# Connections!

Connections is the quarterly newsletter for friends of IIT Gandhinagar

# IIT Gandhinagar



2014-2015, Volume VII, Issue III Jan - Mar 2015

# **Institute News**

# IITGN FOUNDATION APPOINTS EXECUTIVE DIRECTOR



IIT Gandhinagar Foundation, a US-based charitable trust, announced the appointment of **Mr Ravi Mistry** as its first Executive Director.

Mr Mistry will primarily be responsible for designing and managing the Foundation's worldwide capital campaign with primary focus on the US. He will also serve as a liaison between donors and IITGN on important initiatives supported by the donors. Mr Mistry was previously a member of the founding team of Virident Systems, a technology startup based in the Silicon Valley.

# **VISITS**



A delegation of four members from the Japan Advanced Institute of Science and Technology visited IITGN during Jan 16-17, 2015 to explore opportunities of collaboration. **Prof Tetsuo Asano**, President, JAIST said, "We are planning to send a team of students to study at IITGN and also look at its interdisciplinary studies." Other members included **Prof Hiroyuki Iida, Prof Shungo Kawanishi**, and **Prof Ryo Maezono**.

**Prof Luís Antero Reto**, Rector, ISCTE, University Institute of Lisbon visited the institute during Feb 15-20, 2015 to



strengthen academic and research relations between the two institutes.

# **USAID SUPPORT**

A Joint Declaration of Intent was signed on Jan 23, 2015, ahead of President Obama's India visit, between the Ministry of Human Resource Development (MHRD) and the United States Agency for International Development (USAID) for providing support to Indian Institutes of Technology. The declaration calls for intensifying collaborations in Research and



Development (R&D) and entrepreneurship and identifies IIT Gandhinagar as the initial IIT for support. A team of three USAID representatives, comprising **Mr Mitch Kirby**, senior education advisor; **Dr Sheila E Desai**, India senior science and technology advisor; and **Dr Eric M Johnson**, senior research economist with RTI International, visited IITGN on Feb 10, 2015 to assess institutional needs and discuss strategies with senior IITGN administrators. Their discussions covered a wide range of possible areas of support including strengthening research capabilities, student and faculty exchanges, leadership development, networking, communication strategies, and entrepreneurship.

# **ACADEMIC ADVISORY COUNCIL**

The 4<sup>th</sup> Academic Advisory Council meeting was held on Jan 5, 2015. The agenda included improving faculty research productivity, support for postgraduate students, moving to the permanent campus, and developing strategic relationships with foreign universities.



# **LEADERSHIP CONCLAVE**

The 5<sup>th</sup> Leadership Conclave was held on Jan 6, 2015 to guide the Institute in its short-term and long-term strategies. The conclave discussed ideas on fund raising initiatives by the Institute, engaging with professional bodies and organizations, and the creation of a research park at IITGN's permanent campus.



# **Faculty News**

#### AWARDS AND RECOGNITION

**Prof Anirban Dasgup**ta has been selected for the **Google Research Award**. The Google Research Awards aim



to identify and support world-class, fulltime faculty pursuing cutting-edge research in computer science, engineering and related fields.

**Prof Pratik Mutha** has received the prestigious **DBT - Wellcome Trust Fellowship,** an early career award for



mentoring **Dr Neeraj Kumar**, one of the first two PhD students to have graduated from IITGN.

**Prof Srinivas Reddy** was invited to be the Contributory Editor in Sanskrit for the literary e-journal **Muse India**.



IIT Gandhinagar has been selected for the prestigious **Visvesvaraya PhD Fel-** • **lowships** in the areas of Electronic System Design and Manufacturing, Information technology and IT-enabled services.

## **PROFESSIONAL ACTIVITIES**

The launch of **Prof Rajmohan Gandhi's** new book **Prince of Gujarat: The Extraordinary Story of Prince Gopaldas Desai** (1887-1951), published by Aleph Book Company was held on Jan 7, 2015. The book launch was accompanied by a conversation between Prof Gandhi, Scholar-in-Residence at IITGN and **Mr Aakar Patel**, writer and columnist.

## **SPONSORED PROJECTS**

 Motor adaptation and skill learning in Parkinson's disease sponsored by Science and Engineering Research Board (SERB). Principal investigator: Prof Pratik Mutha, Biological Engineering.

Computational aero-elastic assessment of transonic compressor rotor blades sponsored by Gas Turbine Enabling Technology Initiative, Ministry of Defense. Principal investigator: **Prof Murali Damodaran**, Mechanical Engineering.

## **CONSULTANCY PROJECTS**

- Understanding surface properties of fine powders for DPI application for WOCKHARDT. Principal investigator: Prof Chinmay Ghoroi, Chemical Engineering.
- Development of downscaled and bias corrected projection for columns in Nicaragua and Colombia for DTU Management Engineering. Principal investigator: Prof Vimal Mishra, Civil Engineering.

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The following faculty joined IITGN during this quarter:

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Name	Designation	Discipline	PhD/Last Degree	Date of Joining
Rosa Maria Perez	Visiting Professor	HSS	ISCTE, Lisbon, 1992	01.01.15
Manuel Ramos	Visiting Professor	HSS	ISCTE-IUL, 1995	01.01.15
Sudarshan K Bahl	Visiting Professor	Mechanical Engineering	Santa Clara University, 1997	05.01.15
H B Hablani	Visiting Professor	Mechanical Engineering	IISc Bangalore, 1978	05.01.15
Bhaskar Bhatt	Adjunct Faculty	Design	NID Ahmedabad, 2003	08.01.15
Prof Amit Sheth	Adjunct Faculty	Design	NID Ahmedabad, 1988	16.02.15
Ramesh Gaonkar	Visiting Professor	Electrical Engineering	Syracuse University, 1975	04.03.15

# **SCHOLARS-IN-RESIDENCE**

Name	Affiliation	Date of Joining
Rajmohan Gandhi	Research Professor at University of Illinois, Urbana-Champaign, USA	05.01.15
Marjorie Greene	Earthquake Engineering Research Institute	04.02.15

# **Activities at IITGN**

## SHORT COURSES/ WORKSHOPS/ PANELS

- Short course on Fiber-reinforced Polymer Matrix Composite Materials by Prof Rajendra Bordia, Clemson University, USA, Jan 5-16, 2015.
- Short course on Mechanics in Engineering by Prof Chandrakant Desai, Regents Professor Emeritus, University of Arizona & Distinguished Scholar-in-Residence, IITGN, Jan 6-13, 2015.
- A self-development workshop on **Be** Yourself, Everyone Else Is Taken by

Ms Meenaskhi Kirtane, Psychotherapist and behavioural trainer, Jan 10-11, 2015.

Workshop on Adding Sustainability to Engineering Courses by Prof Cliff Davidson, Syracuse University and Prof Ted Russell, Georgia Tech, Jan 14, 2015.
Indo-UK Workshop on Photonics for Health, Atmosphere, Safety and Education (PHASE 2015) Jan 16-17, 2015. The speakers included Prof Walter Johnstone, Dr Michael Lengden and Dr Gordon Flockhart, University of Strathclyde, Glasgow; Prof Bishnu Pal, Ecole Mahindra, Hyderabad, Shri Arup Banerjee, Space Applications Centre, ISRO, Ahmedabad. The event was coordinated by Prof Arup Lal Chakraborty. Short course on Soil-Structure Interaction: Computer Applications and Material Models by Dr Chandrakant S Desai, University of Arizona; Prof Dhiman Basu, Prof Gaurav Srivastava and Prof Amit Prashant, IITGN, Jan 19-23, 2015.

- Short course on Entrepreneurship: Talking Sharp by Ms Rachel Shalom, Visiting Faculty, IITGN, Jan 20-Feb 3, 2015.
- One-day workshop titled Maritime Gujarat and the Western Indian Ocean: Cultural Routes Through Time in collaboration with Project Mausam, featured a keynote address by Prof Michael Pearson, University of New South Wales, Australia, Jan 19, 2015.
- Workshop on **IP Awareness** by **Mr Gouraj Yadav** and **Mr Ojas Sabnis**, Hourglass Research, Mumbai, Jan 24, 2015.
- Short course on Dream Interpretation by Prof Frederick Coolidge, Scholarin-Residence, IITGN, Jan 24-25, 2015.
- Short course on Electron Microscopy by Prof T Ramachandran, formerly with IIT Kanpur, Jan 28-Feb 10, 2015.
- Workshop on the History and Archaeology of Ancient India was organized

#### LECTURES

- Wide bandgap (WBG) power electronics by Dr Krisha Shenai, Vice President, LoPel Corporation, Naperville, Illinois, USA, Jan 1, 2015.
- Construction of gender by Prof Lina Fruzzetti, Brown University, Jan 5, 2015.
- A formalization of the role of uncertainty in services and their embodiment in goods by **Prof Devanathan Sudharshan**, University of Kentucky, Jan 6, 2015.
- Stone beads of the Indus civilization: technology and trade by Prof Jonathan Mark Kenoyer, University of Wisconsin, Madison, Jan 8, 2015.
- Shear localization in three-dimensional amorphous solid by Dr Pankaj Kumar Mishra, Weizmann Institute of Science, Israel, Jan 8, 2015.
- Understanding consumers for 'behavioral interventions' by Prof Raghunath Singh Rao, University of Texas, Jan 8, 2015.
- Change of norms and creativity: a cognitive perspective on normativity by Prof Bipin Indurkhya, International Institute of Information Technology, Hyderabad, Jan 9, 2015.
- Advances in nano-modified, multifunctional fiber reinforced concrete materials for sustainable infrastructure by Dr Nemkumar Banthia, University of British Columbia, Jan 12, 2015.
- "All that Jazz": jazz music through the blues by **Prof Hao Huang**, Scripps College, Claremont, Jan 13, 2015.
- American art music for violin and piano by Prof Rachel Vetter Huang, Scripps College, Claremont, Jan 15, 2015.
- Is India's Northeast a 'different' cultural category? by Prof Samir Das, University of Calcutta, Jan 15, 2015.
- Gravitational wave astronomy: opening new
   windows to the universe by Dr Sanjit Mitra, IUCAA, Pune, Jan 16, 2015.
- Science learning, spatial cognition and representation by Dr Shamin Padalkar, University of Pune, Jan 16, 2015.
- Engineering education: curriculum, teaching and learning by Prof Subrata Ray, IIT Mandi, Jan 21, 2015.

by the IITGN Archaeological Science • Centre during Jan 30-Feb 1, 2015. The inaugural and valedictory lectures were delivered by eminent historians **Dr Up-** • **inder Singh** and **Dr Nayanjot Lahiri**, University of Delhi.

- Padayatricks, a brainstorming session centered on the 'Pedestrian in the City' was organized by the Safety Center of IITGN. On this occasion, Prof Manuel Ramos introduced his co-edited book, 'The Walker and The City' and discussed ''A charter for pedestrians in the city''.
- Short course on Language Contact in
   South Asia by Dr Hugo C Cardoso,
   University of Lisbon, Feb 14-15, 2015.
- Short course on **Vector Spaces and Applications** by **Prof Ravi Banavar**, IIT Bombay, Feb 19-20, 2015.
- Workshop on Variational Analysis and Optimization organized by Prof Jagmohan Tyagi, March 2-8, 2015.
- **Reporting the other India** by **Mr Jaideep Hardikar**, The Telegraph, Jan 23, 2015.
- Urdu calligraphy by Prof Kalamuddin, Urdu calligrapher, Jan 23, 2015.
- Growth of carbon nanostructures by catalytic chemical vapor deposition by Prof Subrata Ray, IIT Mandi, Jan 23, 2015.
- Silicon photonics for fiber optic communications, and Journey of a physicist as a technology entrepreneur by Dr Kal Shastri, Cisco, Jan 30, 2015.
- A country of our own: Imagining India, 1915-2015 by Dr Ananya Vajpeyi, Centre for the Study of Developing Societies, New Delhi, Feb 3, 2015.
- Creative writing by Prof William Herbert, British poet and author, Feb 3, 2015.
- Working with head and heart aligned: my experiences with starting 108 emergency services project by Dr Sudhakar Varanasi, founder of Emergency Management Research Institute (EMRI), Feb 5, 2015.
- Fourier transforms and application to signal processing by Prof V D Pathak, formerly with M S University of Baroda, Feb 12, 2015.
- Disaster management- understanding disasters, the uncommon Do's and Don'ts and an insight of Indian Air Force relief operations by Wing Commander Dinesh Vaswani, IAF, Feb 13, 2015.
- **Do I love you, or the 'Me' in you?** by **Ms Sarita Shah**, psychotherapist and behavioral trainer, Feb 14, 2015.
- Music of India and Europe: connections and parallels by Stephen Bull, violinist, Feb 18, 2015.
- Exploring and explaining the diversity of Indo-Portuguese and The impact of the Portuguese language in South Asia by Dr Hugo Cardoso, University of Lisbon, Feb 18-19, 2015.
- The quantum and the continuum: Einstein's dichotomous legacies by Prof Parthasarathi Majumdar, Ramakrishna Mission Vivekananda University, Kolkata, Feb 19, 2015.
- Tectonic, climatic, and surface processes at orogenic plateau margins by Dr Rasmus Thiede, Institute of Earth and Environmental Science, University of Potsdam, Germany, Feb 24, 2015.
   IT in India: trends and patterns by Mr Avinash

- Short course on **Introduction to Computer Networking** by **Dr Amit Saha**, Cisco, March 14-15, 2015.
- Symposium on Mathematical and Computational Biology in association with National Network for Mathematical and Computational Biology (NNMCB), Pune node, March 21-22, 2015.
- Short course on **Intersections of Law** & **Technology** by **Ms Kelly Dhru**, Research Foundation for Governance in India (RFGI), March 21-22, 2015.
- A workshop titled **The Modern, the Colonial, and Beyond** included talks by **Dr Pooja Sancheti** and **Dr Aditi Deo**, IISER Pune, March 27, 2015.
- Short course on **Social Entrepreneurship** by **Mr Ketan Deshpande** and **Mr Santosh Huralikoppi**, FUEL, March 28-29, 2015.



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- An interactive session with **Mr Arun M Kumar**, US Assistant Secretary of Commerce, Jan 10, 2015.
- Leveraging the climate change challenge: new technologies and opportunities for sustainable growth by H E Mr François Richier, Ambassador of France to India, March 25, 2015.

Vashistha, Accenture India, March 10, 2015.

- East of Suez glass beads, bangles, mirrors and more from India by Prof Jan Kock, Aarhus University, Denmark, March 12, 2015.
- Religion, culture and technology by Prof Braj Sinha, University of Saskatchewan, Canada, March 13, 2015.
- **Solar Impulse: the world flight powered by the sun** by **Mr Michael Pietig**, ABB Solar Impulse technology alliance, March 13, 2015.
- Monetization of IP by Mr Akash Bhavsar, Sky-Quest Technology Group, March 14, 2015.
- **Prior-art search** by **Ms Mita Sheikh**, Krishna and Saurastri Associates, March 21, 2015.
- **Data based decision making in small and medium enterprises** by **Dr Arvind Saraf**, Entrepreneur, March 24, 2015.
- Solar fuels: splitting water and Natural photosynthesis: Chemistry of food and cooking by Dr Siddharth Dasgupta, NSF Center for Chemical Innovation: Solar Fuels at Caltech, USA, March 27-28, 2015.
- **Estimating India's future needs of electricity** by **Prof S P Sukhatme**, Distinguished Honorary Professor, IITGN, March 30, 2015.

# **Student and Staff Activities**

## AWARDS AND RECOGNITION

- S Chandrasekaran, a PhD student in Electrical Engineering received Posoco Power System Award (PPSA-2015) for his doctoral research work. The award carries a citation and a cash prize of Rs 60,000.
- Sneha N Ved, a PhD student in Electrical Engineering has been awarded the Intel PhD fellowship.



# GANDHIAN YOUNG TECHNOLOGICAL **INNOVATION AWARD**

Dhyey Shah, Eepsit Tiwari and Rajesh Patidar received the Gandhian Young Technological Innovation Award by Biotechnology Industry Research Assistance Council (BIRAC) SRISTI Award for the design of a spill proof spoon for patients of advanced Parkinson's disease.

## **STUDENT COUNCIL ELECTION**

The following students were declared elected as office bearers for the academic year 2015-16: General Secretary : Vishvendra Singh Technical Secretary : Shubham Malav : Aditya Shah Sports Secretary Academic Secretary : Akhilesh Gotmare Cultural Secretary : Palak Sadani

#### **REPUBLIC DAY CELEBRATIONS**

The 66th Republic Day celebrations on Jan 26, 2015 began with flag hoisting by Prof Sudhir K Jain, director, IITGN and Dr R K Gajjar, principal, VGEC. On this occasion Excellence Awards for Non-Teaching Staff for the year 2014 were given to Mr Shreejit B Menon, junior superintendent; Mr Rohitkumar B Chaudhary, junior technical superintendent; Mr Sanjaykumar K Kachiya, junior laboratory assistant; Mr Upendrabhai J Chauhan, guest house attendant; Ms K Naga Mouli, executive officer; and Mr Dineshji S Thakor, office attendant. Staff and students who secured medals during Inter-IIT Sports Meet were also honoured. Based on the performance during Semester I of Academic Year 2014-15, a total of 82 BTech students featuring in the **Dean's List** were felicitated with a letter of appreciation and a topical book (Serious Men by Manu Joseph). The programme concluded with a cultural programme organized by students.

# **IGNITE 1.0**

IIT Gandhinagar's first ever intra-college science and technology fair Ignite 1.0 showcased a wide spectrum of applications of science and technology used in daily life on Feb 7, 2015. Around 50 students showcased their products ranging from a foldable bridge to illusion based items to driver-less car robot prototype.



#### **BLITHCHRON-15**

The 7<sup>th</sup> edition of **Blithchron**, the annual cultural festival of IIT Gandhinagar held on Jan 17-18, 2015 included a laser-themed EDM Nite featuring internationally acclaimed artist, DJ Nucleya and a foot-tapping Coke Studio Nite featuring leading Indo fusion-rock band Swarathma. Apart from a group of 50 students coming from Mumbai, the fest saw participation from IIMA, NID, NIFT, CEPT, PDPU and HL College. Technical events of Blithchron this year included Laser Assassins, Robo Sumo, Race and Kabbadi.

#### JASHN

The 4th edition of Jashn, the intra-college cultural festival held on Jan 2-5, 2015 added three more flagship events The Prom, Live Angry Birds and Mehfil-e-Jashn. It also featured an art expo with the theme 'Dreams'. The title for MuSTY (Musical Sensation of the Year) went to Khyati Relhan while the runner-up was Ankita Joshi. The events were organized by Mudit Rathor, Sanket Shah, Vishvendra Singh in association with Vivek Prakash and the Arts Club.

## **HALLA BOL 15**

Halla Bol, an all-night intra-college annual sports festival aimed at increasing interaction among the institute body was organized during March 20-29, 2015. The games played with modified rules included Futsal, Tug of War, Frisbee, Touch Rugby, Foot Volley, Gully Cricket, 7 Stones, 3-a-side Baddy, Basky, Dodge ball and Kho-Kho.

## **ONGC CAMBAY VISIT**

Twenty five students visited the ONGC Cambay site along with Prof Rajagopalan Srinivasan and Prof Abhay Gautam, March 13, 2015. The students got an opportunity to witness activities conducted in ONGC and interact with senior ONGC officials. They also visited the Lunej Musuem, ONGC drill site and the ONGC production installation site.

## **OTHER EVENTS**

Mehfil-e-Adab, an evening of Urdu Poetry, by Ms Hamida Banu Chopra, University of California, Berkeley and her students was organized at IITGN on Feb 19, 2015.

## **IITGN ESSAY COMPETITION**

The IITGN essay competition announced in Jan 2014, invited entries to describe the journey of IITGN from its inception till the year 2035. A total of 44 entries was received. Among them, eight entries were selected for the reading session. The authors presented their ideas in the short interactive sessions held on Jan 16, 2015. We are Infinite by Harsh Gupta, BTech, IITGN; and Towards light- vision 2035 by Nitesh Pandey, researcher, IARC Mumbai were adjudged the best essays and the authors received a MacBook Air each.

# **Sports News**

## PETROLEUM CUP 2015

Taruna Yadav won gold medal in discus throw, silver medal in shot put and

Diwakar won silver medal in discus throw at PDPU, Gandhinagar, Feb 5-6, 2015.

bronze medal in javelin throw; Aditya and bronze medal in shot put; and Sampada Shah won gold medal in triple jump; Pradeep Gharpure won silver medal in javelin throw