

Connections

IIT Gandhinagar



Connections is the quarterly newsletter for friends of IIT Gandhinagar

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Institute News

BoG Approves New Masters Programmes

The BoG approved the establishment of a two-year **MSc Programme** in Cognitive Science and a two-year **Master of Arts programme** in Society & Culture at its meeting on March 28, 2013. To strengthen the **Children's Education Fund** scheme for contractual staff members, the Board enhanced the reimbursable limit from Rs. 7,500 to Rs. 10,000 per year per family. The BoG also sanctioned a scheme for interest-free **soft advance** for new staff members. To incentivize undergraduate and postgraduate student research, the BoG also approved a cash award scheme for papers published in refereed journals. The Board also endorsed the norms to provide overseas research experience to the PhD students. It also approved a plan for the creation of a R&D Park at the permanent campus.

IITGN Selected as 2013 CUDA Teaching Center

IIT Gandhinagar has been selected as a CUDA Teaching Center for the year 2013. CUDA Teaching Centers have integrated GPU computing techniques into their mainstream computer programming curriculum. Students and other members of the Institute will have access to CUDA enabled systems for hands-on experience of CUDA C/C++ development, debugging and experimentation. Currently CUDA Research and Teaching centers are available in 42 countries worldwide.

152 Students Compete in Electrical Vehicle Contest



152 students participated in a research contest sponsored by Underwriters Laboratory (UL), Northbrook, USA, and IITGN to develop an electrical vehicle platform with the aim of better understanding safety challenges for electrical vehicles in Indian conditions. An external review committee of EV industry experts comprising of **Mr. Vikram Gulati**, (Director, National Automotive Testing and R&D Infrastructure Project, NATRIP), **Mr. Mukesh Bhandari** (Founder, Chairman and CTO, Electrotherm), **Mr. Chetan Maini** (Chief of Strategy & Technology, Reva-Mahindra Reva) and **Dr. Pravinray Gandhi** (Director of Corporate Research, UL) selected two winning teams, who will spend time at UL labs in Chicago during the summer of 2013 on developing working prototypes. The members of the two winning teams are:

Team 1: **Mr. Madan Taldevkar, Mr. Vaibhav Gandhi, Ms. Kimaya Kale, and Mr. Prathamesh Bhat.**

Team 2: **Mr. Kishan Suthar, Mr. Shubham Gupta, Mr. Varun Gupta, and Mr. Shreyas Vaidya.**

Support for the Institute

GMDC Chair at IIT Gandhinagar

Gujarat Mineral Development Corporation Ltd (GMDC), a 50-year-old company with primary interests in minerals, lignite, and energy, has set up a chair at IITGN in the areas of Materials, Minerals, Metallurgical Engineering and Earth Sciences. The GMDC Chair will enable the Institute to provide additional financial support to outstanding faculty and students beyond what is possible through the government grants.

Faculty News

Sponsored Projects

An Investigation on Eigenvalue Problems and Qualitative Theory of Fully Nonlinear Elliptic Equations, sponsored by NBHM. Principal Investigator: **Prof Jagmohan Tyagi**, Mathematics.

Consultancy Projects

• Design of Rehabilitation of Articulations of Naini Bridge for Dynasoure Concrete Treatments Pvt Ltd. Principal Investigator: **Prof Abhijit Mukherjee**, Civil Engineering.

• Industrial Computational Fluid Dynamics Activities for Hi-Tech OS. Principal Investigator: **Prof Murali Damodaran**, Mechanical Engineering.

Professional Activities

- ▲ **Prof Sharmita Lahiri** chaired a session at the International Conference on **Disnarration: The Road Not Taken**, IIT Bombay, March 1-2, 2013.
- ▲ **Prof Sudhir K. Jain** was Chief Guest at the 59th Annual Conference of the Indian Association of Cardiothoracic Surgeons in Mumbai during Feb. 14-17, 2013.
- ▲ **Prof Uttama Lahiri's** research work has been acknowledged by the Simons Foundation Autism Research Initiative (SFARI), which cited two of her recent publications in the IEEE Transactions of Neural Systems Rehabilitation Engineer-

ing (TNSRE). The report recognized the research focus on teaching social conversation skills by using an adaptive gaze-sensitive intelligent virtual-reality based platform to children with Autism Spectrum Disorder (ASD).

- ▲ **Prof Pratyush Dayal**, along with his collaborators from University of Pittsburgh (Prof A. C. Balazs and Dr. O. Kuksenk), have demonstrated that it is possible to re-assemble synthetic systems by computational modeling. In their recent publication in the Proceedings of the National Academy of Sciences, the authors demonstrate that Belousov-Zhabotinsky (BZ)

gels can assemble and re-assemble through interplay between chemical communication and light irradiation. The paper reveals a novel "life-like" behavior for synthetic systems, and also provides the mechanism to control it.

- ▲ **Prof Rita Kothari's** book **Memories and Movements: Borders and Communities in Banni, Kutch, Gujarat**, published by Orient Blackswan, was launched on Jan. 18, 2013. **Prof Rajmohan Gandhi** and **Prof Sudhir K. Jain** were the guests of honour. **Prof Mona Mehta** and **Prof Rosa Maria Perez** shared their impressions of the new book.

New Faculty

The following faculty joined IITGN during this quarter:

Name	Designation	Discipline	PhD/ Last Degree	Date of Joining
Dinesh Korjan	Adjunct Faculty	Design	Graduate Diploma in Industry Design, NID Ahmedabad, 1983	01.01.13
Rosa Maria Perez	Visiting Professor	Social Sciences	ISCTE, Lisbon, 1992	07.01.13
Vijay Thiruvengadam	Assistant Res. Professor	Physics and Biological Engineering	Jiwaji University, 2009	23.01.13
Sivapriya Kirubakaran	Assistant Professor	Chemistry and Biological Engineering	IISc Bangalore, 2007	23.01.13
Eric Renault	Visiting Asso. Professor	Computer Science & Engineering	University of Versailles, France, 2000	28.01.13
Achal Mehra	Professor	Humanities	Southern Illinois University, Carbondale, 1985	04.02.13
Pradeep Maheshwari	Assistant Res. Professor	Civil Engineering	University of New South Wales, Sydney (ABD)	26.02.13

Scholars-in-Residence

Name	Affiliation
Kalowatie Deonandan	Associate Professor, Department of Political Studies, University of Saskatchewan, Canada.

Activities at IITGN

New Building Inaugurated



A new 3,000 sq. m. building (Shed-5) constructed on the temporary campus at VGEC was inaugurated by **Prof Sudhir K. Jain**, Director, IITGN on Feb. 18, 2013. The building will house expanded laboratory facilities, provide office space to faculty and research scholars and meet the requirements of new class-rooms.

Short Courses/Workshops/Seminars

- ▲ IIT Gandhinagar Library in collaboration with IIM Ahmedabad Library organized the 9th annual meet and workshop

of INDEST-AICTE Consortium during Jan. 17-19, 2013. Over 200 library professionals from different parts of the country participated in the workshop.

- ▲ A short course on **Finite Element Methods, Constitutive Modeling and Applications**, Jan. 28 - Feb. 1, 2013. Resource persons included **Dr. Chandrakant S. Desai**, University of Arizona; **Dr. Abhijit Mukherjee**, **Dr. Dhiman Basu**, and **Dr. Amit Prashant**, IIT Gandhinagar. Forty-four professionals, students, and faculty from various parts of the country attended and was coordinated by **Dr. Amit Prashant** and **Mr. Nitin Shukla**.
- ▲ A short course on **Technology Strategy for Managers and Entrepreneurs** by **Mr. Paresh Vora**, Feb. 2, 3 and 9, 2013.
- ▲ A two-day event on **Heritage of Indian Astronomy** during Feb. 9-10, 2013 was hosted by IIT Gandhinagar in association with Alliance Française d'Ahmedabad as part of the Bonjour India 2013 Festival.

Scientists from India and France offered different lectures at the event, which also featured astronomical observations by Odyssey, the astronomy Club of IITGN.



- ▲ A workshop on **Fire Safety** was organized by the IIT Gandhinagar Safety Center (IITGN-SC) on March 2-3, 2013. Workshop faculty included **Dr. Venkatesh Kodur**, Michigan State University, USA; **Dr. Pravinray D. Gandhi**, Director, Corporate Research, Underwriters Laboratories, USA; and **Mr. G. B. Menon**, Fire Advisor (Retd), Government of India and founder president of National Association of Fire Officers (NAFO). Other speakers included

Mr. D. K. Shami, Fire Advisor, Government of India; **Mr. Hirak Dutta**, Executive Director, Oil Industry Safety Directorate, (OISD); **Mr. M. V. Deshmukh**, Fire Advisor and Director, Maharashtra Fire Services; **Mr. A. K. Sharma**, Director, Delhi Fire Service; **Mr. Debashis Kar**, Director General (Building), Kolkata Municipal Corporation. Nearly 150 people from all over India attended the workshop, which was organized by **Prof Chinmay Ghoroi**.

▲ A short course on **Geotechnical Aspects of Earthquake Engineering**, March 4-8, 2013. Resource persons included **Dr. Su-**

dhir K. Jain, **Dr. Ajanta Sachan**, and **Dr. Amit Prashant** from IIT Gandhinagar and **Dr. Debasis Roy** from IIT Kharagpur. Forty-three participants attended the course.

▲ A two-day workshop on **Promoting History of Science in India** on March 16-17, 2013. Eminent scientist and Padma Vibhushan awardee **Prof Roddam Narasimha** delivered the keynote address titled *Barbarous Algebra, Inferred Axioms: Eastern Modes in the Rise of Western Science*. Over 50 delegates from various parts of India attended the workshop. The event was coordinated by **Prof Jaison A. Manjaly** and **Prof Michel Danino**.

▲ A **Brain Storming Workshop** was organized on March 15, 2013 to evolve a road map for the academic programme in Earth Sciences at IIT Gandhinagar. About a dozen eminent experts in various disciplines of Earth Sciences participated in the seminar. The deliberations focused on the kind of academic and the R & D programmes that the Institute may initiate.

▲ A workshop on **Collaborating to Co-create the Future** by **Ms. Rashmi Datta**, Founder and Director of Dialog Services, March 23, 2013 for faculty of the Institute.

Student and Staff Activities

Blithchron '13

Blithchron, the two-day cultural festival of IIT Gandhinagar was back with its fifth edition from Jan. 19-20, 2013. A record 19,000 visitors attended the festivities. More than 20 events, including a rock concert, music shows, drama, a fashion show and games were organized, in which more than 30 institutes participated. Day 2 saw thousands of students through **Pronites**, the rock concert featuring **Agnee**, an Indie-Rock band, and the event **String Theory** in which various bands from across the state were pitted against each other. **BMX** (bicycle motocross), attracted major crowds on the second day as the professionals from Mumbai enthralled the audience with their stunts.



organizing team and over 40 volunteers worked diligently for the smooth conduct of the games that often extended past midnight. The event was coordinated by **Mr. Wasim Khan**, sports secretary and **Mr. Prashant Patel**, chemical engineering, 3rd year.

Mehfil-e-Adab: An Evening of Urdu Poetry

An evening of Urdu poetry on Feb. 6, 2013 marked the end of the half-semester course on **Urdu Script and Poetry** by **Ms. Hamida Banu Chopra** (University of California, Berkeley). A large audience of faculty, staff and students was enthralled by the poetry of famous Urdu poets recited by **Ms. Chopra** and her students.



VGEC-IITGN Club. IITGN will offer educational programmes to the VGEC students. **Prof Sharmita Lahiri** led the first of these sessions on March 17, 2013 with a workshop on **Group Discussions**. The series is coordinated by **Prof Achal Mehra**.

Staff Training & Educational Programme (STEP)

A training programme on **Advance Microsoft Excel and Access** was conducted on Feb. 2-3, 2013 and Feb. 23, 2013, respectively. Forty-seven staff members attended the events.

Ms. Jasbir Kaur Thadani, Counselor, gave a talk on **Psychology's Role While Choosing a Career** on DD Girnar, which was telecast live in 36 countries on Feb. 13, 2013.

Students on Dean's List Felicitated

One hundred and fifty three BTech students made it to the Dean's List, which recognizes students with an SPI of 8.5 or more. The students received a letter of appreciation and a topical book, **Indian Summer** by **Alex Von Tunzelmann**, from the Director, **Prof Sudhir K. Jain**. Further details are available at http://www.iitgn.ac.in/academic_deanlist.htm.

Basanta Panchami Celebrations

IITGN celebrated **Basanta Panchami** on Feb. 16, 2013. The day began with Saraswati Puja and community prasad distribution. A cultural programme titled **Basanta Utsav** was organized in the evening, attended by students, staff and faculty members along with their families. The participation of children in many cultural activities was a highlight of the evening. Postgraduate and PhD students adapted and performed a play based on Sarat Chandra Chattopadhyay's famous short story **Lalu**.

Halla Bol'13



The 3rd edition of **Halla Bol**, the all-night intra-college sports festival, was organized from March 15-24, 2013. The festival comprised 11 entertaining games played over 10 days. The traditional rules were given a twist or two to make the games more unpredictable and fun to play and watch. More than **400 matches** attracted **2,400 attendees** from students, staff and faculty, who formed mixed teams. A 50-member core-

Picnic in Palaj



More than 155 IITGN community members participated in a picnic organized at the IIT Gandhinagar permanent campus site in Palaj, Gandhinagar, along the banks of the Sabarmati River on Feb. 17, 2013. The organizing team comprised **Prof Srinivas Reddy**, **Ms. Komal Vadhvani**, **Mr. Santosh Raut**, **Mr. Dharmendra Panchal**, and **Mr. Babloo Sharma**.

VGEC-IITGN Club

More than 200 first year students of VGEC have signed up for the newly created

Reflections



The IITGN Counseling Service organized **Reflections**, an interactive session with the 4th year BTech students on March 24, 2013. The event involved students sharing the experience of their journey at IITGN with faculty members, the director, dean of academic programmes and dean of student affairs, reflecting on their experience with their batch. The event was coordinated by **Ms. Jasbir Thadani**, counselor, IITGN.

Republic Day Celebrations

The 64th Republic Day celebrations on Jan. 26, 2013 began with the faculty, staff and students participating in a **Green Run**. Later the Director, **Prof Sudhir K. Jain** unfurled the national flag. The day concluded with a cultural programme by IITGN community.

Blood Donation Drive

Ninety five units of blood was collected in two Blood Donation Drives conducted by IITGN students with the Indian Red Cross Society and the Prathama Blood Center. The event was organized by **Mr. Yash Kotak**, 3rd year and **Mr. Shashank Heda**, 2nd year electrical students.

Musical Sensation of the Year (MuSTY) 2013

Among the six finalists who participated in the final round on Jan. 18, 2013; **Ms.**

Aparna Menon, MTech won the title of the Musical Sensation of the Year 2013. **Mr. Madan Taldevkar**, mechanical engineering, 2nd year was the first runner-up.

Life Skill Series

Job Interviews: How to Nail Them was held on Jan. 12, 2013. **Ms. Ekta Prashnani**, **Mr. Tarkeswar Singh**, **Mr. Gaurav Dubey**, **Mr. Sauryaprakash Sinha**, **Mr. Mohit Verma**, **Mr. Dhruv Chokshi** and **Mr. Shyamal Kishore**, all 4th year students, shared their successful job interview experiences with an audience of 60 students. The session was coordinated by **Mr. Dhruv Chokshi** and **Mr. Shyamal Kishore**. **Prof Atul Bhargav** was guest expert at the session.

Student's Patent (Pending)

Local Scale, Rotation and Position-Invariant Word Detection for Optical Character Recognition, India PLW Ref. 10010-03668, filed Dec. 31, 2012. Inventors: **Mr. Sri Kaushik Pavani**, Research Scientist, Ricoh Innovations Pvt Ltd and **Ms. Ekta Prashnani**, undergraduate student, electrical engineering, IITGN.

Student Achievements

In a nationwide photography competition **Darkroom** conducted by Symbiosis Centre for Information Technology (SCIT), Pune, Jan. 2013 **Mr. Bhaskarjyoti Das**, chemical engineering, 3rd year was declared the winner of the theme Silhouette and **Mr. Atharva Patil**, mechanical engineering, 3rd year was declared the winner of the theme Emotions. **Mr. Bhaskarjyoti Das**, was also declared the overall grand winner among around 500 entries.

Student Publications and Research

- ▲ **Mr. Akshay Jain** (co-authors: **Mr. Prateek Nyati**, **Mr. Nakul Nuwal**, **Prof Chinmay Ghoroi**, **Mr. Adnan Ansari**, and **Dr. Pravinray D. Gandhi**) presented a paper **UL-IIT Gandhinagar Kitchen Fire Safety System at Suppression, Detection and Signaling Research and Applications Conference**, Orlando, Florida, Feb. 26, 2013.
- ▲ **Mr. Chetas Joshi** (co-authors: **Prof Uttama Lahiri**, and **Prof Nitish Thakor**) presented a paper **Classification of Gait Phases from Lower Limb EMG: Application to Exoskeleton Orthosis** at IEEE EMBS (Engineering in Medicine and Biology Society) **Special Topic Conference on Point-of-Care Healthcare Technologies**, Bangalore, Jan. 16-18, 2013.
- ▲ A report by PhD student **Ms. Payel C. Mukherjee**, on **X Theory/Praxis Course** (June 18-July 14, 2012) jointly organized by Center for Contemporary Theory Baroda and Osmania University Hyderabad is being published in the bi-annual Newsletter of the **Forum of Contemporary Theory**.
- ▲ **Mr. Sumitava Mukherjee** (co-authors: **Prof Jaison A. Manjaly** and **Mr. Neeraj Kumar**) presented a poster titled **Consequences of Priming Money on Insight Problem Solving** at the 100th Indian Science Congress, Kolkata, Jan. 3-7, 2013.
- ▲ **Mr. Sumitava Mukherjee** and **Mr. Neeraj Kumar**, doctoral students, delivered a talk and presented a poster at the 20th International Conference on **Toward a Science of Consciousness (TSC)** organized by Arizona Center for Consciousness Studies, Agra, March 3-9, 2013. A poster co-authored by **Mr. Sumitava Mukherjee** was also presented at the conference.

Sports News

Mr. Chetas Joshi, senior undergraduate, secured 3rd position in the **Table Tennis Tournament** at Khel-Mahakumbh 2012-13, including a cash prize of Rs. 2,000 and represented Ahmedabad at the Inter District Table Tennis Championship at Rajkot.

Petro Cup 2013

The men's basketball team, with outstanding scoring by **Mr. Suresh Choudhari** and **Mr. Ravi Pal**, defeated PDU 65-38 and won the **Petro Cup** title three years in a row.

In the women's category, **Ms. Shivani Rani** won gold medals in discuss throw,

shot put throw, and javelin throw. In the men's category, **Mr. Umesh Singh** won gold medals in discuss throw and javelin throw, whereas **Mr. Chetan Patil** won silver medal in discuss throw and bronze medal in shot put throw.

Inter Department Table Tennis Championship 2012-13

The Electrical team, comprising **Mr. Chetas Joshi** (captain), **Mr. Ameya Joshi**, **Mr. Rajat Choudhary**, **Mr. Shubham Ranka**, and **Mr. Lingala Thrinath Reddy** won the final match against Chemical by 3-0 on Feb. 7, 2013.

Capital Season League (CSL)

With the joint effort of the sports departments of IIT Gandhinagar, Pandit Deendayal Petroleum University (PDU) and Gujarat National Law University, the first edition of CSL was held from March 11-18, 2013, featuring volleyball and basketball. IIT Gandhinagar won the basketball tournament while in volleyball it won second place, behind PDU. IITGN students **Mr. Ravi Kumar** and **Mr. Endla Naveen** bagged the title of Player of Tournament in both basketball and volleyball respectively. **Mr. Wasim Khan** (sports secretary) and **Mr. Aditya Samant** (basketball secretary) facilitated the smooth conduct of CSL.