

Connections

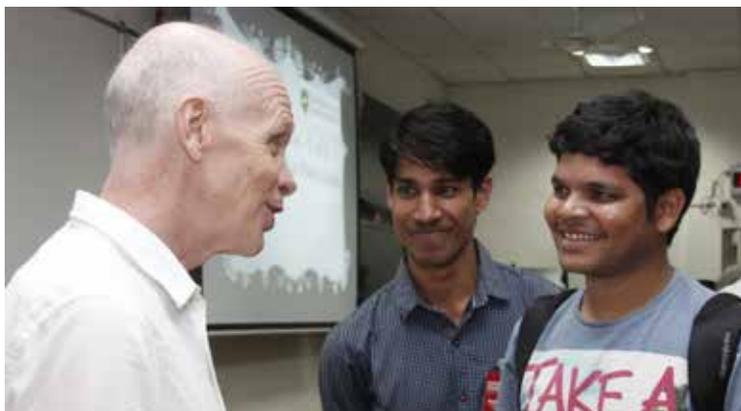
IIT Gandhinagar



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Connections is the quarterly newsletter for friends of IIT Gandhinagar

Institute News



SUMMER INSTITUTE ON GLOBAL HEALTH & DEVELOPMENT

IITGN in collaboration with the University of Saskatchewan, Canada, organized a **Summer Institute on Global Health & Development** from May 15-June 15, 2015. A total of 42 participants from leading educational and research institutions in India were selected. The event was supported by the Gujarat Alkalies and Chemicals Limited (GACL), Vadodara and offered, through pedagogy and research, a unique opportunity to engage and prepare young researchers in their pursuit of a healthy, equitable and sustainable world. Key resource persons included **Prof Tannistha Samanta** (convener), **Prof Malavika Subramanyam** and **Prof Shivakumar Jolad**, IITGN; **Prof Lisa Vargo**, **Prof Kalowatie Deonandan**, **Prof David J Parkinson**, **Dr Lachlan McWilliams**, **Dr Robert Alexander Innes**, **Mr Jason Disano** and **Ms Sugandhi del Canto**, College of Arts & Science, University of Saskatchewan; and **Dr Raywat Deonandan**, University of Ottawa, Canada. The Summer Institute also hosted invited speakers including **Prof Dileep Mavalankar** from the Indian Institute of Public Health Gandhinagar as the keynote speaker; **Prof Irudaya Rajan**, Centre for Development Studies, Kerala; **Dr Subharati Ghosh**, Tata Institute of Social Sciences (TISS), Mumbai; **Prof Tara Nair**, Gujarat Institute of Development Research, Ahmedabad; and **Mr Gautam Patel**, J-PAL South Asia.

IITGN EXPLORERS FELLOWSHIP 2015

Twenty-two IITGN students received the IITGN Explorer's Fellowship for the summer of 2015. The students were divided into 8 teams and every team member was awarded Rs 45,000 to travel to different states in India over a period of six weeks during May-June, 2015. These fellowships are intended to introduce students to the amazing cultural and geographic diversity of the country. The fellowship requires the students to explore six or more states, including at least one state each from the southern, northern and north eastern regions of the country. The students are required to travel by sleeper class in trains or by state government buses and to stay in low-cost accommodation. They are also expected to maintain a diary or blog during the travels. The two best diaries or blogs will receive a prize of Rs 5,000 and a certificate of merit.



Support for the Institute

REACHING OUT

A IITGN team comprising **Prof Sudhir K Jain**, director, **Prof Achal Mehra**, dean of strategic planning and special initiatives, **Prof Amit Prashant**, dean of academics, and **Mr Ravi Mistry**, executive director of the IITGN Foundation USA, visited several US universities and organizations in Washington DC, Boston, Durham and New York from May 11-14, 2015 to explore possibilities of collaborations with support from USAID, under a joint agreement for technical assistance for higher education between India and the United States. The team

visited USAID, the US India Business Council and John Hopkins University in Washington DC metro; Babson College and Olin College in Boston; Duke University, Research Triangle International, First Flight and Palmetto Biomedical in Durham, North Carolina; and Columbia University and The New School in New York. The team also hosted and visited IIT Gandhinagar well-wishers and donors in New York and New Jersey on May 15 and 16, 2015. Prof Jain and Mr Mistry attended the Indispora Forum 2015 in Washington DC from May 8-10, 2015.

Faculty News

SPONSORED PROJECTS

- **Multi-method approach to evaluate dissolution of engineered nanoparticles in a range of simulated environment for Nanosafety** sponsored by Science and Engineering Research Board (SERB). Principal investigator: **Prof Superb Misra**, Materials Science and Engineering.
- **The neural basis of motor learning** sponsored by Council of Scientific & Industrial Research (CSIR). Principal investigator: **Prof Pratik Mutha**, Biological Engineering.
- **Integration of perceptual and value-based decision making: A cognitive & computational approach** sponsored by Department of Science & Technology. Principal investigator: **Prof Krishna Prasad Miyapuram**, Cognitive Science & Social Sciences.
- **Visvesvaraya PhD scheme for Electronics and IT** sponsored by the Department of Electronics and Information Technology received by IITGN; Nodal officer: **Prof Uttama Lahiri**, Electrical Engineering, IITGN. Media Lab is the agency handling this project.

CONSULTANCY PROJECTS

- **Channelization of Gomti river-proof checking of designs and drawings** for GAMMONS. Principal investigator: **Prof Amit Prashant**, Civil Engineering.
- **GPR study of two locations at Vadnagar** for Archaeological Survey of India. Principal investigator: **Prof Amit Prashant**, Civil Engineering.
- **Workshop development at IITRAM** for IITRAM. Principal investigator: **Prof N Ramakrishnan**, Mechanical Engineering.
- **Development of electrical engineering and electronics laboratory at IITRAM** for IITRAM. Principal investigator: **Prof Naran M Pindoriya**, Electrical Engineering.
- **Proof checking of structural design of SRFDCL house for Sabarmati river front development project** for Sabarmati River Front Development Corporation Ltd. Principal investigator: **Prof Dhiman Basu**, Civil Engineering.
- **To assess the fluvial flood risk to communities along Ghaghra river from Chisapani Station for Practical Action.** Principal investigator: **Prof Vimal Mishra**, Civil Engineering.

NEW FACULTY

The following faculty joined IITGN during this quarter:

Name	Designation	Discipline	PhD/Last degree	Date of joining
Saumyakanti Khatua	Assistant Professor	Chemistry	Rice University, 2011	06.04.15
Umashankar Singh	Assistant Professor	Biological Engg	Uppsala University, Sweden, 2006	28.05.15
Manish Kumar	Assistant Professor	Civil Engg	State University of New York at Buffalo, 2015	15.06.15
Sourindra Chaudhuri	Assistant Research Professor	Electrical Engg	Princeton University, 2015	15.06.15
Ketki Sharma	Assistant Professor	Civil Engg	Georgia Institute of Technology, 2013	17.06.15
Arnab Dutta	Assistant Professor	Chemistry	Arizona State University, 2012	18.06.15
Angus McBlane	Visiting Assistant Professor	Humanities	Cardiff University, 2014	29.06.15
K Chelva Kumar	Visiting Professor	Mechanical Engg	California Institute of Technology, 1985	29.06.15

SCHOLARS-IN-RESIDENCE

Name	Affiliation	Date of joining
Rubina Jasani	Lecturer, Humanitarianism and Conflict Response Institute (HCRI), University of Manchester	10.04.15

Activities at IITGN

FIRST MAJOR EVENT AT THE PERMANENT CAMPUS

On May 2, 2015 one of the new hostels on the permanent campus at Palaj, Gandhinagar was inaugurated followed by a **BADA Khana** for all members of the IITGN community including construction workers, construction contractors, project management team, employees of the institute and other well-wishers. Over one hundred students from the graduating batch stayed overnight in the newly constructed hostel.



on April 23, 2015. Eight students (**Suraj Kumar Bhosale, Mayank Khewaria, Akshay Verma, Amit Yadav, Surya Kumar Mane, Pratham Goel, Kapil Pathak and Dipen Somani**) were selected as winners of UL Challenge 2014. During phase 2 the team worked at IITGN on design of experiments and analysis to study the causes of electrical fires in low voltage applications in greater depth. The work done in phase 2 was extended using the lab facilities at Underwriters Laboratories in Chicago. Seven students visited UL, Chicago and National Renewable Energy Laboratories, Denver Colorado, (NREL) lab. The team is currently working on a technical paper based on their work and on a design project on safe electrical receptacles.

UL CHALLENGE 2014

Underwriters Laboratories (UL) floats an engineering challenge for undergraduate students of IITGN annually since 2009. This year the contest focused on **Electrical Fire**. **Mr Srinivasa Desikan V**, director, Operation of UL South Asia, announced the winning teams

SRIP 2015

Seventy-four students from premier institutes of the country including IIT Kanpur, IIT Madras, IIT Kharagpur, IIT BHU, ISM Dhanbad, IIST Trivandrum and SVNIT Surat participated in the **Summer Research Internship Programme (SRIP) 2015**. Another 126 students of IIT Gandhinagar as well as a student from the University of Saskatchewan, Canada also interned under the programme. The SRIP 2015 was held during the period May 1 to July 10, 2015. **Prof Chetan Pahlajani** and **Prof Shanmuganathan Raman** coordinated the event under the guidance of **Prof Bhaskar Datta**.

INTERNATIONAL DAY OF YOGA

IITGN observed the International Day of Yoga on June 21, 2015. A large number of students, faculty and staff members took part in the programme. In his introductory speech, the director **Prof Sudhir K Jain** referred to the Prime Minister's address to the UN General Assembly and said that ancient tradition of yoga is India's gift to the world and that its significance has increased in the present time. **Mr Hemant Shah**, a yoga instructor, demonstrated various asanas and elaborated the history and specific benefits of them. Videos from the Ministry of AYUSH were also shown to the participants.

REFECO'15

Researchers' Ferret Confab 2015 (REFECO'15), is an initiative by PhD scholars of IIT Gandhinagar through which they endeavour to explore the interdisciplinary nature of the existing research in association with sharing ideas and challenges pertinent in various spheres of science and technology impacting society. The event was held during April 11-12, 2015. The participants included students of IITGN along with students from IISER Mohali, IIT Delhi, IISER Pune, Nirma University, VGEC, LD College, PDP, and M S University Vadodara. A total of 55 oral and 18 posters were presented. The invited speakers included **Prof Anil K Gupta**, IIM Ahmedabad; **Dr Sudeendra Koushik**, Think Tanks; **Dr Tara Nair**, GIDR; and **Prof Rajagopalan Srinivasan**, IITGN.

SUMMER SCHOOL ON BASIC ENGINEERING TOPICS



A four-week **Summer School on Basic Engineering Topics**, designed to improve teaching methods for courses commonly taught in the first two years of engineering was held during June 8- July 4, 2015. Over 120 faculty and 150 students from the local engineering colleges took part in the programme.

SHORT COURSES/WORKSHOPS

- **Entrepreneurship Development Workshop** during April 2-6, 2015 and June 8-12, 2015, respectively by **Ms Shradhda Jain**, **Ms Swati Verma**, **Ms Soumya Harish**, **Mr B R Venkatesh** and **Mr Joseph Pius** for IITGN community outreach programme NEEV.
- Short course on **Business Analytics** by **Mr Raman Bushan** and **Mr Sanjay Ojha**, Accenture (India), April 11-12, 2015.
- Workshop on **Embedded systems and Internet of Things**

(IoT) by **Prof Joyce Meki**, IITGN, April 30-May 2, 2015.

- Hands-on workshop on **Designing Embedded Systems and Internet of Things (IoT) using Intel Galileo** by **Prof Joyce Meki**, IITGN, May 4-5, 2015.
- Short course on **Friction Stir Welding and Processing** by **Prof Amit Arora**, IITGN; **Prof Partha Sarathi De**, IIT Bhubaneswar; and **Prof Satish Vasu Kailas**, IISc Bangalore, June 26-28, 2015.

WORKSHOP ON SUSTAINABLE DEVELOPMENT



A workshop on **Sustainable Development** was held on May 1, 2015 to explore strategies, identify pressing needs and opportunities, as well as potential partner institutions, organizations and individuals involved in sustainable development work. The workshop brought together a select group of leading personalities from government, academia, and civil society to help IITGN firm up plans for the Centre for Sustainable Development (CSD) that it has proposed. The participants included **Mr Raj Mashruwala**, IIT Gandhinagar Foundation, Palo Alto, California, USA; **Mr Shrikar Dole**, IL&FS Academy of Applied Development (IAAD); **Mr Akhilesh Magal**, Gujarat Energy Research and Management Institute (GERMI), Gandhinagar; **Ms Nidhi Pasi**, Water Aid, New Delhi; **Mr Bharat Pathak**, GEER Foundation, Gandhinagar; **Prof Milind Sohoni**, IIT Bombay; **Mr Ajay Gajjar**, SFC Environmental Tech, Mumbai; **Ms Zeenat Niazi**, Development Alternatives, New Delhi; **Dr Shambu Prasad**, Institute of Rural Management Anand (IRMA); **Prof Amit Garg**, IIM Ahmedabad; **Prof Ajay Katuri**, CEPT University; and **Prof Vijayraghavan Chariar**, IIT Delhi. The workshop was coordinated by **Prof Achal Mehra** and **Prof Vimal Mishra**.

LECTURES



Architecture, process, and materials for efficient inorganic-organic hybrid solar cells by **Prof Sang IL Seok**, Korea Research Institute of Chemical Technology, Republic of Korea; under the **Roddam Narasimha Lecture Series** on April 13, 2015. The Roddam Narasimha Distinguished Lecture Series, which was set up in 2012, aims to bring distinguished professionals to the institute to present their work in areas of national importance. The lecture series was instituted with the support from **Prof Amrutur Anilkumar**, Vanderbilt University.

- **Challenges in high-performance computing** by **Dr Sunil Sherlekar**, Intel Labs, Bangalore, April 2, 2015.
- **Using Science to fight poverty** by **Mr Gautam Patel**, Abdul Latif Jameel Poverty Action Lab (J-PAL), MIT, USA, April 6, 2015.
- **Morphological analysis to understand energy landscape and Collaborative strategic planning at panchayat level is**

essential to get to a developed India by **Dr Som Karmachetty**, formerly with US Army Research Laboratory, Adelphi, Maryland, April 9-10, 2015.

- **On locally Lipschitz functions and Uniform continuity of the product of real functions** by **Dr Gerald Beer**, Emeritus Professor, California State University, April 9-10, 2015.
- **Food security and fertilizer use in Asia: policies, markets, and farm-**

level outcomes by **Dr Balu Bumb**, BLB Associates, Florence, Alabama, USA, April 13, 2015.

- **Scientific techniques used in archaeological investigations and Some case studies on scientific applications in archaeology** by **Dr Randall Law**, University of Wisconsin-Madison, USA, April 17 & April 21, 2015, respectively.
- **Online media and marketing (with a**

focus on e-commerce) by **Mr Manu Midha**, Infibeam, Ahmedabad, April 20, 2015.

- **Fusion energy research in India** by **Prof Predhiman Krishan Kaw**, Institute of Plasma Research, Ahmedabad, April 27, 2015.
- **Passive two-phase heat transfer technology** by **Prof Sameer Khandekar**, IIT Kanpur, May 12, 2015.

Student and Staff Activities

AWARDS AND RECOGNITION

- **Neeraj Kumar**, a research scholar in cognitive science, has won the **Wellcome Trust/DBT India Alliance** fellowship of Rs 1.41 crore. He will carry out research pertaining to the design of novel rehabilitation approaches for people with neurological disorders such as strokes. He will spend three years at IITGN and two years at McGill University, Canada, and Haskin Labs of Yale University, USA. The Wellcome Trust/DBT India Alliance is a



GBP 80 million initiative funded by Wellcome Trust, UK, and the Department of Biotechnology, India. It aims to build excellence and support potential scientific leaders in the area of biomedical engineering research.

- **Alpana Thorat** received the best poster award for her poster titled **Nucleation - A Transition State to the Directed Assembly of Materials: Faraday Discussion** organized by the Royal Society of Chemistry in Leeds at Beckett University, UK, March 30-April 1, 2015.



UDAAN: THE FAREWELL DINNER

The formal farewell dinner for graduating students was organized on April 11, 2015. The event featured speeches from students, faculty members and a medley of musical performances by faculty and students. Some of the faculty members including **Prof Sudhir K Jain**, **Prof Amit Prashant**, **Prof N Ramakrishnan**, **Prof Jaison Manjaly** and **Prof K Ragavan** addressed the students and shared their experiences with the graduating class. The evening concluded with a sumptuous dinner for the entire IIT Gandhinagar family.



Sports News

LEAGUE OF FOOTBALL PLAYERS

The **Blue Falcons** under the captaincy of **Aditya Ganesh** won the trophy after defeating **Club Gallantos**, captained by **Hydar Ali** in a hard-fought match that was decided on penalties by a score line of 4-2 after both teams had scored a goal each in regulation time. A total of 4 teams played the knock-out matches from April 1-22, 2015. The event was coordinated by **Ankit Bhange**, **Vaibhav Joshi**, and **Aditya Ganesh**. The following individual awards were given away:

- Best player - **Ojas Joshi**
 Top scorer - **Ojas Joshi**
 Best goalkeeper - **Prathamesh Badve**
 Emerging talent - **Ahamed Naji**



Ojas Joshi



Prathamesh Badve



Ahamed Naji



CRICKET COMBAT LEAGUE

Ten teams participated in the intra-college cricket tournament held during Jan to April 2015. The **Red Titans** under the captaincy of **Chinmay Ajnadkar** successfully defending their score of 48 runs to defeat the **Golden Eagles** led by **Rahul Khandait**. **Pawan Kumar**, who scored 134 runs and bagged 11 wickets, was declared the best overall player while **Nikhil Sharma** was declared the best bowler for his 13 wickets. **Himanshu Bikonia** emerged as the best batsmen for his tally of 132 runs. The event was coordinated by **Yash Mehta**, **Vishvendra Singh**, **Chinmay Ajnadkar**, and **Pawan Kumar**.