemical Engineering

Post Graduates