

Connections

IIT Gandhinagar



Connections is the quarterly newsletter for friends of IIT Gandhinagar

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Institute News

Major Grant from the Government of Gujarat

The Government of Gujarat has sanctioned a grant of Rs 10 crore to set up a **Centre of Excellence in Biomedical Engineering** at IITGN. The Centre will focus on research and development in the areas of biomedical engineering, healthcare technology, biochemical engineering, pharmaceuticals, and nanotechnology. The Centre's efforts will focus on the development of low-cost diagnostic techniques and low-cost prosthetic devices for rural areas, and efficient drug delivery techniques. The activities envisioned include the development of relevant technologies, entrepreneurial ventures, promoting industry-academia collaborations and dissemination of knowledge in allied fields.

Technology Incubation and Development of Entrepreneurs Centre

A **Technology Incubation and Development of Entrepreneurs Centre** is being set up at IITGN with an initial grant of Rs 1.55 crores from the **Department of Information Technology, Government of India**. It will provide a platform for the students of the Institute to develop technologies for commercial use and thereby try their hand at entrepreneurship. The mandate of this Centre resonates with IITGN's vision that its graduates should create jobs rather than seek them.

Sixth Meeting of the Board of Governors

The Sixth Meeting of the Board was held on March 10, 2012. Besides many routine matters, the BoG has approved a proposal through which the Institute will encourage its graduating

students to explore their professional interests in a somewhat unconventional manner. Initially four graduating students will be offered **IIT Gandhinagar Junior Fellowship**. The awardees will spend one year at IITGN performing different tasks before embarking on a career of their choice. The Board has also decided to confer the **Institute Fellow Award** on individuals whose contributions are recognized to have a long-lasting impact on the Institute. The awardees may be from the Institute or elsewhere.



Institute Master Plan

IITGN has been provided about 400 acres on the eastern bank of the Sabarmati in Gandhinagar, opposite the Secretariat. After a careful selection process, M/s Green Campus Development Consortium, New Delhi was awarded the contract to develop the master plan of the campus. The master plan took shape after several brain-storming sessions by a group of faculty of the Institute with the consultants. It is envisioned that the campus will be compact, energy-efficient, and have identified vehicle-free zones. It will aim to make optimum use of natural resources and minimize the energy consumption and harvest rain water. The campus is being designed to facilitate close interaction between faculty and students and also between the various sections of the student community.

Support for the Institute

Government of India establishes Chair at IITGN

The **Ministry of Earth Sciences, Government of India** has sanctioned an endowment of Rs 1.5 crore to establish a **Varahamihira MoES Chair** at the Institute in the area of Earth System Science and Engineering (including Earthquake Engineering, Science of Climate Change, and Ocean Science and Technology).

IIT Gandhinagar Receives Solar Power Systems

NTT Facilities, Inc., Japan and Gujarat Energy Development Agency (GEDA), Gandhinagar, have provided one 10 kW roof-top solar photovoltaic (PV) system each to the Institute. The system provided by NTT Facilities consists of sixty four thin-film modules (rated 150W) made by Solar Frontier, Japan while the system sponsored by GEDA consists of forty four multi-crystalline silicon modules (rated 230 W) produced by Jain Irrigation Systems Ltd, India. Each PV system is expected to generate about 15000 kWh of electricity every year and reduce total CO2 emissions by about 28 tonnes. These systems have already started to reduce the energy bills of the Institute and are being used for research in collaboration with Underwriters Laboratories.



Underwriters Laboratories Provides Research Opportunity to Undergraduates

A research initiative sponsored by Underwriters Laboratories (UL), Northbrook, USA attracted innovative ideas from thirty



eight undergraduate students on current technologies, standards and innovative photovoltaic (PV) applications while addressing specific performance and safety issues. The following four teams were adjudged winners of the Conceptualization Phase on February 11, 2012 and are now working to transform their ideas into products. To facilitate their work, the students will spend time at UL Chicago and PV Labs of Case Western Reserve University, Cleveland, OH, USA during the summer of 2012.

Team 1: **Sunil Patidar** and **Shubham Chauhan**,

Team 2: **Divyank Singh** and **Abhilash Patel**

Team 3: **U. Revanth Sandeep** and **Ravi Teja**

Team 4: **Abhishek Kandoi** and **Maisum Ali Dairkee**

Activities at IITGN

Distinguished Visitors

Prof. M. Anandkrishnan, Chairman of the Board of Governors, IIT Kanpur and an eminent educationist interacted with the Institute faculty on January 22, 2012.



Ms Tara Gandhi Bhattacharjee, the Vice-Chair Person of the Kasturba Gandhi National Memorial Trust and of Gandhi Smriti & Darshan Samiti and grand-daughter of Mahatma Gandhi and C. Rajagopalachari visited IITGN during March 13-16, 2012 and interacted with the IITGN community. She has adopted her grandfather's message of non-violence to the contemporary world by extending her support to the protection of the environment. She has contributed significantly to self sufficiency and emancipation of women.

Students from a US University visit IITGN

A sixteen-member team of students, faculty, and staff members of Manchester College, Indiana, USA visited IIT Gandhinagar on



January 15, 2012 as part of their travel course to India. They interacted with students, faculty and staff members of IITGN to understand the IIT system and its contribution to Indian education. **Prof. Sharmita Lahiri** coordinated the visit.

Scholarship support from Neotia Foundation



Shri Suresh Neotia, member of the BoG of IITGN has donated through Neotia Foundation a sum of Rs 4.5 lakh to support Ph. D. research in the area of Cognitive Science. Shri Neotia, born and brought up in Kolkata, comes from a well-known business family of over 100 years standing. He has done B. Com. from St. Xavier's College, Kolkata and L. L. B. from Kolkata University. He is currently the co-promoter and Chairman of Gujarat Ambuja Cements Ltd.

Notre Dame - IITGN Graduate Research Fellowship Established

The ND-IITGN Graduate Research Fellowship has been established to help strong and long-term collaborative partnership a between IITGN and the University of Notre Dame. Starting with 2012, this fellowship will be awarded every year to an IITGN student to attend the Ph. D. program in Computer Science and Engineering at the University of Notre Dame. Academic performance and potential for research will be the selection criteria for the award. **Saurabh Nagrecha** is the first recipient of this Fellowship. He was a summer 2011 REU (Research Experience for Undergraduates), supported by the Eck Institute of Global Health, University of Notre Dame.

Short Courses/ Workshops/ Seminar

- ▲ A one-day national seminar on the **Contribution of women's writing to the cultures of peace** was organized in collaboration with Zubaan on February 2, 2012. It was attended by the IIT community and by people from other institutes. The coordinators of the event were **Prof. Rita Kothari**, **Prof. Sharmita Lahiri** and **Prof. Arnapurna Rath**.
- ▲ A short course on **Geotechnical aspects of earthquake engineering** was conducted by **Prof. Amit Prashant**, **Prof. Ajanta Sachan** and **Prof. Sudhir K. Jain** of IITGN and **Prof. Debasis Roy** of IIT Kharagpur during February 27- March 01, 2012. It was attended by seventy engineers and senior professionals. Further details are available at <http://www.iitgn.ac.in/web-GEE/>.
- ▲ An internal workshop on **Effective Teaching** was held on March 17, 2012. **Prof. Dheeraj Sanghi** (IIT Kanpur), **Prof. Suchitra Mathur** (IIT Kanpur) and **Prof. Sudhir K. Jain** (Director, IITGN) were the resource persons. Thirty five faculty members participated in the workshop coordinated by **Prof. Sharmita Lahiri**.
- ▲ A brain-storming workshop on **Looking Beyond Engineering Education: Humanities and Social Sciences Programme at IIT Gandhinagar**, was held on March 31, 2012. A wide range of issues connected with HSS were deliberated upon by scholars from IITs, IIITs and other universities. The event was coordinated by **Prof. Jaison A. Manjaly** and **Prof. Rosa Maria Perez**. Further details are available at http://www.iitgn.ac.in/hss_workshop.htm.



Lectures at IITGN

The following lectures were delivered in the Institute by invited speakers:

- ▲ **The atomic nucleus and stars** by Prof. Umesh Garg, University of Notre Dame, USA, January 12, 2012.
- ▲ **Existence theory of elliptic partial differential equations** by Prof. Lucio Boccardo, Universita di Roma 1, January 15-17, 2012.
- ▲ **Mathematics in ancient India and Black Holes** by Prof. Samir Bose, University of Notre Dame, USA, February 2-3, 2012.
- ▲ **Cross approximation and tensor decompositions** by Dr Jan Schneider, Max Planck Institute, Leipzig, Germany, February 2, 2012.
- ▲ **Non-linear perspectives of health and disease in Ayurveda** by Dr Rama Jayasundar, AIIMS, New Delhi, February 3, 2012.
- ▲ **Signal processing for stereoscopic 3D displays** by Dr Nikhil Balram, Ricoh Innovations, Inc., USA, February 8, 2012.
- ▲ **E-learning in education** by Dr Muriel Grosbois, DILTEC, Université Sorbonne nouvelle, February 15, 2012.
- ▲ **A multi-period optimization based decision support system for strategic planning in process industries** by Prof. Goutam Dutta, IIM Ahmedabad, February 23, 2012.
- ▲ **Magic and mass culture** by Dr Ranadhir Mitra, formerly of University of California and University of Pittsburgh, March 1, 2012.

- ▲ **Can renewable energy sources meet India's future needs of electricity** by Prof. S. P. Sukhatme, Distinguished Honorary Professor, IITGN, March 14-15, 2012.
- ▲ **Emerging trends in engines** by Prof. Pramod Mehta, IIT Madras, March 19, 2012.
- ▲ **State of innovation and higher education in India** by Prof. Shyam Sunder, Yale School of Management, March 23, 2012.

Other visitors

Prof. T. Harinarayana, Director, and Mr Amin Petiwala, Secretary, Gujarat Energy Research and Management Institute (GERMI); Mr August Schaefer, Senior Vice President and Public Safety Officer, and Mr Pravinray D. Gandhi, Director, Corporate Research, Underwrites Laboratories Inc., USA; Mr Hitesh Jain, Mr Saurabh Sriparn, and Mr V. Jagdish, of UL India; Dr Navdeep Mathur, IIM Ahmedabad; Dr Balaji Parthasarathy, IIIT Bangalore; Prof. Koshy Tharakan, University of Goa; Prof. Shiv Visvanathan, DA-IICT, Gandhinagar; Dr Tara S. Nair, Gujarat Institute of Development Research, Ahmedabad; Prof. Suchitra Mathur, Prof. Lilavati Krishnan and Dr Ashish Garg, IIT Kanpur; Prof. Rajeev Sangal, IIIT Hyderabad; Prof. Sharmila and Prof. A. Ramanathan, IIT Bombay; Prof. Suhita Chopra Chatterjee, IIT Kharagpur; Dr Dinesh P Mital, University of Medicine and Dentistry, New Jersey, USA.

Faculty and Staff News

New Sponsored Projects

- ▲ **High fidelity computational engineered systems on HPC platforms**, sponsored by the Department of Information Technology. Principal Investigator: Prof. Murali Damodaran. Co-PIs include Prof. Surendra Ranganath, Prof. Supreet Saini, Prof. Bireswar Das and Prof. N. Kishore Kumar.
- ▲ **Experimental studies of metastability in different synchronizers**, sponsored by the Department of Science and Technology. Principal Investigator: Prof. Joyce Meki.
- ▲ **Technological value addition to the initial design of a low-cost windmill for pumping brine and electricity production in rural areas - a GRiDS@IITGN-NIF Initiative**, sponsored by National Innovation Foundation, Department of Science and Technology. Principal Investigator: Prof. Murali

Damodaran. Co-PIs include Prof. Atul Bhargav and Prof. Naran Pindoriya.

Book Publications

- ▲ Prof. Rosa Maria Perez launched her book **The Tulsi and the Cross** (RCS Publishers, ISBN: 8192304604) on March 31, 2012.
- ▲ Prof. Mukund Hari Divekar, Adjunct Professor Chemical Engineering, has co-authored (with Dr Nitin V. Bhate) a book **Process Dynamics Laboratory - Orientation, Protocol and Design Methodology**, Lambert Academic publishing, Saarbrücken, Germany, ISBN: 978-3-8443-9766-6.
- ▲ Ms Jasbirkaur Thadhani, Students' Counselor, IITGN co-authored (with Dr Nisha Tajpuria) a book **Stress Management**, ISBN: 978-93-5067-160-3.

Staff Excellence Award

The first set of Excellence Awards for the non-teaching staff were presented to Mr R. T. Shah (Asstt Registrar, Finance & Accounts), Mr Santosh Raut (Jr Superintendent), Mr Supresh Thaleshri (Jr Lab Attendant) and Mr Ganesh Thakore (Office Attendant).



Mr Shah Mr Raut Mr Thaleshri Mr Thakore

New Faculty

The following persons joined IITGN faculty during this quarter:

Name	Designation	Discipline	Ph. D./Last Degree	Date of Joining
A. S. Mahajan	Visiting Professor	Physics	UW, Madison, 1966	05.01.12
Rosa Maria Perez	Visiting Professor	Social Sciences	ISCTE, Lisbon, 1992	23.01.12
Meera M. Sunny	Assistant Professor	Social Sciences	University of Warwick, 2011	01.02.12
Anand Sengupta	Assistant Professor	Physics	IUCAA Pune, 2005	07.02.12
Srinivas Reddy	Assistant Professor	Humanities	UC, Berkeley, 2011	19.03.12
Raghu Echempati	Visiting Professor	Mechanical Engineering	IIT Kharagpur, 1976	30.03.12

Student Activities

Blithchron12

Blithchron12, the annual cultural festival of IITGN, was



organized during January 21-22, 2012 on the theme "Around the world in 48 hours". Several new events were introduced including a fashion show named Panache, a rock music competition aptly named String Theory, a street play competition called Antaragnee, and marketing strategies competition innovatively named Bizmark. A rock concert by the Chennai-based band Junkyard Groove and a classical music performance by SAPTAK: School of Music were the musical highlights of the fest. Over 10000 people attended the two-day event.

Republic Day Celebrations

In keeping with IITGN tradition, the 63rd Republic Day celebrations on January 26, 2012 began with the faculty, staff and students participating in a Green Run early in the morning. Later the Director, **Prof. Sudhir K. Jain**, unfurled the National Flag. On this occasion security persons **Mr Pruthvish Parmar** (SIS) and **Mr Firoz K. Mansuri** (GIFS) were recognized for their exemplary diligence in discharging their duties. The Excellence Awards in sports were presented to students **Bhargav Kumar Thadem**, **Shivani Rani**, and **Suresh Choudhary**. The day's events drew to a close with students presenting timeless patriotic songs.

Dean's List for the Autumn Semester

The **Dean's List** was announced on February 10, 2012. Ninety-nine undergraduate students and one M. Tech. student made it to the list that requires a student to have an SPI of 8.5 or more. The Director, **Prof. Sudhir K. Jain** felicitated the students by giving

the letters of appreciation and a topical book (**Everybody loves a good drought** by P. Sainath). Further details are available at http://www.iitgn.ac.in/pdf/Deans_list.pdf.

Students Honours

Diti Vyas, a doctoral student in English and one of the 400 pilgrims who completed a trek to Kailash Mansarovar was felicitated by the Chief Minister, **Shri Narendra Modi** at a function held at Tagore Hall, Ahmedabad on January 18, 2012.

Life Skills Series

- ▲ **Job Interviews: How to nail them** was held on January 6, 2012. Several students of the graduating batch shared their experiences of successful job interviews with 180 participating students. **Prof. Atul Bhargav** was the guest expert. The session was coordinated by **Maisum Ali**, **Swati Verma**, and **Kanchan Patel**.
- ▲ **Career Options after B. Tech.** was held on March 30, 2012. Several students of the graduating batch spoke to about 100 students and some members of staff. **Prof. Atul Bhargav** was the guest expert and the moderator of the discussion.

Student Body Elections

The students elected the following office bearers for the academic year 2012-13 on March 19, 2012:

General Secretary	: Shashank Pandey
Technical, Secretary	: Akshay Jain
Sports Secretary	: Wasim Khan
Academic Secretary	: Rohit Choksy
Cultural Secretary	: Nitai Bajaj

Other Events

Students of IITGN, in association with Prathama, organized a blood donation camp on January 13, 2012. The drive was supported by sixty six donors. The student coordinators included **Shreyans Nahar**, **Shashank Heda**, **Prashant Verma**, and **Parth Guthka**.

The noted sitarist **Pt Shubhendra Rao** of Spic Macay presented an enthralling concert at IITGN on January 5, 2012.

Sports News

Halla Bol

The 2nd edition of Halla Bol, the all-night intra-college sports



festival (March 17-25, 2012), witnessed more than 2100 registrations for ten improvised games such as Futsal, Touch Rugby, Kabbadi, Dodgeball, Gully Cricket, 7 Stones, Kho-Kho and Tug of War. With over 85% of the undergraduate students at

the Institute participating in one or more events (on an average students participated in six games), Halla Bol demonstrated the tremendous enthusiasm for sports in the Institute with 400 matches being played in 9 days. The tireless work put in by the core-team of 40 members and over 40 volunteers ensured that the event went off without a hitch. The event was coordinated by **Mohak Patel** and **Vishvendra Joshi**.

Inter-Department Basketball Championship

The **Chemical Engineering** team successfully defended their title in the inter-departmental **Basketball championship** by defeating the Mechanical Engineering team (67-55) on January 18, 2012. The performances of **Ravi Pal**, **Vishvendra Joshi**, and **Aditya Samanth** stood out.