

# annual report

## 2011-12



Indian Institute of Technology Gandhinagar  
VGEC Campus, Chandkheda, Ahmedabad 382 424







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# From the Directors Desk

The Institute stands at an interesting point of time: almost four years old, with the first batch of undergraduate students about to graduate and take next step in their career. This is a critical juncture to look back at what the Institute has done in the last one year and where it stands today. Some facts first:

1. The unique strategy IITGN adopted for faculty recruitment is proving far more successful than anticipated as evidenced from the outstanding quality of faculty we are recruiting. The key components of this strategy include: a) massive communication effort with academics, post-doctoral researchers and graduate students the world over, b) taking quick decision and making offers of appointment, c) offering additional financial incentives through donations by awarding Excellence-in-Research Fellowships, and d) focusing on outstanding credentials rather than the candidate's area of specialization.
2. The Institute is able to invite a good number of visiting academics from around the world. For instance, a Visiting Professor from Lisbon taught Anthropology, a younger colleague from France taught French language, and a colleague from EPFL in Switzerland taught Mechanical Engineering during the year.
3. The Institute implemented new futuristic B. Tech. and M. Tech. curricula, with tremendous innovations. The B. Tech. programme now starts with a five-week Foundation Programme, where the students focus on creativity, values and ethics, cultural issues, social engagement, sports and physical fitness.
4. The Department of Information Technology (DIT) of the Government of India has funded an incubation centre, and the Department of Earth Sciences of the Government of India has established the Varahamihira Chair in Earth System Science and Engineering. The Government of Gujarat has sanctioned Rs 10 crores for setting up a Centre of Excellence in Bio-Medical Engineering.
5. The path has now been cleared for us to take over the land to develop our permanent campus. A futuristic masterplan for the campus is almost ready. The Institute envisages a campus that promotes interaction between faculty and students, between the students, and between scholars of different disciplines. It is planned to be a 'green campus' with minimal energy consumption.





As we grow, we need to find new ways and means to retain and enhance our spirit of innovation and entrepreneurship, and maintain an enthusiastic environment wherein people feel empowered to do things, to take on challenges, to innovate, and not be scared of making mistakes.

Clearly, there is a lot happening in the Institute that its faculty, staff and students, as well as its well-wishers and supporters can be truly proud of. However, we still have a long way to go. While we will continue to do what we are already doing well, the Institute needs to develop new focus areas:

1. Development of permanent campus that will attract visitors and that will be conducive to great scholarly work for decades ahead.
2. Recruitment of the most outstanding Ph. D. and M. Tech. scholars who will bring glory to the country through their ground-breaking research.
3. To support excellence through donor funds (where public funds may not be used), we must significantly scale up our efforts to raise philanthropic funds.
4. To develop strategic partnerships with academic world as well as the industries. On one hand we wish to partner with top universities in the world, on the other hand we would like to engage the best undergraduate colleges in India.

A lot of what the Institute has achieved in its short life has been possible due to tremendous hard work and confidence of the faculty, staff and students of this Institute, and faith and encouragement of numerous well-wishers of the Institute, its Board and Senate members, and the officials in the Government of India and the Government of Gujarat. The Principal, faculty, and students of VGEC Chandkheda have been tremendous hosts to us. The generosity of Adani Group in providing their flats for accommodation of our students is exemplary. The funds raised from well wishers in its short span of life by the Institute can be a matter of envy for many well established schools with large alumni body.

It is too early for the Institute to claim world-class research that will address societal problems in a substantial way. However, the Institute can certainly claim numerous innovations in both curriculum and in governance. Any visitor to the Institute can easily sense the enthusiasm and positive energy all around, in students, staff and faculty. As we grow, we need to find new ways and means to retain and enhance our spirit of innovation and entrepreneurship, and maintain an enthusiastic environment wherein people feel empowered to do things, to take on challenges, to innovate, and not be scared of making mistakes. With huge investments being made on us, where numerous of our countrymen lack basic needs for a dignified living, it is important that we do not lose sight of our goals and the critical elements to achieve those goals.

# Vision Mission and Values

Goals  
Vision  
Mission  
Values  
Principles

## Goals

- ▲ To build and develop a world class institution to create and impart knowledge at the undergraduate, postgraduate and doctoral levels, contributing to the development of the nation and humanity at large.
- ▲ To develop leaders with vision, creative thinking, social awareness and respect for our values.
- ▲ To foster excellence in teaching and research to make a global impact.
- ▲ To engage in path-breaking research that would influence national policies.
- ▲ To pursue sustainable technological solutions to societal problems.
- ▲ To focus on lean engineering solutions for sustainable development.
- ▲ To be the leader for academic and industrial collaborations in various disciplines, nationally and internationally.
- ▲ To create awareness of the true significance of learning and teaching.
- ▲ To enrich local schools and communities through value added interactions.
- ▲ To encourage excellent communication skills as part of the institutional culture.
- ▲ To prepare students not just for their first job, but their last job as well.
- ▲ To establish the process of learning that is free, fulfilling, and an enjoyable experience.
- ▲ To provide an enabling environment to nurture critical and creative minds, and to propel them to greater heights of excellence in their pursuits.
- ▲ To create a vibrant atmosphere that breeds front runner innovators, scientists, engineers, entrepreneurs, academicians and thinkers of tomorrow.
- ▲ To provide opportunity for students to learn from wherever, however, and whatever they choose to study.
- ▲ To make IIT Gandhinagar the preferred destination for future generations of students, staff, and faculty.

## Mission

IIT Gandhinagar, as an institution for higher learning in science, technology and related fields, aspires to develop top notch scientists, engineers, leaders and entrepreneurs to meet the needs of the society-now and in the future. Furthermore, in this land of Gandhiji, with his spirit of high work ethic and service to the society, IIT Gandhinagar seeks to undertake ground breaking research, and develop breakthrough products that will improve everyday lives of our communities.

## Vision

- ▲ To shape IIT Gandhinagar into an exciting place for learning, teaching, and research.

## Values

- ▲ Meritocracy
- ▲ Unparalleled quality and excellence
- ▲ Honesty, integrity, sincerity and devotion
- ▲ Trust and freedom with accountability
- ▲ Appreciation and celebration of creativity
- ▲ Willingness to try new ideas and allow mistakes
- ▲ Social and Moral responsibility
- ▲ Respect for every individual, and diversity
- ▲ Co-operation, collaboration and team work

## Principles

- ▲ Lifelong commitment to learning
- ▲ Encouragement of merit
- ▲ Passion and motivation for work
- ▲ Professionalism
- ▲ Respect for law
- ▲ Concern for the improvement of the society
- ▲ Transparency in functioning of the Institute
- ▲ Dedication to the Institute

# Academics

Programmes Offered  
Major Highlights  
Scholarships for Students  
Distinguished Honorary Professors  
Guest Professors  
Distinguished Visitors  
Conferences/ Symposia/ Workshops/Seminars  
Invited Lectures  
Short Courses

## Programmes Offered

### Undergraduate (B. Tech.)

Chemical Engineering  
Electrical Engineering  
Mechanical Engineering

### Postgraduate (M. Tech. and D. IIT)

Chemical Engineering  
Civil Engineering  
Electrical Engineering (to start in July 2012)  
Materials Science and Engineering (to start in July 2012)  
Mechanical Engineering (to start in July 2012)  
Post-graduate diploma in Engineering (D.IIT)

### Doctoral

Chemical Engineering  
Chemistry  
Civil Engineering  
Cognitive Sciences  
Economics  
Electrical Engineering  
English  
Mathematics  
Mechanical Engineering  
Philosophy  
Physics  
Sociology

## Major Highlights

IIT Gandhinagar aspires to be a leader and a trend-setter in education. In this endeavour, the Institute enthusiastically encourages innovative and experimental approaches in education consistent with its mission and vision. Some of the recent initiatives that have been taken are outlined below.

### Academic Advisory Council Meeting

The Institute has formed an Academic Advisory Council to guide/advise IITGN on matters pertaining to faculty recruitment, the role of young faculty in administration, feedback mechanisms on the Institute's progress, development of an academic master plan and administrative structures. The Council comprises of **Prof. Bakul Dholakia**, former Director, IIM Ahmedabad, **Prof. Paul Jennings**, former Vice-President and Provost, California Institute of Technology, Pasadena, USA, **Prof. Richard Miller**, President, Franklin W. Olin College of Engineering, Needham, MA, USA, **Prof. K. N. Panikkar**, Chairman, Kerala Council for Historical Research, Thiruvananthapuram, **Prof. Surendra Prasad**, former Director, IIT Delhi, **Dr R. Rangarajan**, Associate Professor, Physical Research Laboratory, Ahmedabad; **Prof. Dheeraj Sanghi**, Professor, Dept. of Computer Science, IIT Kanpur, **Shri Prafull Anubhai Shah**, Chairman, Board of Management, Ahmedabad University, **Prof. S. P. Sukhatme**, former Director, IIT Bombay, and **Prof. Satish Tripathi**, President, State University of New York, Buffalo, USA. This august group, in its first meeting on December 1, 2011 at the Institute, held extensive discussions on various issues. Visual Gallery at [http://www.iitgn.ac.in/administr-ation\\_aac.htm](http://www.iitgn.ac.in/administr-ation_aac.htm).



Academic Advisory Council Meeting





### Leadership Conclave

Each year the Institute invites the most eminent well wishers of the Institute from India and abroad to a day-long Leadership Conclave to benefit from their collective wisdom. Their rich and varied experience acts like a guiding hand for the Institute in its quest to best address short- and long-term strategic matters. The second Leadership Conclave was held on December 2, 2011. It was attended by **Prof. Bakul Dholakia**, former Director, IIM Ahmedabad, **Prof. Paul Jennings**, former Vice-President and Provost, California Institute of Technology, Pasadena, USA, **Dr Anil Kakodkar**, Chairman, Board of Governors, IIT Bombay, **Shri Sanjay Lalbhai**, Chairman and Managing Director, Arvind Mills Pvt. Ltd, Ahmedabad, **Dr Achal Mehra**, Editor, Little India Group, USA, **Prof. Richard Miller**, President, Franklin W. Olin College of Engineering, Needham, MA, USA, **Shri Kamal Nanavaty**, President, Strategy Development, Reliance Industries Limited, **Shri Kushal Sacheti**, CEO, Galaxy, New York, **Shri Maheswar Sahu**, Principal Secretary, Industries & Mines, Government of Gujarat, **Prof. Dheeraj Sanghi**, Professor, Dept. of Computer Science, IIT Kanpur, **Shri Arvind Singhal**, Chairman, Technopak Advisors Pvt Ltd. Gurgaon, **Prof. S. P. Sukhatme**, former Director, IIT Bombay and **Prof. Satish Tripathi**, President, State University of New York, Buffalo, USA in addition to a few IITGN faculty. The Conclave discussed various aspects related to positioning of the Institute vis-à-vis its aspirations, issues related to infrastructure development (in particular the new campus), fund-raising strategies and forging partnerships with various academic, industrial, and government agencies. Visual Gallery at [http://www.iitgn.ac.in/administration\\_leadership.html](http://www.iitgn.ac.in/administration_leadership.html).

### New Undergraduate Curriculum

IITGN launched its new B. Tech. curriculum starting with a five-week **Foundation Programme** (July 19 - August 23, 2011) for the batch of 2011. The Programme focussed on social awareness and emphasized values, creativity, sports and physical activities, team work and communication. The inaugural address of the programme was delivered on July 19, 2011 by **Shri N. R. Narayana Murthy**, ex-Chairman, Infosys. The programme included a wide variety of activities such as debates, discussions, workshops on diverse topics (free-hand sketching, clay modeling, origami, photography, and dance & theatre), visits to places of special interest, presentations by

eminent persons, musical performances and games. Some of the speakers included **Ms Kalpana Sharma** (Gender Issues), **Prof. K. P. Jayasankar** (Urban Poverty), **Mr Jaideep Hardikar** (Farmer's Suicides), **Mr Devinder Sharma** (Agriculture Sector), **Prof. Sudarshan Iyengar**, **Prof. P. Balaram**, **Prof. P. V. Indiresan**, and **Prof. A. P. Kudchadker**. An Indian classical music recital on the Mohan Veena by **Pt Vishwamohan Bhatt** and a vocal recital by **Mrs Arti Anklikar-Tikekar**, were held on August 11 and August 18, 2011 respectively. The incoming students were also introduced to historical places through a field trip to Lothal, a Heritage Walk in the old city of Ahmedabad and a visit to the Calico Textile

Museum, Ahmedabad. On the last day of the Foundation Programme, the students organized a cultural performance to showcase their own talents. The concluding session of the Foundation Programme was held on August 23, 2011 and was attended by students, staff and faculty. In the course of the evening some of the new students shared their experiences of the five weeks. **Ajinkya Kulkarni**, Student General Secretary led the first year students to take a pledge to uphold the ideals of the Institute and abide by its rules. A visual gallery that captures the Foundation Programme is available at [http://www.iitgn.ac.in/iit\\_gallery16.htm](http://www.iitgn.ac.in/iit_gallery16.htm).

### Outstanding Academic Performance to be Recognized

The Institute has set up a system to recognize every semester, undergraduate students with outstanding academic performance. A student with an SPI of 8.5 or more, and also satisfying other criteria set forth by the Academic Senate, is placed on the **Dean's List**. Each student on the Dean's List receives a letter of

appreciation from the Dean of Academic Programmes and a topical book.

### IIT Gandhinagar Junior Fellowship

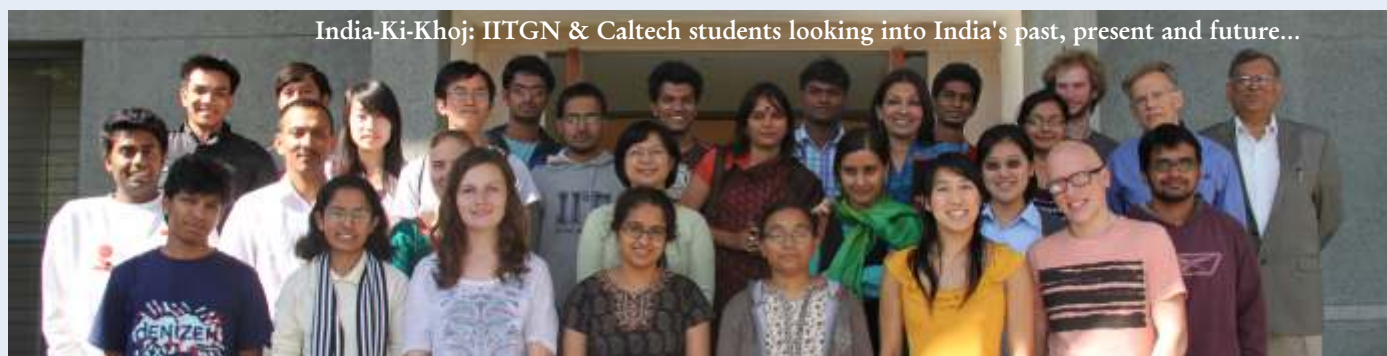
The Board of Governors has approved a proposal through which the Institute will encourage its graduating students to explore their professional interests in a somewhat unconventional manner. Initially four graduating students will be offered the **IIT Gandhinagar Junior Fellowship**. The awardees will spend one year at IITGN performing different tasks before embarking on a career of their choice.

### New M. Tech. Curriculum

M. Tech. programmes in Civil Engineering and Chemical Engineering started at the Institute in July 2011 with an intake of 14 students. M. Tech. programmes in Electrical Engineering, Mechanical Engineering and Materials Science and Engineering will be started from July 2012. The admission process for all the five M. Tech. programmes has begun.

### India-Ki-Khoj: IITGN & Caltech students looking into India's past, present and future...

Ten Caltech undergraduate students, hosted by IITGN and partnered with ten IITGN students, under a student exchange programme, embarked on a unique journey of social and cultural exploration of India through an event aptly named India-Ki-Khoj during December 12-21, 2011. It was like looking into a kaleidoscope to see India in its myriad hues. The event dwelled on themes as varied as the caste and community structures in India, ancient Indian civilization, challenges of globalization and liberalization, science and technology, media and advertising, economic reforms and their impact on the cultures of self and market, democratic institutions and non-governmental organizations. The programme was inaugurated by the eminent dancer and activist **Dr Mallika Sarabhai**. Lectures by leading academicians and thinkers such as **Mr Michel Danino**, **Prof. Suguna Ramanathan**, **Mr Santosh Desai**, **Prof. Howard Spodek**, and **Dr Sandeep Pandey** were supplemented by field-trips to Lothal (Indus Valley Civilization site), Sabarmati Ashram, and Bhasha, center for tribal languages and identity at Tejgadh, Chhota Udaipur, Panchmahal District. India-Ki-Khoj was coordinated by **Prof. Rita Kothari** and **Prof. Jaison Manjaly** from IITGN and **Ms Athena Castro** from Caltech.



## Non-degree Students in Post-Graduate Programme

The Institute has been providing opportunities to full time students of other institutions to pursue course work or research for one or two semesters at IITGN. Starting spring semester 2010-11, this opportunity has been made available both at UG and PG levels to non-students as well. Interested persons can credit one or two courses at a time, or can do one or two semesters of full course load at IITGN.

## Financial Support to students for Participation in Conferences

Students can now get partial financial support from the Institute to participate in conferences within India and abroad to present their work carried out at IITGN. The Board of Governors has approved this initiative to provide wider academic exposure and experience to the students and reward excellence. The Institute's one Ph. D. and two undergraduate students have availed the Institute's support to attend conferences this year. **S. Chandrasekaran**, a Ph. D. student, and **Yogesh Goyal**, Fourth Year, Chemical Engineering student attended conferences in Bangalore, while **Prathamesh Arvind Juvatkar**, Fourth Year, Electrical Engineering student attended one in South Carolina, USA.

## Start-Early Ph. D. Fellowship

In order to attract students of IITs, NITs, and other top engineering colleges in the country to IITGN's Ph. D. programme, the Institute is offering direct admission to fourth year B. Tech. students regardless of whether they have qualified GATE. An additional fellowship of Rs 10,000 per month will be given to the students who qualify GATE.

## Summer Research Fellowship for IITGN Faculty

The Institute has set up Summer Research Fellowships for faculty members in an effort to intensify research activities on campus during the summer when most faculty members do not have teaching

responsibilities. These fellowships aim to promote more collaborative research at the Institute and encourage faculty to explore the possibility of seeking external funding for joint proposals. The presence of faculty on campus also allows them to spend significantly more time with the graduate students to take stock of their progress and chalk out plans for the next academic year.

## Young Researchers Conclave (YRC)

With a view to attract excellent teachers and researchers to Indian academia, in general, and to IIT Gandhinagar, in particular, the Institute invited 50 young researchers (postgraduate students and post doctoral researchers), of Indian origin from around the world to the first Young Researchers Conclave (YRC) held on December 27-28, 2011. The young researchers were exposed to the fast-changing scenario of research in India and the excellent research and teaching opportunities now available. Several eminent academicians were invited to address the conclave including **Prof. Surendra Prasad** (IITD), **Prof. Sanjay Mittal** (IITK), **Prof. Jaywant Arakeri** (IISc), **Dr Manish Gupta** (IBM), **Mr Uday Chand** and **Mr S. P. Singh** (Reliance). Several young faculty members of IITGN also participated in the discussions. The Conclave was organized by **Prof. Supreet Saini** (IITGN), **Sourindra Choudhuri** (Graduate Student, Princeton) and **Niranjan Srinivas** (Graduate Student, CalTech) and was sponsored by the Government of Gujarat. Further details on <http://www.iitgn.ac.in/YRC/YRC.html>.

## PRL and IITGN to Collaborate Seamlessly

In an effort to pool local scientific and technological expertise, the Physical Research





## Faculty Excellence Awards

IITGN has instituted awards for excellence for faculty in the field of teaching, research, institution building and outreach. These awards are a way of recognizing exemplary dedication. Dr A. P. J. Abdul Kalam presented the first set of Faculty Excellence Awards on November 11, 2011. The award for excellence in teaching was given to **Prof. Sameer V. Dalvi** (Chemical Engg) and **Prof. Sharmita Lahiri** (Humanities), while the award for excellence in institution building was given to **Prof. Jaison Manjaly** (Humanities) and **Prof. Supreet Saini** (Chemical Engg). Visual Gallery at [http://www.iitgn.ac.in/iit\\_gallery13.htm](http://www.iitgn.ac.in/iit_gallery13.htm)



Laboratory (PRL) Ahmedabad and IITGN have agreed to seamlessly share their academic and research resources with each other. This is expected to significantly promote collaborative research and maintain a steady exchange of scientific ideas. The students of one Institute may credit courses and use research facilities at the other Institute. Faculty from both institutions will also be encouraged to deliver lectures and teach courses at the partnering institutions. A joint Ph. D. programme has also been initiated under which the participating students will obtain their degrees from IITGN. They will follow an academic programme recognized by both PRL and IITGN. An MoU to this effect was signed on November 17, 2011.

## Summer Research Opportunity for Faculty of Other Engineering Institutions

The Institute strongly believes in inclusive growth and is conscious of the role it has to play in the development of the wider academic community of the country. This programme specifically aimed to help other institutes create better teaching and research environments. With this in mind the Institute invited faculty of other engineering institutions to provide them with the opportunity to participate in ongoing

research projects at IITGN, be mentored by an IITGN faculty and participate in laboratory development and help design new elective courses.

## Institute Fellow Award

The Board of Governors has approved a system to recognize individuals whose contributions are expected to have a significant and long-lasting impact on the Institute, by conferring the **Institute Fellow Award** on them. The awardees may be from within or outside the Institute. The Fellowship will normally be awarded at the annual Convocation of the Institute and will include a citation and a plaque.

## Children's Education Fund

In keeping with its strong sense of commitment to the well-being of its community members the Institute has set up the Children's Education Fund for children who are otherwise not eligible to receive the Institute's support but whose parents provide essential services to the effective functioning of the Institute. The beneficiaries include daily wage labourers and persons employed by the contractors. This fund provides Rs 5000 to every family per year to cover the cost of school education up to class 12.

### Staff Excellence Award

The first set of Excellence Awards for the non-teaching staff were presented to **Mr R. T. Shah** (Asst Registrar, Finance & Accounts), **Mr Santosh Raut** (Jr Superintendent), **Mr Supresh Thaleshri** (Jr Lab Attendant) and **Mr Ganesh Thakore** (Office Attendant) on January 26, 2012 as part of the Republic Day celebrations.



### Staff Skill Development Initiative

The Institute has initiated a programme to enable non-teaching staff to enhance their knowledge and skills through short courses and workshops conducted in-person or on-line. On successful completion of the training, staff members are reimbursed the registration fees.

The following staff members have taken advantage of Staff Skill Development Initiative of the Institute by attending locally available short courses during the year: **Mrs Ritu Agarwal** (Personal & Professional Success through Cybernetic Management), **Mr Santosh Raut** (Managerial Effectiveness),

**Mr Pijush Majumdar** (Challenges in Delegation), **Mr Piyush Vankar** (English Language Programme), **Mr Darshan Patel** (Basic English), **Mr Farhan Babu** (AutoCad with 3D), **Mr Gaurav Shukla**, **Mr Santosh Raut**, and **Mr Sanjeev Pandey** (Development Workshop for Secretaries/P. A.s), **Mr Shreejit Menon** (Office Management in Educational Institutions) and **Ms Panna Chaudhary** (Administrative Effectiveness, Strategies for Managing Libraries in the Future, and Librarians' Day and Seminar: Networking Libraries in Gujarat for Resource Sharing).

### Scholarships for Students

#### New Merit Scholarships Instituted

IITGN has instituted several merit scholarships for outstanding performance in academics, sports, art and culture, and social work and leadership. These scholarships are different from the Merit-cum-Means scholarships and will be awarded only on the basis of achievements in respective fields. The scholarship carries a stipend of Rs 2,000 per month for 10 months. These Merit scholarships for the academic year 2011-12 have been awarded as follows:

#### Scholarship for Excellence in Academics

- ▲ Swetava Ganguli
- ▲ Prathamesh A. Juvatkar
- ▲ Yogesh Goyal
- ▲ Vipul Goyal
- ▲ Shruti Jain
- ▲ Pratham Shah
- ▲ Vibhav V. Katre
- ▲ Aishwarya Agrawal
- ▲ Dhwanil P. Shukla

#### Scholarship for Excellence in Sports

- ▲ Suresh Kumar Chaudhary
- ▲ Vrushiket Patil
- ▲ Vishvendra Joshi
- ▲ Shruti Jain

#### Scholarship for Excellence in Social Work & Leadership

- ▲ Sarthak Jain
- ▲ Monica Yadav

### Merit-cum-Means Scholarships

Merit-cum-Means (MCM) scholarships were awarded to 74 students of the general and OBC categories during the year 2011-12. These are awarded to meritorious students (a high JEE rank for first year students and CPI greater than 6.5 for senior students), whose parents have limited income (up to Rs 4.5 lakhs per year). An MCM scholarship carries Tuition Fee waiver (current value Rs 50,000 per year) and Rs 1,000 per month for ten months. In addition, tuition fee waiver (Freeship) was awarded to 29 students who did not qualify for MCM on merit but needed financial assistance.

All students of SC/ST category avail the

tuition fee waiver. In addition, 52 students in this category whose parents' income was within the limit prescribed for MCM scholarships were granted the facility for free food in the student mess and Rs 250 per month for ten months.

### Gita and Prithwish Goswami Scholarship

The Gita and Prithwish Goswami Scholarship carries Rs 1500 per month for 10 months. The Institute also awards the recipients a tuition fee waiver if they satisfy the income criterion for MCM scholarships. **Lingala Thrinath Reddy** is the recipient of this award for the year 2011-12.

### S. C. Mehrotra Scholarships

The S. C. Mehrotra Scholarship carries Rs 1500 per month for 10 months. The Institute also awards the recipients a tuition fee waiver if they satisfy the income criterion for MCM scholarships.



**Gunturu Anusha**, a fourth year B. Tech. student and recipient of last year's S. C. Mehrotra Scholarship, continues to receive the scholarship.



**Vipul Goyal**, a third year B. Tech. student and recipient of last year's S. C. Mehrotra Scholarship, continues to receive the scholarship.



**Yash Goyal**, a second year B. Tech. student is the new recipient of S. C. Mehrotra Scholarship for the year 2011-12.

## Distinguished Honorary Professors

- 1 **Prof. Suhas P. Sukhatme**, Professor Emeritus, Indian Institute of Technology Bombay, received his Sc. D. (Doctor of Science) from M.I.T. in 1964. Prof. Sukhatme is known for his outstanding contributions to teaching and research. He is the author of two widely known text books on Heat Transfer and Solar Energy. Prof. Sukhatme is the recipient of many honours and awards including the Prince of Wales Gold Medal from BHU, 1958, the Shanti Swarup Bhatnagar Prize, 1983 and the Om Prakash Bhasin Foundation Award for Engineering, 2001. He was the first recipient of the Lifetime Achievement Award of the Indian Institute of Technology, Bombay in 2001. He was conferred an honorary Doctor of Science by the Banaras Hindu University in 2001. He was awarded Padma Shri by the Government of India in 2001.
- 2 **Prof. J. B. Joshi**, a Chair Professor at DAE-Homi Bhabha National Institute, is also the J. C. Bose Fellow of the Institute of Chemical Technology, Mumbai. He did his BE, ME and Ph.D in Chemical Engineering from the University of Mumbai in 1971, 1972 and 1977, respectively. He won the INSA young scientist medal in 1981, and the Amar-Dye-Chem Award for Excellence in Research and Development in 1983. Prof. Joshi has published over 300 papers and 50 monographs/book chapters/State-of-the-Art Reviews. Many of Prof. Joshi's designs and products are implemented in industry. He has also taken the initiative to promote science awareness among school going students.

## Guest Professors

The following academicians are associated with the Institute as Guest Professors. In the capacity, a Guest Professor commits to spend at least ten days in a year at the Institute to contribute to its tryst with excellence.

- 3 **Dr Nikhil Balram**, President and CEO of Ricoh Innovations Inc., was conferred the 2011 Alumni Achievement Award by Carnegie Mellon University, Pittsburgh. Dr Balram is a renowned innovator and expert on display technology and consumer electronics. The products that he and his team have developed have won numerous awards. He has served in executive positions in several companies including Faroudja, Sage, Genesis Microchip, SONICblue, National Semiconductor and Marvell Semiconductor. He has numerous patents, technical papers and books. He received his BS, MS and Ph. D. degrees in Electrical Engineering, from Carnegie Mellon University.
- 4 **Prof. Vijay Gupta**, Director, GD Goenka World Institute, New Delhi is well known for innovations in teaching and evaluation methods and for his books and teaching aids. During his long tenure at IIT Kanpur, he taught a wide range of courses and held many important positions, including the Dean of Academic Affairs. He was Gold Medalist in B. Tech. from IIT Delhi. He obtained his Ph. D. degree from the University of Minnesota in 1972.



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- 5 **Prof. Suchitra Mathur**, Associate Professor of English at IIT Kanpur, is a teacher and scholar in the fields of Indian English Literature, Feminist and Postcolonial Theory, and Popular Culture studies. In addition to publishing in various national and international journals in these areas, she has also been active in organizing workshops related to these fields as well as in communication skills at various institutes across the country. Her recent work has focused on science studies as an interdisciplinary field that puts her interests in gender and communication in meaningful conversation with the S&T focus of her institutional location. In 2011, she was awarded the Gopal Das Bhandari Excellence in teaching award by IIT Kanpur.
- 6 **Mr Michel Danino**, a French citizen by birth, has been living in India since 1977 and is now an Indian citizen. As an independent student of the Indian civilization he has authored papers and books in French and English. Recent titles include *The Lost River: On the Trail of the Sarasvati* (Penguin India, 2010) and *Indian Culture and India's Future* (DK Printworld, 2011). He has lectured at cultural and higher educational institutions across the country on the origins of the Indian civilization from archaeological, ancient historical and cultural perspectives. He was visiting faculty at IIT Kanpur in February-March 2011 and delivered a series of lectures on Science and Technology in Ancient India. He has been Guest Lecturer at Amrita Vishwa Vidyapeetham, Coimbatore and Amritapuri campuses (since 2007), and is currently a visiting faculty at IIM Ranchi.
- 7 **Prof. Mythily Ramaswamy** is a Professor and currently the Dean at the Tata Institute of Fundamental Research Centre for Applicable Mathematics, Bangalore. She is one of the leading figures in the country in the field of Partial Differential Equations and specifically in analysis and applications to control problems. She received her B. Sc. and M. Sc. degrees from the University of Bombay and Ph. D. from University of Paris 6, France.
- 8 **Prof. K. S. Gandhi** received his Bachelors degree in Chemical Engineering from Andhra University (1962), his Masters degree from the Ohio State University (1965), and his doctorate from the University of California at Berkeley (1971). He has taught at IIT Kanpur (1971–86) and at IISc, Bangalore (1986–2005). His industrial experience includes work at J. K. Paper Mills, Rayagada and at Pilkington Brothers Research Centre in the UK. He is a member of the Indian Institute of Chemical Engineers, Fellow of the Indian Academy of Sciences and the Indian National Academy of Engineering.
- 9 **Prof. Dheeraj Sanghi** is Dean, Academic Affairs and Professor of Computer Science and Engineering at IIT Kanpur. His research interests are in the area of Computer Networks with special focus on protocols at different layers, IPv6, mobility and security. He has served as Director of LNM Institute of Information



Technology, Jaipur for two years. He is passionate about technical education in India and writes regularly about it in magazines and blogs. He received his B. Tech. from IIT Kanpur, and MS and Ph. D. from University of Maryland, College Park.

- 10 **Prof. Dipan K. Ghosh** is currently the Provost (Vice-Chancellor) at the Navrachana University, Vadodara. He is a condensed matter theorist who worked primarily in low-dimensional magnetic systems. He is best known for his work on exact solution of a one dimensional many-body problem which is widely known in the literature as the Majumdar-Ghosh model. He has authored one textbook on Mechanics and Thermodynamics and several web books. Prof. Ghosh has served IIT Bombay in several capacities including its Dean and Deputy Director. He has been awarded IITB's Best Teacher award in 2000. In 2011 he was awarded the Life-time Achievement Award of IITB for his contributions to Institution building.

- 11 **Dr Sandeep Pandey**, a full time social activist since 1993 obtained a Ph. D. degree from University of California, Berkeley, USA and was an Assistant Professor at IIT Kanpur until 1993. His present areas of work are diverse and include education for underprivileged children, human rights, empowerment of marginalized communities, struggles for strengthening democracy, Right to Information for transparency and accountability, Right to Food, employment guarantee schemes, people's politics, governance, communal harmony, nuclear disarmament and peace, India-Pakistan friendship, corporate accountability. He conducts a short course entitled 'Strengthening of Democracy at the Grassroots in India' that is very well received both in India and abroad. He also delivers lectures on various social issues and writes for Hindi, Assamese and Telgu newspapers on a regular basis. He has also served on Central Advisory Board on Education of MHRD, Government of India.

### Distinguished Visitors

Visits by eminent personalities in diverse fields such as science, engineering, technology, and education inspire the students, faculty and staff of the Institute. IITGN hosts lectures by such distinguished individuals both by special invitation and if they happen to be in the area for some other engagement. Faculty and students are encouraged to meet the distinguished visitors and interact with them to imbibe the qualities that set them apart. Some of the eminent persons who visited the Institute during 2011-12 are:

- 12 **Dr A. P. J. Abdul Kalam**, former President of India visited IITGN on November 11, 2011 and delivered a characteristically inspirational speech to the students, staff and faculty members on the Development of India by 2020 and National Missions. He emphasized to the students the need for hard work, dedication and integrity. On the

Institute's request Dr Kalam also presented the Institute's first Faculty Excellence Awards.

- 13 **Mr August W. Schaefer**, Senior Vice President, Underwriters Laboratory (UL), Northbrook, USA visited IITGN on April 18, 2011. Three undergraduate students, Anchit Gaurav, Adnan Ansari,



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and Abhishek Umrao, demonstrated their laboratory set-up on research pertaining to kitchen fire safety to UL and IITGN officials. IITGN students also made a presentation on the National Fire Database and Kitchen Fire Safety in India. An IITGN-UL Research Lab has been set up by the students under the guidance of Prof. Chinmay Ghoroi. The lab is partially funded by UL.

- 14 **Mr Hideki Segawa**, Deputy General Manager of Ricoh Company Ltd, Tokyo visited IITGN on May 5, 2011 to discuss potential areas for collaborations in the field of social entrepreneurship where IITGN and RII collaborate to help potential entrepreneurs in rural India. He was accompanied by his colleagues Ms Eiko Nakamoto and Ms Ryohko Ezoe.
- 15 **Dr R. A. Mashelkar**, FRS, Chairman, Board of Governors, IITGN and an eminent scientist, addressed the students, staff and faculty of IITGN on September 3, 2011. In an inspiring speech interspersed with anecdotes, he recounted his scientific adventures and challenges. It was a memorable occasion for the large audience that had gathered to listen to him.
- 16 **Shri N. R. Narayana Murthy**, ex-Chairman, Infosys, visited IITGN on July 19, 2011. He obtained his B. E. degree from University of Mysore (1967) and M. Tech. from IIT Kanpur (1969), and later founded Infosys in 1981. He was the President of National Association of Software and Service Companies (NASSCOM) during 1992-94. He received the ET Businessperson of the Year award (2000-2001). IIT Kanpur conferred the

Distinguished Alumnus Award on Shri Narayana Murthy in the year 1998.

- 17 **Prof. M. Anandakrishnan**, an eminent educationist and currently Chairman of the Board of Governors, IIT Kanpur visited the Institute to interact with the faculty on January 22, 2012. He obtained his B.E (1952) from College of Engineering, Guindy, Madras University and Ph. D (1960), from University of Minnesota, USA. He was the first Science Counsellor at the Embassy of India, Washington, D.C. (1974-1978). Later, he served the United Nations (1978-1989) as the Chief of the New Technologies, and Deputy Director of the UN Centre for S&T for Development at New York and also as the Secretary of the UN Advisory Committee on S&T for Development. He is credited with the development and implementation of the 'Single Window admission System' for engineering institutions in Tamil Nadu. He was awarded Padma Shri by the Government of India in 2002. His other honours and awards include The Order of Scientific Merit from the President of Brazil (1996); Distinguished Leadership Award of the University of Minnesota (2003); Honorary Fellow of the Indian Society for Technical Education (2005); UGC National Swami Pranavananda Saraswati Award in Education (2006).
- 18 **Ms Tara Gandhi Bhattacharjee**, the granddaughter of Mahatma Gandhi and C. Rajagopalachari, currently Vice-Chair Person of the Kasturba Gandhi National Memorial Trust and of Gandhi Smriti & Darshan Samiti visited IITGN during March 13-16, 2012 and interacted with the IITGN community. She has adapted



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Gandhi's message of non-violence to the contemporary world by extending her support to environmental protection. She has contributed significantly to women's self-sufficiency and emancipation and has been working for the welfare of the spinners and the weavers of khadi.

- 19 Mr Rajendra S. Pawar**, Chairman and Co-Founder of the NIIT Group, graduated with a B. Tech. degree in Electronics from IIT Delhi in 1972. He is a member on the Prime Minister's National Council on Skill Development. He has served on the Prime Minister's National Task Force in 1998. He is on the Board of IIT Delhi, IIM Bangalore, IIM Udaipur, the Indian School of Business, Hyderabad, The Scindia School and SMVD University of Jammu & Kashmir. Mr Pawar is a member of the University Court of Delhi University, and has served on the board of IGNOU. An advisor to the Hunan Province of China, he has also been a member of Presidential International Advisory Council of the Government of South Africa for IT. He has been honored with the prestigious Nayudamma Award 2012, for his continued contribution to the IT industry. Government of India awarded him Padma Bhushan in 2011.

### Other Visitors

The other eminent persons who visited the Institute during this period are as follows:

**Prof. Svetlana Brzev**, British Columbia Institute of Technology, Canada; **Prof. Marcial Blondet**, Pontifica Universidad Católica del Perú; **Ms Marjorie Greene**, Earthquake Engineering Research Institute, California; **Prof. Andrew Charleson**, Victoria University, New Zealand; **Prof. V. Raghavendra** and **Prof. Joydeep Dutta**, IIT Kanpur; **Prof. A. K. Pani**, **Prof. Ram Puniyani**, **Prof. Mallikarjun Rao**, **Prof.**

**Sharmila** and **Prof. A. Ramanathan**, IIT Bombay; **Prof. Ravi Shankar P.**, **Prof. T. V. Anoop**, **Prof. Prashanth K. Srinivasan** and **Prof. Mythily Ramaswamy**, TIFR Bangalore; **Prof. M. T. Nair**, IIT Madras; **Prof. Polat Gulkan**, Cankaya University, Turkey; **Prof. Luis Esteve**, National University of Mexico; **Prof. Rama Bhargava**, IIT Roorkee; **Prof. S. Kesavan**, IMSc Chennai; **Prof. Pallavi Mahale** and **Prof. G. Naga Raju**, VNIT Nagpur; **Prof. Sundararaja Ramaswamy**, NIIT Neemrana; **Prof. Timothy Gonsalves**, IIT Mandi; **Prof. Raghavan Rangarajan**, Physical Research Laboratory, Ahmedabad; **Prof. Pradyumna Vyas**, National Institute of Design, Ahmedabad; **Ms Pratibha Pandya**, SEWA Reception Centre, Ahmedabad; **Mr Arvind Singhal**, Technopak Advisors Pvt. Ltd; **Prof. Raj P. Chhabra**, **Prof. Suchitra Mathur**, **Prof. Lilavati Krishnan**, and **Prof. Dheeraj Sanghi**, IIT Kanpur; **Prof. N. J. Rao**, Jaypee University of Engineering & Technology; **Ms Svati Bhogle**, Technology Informatics Design Endeavour (TIDE); **Ms Madhu Chadda**, IIT Hyderabad; **Dr K. N. Panikkar**, Kerala Council for Historical Research, Thiruvananthapuram; **Prof. Youseph Yazdi** and **Prof. Soumyadip Acharya**, Johns Hopkins University, USA; **Prof. T. Harinarayana** (Director) and **Mr Amin Petiwala** (Secretary) Gujarat Energy Research and Management Institute (GERMI); **Mr Pravinray D. Gandhi**, Director of Corporate Research, Underwrites Laboratories Inc.; **Mr Hitesh Jain**, **Mr Saurabh Sriparn**, and **Mr V. Jagdish**, Underwrites Laboratories 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. Rajeev Sangal**, IIIT Hyderabad; **Prof. Suhita Chopra Chatterjee**, IIT Kharagpur.



## Conferences/ Symposia/ Workshops/ Seminars

Conferences, Symposia, Workshops and Seminars on focus themes are important academic activities to stimulate discussions on different areas of importance. Many of these activities invite and receive participation from other organizations, which bring the additional benefit of increasing the Institute's visibility to the outside world. The following activities were organized during 2011-12:

- ▲ A workshop on **Variational analysis and optimization with applications to PDEs**



was organized by **Prof. D. V. Pai** of IITGN (Convener) and **Prof. Mythily Ramaswamy** of TIFR Bangalore (Co-convener) during April 1-4, 2011. A number of renowned mathematicians in this field from the country's top institutions participated. The workshop was supported by the Department of Science and Technology and the National Board for Higher Mathematics, Department of Atomic Energy. More details are available at [http://www.iitgn.ac.in/pdf/Brochure\\_PDEs.pdf](http://www.iitgn.ac.in/pdf/Brochure_PDEs.pdf).

- ▲ IIT Gandhinagar, together with IIT Kanpur and Buildings Materials Technology Promotion Council (BMTPC) New Delhi, organized an international workshop on **Confined Masonry** on April 17-18, 2011. Invitees from Canada, USA, New Zealand, Peru and India participated in the deliberations.
- ▲ Two workshops on **Autodesk inventor** were conducted by **Mr Ramesh S. Pudale**, Education Solutions Specialist, Autodesk India (P) Ltd during July 13-15, 2011 and October 9, 2011.

- ▲ An international symposium **Spaces of Alterity – Literary and Dramatic Representations** was organized by **Prof. Pia Thielmann** during September 9-11, 2011. Twenty two delegates from Botswana, Portugal, Germany and India attended the symposium.

- ▲ A weekly lecture series on **Social Justice and Empowerment** was presented by **Prof. Sandeep Pandey** during August 24 - October 12, 2011. Several students and members of staff and faculty enthusiastically attended these lectures to increase their awareness about many issues that touch the lives of the common man. The lectures were very thought-provoking and laid bare the deficiencies of our democracy.

- ▲ 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 members of the IIT community and other interested persons, and was coordinated by **Prof. Rita Kothari**, **Prof. Sharmita Lahiri** and **Prof. Arnapurna Rath**.

- ▲ 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. The workshop attendees, scholars from IITs, IIITs and other universities, deliberated on wide-ranging issues connected with HSS. It was coordinated by **Prof. Jaison A. Manjaly** and **Prof. Rosa Maria Perez**. Details are available at [http://www.iitgn.ac.in/hss\\_workshop.htm](http://www.iitgn.ac.in/hss_workshop.htm).
- ▲ **Dr Mihir Bholey**, National Institute of Design, Ahmedabad, April 15, 2011.
- ▲ **Surface water quality and wastewater treatment** by **Dr Ramesh Goel**, Civil & Environmental Engineering, University of Utah, May 25, 2011.
- ▲ **A career in fiber optics** by **Dr Arnab Sarkar**, Founder & Chairman, Advanced Optical Fiber Solutions, USA, August 8, 2011.
- ▲ **Granular media micromechanics and higher-order continuum theories** by **Prof. Anil Misra**, University of Kansas, Lawrence, USA, August 14, 2011.
- ▲ **Mobilized masculinities in contemporary India** by **Prof. Mangesh Kulkarni**, University of Pune, August 19, 2011.
- ▲ **Challenges for optimizing wind turbine performance, operation and maintenance** by **Dr Surendra N. Ganeriwala**, Founder and President, Spectra Quest, USA, August 19, 2011.
- ▲ **Unlocking the power of your gaming card for computational fluid dynamics applications** by **Dr Dominic Chandar**, Department of Mechanical Engineering, University of Wyoming, USA, September 1, 2011.
- ▲ **Synchronization of thermal and mechanical oscillations** by **Prof. Mihir Sen**, University of Notre Dame, USA, September 15, 2011.
- ▲ **Pulsating visions – idioms incarnate** by **Prof. Anabela Mendes**, University of Lisbon, September 16, 2011.
- ▲ **Story of optimal control** by **Prof. Mythily Ramaswamy**, TIFR, Centre for
- ▲ **Biomedical applications of lasers** by **Dr P. K. Gupta**, Raja Ramanna Centre for Advanced Technology, Indore, April 8, 2011.
- ▲ **Caste conflict: the myth and reality** by

### Invited Lectures

The following invited lectures were delivered by experts who were invited to the Institute to share their insights in their respective fields to kindle scholarly interest in the students in a diverse range of topics. These lectures, attended by the students, faculty and staff, are delivered at a level that is easily understood by the uninitiated.

- ▲ **Biomedical applications of lasers** by **Dr P. K. Gupta**, Raja Ramanna Centre for Advanced Technology, Indore, April 8, 2011.
- ▲ **Caste conflict: the myth and reality** by

### Short Courses

The following short courses were delivered by acknowledged experts in their respective fields.

- ▲ A short course on **Biology for Engineers** was conducted by **Mr Vikas Trivedi**, a graduate student at the California Institute of Technology, during August 2-4, 2011.
- ▲ A short course on **Climate change - politics, policies and facts** was conducted by **Mr Aditya Ghosh** and **Mr Chandra Bhushan** of Centre for Science and Environment, New Delhi, September 3-4, 2011.
- ▲ 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.

- Applicable Mathematics, Bangalore, October 13, 2011.
- ▲ **Uncomfortable truths about contemporary Britain: Black and South Asian British theatre in the UK** by Prof. Geoffrey Davis, RWTH Aachen University, Germany, October 18, 2011.
  - ▲ **Research informatics: a view inside the biotech industry** by Mr Sebastian Jayaraj, CEO, 10BioSystems, October 19, 2011.
  - ▲ **Photovoltaics: fundamentals and future prospects** by Prof. S. Ashok, Pennsylvania, State University, November 3, 2011.
  - ▲ **Petrol, diesel, and ethanol biofuels from grasses and plants** by Prof. Ram B. Gupta, Auburn University, USA, November 16, 2011.
  - ▲ **From the ground up: a comprehensive systems approach to the redesign of engineering education** by Prof. Richard Miller, President, Franklin W. Olin College of Engineering, USA, November 30, 2011.
  - ▲ **Lessons from the Christchurch earthquake 2011** by Dr S. R. Uma, GNS Science, New Zealand, December 20, 2011.
  - ▲ **Research opportunities & challenges in selected food engineering processes** by Prof. Mukund Karwe, Rutgers University, USA, December 30, 2011.
  - ▲ **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, Università di Roma, 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.



# Infrastructure and Facilities

Library  
Computer Centre  
Medical Centre  
Laboratory Facilities  
New Buildings  
Institute Master Plan



## Library

The Central Library of IIT Gandhinagar, now located in a 400 sq. m. area, continues to



provide and expand new services to support teaching, learning, training, research and consultancy needs of the Institute through reference books, text books, journals, CDs/DVDs and other electronics means. The library subscribes to research journals in electronic as well as print formats. Online journals are available from Annual Reviews Collection, American Society of Mechanical Engineers (ASME), American Chemical Society (ACS), American Physical Society (APS), IEEE Xplore (IEEE/IEL), American Society of Civil Engineers (ASCE), American Society of Microbiology (AMS), JSTOR Archives, Science Direct, Springer Link, Project Muse, Mathscinet, SIAM, Indian Standards (BIS), EBSCO Communications & Mass Media Complete, and Nature. The online journals are IP-authenticated to make them easily accessible from anywhere on the campus. The Central Library also subscribes to bibliographic databases SciFinder and EBSCO MLA International Bibliography. Mechanisms are available for access to scientific journals and reports not available at IITGN. Moreover, Wi-Fi enabled library premises add to the academic productivity of users. Most of the library operations have now been automated with the use of SOUL, a library management system, after addition of a powerful high-end server (IBM X-3500 M3 Tower 5U).

The Central Library provides the following services to support the teaching and research activities:

Circulation of Reading Materials, Reference and Information Service, Document Delivery Service, Inter Library Loan, New Additions of Books, Journal Table of Contents from Publishers Photocopy Service, Subject bibliographies. The library staff makes extra efforts to disseminate information through such services as Journal Contents Alert, FLIP-

Through: A Weekly Article Alert and Compilation of Subject Bibliographies.

## Computer Centre

The Institute's computer facilities have been developed with high-end hardware, a wide range of software and excellent connectivity so that students, faculty and staff can carry out their work without interruptions. The LAN setup integrates the entire IITGN community into a single unit. The Institute premises and the student hostels are also Wi-Fi enabled. Currently the Institute houses two computer labs, one for common use and the other for instructional purposes. Over 30 PCs are available to the students in a Common Computer Laboratory that is open round the clock and is used for programming, project work, browsing and other purposes. In addition, the Computational Instructional Laboratory houses over 60 PCs. All faculty members, research scholars, research associates, project staff and administrative staff have been provided with individual PCs, and printers on sharing basis. A few high-end printing and photocopying machines are available for common use at strategic locations. Individual email accounts have been provided to IITGN students, faculty and staff with the facility of sending bulk email to common groups, for example, sending home assignment to students in a course or to students in a particular branch and year. Important scientific software such as Mathematica, PSCAD 4.2, STATA 11.1, AutoCAD, NI Labview, Cadence, T Cad, Matlab, Xilinx ISE have been procured. IITGN is also a part of the IIT System Portal at <http://www.iitsystem.ac.in/index.jsp>

## Medical Centre

A qualified medical practitioner **Dr Deepa Shah**, (M.B.B.S., Diploma in Medicine, Fellow Infectious Diseases, Italy) is available on the Institute premises for several hours on working days to provide medical advice to students, staff and faculty. The doctor can also be consulted at her clinic as well as at the Life Care Hospital located nearby. Hospitalization expenses of all students are covered under a medical insurance policy. A trained male nurse is available full-time to



provide emergency first-aid and for routine medical services such as checking temperature, blood pressure, blood sugar, oxygen levels and dressing wounds. He dispenses many common medicines stored in the medical room, as per the doctor's prescription or through phone consultation. He also assists in maintaining medical supplies and keeping medical records. The other facilities include an Electrocardiogram (E.C.G.) machine, Nebulizer therapy for asthma and chronic obstructive pulmonary disease (COPD), and a 24-hour vehicle facility for patients in case of emergency. Corporate Hospital SAL, Ahmedabad is now an approved hospitals.

## Laboratory Facilities

### Chemical Engineering

All Chemical Engineering undergraduate students are required to take a laboratory course each semester from the 3<sup>rd</sup> to the 7<sup>th</sup> semester. The Chemical Engineering laboratory, with an area of 165 sq. m., includes experimental set-up on Unit Operations, Reaction Engineering, and Process Dynamics. The current facilities



include Double Pipe/Coiled/Plate/Fluidized/FinTube Heat Exchangers, Chemical reactors, Differential distillation set-up, Packed-bed absorption column, Sieve-plate distillation column, Interacting/non-interacting tanks set up (all from Shree Fabricators and Engineers), Calorimeter and refractometer (both from Scientific Products India), and Batch dryer (from Technical Education, Bangalore). The laboratory also has several set-ups to demonstrate the basic principles of fluid flow such as flow measuring devices, centrifugal pumps and pipe fittings apparatus. The facility is being further expanded to include experiments based on Process Control and Advanced

Separation Techniques.

The current Chemical Engineering faculty has research interests in the fields of Particle Formation for Drug Delivery, Biochemical Engineering, Systems Biology and Powder Technology. An area of 175 sq. m. has been provided for their research activities. A Particle Size Analyzer (Coulter Private Ltd) and an optical microscope with camera facility (Nikon) have been procured to build a particle formation research facility. A freeze dryer (Martin Christ), Zeta-sizer (PSS NICOMP) and Peristaltic Pumps (Watson Marlow) have also been procured. A particle size analyzer to characterize gaseous micro-bubbles and liquid drop suspensions and high-pressure vessels for particle formation using high pressure CO<sub>2</sub> have also been installed. A High-Pressure Liquid Chromatography (HPLC) system (Waters), a Gas Chromatography (GC) system (Perkin Elmer), Fermentor (Sartorius), Microplate Reader (TECAN), Polymerase Chain Reaction Thermocycler (Eppendorf), deep freezer (-86 °C) (Thermo Fisher Scientific) and other basic biology laboratory utilities are available for Biochemical and Biomolecular Engineering research.

For Powder Engineering, a V-blender and Cone-mill (both Prism Pharma) have been installed for powder mixing and nano-coating. Powder Rheometer (Freeman Technology) and Laser Diffraction Particle Size Analyzer (CILAS) are available for characterization of powder. Also Digital Automatic Tap/Bulk density Apparatus (Veego) and Angle of Repose apparatus have been procured for bulk property characterization of powders. An Environmental Test Chamber (HMG India) has also been procured for subjecting the test powders at different humidity and temperature conditions. The Powder Engineering facility of the Chemical Engineering Department is a typical Formulation and Pre-formulation labs of Pharmaceutical R&D.

### Chemistry

The research interests of the Chemistry faculty include synthesis of modified nucleic acids for development of bioanalytical assays and sensor systems, synthesis of natural



product analogues, electron transfer, photophysical and photochemical studies of synthesized organic molecules in ionic liquid media, developing methodology towards synthesis of Glutamate containing natural products, isolation and characterization of chromophores from natural sources, development of natural food coloring agents, synthesis and functionalization of nanomaterials, enzymology of redox processes, synthesis of macrocyclic systems such as porphyrinoids with potential applications as sensing systems as well as in the area of electrochemistry.

Sophisticated research equipment such as 500MHz FT NMR spectrometer and ESI-QToF Mass Spectrometers have been ordered and will be available soon. Research instrumentation such as Digital Polarimeter (Anton-Paar), FT-IR spectrophotometer (Thermo Scientific), Digital Melting Point Apparatus (MR-VIS), and Photochemical Apparatus (Luzchem) have also been procured.

### Civil Engineering

The Geotechnical Engineering Laboratory supports post-graduate teaching and research focusing on core subjects as well as on broad areas of research pursued by the M. Tech. and Ph. D. students. The lab is equipped with basic soil testing equipment as well as high-end research equipment. The equipment are being used to measure the mechanical properties of soils, including index property, permeability, compressibility, and shear strength and dynamic properties of soils. The Geotechnical Laboratory is equipped with the following facilities/equipment:

- ▲ Index Property and Soil Classification: Sieve shaker (noise reduction), hydrometer test, Atterberg limit equipment (liquid limit, plastic limit, shrinkage limit), specific gravity, relative density, core cutter, sand pouring apparatus, chemical test (PH, Sulphite, Chloride, Iron, Hardness), swelling pressure measuring system, optical & digital LCD microscopes for studying the shapes of sand particles.
- ▲ Permeability: Falling head permeability test for fine grained soil and constant head test for coarse grained soil.
- ▲ Compressibility: Proctor testing setup (compaction test; standard & modified), Automated Oedometer setup (consolidation test)
- ▲ Sample Preparation: Pulverizer, high speed stirrer, hydraulic extractor, Shelby tube, mechanical auger, industrial grade RO system, de-airing apparatus
- ▲ Shear Strength: Direct shear device for measuring cohesionless soils; automated unconfined compression testing device for cohesive soils; advanced automated triaxial setup for simulating field conditions.
- ▲ Dynamic Properties: Cyclic triaxial testing system and bender element system for measuring damping ratio and shear modulus.
- ▲ Design Software: GEO5 geotechnical.

### Electrical Engineering

The Department of Electrical Engineering currently offers one laboratory course to all undergraduate students and five additional laboratory courses to Electrical Engineering



undergraduate students. The laboratory, located in an area of 300 sq. m., has a wide repertoire of experimental facilities for all courses. Experiments include studies of characteristics of semiconductor devices, analog circuits, active filters & Schmitt triggers, digital circuits, counters, shift registers, timer circuits and analog-to-digital converters. Other experiments include microprocessor- and microcontroller-based experiments, studying the characteristics of electrical motors and generators, speed control of motors, synchronization of alternator with infinite bus or another alternator, performance of various power electronic converters. The electronics lab recently added two Gunn diode-based microwave test benches (Sciencetech Technologies NV9001) and two antenna

trainer kits (ST-2261 Sciencetech Technologies) for RF experiments in the communications lab course. The control systems laboratory has process control trainer modules that include simulators of various types of feedback control systems that are able to simulate typical time and frequency response characteristics of a plant. PID controllers and lead/lag compensators are also in place. Process measurement kits are available to measure parameters such as temperature, level, position, velocity and acceleration. A comprehensive two-channel vibration analyser is being procured. This will enable the study, analysis and control of vibrations in flexible structures. A Programmable Logic Controller (GE - Fanuc) has been installed to familiarise the students with industrial control process. The VLSI laboratory facility includes Synopsis TCAD tools, Xilinx FPGA kits and ISE software that are being used for several undergraduate laboratories and project work. The laboratory is also equipped with ARM, PIC controller, AVR and microcontroller boards, digital storage oscilloscopes, digital multimeters and IC testers, universal IC programmer, ScopeCorder, Precision Magnetics Analyzer and all other electrical engineering laboratory utilities. In addition, the power systems simulation laboratory has PSCAD software licensed for 25 nodes. A new embedded systems lab has recently been designed and developed. This lab is equipped with twenty PIC18F microcontroller-based development boards. Seven experiments were developed for the related course.

The current Electrical Engineering faculty has research interests in Image Processing, Power Systems, Renewable Energy, VLSI and Fibre-optic sensors. The current research facilities include transformers of different winding geometry. IITGN has a collaboration with Cadence under its University Programme. The VLSI design research and development work greatly benefits from this collaboration through the availability of many tools and facilities provided by Cadence. A fibre-optics lab has also been developed for research in the field of optical physical and chemical sensors. The current focus of research is tunable diode laser

spectroscopy (TDLS) of gases for industrial and medical applications. The laboratory is equipped with narrow linewidth near-infrared and mid-infrared edge-emitting (Toptica) and surface-emitting (Vertilas) laser diodes, high-sensitivity Peliter-cooled photodetectors (Thorlabs), precision laser diode current and temperature controllers (Thorlabs), an arbitrary waveform generator (Tektronix) and a digital oscilloscope (Tektronix). The lab also has a Fujikura fibre splicing machine, singlemode and hollow-core optical fibre and assorted optoelectronic equipment for a standard optoelectronics laboratory.

### Mechanical Engineering

The Department of Mechanical Engineering currently offers five undergraduate laboratory courses. All first year undergraduate students are required to take a laboratory course on Workshop Practice. The Manufacturing Laboratory housed in 280 sq. m. area, has facilities including lathes, milling machine, vertical machining centre, electric discharge machine, welding, fitting and tin smithy equipment. The manufacturing laboratory is also used to offer two laboratory courses on manufacturing practices and processes for



second and third year Mechanical Engineering undergraduate students. A general workshop having carpentry, fitting, welding, tin-smithy, band saw, welding machines, lathes, drilling machines, shaping machine, slotting machine, milling machine, hand press and metrology instruments have been set up.

An advanced manufacturing laboratory (AML) with a rapid prototyping machine (RPM), computer numerically controlled (CNC) lathe, CNC milling machine, coordinate measuring machine (CMM) and profile projector supports teaching and

research activities in manufacturing related areas. These facilities will also support integrated product design and manufacturing activities.

The mechanical systems design lab supports the teaching of kinematics and dynamics of mechanisms and machine design courses. The laboratory has four bar mechanisms, quick-return mechanism, cam mechanism, gears and gear trains, fundamental mechanical vibration tests, balancing and whirling of shaft test rigs.

High performance computing facilities have recently been initiated with two work station servers (Celsius R-670) and five network high-end work stations. The facilities enhances design capabilities and will be used for research and teaching. The facilities permit application of newer techniques for solving complex problems at high speed. The facilities will be linked to national network "Garuda" to further elevate computing capabilities. Generous partial financial support has been received from Fujitsu and Nvidia.



All second year Mechanical Engineering students are required to take a laboratory course on solid mechanics and experimental stress analysis. The laboratory, in 70 sq. m. area, has two MTS universal testing machines of 100 kN and 200 kN capacity, Charpy impact testing machine of 450 J capacity (MTS), Rockwell and Vickers hardness testing machines (ZwickRoell), torsion and fatigue testing machines.

The third year Mechanical Engineering undergraduate students are required to take a laboratory course on fluid mechanics and fluid machinery. The laboratory is located in a 155 sq. m. area, and has set-ups for conducting experiments on fluid statics and fluid dynamics. Several common turbo

machines such as gear pump, centrifugal pump, Francis Turbine, Pelton wheel along with various flow measuring devices and accessories have also been installed. An open-loop low-speed wind tunnel having test section 330x300mm at the end and a closed-loop water tunnel of test section 250x250mm are being set up to support the teaching of and to facilitate basic research in fluid mechanics. Additionally, the control systems laboratory is being updated with a number of control experiments relevant to mechanical engineering.

The current Mechanical Engineering faculty research interests include Aerodynamics, Flight Mechanics, Fluid-Structure Interaction, Polymer Composites, Dynamics and Control, Systems Theory, Thermo-Fluids Systems, Hydrodynamic Stability, High Performance Computational Modeling of Engineered Systems.

The manufacturing laboratory and the solid mechanics and experimental stress analysis laboratory include many fabrication and research facilities. These facilities are currently being further developed and expanded according to experimental and fabrication needs.

## Physics

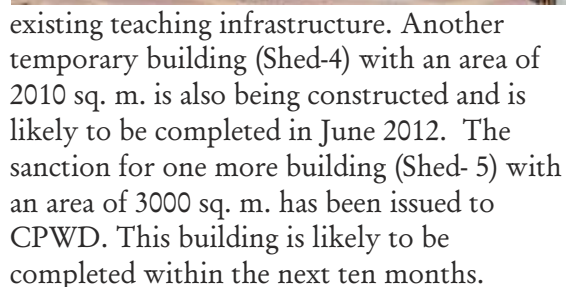
All first year undergraduate students are required to take a laboratory course in basic physics. The laboratory consists of a room for general experiments and a dark room. There are 7 experiments covering optics, electricity and magnetism, modern physics and classical mechanics.

The procured equipment includes Grating Spectrometer and Fresnel's Biprism with optical bench (Indosaw), Newton's Rings (Holmarc), Frank Hertz Experiment and Planck's constant (Scientific Equipments India Ltd). Part of the experimental set-up of Helmholtz Coil experiment was fabricated at the Institute. Four sets of all experimental equipment are available in the lab and they are made available to the students for hands-on experience in their course. Apart from these experiments, the Physics laboratory also has moving coil galvanometers (spot reflection type and suspended mirror type)



The Physics laboratory also has a few mini electric motors and electric generators which were made by the first year students as part of their laboratory course. The Institute has recently acquired an astronomical telescope in the Physics laboratory to encourage students to develop interest in this area. It has a reflector with eight inch mirror of a focal length 1200 mm with a Dobsonian mount. Many students have started using it for observations of planets, star clusters and other cosmic objects. It has a lunar as well as a solar filter. It should be possible to observe the transit of Venus across the disc of the Sun in June 2012.

A new temporary building (Shed-3) with an area of 2010 sq. m. has been constructed by the Institute on the VGEC campus through the CPWD to expand laboratory facilities, provide office space to faculty and research scholars and add new class-rooms to the



IITGN has been provided about 400 acres on the eastern bank of the Sabarmati in Gandhinagar, opposite the Secretariat. The master plan of the campus took shape after several brain-storming sessions between a group of faculty members of the Institute and the consultants. The campus is envisioned to be compact, energy-efficient by minimizing energy consumption and making optimum use of natural resources by harvesting rain water. The campus will have clearly identified vehicle-free zones. The campus is being designed to facilitate close interaction between faculty and students and also between the various sections of the student community. 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.



# F

## aculty Activities

Sponsored Projects  
Consulting Projects  
Awards and Recognition  
Honorary Work  
Academic Lectures  
Other Faculty Activities  
Publications

## Sponsored Projects

Academic activities described in this section pertain to individual faculty members with regard to research and development, consulting, recognition, publications and honorary work for other academic organizations.



### Projects Sanctioned during 2011-12

External sponsoring agencies sanctioned the following research projects to IIT Gandhinagar faculty with the total budget of Rs 3,48,40,522:

- ▲ **Photochemical and photophysical studies of donor-acceptor substituted aryl and heteroaryl polyenes**, sponsored by CSIR. Principal Investigator: **Prof. Sriram Kanvah Gundimeda**, Chemistry.
- ▲ **Engineering escherichia coli strains optimized for large scale lignocelluloses fermentation for biofuel production**, sponsored by Department of Science and Technology. Principal Investigator: **Prof. Supreet Saini**, Chemical Engineering.
- ▲ **Short-term generation scheduling in power systems under uncertainty/ intermittent characteristics of renewable energy sources (RES) and demands**, sponsored by Department of Science and Technology. Principal Investigator: **Prof. Naran Pindoriya**, Electrical Engineering.
- ▲ **Studies of structure-property relations in polymer nanocomposites using molecular simulations**, sponsored by Department of Science and Technology. Principal Investigator: **Prof. Suchira Sen**, Chemical Engineering.
- ▲ **Engineering stable and bio-compatible microbubble formulation for biomedical applications**, sponsored by Department of Biotechnology. Principal Investigator: **Prof. Sameer Dalvi**, Chemical Engineering.
- ▲ **Thermodynamically stable pickering emulsions**, sponsored by Department of Science and Technology. Principal Investigator: **Prof. Mukta Tripathy**, Chemical Engineering.
- ▲ **Center of excellence in biomedical engineering and health care technologies**, sponsored by Industries Commissionerate, Government of Gujarat. Principal Investigator: **Prof. Sameer Dalvi**, Chemical Engineering.
- ▲ **Technology Incubation and Development of Entrepreneurs Centre**, sponsored by Department of Information Technology. Principal Investigator: **Prof. Joycee Mekie**, Electrical Engineering.
- ▲ **High fidelity computational engineered systems on HPC platforms**, sponsored by the Department of Information Technology. Principal Investigator: **Prof. Murali Damodaran**, Mechanical Engineering. 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. Joycee Mekie**, Electrical Engineering.
- ▲ **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**, Mechanical Engineering. Co-PIs include **Prof. Atul Bhargav** and **Prof. Naran Pindoriya**.

### Ongoing Sponsored Projects

The following sponsored projects were initiated in earlier years and are still continuing:

- ▲ **Development of a rapid visual screening method for seismic assessment of RC frame buildings in India**, sponsored by the Seismology Division, Ministry of Earth Sciences, Government of India, New Delhi. Principal Investigator: **Prof. Sudhir K. Jain**; other collaborators are Prof. Durgesh C. Rai, IIT Kanpur; Prof. Keya Mitra, BESU Shibpur and Prof. Mehul Shah, CEPT Ahmedabad.
- ▲ **R&D of equipment for peeling of husk from cashew kernels**, sponsored by Olam Exports India Ltd, Quilom, Kerala. Principal Investigator: **Prof. N. Ramakrishnan**, Mechanical Engineering.
- ▲ **A novel process for precipitation and stabilization of drug nanoparticles in aqueous suspensions using CO<sub>2</sub>**, sponsored by Department of Biotechnology, Government of India. Principal Investigator: **Prof. Sameer V. Dalvi**, Chemical Engineering.
- ▲ **An experimental investigation to locate and assess the severity of winding deformations in power transformers**, sponsored by the Department of Science and Technology, Government of India. Principal Investigator: **Prof. Ragavan K.**, Electrical Engineering.
- ▲ **Engineering zymomonas mobilis for the efficient production of biofuels from lignocellulosic biomass**, sponsored by Department of Biotechnology, Government of India. Principal Investigator: **Prof. Supreet Saini**, Chemical Engineering.
- ▲ **Reprogramming cellular networks in salmonella enterica to develop novel vaccines**, sponsored by Department of Biotechnology, Government of India. Principal Investigator: **Prof. Supreet Saini**, Chemical Engineering.
- ▲ **Rapid precipitation of drug nanoparticles using ultrasonically-driven mixing device**, sponsored by Department of Science and Technology,

Government of India. Principal Investigator: **Prof. Sameer V. Dalvi**, Chemical Engineering.

- ▲ **Quantitative near- and mid-infrared wavelength modulation spectroscopy for gas sensing applications**, sponsored by Department of Science and Technology, Government of India. Principal Investigator: **Prof. Arup Lal Chakraborty**, Electrical Engineering.
- ▲ **Virtual geotechnical laboratory**, sponsored by Ministry of Human Resource Development, Government of India. Principal Investigator: **Prof. Amit Prashant**, Civil Engineering.
- ▲ **Photo-processes of donor-acceptor substituted polyenes in ionic liquid media**, sponsored by the Department of Science and Technology, Government of India. Principal Investigator: **Prof. Sriram Kanvah Gundimeda**, Chemistry.
- ▲ **A cognitivist exploration of the concept of privacy behavior and experience**, sponsored by Department of Science and Technology, Government of India. Principal Investigator: **Prof. Jaison A. Manjaly**, Philosophy.
- ▲ **Hybrid Calix[n]pyrrole(s) with pyridine moiety: new block of macrocycles as potential candidates for anion sensing and metal coordination**, sponsored by Department of Science and Technology. Principal Investigator: **Prof. Iti Gupta**, Chemistry.
- ▲ **Fire Engineering Lab, UL-USA**, Principal Investigator: **Prof. Chinmay Ghoroi**, Chemical Engineering.

### Consulting Projects

The following consulting projects have been undertaken by the faculty of IIT Gandhinagar with the total budget of Rs 41,84,871.

- ▲ **National level expert institute to advise and oversee the scheme on State Level Anchor Institutes in the focus sectors**, for the Government of Gujarat. Principal Investigator: **Prof. Sudhir K. Jain**, Director.
- ▲ **Design of helium gas circulators for helium cooling loop at IPR**, for Institute for Plasma Research, Gandhinagar.



Principal Investigator: **Prof. Vedant Kadambi**, Mechanical Engineering.

- ▲ **Development of a user interface for facilitating literature search at IITGN**, for Ricoh Innovations, Inc. (RII), USA. Facilitator and Coordinator: **Prof. Supreet Saini**, Chemical Engineering.

### Ongoing Consulting Projects

- ▲ **Seismic Studies of the area around Bhagyam Oil Fields**, for L&T - GULF Private Ltd and executed jointly by IITGN, IIT Kanpur and IIT Kharagpur with **Prof. Sudhir K. Jain** as coordinator.
- ▲ **Consulting for Dr Fixit Institute**,

Principal Investigator: **Prof. Sudhir K Jain**, Civil Engineering.

- ▲ **Consulting for Sundaram Architect**, Principal Investigator: **Prof. Sudhir K Jain**, Civil Engineering.
- ▲ **Consulting for Electrotherm India Ltd**, Ahmedabad, Principal Investigator: **Prof. Ragavan K.**, Electrical Engineering.
- ▲ **Consultancy for INDEXT B**, Principal Investigator: **Prof. Sudhir K. Jain**, Civil Engineering.
- ▲ **Geotechnical Design for Cell-1 of Kanjurmarg Solid Waste Management System**, Principal Investigator: **Prof. Amit Prashant**, Civil Engineering.

### Awards and Recognition

The following faculty members have received special awards and recognition by external bodies during 2011-12:



**Prof. Nikhil Balam**, a Guest Professor at IIT Gandhinagar, President and CEO of Ricoh Innovations Inc., was conferred the **2011 Alumni Achievement Award** by Carnegie Mellon University, Pittsburgh.



**Prof. Rita Kothari** has been nominated as the Reviews Editor for **Interventions**, a high impact Routledge journal in Humanities and Social Sciences. She was an invited panelist on "The Chutnefication of English: Amlish, Hinglish, Chinglish" at the **Jaipur Literature Festival 2012**.



**Prof. Sudhir K. Jain** is an independent director on the Board of Gujarat Foundation for Entrepreneurial Excellence (GFEE). Prof. Jain has also joined the Board of Gujarat International Finance Tec-City (GIFT) Company Ltd as an Independent Director. He has been chosen a member of the **Working Group on Technical Education** to formulate the **Twelfth Five Year Plan (2012-17)** by the **Planning Commission**.



## Honorary Work

- 1 **Prof. Ambarish Kunwar**, Physics
  - ▲ Reviewer, New Journal of Physics (Institute of Physics)
- 2 **Prof. Arup Lal Chakraborty**, Electrical Engineering
  - ▲ Reviewer, Optics Letters (Optical Society of America).
  - ▲ Reviewer, Applied Optics (Optical Society of America).
- 3 **Prof. Ashwini Kumar**, Civil Engineering
  - ▲ Member, Campus Development Committee for IIM, Udaipur.
  - ▲ External Assessor for the B. Tech. Programme in Civil Engineering. University of Malaysia Sabah, Kota Kinabalu, Malaysia, January 15-20, 2012
- 4 **Prof. Chinmay Ghoroi**, Chemical Engineering
  - ▲ Member of Board of Studies in Chemical Engineering (Degree Programme) Nirma University, 2012-2013.
  - ▲ Invited to the 71<sup>st</sup> meeting of the Advisory Committee of Central Glass and Ceramic Research Institute (CGCRI), Naroda Centre, Ahmedabad, November 18, 2011.
  - ▲ Reviewer, Powder Technology (Elsevier).
- 5 **Prof. D. V. Pai**, Mathematics
  - ▲ Examiner, Ph. D. thesis in Mathematics, IIT Kharagpur, March 2012.
  - ▲ Chairman, DST-constituted Planning Committee, SERC School on “Multivariable and matrix variable calculus with applications: optimization” C. M. C. Pala, Kerala, April-May 2012.
  - ▲ Member, P. M. M. C., DST Centre for Mathematical Sciences, Pala, Kerala.
- ▲ Member, P. M. M. C., DST Centre for Interdisciplinary Mathematical Sciences, BHU, Banaras, India.
- ▲ Associate Editor, Asian European Journal of Mathematics, World Scientific Publishers, London and Singapore.
- ▲ Reviewer, Mathematics Reviews (American Mathematical Society).
- 6 **Prof. G. K. Sharma**, Mechanical Engineering
  - ▲ Member, BOG, IIITDM, Jabalpur.
  - ▲ Member, Building and Works Committee, IIITDM, Jabalpur.
- 7 **Prof. Jagmohan Tyagi**, Mathematics
  - ▲ Reviewer, Mathematical Reviews (American Mathematical Society).
- 8 **Prof. Jaison A. Manjaly**, Humanities (Philosophy and Cognitive Science)
  - ▲ Programme Committee Member, European Cognitive Science Conference, Sophia, Bulgaria, May 21-24, 2011.
  - ▲ Institutional Ethical Committee member: School of Biological Sciences and Biotechnology, Indian Institute of Advanced Research, Gandhinagar, Gujarat.
- 9 **Prof. K. V. V. Murthy**, Electrical Engineering
  - ▲ Member, Governing Council, NMAM Institute of Technology, Nitte, Karnataka.
  - ▲ Member, Academic Council, NMAM Institute of Technology, Nitte, Karnataka.
  - ▲ Delivered two lectures on “Fourier and related transforms – Different Insights” for Faculty Development Programme, at Government Engineering College, Idduki,



- Kerala, October 27-28, 2011.
- ▲ Participated in a meeting for designing a new B. Tech. Programme for Navarachana University, Vadodara, March 25, 2012.
  - ▲ External examiner of Ph. D. theses for NMAM Institute of Technology, NITTE and NMIMS, Mumbai.
- 10 Prof. Naran M. Pindoriya, Electrical Engineering**
- ▲ Reviewer, IEEE Transactions on Power Systems (IEEE).
  - ▲ Reviewer, International Journal of Power and Energy Conversion (Inderscience Publishers).
- 11 Prof. Sameer V. Dalvi, Chemical Engineering**
- ▲ Reviewer, Crystal Growth and Design (American Chemical Society).
  - ▲ Reviewer, Chemical Engineering Journal (Elsevier).
  - ▲ Reviewer, Powder Technology (Elsevier).
- 12 Prof. Sharmita Lahiri, Humanities (English)**
- ▲ Conducted a session on How to write a Research Paper at National Training Programme on Research Methodology, Nirma University, Ahmedabad, June 2011.
- 13 Prof. Sudhir K. Jain, Civil Engineering**
- ▲ Executive Vice President, International Association for Earthquake Engineering.
  - ▲ Chairman, International Activities Committee, Earthquake Engineering Research Institute, USA.
  - ▲ Member, Board of Management, NIIT University, Neemrana, Rajasthan.
- ▲ Member, INAE Silver Jubilee Celebrations Committee, Indian National Academy of Engineering.
  - ▲ Member, Advisory Editorial Board, Earthquake Engineering and Structural Dynamics, John Wiley and Sons.
  - ▲ Member, Editorial Board, Earthquake Engineering and Engineering Vibrations, Springer-Verlag.
  - ▲ Member, Board of Directors, Gujarat Foundation for Entrepreneurial Excellence, Ahmedabad
  - ▲ Member, Board of Governors, Gujarat Technological University, Ahmedabad
  - ▲ Member, Board of Directors, Gujarat International Finance Tech-city (GIFT) Company Ltd.
- 14 Prof. Supreet Saini, Chemical Engineering**
- ▲ Reviewer, BMC Systems Biology (Biomed Central).
  - ▲ Institutional Biosafety Committee, Torrent Pharma, Ahmedabad.

### Academic Lectures

- ▲ **Prof. Ajanta Sachan on Geotechnical practice for solid waste disposal**, SVNIT Surat, Gujarat, October 8-9, 2011; **Liquefaction and induced lateral spreading**, ISTE Gujarat, SVIT Vasad, Gujarat, November 28-December 2, 2011; and **Geotechnical testing for dynamic response of soil**, Nirma University, Ahmedabad, Gujarat, December 26-31, 2011.
- ▲ **Prof. Amit Prashant on Advances in Geotechnical Engineering**, at National Seminar, SVNIT Surat, October 8-9, 2011; and **Recent Trends in Geotechnical Engineering**, SVIT Vasad,



- November 28, 2011; on **Geotechnical Aspects of Earthquake Engineering for Infrastructure Development**, Institute of Technology - Nirma University, Ahmedabad, December 28, 2011; on **Application of Geotechnical Engineering in Construction**, for Training of Trainers, CEPT University, Ahmedabad, March 19-24, 2012.
- ▲ **Prof. Arup Lal Chakraborty** on **Calibration-free approaches in tunable diode laser spectroscopy of gases for industrial applications**, at the 36<sup>th</sup> Optical Society of India (OSI) Symposium; and **Frontiers in Optics and Photonics – FOP 11**, IIT Delhi, December 3–5, 2011.
  - ▲ **Prof. Atul Bhargav** on **Latest developments in fuel processing for hydrocarbon-fueled PEM fuel cell systems** at the National Materials Research Laboratory (NMRL) Ambernath, December 7, 2011 and on **Control strategies for LPG-based fuel processors in PEM fuel cell systems** at the International Conference on Advances in Energy Research (ICAER 2011), IIT Bombay, December 10, 2011.
  - ▲ **Prof. D. V. Pai** on **Multivariable calculus and optimal recovery of functions**, SERC School, Arunapuram, Kerala, May 16-18, 2011 and on **On well-posed problems in approximation theory**, in an International Conference **Multi-valued analysis and topology**, Varenna, Italy, July 18-22, 2011 and chaired a session.
  - ▲ **Prof. Mukta Tripathy** on **Colloidal emulsions glasses and gels**, NIT Nagpur, September 30, 2011, on **Polymer nanocomposites: emerging possibilities and trends**, National Chemical Laboratory, Pune, November 24, 2011; and on **Self-Assembly in patchy colloidal rods** at the Indo-US Bilateral Workshop, IIT Delhi, December 14, 2011.
  - ▲ **Prof. N. Ramakrishnan** at a CEP Course on **Gear Materials and Heat Treatment**, IIT Bombay, February 10, 2012.
  - ▲ **Prof. Naran M. Pindoriya**, **Integrating Renewable Energy Sources into Emerging Electric Power Systems**, IIT Mandi, May 16-20, 2011, **Emerging trends in Indian Electricity Markets** and **Short-term forecasting of electric load and price in competitive power market**, CHARUSAT, Anand, Gujarat, February 3, 2012; and **Advancement in Power Systems and Power Electronics**, SPCE Vishnagar, Gujarat, March 1-3, 2012.
  - ▲ **Prof. Pawan Lingras** on **Soft computing: Neural networks and fuzzy sets**, a tutorial at Computer Science and Applications, orientation workshop, University of Mumbai, December 25-27, 2011.
  - ▲ **Prof. Pia Thielmann** keynote address on **The importance of communication and teaching skills from an international perspective** at Vishwakarma Government Engineering College, Ahmedabad, June 17, 2011.
  - ▲ **Prof. Rita Kothari** chaired a session on **Tagore and Sindhi literature** at the Sahitya Akademi's National seminar, Institute of Sindhology, Adipur, Kutch, October 22-23, 2011; conducted a two-day workshop on **Imagining India**, Jaipuria Institute of Management, Indore, November 10-11, 2011; and served as a Panelist for **Publishing World: Editors and Writers' Relationship**, IIM, Ahmedabad, January 12, 2012.
  - ▲ **Prof. Sudhir K. Jain** keynote address on **Seismic Safety in India: Past, Present and Future** at GSDMA International Conference on Post Earthquake Reconstruction, Gandhinagar, April 14-16, 2011; on **The Future of Product Safety in India** at the 2<sup>nd</sup> Annual UL India Product Safety Summit, Delhi, April 20, 2011; and on IITGN: a **Laboratory for Experiments in Education** at Innovation Educators Conference, ISB Hyderabad, April 29-30, 2011; on **Seismic Design of Railway Bridges** in a Short Course at IIT Kanpur,

May 2-6, 2011; and a public lecture on **Confined Masonry: an alternative building typology for seismic regions of India** at Gujarat Institute of Civil Engineers and Architects, Ahmedabad, May 21, 2011.

- ▲ Prof. Supreet Saini on **How do cells count? Flagellar regulation in salmonella**, IISc Bangalore, September 23-24, 2011; and **Protein secretion and flagellar abundance in bacteria**, NIT Agartala, November 4, 2011.
- ▲ Dr T. S. Kumbar, Librarian, on **Institutional Repository and IPR Issues**, INFLIBNET Centre, Ahmedabad, February 17, 2012; **Evaluation of ETD Programs/Projects: Identification of some Indicators for Success**, Jawaharlal Nehru University, New Delhi, March 22, 2012; and **Reference Management Tools: An Overview**, National Workshop on Research Techniques in Library & Information Science, Rajkot, March 31, 2012.

### Other Faculty Activities

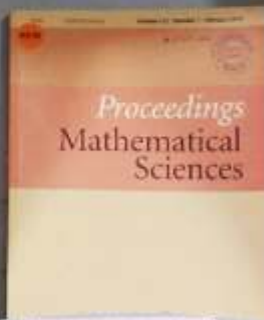
- ▲ Prof. Arnapurna Rath conducted a workshop on **Workplace etiquette: blending the verbal and the non-verbal**, SVNIT Surat, January 21, 2012.
- ▲ Prof. Joycee Mekie attended a national workshop on **Biostatistics: Applications of computational statistics in medicine and biology**, IIT Kharagpur, September 8-10, 2011; attended a conference **International Symposium on Asynchronous Circuits and Systems**, Ithaca, New York, April 27-29, 2011; and visited the Johns Hopkins University's

Biomedical Engineering Department.

- ▲ Prof. Naran M. Pindoriya attended the IET International Conference on Smart grids at Bangalore, May 31, 2011, and the **7<sup>th</sup> National Conference on Indian Energy Sector**, Ahmedabad, November 18-19, 2011.
- ▲ Prof. Nitin Padhiyar conducted a training session on **Computational methods for research in engineering programme** at L. D. College of Engineering, Ahmedabad, July 28, 2011.
- ▲ Prof. Sudhir K. Jain attended the Board meetings of Gujarat Technical University (GTU) on July 2011 and August 2011; and of the NIIT University, Neemrana on July 14, 2011; participated in the **UL India Fire Security and Signaling Advisory Council Meet 2011** in New Delhi on September 21, 2011.
- ▲ Prof. Supreet Saini participated in **Workshop on academic ethics** at Institute of Mathematical Sciences (IMSc), Chennai, July 15-16, 2011.
- ▲ Prof. V. Kadambi attended the conference **Indo-US nuclear energy safety summit**, organized by American Nuclear Society, at IIT Bombay, September 30, 2011.



# Journals/Magazines



## Publications

The Institute faculty is actively encouraged to present their research work for peer-review through publication in reputed journals and conference proceedings, and also to make presentations at conferences. These activities give the faculty important feedback on their work, and enhance the visibility of the Institute in the national and international academic arena. The Institute also encourages dissemination of knowledge through other avenues such as publication of books, book chapters and monographs. The following is a list of publications by faculty during 2011-12:

## Books

**Anulekha Dhara** and Joydeep Dutta, **Optimality Conditions in Convex Optimization: A Finite-dimensional view**, CRC Press, Taylor and Francis, October 17, 2011, ISBN 9781439868225.

**Mukund Hari Divekar** and Nitin V. Bhate, **Process Dynamics Laboratory - Orientation, Protocol and Design Methodology**, Lambert Academic Publishing, Saarbrücken, Germany, ISBN: 978-3-8443-9766-6.

**Rosa Maria Perez**, **The Tulsi and the Cross**, RCS Publishers, ISBN: 8192304604.

**Jasbirkaur Thadhani** and Dr Nisha Tajpuri, **Stress management**, Kruti Prakashan, Ahmedabad, ISBN: 978-93-5067-160-3.

## Book Chapters

**Sharmita Lahiri**, **Everything is an Argument: A Thematic Approach to Teaching English and Communication Skills Course**. *Unlock Their Futures: A Skills-based Approach to Teaching English*. Ed. Viney Kirpal and Shridhar B. Gokhale. New Delhi: Sterling Publishers, 2011.

**D. V. Pai**, Chapter 5: **Multivariable Calculus and Optimal Recovery of Functions** in Publication No. 42, SERC School Notes 2011, on Multivariable and Matrix Variable Calculus and Applications:

Matrix Methods, pp 139-189, April 2011, CMS, Pala, Kerala.

**Arnapurna Rath**, **Introduction to Far From the Madding Crowd** (Thomas Hardy). A WINK Signature Special, ISBN 978-81-264-3231-8. Bengaluru: DC Books and EC Media, 2011.

## Papers Published in Refereed Journals

**C. Ghoroi**, X. Han, D. To, L. Jallo, L. Gurumurthy and R. N. Dave, "Dispersion of fine and ultrafine powders through surface modification and rapid expansion", *Chemical Engineering Science*, in press 2012. <http://dx.doi.org/10.1016/j.ces.2012.02.038>.

X. Han, **C. Ghoroi**, Y. Chen and R. N. Dave, "Simultaneous micronization and surface modification as a tool to improve flow and dissolution", *Int. J. Pharmaceutics*, 415, 185-195, (2011). <http://dx.doi.org/10.1016/j.ijpharm.2011.05.070>.

A. Hinkle, **S. Goyal** and **H. J. Palanthandalam-Madapusi**, "Estimation of the Constitutive-law of a Microfilament From its Discrete-Structure Simulations," *Journal of Applied Mechanics*, online March 2012. <http://dx.doi.org/10.1115/1.4006449>.

**S. K. Jain**, A. D. Roshan, S. Yadav, S. Srivastava and P. C. Basu, "Strong motion data from structural response recorders in Indian earthquakes", *Earthquake Spectra*, Vol. 28, No.1, pp. 77-103 (2012).

L. Jallo, **C. Ghoroi**, L. Gurumurthy, U. Patel and R. N. Dave, "Improvement of flow and bulk density of pharmaceutical powders using surface modification", *Int. J. Pharmaceutics*, 423, 213-225 (2012). <http://dx.doi.org/10.1016/j.ijpharm.2011.12.012>.

S. Joshi, **A. Prashant** and **S. K. Jain**, "Analysis of buried pipelines subjected to reverse fault motion", *Soil Dynamics and Earthquake Engineering*, Vol. 31, Iss. 7, pp 930-940 (2011).

**M. Kumar\***, and K. Gayen, "Developments in biobutanol production: New insights," *Applied Energy*, Vol. 88, No. 6, pp. 1999-2010, (2011).

**M. Kumar\***, **Y. Goyal\***, Abhijit Sarkar and Kalyan Gayen, "Comparative economic assessment of ABE fermentation based on cellulosic and non-cellulosic feedstocks", *Applied Energy* (2012).  
<http://dx.doi.org/10.1016/j.apenergy.2011.12.079>.

**N. K. Kumar** and G. Nagaraju, "Nonconforming least-squares method for elliptic partial differential equations with smooth interfaces", *Journal of Scientific Computing*, doi 10.1007/s10915-011-9572-5.

**S. Lahiri**, "Not a vanquished rebel but a successful explorer of newer realms: A study of Edna Pontellier in Chopin's *The Awakening*", *The IUP Journal of English Studies* 4.3, 61-72 (2011).

**S. Lahiri**, "Things fall apart: Winesburg Ohio a world in transition." *The IUP Journal of American Literature* 4.4, 16-27 (2011).

**S. Lahiri**, "Local vs. Cosmopolitan: A comparison of *The Home and the World* and *Midnight's Children*." *SKASE Journal of Literary Studies* 3. 2, 2-20 (2011).

G. A. MacRae, U. T. Myint and **S. K. Jain**, "Steps in earthquake proofing a country – a case study of Myanmar", *Bulletin of the New Zealand Society for Earthquake Engg.*, Vol. 44, No. 2, pp. 87-98, (2011).

**J. Manjaly**, "Conceivability, metaphysical possibility and the zombies", *Journal of the Indian Council of Philosophical Research* 28, 3: 43-53, (2011).

**J. Manjaly**, "The knowledge argument and inconsistency of the nonphysical", *Journal of the Indian Council of Philosophical Research* 28, 2: 81-94, (2011).

G. Mondal, **A. Prashant** and **S. K. Jain**, "Simplified seismic analysis of soil-well-pier system for bridges", *Soil Dynamics and Earthquake Engineering*, Vol. 32, pp 42-55 (2012).

**V. Narayanan** and R. Govindarajan, "Secondary Instabilities in Incompressible Axisymmetric Boundary Layers: Effect of Transverse Curvature", *Journal of Fluids Engineering*, 134, 024503 (2012).

T. D. Nguyen and **S. Ranganath**, "Facial expressions in American sign language: Tracking and recognition", *Pattern Recognition*, Vol 45, No. 2, pp 1877-1891, (2012). <http://dx.doi.org/10.1016/j.patcog.2011.10.026>.

**H. J. Palanthandalam-Madapusi** and **S. Goyal**, "Is Parkinsonian Tremor a Limit Cycle?" *J. of Mechanics in Medicine and Biology*, Vol. 11, No. 5, pp 1017-1023, (2011).  
<http://dx.doi.org/10.1142/S0219519411004915>.

**R. S. Patil\***, **M. Pandey** and P. Mahanta, "Parametric studies and effect of scale-up on wall-to-bed heat transfer characteristics of circulating fluidized bed risers," *Experimental Thermal and Fluid Science*, Vol. 35, No. 3, pp. 485-494, (2011).

**A. Sachan**, "Shear Testing Data of Soil: A function of boundary friction in Triaxial setup", *Indian Geotechnical Journal*, Vol. 41, No. 4, pp. 168-176. (2011).

M. Sahu, B. Wu, L. Zhu, C. Jacobson, W.-N. Wang, K. Jones, **Y. Goyal\***, Y. J. Tang and P. Biswas, "Role of dopant concentration, crystal phase, and particle size on microbial inactivation of Cu-doped TiO<sub>2</sub> nanoparticles", *Nanotechnology*, Vol. 22, (2011).  
<http://dx.doi.org/10.1088/0957-4484/22/41/415704>.

C. H. Sim, E. Rajmadhan and **S. Ranganath**, "Detecting people in dense crowds", *Machine Vision and Applications*, Vol 23, No. 2, pp 243-253 (2012).



**A. Thorat\*** and **S. V. Dalvi**, "Liquid antisolvent precipitation and stabilization of nanoparticles of poorly water soluble drugs in aqueous suspensions: Recent developments and future perspective", Chemical Engineering Journal, Vol. 181-182, pp 1-34 (2012).  
<http://dx.doi.org/10.1016/j.cej.2011.12.044>.

**M. Tripathy** and **K. S. Schweizer**, "Activated dynamics in dense fluids of attractive nonspherical particles. I. Kinetic crossover, dynamic free energies, and the physical nature of glasses and gels," Phys. Rev. E 83, 041406 (2011).

**M. Tripathy** and **K. S. Schweizer**, "Activated dynamics in dense fluids of attractive nonspherical particles. II. Elasticity, barriers, relaxation, fragility, and self-diffusion", Phys. Rev. E 83, 041407 (2011).

**J. Tyagi**, "Existence of non-negative solutions for predator-prey elliptic systems with a sign-changing nonlinearity", Electronic J. Differential Equations, No. 153, pp. 1-9, (2011).

**J. Tyagi**, "A global positive solution of a delay differential equation with indefinite coefficients", Applied Mathematics Letters, 25, 1068-1070 (March 2012).

**A. K. Vishwakarma**, **P. P. Ghalsasi**, and **P. S. Ghalsasi**, "Temperature-dependent Raman spectroscopy of anilinium chloride near phase transition," Physica Status Solidi B, Vol. 248, No. 8, pp. 1956-1960, (2011).

**W. Zhu**, **F. S. Romanski**, **S. V. Dalvi**, **R. N. Dave**, **M. S. Tomassone**, "Atomistic simulations of aqueous griseofulvin crystals in the presence of individual and multiple additives" Chemical Engineering Science, Vol. 73, pp 218-230 (2012).

### Papers Published in Conference Proceedings

**A. Bhargav**, **M. Lyubovsky**, **C. J. Tesluk**, **P. Hearn**, "Control strategies for LPG-based fuel

processors for PEM fuel cell systems", International Conference on Advances in Energy Research, IIT Bombay, December 2011.

**S. Chandrasekaran\*** and **Ragavan K.**, "Harmonic mitigation through sliding DFT based single-phase active power filter", Proceedings of The EE Centenary Conference, IISc, Bangalore, India, pp. 469-473, December 2011.

**M. Kumar\***, **Y. Goyal\***, **K. Gayen**, and **S. Saini**, "Economic assessment of ABE (acetone-butanol-ethanol) fermentation for cellulosic and non-cellulosic feedstocks", 64<sup>th</sup> Annual Session, Indian Institute of Chemical Engineers, CHEMCON 2011, Bangalore, December 2011.

**S. Lahiri**, "India through different lenses: A study of Rushdie's Midnight's Children and Tagore's The Home and the World." Proceedings of the 1st Asian Conference on Literature and Librarianship, Osaka Japan, May 2011. Nagakute, Japan: The International Academic Forum (IAFOR), 233-244 (2011). [http://www.iafor.org/librasia\\_proceedings.html](http://www.iafor.org/librasia_proceedings.html).

**T. D. Nguyen** and **S. Ranganath**, "Recognizing continuous grammatical marker facial gestures in sign language video", 10<sup>th</sup> Asian Conference on Computer Vision, Queenstown, New Zealand, November 2010 (Published in Lecture Notes in Computer Science, LNCS Vol 6495, pp 665-676, Springer, 2011).

**N. M. Pindoriya** and **N. Gurrapu**, "Emerging trends in electricity market in India – A review", Proceedings of the 2<sup>nd</sup> International Conference on Current Trends in Technology, NUiCONE 2011, Institute of Technology, Nirma University, Ahmedabad, December 2011, pp. 1-7.

**J. R. Prabhakar\*** and **Ragavan K.**, "Unified controller for reliable coordination of wind-solar-hydro energy conversion systems", Proceedings of The EE Centenary



Conference, IISc, Bangalore, India, pp. 353-358, December 2011.

K. Prajapat, S. R. Chaudhuri and **A. Kumar**, "Analytical and experimental study of buckling of plates considering in-plane boundary conditions", 4th International Conference on Structural Stability and Dynamics (ICSSD-12), MNIT Jaipur, January 2012.

**S. Saini**, "Computational biology and bioinformatics: A systems biology perspective", Proceedings of workshop on Bioinformatics, Tripura University, November 2011.

**K. R. Shah\*** and **Ragavan K.**, "Locating and assessing the severity of mechanical deformations in power transformer windings", Proceedings of The EE Centenary Conference, IISc, Bangalore, India, pp. 289-294, December 2011.

B. Singh and **N. M. Pindoriya**, "Grid integration of large-scale wind power", Proceedings of the 7<sup>th</sup> National Conference on Indian Energy Sector: Synergy with Energy, AMA, Ahmedabad, November 2011.

### Papers Presented at Conferences

**A. L. Chakraborty** and W. Johnstone, "Calibration-free 2f wavelength modulation spectroscopy using normalization by the nonlinear intensity modulation for quantitative industrial gas measurements", Field Laser Applications in Industry and Research (FLAIR 2011), Germany, September 2011.

**A. L. Chakraborty**, "Calibration-free approaches in tunable diode laser spectroscopy of gases for industrial applications", 36<sup>th</sup> OSI Symposium, Frontiers in Optics and Photonics, IIT Delhi, December 2011.

**A. L. Chakraborty**, "Tunable diode laser spectroscopy of gases for calibration-free measurement of concentration and pressure", 20<sup>th</sup> DAE-BRNS National Laser Symposium,

Anna University, January 2012.

**S. Das\*** and **I. Gupta**, "Mono-functionalized N-Confused Porphyrin", 14<sup>th</sup> CRSI National Symposium in Chemistry (NSC-14), CSIR-NIIST, Trivandrum, February 2012.

**Y. Goyal\***, "Statistics-based model for prediction of chemical biosynthesis yield from *saccharomyces cerevisiae*", 111th general meeting of the American Society for Microbiology, May 2011, New Orleans, USA.

A. Guduru, P. W. C. Northrop, **S. K. Jain**, A. C. Crothers, T. R. Marchant, V. R. Subramanian, "Analytical solution for electrolyte concentration distribution in lithium-ion batteries", Journal of Applied Electrochemistry 42(4), 10.1007/s10800-012-0394-4(2012).

**Ragavan K.**, **Prathamesh J.\*** and **A. P. Kishore\***, "A Novel Magnetic-Circuit Based Design Approach for Electric Vehicle Motors", IEEE International Electric Vehicle Conference, Greenville, South Carolina, USA, pp. 1-5, Mar. 4-8, 2012.

**R. Kothari**, "Cartography of a song and story", Centre for Region Studies, University of Hyderabad, February 19-20, 2012.

**N. K. Kumar**, "Nonconforming spectral/hp method for elliptic interface problems" at Scientific computing and partial differential equations Conference, Hong Kong, December 2011.

**A. Kunwar**, "Using computational modeling to understand in-vitro and in-vivo transport by molecular motors", Interdisciplinary Workshop on High Performance Computing, January 30-February 1, 2012, PRL, Ahmedabad.

**J. Manjaly**, "Panpsychism and evolution of experience", International Conference on Towards a Science of Consciousness – TSC 2011: Brain, Mind and Reality, Stockholm. May 2011.

M. Mukherjee and **A. Prashant**, "An automated approach for near surface soil site profiling by SASW technique", in 8th International Symposium on Field Measurements in GeoMechanics, Berlin, GER, September 12-16, 2011.

**S. Mukherjee\***, N. Srinivasan, **J. Manjaly** and **N. Kumar\***, "Effect of Money on estimations of Social Distance", XXI Annual Convention of National Academy of Psychology (NAOP), IRMA, Anand, Gujarat, December 2011.

**S. Mukherjee\***, N. Srinivasan and **J. Manjaly**, "Role of attentional processes on monetary estimations", International conference on Decision Making, CBCS, Allahabad, December 2011.

V. Palakollu, J. K. Katla and **S. Kanvah**, "Influence of Methyl and Nitro Groups on Photo induced Behavior of Diphenylbutadiene derivatives", 4<sup>th</sup> CRSI National Symposium in Chemistry (NSC-14), Trivandrum, Kerala, February 2012.

**J. R. Prabhakar\*** and **Ragavan K.**, "Classical controller for coordination of wind-solar-hydro energy conversion systems in isolated region", International Conference Power and Energy Systems (ICPS), IIT Madras, Chennai, India, pp. 1-6, December 2011.

**A. Rath**, "Situating time and binding space: An analysis of heterochronies and the carnival square", International Symposium on Spaces of Alterity: Literary and Dramatic Representations, IIT Gandhinagar, September 2011.

**S. Saini**, "Evolution of intrinsic microbial resistance to antibiotics in bacteria", 2<sup>nd</sup> National conference on Antibiotic Resistance, Allahabad, February 2012.

**S. Saini**, "Regulatory network architecture in pathogenic bacteria", RNAB, Sastra University, March 2012.

**S. Saini**, "Role of Fur in regulating pathogenic gene expression in enteric bacteria", International Conference & Exhibition on Proteomics & Bioinformatics, HICC Hyderabad, June, 2011.

**A. Thorat\*** and **S. V. Dalvi**, "Controlled liquid antisolvent precipitation of ultrafine particles of curcumin in aqueous suspensions using ultrasound and stabilizers", 64<sup>th</sup> CHEMCON Conference, Bangalore, December 2011.

\*Student





# tudents Activities

Students Activities  
Co-curricular Activities  
Extra-curricular Activities  
Other Student Activities  
Special Occasions  
Awards and Recognition  
Sports News



## Student Activities

Students are actively encouraged to participate in extra-curricular and co-curricular activities that improve their overall growth. Students have not only excelled at such activities throughout the year but have also initiated some new ones.



## Co-curricular Activities

### Amalthea 2011

**Amalthea - 2011**, a two-day conclave on **Infrastructure: Present Scenario and Future Scope** was organized during October 15-16, 2011. The Conclave was inaugurated on October 14, 2011 by **Shri Narendra Modi**, Honrable Chief Minister of Gujarat. In an eloquent and inspiring speech Shri Modi articulated how the prosperity of a region is closely linked to the development of local infrastructure. Other conclave events included lectures by eminent persons and panel discussions on topical issues. The speakers included **Shri Mukesh Bhandari**, Chairman, Electrotherm India Ltd; **Shri Jayesh Buch**, Director, Essar; **Shri S. B. Dangayach**, Managing Director, Sintex; **Shri Pravin Gandhi**, Director, Co-orporate Research, Underwriters Laboratories Inc.; **Mr Jamey Graham**, Ricoh Innovations; **Shri Sanjay Gupta**, Chairman, Neesa Group; **Shri Sushil Handa**, Founder and Chairman, Fifth Veda Entrepreneurs; **Shri Subir Hazra**, Associate Vice President & Head, Strategic Planning, Delhi International Airport (P) Ltd; **Shri Satish Jha**, President and CEO, One Laptop Per Child India; **Dr Malay Mahadevia**, Director, MPSEZ; **Shri D. J. Pandian**, Principal Secretary, Energy and Petrochemicals Department; **Shri Santosh Rai**, Sales Head - Transport Business, HCC Ltd; **Prof V. S. Raju**, Former Director, IIT Delhi; **Shri Mangu Singh**, Director (Works), Delhi Metro Rail Corporation; and **Shri Sameer Sinha**, Joint MD, Savvy Infrastructure. Thirty-five companies including public sector enterprises such as ISRO, NPCIL and NDMA participated in the exhibitions. The core organizing team consisted of **Arjita Sharma**, **Bhaskarjyoti Das** and **Rohit Chouksey**. Further details on <http://amalthea.iitgn.ac.in>.



## Mehfil-e-Adab: An Evening of Urdu Poetry

An evening of Urdu poetry on November 20, 2011 marked the closing of two eight-week courses on Urdu Script and Poetry by **Ms Hamida Banu Chopra** (University of California, Berkeley). Ms Chopra and some of her students (**Swati Verma, Adnan Ansari, Kanchan Patel, Aditya Samant, and N. C. Puneeth**) recited poetry by famous Urdu poets. Well-known Urdu poets of Ahmedabad **Sadiq Noor Pathan, Jayant Parmar** and **Tanvir Aijaz Siddiqui** also recited their poems.

## Mean Mechanics 2011

A Robotics Workshop-cum-Competition was organized on September 4, 2011 for the first year students in which eighty students



participated. The winning team members **Abhishek Sancheti, Gaurav Mahmuni** and **Vaibhav Mathur** received a 4GB pen drive each. The runners-up team, **Aryan, Shaurya Seth, Ujash Dave** and **Akash K. Singh** received a scientific calculator each. The event was organized by **Shashank Agarwal, Akshay Jain** and **Prateek Nyati** under the guidance of **Prof. N. Ramakrishnan, Prof. Ajanta Sachan, Prof. Girish Singhal** and **Prof. Amit Prashant**.

## Summer Internships

Summer internships are considered a very important part of education. These opportunities not only expose the students to the demands of the real world but also help them to bridge the gap between the theoretical concepts taught in the class rooms and their application in industrial or research.

The internships help the students to assess their technical knowledge and gauge their aptitude for certain kinds of work. This exposure allows them to make informed decisions regarding their future. Bearing the importance of the summer internships in mind, the Institute actively helps students in finding internships in industry as well as in eminent Indian and foreign education and research institutes. During the summer of 2011, a total of 158 students did their internships in educational institutions and industries. Of these, 40 students went to educational institutions such as IISC Bangalore and CSTEP Bangalore, 22 students visited foreign universities such as California Institute of Technology, John Hopkins University, University of Notre Dame and 96 students went to industries such as Reliance Industries, National Instruments and TATA Steel.

## Life Skills Series

The following workshops were conducted under the **Life Skills Series**, coordinated by **Prof. Sharmita Lahiri**, which focusses on integral aspects of our daily lives.

- ▲ **Follow your dreams**, by **Mr Avik Bhandari** and **Ms Nidhi Kush Shah**, Student Placement Office, IITGN, April 7, 2011. About 30 students attended the event.
- ▲ **The power of positive thinking** by **Ms Nidhi Kush Shah**, August 26, 2011. It was attended by about 35 students and staff.
- ▲ **Stress Management** by **Dr M. Parikh** (MD), a leading Psychiatrist and Psychotherapist of Ahmedabad, October 22, 2011. It was attended by about 30 students and members of staff.
- ▲ **Job Interviews: How to nail them** was held on January 6, 2012. Several graduating students shared their successful job interview experiences 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 graduating

students spoke to about 100 students and some staff members. **Prof. Atul Bhargav** was the guest expert and the moderator of the discussion.

### Visit to Mundra Supercritical Power Station

Fourth year Mechanical Engineering students got a feel for the complexities of operation of modern power plants in India through a visit to the Mundra Power Station on October 29, 2011, coordinated by **Prof. Vedanth Kadambi**.

### Inter-IIT Gymkhana Summit 2011

The fourth Inter-IIT Gymkhana Summit was organized at IITGN by the Student Gymkhana during October 22-23, 2011. Student representatives of eight IITs (Guwahati, Rajasthan, Mandi, Ropar, Indore, Madras, Hyderabad and Gandhinagar) participated in the discussions at the summit. IIT Kanpur and IIT Bombay also joined the sessions online. A major highlight of the summit was a brain-storming session with **Mr Sunil Parekh**, founder and Head of Pan IIT Gujarat Association, and **Prof. Utpal Sharma**, CEPT University.

### Extra-curricular Activities

#### IIT Gandhinagar initiates Summer Camp for B. Tech. Students

The Institute organized a four-week Summer Camp for IITGN undergraduate students starting June 15, 2011. This initiative gives the students a platform to express their creativity and originality. Activities at the camp include engineering design challenges such as designing a smart cane for the blind, theatre and Salsa dancing classes, various sports activities, a reading circle for books of historical significance, and workshops organized by industry professionals.

#### Intra-College Cultural Festival

Jashn, the first Intra-College Cultural Festival of IIT Gandhinagar was organized during November 4-6, 2011. The three-day festival

comprised innovative as well as traditional events such as Art Exhibition, Photography Competition and performances from the Dance, Drama and Music clubs of IITGN. The key members of the organizing committee were **Nishank Jain** (Convener), **Ankit Suchanti**, **Nitai Bajaj** and **Atharva Patil**.

#### Blithchron'12: Cultural Festival

Blithchron12, the annual cultural festival of IITGN, was held 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 10,000 people attended the two-day event.

#### International Year of Forests

The International Year of Forests (IYF) was organized through a community tree-plantation drive around the IIT Gandhinagar hostels on December 29, 2011. About 60 trees were planted. The chief guests were **Prof. Sudhir K. Jain**, Director IIT Gandhinagar and **Mr Pushkar Ganesh Vaidya**, Indian Astrobiology Research Centre and IYF program head. Mr Vadiya gave a lecture on **Forests and Astrobiology - Why this Kolaveri Di?** that covered a wide range of topics from conservation of environment to extra-terrestrial life and the connection between them. Organizers of this event were



**Susmitha Purnima Kotu** (Campus Ambassador-IYF 2011) and **Blithchron Green Initiative 2012**.

### Musical sensation of the year (MuSTY) 2011

The search for MuSTY started in March 2011. Six selected participants out of a total of 15 competed in two rounds, on September 7, 2011 in Grand Finale. The audience voted their preference through SMS during the event. **Gourav Dubey** of the 3<sup>rd</sup> year was voted as MuSTY 2011 and received the rolling trophy from MuSTY 2010 **Chetas Joshi**. The event recorded 282 valid votes. The event was coordinated by **Kaustubh Tirpude**, **Abhijit Rajiv** and **Nishank Jain**.

### CognoBytes - the science of the mind

**Sumitava Mukherjee**, a doctoral student in Philosophy, has started a blog titled CognoBytes (<http://cognoBytes.wordpress.com>). The blog aims to create awareness and to disseminate knowledge about the science of the mind, behaviour and the brain. This effort is enthusiastically supported by **Prof. Jaison A. Manjaly**.

### CineApse

**CineApse**, an event which tests the cinematic knowledge of participants through quiz and dumb charades, was held on September 4, 2011. Eight teams competed in four exciting and engaging rounds. The group of second year students **Akshay Mall**, **Nisarg Shah**, **Sudhamsu Krishna**, **Ankita Sharma** and **Manogyna Snigdha Parimi** won it with a cash prize of Rs1,000.

### Other Student Activities

- ▲ **Diti Vyas**, a doctoral student in English, attended an international conference **Book Therapy - Reading is healing**, Association of Writers and Illustrators for Children (AWIC), New Delhi, February 9-11, 2012. She was also felicitated by the Chief Minister, **Shri Narendra Modi** at a function in Ahmedabad on January 18, 2012 for being one of the 400 pilgrims to

complete the trek to Kailash Mansarovar.

- ▲ **Shyamal Kishore** and **Sushant Kumar Suman**, both 3<sup>rd</sup> year students, conducted a one-day workshop on **Internet Awareness** for 45 under graduate and postgraduate students of L&C Mehta College, Ahmedabad on July 6, 2011.
- ▲ Students of IITGN, in association with Prathama, organized a blood donation camp on January 13, 2012. The drive attracted sixty-six donors. The student coordinators included **Shreyans Nahar**, **Shashank Heda**, **Prashant Verma**, and **Parth Guthka**.
- ▲ The noted sitarist **Pt Shubhendra Rao** of SpicMacay presented an enthralling concert at IITGN on January 5, 2012.

### Special Occasions

#### Independence Day Celebrations

**Prof. Sudhir K. Jain**, Director hoisted the National Flag on August 15, 2011 to celebrate the country's 65<sup>th</sup> Independence Day. Events that followed included a cultural event and a debate competition on **Lokpal Bill as proposed by Mr Anna Hazare**. The debate was won by **Ishan Upadhyaya** and **Shivam Mani Tripathi** who received a cash prize of Rs. 1,000 each. A discussion on Anti-corruption movement moderated by **Prof. Sandeep Pandey** followed.

#### Republic Day Celebrations

In keeping with IITGN tradition, the 63<sup>rd</sup> 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.



## Awards and Recognition

### Student's Design Wins in Caltech Space Challenge

**Aditi Dighe**, a 3<sup>rd</sup> year Electrical Engineering student, was a member of the team that won the **Caltech Space Challenge** competition to design a manned mission to an asteroid by 2025 as envisioned by US President Barack Obama. Caltech, in collaboration with NASA's Jet Propulsion Laboratory, Lockheed-Martin and Orbital Sciences Corporation, selected 32 students from 12 countries through a three round selection process. Aditi was one of six students selected from India. Each team of 16 students spent five days (September 12-16, 2011) at the Keck Institute of Space Studies, Caltech to come up with the mission design which will put crew of three astronauts on an asteroid. Aditi primarily worked on three aspects: Human Habitat, Electrical Power System and International Cooperation. Other aspects of design included Trajectory, Propulsion, Thermal-Control and Science Experiments.

### Students on Dean's List Felicitated

On September 8, 2011, a ceremony was held to felicitate 80 students who featured on the first Dean's List. **Prof. Sudhir K. Jain**, Director, addressed the students and handed over the letters of appreciation and a book (**A Rainbow in the Night** by Dominique Lapierre). Ninety-nine undergraduate students and one M. Tech. student made it to the second Dean's List that was announced on February 10, 2012. **Prof. Sudhir K. Jain** felicitated the students by giving the letters of appreciation and a book (**Everybody loves a good drought** by P. Sainath). Details are available at [http://www.iitgn.ac.in/pdf/Deans\\_list.pdf](http://www.iitgn.ac.in/pdf/Deans_list.pdf).

### Distinguished Awards in Sports

The following awards for the year 2010-11, were given to students showing outstanding performance in different sports on April 21, 2011:

Sports Person of the Year  
**Suresh Chaudhary**

Upcoming Player of the Year  
**Ameya Joshi**

Badminton Open Champion  
**Harsh Paliwal**

Chess Inter Departmental Championship Winner  
**Manu Bansal**

Boys General Championship Winner  
**Electrical Engineering Team**

Girls General Championship Winner  
**Chemical Engineering Team**

Best Boys Team of the Year  
**Basketball Team**

Best Girls Team of the Year  
**Badminton Team**

## Sports News

### Halla Bol

The 2<sup>nd</sup> 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 average students participated in 6-7 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-IIT Aquatic Meet 2011

**Parth Sane Vishwas**, a first year student, became the first IITGN student to win a Gold medal at an Inter-IIT meet. He won the Gold in 50m Butterfly event and won a Silver medal in 100m Back stroke. **Vrushiket Patil** secured fourth position in the 200m Back

stroke event. The IIT Gandhinagar team secured 5<sup>th</sup> position among eleven participating IITs.

### 47<sup>th</sup> Inter IIT Sports Meet 2011 (December 12-19, 2011)

**Shivani Rani** (M. Tech. student) won a Silver medal in Shot Put Throw with a throw of 7.92m and a Bronze medal in discus throw event with a throw of 23.06m. **Bhargav Kumar Thadem** (4<sup>th</sup> year B. Tech.) won a Gold medal in Javelin Throw with a throw of 46.10m. **Suresh Chaudhary** (3<sup>rd</sup> year B. Tech.) won a Silver medal in 5000m Track event with clocking an impressive time of 17:38:70.

### IIT Gandhinagar Basketball Teams win Gold medals at Khel Mahakumbh

Both IITGN Basketball Teams (Boys & Girls) won in their events at the Khel Mahakumbh organized by the Gujarat Government on December 1, 2011. Every player of the two teams was given a cash prize of Rs 3000 for their performance. **Suresh Choudhary, Vishvendra Joshi, Ritu Gavasane, Divya Bansal, Shivani Rani, Mishita Jaishwal and Ankita Sharma** distinguished themselves with their excellent performances.

### Petro Cup'12

IITGN students participated in PDPU's sports event petro Cup'12 during January 25-29, 2012. **Bhargav Kumar Thadem** (Javelin Throw) and **Shivani Rani** (Shot Put and Discus Throw) won gold medals. IITGN also received the General Championship in **Men's** and **Women's Basketball** tournaments. The Chess team won a silver medal for their performance. Notably, **Gaurav Saini** remained unbeaten throughout the tournament.

### 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.

### Other Sports Events

- ▲ **Badminton Girls** team (**Shurti Jain** and **Swati Verma**) won the badminton championship by defeating the home team at Concours 2011 (DAIICT Annual Sports Fest) on April 3, 2011.
- ▲ **Table Tennis Boys** team (**Chetas Joshi, Spandan Jyoti Das, and N. C. Puneeth**) won against Gujarat National Law University, DAIICT, and LDRP Institute of Technology and Research, Gandhinagar during April 1-3, 2011.
- ▲ **Chess Boys** team (**Manu Bansal, Ram Prakash, Akshay Bishnoi, Pratik Thakker, and Akhshay Navalakha**) won against DAIICT and LDRP Institute of Technology and Research, Gandhinagar during April 2-3, 2011.
- ▲ **Badminton Boys** team (**Harsh Paliwal, and Ishan Tembhekar**) won against Gujarat National Law University and DAIICT during April 1-2, 2011.
- ▲ The **Boys Basketball** team won against Shri Ram School, Gurgaon, Haryana on September 1, 2011 with commendable performance from **Suresh Chaudhary**. The team also won against DAIICT (67-18) on September 17, 2011.
- ▲ The **Boys Football** team played a friendly match against Police 11, Gandhinagar on September 4, 2011. The match ended in a draw with good performances from **Himanshu Dewangan, Parag Pradeep, Joy Narang** and **Abhinav Borker**. The team also won against DAIICT (2-1) on September 17, 2011 with **Maisum Ali Dairkee** putting in an exceptional performance.
- ▲ The **Boys Cricket** team won against DAIICT on September 18, 2011. **Nitish Bhaje, Sujay Yadav, Rutuparna, and Ankur Meena** were outstanding in the match.
- ▲ The **Boys Volleyball** team won against PDPU, Gandhinagar (3-0) on September 22, 2011. The **Boys Volleyball** team won 3-0 against DAIICT, Gandhinagar on October 18, 2011.
- ▲ IITGN Faculty & Staff Team won 3-0

against Ph. D. and M. Tech. Students Team in a friendly volleyball match on October 17, 2011.

- ▲ **Bhavin Chauhan** of 3<sup>rd</sup> year won a bronze medal at the All-Gujarat Karate Tournament held in Baroda, December 10-11, 2011.



# R

International elations

International Relations  
Other events and activities  
Reaching Out



## International Relations

IITGN has been building up exciting relationships with internationally renowned universities and academic institutions. Several partnerships have been forged in the last year with excellent benefits to students and faculty.

### California Institute of Technology, Pasadena, USA

Strong ties have been forged between IIT Gandhinagar and California Institute of Technology (Caltech), one of the most prestigious engineering institutes in USA. An MoU between the two Institutes was signed on June 23, 2011 for the exchange of undergraduate students. IITGN students **Prashant Ashok Borde** and **Prathamesh Arvind Juvatkar** of Electrical Engineering and **Ishan Deodatta Tembhekar** of Mechanical Engineering did their summer internships at Caltech in 2011. Another six students (**Shruti Jain** (ChE), **Jainil Parekh** (EE), **Pritesh Sankhe** (EE), **Satyedra Singh Jadaun** (EE), **Rohit Chouksey** (ME), and **Mohak Patel** (ME)) will do their summer internships at Caltech in 2012. Inspired by their internship experience, **Ishan Tembhekar** and **Neel Nadkarni**, both Mechanical Engineering students will start their Ph. D. programmes at Caltech in Fall 2012.

Ten Caltech undergraduate students were invited and partnered with ten IITGN students to be a part of a unique experience called **India-Ki-Khoj** at IITGN during December 12-21, 2011. Together they embarked on a journey of exploration of India's past, present and future. The programme was inaugurated by the eminent dancer and activist **Dr Mallika Sarabhai**. In addition to the lectures by leading academicians and thinkers such as **Mr Michel Danino**, **Prof. Suguna Ramanathan**, **Mr Santosh Desai**, **Prof. Howard Spodek**, and **Dr Sandeep Pandey**, the students undertook field-trips to Lothal (Indus Valley Civilization site), Sabarmati Ashram, and Tejgadh (Center for tribal languages and identity: Bhasha). It was coordinated by **Prof. Rita Kothari** and **Prof. Jaison Manjaly** of IITGN and **Ms Athena Castro** of Caltech.

### Washington University, St Louis, USA

The Washington University, St Louis in USA has been offering summer internship

opportunities to our students every year. This has been possible due to generous support of **Prof. Pratim Biswas**. The following students have benefitted from these: **Jeenam Jindal**, **Luv Gupta** and **Yogesh Goyal**, in summer of 2010; **Shruti Jain**, **Pratyul Kapoor** and **Kanchan Patel** in 2011. Two more students, **Shaline Kavadiya** and **Akansha Jagwani** (ME) are expected to do their internships there in 2012.

### Duke University, Durham, USA

**Prof. Kishor Trivedi** of Computer Science at Duke has visited IITGN twice, delivered talks, and held discussions about mutual collaborations and cooperations. Three students **Narendranath B.**, **Subhash Kunch** and **Aditi Dighe** are likely to undergo their internship at the Duke during summer of 2012.

### Nanyang Technological University, Singapore

**Prof. T-C Pan**, the then Dean of Engineering at NTU has visited IITGN and has been supporting a collaboration with IITGN. Four students **Parichita Kapoor**, **Ankit Agarwal**, **Nitesh Gupta** and **Prerit Terway** underwent summer internship at NTU in 2010, and **Manu Bansal**, **Ankit Agarwal**, and **Vishal Maheshwari** in the summer of 2011.

### University of Saskatchewan, Saskatoon, Canada

**Prof. Ernie Barber**, Dean, College of Engineering and **Prof. Karen Chad**, Vice President Research have visited IITGN on different occasions. **Prof. Ajay Dalai**, Associate Dean Research and Partnerships brought a 13-member delegation of professors and administrators to IITGN to discuss possibility of mutual collaborations. **Mohit Verma** is likely to undergo summer internship at the University Saskatchewan and **Prof. Jain**, Director likely to visit them in the summer of 2012.



## École Polytechnique Fédérale De Lausanne, Switzerland

**Prof. Jain**, Director has visited EPFL to discuss possibilities of mutual collaboration. This was followed by a visit of **Prof. Amit Prashant** to EPFL. **Prof. John C Badoux**, former president of EPFL spent several days at IITGN. Several professors of EPFL have visited IITGN and taught either a half-semester or a short course. These include **Prof. Ian F. C. Smith**, **Prof. Claude Petitpierre** and **Prof. Naoufel C..** Our undergraduate student **Prakash Kumar Uttam** did his summer internship at EPFL in summer of 2011.

## University of Rhode Island, Kingston, USA

**Prof. Arun Shukla** offered summer internship in his laboratories to **Neel Nadkarni** and **Pankaj Yadav** (both Mechanical Engineering students) during summer 2011. Another Mechanical Engineering student **Shyamal Kishore** is likely to do internship there in summer 2012.

## The Johns Hopkins University, USA

The Johns Hopkins University and IITGN faculty have been in discussions about setting up a Biomedical Engineering Laboratory at IITGN and possibilities of collaborative research. As part of these discussions, **Prof. Joycecie Mekie** visited the Johns Hopkins University's Biomedical Engineering Department for about a week. The proposed Biomedical Engineering Laboratory has begun to take shape at IITGN with the involvement of **Prof. Nitish Thakor** of JHU. As a deliberate attempt to expose students to the intricacies and challenges of such work, three IITGN students, **Neel Prashant Nadkarni** (ME), **Lalitha Anusha** (EE) and **Nishant Shirish Joshi** (EE), did their internships at JHU in the summer of 2010, two more students, **Nitish Bhaje** and **Sarthak Jain**, (both EE), in 2011. These students have continued the work at IITGN which started at JHU and have also helped to mentor other students.

## University of Notre Dame, Indiana, USA

The ND-IITGN Graduate Research

**Fellowship** has been established to forge a strong partnership between IITGN and the University of Notre Dame that will promote long-term research and academic collaborations between the two institutes. 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. The sole criterion for selection for the award will be a candidate's academic performance and potential for research. **Saurabh Hiten Nagrecha**, a final year student of Electrical Engineering, is the first recipient of this fellowship. During the summer of 2011 **Saurabh Hiten Nagrecha** and **Kishore Rathnavel** (EE) did their summer internships in 2011, while **Shubham Ranka**, a third year Electrical Engineering student will get the opportunity in the summer of 2012. The relationship with Notre Dame has been possible due to enthusiastic engagement of **Prof. Nitesh Chawla** of ND

## University of Washington, Seattle, USA

**Prof. Vipin Kumar** of the university of Washington has visited IITGN twice, once with **Prof. Per Reinhall**, Chairman of Mechanical Engineering. As a result of these discussions an MoU was signed on December 12, 2011 to:

- 1) Promote a global educational experience for both students and faculty.
- 2) Foster a spirit of collaboration and co-operation.

**Abhijith Rajiv** and **Varun Gupta** from Mechanical Engineering will be doing their internship at University of Washington in 2012.

## ISCTE – Lisbon University Institute

**Prof. Sudhir K. Jain** and **Prof. Jaison Manjaly** visited the ISCTE – Lisbon University Institute (May 24-29, 2011) on the invitation of the Rector. A number of academic activities of mutual interest were discussed, and an MoU for academic collaborations signed. **Prof. Rosa Maria Perez** of ISCTE spent the II semester of 2011-12 at IITGN to teach a course on Anthropology which was very well received by our students. More such opportunities for

mutual collaborations are expected to arise out of this relationship.

### Underwriters Laboratory, Northbrook, USA

Underwriters Laboratory (UL), in Northbrook (near Chicago), USA is the world renowned company in product safety, particularly in fire. UL has been providing research and development opportunities to the students of this Institute.

Six IITGN students (**Vivek Yadav**, **Abhishek Umrao** and **Divyank Singh** of Chemical Engineering, **Adnan Ahmad Ansari** and **Anchit Gaurav** of Mechanical Engineering, and **Saurya Prakash Sinha** of Electrical Engineering) did their summer internships at the Underwriters Laboratory in the summer of 2010. Five other students (**Shubham Chauhan**, **Divyank Singh**, **Abhilash Patel**, **Abhishek Kandoi** and **Maisum Dairkee**) will spend time at UL Chicago along with PV Labs of Case Western Reserve University, Cleveland, USA during the summer of 2012. The students are selected competitively each time through research projects sponsored by UL. Usually a large number of students participate in the competitions.

An IITGN-UL Kitchen Fire Lab has been set up at the Institute by the students under the guidance of **Prof. Chinmay Ghoroi**. The lab is partially funded by UL. Three undergraduate students, **Anchit Gaurav**, **Adnan Ansari**, and **Abhishek Umrao**, demonstrated working of their laboratory research set-up on kitchen-fire safety to **Mr August W. Schaefer**, Senior Vice-President,

and other officials of UL who visited IITGN on April 18, 2011. Students also made a power point presentation on National Fire Database and Kitchen Fire Safety in India.

**Saurya Prakash Sinha**, currently a 3<sup>rd</sup> year Electrical Engineering student, was invited to the UL Safety Seminar, Mumbai, July 19, 2011 to present the work carried out under UL research initiative by the team which also included **Shruti Jain**, **Ekta Prashnani** and **Divyank Singh**.

### Ricoh Innovations, Inc. (RII)

Ricoh Innovations, Inc. (RII), USA and IITGN collaborate actively on projects of mutual interest. A consulting project titled Development of a user interface for facilitating literature search was sponsored by Ricoh Innovations, Inc. (RII), USA at IITGN. **Prof. Supreet Saini**, Chemical Engineering coordinated this project. **Adit Gupta** (ChE) did an internship at Ricoh Innovations, California in summer of 2011, while **Tarkeshwar Singh** and **Divyank Singh** worked on the project at IITGN.

**Mr Hideki Segawa**, Deputy General Manager of Ricoh Company Ltd, Tokyo and his colleagues **Ms Eiko Nakamoto** and **Ms Ryohko Ezoe** visited IITGN on May 5, 2011 to further discuss potential areas for collaborations in social entrepreneurship.

**Dr Nikhil Balram**, President of RII has been a Guest Professor at IITGN even before he joined RII. He has been visiting the Institute regularly, lecturing and guiding students projects.

### MoUs with Other International Organizations

Sr. No.	Institutions	Purpose	MoU Signing date
1.	Institute Supérieur D'Electronique De Paris (ISEP)	To develop academic & scientific relations between the two institutions	February 25, 2011
2.	Institute of Electrical and Electronics Engineers, Piscataway, NJ, USA	Framework for Engineering Faculty Development Pilot Programme	October 1, 2011
3.	Embassy of France	French Language Tutor Programme	January 27, 2012
4.	IHP GmbH, Germany	Collaboration in semiconductor device research	September 28, 2011
5.	The University of Massachusetts Lowell	Research collaborations and student & faculty exchange	May 7, 2012

## First Batch Students Expected to go for Higher Studies in USA

Sr. No.	Name	Institute	Programme	Department at IITGN
1.	Ishan Tembhekar	Caltech	Ph. D.	Mechanical
2.	Neel Nadkarni	Caltech	Ph. D.	Mechanical
3.	Swetava Ganguli	Stanford University	Ph. D.	Mechanical
4.	Nitish Ratan	Univ. of California, Merced	Ph. D.	Mechanical
5.	Yogesh Goyal	Princeton University	Ph. D.	Chemical
6.	Luv Gupta	Stanford University	M. S.	Chemical
7.	Vivek Yadav	Univ. of Houston	Ph. D.	Chemical
8.	Prerit Terway	Univ. of Michigan, Ann Arbor	M. S.	Electrical
9.	Saurabh Nagrecha	Univ. of Notre Dame	Ph. D.	Electrical

## Summer Internships at Universities/ Organisations Abroad

Sl. No.	Institution	Student name	Department	Year of internship
1.	Ecole Nationale Supérieure of Architecture de Montpellier (ENSAM), France	Swetava Ganguli	Mechanical Engineering	2010 2011
2	Nanyang Technological University, Singapore	Parichita Kapoor, Ankit Agarwal, Nitesh Gupta and Prerit Terway	Electrical Engineering	2010
		Manu Bansal, Ankit Agarwal, and Vishal Maheshwari		2011
3	Citrix Systems Inc., San Francisco	Tanmay Hiralal Balwa	Mechanical Engineering	2011
4	Deutscher Akademischer Austausch Dienst (DAAD), Germany	Luv Gupta	Chemical Engineering	2011
5	École Polytechnique Fédérale de Lausanne (EPFL), France	Prakash Kumar Uttam	Mechanical Engineering	2011
6	University of Houston, USA	Vivek Yadav	Chemical Engineering	2011
7.	University of Rhode Island, USA	Neel Prashant Nadkarni and Pankaj Kumar Yadav	Mechanical Engineering	2011
		Shyamal Kishore		2012
8.	University of Southern California, USA	Prerit Terway	Electrical Engineering	2011
9.	Duke University, USA	Narendranath B., Subhash Kunchi and Aditi Dighe	Electrical Engineering	2012
10.	EPIR Technologies, Inc., Bolingbrook, IL	Shashank Naphade and Akshay Navalakha	Electrical Engineering	2012
11.	National University of Singapore	Chetas Joshi	Electrical Engineering	2012
12.	Syracuse University, USA	Shubham Agarwal	Electrical Engineering	2012
13.	University of Saskatchewan, Canada	Mohit Verma	Chemical Engineering	2012
14.	University of Strathclyde, Glasgow, Scotland	Dhruv Chokshi	Electrical Engineering	2011
		Prashant Patel	Mechanical Engineering	2012
15.	University of Wisconsin-Madison, Madison, WI, USA	Susmitha Purnima Kotu	Chemical Engineering	2012
16.	University of Notre Dame, Notre Dame, Indiana	Saurabh Hiten Nagrecha, Kishore R.	Electrical Engineering	2011
		Shubham Ranka		2012
17.	University of Washington, Seattle, WA	Abhijit Rajiv, Varun Gupta	Mechanical Engineering	2012
18.	Washington University, St. Louis, Missouri	Jeenam Jindal, Luv Gupta, Yogesh Goyal	Chemical Engineering	2010
		Pratyul Kapoor, Kanchan Patel, Shruti Jain		2011
		Shalinee Kavadiya, Akanksha Jagwani		2012
19.	John Hopkins University, Baltimore, USA	Nadkarni Neel Prashant, Lalitha Anusha, Joshi Nishant Shirish	Mechanical Engineering	2010
		Nitish Bhaje, Sarthak Jain	Electrical Engineering	2011

20.	California Institute of Technology, Pasadena	Borde Prashant Ashok, Prathamesh Arvind Juvatkar	Electrical Engineering	2011
		Ishan Deodatta Tembhekar	Mechanical Engineering	
		Shruti Jain	Chemical Engineering	2012
		Jainil Parekh, Pritesh Sankhe, Satyendra Singh Jadaun	Electrical Engineering	
		Rohit Chouksey, Mohak Patel	Mechanical Engineering	
21.	Underwriters Laboratories, Camas, WA	Vivek Yadav, Divyank Singh, Abhishek Umrao	Chemical Engineering	2010
		Adnan Ahmad Ansari, Anchit Gaurav	Mechanical Engineering	
		Saurya Prakash Sinha	Electrical Engineering	
		Divyank Singh, Ravi Teja	Chemical Engineering	2012
		U. Revanth Venkata Sandeep	Electrical Engineering	
		Abhilash Patel, Shubham Chauhan, Abhishek Kandoi, Maisum Ali Dairkee	Mechanical Engineering	

## Other events and activities

### Students from Manchester College, Indiana 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.

### Reaching Out

**Prof. Sudhir K. Jain** and **Prof. Jaison Manjaly** visited the ISCTE – Lisbon University Institute (May 24-29, 2011) on the invitation of the Rector. A number of academic activities of mutual interest were discussed, and an MOU for academic collaborations signed. In Lisbon, Prof. Jain, as the Executive Vice-President of the International Association for Earthquake Engineering, also met with the organizing committee of the 15<sup>th</sup> World Conference on Earthquake Engineering scheduled to be held in Lisbon during September 24-28, 2012 and reviewed the preparations.

**Prof. Sudhir K. Jain** participated in the 19<sup>th</sup> CAETS Convention on “Engineering Analysis and Management to Reduce Risks” in Mexico City as a member of the delegation headed by the President of the Indian National Academy of Engineering (June 27 -

July 1, 2011). He also delivered a lecture on “The Road to Seismic Safety with Particular Reference to the Developing Countries”. Prof. Jain took this opportunity to visit University of California at Berkeley and at Los Angeles, University of Southern California, and the California Institute of Technology to develop institutional collaborations and to attract faculty candidates. He signed an MoU with Caltech on exchange of students. During this visit, Prof. Jain also sought support of and partnerships with several influential individuals and organizations in San Francisco, Los Angeles, Mexico and Chicago.

**Prof. Sudhir K. Jain** and **Prof. Subhash Deodhar** represented the Institute in the Pan-IIT Alumni Meet 2011 in New York (September 30 - October 2, 2011) and networked with eminent alumni of the IIT system. Prof. Jain also addressed graduate students and post-docs at Columbia University and MIT with a view to seek outstanding faculty candidates for the Institute. He visited Olin College which has acquired a reputation for innovations in engineering in a relatively short period, to explore opportunities for close cooperation between the two institutes. Prof. Jain also participated in the Young Investigators Meeting (YIM), Boston, October 8-10, 2011, an annual event to connect aspiring faculty candidates of Indian origin in the US with academic institutions in India. IIT Gandhinagar was one of the main sponsors of the YIM this year.



# Support for IIT Gandhinagar

Major Grant from the Government of Gujarat  
Technology Incubation and Development of Entrepreneurs Centre  
Government of India establishes Chair at IITGN  
Research on Solar Power Systems get boost  
Scholarship support from Neotia Foundation  
Nilekani Fund at IIT Gandhinagar  
Motwani Fund at IIT Gandhinagar



### Major Grant from the Government of Gujarat

The Government of Gujarat has sanctioned a grant of Rs 1,000 lakh 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 to the students of the Institute to develop technologies for commercialization for entrepreneurship. The mandate of this Centre resonates with IITGN's vision that its graduates should create jobs rather than seek them.

### 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).

### Research on Solar Power Systems get boost

Research in the area of integrating distributed renewable generation into electrical grid being carried out by **Prof. Naran Pindoriya** and his group at IITGN got boost from support provided by **Gujarat Energy Development Agency (GEDA)**, Gandhinagar and **NTT Facilities, Inc., Japan**. Both organizations have provided one 10 kW roof-top solar photovoltaic (PV) system each to the Institute. The GEDA system (44 polycrystalline modules each rated at 230 W) is produced by Jain Irrigation Systems Ltd., India while the NTT Facilities system (64 thin-film modules each rated at 150 W) is made by Solar Frontier, Japan. These PV systems are expected to generate a total of about 30,000 kWh of electricity every year and reduce CO<sub>2</sub> emissions by about 28 tonnes. These systems are already operational and being used for research work of solar PV, and also reduce the energy bills of the Institute. **Underwriters Laboratories, USA** has also shown interest in this research work.



### 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 was born and raised in Kolkata and hails from a family that has been successful in business for over 100 years. He completed his B. Com. degree from St. Xavier's College, Kolkata and LLB from Kolkata University. He is currently the co-promoter and Chairman of Gujarat Ambuja Cements Ltd.



### Nilekani Fund at IIT Gandhinagar

**Mr Nandan Nilekani** has donated Rs 25 lakh to initiate the Nilekani Fund at IIT Gandhinagar to support initiatives of excellence and pursue areas of high priority at the Institute. Mr Nilekani, a visionary, is an alumnus of IIT Bombay, and currently heads the Unique Identification Authority of India (UIDAI) project of the Government of India. A co-founder of NASSCOM and of Infosys Technologies Ltd, Mr Nilekani served as the CEO of Infosys from 2002-2007. In 2006, the Government of India conferred the Padma Bhushan on Mr Nilekani in recognition of his distinguished service to the nation.



### Motwani Fund at IIT Gandhinagar

The Motwani Fund was instituted at IIT Gandhinagar with an initial donation of USD 50,000 thanks to the philanthropic efforts of **Ms Asha Jadeja**, wife of Late **Prof. Rajeev Motwani**. Prof. Motwani was an alumnus of IIT Kanpur and did his Ph. D. at the University of California, Berkeley. As a professor of Computer Science at Stanford University, he carried out pioneering research in the areas of web search, robotics and theoretical computer science. Ms Jadeja, originally from Ahmedabad, did her graduate studies at USC, UC Berkeley, and Stanford University. She is actively involved in philanthropic educational initiatives in India and in the USA. She also mentors many startups in the Bay Area. The Motwani Fund will support excellence and high-priority initiatives at the Institute.









# rganization

Board of Governors (as on March 31, 2012)  
Finance Committee  
Building and Works Committee  
Senate (as on March 31, 2012)  
Standing Committees of the Senate (as on March 31, 2012)  
Academic Officials (as on March 31, 2012)  
Administrative Officials (as on March 31, 2012)  
Student Leadership  
Faculty at IITGN (as on March 31, 2012)  
Non-teaching Staff against Regular Positions  
Ph. D. Scholars (as on March 31, 2012)  
Ph. D. Scholars from PRL (as on March 31, 2012)  
The Batch of 2011 M. Tech. Students  
The Batch of 2008 B. Tech. Students  
The Batch of 2009 B. Tech. Students  
The Batch of 2010 B. Tech. Students  
The Batch of 2011 B. Tech. Students



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**Board of Governors (as on March 31, 2012)****Chairman**

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CSIR Bhatnagar Fellow  
National Chemical Laboratory  
Dr Homi Bhabha Road  
Pune

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Chairman Emeritus  
Ambuja Cements  
New Delhi

Shri Deepak Puri  
Chairman & Managing Director  
Moser Baer India Ltd  
New Delhi

Shri Malvinder Mohan Singh  
Group Chairman  
Religare & Fortis Healthcare Ltd  
New Delhi

Shri Ashok Thakur, IAS  
Secretary (Higher Education)  
Ministry of Human Resource Development  
Government of India  
New Delhi

Shri A. K. Joti, IAS  
Chief Secretary  
New Sachiwalaya  
Gandhinagar, Gujarat

Shri Banwari Lal  
Director of Education  
U. T. Administration of Daman & Diu Secretariat  
Moti Daman

Prof. G. K. Sharma  
Visiting Professor  
Indian Institute of Technology Gandhinagar  
Ahmedabad

Prof. N. Ramakrishnan  
Visiting Professor  
Indian Institute of Technology Gandhinagar  
Ahmedabad

Prof. Sudhir K. Jain  
Director  
Indian Institute of Technology Gandhinagar  
Ahmedabad

**Secretary**

Shri B. S. Punalkar  
Registrar, IIT Bombay

## Finance Committee

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Dr R. A. Mashelkar, FRS  
Chairman, Board of Governors  
Indian Institute of Technology Gandhinagar  
Ahmedabad

### Members

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Director  
Indian Institute of Technology Gandhinagar  
Ahmedabad

Shri Ashok Thakur, IAS  
Special Secretary (Higher Education)  
MHRD, Government of India  
New Delhi

Shri Ajay Jha  
Financial Advisor  
MHRD (AS&FA), Government of India  
New Delhi

Prof. S. C. Sahasrabudhe  
Director  
Dhirubhai Ambani Institute of Information  
and Communication Technology  
Gandhinagar

Prof. S. L. Narayanamurthy  
Visiting Professor  
Indian Institute of Technology Gandhinagar  
Ahmedabad

### Secretary

Shri B. S. Punalkar  
Registrar, IIT Bombay

## Building and Works Committee

### Chairman

Prof. Sudhir K. Jain  
Director  
Indian Institute of Technology Gandhinagar  
Ahmedabad

### Members

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Chief Advisor (Civil Infrastructure)  
Indian Institute of Technology Bombay  
Mumbai

Shri R. Subramanian  
Former Additional Director- General  
Central PWD  
New Delhi

Prof. N. Chhaya  
Dean, Faculty of Architecture  
CEPT University  
Ahmedabad

Shri N. K. Patel  
Chief Engineer  
Roads & Buildings Department  
Government of Gujarat  
Gandhinagar

### Secretary

Shri B. S. Punalkar  
Registrar, IIT Bombay

## Senate (as on March 31, 2012)

### Chairman

Prof. Sudhir K. Jain

Director

Indian Institute of Technology Gandhinagar

Ahmedabad

### Members

Prof. D. V. Pai

Prof. S. L. Narayanamurthy

Prof. D. P. Roy

Prof. G. K. Sharma

Prof. B. D. Agarwal

Prof. Naresh Jotwani

Prof. S. S. Major

Prof. N. Ramakrishnan

Prof. Murali Damodaran

Prof. Nityanand Prabhu

Prof. Ashwini Kumar

Prof. Amit Prashant

Prof. Vinod Narayanan

Prof. Jaison Manjaly

Prof. Sharmita Lahiri

Prof. Iti Gupta

Prof. Arup Lal Chakraborty

Prof. Supreet Saini

Prof. Surendra Ranganath

Prof. Vedant Kadambi

Prof. A. Ramanathan

Prof. Ramesh Gaonkar

Prof. Sameer Dalvi

Prof. K. V. V. Murthy

Prof. Raghavan Rangarajan

Prof. Pawan Lingras

Prof. N. V. Suryanarayana

Prof. Joyce Mekie

### Invitees

#### *Student Senate Representatives*

Mr Shashank Pandey

Mr Ajinkya Kulkarni

### Secretary

Shri B. S. Punalkar



## Standing Committees of the Senate (as on March 31, 2012)

### Senate Academic Performance Evaluation Committee (SAPEC)

Prof. D. V. Pai, Convener  
 Prof. K. V. V. Murthy  
 Prof. Nitin Padhiyar  
 Prof. Jaison Manjaly  
 Prof. Ajanta Sachan

### Senate Scholarships and Prizes Committee (SSPC)

Prof. Jaison Manjaly, Chairman  
 Prof. N. Ramakrishnan  
 Prof. Sharmita Lahiri  
 Prof. K. Ragavan  
 Prof. Chinmay Ghoroi

### Senate Academic Programmes Committee (SAPC)

Prof. Amit Prashant, Chairman  
 Prof. D. P. Roy  
 Prof. Surendra Ranganath  
 Prof. S. L. Narayanamurthy  
 Prof. Sriram Kanvah  
 Prof. Joycee Mekie  
 Prof. Vinod Narayanan  
 Prof. Sameer Dalvi  
 Prof. Sharmita Lahiri  
 Mr Subhash Kunchi, Student Senate Nominee  
 Mr Luv Gupta, Student Senate Nominee

### Senate Student Affairs Committee (SSAC)

Prof. Jaison Manjaly, Chairman  
 Prof. Surendra Ranganath  
 Prof. N. Ramakrishnan  
 Prof. Suchira Sen  
 Prof. Naran Pindoriya  
 Mr Shashank Pandey, Student Senate Nominee  
 Mr Ajinkya Kulkarni, Student Senate Nominee  
 Ms Kirti Jain, Student Senate Nominee  
 Mr Ravi Agarwal, Student Senate Nominee

### Senate Library Committee

Prof. Sameer Dalvi, Chairman  
 Prof. Joycee Mekie  
 Prof. Atul Bhargav  
 Prof. Abhijit Mishra  
 Prof. Rita Kothari