INDIAN INSTITUTE OF TECHNOLOGY GANDHINAGAR

ANNUAL REPORT

2013- 2014

INDIAN INSTITUTE OF TECHNOLOGY GANDHINAGAR

ANNUAL REPORT

2013 - 2014

CONTENTS

FROM THE DIRECTOR'S DESK

PROF SUDHIR K JAIN
DIRECTOR, IIT GANDHINAGAR

IIT Gandhinagar is preparing to graduate its third batch of BTech, second batch of MTech and its first batch of PhD students. The Institute experienced rapid growth in the first six years and has arrived at a level of stability and maturity that has positioned it exceptionally for the next step in its evolution. There is growing evidence that the numerous innovations and initiatives undertaken by the Institute have been extraordinarily rewarding. IITGN has come to be widely recognized by its peers for its vibrant and innovative environment and culture.

Among the highlights of the past year:

- Numerous innovations in planning, design, and construction have been implemented in the development of our permanent campus, which began during the year. The safety and welfare policies established by the Institute for construction workers were recognized by the IIT Council, which directed that "the exemplary practices of IIT Gandhinagar should be introduced in all IITs." The Institute's construction worker's welfare programme was also recognized with the national award for "Best Practices to Improve the Living Environment 2013-14" by the Housing and Urban Development Corporation (HUDCO).
- The Institute's innovative undergraduate curriculum and Foundation Programme for new students was conferred with the World Education Award 2013 for innovations in higher education at the World Education Summit, organised by the All India Council for Technical Education, Elets Technomedia, National Council for Education Research and Training (NCERT), and United Nations Educational Scientific and Cultural Organization (UNESCO).
- About a third of our BTech students are

graduating with international exposure in the form of internships, conferences and other educational opportunities, during their tenure at IITGN. The trend to pursue higher education remains strong among our graduates. More than sixth opted for graduate studies, many at reputed overseas institutes, including Carnegie Mellon, Brown and Texas at Austin, and others in India at IITs, IIMs, NID and TISS. Industry placements are growing with several prestigious Indian and multinational companies recruiting IITGN students.

- The Institute thoroughly revamped its PhD curriculum with numerous innovations. Our efforts to attract top quality PhD students have been rewarding and the institute's vigorous outreach efforts are yielding about 200 applications for every PhD admission slot. The Start-Early Programme is proving very successful in attracting top students from the best undergraduate colleges in the country to pursue their PhD at IITGN.
- IITGN started 4-year BTech in Civil Engineering and 2-year MSc in Chemistry, Mathematics, and Cognitive Science.
- The Centres on Safety, Design and Innovation, Biomedical Engineering and Archeological Sciences have begun undertaking significant initiatives, including conducting workshops and conferences for professionals, projects and research initiatives.
- The Institute continues to build its career faculty strength through aggressive recruitment efforts both in India and abroad. As of March 31, 2014 the Institute has recruited 62 career faculty. The Institute's top-up compensation model supported by donor funds enables the institute to attract exceptional faculty talent. The Institute also attracts dozens of visiting scholars from all over the world, contributing to the diversity and vibrancy of the campus.
- A number of novel global partnerships have now started to mature. One group of undergraduate students from the California Institute of Technology visited IITGN for an immersion workshop on Indian society and culture, titled "India ki Khoj" while another group of undergraduates from CalTech and from the Art Centre College of Design, Pasadena visited the Institute to work with our students on frugal innovations. This was followed by a joint course conducted simultaneously at IITGN and CalTech, in which students from the three institutes participated in collaborative learning and projects.
- The Institute has built a rigorous fund-raising programme to support its novel initiatives. Major corporate supporters of the Institute during the year include Underwriter's Laboratories, Ricoh, and Gujarat Mineral Development Corporation.

IITGN will take the next major step in its evolution when it moves to a new campus next year. The 400-acre campus on the banks of the Sabarmati River draws inspiration from traditional Ahmedabad architectural styles, such as internal courtyards, colonnades, gates, jaali systems, and the like.

All this could happen only because of tremendous support and participation of numerous friends, well-wishers, and donors of the Institute, enthusiastic participation of the faculty, staff and students in all its endeavours, and an extremely supportive Board of Governors. We have received tremendous warmth and support from our hosts at Chandkheda: the students, faculty and Principal Dr A M Prabhakar of the VGEC. The Central and the State Governments have continued to be most generous in their support and encouragement.

It is a rare privilege for all of us associated with IITGN to contribute to the creation of a top-of-the-class university. Exciting new challenges await us in strengthening IITGN's culture of teamwork, excellence, and scholarship; internationalisation of the Institute; building strong partnerships with the industry; enhancing the external financial support to bolster programmes and reputation; fostering high quality research and scholarship; building and cultivating leadership, etc.

We recognise the tremendous expectations of societal impact that our countrymen have at us in view of the huge investments being made on the Institute. We are committed to prove ourselves worthy of their confidence in us.

Professor Sudhir K Jain
Director

ACADEMICS

PROGRAMMES OFFERED (2013-14)

UNDERGRADUATE (BTech)
Chemical Engineering
Civil Engineering
Electrical Engineering
Mechanical Engineering

POSTGRADUATE
MTech
Chemical Engineering
Civil Engineering
Electrical Engineering
Materials Science and Engineering
Mechanical Engineering

MSc Programme
Chemistry
Cognitive Science
Mathematics

PGDIIT
Chemical Engineering
Civil Engineering
Electrical Engineering
Materials Science and Engineering
Mechanical Engineering

Doctoral
Biological Engineering
Chemical Engineering

Chemistry
Civil Engineering
Cognitive Science
Computer Science and Engineering
Earth Sciences
Electrical Engineering
History
Language and Literature
Materials Science and Engineering
Mathematics
Mechanical Engineering
Philosophy
Physics
Political Science
Psychology
Social Epidemiology
Sociology

PROGRAMMES WHICH WILL BE STARTED FROM 2014-15

UNDERGRADUATE (BTech)
Materials Science & Engineering

MA PROGRAMME
Society and Culture

MSc PROGRAMME
Physics

DEVELOPMENTS AT IITGN

IIT Gandhinagar endeavours to be a leading institution of research and education and strongly encourages innovative approaches and bold experiments in education that are consistent with its mission and vision. The major developments and initiatives undertaken in 2013-14 are outlined below.

IIT GANDHINAGAR WINS EDUCATIONAL INNOVATION AWARD 2013

IIT Gandhinagar won the **World Education Award 2013** for innovations in its BTech Programme at the World Education Summit in New Delhi, April 23, 2013. This event is organized annually by the All India Council for Technical Education (AICTE), Elets Technomedia, National Council for Education Research and Training (NCERT), and the United Nations Educational Scientific and Cultural Organization (UNESCO). **Prof Achal Mehra**, dean, strategic planning and special initiatives, represented the institute at the awards ceremony. The award was presented by **Mr Mantriprasad Naithani**, minister, school education, adult education, Sanskrit education, Government of Uttarakhand; **Mr Shahid Ali Khan**, minister of minority welfare and IT, Government of Bihar; and **Lt Boris Jelovšek**, minister plenipotentiary, Republic of Slovenia.

ACADEMIC ADVISORY COUNCIL MEETING

The 3rd Academic Advisory Council meeting was held on Dec 16, 2013. Participants at the annual event who provided strategic external inputs on key academic issues included **Prof Sam Mannan, Prof Richard Miller, Prof Surendra Prasad, Prof Dheeraj Sanghi, Prof S P Sukhatme, Prof A K Suresh** and **Prof Satish K Tripathi**. The agenda this year included criteria and process to be followed for faculty promotions and evaluations, diversity in faculty, and the concepts of departments and centres in the IITGN context.

LEADERSHIP CONCLAVE

The 4th Leadership Conclave was held on Dec 17, 2013 to guide the Institute in its short, medium, and long-term strategic issues. The conclave discussed ideas related to attracting more philanthropic funds, engaging with donors, internationalization, and external communications. Some of the members included **Shri Abhay K Bhushan**, technopreneur; **Mr Salil Dave**, senior director, Microsoft, Seattle, USA; **Shri Kamalesh Dwivedi**, chief information officer, Bellsystem24 Inc, Japan; **Shri Rajen Jaswa**, CEO & Chairman, Dyyno; **Prof Paul C Jennings**, former Vice President and Provost, CalTech; **Prof Sam Mannan**, regents professor, Texas A&M University, USA; **Prof Richard Miller**, president, Franklin W Olin College of Engineering, USA; **Shri Kamal Nanavaty**, president, Strategy Development, Reliance Industries Ltd, Mumbai; **Prof Surendra Prasad**, former director, IIT Delhi; **Prof Akshai Runchal**, president, Analytic & Computational Research Inc, California, USA; **Shri Kushal Chand Sacheti**, CEO, Galaxy USA Inc & Key Items Inc New York; **Prof Dheeraj Sanghi**, dean, academic affairs, IIT Kanpur; **Shri Arvind Singhal**, chairman & managing director, Technopak Advisors Pvt Ltd, Gurgaon; **Prof S P Sukhatme**, former director, IIT Bombay; **Prof A K Suresh**, dean, faculty affairs, IIT Bombay; and **Prof Satish K Tripathi**, president, State University of New York, Buffalo, USA.

SECOND CONVOCATION

The second convocation of the Institute was held on Aug 11, 2013 at which a total of 114 students comprising 104 BTech and 10 MTech students were conferred degrees. **Dr Anil Kakodkar**, former chairman of the Atomic Energy Commission and current Homi Bhabha Chair Professor, was the chief guest at the event. In his convocation speech Dr Kakodkar emphasized the fact that technology was changing the lives of the people faster than one had imagined. **Dr Baldev Raj**, chairman of IITGN Board of Governors (BoG) and president of the Indian National Academic Engineering (INAE), presided over the event. The President's Gold Medal in BTech and MTech programmes were awarded respectively to **Shruti Jain** and **Shivani Rani**.

Other awards included: Institute Gold Medal, BTech (**Rohit Chouksey, Shruti Jain,** and **Vipul Goyal**), Institute Gold Medal, MTech (**Shivani Rani** and **Vivek Rasikbhai Popat**), Institute Silver Medal (**Mohak Patel, Shalinee Kavadiya,** and **Narendranath Balasubramoni**), Director's Gold Medal (**Tarkeshwar Singh**), Director's Silver Medal (**Mohak Patel, Gupta Adit Sunil,** and **Aditi Dighe**), Outstanding Innovation (**Gupta Adit Sunil**), Outstanding Social Service (**Monica Yadav**), Integrity and Exemplary Human Qualities (**Aditi Dighe**), Outstanding Research (**Susmitha Purnima Kotu**), Overall Outstanding Performance in Sports (**Shivani Rani**), Outstanding Performance in Aquatics (**Vrushiket Patil**), Outstanding Performance in Indoor Sports (**Joshi Chetas Divyeshkumar**), Outstanding Performance in Arts and Culture (**Shrankhla Narya**), Pioneer Batch Award for Outstanding Leadership (**Shashank Pandey**), Best Performance in the core courses in Engineering Graphics, and Manufacturing and Workshop Practice (**Jainil Pankaj Parekh**), Best Performance in core courses of Mathematics (**Subhash Kunche**), Best Performance in core courses in Physics and Chemistry (**Vipul Goyal**), Best Performance in core courses in Humanities and Social Sciences (**Shruti Jain**), and Best Overall Performance in Humanities and Social Sciences Subjects (**Monica Yadav**).

YOUNG RESEARCHERS CONCLAVE (YRC)

The third edition of the Young Researchers Conclave held during Dec 26-27, 2013 was attended by 50 young research scholars from around the world with very diverse research interests. These researchers had the opportunity to learn about and discuss new possibilities and challenges in academic life in India through panel discussions and talks on funding opportunities, collaborative opportunities, returning to India and initiating research activities in India. They also got the opportunity to interact closely with faculty and students of IITGN through various interactive sessions in this two-day event. The event was organized by **Prof Gaurav** and **Prof Harish P M**.

FOUNDATION PROGRAMME 2013

The five-week Foundation Programme that strives to nurture every new batch of students in a holistic manner and actively engage them with the five central themes of creativity, values and ethics, teamwork, social awareness and physical fitness was conducted during July 22-Aug 24, 2013. The inaugural address was delivered by **Dr V S Raju**, former director, IIT Delhi. A series of lectures and workshops that followed included An Unequal India (**Harsh Mander**, director, Centre for Equity Studies), Researching Reality and Public Policy (**Parth Shah**, director, Centre for Civil Society), Sketching Workshop (**Jayanti Naik**, NID), Death Along the Famished Road (**Jaideep Hardikar**, journalist, The Telegraph), Collective Memory and the Institutional Archives (**Dr Indira Chowdhury**, Srishti School), Gandhian Vision of Civilization (**Ms Rajni Bakshi**, author), Photography Workshop (**Devendra Purbiya**, photographer) are a few among others. Field trips included the Ahmedabad Heritage Walk and day-trips to historically significant places such as Patan, Modhera and Lothal. The new students also participated in the street cleaning drive, local demographic data collection, tree planting at the new campus and the filming of Gandhi Katha. The event came to a fitting end on Aug 24, 2013 with a programme named Eureka that was organized by the students of the new batch. The event included an exhibition of art and craft in which the students displayed the skills that they had learned during these five weeks and a cultural show. The event was organized by Professors **Kabeer Jasuja, Sivapriya Kirubakaran** and **Srinivas Reddy**.

IITGN INCUBATION CENTRE (IIC)

IIT Gandhinagar's incubation activities that started with the TIDE grant from DIT and the incubation of GridAnts in 2013 have grown substantially over this financial year. **GridAnts**, started by four students of the pioneering batch of BTech students has found a large customer in Mumbai and has relocated there. The second incubatee, **TinkerTank**, was started by Keshav G, also from the pioneering batch. TinkerTank aims at reducing the drudgery involved in several cottage-based industries in the country and increase (and generate) livelihood opportunities by developing and commercializing sustainable technologies. The company's first product, Doopica, is an affordable technology solution to automate the manual process of making incense sticks. Doopica is designed to meet the needs of about 1 million women workers who are involved in this labor-intensive industry. It helps them make incense-sticks faster and with less physical effort, and eventually helps them earn more. Doopica turns out to be 90% cheaper than any of the existing solution for the same production level.

To inculcate entrepreneurial skills to the students at the Institute, an elective on Engineering Entrepreneurship was offered in 2013 by Prof Arnab Sarkar, a visiting faculty from Los Angeles. He is an industry veteran of more than 40 years, who specialized in optical fiber preform

manufacturing technologies. He has founded multiple successful technological start-ups. He is a serial entrepreneur with vast experience in dealing with venture capital companies. He has successfully raised corporate capital for start-ups and has experience with boot-strap financing of start-ups. In October 2013, the Institute conducted a workshop on "Technology Incubation for Innovation" and a business plan competition as part of Amalthea, the annual technical summit. Around 60 people attended the workshop. The business plan competition received 32 applications. 4D Gujarat, a project by two students from IIT Gandhinagar won the competition along with Une-Amp, a team comprising of a student from NIT Rourkela and a student from Geetam University. IIT Gandhinagar also recruited Dr Hiran Vedam as a consultant advisor for IP and Entrepreneurship. Dr Vedam has nearly 15 years of experience in transitioning technologies from research to market in the context of large multi-national corporations, small and medium enterprises and in academic settings. She is the founder of ArdeJa Pvt Ltd in Singapore and has worked as a senior manager at the Industry Liaison Office of National University of Singapore. The second iteration of the "Engineering Entrepreneurship" course in January 2014 is being offered jointly by Prof Arnab Sarkar and Prof Rajen Jaswa. Prof Jaswa, a visiting faculty from the Silicon Valley is an accomplished technology entrepreneur and investor. He is President Emeritus of TiE Silicon Valley and was most recently the CEO of Dyyno in 2009-2012. The Institute organized a workshop on "Best Practices in Technology Incubation" in March 2014. The workshop brought together experts in technology incubation from around the country and abroad to the campus to discuss various issues surrounding technology incubation.

ACTIVITIES AT IITGN

INDIA KI KHOJ: AN INTER-INSTITUTIONAL INTERACTION

The second edition of India Ki Khoj, was organized during June 19-27, 2013. Fifteen students from the California Institute of Technology (Caltech) and IITGN were introduced to a vast range of themes including Indian mythology, arts and crafts, classical music, popular culture, religion, philosophy, architecture, civilization, politics, and business through field visits and interactions with at least 15 renowned speakers from diverse fields. The programme was inaugurated by **Prof Roop Rekha Verma**, former Vice Chancellor of Lucknow University, as well as a philosopher, writer and social activist. The event was coordinated by **Prof Rita Kothari** and **Prof Jaison Manjaly**.

Indian mythology, arts and crafts, classical music, popular culture, religion, philosophy, architecture, civilization, politics, business

DST PAC MEETING

IITGN hosted the programme advisory committee (PAC) meeting for mechanical engineering and robotics during April 19-20, 2013. The meeting afforded the IITGN faculty the opportunity to get a glimpse of frontier areas of research in mechanical engineering as well as the opportunity to gain insight into the workings of the PACs of DST. **Prof Vinod Narayanan** from IITGN made a project presentation on Global Stability Analysis of Eccentric Taylor-Couette flow. The event was organized by **Prof Abhijit Mukherjee** and **Prof Harish P M**.

FIELD THEORETIC ASPECTS OF GRAVITY (FTAG) MEETING

IIT Gandhinagar hosted the **Field Theoretic Aspects of Gravity** (FTAG-2013) meeting during Sep 5-8, 2013. FTAG is a series of meetings of researchers in India working in various aspects of gravity. Some of India's eminent scientists from leading research and academic institutes attended the event. The focus of this year's FTAG meeting was on various issues related to classical and quantum nature of gravitation, black hole physics, gravitational waves and cosmology. A public lecture on **State-of-the-art detection of gravitational waves – one of the most exciting predictions of Einstein's general relativity** was delivered by **Prof Bala Iyer**, chairman, IndIGO consortium on Sep 6, 2013. The event was coordinated by **Prof Anand Sengupta**, **Prof Sudipta Sarkar** and **Prof Barun Majumder** with the principal support of IIT Gandhinagar. The meeting was also partially supported by HRI, Allahabad; IMSC, Chennai; and IUCAA, Pune.

TARJUMA: FESTIVAL OF TRANSLATORS

The two-day festival organized during July 25-26, 2013 brought together eminent translators of South Asian literature who work on a broad range of Indian languages and genres. The translators who discussed aspects and politics of the craft of translation include **Lakshmi Holmström, Arunava Sinha, Mallika Sarabhai, Tridip Suhrud, Supriya Chaudhary, Nivedita Menon, Neerav Patel, Arshia Sattar, Namita Gokhale, Urvashi Butalia, Bill Wolak, Priya Adarkar, Shanta Gokhale, T Vijay Kumar, Vanamala Vishwanatha, Gita Chaudhuri,** and **Rakhshanda Jalil** among others. Publishing houses such as Oxford University Press, Penguin, and Orient Blackswan released some of their translation titles during the festival. The event was organized by **Prof Rita Kothari, Prof Srinivas Reddy** and **Pooja Thomas**, a doctoral student.

CALTECH-IITGN COURSE COLLABORATION

IITGN and Caltech are collaborating on a joint design course titled **Disruptive Design: Design for the Developing World**. The course is offered at IITGN by **Prof Bhaskar Bhatt** and at Caltech by **Prof Ken Pickar**. The classes share lectures by IITGN and Caltech faculty by video conference and 19 IITGN students are paired with 16 Caltech and Art Center College of Design, Pasadena, students on nine design projects based in India. Prof Pickar and 14 students from Caltech and Art Center College of Design visited the institute during Dec 15-22, 2013, to identify opportunities for design intervention. Together with IITGN students, they visited the Polio Foundation, the salt-pan workers in the Little Rann of Kutch, the Spine Research Center at the Ahmedabad Civil Hospital, agricultural workers in Viramgam, kite-makers and incense makers in Ahmedabad. A half-day symposium on **Design for the Developing World** was also held on Dec 21, 2013.

149TH MEETING OF THE DIRECTOR'S OF IITs

The 149th meeting of the Directors of IITs was hosted by IIT Gandhinagar on July 14, 2013. Of the 16 IIT directors, 11 directors from Bombay, Delhi, Guwahati, Kanpur, Madras, Hyderabad, Kharagpur, Roorkee, IIT-BHU, Ropar and Gandhinagar attended the meeting. The directors of IIT Bhubaneswar and Mandi participated through video-conferencing.

IEEE-IITGN FACULTY DEVELOPMENT PROGRAMME

A joint initiative by IITGN and the Institute of Electrical and Electronics Engineers (IEEE), USA was launched with the aim of enhancing the quality of electrical engineering education in the country. A pilot project for the engineering institutes in Gujarat was scheduled during Nov 13-17, 2013 with the Gujarat Technological University (GTU) providing logistical support. Over 200 faculty members of engineering institutes from across the state enrolled in one of four basic electrical engineering courses that were delivered by **Prof Joycee Mekie, Prof K V V Murthy, Prof Shanmuganathan Raman** and **Prof Arup Lal Chakraborty** from IITGN. The workshop also included pedagogical sessions that focused on innovative ways of making lectures more engaging. These sessions were conducted by **Prof Michael Lightner**, vice president, Educational Activities, IEEE and professor of electrical engineering at the University of Colorado, Boulder, USA. All the participants were awarded IEEE-IITGN certificates of participation. The event was coordinated by **Prof Arup Lal Chakroborty**.

SUMMER RESEARCH INTERNSHIP (SRIP) 2013

Summer Research Internship (SRIP) 2013 was organized during May, June and July at IIT Gandhinagar to foster research activities of both IITGN and other institute students. Applicants were asked to choose among 65 project titles offered by IITGN faculty spread across various disciplines. A total of 4865 online applications were received from both IITGN and students from other institutions at India and abroad. In all, 70 students from other institutions and 26 students from IITGN were selected and participated in SRIP 2013. Towards the end of SRIP 2013, an event featuring research domain-based presentations was organized. These sessions showcased the research outputs of the summer interns and notably emphasized the synergy between external and IITGN interns. Successful SRIP 2013 interns who submitted their final reports were awarded certificates. **Prof Bhaskar Datta** coordinated this event.

SCHOLARSHIPS FOR STUDENTS

Merit-cum-Means Scholarships

Merit-cum-Means (MCM) scholarships for the year 2013-14 were awarded to 104 BTech and 6 MSc students of general and OBC categories. These awards are given to meritorious students (a high JEE/JAM 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 90,000 per year) and Rs 1,000 per month for ten months.

In addition, tuition fee waiver (freeship) was awarded to 21 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, 57 SC/ST category students whose parental income is 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.

An MCM scholarship carries tuition fee waiver (current value Rs 90,000 per year) and Rs 1,000 per month

Scholarship for Excellence

IITGN has instituted several merit scholarships for outstanding performance in academics, sports, arts and culture, and social work and leadership. These scholarships are different from the Merit-cum-Means scholarships and are awarded only on the basis of achievements in respective fields. The scholarship carries a stipend of Rs 2,000 per month for 10 months. Excellence scholarships for the academic year 2013-14 have been awarded as follows:

Scholarship for Excellence in Academics

P Sushma Sri (CPI 9.14), **Shashank Tyagi** (CPI 9.45) and, **Dhwanil Shukla** (CPI 9.72) from third year ; **Sudiksha Sridhar** (CPI 8.85), Preet Shah (CPI 10.00) and, **Ayush Choudhary** (CPI 9.59) from second year; **Akhilesh Gotmare** (CPI 9.09), **N S Subrahmanya Teja** (CPI 9.65) and, **Radhika Patil** (CPI 10.00) from the first year.

Scholarship for Excellence in Sports

The Scholarship for Excellence in Sports and Games is awarded to a maximum of six students for outstanding performance in sports based on their performance at the inter-IIT sports meet or similar national events. **Parth Sane** and **Animesh Kumawat** are awarded scholarship for excellence in sports for the year 2013-14.

Scholarship for Excellence in Arts and Culture

The Scholarship for Excellence in Arts and Culture is awarded to a maximum of two students for outstanding performance in cultural and other art festivals based on their performance at the inter-IIT cultural meet or similar national events. **Bhaskarjyoti Das** was awarded the scholarship for Excellence in Art and Culture for the year 2013-14.

Scholarship for Excellence in Social Work and Leadership

The Scholarship for Excellence in Social Work and Leadership is awarded up to two students for outstanding leadership exhibited by the students either in institutional affairs (including organizing events and in discharging responsibilities in managing students office), or in social work. **Akash Keshav Singh** was awarded the scholarship for Excellence in Social Work and Leadership for the year 2013-14.

Gita and Prithwish Goswami Scholarship

The Gita and Prithwish Goswami Scholarship is awarded to a first year undergraduate student. This scholarship carries an amount Rs 1,500 per month for ten months. **Bhargav Chauhan** was the recipient of this scholarship for the year 2013-14.

RODDAM NARASIMHA DISTINGUISHED SEMINAR SERIES

- **The Biomass to Biofuels Pipeline: An Engineering Paradigm for National Security and a Sustainable Carbon Economy** by **Dr Maureen McCann**, director of the Energy Center, Purdue University, USA, April 16, 2013.
- **Dr John O Dabiri**, director, Center for Bioinspired Wind Energy, California Institute of Technology presented a seminar on **Bio-inspired Wind Energy: From Fish Schools and Seagrass to Better Wind Farms**, Jan 31, 2014.

DR MAUREEN MCCANN

DR JOHN O DABIRI

CONFERENCES/ SYMPOSIA/ WORKSHOPS/ SEMINARS

Conferences, symposia, workshops and seminars on focus themes are vital academic activities that help stimulate discussions on different areas of importance. Many of these activities invite participation from other organizations and this helps to increase the institute's visibility to the outside world. The following activities were organized during 2013-14:

- A seminar on **Fifty-five Years of Computing in India** by **Prof V Rajaraman**, Indian Institute of Science, Bangalore, April 12, 2013.
- Brainstorming seminars on **Biomedical Engineering** were organized on April 1, April 18, and May 17, 2013 to discuss the different areas in biomedical engineering, the current status of biomedical engineering research in India and how IITGN can make a mark in this field. The event was organized by **Prof Malavika Subramanyam** and **Prof Uttama Lahiri**.
- A two-day **Chemistry Research Meet** was held during May 24-25, 2013. The event sessions included talks by faculty, oral presentations by research scholars, a workshop by Schrodinger Inc, poster presentations and a symposium on **Drug Discovery - Bench to Bedside**. Eminent speakers from AstraZeneca, Bangalore and National Center for Biological Sciences, Bangalore described the processes in drug discovery and therapeutics to the students. The meet was attended by about 100 participants from at least 10 institutes in Gujarat.

- A 3-day workshop on **Research Methods in Population Studies**, June 12-14, 2013 was organized by **Prof Tannistha Samanta** (convener), **Prof Amy DeSantis, Prof Malavika Subramanyam** and **Prof Shivakumar Jolad**. The event was attended by 15 external participants as well as IITGN students. External speakers included **Dr Suman Bhattacharjea**, director of Research, ASER (Assessment Survey Evaluation Research, New Delhi); and **Dr Smriti Pahwa**, head, Social Sector Unit, ASER.
- A **workshop on Society, Culture, and Public**

Health in India, under the auspices of the Center for Biomedical Engineering at IITGN, July 19-23, 2013. Inaugurated by **Shri P K Taneja**, commissioner of Health, Medical Services & Medical Education. The workshop was attended by about twelve delegates from the School of Public Health at SUNY Albany. The workshop was organized by **Prof Malavika Subramanyam**.

- A one-day **Brainstorming Workshop** on Biomedical Engineering was organized on July 29, 2013 in which IITGN faculty interested in biomedical engineering and eminent researchers from NUS, Singapore; RMIT, Australia; University of Columbia, USA; IIT Kharagpur and IIT Bombay participated.
- A one-day workshop on **Technology Incubation** was organized on Oct 12, 2013. Dr M V Shankar, director, Technology Planning, India at Cummins Inc, Pune; **Dr Arvind Viswanathan**, chief executive officer, Xellect IP Solutions, Bangalore; **Mr Pulkit Gaur**, CEO Gridbots; **Ms Poyni Bhatt**, chief operations officer, SINE, IIT Bombay were among the speakers. **Prof Sriram Kanvah** and **Prof Joycee Mekie** organized the event, with support from TIDE, DieTY, Government of India and IIT Gandhinagar.
- A workshop on **Low-cost Hi-tech Automation** by **Prof N Ramakrishnan** and **Prof Joycee Mekie**, Nov 28-30, 2013 was attended by 12 participants from organizations such as Reliance, Mahindra & Mahindra, Memco, Erhardt-Leimer. Prof Ramakrishnan also conducted a two-day hands-on training for engineers from Peass, Navsari during Dec 13-14, 2013.
- The 2nd **International Conference on Cognition, Emotion and Action** held during Dec 6-8, 2013, was attended by 160 leading researchers from different areas of cognitive science, including computational psychology, philosophy of mind, neuroscience, artificial intelligence, and anthropology. Inaugurated by **Prof Janak Pandey**, vice-chancellor, Central University of Bihar; the keynote address was delivered by **Prof Thomas Metzinger**, Johannes Gutenberg Universitat Mainz. Various international experts from countries like US, Canada, UK, Netherlands, Germany, Hungary and France took part in the conference organized by **Prof Meera M Sunny**.
- The DST Contact programme workshop on **Earth Surface Processes** coordinated by **Prof Vikrant Jain** was organized at IITGN during Dec 9-10, 2013.

- A two-day symposium on **Process Safety** during Dec 19-20, 2013 saw the participation of leading National and International Process Safety experts, including **Prof M Sam Mannan**, director, Mary Kay O'Connor Process Safety Center, Texas A&M University; **Mr Hirak Dutta**, executive director, Oil Industry Safety Directorate (OISD); **Dr Jayaraman Gopal**, advisor-HSE Essar Oil Ltd; **Prof S A Abbasi**, head, Centre for Pollution Control, Pondicherry University; **Mr G Vishwanathan**, former deputy general manager, Indian Petrochemicals Corporation, (now RIL)

Vadodara; **Dr Hugo Vits**, general manager, Bitumen Technology and Site & HSSE manager Shell Technology Center Bangalore; **Dr Mimi Haryani Hassim**, senior lecturer, Universiti Teknologi Malaysia and **Prof Raj Srinivasan**, IITGN.

- A two-day music symposium held during Jan 3-4, 2014 included a performance of **Hindustani classical ragas** with **Dr Matthew Rahaim**, University of Minnesota (vocal); **Nitin Mitta**, former faculty at the Learn Quest Academy of Music, Waltham, Massachusetts (tabla); and **Prof Srinivas Reddy** (sitar); a lecture titled **Authority, critique, and revision in the Sanskrit music-theoretic tradition: Re-reading the Svara-mela-kalānidhi**, a working paper by Dr Matthew Rahaim, Prof Srinivas Reddy and Lars Christensen, PhD student at University of Minnesota; and an interactive workshop on the art of tabla (solo and accompaniment) with Nitin Mitta (tabla).
- A workshop on **Women in the Field: A Trans-disciplinary Approach to Fieldwork** by **Prof Rosa Maria Perez** and **Prof Lina Fruzzetti**, Jan 21, 2014.
- A workshop on **Industrial Hydraulics and Pneumatics** for practicing engineers from industry was conducted by **Prof N Ramakrishnan**, Feb 14-16, 2014. A total of 17 engineers from industries across India, including, MOOG India Technology Center Pvt Ltd, Bangalore; Bharat Bijlee Pune; Brass Copper and Alloy (I) Ltd Mumbai; Extreme Machines; Sai Impex, Surat; etc attended the workshop.
- A workshop on **Applications of Remote Sensing to Archaeological Investigations** by **Dr M B Rajani**, Nalanda University, March 15, 2014.
- A workshop on **Effective Self-management** by **Dr Anjali Joshi**, March 22-23, 2014.

SHORT COURSES

A variety of short courses are offered throughout the year in order to increase the choice and flexibility of course offerings, as well as to benefit from the expertise of visiting faculty and experts from varied backgrounds who may be on campus for shorter durations. The following short courses were delivered during 2013-14 by recognized experts in their respective fields.

- A short course on **Computational Methods in Engineering using MATLAB** was organized by **Prof Nitin Padhiyar**, May 14-18, 2013. Around 30 members attended the programme.
- A short course on **Globalization and Work Cultures** by **Mr Anoop Tandon**, business director, Praxair India, during Sep 7-8, 2013, was attended by 17 students.
- A short course on **Strengthening of Democracy at Grassroots** by **Dr Sandeep Pandey**, recipient of Ramon Magsaysay Award, Oct 12-13, 2013.
- A four-day short course on **Seismic Design of Earth & Rock-fill Dams** was organized during Oct 15-18, 2013 with support from IITGN Safety Center. The course faculty included **Dr Ahmed Elgamal**, University of California, San Diego; **Dr David Paul**, Lead Civil Engineer in US Army Corps of Engineers; **Prof Sudhir**

K Jain, **Prof Amit Prashant** and **Prof Ajanta Sachan**, IIT Gandhinagar. The course was attended by 54 civil engineers from all over the country and abroad engaged in or responsible for directing design and construction activities from organizations like NTPC, NHPC, BARC, SAIL, Druk Power Bhutan, CECB Srilanka etc.

- A short course on **Data Analytics: Application in Modeling, Control and Signal Processing**, supported by IEEE Gujarat Section; Oct 25-26, 2013 was organized by **Prof Babji Srinivasan** and **Prof Harish P M** along with post-graduate students.
- A short course on **Intersections of Law and Technology** by **Ms Kelly Dhru**, head, research wing at Research Foundation for Governance in India (RFGI), Nov 16-17, 2013.

- A short course on **Reliability & Availability Quantification** by **Dr Kishor S Trivedi,** Duke University and **Dr Andreo Bobbio**, Universitàdel Piemonte Orientale in Alessandria, Italy, Jan 20-22, 2014.
- A short course on **Soil-Structure Interaction, Computer Applications and Material Models** by **Dr Chandrakant S Desai**, University of Arizona; **Prof Dhiman Basu**; **Prof Gaurav Srivastava**; and **Prof Amit Prashant**; IIT Gandhinagar, Jan 21-24, 2014.
- A short course on **Seismic Design of Reinforced and Confined Masonry Buildings** by **Dr Durgesh Rai**, IIT Kanpur; **Dr Juan Jose Perez Gavilan**, UNAM, Mexico; **Dr Svetlana Brzev**, BCIT, Canada; **Prof Sudhir K Jain**, and **Prof Dhiman Basu**, IIT Gandhinagar, Feb 17-21, 2014. The course was attended by 58 participants from across the country; and

was followed by a workshop on Confined Masonry during Feb 22-23, 2014 with **Prof Sudhir K Jain** as the convener. The workshop was attended by 20 invited engineers and academics from India and abroad.
- A short course on **Self Exploration** by **Meenakshi Kirtane**, founder-director of Maanas, psychotherapy and self awareness organization, March 8-9, 2014.

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.

- **An overview of process modeling and simulation** by **Prof M Chidambaram**, IIT Madras, April 1, 2013.
- **Microelectromechanical sensors** by **Prof Navakant Bhat**, Indian Institute of Science, Bangalore, April 1, 2013.
- **Aspects of rational thinking** by **Prof Bijoy Boruah**, IIT Delhi, April 2-3, 2013
- **Truth and beauty: demystifying "the god particle"** by **Prof Rishikesh Vaidya**, BITS-Pilani, April 4, 2013.
- **Liquefied natural gas (LNG) technology** by **Mr Sham Sunder**, ex-technical director of Petronet LNG limited, and Principal Consultant, business development (IOC), April 6, 2013.
- **Antarctica expedition** by **Mr Arun P Sathe**, retired scientific officer, Bhabha Atomic Research Centre, April 8, 2013.
- **Directional data on smooth manifolds: many challenges and some solutions** by **Prof Ashis Sengupta**, Indian Statistical Institute, Kolkata, April 8, 2013.
- **Social orientation of Sanskrit literature** by **Dr Siddharth Wakankar**, scholar of Sanskrit literature, formerly with Oriental Institute, Baroda, April 9, 2013.
- **Climate variability and the population dynamics of infectious diseases in changing human landscapes** by **Prof Mercedes Pascual,** University of Michigan, April 12, 2013.
- **Confined masonry: key concepts and earth quake performance** by **Dr Svetlana Brzev**, April 22, 2013.
- **A Vyas for every age** by **Ms Amruta Patil**, writer & painter, June 19, 2013.
- **Bureaucracy and politics in India** by **Mr K J Alphons Kannanthanam**, retired bureaucrat, June 20, 2013.
- **Ahmedabad and its architecture** by **Prof Neelkanth Chhaya**, CEPT, Ahmedabad, June 21, 2013.
- **Caste in Indian society** by **Dr A F Mathew**, Indian Institute of Management, Kozhikode, June 23, 2013.
- **India and matters of sexuality** by **Mr Parmesh Shahani**, Godrej Industries, June 23, 2013.
- **Crafts of India** by **Ms Meera Goradia**, director at KHAMIR, institution of craft and heritage sustenance, June 24, 2013.
- **Heritage films and discussion** by **Ms Avni Varia**, founder, Aadhar, June 26, 2013.
- **Brand India** by **Mr Santosh Desai**, MD and

CEO of Future Brands, June 27, 2013.

- **Application of smooth exterior scaling methods to calculate the high harmonic generation spectra** by **Prof Ashish Gupta**, IIT Guwahati, July 10, 2013.
- **Crystallographic texture, microtexture and stresses: glimpses of research activities from IIT Bombay** by **Prof Indradev Samajdar**, IIT Bombay, July 12, 2013.
- **Understanding the world's greatest structures** by **Prof V S Raju**, former director of IIT Delhi, July 23, 2013.
- **Solar PV module lifetime and degradation science of PV power plants modules and micro-inverters** by **Prof Roger French**, Case Western Reserve University, USA, Aug 6, 2013.
- **Tracing the growth of iron technology in ancient India** by **Prof Vibha Tripathi**, archaeometallurgist, Aug 7, 2013.
- **Digital microfluidic biochips: towards functional diversity, more than Moore, and cyber-physical integration** by **Prof Krishnendu Chakrabarty**, Duke University, Aug 12, 2013.
- **Towards an understanding of class conflict in Gujarat** by **Ms Smriti Upadhyay**, graduate student, Johns Hopkins University, Aug 16, 2013.
- **Sustainable infrastructure and environment: a tentative framework for integrative research and education** by **Dr Shaleen Jain**, University of Maine, USA, Aug 21, 2013.
- **Fatigue behavior of steels and superalloys** by **Prof Bhanu Sankara Rao**, Steel Chair Professor, Government of India and Head, Mechanical Metallurgy Division, Indira Gandhi Centre for Atomic Research, Kalpakkam , Aug 23, 2013.
- **Decompositions of even degree regular graphs and multigraphs into small trees** by **Prof Shailesh Tipnis**, Illinois State University, Aug 26, 2013.
- **India bioscience (IBS) - an initiative to promote research and education in the life sciences in India**, by **Dr Swetha Suresh**, associate director, India Bioscience, Aug 26, 2013.
- **N-Confused hexaphyrins: novel nir ligands that coordinate bis-metals** by **Prof H Furuta**, Kyushu University, Fukuoka, Japan, Sep 4, 2013.
- **Using enzymes - nature's own catalysts for chemical transformation** by **Prof Anju Chadha**, IIT Madras, Sep 5, 2013.
- Lecture on the book **Knowledge and human liberation: towards planetary realizations** by **Prof Ananta Giri**, Madras Institute of Development Studies, Chennai, Sep 6, 2013.
- **What ails the Indian reform story?** by **Dr Indira Rajaraman**, senior RBI economist, scholar and columnist, Sep 12, 2013.
- **Ethical values and issues in higher education** and **Thin film deposition techniques** by **Prof K L Chopra**, Padmashri and former director IIT Kharagpur, Sep 17-18, 2013.
- **Should I stay, should I go? Reverse migration of India born scientists and engineers** by **Dr Meghna Sabharwal**, University of Texas at Dallas, Sep 18, 2013.
- **Arjun's problem** by **Prof B N Patnaik**, former professor, English and Linguistics, IIT Kanpur, Sep 20, 2013.
- **Chip package interaction in 3D ICs** by **Dr Vinay Kumar Dasarapu**, Synopsis, Sep 20, 2013
- **Neutron-anti-neutron oscillation and project-x** by **Prof Utpal Sarkar**, PRL Ahmedabad, Sep 23, 2013.
- **Overview of ABB corporate research** by **Dr Vinay Kariwala**, group leader, ABB Corporate Research Center, Bangalore, Oct 8, 2013.
- **Model-based advanced control: perspectives from oil and gas industry** by **Dr Niket Kaisare**, principal scientist, ABB Corporate Research Center, Bangalore, Oct 8, 2013.
- **Modelling of earth surface processes** by **Prof R N Singh**, INSA senior scientist, National Geophysical Research Institute (NGRI), Oct 11-14, 2013.
- **Macromolecular crystallography using Bruker instruments** by **Dr Vernon Smith**, Bruker AXS, Germany, Oct 17, 2013.
- **An overview of Harappan civilization and the application of stable isotope analysis in archaeology** by **Dr V N Prabhakar**, superintending archaeologist, Archaeological Survey of India (ASI), Oct 17, 2013.
- **Dholavira: a unique Harappan city** by **Dr R S Bisht**, professor of archaeology (retired), Archaeological Survey of India (ASI) and lead archaeologist of Dholavira site, Oct 18, 2013.
- **Sanskritam Kim Artham? - Why Sanskrit?** by **Prof Gajendra Panda**, L D Arts College, Ahmedabad, Oct 23, 2013.
- **Memory systems, case studies and theoretical applications** by **Dr Paul Li**, UC

Berkeley, Oct 24, 2013.

- **The infinite network** by **Dr Nikhil Balram**, president and CEO, Ricoh Innovations Corporation, Oct 24, 2013.
- **Comparing Carnatic and Hindustani music systems** by **Dr Lakshmi Sreeram**, visiting faculty, IIT Madras, Oct 25, 2013.
- **Tata incubation center's program to develop abrasion resistant automotive paint and R&D in India and abroad** by **Dr Soumen Sensarma**, Tata Incubation Center, Oct 30, 2013.
- **Holographic adventures in flat space** by **Prof Arjun Bagchi**, IISER, Pune, Nov 13, 2013.
- **Physical simulation of extreme and transient wind effects on civil structures** by **Dr Partha P Sarkar**, director, Wind Simulation and Testing Laboratory, Iowa State University, Nov 13, 2013.
- **Fuel cells in India - Present scenario and future perspective** by **Mr Alok Goel**, head of India Operations, Ballard Power Systems, Nov 22, 2013.
- **Conjugates of calixarenes as smart supramolecular systems for selective recognition of ions and molecules** by **Prof C P Rao**, IIT Bombay, Nov 25, 2013.
- **Madhava and the invention of calculus** by **Prof Divakaran**, formerly with Tata Institute of Fundamental Research, Mumbai, Nov 26, 2013.
- **Fuel cells in the Indian navy** by **Dr Suman Roy Choudhury**, scientist and director of Fuel Cell Research Center, Naval Materials Research Laboratory, Ambarnath, Maharashtra, Nov 28, 2013.
- **Entrepreneurship and Technion's experience with incubation** by **Dr Harry Yuklea**, consultant to the National Economic Council, Prime Minister's Office, State of Israel, and Jacobs TechnionCornell Innovation Institute (JTCII), Dec 17, 2013.
- **Ultrafast snapshots of matter and beyond** by **Dr Anil Patnaik**, senior research scientist, US Air Force Research Laboratory (AFRL) and Research faculty, Wright State University Ohio, Dec 18, 2013.
- **Seismic design and constructions** by **Mr Jitendra Bothara**, technical director, Miyamoto Impact, a New Zealand consulting engineering firm, Dec 31, 2013.
- **Physical-cyber-social computing** by **Dr Amit Sheth**, Ohio Center of Excellence in Knowledge-enabled Computing, Wright State University, USA, Jan 3, 2014.
- **Seismic margin of building structural system** by **Dr P C Basu**, former director C&SED, Atomic Energy Regulatory Board (AERB), Mumbai, Jan 7, 2014.
- A series of lectures on **Electron microscopy** by **Prof T R Ramachandran**, formerly Professor at IIT Kanpur & Director, JNARDDC, Nagpur, Jan 20-28, 2014.
- **Optical fibers- the magical light pipe; world's information highway and beyond** by **Dr Sonali Dasgupta**, LightCUE, Bangalore, 21 Jan 2014.
- **Measuring the impact of court judgments: Evidence from the Indian Supreme Court** by **Vinay Sitapati**, a PhD candidate in Politics at Princeton University, Jan 27, 2014.
- **Plugging into 72 trillion economy: Cultural and communication best practices for international trade** by **Mr Harsh Bhargava**, Founder I-Create Inc., USA, Jan 28, 2014.
- **Phenomenal woman: Designing a masterpiece for your life** by **Dr Aruna Bhargava**, honorary executive director, I-Create Inc, Jan 29, 2014.
- **Peoples' linguistic survey of India** by **Prof Ganesh Devy**, founder of BHASHA, a centre devoted to the study and preservation of tribal languages and identity in India, Feb 3, 2014.
- **Crossing the valley of death; bridging the gap between academia and industry** by **Dr Chelva Kumar**, president, EPIR Technologies Inc, Feb 10, 2014.
- **Mapping of brain oxidative stress and pH with alzheimer disease progression: A novel brain imaging approach** by **Prof Pravat Mandal**, National Brain Research Center, Manesar, Haryana, Feb 14, 2014.
- **Vitamin D and breast cancer: Emerging concepts** by **Prof Rajendra G Mehta**, Illinois Institute of Technology Research Institute, Chicago, Feb 17, 2014.
- **Veda to Ayurveda** by **Dr Kenneth Zysk,** University of Copenhagen and University of Pune, Feb 18, 2014.
- **Climate change and Himalayan glaciers** by **Dr Anil Kulkarni**, IISc Bangalore, March 3, 2014.
- **Low-energy computing;** and **Approximate computing for energy-efficient error-resilient multimedia systems;** and **Spin as state variable for computation: Prospects and perspectives** by **Prof Kaushik Roy**,

Purdue University, March 3-5, 2014.

- **Systems engineering approach to the design of complex engineered systems;** and **Design of a modern combat aircraft: Lessons from India's LCA Programme** by **Dr Kota Harinarayana**, Chief Designer of Light Combat Aircraft (LCA Tejas), currently the Dr D S Kothari DRDO Chair Professor at Aeronautical Development Agency (ADA) Bangalore, March 5-6, 2014.
- **Oxidative damage to DNA;** and **Modular self-assembly of DNA encoded nanostructures** by **Prof Gary Schuster**, Georgia Institute of Technology. Atlanta, March 7 &10, 2014.
- **KIM-1 as a novel biomarker and therapeutic target of kidney disease** by **Dr Venkata S Sabbisetti**, Harvard Medical School, March 10, 2014.
- **Emperor Ashoka: Between archaeology and texts** by **Dr Nayanjot Lahiri**, University Of Delhi, March 11, 2014.
- **Conditioning of bases of finite dimensional normed spaces** by **Prof B V Limaye**, IIT Bombay, March 11, 2014.
- **Enhancing video lectures** by **Dr Viraj Kumar**, PES University, March 18, 2014
- **The joy of being a global engineer– Strategies to negotiate cross cultural issues** by **Mr Ajay Mehta**, Managing Partner, Strategic Global Partners LLC, Arizona, March 20, 2014.
- **Fluorescence investigation of molecules and materials** by **Prof Anindya Datta**, IIT Bombay, March 20, 2014.
- **Funding options for a tech start-up at IITGN** by **Mr Sushanto Mitra**, CEO, Lead Angels and **Dr Hiran Vedam**, IITGN, March 28, 2014.
- **Yogācāra Buddhism and cognitive science: Constructing and deconstructing dualistic experience** by **Prof William S Waldron**, Chair of the Religion Department at Middlebury College, March 28, 2014.
- **Control of systems of differential equations** by **Prof Mythily Ramaswamy**, TIFR-CAM, Bangalore, March 28, 2014.

PANEL DISCUSSIONS/ CONCLAVES

A panel discussion on **Rethinking Engineering Education: A Case for Accommodating Multiple Discourses** was attended by **Prof Rajeev Sangal**, IITBHU (through tele-link); **Prof Bijoy Boruah**, IIT Delhi; **Prof Vikram Gadre** (through tele-link), **Prof A K Suresh**, **Prof Milind Sohoni**, IIT Bombay; **Prof A Raghuramraju**, Central University, Hyderabad; and **Prof B Subramanian**, IIT Mandi, March 22, 2014.

CONTINUING EDUCATION PROGRAMMES

Technical Education Quality Improvement Programme (TEQIP) Gujarat Project for Government of Gujarat. Principal investigator: **Prof Amit Prashant**, Civil Engineering.

A two-day conclave to review the pedagogy in engineering institutions in Gujarat was held at IITGN during March 15-16, 2014. The workshop had about ninety participants from eight institutions across Gujarat. This **TEQIP Conclave** mainly focused on bridging the gap between the teacher and the student. It covered various aspects of teaching environment in different types of courses. Besides showcasing model sessions in various categories the conclave also consisted of several brainstorming sessions followed by panel discussions to identify areas that could be improved for more effective pedagogy.

> TEQIP Conclave mainly focused on bridging the gap between the teacher and the student

KANWAL REKHI ON ENTREPRENEURSHIP

Mr Kanwal Rekhi, an entrepreneur and one of the most successful IITians in the USA, visited the institute on Sep 20, 2013. He delivered a talk on **Entrepreneurship** and interacted with the IITGN community members. He is a board member on the IIT Bombay Heritage Fund (IITBHF), and also founded the Kanwal Rekhi School of Information Technology at IIT Bombay and a Computer Science Hall at Michigan Technological University. He was the first Indo-American Founder & CEO to take a venture-backed company public on the NASDAQ, co-founded and built TiE into the largest global network of Indian entrepreneurs, and co-founded Inventus, a leading India-US venture franchise.

DISTINGUISHED HONORARY PROFESSORS

Prof J B Joshi is an eminent professor of chemical engineering and J C Bose National Fellow of the Institute of Chemical Technology (ICT), Mumbai as well as the DAE–Homi Bhabha Distinguished Chair Professor of the Homi Bhabha National Institute (HBNI), Mumbai. His research interests are mainly in the field of computational fluid dynamics (CFD), transport phenomenon and non-linear dynamics in multiphase systems, energy, biological wastewater treatment, petroleum residue upgradation, enzyme engineering, gas inducing impellers/surface aerators, NOx abatement. He has supervised over 65 doctoral students and contributed in 350 peer-reviewed international journals and 26 national journals along with several conferences and books. He has about 40 years of experience in teaching and research. He has designed novel reactors, processes and plants which are in successful commercial operation in India and abroad. He is an active consultant to large sections of the chemical process industry. He has won several national and international awards and honors such as Fellow of Maharashtra Academy of Sciences (1987), Fellow of Indian Academy of Sciences (1991), Shantiswarup Bhatnagar Prize for Engineering Sciences (1991), Fellow of the Indian National Science Academy, New Delhi (1995), Best Teacher Award from the Maharashtra Government for the year 2004. In 2007 the American Chemical Society (ACS) selected him among the top 100 research scientists over a period of 40 years of existence of industrial and engineering chemistry research on the basis of high impact publications. He is the member of several important national and international professional bodies.

Prof Surendra Prasad received his education at IIT Kharagpur and IIT Delhi. He has served IIT Delhi for more than four decades, having held a number of academic and administrative positions including the post of the director. He is an eminent academician and researcher, and has received numerous honours for teaching and research including the Vikram Sarabhai Research Award in Electronics and Telecommunications (1987), the Shanti Swarup Bhatnagar Prize for Engineering Sciences (1988), the Om Prakash Bhasin Prize for research in Electronics and Communications (1994), the VASVIK Award for Information Technology (2006), the Lifetime Achievement Award of the Systems Society of India (2011), the distinguished alumnus award of IIT Kharagpur. He was also honoured with an honorary doctorate by the Loughborough University, UK in 2007. He is a Fellow of the Indian National Academy of Engineering, the Indian National Science Academy, the Indian Academy of Sciences and the National Academy of Science and has been a member of the governing body of CSIR and CSIR Society, Govt of India and boards of many IITs, NITs and other engineering institutes.

Prof V Rajaraman obtained a BSc (Honors) in physics from Delhi University, completed SM in electrical engineering, MIT, USA; and PhD from University of Wisconsin, USA. He has held several important positions including IBM Research Professor of Information Technology, Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore; professor and chairman, Supercomputer Education and Research Centre, Indian Institute of Science, Bangalore; and senior professor and head of Computer Centre, IIT Kanpur. He has been director of several companies including CMC Ltd, New Delhi; Canbank Computer Services Ltd, Bangalore; and Encore Software Ltd, Bangalore. He was awarded the Padma Bhushan by the President of India in 1998. He is also the recipient of the Zaheer Medal for Research in Engineering, Indian National Science Academy; Shanti Swarup Bhatnagar Prize (CSIR); Homi Bhabha award of UGC, and Life-time Achievement award from Dataquest; the Indian National Academy of Engineering; the Computer Society of India; and Systems Society of India.

Prof V S Raju, former director of IIT Delhi (1995-2000) obtained a bachelor's degree in engineering from Andhra University, a master's degree from IISc Bangalore and a doctorate

from the Karlsruhe University of Technology, Germany. During his academic career of 42 years, he was also a part-time member at the Telecom Regulatory Authority of India (TRAI) and worked in various capacities at IIT Madras. He was also the chairman of the Naval Research Board, DRDO, and member of several boards and committees dealing with technical education and research in the country. He is a Fellow of the Indian National Academy of Engineering and was its honorary secretary. The Federal Republic of Germany honored him with the Commander's Cross, the highest award given to a foreigner.

Prof Suhas P Sukhatme, professor emeritus, IIT Bombay, received his ScD (Doctor of Science) from MIT in 1964 and is widely 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. He is the recipient of many honours and awards including the Prince of Wales Gold Medal from BHU in 1958, the Shanti Swarup Bhatnagar Prize in 1983 and the Om Prakash Bhasin Foundation Award for Engineering in 2001. He was the first recipient of the Lifetime Achievement Award of IIT Bombay in 2001. He was conferred an honorary doctor of science degree by the Banaras Hindu University in 2001. He was awarded the Padma Shri by the Government of India in 2001.

Prof Nitish V Thakor is a professor of biomedical engineering, electrical and computer engineering, and neurology at the Johns Hopkins University, and directs the Laboratory for Neuroengineering. He is also the director of the Singapore Institute for Neurotechnology (SINAPSE) at the National University of Singapore. He earned his undergraduate degree from IIT Bombay in 1974, and PhD from the University of Wisconsin, Madison in 1981. Prof Thakor's technical expertise is in the areas of neural diagnostic instrumentation, neural microsystem, neural signal processing, optical imaging of the nervous system, neural control of prosthesis and brain machine interface. He is a co-author of more than 250 refereed journal papers and is currently the editor-in-chief of Medical and Biological Engineering and Computing. He was the editor-in-chief of IEEE Transactions on Neural Systems and Rehabilitation Engineering from 2005-2011. Prof Thakor is a recipient of the Research Career Development Award from the National Institutes of Health and the Presidential Young Investigator Award from the National Science Foundation. He is a Fellow of the American Institute of Medical and Biological Engineering, IEEE, the Founding Fellow of the Biomedical Engineering Society, and Fellow of International Federation of Medical and Biological Engineering. He is also a recipient of the Centennial Medal from the School of Engineering, University of Wisconsin (2008), Honorary Membership from Alpha Eta Mu Beta Biomedical Engineering student Honor Society. He received the award of Technical Excellence in Neuroengineering from IEEE Engineering in Medicine and Biology Society, and the Distinguished Alumnus Award in 2012 from IIT Bombay and the Centennial Medal from the University of Wisconsin, Madison School of Engineering in 2012.

GUEST PROFESSORS

Guest Professors who commit to spending at least ten days in a year at IITGN are regularly invited in order to promote academic collaborations and overall excellence. The following were associated with the Institute as Guest Professors during the year:

Dr Nikhil Balram is President and CEO of Ricoh Innovations Corporation, a Silicon Valley company that develops innovative technologies and creates new businesses for Ricoh Company Ltd. With over 20 years of experience, Dr Balram is widely regarded throughout industry and academia as an expert and innovator in video and display technologies across multiple platforms and has been an officer of several publicly listed companies. He has won numerous awards including a 2012 Gold Stevie Award for Executive of the Year in the Electronics category in the 9th Annual

International Business Awards, a 2012 Fellow Award by the Society for Information Display (SID) and the 2011 Alumni Achievement Award by Carnegie Mellon University. Dr Balram is an adjunct professor of electrical engineering at Carnegie Mellon University, visiting professor of vision science at the University of California, Berkeley, a guest professor of design and innovation at the Indian Institute of Technology Gandhinagar, and serves on the Industry Advisory Board (IAB) at the School of Engineering at Santa Clara University. He has over 60 US patents granted or pending, more than 30 technical publications, including two invited book chapters, and has given over 25 keynote speeches at major conferences worldwide, including most recently the International Business Forum at the 2013 Ricoh Women's British Open at St Andrews, UK. He received his BS, MS and PhD in electrical engineering from Carnegie Mellon University.

Dr R S Bisht, Joint Director General (retd), Archaeological Survey of India; has more than 35 years experience in archaeological research, conservation and environmental development of national monuments and administration. He pursued his MA in Ancient Indian History and Culture, Lucknow University; PGDA from School of Archaeology; and PhD from Kumaun University. He has also been associated with Department of Archaeology and Museum Haryana; and Department of Archaeology & Museum Punjab. Presently, Dr Bisht is the President of the Society for Marine Archaeology; and Chairman of the National Screening and Evolution Committee, nominated by Government of India in the Ministry of Culture. He is the recipient of the Padma Shri and Acharya Narendra Dev Alankar in 2013.

Prof Bijoy H Boruah currently associated with Indian Institute of Technology, Delhi completed his BA (Honours) in Philosophy, Dibrugarh University, India; MA, Banaras Hindu University; MLitt, University of Oxford, UK; and PhD from University of Guelph, Canada. Prof Boruah has also served as a Professor at IIT Kanpur, and Senior Fulbright Fellow at University of Texas at Austin, USA. He has been a Member of

Indian Council of Philosophical Research (ICPR); Research and Publication Committee, ICPR; Member, Advisory Committee, Centre for Philosophy, School of Social Sciences, Jawaharlal Nehru University; Visitor's Nominee, Faculty of Humanities and Social Sciences, North Eastern Hill University; External Member, Academic Council, Mata Vaisno Devi University; Member, External Advisory Committee for Humanities and Social Sciences, Birla Institute of Technology and Science, Pilani; Member, Institute Ethics Committee, Fortis Memorial Research Institute, Gurgaon.

Prof R P Chhabra completed his BE in Chemical Engineering from University of Roorkee, ME from IISc Bangalore and PhD from Monash University, Australia. He has been associated with Indian Institute of Technology, Kanpur; University of New South Wales, Sydney; University College of Swansea; Monash University, Clayton; and University of Sydney. He has also been a Member of Indian Institute of Chemical Engineers, Kolkata; Alumni Association, University of Roorkee (now IIT Roorkee); and Alumni Association, Indian Institute of Science, Bangalore. He is a Fellow of the Indian National Science Academy, the Indian Academy of Sciences, Bangalore, the National Academy of Sciences, India and the Indian National Academy of Engineering. Prof Chhabra was the recipient of Herdillia Award of the Indian Institute of Chemical Engineers for Excellence in Basic Research in Chemical Engineering and the Amar Dye-Chem Award of the Indian Institute of Chemical Engineers for Excellence in Research and Development for a Chemical Engineer below the age of 35 years.

Mr Michel Danino has been an independent student of the Indian civilization since he came to India in 1977. He has authored papers and books in French and English. His 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 on the origins of Indian civilization from archaeological, ancient historical and cultural perspectives at many institutes of higher education across the country. He was a visiting faculty at IIT Kanpur in 2011 and is currently a visiting faculty at IIM Ranchi. He is also a member of the course committee for the CBSE's elective course for classes 11 & 12 on "Knowledge traditions and practices of India" and has co-edited the course's two textbooks.

Dr Pravinray D Gandhi is currently director of corporate research at UL. He received his BTech from IIT Delhi and PhD from the University of Notre Dame. His focus is on quantifying fire risks and hazards and has been involved in developing new test methods and standards. He is currently working with the fire safety community and universities to improve fire science education.

Prof Dipan K Ghosh is currently professor of physics at IIT Bombay. He is 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 a 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 was awarded IITB's Best Teacher award in 2000. In 2011 he was awarded the Lifetime Achievement Award of IITB for his contributions to institution building. He has been President of the Indian Physics Association (2005-07) and is currently the chief editor of Physics News. He is a member of the Academic Council of Homi Bhabha National Institute (DAE), Centre for Basic Sciences of DAE at the University of Mumbai and IIS University, Jaipur. Prof Ghosh was the Provost (Vice-Chancellor) of Navrachana University at Vadodara in 2012 and established the engineering program there. He is a member of the Board of Governors of SVNIT, Surat.

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 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.

Prof A K Mittal received his BTech (Honors) and MTech from IIT Kharagpur; MS and PhD from Case Western Reserve University. He has been associated with IIT Kanpur and Kellogg School of Management, Northwestern University, USA. Prof Mittal is the Fellow of Institution of Engineers, India, Member of Operations Research Society of USA, President of Operational Research Society of India and Life member ISTE.

Prof S L Narayanamurthy obtained his PhD degree in chemical engineering from the University of Bradford in 1971 as a Commonwealth Scholar. He served IIT Bombay for nearly four decades as a faculty member, head of department and dean. His research interests were in the areas of separation processes and food process engineering. Prof Narayanamurthy received the Lifetime Achievement Award of IIT Bombay in 2004 in recognition of his diverse and seminal institution building contributions as a teacher, a team builder, and facilitator of R&D, resource mobilization and alumni networking. He has also received awards for excellence in process/technology development jointly with his colleagues. Prof Narayanamurthy served IIT Gandhinagar for nearly four years as a visiting professor and guided the academic programmes

of the fledgling institute for two years. His current professional interests are in the areas of engineering education, food process engineering and mentoring.

Dr Sandeep Pandey earned his PhD degree in mechanical engineering from University of California, Berkeley in 1992 and is currently a social activist based in Lucknow. His areas of work include the right to education, work, food, information, human rights, empowerment of marginalised communities, grassroots democracy, anti-corruption movements, land reforms, communal harmony, nuclear disarmament and peace, peace and friendship between India and Pakistan, corporate accountability and people's politics. He is currently part of the Socialist Party. Dr Pandey's work is mainly in the rural areas. He concentrates on issues affecting the daily lives of people. His organization helps people access benefits through various governmental social welfare schemes by fighting corruption. He is also part of movements where people are struggling to establish their rights over natural resources that are under threat because the government allows them to be usurped by corporates. He is deeply involved in building a genuine grassroots political alternative to the mainstream politics dominated by corruption.

Prof A Ramanathan holds a PhD degree in economics from Mumbai University. He is a senior professor and a former head of the Department of Humanities and Social Sciences of IIT Bombay. He is a well known quantitative economist with rich expertise particularly in the teaching of research methods in social sciences. Further, in tune with the academic and research temper of IIT Bombay, Prof Ramanathan has gained good knowledge of many multi-disciplinary topics of current relevance in the country. He specializes in managerial economics, applied econometrics and social cost-benefit analysis. Prof Ramanathan has published a number of articles in Indian and international journals. He has guided 24 PhD students, including very senior officials from industries, government and banks. He has also guided 20 MPhil dissertations.

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 BSc and MSc degrees from the University of Bombay and PhD from University of Paris 6, France.

Prof Dheeraj Sanghi, dean of academic affairs is a 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 the 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 BTech from IIT Kanpur, and MS and PhD from the University of Maryland, College Park.

Dr Shiladitya Sengupta is currently the Assistant Professor of Medicine and Health Sciences and Technology at Harvard Medical School Brigham & Women's Hospital. He completed his Bs and Ms from the All India Institute of Medical sciences (AIIMs) and PhD from University of Cambridge (trinity College). He is a Member of the American society for Pharmacology and experimental therapeutics and American Association for Cancer Research. Dr sengupta is the recipient of DoD Breast Cancer Research Program Collaborative Innovators Award, the Mary Kay Ash Foundation Career Award, the DoD era of Hope scholar Award, the Indus technovator Award and the Coulter Foundation Young Investigator Award in Bioengineering.

INFRASTRUCTURE AND FACILITIES

At IITGN the process of improving and expanding the infrastructure and other facilities related to research and teaching is a continuous one. Although the construction of the institute's permanent campus is rapidly moving forward, the temporary campus continues to grow in order to meet the rising needs of the faculty and students.

PERMANENT CAMPUS DEVELOPMENT

The IITGN permanent campus is steadily taking shape. Possession of about 400 acres of land near Palaj village in Gandhinagar, the capital of Gujarat, for the permanent campus was taken on July 30, 2012.

The Master Plan of the campus caters for the infrastructure for 4,800 students. The construction work under Phase-1A of the plan for academic buildings, hostels and residential apartments started in August 2013. It is expected that by the start of the academic year 2015-16, the campus for 1,200 students will be ready with all the necessary support facilities. In the current phase, 9 blocks of academic buildings with a built-up area of about 49,000 sq mtrs, 7 blocks of hostels with a built-up area of about 36,000 sq mtrs for 1,200 students and 30 blocks (270 dwelling units) of residential apartments with a built up area of about 44,000 sq mtrs are being constructed. Comprehensive external services infrastructure works have also been taken up simultaneously along with Phase-1A, comprising water service centers and pipelines, sewerage, roads, drainage, streetlights etc.

The campus is envisioned as a sustainable green campus with minimal carbon footprints through the use of clean and green technologies. Recycling of treated sewage water, rooftop rain water harvesting, harnessing of solar energy, protection and greening of the natural ravines through plantations, effective solid waste management, largely pedestrian and cycle oriented movement, etc are major features of the campus development. Fly ash brick construction coupled with confined masonry construction upto four stories has been adopted to save on energy intensive steel in construction.

Peripheral plantation has been undertaken and nearly 1,000 trees were planted during the monsoon, of which 600 have survived. Further, nearly 100 fruit trees have been planted within the campus around the existing site office. A captive small nursery has also been established to cater to future plantation and about 60,000 plants in polybags are ready in the nursery. The forest department of the Government of Gujarat has consented to plant approximately 1,200 trees along the highway outside the campus boundary wall. The forest department has also agreed to transplant the trees falling in the alignment of internal roads.

The measures put in place by the Institute for safety and welfare of the construction workers at its permanent campus site was recognized by the IIT Council which recommended that "the exemplary practices of IIT Gandhinagar should be introduced in all IITs." The Master Plan of the Institute has been prepared by M/s Green Campus Development Consortium, New Delhi (a consortium of Space Design Consultants & Upalghosh Associates). Other architectural consultants engaged by the Institute to prepare comprehensive architectural designs are M/s Mitimitra Consultants, Pune for academic buildings, M/s Vastu Shilpa Consultants, Ahmedabad for residential buildings, and M/s HCP Design Planning and Management, Ahmedabad for hostel buildings and for infrastructure services. M/s msykDESIGN is carrying out landscape architecture. Execution of the construction works is being handled by the Central Public Works Department (CPWD).

COMPUTER CENTRE

Computer facilities at IITGN have been developed with high-end hardware, a wide range of software and excellent network connectivity. Currently, IITGN houses two computer labs, one for common use and the other for instructional purposes. Over 45 desktop computers are available to the students in a common computer lab that is open round the clock. On the other hand, the instructional computer lab houses over 70 desktop computers; both these labs are secured with video surveillance system.

In addition to the computer labs, IITGN also has a High Performance Computing (HPC) lab, which is currently being revamped to provide state-of-the-art technology for computational research. Important scientific software such as ANSYS, Star CCM+, Autodesk Inventor, AspenTech, Mathematica, PSCAD 4.2, STATA 11.1, AutoCAD, LabView, Cadence, TCad, Matlab, Xilinx, ISE, Origin, ETab, Arc Gis are available to its user community.

IITGN's local area network integrates all major buildings inside the campus via fiber optic cable. The connectivity inside the buildings, however, is provided over the ethernet. In addition, the IITGN's campus including student hostels is Wi-Fi enabled. The hostels outside the IITGN campus are connected via high bandwidth wireless peer-to-peer network. Recently, IITGN has become a part of EDUROAM, a service that provides internet connectivity to IITGN's community, in the campuses of other participating institutions.

IITGN aims to revolutionize office management and strives to provide an efficient paperless environment to its entire community. To this end, IITGN is in the process of procuring an Institute Management System (IMS) to automate its daily operations.

Faculty members, research scholars and associates, project and administrative staff have been provided with desktop computers and printers. A few high-end printing and photocopying machines are installed at strategic locations for common use. IITGN aims to bring access to all the services through centralized authentication system; the development of such a system is currently underway. IITGN is also a part of the IITs systems portal at http://www.iitsystem.ac.in/index.jsp.

RESEARCH FACILITIES

ADVANCED MANUFACTURING LABORATORY

The discipline has setup an advanced manufacturing laboratory, and is equipped with modern machines like Rapid Prototyping, CNC Turning center, CNC Vertical Machining Centre, Coordinate measuring machine, Profile projector. This facility supports the PG course computer integrated manufacturing and is used for experiments in advanced areas of manufacturing as well as for precision fabrication which are not possible in the general workshop.

COGNITIVE SCIENCE LABORATORY

The Cognitive Science laboratory consists of facilities that enable basic and advanced level research in cognitive psychology, affective computing, cognitive neuroscience, behavioral economics, and experimental philosophy. The facility consists of a collection of laboratories equipped with behavioural data collection cubicles, an eye tracker, a wireless physiology-based data acquisition system, virtual reality-based programming platform and will be supplemented in the future with a 256-channel EEG system.

Behavioural Cubicles

There are currently three behavioural cubicles housing personal computers that can support behavioural data collection. The cubicles are partially sound-proof dark rooms with adjustable lighting. The computers have Matlab installed on them along with the Psychophysics Toolbox. These

facilities are used by postgraduate students and faculty members for research on decision making, attention, agency etc. They also support E-Prime and other software such as Blitz3D. These labs are also used as private spaces for paper pencil tests and questionnaires that require an environment free of external interference.

Eye Tracking

The eye tracking facility includes a Tobii TX 300 Eye Tracker and comes with the Tobii Studio™ Eye Tracking Software. This is a state-of-the-art eye tracking facility that can be used for a variety of purposes including consumer behaviour research and vision research. The instrument can collect data pertaining to saccades, correction saccades, fixation duration, pupil size and blinks. Unlike typical eye trackers, the Tobii TX 300 Eye Tracker supports large head movements and thus does not require a chin rest to keep the head stable. This helps to increase the validity of the study and enables data collection from subjects for whom head movement is difficult to restrict. This is facilitated by rapid and automatic calibration procedures. The TX300 can run on sampling rates of 60, 120 or 300 Hz and the high sampling rates allows for precise synchronization of gaze data with data from other sources such as EEG systems. This real-time integration of eye tracking and EEG data is an uncommon, but highly desirable feature. The facility also includes Tobii Toolbox which supports data collection using Matlab thereby minimizing the use of Tobii Studio for experimental design. Support is also available for E-Prime through extensions from Tobii.

Wireless Physiology-based Data Acquisition System

The wireless physiology-based data acquisition system, manufactured by Biopac Systems Inc., facilitates real-time data acquisition of physiological signals. The system covers a wide range of physiology signals such as ECG, EMG, EDA and provides excellent signal quality with digital transmission with high resolution of 16 bits and speeds as high as 400 kHz. The wireless, wearable physiological monitoring device, noninvasively records high quality data and is the perfect tool for applications that demand greater degrees of subject freedom and advanced experimental design. The system is compatible with the virtual reality-based programming platform from WorldViz.com.

Virtual Reality-based Programming Platform

Vizard is a high-level graphics toolkit from WorldViz Inc. for the development of high-performance graphics applications, including virtual reality (VR), scientific visualization, games, and flight simulation. The VR platform provides controlled and replicable experimental setups and allows manipulation of the environment (and avatars) that would be impossible or prohibitively expensive in the real world. Use of the VR Toolkit along with Biopac data acquisition and analysis system to synchronize events from the virtual world with the physiological data, allows accurate and automated data analysis and adds a new dimension to the research.

FUEL CELL SYSTEMS RESEARCH LABORATORY

In order to enable testing of hydrocarbon based fuel cell systems and system components, a safety laboratory for Hydrogen, Carbon Monoxide and Hydrocarbon has been designed, built and

commissioned at IIT Gandhinagar. This facility is installed to protect against accidental leakage of these gases. As the fuel cell systems require concomitant use and production of these gases, proper safety procedures as per accepted international standards of safety have been followed.

The safety system in the laboratory is a two-tier system. The first tier of safety is an industrial ventilation system that has been designed and implemented with the aid of CFD simulations. It enables an exchange rate of 20 air changes per hour (ACH) during normal operation, and up to 40 ACH for emergency response conditions. The location and orientation of the flow vents has been done in order to maximize the replacement of room air. The second tier consists of a set of gas detectors that are connected to a real-time monitoring system. The monitoring system is able to take various corrective actions (such as cutting-off gas supply, increasing the ventilation rate, and providing an audio-visual alarm) in case any of the detectors indicating an unsafe gas concentration. The locations of these detectors were also decided with the aid of CFD simulations, to minimize response time for each gas.

After it has been setup, the facility has become University level research hub for fuel cell (and all other energy and reacting flow) related research activities, with faculty members in other disciplines being able to carry out various activities pertaining to catalyst testing, reactor development, catalytic heat exchanger development, sensor development and thermal system studies.

HIGH-PERFORMANCE COMPUTING LABORATORY

The High Performance Computing (HPC) system was initially set up with funds from a joint IITGN-Fujitsu-Nvidia program in 2012 leading to the establishment of HPCLab@IITGN which pursues high fidelity computational engineering simulations and design of engineered systems. The HPC cluster consists of 2 Tesla C2070, 2 CUDA-enabled GeForce GTX480s, 2 CUDA- enabled GeForce GTX680s and 2 Kepler K20 GPU cards. These are widely used in the graduate level and a computer science minor course on Algorithms on Advanced Computer Architectures. In Feb 2013, IIT Gandhinagar was granted recognition as a **Nvidia-CUDA Teaching Centre**. Recently the

memory of the system has been upgraded to192 GB in view increased usage as this facility serves as a computational resource for the entire campus community. Several popular CAE softwares as well as open source softwares have been implemented on the system. Efforts are underway to upgrade the HPC System and a new 128-Hybrid System for the entire IITGN Community is under tender at the moment. The **HPCLab@IITGN Multi-core CPU-GPU Cluster** is now connected to GARUDA- the Indian Grid and a MOU between CDAC Bangalore and IITGN. CDAC Pune has allotted a few accounts facilitating large scale scientific computing on the National Param Supercomputing Facility (NPSF) – Param Yuva at CDAC Pune. In conjunction with this, CD-Adapco has provided IITGN with unlimited licenses for Star-CCM+ multi-physics and CFD software licenses for enabling large scale scientific computations on NPSF.

INTELLIGENT AFFECTIVE COMPUTING AND BIOMETRIC LAB

Intelligent Affective Computing and Biometric Laboratory opens up a platform for wide range of interdisciplinary research in fields of electrical engineering, cognitive science and biomedical engineering. The laboratory facilities include a **virtual reality-based programming platform**, namely, Vizard from WorldViz Inc Vizard is a high-level graphics toolkit for the development of high-performance graphics applications, scientific visualization and games. The VR platform provides controlled and replicable experimental setups and allows manipulation of the environment that would be difficult or prohibitively expensive in the real world. Additionally, we have **Wireless Physiology-based Data Acquisition System** from Biopac Systems Inc which is compatible with the virtual reality-based programming platform

mentioned above. The wireless physiology-based data acquisition system facilitates real time data acquisition of physiological signals, such as heartbeat, muscle twitching, sweating and skin temperature. The wireless, wearable physiological monitoring device, noninvasively records high quality data and is the perfect tool for applications that demand greater degrees of subject freedom and advanced experimental design. Currently this device is being used for biomedical applications such as physiology-sensitive adaptive intelligent stroke rehabilitation and cognitive science applications such as affective human-computer interaction for children with autism. The lab also has the facility to interact with the computing world with the **eye tracker** from Arrington Inc. This allows one to track real-time data of gaze, blinking and pupil dilation of the user. The analysis of parameters such as blinking, pupil dilation, and fixations is significant for a variety of researches in areas of biomedical engineering and human computer interaction. The research lab has a Haptic Device from SensAble Technologies which makes it possible for users to touch, feel and manipulate virtual objects. The tactile feedback provided by this device can be useful in biomedical applications.

MATERIALS ELECTROCHEMISTRY LABORATORY

A potentiostat-galvanostat (CH-660E, CH instrument, USA) has been procured. This facility is useful in characterizing the electronically conducting material to get their I-V characteristics. As this equipment also has a power source and load, it is also useful to understand the discharge capacity of a battery and capacitor. This facility comes with readymade glass cells and metal electrodes. This equipment can be used to perform a wide range of experiments such as: potentiostat/galvenostat, cyclic voltamatry, linear sweep voltammetry (LSV), staricase voltammetry (SCV), Tafel plot (TAFEL), chrono amperometry (CA), chrono coulometry (CC), differential pulse voltammetry, double differential pulse amperometry (DDPA), triple pulse amperometry (TPA), bulk electrolysis with coulometry (BE), hydrodynamic modulation voltammetry (HMV), sweep-step functions (SSF), multi-potential steps (STEP), ac impedance (IMP) 10uHz-1MHz, impedance-time (IMPT), impedance-potential (IMPE), chronopotentiometry (CP), multi-current steps (ISTEP), chronopotentiometry with current ramp (CPCR), potentiometric stripping analysis (PSA), open circuit potential-time (OCPT), RDE control (0-10V output), full version of CV simulator and impedance simulator.

A facility for synthesizing metal oxides has been set up in the Materials Synthesis Laboratory. This includes a locally made high-temperature furnace, benchtop pH meter (Thermo Scientific) and benchtop ultrasonicator (hot plates with magnetic stirrers).

MOLECULAR BIOLOGY LABORATORY

To support the research activities of faculty members working in the field of molecular biology, a Bio wet-lab facility is available on campus. This lab houses a multimode spectrophotometer, gradient thermocycler, gel documentation system, real-time PCR and Fast Protein Liquid Chromatography (FPLC) system. The lab is well equipped with all the necessary basic instruments such as laminar flow hood, -80°C freezer, -20°C freezers and refrigerators, temperature controlled shaker incubators, refrigerated centrifuges, water purifier, water baths and analytical balances. In addition a microwave based peptide / organic synthesizer to meet the demands of peptides/organic chemists and an ultracentrifuge to support nanoparticle syntheses is also available. This laboratory also supports research activities of several undergraduate, MTech and project students who are working on the projects at the interface of their parent discipline and molecular biology.

As part of the cell culture facility, Bio wet-lab houses a high end inverted fluorescence microscope required for ***in vitro*** cellular imaging. Other essential instruments to aid in cell culture work such as biosafety cabinet, CO2 incubator, liquid N2 cryopreserver, high speed centrifuge and automated cell counter are also available.

PARTICLE ENGINEERING AND POWDER PROCESSING LABORATORY

Particle Engineering and Powder Processing lab at IIT Gandhinagar is a state-of-art facility to understand particle behaviour in dry state and its effect on processing. The specific area of interest

is to study fine and cohesive pharmaceutical drug powders and its surface modification through nano-coating to improve flow, fluidization, packing, mixing of fine powders, understanding reactions in particulate system, mechano-chemical activation of powder materials and its application in catalysis, effect on humidity on powder materials etc. Presently there are several sophisticated instruments such as Surface Energy Analyser (Inverted Gas Chromatography) from SEA, Simultaneous TG-DSC from Netzsch, FT4 Powder rheometer (Freeman Technology) and a laser diffraction particle size analyzer (CILAS) for characterization of various powders. In addition, the lab is equipped with V-blender and cone-mill (Prism Pharma) for powder mixing and surface modification. Digital automatic tap/bulk density apparatus (Veego) and angle of repose apparatus are there for bulk characterization of powders along with an environmental test chamber (HMG India) for assessing powders behaviour at different humidity and temperatures. Several fabricated fluid beds are available in the lab to study fluidizaiton of fine powders in cold and hot environment.

PARTICLE FORMATION AND CHARACTERIZATION LABORATORY

The laboratory facilities available for research include, a state of the art research grade rheometer, a particle size analyzer, optical microscope with camera facility, zeta sizer, lypholizer and high pressure processing facility for supercritical fluid research, a high pressure liquid chromatography system (HPLC), a gas chromatography system (GC), fermentor, microplate reader, polymerase chain reaction thermocycler for biochemical and biomolecular engineering research, a V-blender, cone-mill, powder rheometer and laser diffraction particle size analyzer (CILAS) for powder mixing and characterization of powder particles. An effective computing system laboratory equipped with several licenses for simulation software has also been developed. Access to sophisticated instruments like differential scanning calorimeter (DSC), X-ray diffraction (XRD), atomic force microscope (AFM) and scanning electron microscope (SEM) is also available through the recently developed Central Research Facility at IITGN. Through a student driven design lab called 'The UL-IITGN Kitchen Fire Lab' chemical engineering undergraduate students have developed a simple and low-cost smart kit which can detect and notify a possible fire event through a buzzer, SMS or phone call prior to the actual fire event.

POWER SYSTEMS AND RENEWABLE ENERGY LABORATORY

The lab activities involves system studies, design and testing under normal/fault conditions and observes the effect of controller actions in power engineering - the domains of power generation, transmission, distribution and utilization of electrical energy. The lab is equipped with real-time power engineering simulation (RTPES) test bed for power grid and power electronics real-time simulations. The laboratory facilities comprise Opal-RT real-time digital simulator (hardware and special solvers) for real-time HIL/RCP applications.

PHOTONIC SENSORS LABORATORY

The Photonic Sensors Laboratory conducts research in the area of physical and chemical sensing using photonic technologies. An area of current focus is tunable diode laser spectroscopy for real-time detection of hazardous gases and measurement of gas concentration, pressure and temperature. This activity has direct application in industrial process control, safety and clinical applications such as breathe analysis for non-invasive detection of biomarkers. The current capabilities include non-invasive and real-time measurement of concentration and pressure of gases with a measurement time resolution of 20s. This makes the technique ideally suited for industrial process control applications. The laboratory is equipped with narrow linewidth near-infrared laser diodes (1650nm from Toptica Photonics and 2004nm from Vertilas), thermoelecrtrically-cooled amplified photodetectors (Thorlabs), a 50MHz dual-phase digital lock-in amplifier (Zurich Instruments), a high-end arbitrary waveform generator (Agilent) and a 500MHz digital storage oscilloscope. The laboratory also has an assortment of telecom-grade laser diodes, photodetectors and optical fiber components.

REAL-TIME POWER ENGINEERING SIMULATION (RTPES) TEST BED

The transition toward a more sustainable and modern power grid with the benefits of better

addressing the societal needs and improving the performance of electricity value chain has introduced significant research challenges and opportunities to simulate and study the real-time phenomena in the broad area of power and control systems, power electronics, and renewable electrical energy. In order to study the behavior of the electrical system as a "virtual" prototype, IITGN has established a fully digital real-time simulation platform so called Real-Time Power Engineering Simulation Laboratory (RTPES Lab). This real-time simulation platform incorporates the actual computer-controlled hardware-in-the-loop (HIL) to test the performance of the various equipments/controllers before introducing them into the real environment. This platform is being used for the following application areas:

- Simulate today's modern power grid - system modeling, monitoring, operation, management and control, Simulate the concept of smart grid
- Hardware-in-the-loop (HIL) simulation and control prototyping systems – Not limited to the only electrical engineering applications but also open for the other engineering domains using just add-on compatible software capabilities.
- High voltage DC (HVDC) and Flexible AC Transmission system (FACTS) control and integration studies
- Design and implementation of renewable and distributed generations such as wind power, solar PV, Plug-in-hybrid electric vehicles (PHEV), etc.
- Power electronic systems & electric drives and related controllers design

SEMICONDUCTOR DEVICE CHARACTERIZATION FACILITY

The semiconductor device characterization facility has been established for detailed wafer-level characterization (I-V, C-V, pulse, noise and reliability measurements). This facility has the following equipment: a 6-inch wafer probe station with thermo-chuck (25–200C), a semiconductor parametric analyzer B1500 with 4 SMUs, 1 LCR meter and 1 pulse unit, a dynamic signal analyzer 35670A, a low-noise current preamplifier and ICCAP modeling software. This facility is currently being used for semiconductor device/circuit research, semiconductor device modeling and electrical characterization of nanodevices/nanostructures.

SOLAR PV PLANT FACILITY

Two roof-top solar PV systems (each 10 kWp) have been installed on one of the buildings. One of these systems is based on thin film technology while the other is based on multicrystalline technology. These plants are operational and are being used to conduct research and support teaching in the field of solar photovoltaics. An accurate data acquisition and monitoring system installed at IIT Gandhinagar for the PV systems complements research in the area of performance analysis of the two types of solar PV modules and in investigation of the impact of solar PV systems on the local power distribution network. An important contribution of this installation is that it significantly reduces the electricity energy bills of the institute. The IITGN solar PV systems are added to the Underwriter Laboratories (UL, USA) PV research node for long-term ageing studies and the other aspects related to the solar PV system. The UL PV research grid has similar collaborations with the Case Western Reserve University (CWRU), USA and the INER (Taiwan) solar PV facilities. Adding the IITGN PV system would provide another climate region that will boost collaborative research.

VLSI DESIGN LAB

The laboratory facility for VLSI design has been now enhanced with almost all the necessary software and considerable hardware support. The following CAD tools are available for VLSI Design: Cadence tools suite – Virtuoso, Analog & Mixed signal design environment, Encounter, PCB design studio, Xilinx ISE, Xilinx Vivado, Mentor Graphics tools - Calibre, Eldo, ADMS, ADIT, CoventorWare MEMS Design Software and TCAD. The lab also has the following hardware to support work related to VLSI design: high speed 1 GHz digital storage oscilloscope, Kintex-7 FPGA board and Virtex-5 FPGA board. A non-disclosure agreement has been signed with IMEC-Europractice under which we got our first chip fabricated in UMC180nm technology.

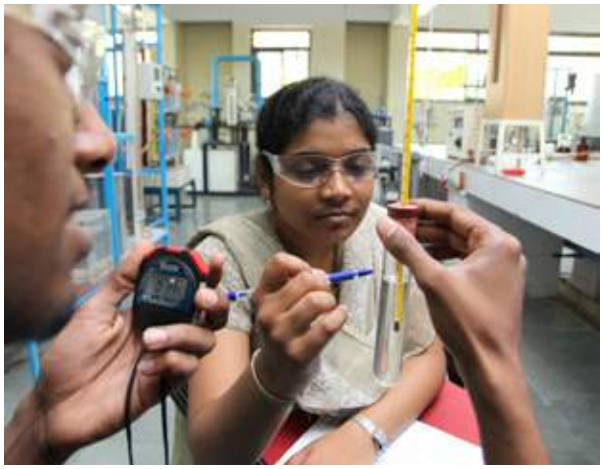
LABORATORY FACILITIES

CHEMICAL ENGINEERING

The laboratory facility in Chemical Engineering has an extensive range of modern experimental set-ups. Fluid mechanics experimental set ups include Reynolds experiment apparatus, Bernoulli's apparatus, friction factor through different pipes, equivalent length of pipe fittings, orifice and venturimeter, and centrifugal pump characteristics. Unit operations/Mass transfer operations experimental set ups include ball-mill, sieve plate/simple distillation, packed-bed absorption tower, solid-liquid/solid-gas/liquid-gas mass transfer. The experimental kits pertaining to heat transfer operations include heat exchangers of various types such as shell-and-tube/double pipe/coiled plate/fluidized/fin tube, and other experiments such as heat transfer in agitated vessel, heat transfer in laminar/turbulent flows, and absorptivity of different materials. Chemical Reactors Engineering set ups cover Batch/PFR/CSTR reactors. Thermodynamics experiments cover VLE and Infinite Dilution Activity co efficient set ups. Process control and dynamics set ups include simple pendulum, bulb thermometer, interacting and non-interacting tanks, on-off controllers, and single board heating system. The facility also includes special characterization facility such as UV Spectrophotometer, HPLC, GC, and Particle Size Analyzer, and a computer facility for Process Simulation Laboratory. Simulation tools such as ANSYS, StarCCM, AspenTech suite, MATLAB, and COMSOL are also available.

CHEMISTRY

Chemistry at IITGN is an eclectic blend of research and teaching that seeks to expand the understanding of molecular structure and function beyond traditional paradigms. Considering the relatively small faculty in the discipline, the diversity of experiences is comparable to other eminent institutions in the country. In particular, research and teaching activities are built on innumerable bridges within different domains of Chemistry as well as with allied sciences such as Materials Science, Chemical Engineering and Bioengineering. Notably, these relationships have evolved organically based on the faculty's background and interests. The holistic character of the discipline is in keeping with the contemporary paradigm of Chemistry worldwide and is expected to inspire students to pursue their interests in a similar fashion. Specific areas of active research in the discipline include Chemistry of natural products and their analogues including their synthesis, isolation and characterization from natural sources. Other areas of synthetic organic chemistry represented in the discipline include asymmetric synthesis and asymmetric catalysis. The discipline carries a strong background in the development and application of chromophores. Specific projects in this area include the synthesis of chromophores and macrocyclic systems based on porphyrinoids, cyanines and dienes along with photophysical and photochemical applications of the same. The discipline offers excellent opportunities for research in materials chemistry and specifically in development of materials for catalysis in various industrially relevant contexts. Research



in computational Chemistry adds to the holistic dimension of the discipline. Specific research in this domain is directed at understanding the molecular dynamics of glycoproteins using ab initio methods and molecular dynamics.

The research is funded by major funding agencies (DST, CSIR) and also supported by institute. Recent additions to the research facilities include a 500MHz FT NMR (Bruker), a Synapt G2S ESI-QToF mass spectrometer (Waters) and cyclic voltammeter (CH Instruments), a powder XRD (Bruker), a multimode 8 atomic force microscope (Bruker), a scanning electron microscope (JEOL) and a circular dichroism (CD) spectrometer (JASCO). Other research equipment such as digital polarimeter (Anton-Paar), an FT-IR spectrophotometer (Thermo Scientific), digital melting point apparatus (MR-VIS), a photochemical apparatus (Luzchem), UV-Vis instruments (Shimadju and Analytik Jena), a spectrofluorimeter (Horiba-Jobin Yvon), high pressure liquid chromtagraphy system (Agilent) are already in place. The wetlab is well equipped with fume hoods, rotary evaporators (Buchi, IKA), analytical balances (Shimadju, Mettler) and regular facilities such as Schlenk lines, heating mantles, hot plates and stirrers. The discipline also has full access to Scifinder and online subscription to many journal publications.

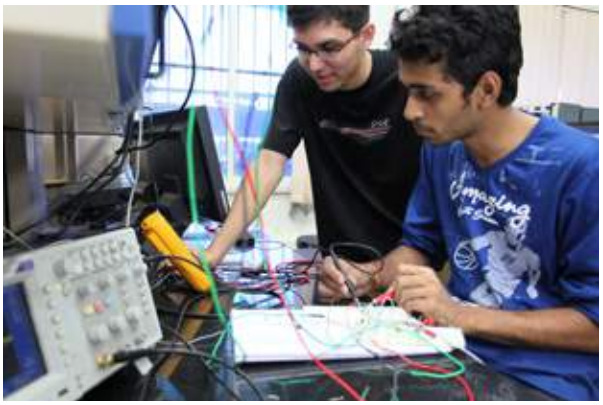
CIVIL ENGINEERING

The Geotechnical Engineering Laboratory emphasis on supporting post graduate teaching and research focusing on core subject material as well as the breadth of research interests being pursued by the MTech and PhD students. The Lab is equipped with basic soil testing equipments as well as high end research equipments. The equipments are being used to measure the mechanical properties of soils, which include index property, permeability, compressibility, and shear strength and dynamic properties. The Geotechnical Laboratory is facilitated with following facilities/equipments:

- Index Property and Soil Classification: Sieve shaker, Vibratory sieve shaker, Hydrometer test facility, Atterberg limit equipment (Liquid limit, Plastic limit, Shrinkage limit), Swell pressure measurement facility, Specific gravity, Relative density, Core Cutter, Sand Pouring Apparatus, Chemical test (pH, Sulphite, Chloride, Iron), Muffled furnace (900°C) for organic matter evaluation in soils, Optical & Digital LCD microscopes for studying shape of coarse grained soil (sand) particles

- Permeability: Falling head permeability test for fine grained soil & Constant head test for coarse grained soil
- Compressibility: Proctor testing setup (compaction test): Standard & Modified, Two 3-gang Oedometer setup (consolidation test)
- Suction Pressure Measurement: Conventional Tensiometer, Sensor based Tensiometer, Filter paper testing method setup
- Shear Strength: Direct shear device for shear strength of cohesionless soils, Unconfined compression (UC) testing device for shear strength of cohesive soils, Vane Shear test for soft soils, Triaxial test setup with DAQ and analysis software for measuring shear strength of all soil types with the facility of accurate measurement of pore pressure response and volume change under Compression loading conditions (UU, CU, CD tests). Advanced Automated Triaxial setup with additional facility for Extension loading test, Ko test and Stress path test
- Dynamic properties: Fully Automated Cyclic Triaxial test setup (0.01-10Hz, stress & strain controlled, hydraulic cum pneumatic operation) for liquefaction potential and dynamic properties of soil (High strain amplitude test; 10^{-4}% to 10^{-2}%); Bender Element system for shear modulus of soil (Low strain amplitude test; 10^{-6}% to 10^{-4}%)
- Design software: GEO5, GiD, STAD Pro, CSI-SAP

- Surveying: Auto-level, Laser Distance Meter
- In-situ testing: Plate load test of 300kN capacity with motorized anchoring system for bearing capacity, Standard Penetration Test (SPT) and Dynamic Cone Penetration Test (DCPT) with automatic free fall hammering system, Static Cone Penetration Test (SCPT). SPT & SCPT for in-situ shear strength and DCPT for shear wave velocity measurements, Ground Penetration Radar (GPR) with 100 and 400 MHz antennae (in process of procurement).
- Slurry consolidation setup: Setup has been developed at IITGN laboratory for preparing the remolded specimens of fine grained soils; consists of self-reacting 250Kg reaction frame with four double stroke pneumatic pressure cylinders and four consolidation cells
- Accessories: Pulverizer, High speed stirrer, Hydraulic sample extractor, Shelby tubes, Mechanical Auger, Industrial Grade DM plant, De-airing apparatus, Heavy duty Soil mixer, Screw Air-Compressor (35-45CFM, 10HP, 500L receiver).



ELECTRICAL ENGINEERING

The Electrical Engineering discipline currently offers six laboratory courses to its undergraduate students and one basic laboratory course to students of other engineering disciplines. In addition to the facilities for carrying out standard electrical and electronic engineering experiments, the laboratory is well equipped for advanced experiments and research.

The **Electronics Engineering Laboratory** has Gunn diode-based microwave test benches and antenna trainer kits to train the students in RF experiments needed to meet the requirements of the communications engineering course. It also has facilities for microprocessor and microcontroller- based embedded systems experiments.

The **Electrical Machinery laboratory** has 5 sets of test benches with each set incorporating the following machinery and control modules: a dc machine, a synchronous machine and an induction machine. Each of these can be configured as a motor or generator. The bench also includes panel meters, sensors for speed torque measurement, power electronic controllers for field and armature power supply, variable frequency drive for the induction motors and synchronizer for parallel operation of alternators.

The **Power Electronics and Drives laboratory** has FPGA based (Sparton/Xilinx) DSP controllers and intelligent power modules for the control of induction motors, BLDC motors, PMAC motors, dc (shunt or separately excited) motors and switched reluctance motors. This facility is intended for project-based activities and lab experiments. Besides this, the lab also has the basic power electronic converter modules necessary to perform the undergraduate experiments.

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. The laboratory also has a comprehensive two-channel vibration analyzer to study vibrations in flexible structures. A programmable logic controller (PLC) has been installed to familiarize the students with industrial control process.

The **computational facilities** of the discipline include widely used software tools such as Matlab, Synopsis TCAD tools and Cadence Analog/Digital design tools. In addition, Xilinx FPGA kits and ISE software are available in the VLSI laboratory. The laboratory is also equipped with ARM, PIC controller, AVR and microcontroller boards as well as a precision magnetic analyzer. The power sys-

tems simulation laboratory has PSCAD software licensed for 25 nodes.

The latest additions to equipment and facilities in the Electrical Engineering Laboratory include a facility for fabricating printed circuit boards (PSBCs), DSP starter kits for conducting real-time signal processing experiments, a data acquisition system (National Instruments) to strengthen the machines and controls laboratory and solar PV laboratory kits for PV cell/module/system characterization.

The research interests of the faculty are diverse and emphasis is placed on promoting a culture of research from an early stage in the undergraduate programme. The major areas of current research interest of the faculty are image processing, power systems, renewable energy, VLSI, physiology-based affective computing, adaptive signal processing, systems engineering and photonic sensors.

The laboratory facilities now available for research include the following:

Photonic Sensors Laboratory: The Photonic Sensors Laboratory fousses on research in the field of optical physical and chemical sensors. The major area of thrust is tunable diode laser spectroscopy of gases for industrial and medical applications. The lab is equipped with narrow linewidth near-infrared laser diodes, photodetectors, fiber-optic components such as fiber Bragg gratings, fiber couplers and splitters, isolators and other high-end electronic equipment. The lab has facilities that allow the students to perform experiments pertaining to optical communications and the general area of sensing and instrumentation.

A state-of-the-art **Semiconductor Characterization Laboratory** with a 6-inch probe station, parametric analyzer, a dynamic signal analyzer and ICCAP software has been developed for detailed wafer-level characterization using I-V, C-V, pulse, noise and reliability measurements.
An **Affective Computing System Laboratory** equipped with physiological signal data acquisition system and virtual reality programming platform for research on adaptive psychophysiology based systems.

MATERIALS SCIENCE AND ENGINEERING

Materials Science & Engineering at IITGN has state-of-the-art equipment for materials characterization focusing on Thin Film processing and characterization, biomaterials and joining of materials. These include the following equipment and facilities:

- Ambient Scanning Probe Microscope (Multimode-8-AM, Bruker) – This high-end instrument is equipped with basic and advanced modes, such as, contact, non-contact, lateral, magnetic and electric force, phase imaging, STM/STS and c-AFM. Along with the measurement of the film quality, its roughness and particle size, this instrument also measures the magnetic force, electrostatic force and conductivity profile of the relevant samples. All kinds of solid samples can be measured with this instrument.
- X-Ray Diffraction System (D8 Discover, Bruker) – This is a floor mounted fully automatic X-Ray diffraction (XRD) system and is one of the sophisticated instrument facilities for advanced materials research. The instrument has plug-and-play multimode functionality. In addition to the basic powder diffraction (Bragg-Brentano geometry) facility, it has separate modules for non-ambient high temperature (up to 1600°C) studies, small angle X-ray scattering (SAXS) and thin film analysis (grazing incidence).
- Friction Stir Welding Equipment – A vertical milling machine has been converted to conduct Friction Stir Welding experiments. Various tools and fixtures have been developed and used to join polymers such as PP

and ABS and also some Aluminum alloys. The machine is capable of running at six different combinations of tool rotation speed and feed rate.

- Thin Film Laboratory – set-up in 2013, the thin film lab carries out film deposition using an RF Magnetron sputtering unit (Model: Table Top Sputter coater MM–237, Supplier: M/S Milman Thin Film Systems Pvt. Ltd.) with facility for co-deposition from two targets. All types of metal, semiconductor and insulator films can be deposited using this deposition unit. The laboratory is also equipped with a Four-point probe measurement system to measure the resistivity of the semiconductor thin films.
- Wet Lab and liposome preparation facility – This lab houses the instruments necessary for preparing liposomes and protein-lipid complexes. The instruments include Ultrasonic processor, Analytical Weighing Balance, Dessicator with vacuum pump, centrifuge, incubator and autoclave.

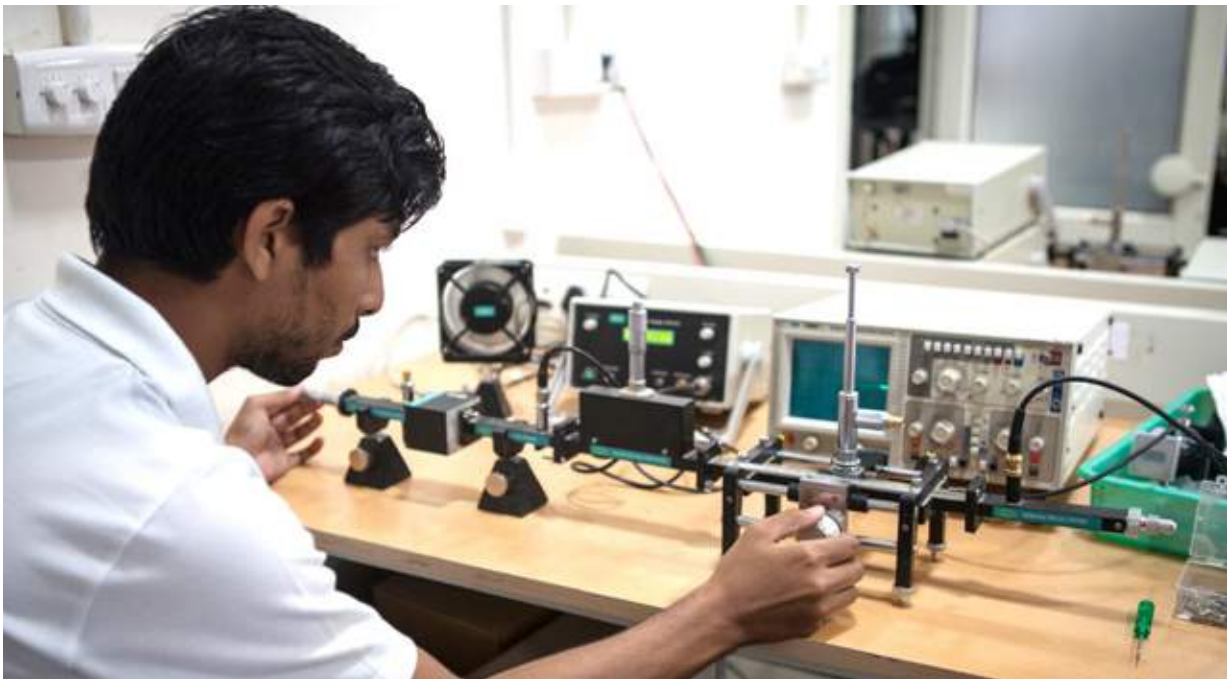
MECHANICAL ENGINEERING

Mechanical Systems Design Laboratory (MSDL@IITGN) for supporting the execution of structured experiments on the behavior of mechanical components and systems has test rigs such as Planar Linkages, Cams, Gear Box,Whirling of Shaft, Balancing of Machines and Mechanical Vibrations. The Gear-Box test rig allows fault-detection such as broken tooth by way of vibration characteristics.

Solid and Fluid Mechanics Laboratory: The Solid Mechanics laboratory has two MTS Universal Testing Machines of 100 kN and 200 kN capacity, Charpy impact testing machine of 450J capacity (MTS), Torsion testing machine (500 Nm) and Rockwell and Vickers hardness testing machines (Zwick Roell), and a Fatigue testing machine. The Fluid Mechanics laboratory has setups for conducting experiments on fluid statics and fluid dynamics. Several common turbo machines such as gear pump, centrifugal pump, Pelton wheel along with various flow measuring devices and accessories have also been installed.

Manufacturing Laboratory: The Manufacturing Laboratory has facilities such as lathes, milling machine, vertical machining centre, electric discharge machine, welding, fitting and tin smithy equipment. It supports courses on Manufacturing Practices and Processes and for supporting manufacturing activities in Integrated Design and Manufacturing courses. It also serves as a workshop for fabrication of undergraduate student projects as well as research related equipment and accessories.

The **Control Systems Laboratory** is shared between several disciplines and covers a range of experiments which help the students understand both the theory and design aspects of control system and the implementation aspects. The test rigs provide hands on experience with sensors, data acquisition, calibration, stability analysis, PID controller tuning, modeling from experimental data, root-locus-based design to meet performance criteria. There are also test-rigs for temperature control of hot water baths, liquid level control, inverted pendulum control, servo motor control, and control trainer kits which are used



to give an application oriented view of control systems.

PHYSICS

The Physics laboratories are equipped with state-of-the-art equipment and facilities for conducting undergraduate experiments. These laboratories will be expanded further to conduct advanced experiments at the MSc level. Other high-end equipment that are in the pipeline include X-ray diffraction equipment for elemental analysis, crystal growth and crystal density measurements.

The undergraduate basic physics laboratory consists of ten experiments covering topics in optics, electricity and magnetism, modern physics and classical mechanics. The procured equipment include 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). A part of the experimental set-up of the 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) and compound pendulum experiments. Cathode ray oscilloscopes (Scientech, Scientific and Aplab), signal generators (Scientech, Scientific), dc power supplies and several optical components are available for use in many experiments. Other experimental set-ups available include universal B-H curve tracer, dielectric constant (Mittal Enterprises) and measurement of e/m by Thomson method (Besto). The Indian Academy of Sciences, Bangalore kit for experimental physics is also available. It also has a few mini electric motors and electric generators which were made by the first year students as part of their laboratory course. Four new experiments (Bifilar pendulum, LC coupled oscillator, viscosity of liquid by Atwood's machine, electromagnetically driven resonance studies) have been set up with guidance from Jawaharlal Nehru Planetarium, Bangalore. The institute has an astronomical telescope in the Physics laboratory to encourage students to develop interest in this area. It has a reflector with an 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. The transit of Venus across the disc of the sun was observed in June 2012 with the help of this telescope.

LIBRARY

The Library, being a central place and an integral part of the academic and research work, has continued to expand its collection both in print and digital form. Another important area of focus is the design and delivery of innovative services to support teaching, learning, research and other scholarly activities that take place on the campus.

BOOKS AND AUDIO VISUAL COLLECTION

The library has a rapidly growing collection of research monographs, text books, reference books, conference proceedings, and multimedia content on CDs, VCDs and DVDs that cover areas of academic and research interest of the Institute.

The following table presents additions made during the year 2013-14:

Type of Collection	Additions in 2013-14	Total collection as on March 31, 2014
Books	3,678	17,646
CDs	80	723
VCD/DVDs	78	341
Total	**3,836**	**18,710**

The total number of items added to the library collection during this period is 3,836 while the corresponding number in the previous year is 3,120.

PRINT JOURNALS & MAGAZINES

The Library subscribes to a large number of scholarly journals, magazines and newspapers in print form. During the year, library discontinued 10 journals which were less used and who were irregular in publication and in place of these, added 16 new journals making the total number of subscribed journals to 164. This is in addition to over 12,000 scholarly e-journals subscriptions.

DIGITAL RESOURCES

Academic and research activities at the Institute are ably supported by several e-resources both in bibliographic and full text forms. Some of these are subscribed through INDEST & INFLIBNET e-consortia and the other subscriptions are direct. During the year, in addition to existing resources, the following major new resources were added making a total of 57 e-resources:

FULL-TEXT & BIBLIOGRAPHIC E-RESOURCES

- Eurographics Digital Library
- JoVE Journals (JoVE:Behaviour, JoVE:Chemistry, JoVE:General)- Video Journal
- MITCogNet Collection
- Project Euclid Prime Collection
- Scopus

In addition, library also subscribed to number of selected journals published by following publishers.

- American Association for the Advancement Science (AAAS)

- Duke University Press
- Geological Society of America
- Inderscience Enterprises Ltd.
- Japanese Geotechnical Society
- Now Publisher
- Stanford Center on Philanthropy and Civil Society
- The Charleston Advisor
- National Academy of Sciences, USA
- University of Chicago Press
- Walter de Gruyter

CIRCULATION SERVICES

One of the major services that the library offers is circulation of books and other reading materials among the users. Every registered user is entitled to borrow reading materials physically available as a part of library collection. The total number of documents issued and returned to the users during the year was 14,742 and 13,917 respectively.
Resource Sharing

The Library has been taking an active part in availing the benefits of sharing the resources with other major libraries in Ahmedabad and Gandhinagar as well IITs, IIMs & IISER, and DELNET member libraries in the country. In 2013-14, the IITGN library borrowed 52 books on Inter Library Loan, received 3,312 (as compared to 609 in the previous year) research articles under Document Delivery Service from different libraries.

INSTITUTIONAL MEMBERSHIP

In order to avail the benefits of various services, the annual membership of INDEST, INFLIBNET e-consortia Development Library Network (DELNET) along with eight other library and professional bodies has been renewed. In addition, the library enrolled as the Institutional Member of **Eurographics** for the first time and has availed access to Digital Library for the year 2014.

CORPORATE/INDUSTRY MEMBERSHIP

Keeping in view the Institute's effort to build a strong relationship and interactions with corporate houses and industries, the library has introduced a membership scheme which enables them to use library resources and services.

LIBRARY SERVICES TO TEQIP PROJECT MEMBERS

During the period of this report, library facilities, resources and services were extended to the faculty members coming from the colleges covered under TEQIP project.

LIBRARY INFORMATION/REFERENCE SERVICES

Library has been actively promoting reference & information services (in person or over the campus network) to its user community. In 2013-14, library introduced the following services.

- New Additions of Books
- Institute Publications' Weekly Alert
- Created MTech dissertations catalogue
- Started building Virtual Reference Collection with link, citation styles, e-print archives
- Created and updated 27 bibliographies on different subjects

LIBRARY ORIENTATION PROGRAMMES

In order to create awareness and familiarize about the resources and services offered by the library, the following programmes were organized during the year:

- Orientation sessions were held for BTech, MTech and PhD students at the start of the academic session
- Two intensive sessions on "How to Search SciFinder Scholar database" for research students

STAFF TRAINING

The Institute encourages and supports its staff members to keep themselves up-to-date in their respective domains by attending the training programmes, workshops, seminars and conferences. **Ms Panna Chaudhary, Mr Viral Asjola, Mr Tapas Kumar Das**, senior library & information assistants and library trainees attended a seminar on **Redefining the libraries to create next generation libraries**, Aug 10, 2013 at EDI campus organized by ADINET, Ahmedabad Management Association (AMA), Ahmedabad; and MANLIBNET 2013 - International conference on **Entrepreneurial approaches to librarianship**, Dec 26-28, 2013 at EDI Campus, Ahmedabad.

INFORMATION TECHNOLOGY INFRASTRUCTURE

The Library added four new computers to facilitate access to digital resources, e-journals, online catalogue and other web-based resources. A color digital multifunctional copier machine has been added to the two existing copiers/printers to help students to photocopy and print articles.

MEDICAL CENTRE

Three qualified medical practitioners are available at the institute for several hours on working days to provide medical care and advice to students, staff and faculty. Hospitalization expenses of all students are covered under a medical insurance policy. A trained male nurse and an assistant are available on a full-time basis to provide emergency first-aid, and for routine medical services such as checking temperature, blood pressure, blood sugar, oxygen levels and dressing wounds. They also assist in maintaining medical supplies and keeping medical records. The other facilities include an electrocardiogram (ECG) machine, nebulizer therapy for asthma and chronic obstructive pulmonary disease (COPD), otoscope and a suction machine for ear examination, eye check-up facility, and a 24-hour vehicle facility for patients in case of emergency. The SAL Hospital Ahmedabad is in the institute's panel of approved hospitals.

PHYSIOTHERAPY CENTRE

A physiotherapy centre has been started at the Institute with **Dr Arvind Chauhan** (BPhysio) being available at the centre for two hours daily. The physiotherapy department is well equipped with electrotherapy machines (short wave diathermy (SWD), IFT, TENS, muscle stimulator, , paraffin wax bath (PWB), cervical and lumbar traction, ultrasound machine, hot and cold packs, and exercise therapy equipment (shoulder wheel, physio ball, therabands, rope and pulley for shoulder exercise, springs, weights cuffs (sand bags), wall lader for shoulder). The centre also offers treatment of orthopaedic conditions like Arthritics pain, tennis elbow, and of neurological conditions like sciatica, cervical spondylosis. Post-operative and post-fracture physiotherapy management, recovery from sports injuries, spinal rehabilitation in postural problems like in back and neck are also available. The patients are also advised about basic exercises and general guidelines for weight management and general well being.

DAY CARE CENTRE

The IITGN Day Care facility is a community initiative to provide a safe, secure and nurturing environment within the campus to the children from IITGN families, while their parents are at work. In a growing institute like IITGN that has a considerable amount of community members with young families, the Day Care facility was established to provide quality child care services within the campus.

The Day Care began operations in March 2014 and currently has two well trained staff members, a day care co-ordinator and a caretaker. The Day Care operates from Monday to Friday from 9 am to 6 pm, and caters to children between the age of 6 months and 6 years.

The Day Care is located in a spacious 750 sq feet area that is divided into separate sections for recreational and educational activities and a separate partitioned sleep area. The facility has a reading section with a generous collection of children's books, a toys section, two small play areas - one for toddlers and other for older kids, a diaper-changing station, a private nursing area for babies, a kitchenette equipped with a microwave and a fridge. The Day Care is also actively engaged in developmental activities such as painting, drawing, clay modeling, dancing, and reading sessions conducted regularly and many more activities planned in the future. The Day Care facility has adopted an open admission

policy with a tiered fee structure to make it accessible to all sections of the IITGN community.

The Day Care has also taken several measures to ensure safety and security, including an advanced fire-safety and alarm system, fire safety training for staff, first aid and access to a doctor, safety door, high hygiene standards, adequate child proofing, among others.

FACULTY ACTIVITIES

Faculty members at IITGN are engaged in a wide range of academic activities that relate to research and development, consultancy, publications, and honorary work for other academic organizations. The activities described below cover these areas and also list the recognition received by IITGN faculty in their various disciplines.

SPONSORED PROJECTS

PROJECTS SANCTIONED DURING 2013-14

- **Characterization of rotational seismic excitation**, sponsored by the Department of Science and Technology. Principal Investigator: **Prof Dhiman Basu**, Civil Engineering.
- **Aptamer-magnetic nanoparticle constructs for multiplexed detection of food-borne pathogens**, sponsored by the Department of Science and Technology. Principal Investigator: **Prof Bhaskar Datta**, Chemistry.
- **Dynamics of self-sustained chemo-mechanical oscillations of active polymer gels**, sponsored by the Department of Science and Technology. Principal Investigator: **Prof Pratyush Dayal**, Chemical Engineering.
- **Development of low-cost intelligent headphones for improving social interactions of children with autism spectrum disorders**, sponsored by the Department of Science and Technology. Principal Investigator: **Prof Nithin V. George**, Electrical Engineering.
- **Dry coating of nano-additives for energy efficient cement clinkerization** sponsored by the Department of Science and Technology. Principal Investigator: **Prof Chinmay Ghoroi**, Chemical Engineering.
- **Synthesizing single-atom thick inorganic nanosheets isomorphous to graphene by developing chemical exfoliation strategies for layered boron-based materials**, spon-

sored by Department of Science and Technology. Principal Investigator: **Prof Kabeer Jasuja**, Chemical Engineering.

- **How are context and health of older adults related? Incorporation of geospatial analysis into sociology of aging** sponsored by ICSSR. Principal Investigator, **Prof Tannistha Samanta**, Social Sciences. Co- Principal Investigator, Prof Shivakumar Jolad, Physics.
- **Intelligent virtual reality based gaze-sensitive social communication system for children with autism spectrum disorder**, sponsored by the Department of Science and Technology, Principal Investigator, **Prof Uttama Lahiri**, Electrical Engineering.
- **Post-stroke tele-neurorehabilitation using an operant conditioning paradigm under volitionally driven transcutaneous neuromuscular electrical stimulation** funded by the DST, and Institut National de Recherche en Informatique et en Automatique (INRIA) under the Indo-French Programme in Information and Communication Science & Technology (ICST). Principal Investigator: **Prof Uttama Lahiri**, IITGN and **Dr Anirban Dutta**, Université Montpellier, France.
- **Delayed reconstruction of unknown inputs of dynamical systems**, sponsored by the Department of Science and Technology. Principal Investigator: **Prof Harish P M**, Mechanical Engineering.
- **Molecular-scale membrane curvature generation in protein-lipid systems: electrostatics and hyperphobicity**, sponsored by the Department of Science and Technology. Principal Investigator: **Prof Abhijit Mishra**, Materials Science & Engineering.
- **Measurement to management (m2m): improved water use efficiency and agricultural productivity through experimental sensor network**, sponsored by Media Lab Asia, Ministry of Communications & Information Technology. Principal Investigator: **Prof Vimal Mishra**, Civil Engineering.
- **Global stability analysis of spatially developing axisymmetric boundary layers** sponsored by Aeronautics Research and Development Board (ARDB). Principal Investigator: **Prof Vinod Narayanan**, Mechanical Engineering.
- **Fabrication and a detailed microstructural investigation of $Cu(In_{1-x},Gax)Se_2$ (CIGS) thin films with ZnO buffer layer for the photovoltaic applications**, sponsored by the Department of Science and Technology, Principal Investigator, **Prof Emila Panda**, Materials Science and Engineering.
- **Oxidation behavior of rare magnetic thin films**, sponsored by DRDO, Principal Investigator, **Prof Emila Panda**, Materials Science and Engineering.
- **Statistical learning of category information: a neuroimaging investigation**, sponsored by Cognitive Science Research Initiative of the Department of Science and Technology. Principal Investigator: **Prof Krishna Prasad**, Computer Science and Engineering.
- **Investigation of object motion categories in dynamic natural scenes and their applications** sponsored by the Department of Science and Technology. Principal Investigator: **Prof Shanmuganathan Raman**, Electrical Engineering.
- **Experimental & theoretical investigations of polymerization- grade ethylene synthesis**, sponsored by the Department of Science and Technology. Principal Investigator: **Prof Sudhanshu Sharma**, Chemistry.
- **CO_2 reforming of methane to generate syngas using nanostructured doped oxides and nanoporous aluminosilicates** sponsored by the Department of Science and Technology. Principal Investigator: **Prof Sudhanshu Sharma**, Chemistry.
- **Data driven control loop performance assessment & diagnosis tool: implementation in waste water treatment system**, sponsored by the Department of Science and Technology. Principal Investigator: **Prof Babji Srinivasan**, Chemical Engineering.
- **Exploring internationally collaborative projects where the arts meet technology** sponsored by British Council's Knowledge Economy Partnerships (KEP) programme. Principal Investigators: Victoria Dean, The School of the Arts, The University of Northampton, UK and **Prof Achal Mehra**, IITGN.

ONGOING SPONSORED PROJECTS

- **Ethanol autothermal reforming: design optimization through experimental and modeling studies** sponsored by the Department of Science and Technology. Principal Investigator: **Prof Atul Bhargav**, Mechanical Engineering.
- **Quantitative near- and mid-infrared wavelength modulation spectroscopy for gas sensing applications** sponsored by Department of Science and Technology. Principal Investigator: **Prof Arup Lal Chakraborty**, Electrical Engineering.
- **A novel process for precipitation and stabilization of drug nanoparticles in aqueous suspensions using CO_2**, sponsored by Department of Biotechnology. Principal Investigator: **Prof Sameer V Dalvi**, Chemical Engineering.
- **Rapid precipitation and stabilization of drug nanoparticles using ultrasonically-driven mixing device** sponsored by Department of Science and Technology. Principal Investigator: **Prof Sameer V Dalvi**, Chemical Engineering.
- **Engineering stable and bio-compatible microbubble formulation for biomedical applications**, sponsored by Department of Biotechnology. Principal Investigator: **Prof Sameer V Dalvi**, Chemical Engineering.
- **High-fidelity computational design of engineered systems on HPC platforms**, sponsored by the Department of Information Technology. Principal Investigator: **Prof Murali Damodaran**, Mechanical Engineering.
- **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.
- **Fire engineering lab, Underwriters Laboratory, USA**, Principal Investigator: **Prof Chinmay Ghoroi**, Chemical Engineering.
- **Photochemical and photophysical studies of donor-acceptor substituted aryl and heteroaryl polyenes**, sponsored by Council of Scientific and Industrial Research. Principal Investigator: **Prof Sriram Kanvah Gundimeda**, Chemistry.
- **Photo-processes of donor-acceptor substituted polyenes in ionic liquid media** sponsored by the Department of Science and Technology. Principal Investigator: **Prof Sriram Kanvah Gundimeda**, Chemistry.
- **Hybrid cali (n) hyrin(s) with pyridine moiety: new block of macrocyles as potential candidates for anion sensing and metal coordination**, sponsored by Department of Science and Technology. Principal Investigator: **Prof Iti Gupta**, Chemistry.
- **Carbaporphyrins with inbuilt arene moiety: their synthesis, characterization and metal coordination study**, sponsored by the Council of Scientific and Industrial Research. Principal Investigator: **Prof Iti Gupta**, Chemistry.
- **An experimental investigation to locate and assess the severity of winding deformations in power transformers**, sponsored by the Department of Science and Technology. Principal Investigator: **Prof Ragavan K**, Electrical Engineering.
- **A novel system-identification-based approach for understanding the deformability of DNA** sponsored by Department of Science and Technology. Principal Investigator: **Prof Harish P M**.
- **A cognitivist exploration of the concept of privacy behavior and experience** sponsored by Department of Science and Technology. Principal Investigator: **Prof Jaison A Manjaly**, Philosophy.
- **Experimental studies of metastability in different synchronizers**, sponsored by the Department of Science and Technology. Principal Investigator: **Prof Joycee Mekie**, Electrical Engineering.
- **Effects of device geometries and design rules on the performance and reliability of advanced MOS devices with high-K gate dielectrics and metal gates** sponsored by the Department of Science and Technology. Principal Investigator: **Prof Nihar Mohapatra**, Electrical 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.
- **Virtual geotechnical laboratory** sponsored by Ministry of Human Resource Development. Principal Investigator: **Prof Amit Prashant**, Civil Engineering.
- **Colloidal particles self-assembly in liquid crystals** sponsored by the Department of Science and Technology. Principal Investigator: **Prof Prachi Thareja**, Chemical Engineering.
- **An investigation on eigenvalue problems and qualitative theory of fully nonlinear elliptic equations** sponsored by National Board of Higher Mathematics. Principal Investigator: **Prof Jagmohan Tyagi**, Mathematics.

CONSULTING PROJECTS

PROJECTS SANCTIONED DURING 2013-14

- **Design of barricades with improved efficiency** for Raksha Shakti University, Principal Investigator: **Prof Amit Prashant**, Civil Engineering, co-principal investigator **Prof Bhaskar Bhatt**, Design.
- **Identification of an optimal disinfectant for the preservation of RO purified water** for "Sarvjal" Piramal Waters Private Ltd. Principal Investigator: **Prof Sharad Gupta**, Biological Engineering.
- **Institute of Infrastructure, Technology, Research and Management** (IITRAM): To provide assistance and guidance for the newly established university Institute of Infrastructure, Technology, Research and Management (IITRAM) for Government of Gujarat. **Prof Sudhir K Jain** is the Principal Investigator and **Prof S P Mehrotra** the Convenor and Nodal Officer of IITGN for IITRAM Cell.
- **Peer view of design basis report for construction of bridges on freight corridor between Kanpur and Khurja** for Dedicated Freight Corridor Corporation of India Ltd (DFCCIL) Principal Investigator: **Prof Sudhir K Jain**, Civil Engineering.
- **Discharge estimation in the flood affected area along National Highway 59** for Essel Infra Projects Ltd. Principal Investigator: **Prof Vikrant Jain**, Earth Sciences. Co-PI: **Dr Vimal Mishra**.
- **Flood and water-logging hazard risk and vulnerability analysis of Mahanadi delta, Odisha** for United Nations Development Programme (NISER Bhubaneswar). Principal Investigator: **Prof Vikrant Jain**, Earth Sciences.
- **Evaluation of Pratham open school education (POSE) & Pratham supported school in Guarat & Rajasthan** for Pratham Education Foundation. Principal Investigator: **Prof Shivkumar Jolad**, Physics.
- **Applicability of Intel Atom processor for low-power computing systems and embedded applications** for Intel Higher education programme. Principal Investigator: **Prof Joycee Mekie**, Electrical Engineering.
- **Construction of permanent posts in Sir Creak area** for Border Security Force. Principal Investigator: **Prof Amit Prashant**, Civil Engineering.
- **Improving the present hydraulic system** for Peass Industrial Engineering Pvt Ltd. Principal Investigator: **Prof N Ramakrishnan**, Mechanical Engineering.
- **Productivity assessment & enhancement** for ACME Air Equipments Pvt Ltd, GIDC. Principal Investigator: **Prof N Ramakrishnan**, Mechanical Engineering.
- **Household context and health care utilization among older adults in India: a multimethod analysis** for the United Nations Population Fund. Principal Investigator: **Prof Tannistha Samanta**, Social Sciences.
- **Cost-benefit analysis of integrated scheduling and production control** for ABB Global Industries and Services Ltd. Principal Investigator: **Prof Rajagopalan Srinivasan**, Chemical Engineering.

ONGOING CONSULTING PROJECTS

- **Computational fluid dynamics** for hi-tech outsourcing services. Principal Investigator: **Prof Murali Damodaran**, Mechanical Engineering.
- **Industrial computational fluid dynamics activities** for Hi-Tech OS. Principal Investigator: **Prof Murali Damodaran**, Mechanical Engineering.
- **National level expert institute to advise and oversee the scheme on state level anchor institutes in the focus sectors** sponsored by the Government of Gujarat. Principal Investigator: **Prof Sudhir K Jain**, Civil Engineering.
- **IITK-BMTPC Earthquake Tips, Phase II** for BMTPC. Principal Investigator: **Prof Sudhir K Jain**, Civil Engineering.
- **Seismic design criteria for metro structures for MEGA**. Principal Investigator: **Prof Sudhir K Jain**, **Prof Amit Prashant** and **Prof Dhiman Basu**, Civil Engineering.
- **Consulting with Electrotherm India Ltd, Ahmedabad**, Principal Investigator: **Prof Ragavan K**, Electrical Engineering.
- **Design of helium gas circulators for helium cooling loop at IPR**, sponsored by Institute for Plasma Research, Gandhinagar. Principal Investigator: **Prof Vedant Kadambi**, Mechanical Engineering.
- **Design of rehabilitation of articulations of Naini bridge** for Dynasoure Concrete Treatments Pvt Ltd. Principal Investigator: **Prof Abhijit Mukherjee**, Civil Engineering.
- **Smart grid pilot project – UGVCL** for Uttar Gujarat Vij Company Ltd. (UGVCL), Gujarat. Principal Investigator: **Prof Naran M Pindoriya**, Electrical Engineering.
- **Geotechnical design for cell-1 of Kanjurmarg solid waste management system**, Principal Investigator: **Prof Amit Prashant**, Civil Engineering.
- **Analysis of slopes at Ghatkopar** for Satra Property Developers Pvt Ltd, Mumbai. Principal Investigator: **Prof Ajanta Sachan**, Civil Engineering.

INTERNALLY FUNDED PROJECTS

The institute firmly believes in providing an enabling atmosphere for faculty to start research activities as soon as they join. The institute therefore encourages faculty to submit proposals for internal funding while they either prepare project proposals for external funding or await the funds to be released by sponsoring agencies.

PROJECTS APPROVED DURING 2013-14

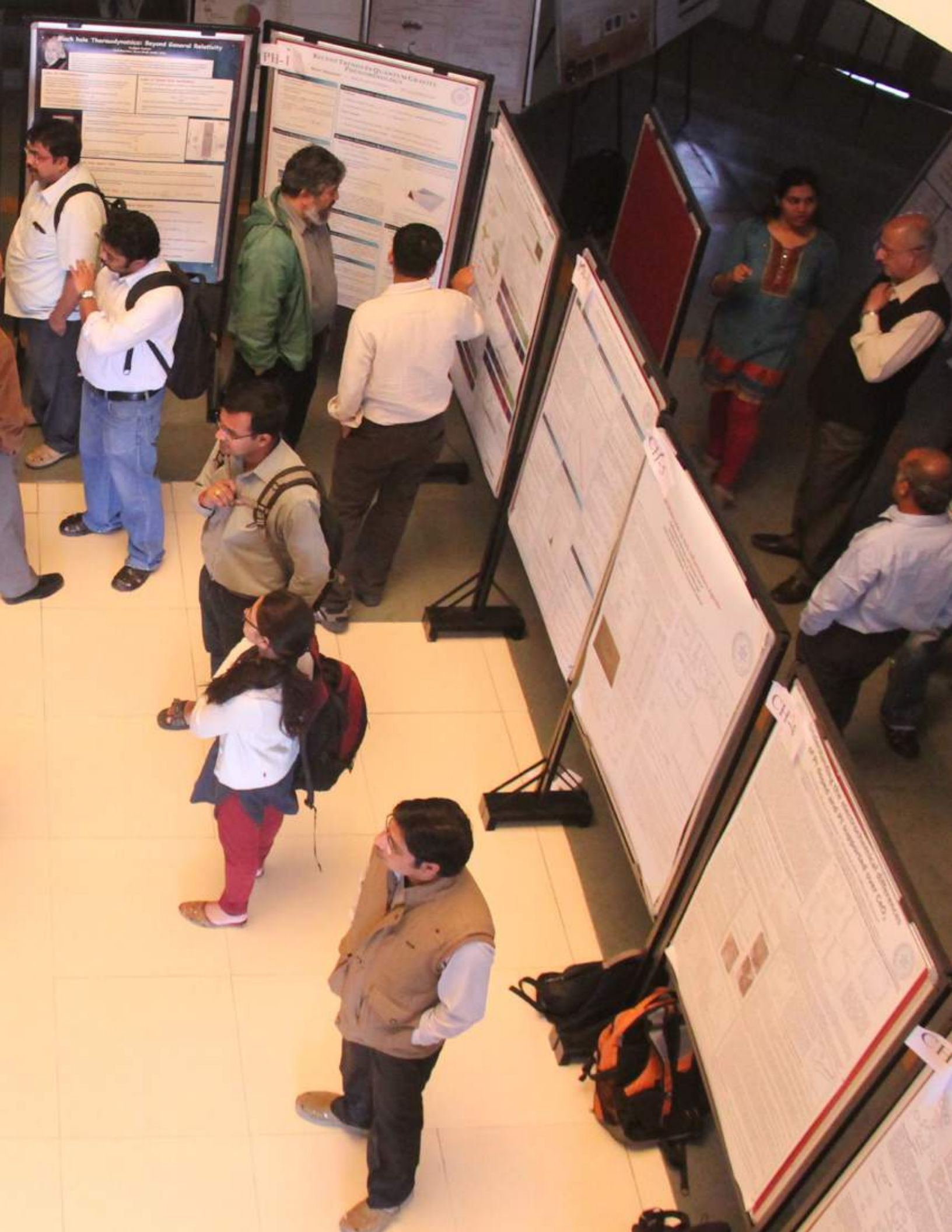
- **Ek nayi asha- Cloud enabled enterprise mobility for accredited social health activists (ASHAs) in India**, Principal Investigator: **Prof Bhaskar Bhatt**, Design.
- **Synthesizing boron-isomorphs of graphene: Developing a new area of 2-D nanomaterial research**, Principal Investigator: **Prof Kabeer Jasuja**, Chemical Engineering.
- **Meshfree implementation of cardiac electrophysiology**, Principal Investigator: **Prof Shankarjee Krishnamoorthi**, Mechanical Engineering.
- **Probing specialization in action correction**, Principal Investigator: **Prof Pratik Mutha**, Electrical Engineering.
- **Development of tools and techniques for imaging high dynamics range natural scenes and computational photography application**, Principal Investigator: **Prof Shanmuganathan Raman**, Electrical Engineering.
- **Research initiative on social gernontology**, Principal Investigator: **Prof Tannishtta Samanta**, Social Sciences.
- **An approach for eco-friendly biological nitrogen removal (BNR) in waste water treatment plants- development of fundamental biological model, reduced order model building and model based control strategies**, Principal Investigator: **Prof Babji Srinivasan**, Chemical Engineering.
- **Quantifying the role of human factors in ensuring safe chemical process operations**, Principal Investigator: **Prof Rajagopalan Srinivasan**, Chemical Engineering.
- **Polymorphism in drug molecules**, Principal Investigator: **Prof Vijay Thiruvenkatam**, Physics & Biological Engineering.

ONGOING PROJECTS

- **Heat transfer and material flow model for friction stir welding of copper alloys**, Principal Investigator: **Prof Amit Arora**, Materials Science & Engineering.

- **Rotational seismic excitation and its event-to-event variability**, Principal Investigator: **Prof Dhiman Basu**, Civil Engineering.
- **Fuel cell systems research laboratory** at IIT Gandhinagar, Principal Investigator: **Prof Atul Bhargav**, Mechanical Engineering.
- **Infrared wavelength modulation spectroscopy techniques for quantitative gas sensing applications using novel non-telecom diode lasers**, Principal Investigator: **Prof Arup Lal Chakraborty**, Electrical Engineering.
- **Controlled precipitation of nanoparticles using ultrasonically-driven rapid mixing device and their incorporation into strip films for therapeutic applications**, Principal Investigator: **Prof Sameer V Dalvi**, Chemical Engineering.
- **Controlled synthesis of silver and gold nanomaterials** by DNA complexation, Principal Investigator: **Prof Bhaskar Datta**, Chemistry.
- **Modeling and simulation of soft active materials**, Principal Investigator: **Prof Pratyush Dayal**, Chemical Engineering.
- **Property improvement of cohesive pharmaceutical powders through continuous nano-coating**, Principal Investigator: **Prof Chinmay Ghoroi**, Chemical Engineering.
- **Design, synthesis and applications of expanded meta- and para-benziporphyrinoids**, Principal Investigator: **Prof Iti Gupta**, Chemistry.
- **Implications of tau misfolding in Alzheimer disease and beyond**, Principal Investigator: **Prof Sharad Gupta**, Biological Engineering.
- **Modeling spread of dengue epidemic in urban areas from a spatial interacting networks perspective**, Principal Investigator: **Prof Shivakumar Jolad**, Physics.
- **Modulation of small molecules to develop effective drugs for helicobacter pylori infection**, Principal Investigator: **Prof Sivapriya Kirubakaran**, Chemistry.
- **Intelligent adaptive physiology-based affect sensitive virtual social communication system for children with autism spectrum disorder**, Principal Investigator: **Prof Uttama Lahiri**, Electrical Engineering.
- **Metastability studies of flip-flop synchronizers based on simulations and on-chip experiments**, Principal Investigator: **Prof Joycee Mekie**, Electrical Engineering.
- **Rational design of new antibiotics**, Principal Investigator: **Prof Abhijit Mishra**, Materials Science & Engineering.
- **Segmentation of action sequences during individual learning and interpersonal interactions**, Principal Investigator: **Prof Krishna Prasad Miyapuram**, Social Sciences.
- **Reliability study of advanced CMOS devices with high-K dielectrics and metal gates developed in a 28nm CMOS technology**, Principal Investigator: **Prof Nihar Ranjan Mohapatra**, Elecrtical Engineerng.
- **Stability analysis of non-parallel axisymetric boundary layers**, Principal Investigator: **Prof Vinod Narayanan**, Mechanical Engineering.
- **Fabrication and microstructural investigation of Cu (In_{1-x},Gax)Se_2 (CIGS) self-assembled nanodots for the photovoltaic applications**, Principal Investigator: **Prof Emila Panda**, Materials Science & Engineering.
- **Research on the construction and analysis of Ramamatya's Veena**, Principal Investigator: **Prof Srinivas Reddy**, Humanities.
- **Research on Telugu manuscripts**, Principal Investigator: **Prof Srinivas Reddy**, Humanities.
- **Mapping out health accessibility of the elderly in India: geographic information system (GIS) and its applications to demography of aging**, Principal Investigator: **Prof Tannistha Samanta**, Social Sciences.
- **Black hole thermodynamics: beyond general relativity**, Principal Investigator: **Prof Sudipta Sarkar**, Physics.
- **Measuring environmental factors related to nutrition in Gujarat, India**, Principal Investigator: **Prof Malavika Subramanyam**, Social Sciences.
- **Nanoporous conducting metal oxides for the electroreduction of CO_2 to make useful products**, Principal Investigator: **Prof Sudhanshu Sharma**, Chemistry.
- **Role of expectancy in attention capture**, Principal Investigator: **Prof Meera Mary Sunny**, Social Sciences.
- **Laboratory for soft matter science and engineering rheology and interfacial engineering of colloidal particles in self-assembling media**, Principal Investigator: **Prof Prachi Thareja**, Chemical Engineering.


PH-2
Gravitational Wave Data Analysis
PH-B 2




PROF AGARWAL


PROF DAS


PROF GEORGE


PROF GHOROI


PROF JAIN


PROF JAIN


PROF KIRUBAKARAN

AWARDS AND RECOGNITION

The following faculty members have received special awards and recognition by external bodies during 2013-14:

- **Prof B D Agarwal** has been nominated a member of Research Advisory Committee of Ahmedabad Textile Industry's Research Association (ATIRA), Ahmedabad.
- **Prof Bireswar Das** has received the **IUSSTF research fellowship** from Indo-US Science and Technology Forum (IUSSTF), to work on **Complexity theory** at the Center for Discrete Mathematics and Theoretical Computer Science (DIMACS), Rutgers University from Jan-Dec 2014.
- **Prof Nithin V George** won the **INSPIRE (Innovation in Science Pursuit for Inspired Research) Faculty Award** for the year 2013. The awardees are entitled for a fellowship of Rs 80,000 per month for 5 years as well as a research grant of Rs 35 lakhs. The award is supported by Department of Science and Technology, Government of India. His research work under this award will focus on the design and development of a low cost binaural hearing aid.
- **Prof Chinmay Ghoroi** was a Visiting scholar at May Kay O'Cornnor Process Safety Center, Department of Chemical Engineering, Texas A&M University, College Station, TX, USA during May 2013-July 2013.
- The **New Zealand Society for Earthquake Engineering** (NZSEE) has inducted Director **Sudhir K Jain** as a life member for his "exceptional services to society" in recognition of his work in the field of earthquake engineering in India and abroad. He is the first Indian to receive this honour. The recognition was conferred on Prof Jain at the NZSEE 2013 Technical Conference in New Zealand on April 27, 2013. Prof Jain was elected member of the **Executive Council of the Indian Natioanl Academic of Engineering**. Prof Jain is also a part of the **Statue of Unity Project Committee** where he will guide the project as an expert and special invitee and participate in all its meetings.
- **Prof Vikrant Jain** received the Indo-German DST-DAAD grant through Project Based Personnel Exchange Programme for two years (2014-15) for visiting University of Potsdam, Germany.
- **Prof Sivapriya Kirubakaran** has been awarded the **Ramanujan Fellowship** sponsored by the Department of Science & Technology, Government of India. The fellowship includes Rs 75,000 per month and Rs 5 lakhs per year as a research grant for a period of 5 years. The highly selective Ramanujan Fellowship is aimed at encouraging brilliant scientists and engineers from all over the world to take up scientific research positions in India.
- **Prof Surjeet Kour** received the **INSPIRE Faculty Award** from the Department of Science and Technology (DST), Government of India for her research project **On classification of simple derivations of the polynomial algebra**. Prof Kour also received the **Excellence-in-research fellowship**, IIT Gandhinagar, 2013-2014.
- **Prof Sairam Swaroop Mallajosyula** has received the **INSPIRE Faculty Award** from DST for his research project on **Theoretical investigations of carbohydrate protein linkages**.
- **Prof Vimal Mishra** has received the **Japan Society for the Promotion of Science (JSPS) fellowship** for his project on **An integrated hydrologic model to explore water manage-**


PROF KOUR


PROF MALLAJOSYULA


PROF MISHRA


PROF MUKHERJEE


PROF MUKHOPADHYAY


PROF MURTHY


PROF MUTHA


PROF RAMAKRISHNAN


PROF SAMANTA


PROF SHARAN


PROF SRINIVASAN


PROF SRINIVASAN

ment options under climate change in India.

- **Prof Abhijit Mukherjee**, dean, Research & Development, has been elected **Fellow of the National Academy of Sciences**, India.
- **Prof Jyoti Mukhopadhyay** was felicitated by the Indian Institute of Metals Baroda Chapter in recognition of his outstanding selfless contribution and meritorious service to the Metallurgical society as a whole, Sep 8, 2013, Vadodara. Prof Mukhopadhyay has also been appointed as the Council Member for the National Council of the Indian Institute of Metals for 2013-14.
- **Prof K V V Murthy** completed 50 glorious years of teaching on Sep 16, 2013. A felicitation ceremony was organized to mark this momentous occasion. Prof Murthy shared several anecdotes from his past experiences and other colleagues who have known him over several decades spoke glowingly about his passion for teaching and his humility.
- **Prof Pratik Mutha** has been awarded the **Ramanujan Fellowship**, sponsored by DST for his research project on **Neural basis of skilled motor behavior**.
- **Prof N Ramakrishnan** was invited to be the guest of honour at the inaugural function of STTP on **Linear tolerancing and geometric dimensioning and tolerancing** at BVM Engineering College, Vallabh Vidyanagar, March 10, 2014; where he also delivered the keynote address.
- **Prof Tannistha Samanta** received the **United Nations Population Fund (UNFPA)**, India Travel Award for participation in International Association of Gerontology & Geriatrics Annual Meeting, Seoul, S Korea, June 23-27, 2013; **Brown International Advanced Research Institutes (BIARI)- Santander Universities Fellowship**, Brown University, Providence, RI Summer 2013; and **Departmental Visitor Award**, Center for Excellence in Population Aging Research (CEPAR), Australian National University, Canberra, Dec 7-14, 2013.
- **Prof Raghubir Sharan** received the **Distinguished Teacher Award** 2013 from IIT Kanpur, where he was associated during 1969-2002.
- **Prof Babji Srinivasan** received the **Young Scientist Fellowship award** from DST for his project on **Data driven control loop performance assessment & diagnosis tool: implementation in waste water treatment system**.
- **Prof Rajagopalan Srinivasan** has been awarded the Excellence in Reviewing by Computers and Chemical Engineering Journal, 2013.


PROF ARORA


PROF CHAKRABORTY


PROF DAMODARAN


PROF DANINO


PROF DAYAL

HONORARY WORK

Prof Amit Arora, Materials Science and Engineering
- Manuscript review, Fusion Science and Technology
- Book manuscript review, Pearson India
- External examiner, MTech, Ganpat University
- Doctoral committee member, Pandit Deendayal Petroleum University

Prof Arup Lal Chakraborty, Electrical Engineering
- Reviewer, Optics Letters, Optics Express, Applied Optics, IEEE Sensors Journal
- Co-organized the IEEE-IITGN Faculty Development Programme (FDP) for 150 faculty members of electrical engineering of various engineering colleges of Gujarat during 13-17 Nov 2013. Delivered lectures on Electronic Devices as part of the FDP.

Prof Murali Damodaran, Mechanical Engineering
- Member, Editorial Board, International Journal of Computational Fluid Dynamics
- Managing Editor, International Journal of Information Technology
- Reviewer of selected papers submitted to the 1st International and 16th National Conference on Machines and Mechanisms (iNaCoMM-2013), Dec 18-20, 2013
- Member, National Advisory Council of the 2nd National Conference on Thermal, Fluid and Manufacturing Science (TFMS-14), at C K Pitawalla College of Engineering and Technology, Surat, India, Jan 24-25, 2014
- Reviewer for AIAA Journal, Computers and Fluids, International Journal of Computational Fluid Dynamics, International Journal of Information Technology, Engineering Optimization, Japan IMechE Journal-Part C: Mechanical Engineering Science
- Reviewed new book proposal on Aerodynamics for John Wiley Publishers and World Scientific Publishers
- External examiner, 1 MS thesis and 1 PhD thesis, IIT Madras, Chennai, India
- Member, Expert Committee for review of proposals for scientific validation and value addition in Grassroots Innovations at National Innovation Foundation
- Nominated Member, Nirma University (Ahmedabad) Academic Body of the Faculty of Technology and Engineering from March 12, 2013 to March 11, 2016
- Appointed Registration Authority at IIT Gandhinagar for the Indian Grid (Garuda) Certification Authority (IGCA) by C-DAC Bangalore

Prof Michel Danino, Social Sciences
- Member, Course Committee for the CBSE elective course for Class XII "Knowledge traditions and practices of India"

Prof Pratyush Dayal, Chemical Engineering
- MTech thesis examiner at SVNIT, Surat, April 2013
- Manuscript reviewer, Microuidics and Nanofluidics, Physics Review Letters, Physical Review E, Journal of the Royal Society Interface

Prof Nithin V George, Electrical Engineering
- Reviewer for journals: Applied Acoustics, Elsevier; Mechanical Systems and Signal Processing, Elsevier; Journal of Sound and Vibration, Elsevier; Expert Systems with Applications, Elsevier; International Journal of Information Technology, Singapore Computer Society; Transactions of the Institute


PROF GEORGE


PROF GHOROI


PROF JAIN


PROF JAIN


PROF JOSHI

of Measurement and Control, SAGE publications; Indian Journal of Pure and Applied Physics, CSIR; IETE Technical Review; New book proposal, John Wiley
- Reviewer for conferences: Twentieth National Conference on Communications (NCC-2014), IIT Kanpur; 2014 IEEE International symposium on Circuits and Systems, Australia; 2013 IEEE Recent Advances in Intelligent Computational Systems Conference, IIST Trivandrum; The fourth national conference on Computer vision, pattern recognition, image processing and graphics, IIT Jodhpur; International conference on Signal processing and communications 2014, IISc Bangalore

Prof Chinmay Ghoroi, Chemical Engineering
- Reviewer, Journal of Solution Chemistry, Industrial & Engineering Chemistry Research
- Member, Board of Studies, Department of Chemical Engineering, Nirma University, Ahmedabad
- Member, Faulty of Technology and Engineering, Nirma University, Ahmedabad
- Member, Technical committee, All India seminar on Bottomless Refinery Concepts arranged by The Institute of Engineers (India), Gujarat State centre, under the aegis of Chemical Engineering Division Board, IEI, March 13-14, 2014
- Member, Technical committee of seminar on Hazards in chemical Industry-Technology, prevention and remedies, The Institute of Engineers (India), Gujarat State centre, Under the aegis of Chemical Engineering Division Board, IEI, March 6-7, 2014

Prof Sudhir K Jain, Civil Engineering
- Member, Executive Committee, Indian National Academy of Engineering, New Delhi
- Member, National Advisory Committee, National Information Center of Earthquake Engineering, IIT Kanpur
- President- Elect, International Association for Earthquake Engineering
- Member, Governing Council (2014 onwards), Member, Court (2014-2017), and Member, Executive Council (2013-2016), Central University of Gujarat, Gandhinagar
- Member, Board of Governors (2013-present), Institute of Infrastructure, Technology, Research And Management (IITRAM), Ahmedabad
- Member, Advisory Editorial Board, Earthquake Engineering and Structural Dynamics, John Wiley and Sons
- Member, Editorial Board, Earthquake Engineering and Engineering Vibrations, Spring-Verlag
- Member, Board of Directors, Gujarat Foundation for Entreneurial Excellence (GFEE), Ahmedabad
- Member, Board of Governors, Gujarat Technological University, Ahmedabad
- Member, Board of Directors, Gujarat International Finance Tech-city (GIFT) Company Ltd
- Member, Technical Advisor Committee for Ahmedabad-Gandhinagar Metro Rail Project

Prof Vikrant Jain, Earth Sciences
- Reviewer, Geomatics, Natural Hazards and Risk, Aug 2013
- Reviewer, Project proposal submitted to Ministry of Earth Sciences (MoES), Government of India, Aug 2013
- Reviewer, Geomorphology, Sep 2013
- Panellist in an Indo-UK workshop on India's river ecosystems-strategies to enhance eco-


PROF LAHIRI


PROF MALLAJOSYULA


PROF MEKIE


PROF MISHRA


PROF MIYAPURAM

nomic value of assets and reduce systemic shocks, WWF, Delhi, Oct 2013.
- Reviewer, Project Report submitted to Department of Science and Technology (DST), India, Dec 2013
- Member of National Working Group (NWG) of IGCP-581 project on 'Evolution of Asian rivers' (2009-13)
- Member of National Working Group (NWG) of IGCP-582 project on 'Tropical rivers: Hydro-physical processes, impacts, hazards and management (2009-2013)
- Reviewer, Geological Magazine, Jan 2014

Prof Mohan C Joshi, Mathematics
- Review of scientific plan of the academic year 2013 as a member of scientific committee of the DST project entitled "National programme on differential equations"

Prof Uttama Lahiri, Electrical Engineering
- Reviewer, Journal of Medical Imaging and Health Informatics
- Reviewer, Journal of Autism and Development Disorder
- Reviewer, American Journal of Autism
- Reviewer, IEEE Pervasive Computing

Prof Sairam Swaroop Mallajosyula, Chemistry
Reviewer, Journal of Physical Chemistry
- Reviewer, ACS Chemical Biology
- Reviewer, Biophysical Journal
- Prof Joycee Mekie, Electrical Engineering
- Reviewer for the Conferences: ASYNC 2014, ISCAS 2013, INDICON 2013, VDAT 2013, RAICS 2013
- Doctoral programme committee member for 2 PhD students at GTU
- Doctoral programme committee member for 1 PhD student at SVNIT Surat
- MTech examination panel for 10 students, GTU

Prof Vimal Mishra, Civil Engineering
- Guest editor, Non Linear Processes in Geophysics Journal
- Reviews made for Water Resources Research, Journal of Geophysical Research, Journal of Hydrolometeorology, Journal of Hydrology, Nature Scientific Reports
- External examiner, Fellow Programme in Management, IIM Ahmedabad
- Invited International Advisor in the High End Climate Impacts and Extreme (HELIX) project

Prof Krishna Prasad Miyapuram, Cognitive Science
- Review editor, Frontiers in Movement Science & Sport Psychology, Frontiers in Decision Neuroscience
- Member, Board of Studies, Computer Science & Information Technology, Nirma University, Ahmedabad

Prof Nihar Ranjan Mohapatra, Electrical Engineering
- Member, Technical Programme Committee, 27th International conference on VLSI Design-2014, IIT Bombay
- Reviewer, INDICON-2013, IIT Bombay
- Prof Pratik Mutha, Biological and Electrical Engineering
- Reviewer for journals: Brain, Cerebral Cortex, Cortex, Journal of Neurophysiology, Brain Research, Experimental Brain Research, Neuroscience Letters, Journal of Motor Behavior, Journal of NeuroEngineering and Rehabilitation, Journal of the International Neuropsychological Society, PLoS One, Quarterly Journal of Experimental Psychology
- Reviewer for Grants: Agencenationale de la recherche (ANR), French call for proposals


PROF MOHAPATRA


PROF MUTHA


PROF PAI


PROF PINDORIYA


PROF SACHAN

Prof Pratik Mutha, Biological and Electrical Engineering
- Reviewer for journals: Brain, Cortex, Journal of the International Neuropsychological Society, PLoS One, Quarterly Journal of Experimental Psychology
- Reviewer for Grants: Agence nationale de la recherche (ANR), French call for proposals

Prof D V Pai, Mathematics
- Chairman, Programme Advisory Committee, Mathematical Sciences (PAC-MS), SERB, Government of India
- Chaired the 56th Meeting of PAC-MS, IISc Bangalore, June 5-6, 2013
- Chaired the 57th Meeting of PAC-MS, IIT Madras, Nov 18-19, 2013
- Chaired the Planning Committee Meeting , Jan 18, 2014 for the forthcoming 11th SERB School on Matrix methods & fractional calculus
- Member, Peer Review Committee, Department of Mathematics, IIT Madras, Nov 7-8, 2013
- Associate editor, Asian European Journal of Mathematics, World Scientific Publishers, London and Singapore.
- Reviewer, MR, Mathematics Reviews (American Mathematical Society)

Prof Naran M Pindoriya, Electrical Engineering
- External examiner for 2 PhD thesis evaluations, Department of Electrical Engineering, Faculty of Technology and Engineering, MS University Baroda
- External examiner for eight MTech research students at Department of electrical engineering, Nirma University, Ahmedabad

Prof Ajanta Sachan, Civil Engineering
- Reviewer, Soils and Foundations (Japanese Geotechnical Society), Elsevier
- Reviewer, Geomatics, Natural Hazards and Risk, Taylor & Francis
- Reviewer, Indian Geotechnical Journal, Springer

Prof Tannistha Samanta, Social Sciences
- Reviewer, The Oxford Journals of Gerontology (Social Sciences), 2014
- Co-convener, Aging in Asia Interest Group (AIAIG), Gerontological Society of America (GSA), 2013-2014

Prof G K Sharma, Mechanical Engineering
- Member, Board of Governors, IIITDM Jabalpur
- Member, Building and Works Committee, IITDM, Jabalpur
- Member, Advisory Committee, Sardar Patel Renewable Energy Research Institute Vallabh Vidyanagar

Prof Babji Srinivasan, Chemical and Electrical Engineering
- Reviewer, Computers and Chemical Engineering Journal (Elsevier), 2013 & 2014
- Reviewer, Artificial Intelligence in Medicine, 2014
- Reviewer, IEEE Multi Conference on Systems and Control, 2013
- Reviewer, NCEVT, National conference at Parul Institute, 2013

Prof Rajagopalan Srinivasan, Chemical Engineering
- Reviewer, Portuguese Foundation for Science and Technology, Oct 2013
- Member, Underwriters Laboratories Fire Advisory Council


PROF SHARMA


PROF SAMANTA


PROF SRINIVASAN


PROF SRINIVASAN


PROF RATH


PROF SHARMA

- Reviewer for journals: Industrial & Engineering Chemistry Research, Computers & Chemical Engineering, Journal of Aerospace Information Systems
- Member of Scientific Committee, 11thInternational Conference on Chemical and Process Engineering - ICheaP11, Milan, Italy, 2013
- Member of the International Programme Committee, 6th International Conference on Process Systems Engineering, PSE-Asia 2013, Kuala Lumpur, Malaysia
- Member of the International Programme Committee, 5th World Conference on Safety in Oil and Gas industry, Okayama, Japan, 2014
- Reviewer, Advanced Control of Industrial Processes Adconip, Hiroshima, Japan, 2014
- European Symposium on Computer Aided Process Engineering, Budapest, Hungary, 2014
- Foundation of Computer-Aided Process Design Conference, Cle Elum, USA, 2014
- Associate Editor, Journal of Frugal Innovation
- Editor, IChEme's Process Safety and Environmental Protection journal
- Member, Editorial Board, Frontiers in Process and Energy Systems Engineering
- Member, Editorial Board, Clean Technologies and Environmental Policy
- Member, Editorial Board, International Journal of Data Analysis Techniques and Strategies
- Member, Editorial Review Board, International Journal of Information Systems and Supply Chain Management
- Member, Editorial Board, The Open Petroleum Engineering Journal

Prof Arnapurna Rath, Humanities
- External examiner, MPhil thesis, English and Foreign Languages University, Hyderabad, August 2013
- External examiner, Doctoral thesis in Comparative Literature, English and Foreign Languages University, Hyderabad, November 2013

Prof Sudhanshu Sharma, Chemistry
- Member, Board of studies of chemistry at PDPU

ACADEMIC LECTURES BY FACULTY

In keeping with its goal of promoting a vibrant academic culture, the institute encourages its faculty to deliver academic lectures on cutting-edge research in India and abroad. The lectures delivered by various faculty members are as follows:

Prof B D Agarwal delivered the Sintex Industries Endowment lecture on Growth opportunities for plastics in composite materials at the Indian Plastics Institute, Vadodara Chapter, March 21, 2014. Prof Agarwal chaired a session at the 2nd internal conference on Composite materials and technology, Centre of excellence: Composites, ATIRA, Ahmedabad, Feb 7-8, 2014.

Prof Amit Arora delivered invited lectures on **Numerical modeling of friction stir welding**, IIT Bombay, Aug 26, 2013; **Numerical modelling of joining processes for dissimilar materials**, National Welding Meet, Baroda, Aug 31, 2013; **Numerical modelling of friction stir welding**, Nuclear Fuel Complex, Hyderabad, Oct 10, 2013; **Heat transfer and material flow modelling during friction stir welding**, BARC, Mumbai, Nov 19, 2013; **Explaining tool failure during friction stir welding**, Indian Institute of Metals and MRSI, Mumbai, Nov 19, 2013; and **Friction stir welding: modeling and simulation**, TEQUIP on Manufacturing process modeling and simulation, BVM Engineering College, Vallabh Vidyanagar, Jan 8, 2014.

Prof Bhaskar Bhatt participated in several design and innovation programmes, including a **Workshop on Innovation** hosted by SP Jain Institute of Management Research, Mumbai, July 2013. Prof Bhatt gave presentations on **System theory and application for complex social issues** at National Institute of Design, Gandhinagar, Sep 2013; **Design principles for occupational health and safety** at Self Employed Women's Association (SEWA), Oct 2013; and a guest lecture on **Design for ICT: Systems/Holistic thinking principles** at Ahmedabad University, Feb 2014.

Prof Andrea Bobbio gave an invited talk on **Markovian agent models with applications to wireless sensor network analysis** at the International conference on advances in applied probability graph theory and fuzzy mathematics, St Peter's College, Kolenchery, Jan 11-14, 2014.

Prof Prakash W Dandekar delivered a lecture on **Building projects using microcontrollers**, Vishwakarma Government Engineering College, Gandhinagar, Feb 22, 2014.

Mr Michel Danino, delivered lectures on **New perspectives on our cultural past**, Fifth Pupul Jayakar Memorial Lecture, organized by INTACH, New Delhi, at India International Centre, April 18, 2013; **Scientific advances in ancient India**, Adobe, Noida, June 13, 2013; **Landmarks of technology in ancient India**, Adobe, Noida, Aug 1, 2013; **Water management in ancient India: from water harvesting to irrigation**, IIT Kanpur, Sep 2, 2013. He also gave keynote addresses on **The Harappan origins of sacred proportions** at a conference on "Harappan and regional chalcolithic cultures of greater indus region" organized by the Department of Archaeology, University of Kerala, Thiruvananthapuram, Nov 25, 2013; and **Archaeological sciences: some recent advances** at a session of an International Seminar on "Sir Alexander Cunningham and the Art heritage of India" organized by the Department of History, Banaras Hindu University, Varanasi, Feb 21, 2014.

Prof Pratyush Dayal gave invited lectures on **Locomotion of self-oscillating polymer gels**, and **Opportunities at IIT Gandhinagar** at Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat, April 10, 2013; **Chemo-mechanical oscillations in photosensitive, self-oscillating polymer**, IIT Bombay, Sep 27, 2013.

Prof Nithin V George delivered lectures on **Swarm intelligence: recent developments** at the national-level short term training programme on Recent trends in computational intelligence, A D Patel Institute of Technology, Anand, Gujarat, July 3, 2013; **Future research opportunities in electrical engineering**, TKM College of Engineering, Kerala, July 12, 2013; **Adaptive filter design: a evolutionary computing approach**, AICTE sponsored short term training programme on modern aspects in digital signal processing, College of Engineering, Cherthala, Kerala, Nov 26,

2013; and Adaptive filter design: a soft computing approach, Gujarat Technical University, March 25, 2014.

Prof Chinmay Ghoroi gave lectures on **Pre-detection of kitchen fire due to oil heating**, International workshop on fire research, IIT Kanpur, July 31-Aug 1, 2013; **Particle engineering for processing fine cohesive powders**, Texas A&M University, June 14, 2013; and **Indian chemical industries and IIT Gandhinagar Safety Center**, Texas A&M University, July 26, 2013.

Prof Sudhir K Jain was the keynote speaker in the 2013 New Zealand Society for Earthquake Engineering Conference, Wellington, New Zealand, April 26-28, 2013 where he delivered a talk **Earthquake engineering in the modern world**. Prof Jain also delivered the keynote address in the 8th AGM of the **Indian Society of Landscape Architects**, and the seminar on **Sustainable landscapes**, Ahmedabad, August 31, 2013. Prof Jain delivered talks and public lectures on **Indian higher education and research scenario, and the IITGN storey**, April 24, 2013, Christchurch, New Zealand; **Historical developments in India towards seismic safety and the road ahead**, April 30, 2013, Auckland; **Update from IIT Gandhinagar: Innovations in forming a new IIT** to the Pan-IIT alumni of the Greater Washington DC region, May 13, 2013; and **Top to bottom: The role of IITs in meeting India's societal needs** at Indian Consulate in New York, May 15, 2013.

Prof Vikrant Jain gave invited lectures on **Modelling of Himalayan rivers** in a workshop on Long-term controls on the rivers of the Ganga plains: Defining the trajectory of future change sponsored by DST, India and Royal Society, UK, Dehradun, April 21-25, 2013; **Climate change, river hazards and its management** in an UNESCO workshop on Regional priorities for knowledge management and strategy for action in South Asia, New Delhi, June 2013; **River science: opportunities and challenges** at Science Inspire Camp, Alwar Institute of Engineering & Technology, Alwar, Aug 2013; **Landscape evolution modeling: some major questions**, CSIR-NEERI, Nagpur, Oct 2013; and **Significance of active fault mapping: a geomorphic perspective**, M S University, Baroda, Dec 2013.

Prof Shivakumar Jolad gave lectures on **More is different bird's eye view of condensed matter physics**, Jawaharlal Nehru Planetarium, Bangalore, May 2013; and **Spatial spread of dengue with human and vector mobility in urban areas**, Institute of Mathematical Sciences, Chennai, Sep 2013.

Prof Mohan C Joshi delivered lectures on **Elements of nonlinear functional analysis**, University of Kashmir, Srinagar, Oct 21-29, 2013; **Mathematical theory of controls**, IISER, Pune, Feb 25, 2014; and **Qualitative study of differential equations**, SVNIT, Surat, March 3, 2014.

Prof Dinesh Korjan gave presentations on **Plan D: Finding design solutions**, Relating systems thinking and design (RSD2) symposium in Oslo, Norway, Oct 9-11, 2013. He was also invited by MHRD to make a presentation at the **Future of cities** workshop, July 19, 2013 where he proposed a design solution for a vexing parking problem at Ahmedabad's CG Road.

Prof Rita Kothari gave invited talks on **Memories and movements**, Jamia Millia Islamia University, April 19, 2013; **Language at the edge of nation**, Jawaharlal Nehru University, April 20, 2013; **Interrogating translation practices**, The Indian language mela, Tata Institute of Social Sciences, Sep 21, 2013; and **Practices of History**, University of Pune, Feb 2014. Prof Kothari was the keynote speaker, **History, Trauma, Representation**, St Thomas Baptist College, Kozhencherry, Kerala, Aug 24-25, 2013; and Plenary speaker, **Beyond the borders: multidisciplinary perspectives**, IIT Indore, Dec 20-21, 2013.

Prof Surjeet Kour was the invited speaker in National conference on **Advances in Mathematics**, Hansraj College, University of Delhi, March 7-8, 2014.

Prof Joycee Mekie delivered talks on **Emerging trends and challenges in VLSI and embedded systems**, NCEVT, May 10, 2013; **Globally-asynchronous, locally-synchronous design**, INDICON 2013 held at IIT Bombay, Dec 14, 2013; **Asynchronous circuit design and Network on chip architectures** during short course on Recent trends in VLSI held at Parul Institute, Jan 18, 2014; **Globally-asynchronous locally-synchronous for low**

power design and Network on chip architectures during short course on VLSI Signal processing held at RCOEM, Nagpur, March 24, 2014. She was also invited as keynote speaker and Advisory body for National conference on Innovative and Emerging Technologies (NCIET-2014) where she delivered a talk on **Innovations in embedded systems and VLSI design**, Jan 3-4, 2014.

Prof Vimal Mishra was invited for presentations at **Hydrologic modeling for climate change impacts assessment** in the 2nd WCRP CORDEX-SA Science and Training Workshop in South Asia, Aug 27-30, 2013, Kathmandu, Nepal; **Hydrologic regimes in climate change in India** in Pathways to climate resilient livelihood in Himalayan river basins, Oct 18, 2013 New Delhi; **Changes in urban precipitation extremes: implications to urban stormwater infrastructure** in the 4th National Research conference on Climate change, Oct 26-27, 2013; **Droughts under observed and projected climate in India** in the Climate science: recent research organized by the Ministry of Earth Sciences, Oct 4-5, 2013; **Drought monitoring in India**, National Remote Sensing Center, Hyderabad, Oct 19, 2013; **Implications of land cover and climate changes on soil moisture variability in India** in the meeting organized by Ministry of Environment and Forest, Planning Commission, New Delhi, Nov 21, 2013; and **Climate change and hydrologic extremes in India**, 1st Climate Change and Policy Workshop held in IIT Bombay, March 6-7, 2014.

Prof Nihar Ranjan Mohapatra gave keynote lecture on **CMOS technology challenges and opportunities beyond 22nm node**, TEQIP Sponsored STTP on Nano-scale integration, fabrication and characterization, Oct 21, 2013, SVNIT-Surat; and **Nano CMOS technology challenges and opportunities**, National Conference on Emerging trends in engineering and technology (NCETET-2014), March 30, 2014, Abu Road, India. He also delivered a lecture on **Optimization of 1-T floating body memory cells for L3 Cache and DRAM applications,** INDICON-2013, IIT Bombay, Dec 15, 2013.

Prof Pratik Mutha gave a lecture on **Cognitive Science** at the Indian Institute of Science Education and Research, Bhopal, Feb 2014.
Prof D V Pai delivered lectures on **Optimal recovery of functions- a relook**, and **Viscosity solutions of minimization problems** at the Faculty Development Programme (FDI), KIIT Bhubaneswar, July 3-4, 2013; and **Viscosity approximation methods for minimization and fixed point problems- a relook** at the 79th Annual conference of the Indian Mathematical Society, Rajagiri School of Engineering and Technology, Cochin, Dec 28-31, 2013.

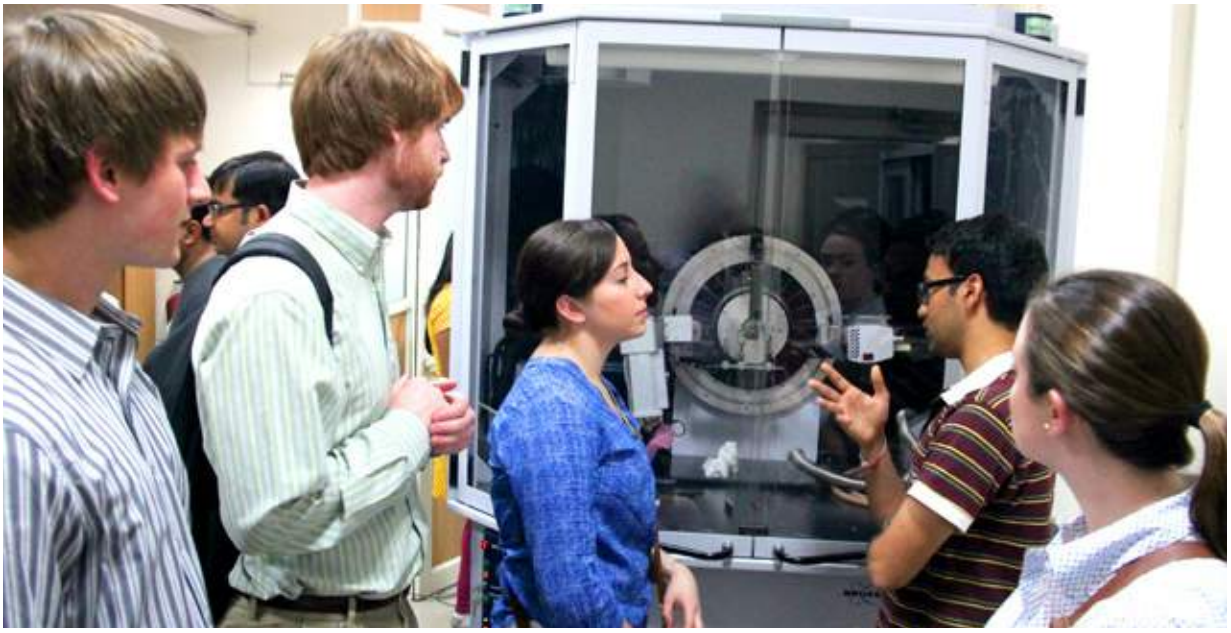
Prof Naran M Pindoriya delivered invited lectures on **Indian power sector: initiatives to smart grid** in a national workshop on Strategic research vision to build a smarter grid at IIT Mandi, June 27-29, 2013; and **Emerging trends in electricity market in India** in a two days national conference on Recent trends in electrical and electronics & communication engineering, ITM Universe, Vadodara, Jan 17-18, 2014.

Prof Srinivas Reddy delivered lectures on **Music of Sufism: a living tradition**, Conferência Instituto Universitário de Lisboa, ISCTE, Lisbon, Portugal, May 2013; **Instrument of salvation** at Yoga: the art of transformation, Freer Sackler, Smithsonian, Washington DC, USA, Dec 2013; **Translation matters** at Hyderabad Literary Festival, Andhra Pradesh, Jan 2014; and **Looking to the South: The Amuktamalyada of Krishnadevaraya**, IIT Madras, Chennai, Feb 2014.

Prof Ajanta Sachan gave an invited lecture on **Laboratory soil testing**, a short term training programme on Geotechnical engineering: principles & practices, LD College of Engineering, GTU, Nov 18-22, 2013.

Prof Tannistha Samanta delivered invited talks on **Aging, family structure & health: evidence from India** at Massachusetts Institute of Technology (MIT), AgeLab, Cambridge, June 5, 2013; and **Older adults and technology adaptability: The Indian story** at Chung-Ang University (CAU), Seoul, S Korea, June 28, 2013.

Prof Sudhanshu Sharma gave an invited lecture on **Understanding the electrochemical differences of Pt doped and Pt supported over CeO_2** at the 11th ISEAC International discussion meet on electrochemistry and its applications (11th



ISEAC-DM-2014), Amritsar, Feb 23, 2014.

Prof Babji Srinivasan gave lectures on **Data analytics in process industries** at ABB Bangalore, Control and Optimization Research Group, June 6, 2013; **Control loop performance monitoring**; Nirma Institute of Technology, July 26, 2013. Prof Srinivasan was a Plenary Speaker at EOSCICON 2014, Vidya Academy of Science and Technology (VAST), Thrissur, Kerala, Jan 7-11, 2014.

Prof Rajagopalan Srinivasan gave invited lectures on **Real-time particle size estimation for crystallization processes through GPU-based multivariate image analysis**; and **Uncovering sustainability trends in industry through text mining** at the American Institute of Chemical Engineer's Annual Meeting, Nov 3-8, 2013.

Prof Meera Sunny delivered a lecture on **Introduction to transactional analysis: egostates and egogram**, Gujarat National Law University, Oct 10, 2013.

Prof Prachi Thareja gave a talk on **Strategies for interfacial stabilization** at the International Conference on Surface Science and Nanotechnology, Deen Dayal Upadhyay Gorakhpur University, Dec 10-12, 2013.

Prof Kishor S Trivedi delivered invited talks on **End-to-end performability analysis for infrastructure-as-a-service cloud**, International conference on Matrix analytic methods in stochastic models, Calicut, Kerala, Jan 10, 2014; **Why does software fail and what can we do about it?**, 8th INDIA Com, New Delhi, March 7, 2014. Prof Trivedi gave a plenary talk on **Survivability quantification for networks**, International conference on Advances in applied probability, Graph Theory and Fuzzy Mathematics (ICAPGF-2014), Kerala, Jan 11, 2014.

Prof Jagmohan Tyagi delivered an invited talk on **Variational analysis in partial differential equations** at a National workshop on Optimization techniques and their applications, MNNIT Allahabad, June 6, 2013.

Prof Siddharth Y Wakankar delivered lectures on **Rare Sanskrit manuscripts**, University of Pune, July 22-23, 2013; **Manuscriptology**, St Xavier's College, Navrangpura, Ahmedabad, Jan 8, 2014; and **Ancient Indian games and their design**, IIT Kanpur, March 8, 2014.

OTHER FACULTY ACTIVITIES

Prof Bhaskar Bhatt was invited by the National Advisory Council (NAC), Government of India to participate in the Working Group deliberations on **Occupational health & safety of the informal and unorganized sector in India** with a specific focus on Design to enhance productivity, during Sep 2-3, 2013.

Prof Anirban Dasgupta was the Programme committee member of ACM conference on **Knowledge and Data Discovery** (KDD) 2014; International conference on **Machine learning** (ICML) 2014; **Foundations of software technology and theoretical computer science** (FSTTCS) 2014; and **Forum for information retrieval evaluation** (FIRE) 2014. Prof Dasgupta was the Area Chair of International conference on **Data mining** (ICDM) 2014.

Prof Sudhir K Jain participated in the UL Council meeting at Chicago during May 6-8, 2013. Prof Jain was at a reception by the leadership of CapIIT and WHEELS initiative in Washington DC area on May 12, 2013, where he made a presentation and discussed the agenda of social entrepreneurship by IIT students and how IITGN is moving forward on this front. He was the Chief Guest at the 66th Annual day celebration of the Birla Vishvakarma Mahavidyalaya (B V M Engineering College), Vallabh Vidyanagar, Anand, Gujarat, March 29, 2014 and delivered a speech on undergraduate education in the modern times.

Prof Vikrant Jain was invited to the **8th IAG International conference on Geomorphology**, (IAG-2013), Paris during Aug 27-31, 2013. He also participated in the INSA group discussion meeting on Uttarakhand disaster event, New Delhi, Sep 2013; and as a member of UNDP Knowledge network center on **Floods and waterlogging: focus on disaster risk reduction and climate change adaptation**, IIT Kanpur, Nov 2013. Prof Jain visited University of California Santa Barbara (UCSB), USA during Jan-June 2014 through Singh-Obama Indo-US fellowship under Indo-US 21st Century knowledge initiative.

Prof Sivapriya Kirubakaran organized a state wide **Drug discovery symposium**, May 2013. Over 100 students and faculty members from the state participated in the symposium along with leading drug discovery group from Astrazeneca.

Prof Barun Majumder's essay (research work) on **Singularity free rainbow universe** received an Honorable Mention in the Gravity Research Foundation 2013 essay competition.

Prof Vimal Mishra was the invited participant in the Indo-German Frontiers of Engineering, 2013; and Indo-American Frontiers of Engineering Symposium, 2014; invited partner in National Knowledge Network, IIT Kanpur, Nov 22, 2013; and invited panel member on the topic **Integrating education and research** in ITRA project launch workshop, New Delhi, Jan 3-4, 2014.

Prof S P Mehrotra delivered the prestigious Brahma Prakash Memorial lecture at Indira Gandhi Centre for Atomic Research, Kalpakkam, Tamil Nadu, Sep 21, 2013. The lecture is organized annually by the Indian Institute of Metals.

Prof Amit Prashant was part of a 10-member delegation that visited the University of Bath, the University of Leicester and the Open University, UK during Oct 20-26, 2013 to understand the initiatives taken and t he practices being followed by these universities to embed e-learning into the teaching-learning experience.

VISIT TO DHOLAVIRA

Fifteen IITGN faculty members and their families visited Dholavira, a major Harappan site in the Rann of Kutch, Gujarat, on Oct 19-20, 2013. The group was guided by **Dr R S Bisht**, eminent archaeologist and former Joint Director General, Archaeological Survey of India, who directed the excavations at Dholavira in the 1990s. The visit was organized by **Mr Michel Danino**, IITGN Guest Professor.

PUBLICATIONS

The faculty of IITGN is encouraged to present their research for peer-review through publication in reputed journals and conference proceedings as well as publication of books, book chapters and monographs. These activities promote a culture of academic rigor and research focus, and give the faculty important feedback on their work, and enhance the visibility of the institute in the national and international academic arena. The following is a list of publications by faculty at IITGN during 2013-14:

BOOKS EDITED

Ganapathi B, Yagnik S, **Kumbar T S#** and Parvez A, (Eds), *MANLIBNET: International conference on entrepreneurial approaches to librarianship*, Ahmedabad, IN: Management Library Network, Dec 2013

Kapoor K and **Danino M**, (Eds), *Knowledge traditions & practices of India: textbook for class XI*, Delhi, IN: Central Board of Secondary Education, 2013

Wakabayashi J and **Kothari R**, (Eds), *Decentering translation studies: India and beyond*, New Delhi, IN: Orient Blackswan, 2014, ISBN: 9788125054580

BOOK CHAPTERS

Danino M, *Harappan metrology* in History of ancient India II: protohistoric foundations, New Delhi: Vivekananda International Foundation in association with Aryan Books International, 2014, pp 309-320, ISBN: 9788173054815

Danino M, *The horse and the Aryan debate* in History of ancient India III: the texts, political history and administration till c. 200 BC, New Delhi: Vivekananda International Foundation in association with Aryan Books International, 2014, pp 30-43, ISBN: 9788173054822

Danino M, *Genetics and the Aryan issue* in History of ancient India III: the texts, political history and administration till c. 200 BC, New Delhi: Vivekananda International Foundation in association with Aryan Books International, 2014, pp 44-64, ISBN: 9788173054822

Das B, Scharpfenecker P and Torán J, *Succinct encodings of graph isomorphism* in Language and automata theory and applications, DOI: 10.1007/978-3-319-04921-2_23, Cham: Springer International Publishing, 2014, pp 285-296, ISBN: 9783319049205

Dayal P, Kuksenok O, Bhattacharya A, Buxton G A, Berk Usta O and Anna C, *Modeling the interaction of active cilia with species in solution: from chemical reagents to microscopic particles* in RSC Nanoscience & Nanotechnology, Cambridge: Royal Society of Chemistry, DOI: 10.1039/9781849737098-00063, 2013, pp 63-88, ISBN: 9781849735971

Karthikeyan R, Chava B, Koneru K, Varma Godavarthi S S, Tripathi S and **Murthy K V V**, *Enhanced MRAC based parallel cascade control strategy for unstable process with application to a continuous bioreactor* in Recent Advances in Intelligent Informatics: Proceedings of the Second International Symposium on Intelligent Informatics (ISI'13), August 23-24 2013, Mysore, India Series: Advances in Intelligent Systems and Computing, vol. 235, New York, US: Springer, DOI: 10.1007/978-3-319-01778-5, 2014, Ch 29, pp 283-291, ISBN: 9783319017778

Kothari R, *A tale from an (other) Gujarat (Joseph Macwan's Angaliyat)* in 50 writers 50 authors, Noida, IN: HarperCollins Publishers India Ltd., 2013, Ch 5, pp 27-33, ISBN: 9789350294284

Kumar P*, Barai S*, Srinivasan B and **Mohapatra N R**, *Process model accuracy enhancement using cluster based approach* in Physics of Semiconductor Devices, DOI: 10.1007/978-3-319-03002-9_9, Cham: Springer International Publishing, 2014, pp 33-36, ISBN: 9783319030012

Pindoriya N M, Dasgupta D, Srinivasan D and Carvalho M, *Infrastructure security for smart electric grid: a survey* in Optimization and Security Challenges in Smart Power Grid, New York, US: Springer, DOI: 10.1007/978-3-642-38134-8_8, 2013, Ch 8, ISBN: 9783642381331

JOURNAL PAPERS

Achal V, **Mukherjee A** and Reddy M S, *Biogenic treatment improves the durability and remediates the cracks of concrete structures*, Construction and Building Materials, DOI: 10.1016/j.conbuildmat.2013.06.061, vol 48, pp 1-5, Nov 2013

Agnihotri A, Pathak S U and **Mukhopadhyay J**, *Cell voltage noise in aluminium smelting*, Transactions of the Indian Institute of Metals, DOI: 10.1007/s12666-013-0348-5, vol 67, no 2, pp 275-283, April 2014

Alex T C, Kumar R, Roy S K and **Mehrotra S P**, *Towards ambient pressure leaching of boehmite through mechanical activation*, Hydrometallurgy, DOI: 10.1016/j.hydromet.2014.01.017, vol 144-145, pp. 99-106, Feb 2014

Alex T C, Kumar R, Roy S K and **Mehrotra S P**, *Leaching behaviour of high surface area synthetic boehmite in NaOH solution*, Hydrometallurgy, DOI: 10.1016/j.hydromet.2013.04.004, vol 137, pp 23-32, May 2013

Awada A, Farag Alia A and **Majumder B**, *Nonsingular rainbow universes*, Journal of Cosmology and Astroparticle Physics, DOI: 10.1088/1475-7516/2013/10/052, vol 2013, no 10, pp 52, Oct 2013

Bisht A, Gangwar B P, Anupriya T and **Sharma S**, *Understanding the electrochemical differences of Pt doped and Pt supported over CeO2*, Journal of Solid State Electrochemistry, DOI: 10.1007/s10008-013-2252-7, vol 18, no 1, pp 197-206, Jan 2014

Chandrasekaran S* and **Ragavan K**, *Reference current extraction through sliding DFT assisted single-phase p-q theory for shunt active power filter*, International Journal of Emerging Electric Power Systems, DOI: 10.1515/ijeeps-2012-0055, vol 14, no 2, pp 149-158, May 2013

Chintala R* and **Padhiyar N**, *Experimental study on reverse osmosis system with carbon nanotubes from candle soot*, International Journal of Chemistry and Chemical Engineering, vol 3, no 3, pp 167-170, 2013

Corsi D J, **Subramanyam M A**, Smith G D and Subramanian S V, *Authors' response to Gupta and Pednekar: Importance of examining cause-specific proportions of deaths as well as mortality rates*, International Journal of Epidemiology, DOI: 10.1093/ije/dyt245, vol 43, no 1, pp 278-280, Jan 2014 [Letter to the Editor]

Danino M, *The Sarasvatî and the civilization she watered*, Dialogue, vol 15, no 1, pp 60-71, Jul 2013

Danino M, *Looking for Indianness*, Seminar, vol 649, pp 17-20, Sep 2013

Das B, Datta S and Prajakta N, *Log-space algorithms for paths and matchings in k-Trees*, Theory of Computing Systems, DOI: 10.1007/s00224-013-9469-9, vol 53, no 4, pp 669-689, May 2013

Deb D, Kuksenok O, **Dayal P** and Balazs A C, *Forming self-rotating pinwheels from assemblies of oscillating polymer gels*, Materials Horizons, DOI: 10.1039/c3mh00083d, vol 1, no 1, pp 125-132, 2014

Derk A R, Moore G M, **Sharma S**, McFarland E W and Metiu H, *Catalytic dry reforming of methane on ruthenium-doped ceria and ruthenium supported on ceria*, Topics in Catalysis, DOI: 10.1007/s11244-013-0167-2, vol 57, no 1-4, Feb 2014

DeSantis A S, Diez Roux A V, Moore K, Baron K G, Mujahid M S and Nieto F J, *Associations of neighborhood characteristics with sleep timing and quality: the multi-ethnic study of atherosclerosis*, Sleep, DOI: 10.5665/sleep.3054, vol 36, no 10, pp 1543-1551, Mar 2013

Dhami N, **Mukherjee A** and Reddy M S, *Viability of calcifying bacterial formulations in fly ash for applications in building materials*, Journal of Industrial Microbiology & Biotechnology, DOI: 10.1007/s10295-013-1338-7, vol 10, no 12, pp 1403-1413, Dec 2013

Dhami N, Reddy M S and **Mukherjee A**, *Bacillus megaterium mediated mineralization of calcium carbonate as biogenic surface treatment of green building materials*, World Journal of Microbiology and Biotechnology, DOI: 10.1007/s11274-013-1408-z, vol 29, no 12, pp 2397-2406, Dec 2013

Dhami N, Reddy M S and **Mukherjee A**, *Synergis-*

tic role of bacterial urease and carbonic anhydrase in carbonate mineralization, Applied Biochemistry and Biotechnology, DOI: 10.1007/s12010-013-0694-0, vol 172, no 5, pp 2552-2561, Jan 2014

Dhara A and Mehra A, *Second-order optimality conditions in minimax optimization problems*, Journal of Optimization Theory and Applications, DOI: 10.1007/s10957-012-0097-3, vol 156, no 3, pp 567-590, Mar 2013

Fulpagare Y S* and Agrawal N, *Experimental investigation on room air flow pattern & thermal comfort quantification*, International Journal of Engineering Sciences & Emerging Technologies, vol 6, no 1, pp 120-132, Aug 2013

Ganguli S* and Amiroudine S, *Numerical modelling of coupled heat and momentum transfer in a porous medium saturated* by a supercritical fluid, Computers & Fluids, DOI: 10.1016/j.compfluid.2013.05.015, vol 84, pp 46-55, Jun 2013

George N V and Gonzalez A, *Convex combination of nonlinear adaptive filters for active noise control*, Applied Acoustics, DOI: 10.1016/j.apacoust.2013.08.005, vol 76, pp 157-161, Feb 2014

George N V and Panda G, *Development of a novel robust identification scheme for nonlinear dynamic systems*, International Journal of Adaptive Control and Signal Processing, DOI: 10.1002/acs.2482, Mar 2014

George R K and **Joshi M C**, *Operator theoretic approach to optimal control problems described by nonlinear differential equations*, Neural, Parallel & Scientific Computations, vol 21, no 3-4, pp 497-516, 2013

Ghatage S V*, Bhole M R, **Padhiyar N**, Joshi J B and Evans G M, *Prediction of regime transition in three-phase sparged reactors using linear stability analysis*, Chemical Engineering Journal, DOI: 10.1016/j.cej.2013.08.095, vol 235, pp307-330, Jan 2014

Ghosh K, Ramteke M and **Srinivasan R**, *Optimal variable selection for effective statistical process monitoring*, Computers & Chemical Engineering, DOI: 10.1016/j.compchemeng.2013.09.014, vol 60, pp 260-276, Jan 2014

Gurjar M, Dehiya S, **Sharma M*** and Upadhyay N C, *Effect of fly ash particles on the mechanical properties of Zn-22% al alloy via stir casting method*, IOSR Journal of Mechanical and Civil Engineering, vol 10, no 2, pp 39-42, Nov 2013

Han X, Jallo L, To D, **Ghoroi C** and Davé R, *Passivation of high-surface-energy sites of milled ibuprofen crystals via dry coating for reduced cohesion and improved flowability*, Journal of Pharmaceutical Sciences, DOI:10.1002/jps.23589, vol 102, no 7, pp 2282-2296, Jul 2013

Jonnalagadda S and **Srinivasan R**, *An efficient graph theory based method to identify every minimal reaction set in a metabolic network*, BMC Systems Biology, DOI: 10.1186/1752-0509-8-28, vol 8, pp 28, Mar 2014

Karthikeyan R, Manickavasagam K, Tripathi S and **Murthy K V V**, *Neuro-fuzzy-based control for parallel cascade control*, Chemical Product and Process Modeling, DOI: 10.1515/cppm-2013-0002, vol 8, no 1, pp 1-12, Jun 2013

Kolay C, **Prashant A** and **Jain S K**, *Non-linear dynamic analysis and seismic coefficient for abutments and retaining walls, Earthquake Spectra*, DOI: 10.1193/1.4000141, vol 29, No 2, pp 427-451, May 2013

Kong W W, and **Ranganath S**, *Towards subject independent continuous sign language recognition: A segment and merge approach*, Pattern Recognition, DOI: 10.1016/j.patcog.2013.09.014, vol 47, no 3, Mar 2014

Kothari R, *Caste in a casteless language?: English as a language of Dalit expression*, Economic & Political Weekly, vol 48, no 39, pp 60-68, Sep 2013

Kothari R, *Response*, Translation Studies, DOI: 10.1080/14781700.2013.831237, vol 7, no 1, pp 96-99, Sep 2013

Kuksenok O, Deb D, **Dayal P** and Balazs A C, Modeling chemoresponsive polymer gels, *Annual Review of Chemical and Biomolecular*

Engineering, DOI: 10.1146/annurev-chembioeng-060713-035949, vol 5, no 1, Feb 2014

Kumar M*, Saini S and Gayen K, *Acetone-Butanol-Ethanol (ABE) fermentation analysis using only high performance liquid chromatography*, Analytical Methods, DOI: 10.1039/c3ay41717d, vol 6, no 3, pp 774-781, Nov. 2013

Kumar M, Rai D C and **Jain S K**, *Ductility reduction factors for masonry infilled RC frames*, DOI: 10.1193/110512EQS322M, Earthquake Spectra, Aug 2013

Kumar N*, **Manjaly J A** and **Miyapuram K P**, *Feedback about action performed can alter the sense of self agency*, Frontiers in Psychology, DOI: 10.3389/fpsyg.2014.00145, vol 5, Feb 2014

Lahiri S, *Can a spirit of our own be expressed in the language of the colonizer*, Asiatic, vol 7, no 1, pp 39-55, Jun 2013

Liew W T, Adhitya A and **Srinivasan R**, *Sustainability trends in the process industries: a text mining-based analysis,* Computers in Industry, DOI: 10.1016/j.compind.2014.01.004, vol 35, no3, Apr 2014

Liu W, **Jolad S**, Schmittmann B and Zia R K P, *Modeling interacting dynamic networks: I. preferred degree networks and their characteristics*, Journal of Statistical Mechanics: Theory and Experiment, DOI: 10.1088/1742-5468/2013/08/P08001, vol 2013, no 8, pp P08001-21, Aug 2013

Majumder B, *Black hole entropy with minimal length in tunneling formalism,* General Relativity and Gravitation, DOI: 10.1007/s10714-013-1581-2, vol 45, no 11, pp 2403-2414, Nov 2013

Majumder B, *f(R) in holographic and agegraphic dark energy models and the generalized uncertainty principle*, Advances in High Energy Physics, DOI: 10.1155/2013/143195, vol 2013, Jul 2013

Majumder B, *Quantum rainbow cosmological model with perfect fluid*, International Journal of Modern Physics D, DOI: 10.1142/S021827181350079X, vol 22, no 13, Nov 2013

Majumder B, *Singularity free rainbow universe*, International Journal of Modern Physics D, DOI: 10.1142/S021827181342, vol 22, no 12, Oct 2013

Majumder B, *The effects of minimal length in entropic force approach*, Advances in High Energy Physics, DOI: 10.1155/2013/296836, vol 2013, no 11, pp 2403-2414, Nov 2013

Masoodi A, **Sengupta A**, Khan F A and Sharma G P, *Predicting the spread of alligator weed (Alternanthera philoxeroides) in Wular lake, India: A mathematical approach*, Ecological Modelling, DOI: 10.1016/j.ecolmodel.2013.04.021, vol 263, pp 119-125, Aug 2013

Mehta M G, *Networks of death and militant vegetarianism: the mechanics of communal violence in Gujarat*, India Review, DOI: 10.1080/14736489.2013.786966, vol 12, no 2, pp. 108-117, Apr 2013

Mohd A and **Sarkar S**, *Thermodynamics of local causal horizons*, Physical Review D, DOI: 10.1103/PhysRevD.88.024026, vol 88, no 2, Jul 2013

Mody N and **Rath A**, A*uthor-activism: philosophy of dissent in the writings of Arundhati Roy*, Asiatic, vol 7, no 1, pp 56-72, Jun 2013

Mukherjee A and Jain Kamal K, *A semi-analytical model of cyclic behavior of reinforced concrete joints rehabilitated with FRP*, Advances in Structural Engineering, DOI: 10.1260/1369-4332.16.12.2019, vol 16, No 12, Dec 2013

Mukherjee S*, *Concerns with attempts by neuroeconomics to answer the philosophical question: is it rational to donate money for charity?*, Frontiers in Psychology, DOI: 10.3389/fpsyg.2013.00585, vol 4, pp 585, Aug 2013

Mukherjee S*, **Manjaly J A** and **Nargundkar M***, *Money makes you reveal more: consequences of monetary cues on preferential disclosure of personal information*, Frontiers in Cognition, DOI: 10.3389/fpsyg.2013.00, vol 4, 2013

Natarajan S and **Srinivasan R**, *Implementation of multi agents based system for process super-*

vision in large-scale chemical plants, Computers and Chemical Engineering, DOI: 10.1016/j.compchemeng.2013.08.012, vol 60, pp 182-196, Jan 2014

Padhiyar N, *Effect of addition of LiBr salt in Iso propanol water binary azeotropic mixture*, International Journal of Scientific Engineering and Technology, vol 2, no 4, pp 245-248, Apr 2013

Palakollu V* and **Kanvah G S**, *Diphenylpolyene-cholesterol conjugates as fluorescent probes for microheterogeneous media*, Journal of Photochemistry and Photobiology A: Chemistry, DOI: 10.1016/j.jphotochem.2014.02.013, vol 281, pp 18-26, May 2014

Panda E and **Manwani K***, *Role of interface(s) for the growth of ultra-thin amorphous oxides on al–si alloys: a thermodynamic analysis*, Journal of the American Ceramic Society, DOI: 10.1111/jace.12789, vol 97, no 2, pp 465-472, Feb 2014

Perwez S K, **Zubair H M***, Ghalib M R, Kauser A and Iftekhar M, *Association rule mining technique for psychometric personality testing and behaviour prediction*, International Journal of Engineering & Technology, vol 5, no 5, pp 4349-4361, Oct-Nov, 2013

Popat V* and **Padhiyar N**, *Kinetic study of bechamp process for p-nitrotoluene reduction to p-toluidine*, International Journal of Chemical Engineering and Applications, DOI: 10.7763/IJCEA.2013.V4.334, vol 4, no 6, pp 401-405, Dec 2013

Prabhakar J R* and **Ragavan K**, *Power management based current control technique for photovoltaic-battery assisted wind–hydro hybrid system*, International Journal of Emerging Electric Power Systems, DOI: 10.1515/ijeeps-2013-0056, vol 14, no 4, pp 351-362, Jul 2013

Prabhakar J R* and **Ragavan K**, *STATCOM-based wind-solar-hydro electric power system with modified real and reactive power controls*, International Journal of Emerging Electric Power Systems, DOI: 10.1515/ijeeps-2013-0110, vol 15, no 1, pp 1-14, Jan 2014

Rai D C, **Jain S K**, Murty CVR and Bansal D, *Large capacity reaction floor-wall assembly for pseudo-dynamic testing at IIT Kanpur and its load rating*, Current Science, vol 106, no 1, pp 93-100, Jan 2014

Rai S, Lataye D H, Chaddha M J, Mishra R S, Mahendiran P, **Mukhopadhyay J***, Yoo C and Wasewar K L, *An alternative to clay in building materials: red mud sintering using fly ash via Taguchi's methodology*, Advances in Materials Science and Engineering, DOI: 10.1155/2013/757923, vol 2013, Sep 2013

Rani S* and **Prashant A**, *Considering soil nonlinearity in 1D simulation of laterally loaded long pile*, International Journal of Chemical, Environmental & Biological Sciences (IJCEBS), vol 1, no 4, pp 622-626, 2013

Redwood C E, **Kanvah S**, Samudrala R and Saltiel J, *Bicycle pedal photoisomerization of 1-phenyl-4-(4-pyridyl)-1, 3-butadienes in glassy isopentane at 77 K*, Photochemical & Photobiological Sciences, DOI: 10.1039/C3PP50064K, vol 12, no 10, pp 1754-1760, Oct 2013

Saini S, *Academic ethics at the undergraduate level: case study from the formative years of the institute*, Journal of Academic Ethics, DOI: 10.1007/s10805-012-9169-0, vol 11, no 1, pp 35-44, Mar 2013

Sarkar S and Wall A C, *Generalized second law at linear order for actions that are functions of lovelock densities*, Physical Review D, DOI: 10.1103/PhysRevD.88.044017, vol 88, no 4, Aug 2013

Schmidt N W, **Mishra A**, Wang J, DeGrado W F and Wong G C L, *Influenza virus A M2 protein generates negative gaussian membrane curvature necessary for budding and scission*, Journal of the American Chemical Society, DOI: 10.1021/ja400146z, vol. 135, no. 37, pp 13710-13719, Aug 2013

Seetharam T R, Seetharamu K N, **Sharma G K** and Venkatesh S, *Laminar forced and mixed convection heat transfer from a plane vertical isothermal surface to near critical carbon dioxide*, International Journal of Heat and Mass Transfer,

DOI: 10.1016/j.ijheatmasstransfer.2012.12.034, vol 59, no 2013, pp 393-406, Apr 2013

Sengupta A et al, *Enhanced sensitivity of the LIGO gravitational wave detector by using squeezed states of light*, Nature Photonics, DOI: 10.1038/NPHOTON.2013.177, vol 7, no 8, pp 613-619, Jul 2013

Shah K* and **Ragavan K**, *Estimation of transformer winding capacitances through frequency response analysis - an experimental investigation*, International Journal of Emerging Electric Power Systems, DOI: 10.1515/ijeeps-2013-0098, vol 14, no 6, pp 549-559, Oct 2013

Sharma S and **Mukherjee A**, *Nondestructive evaluation of corrosion in varying environments using guided waves*, Research in Nondestructive Evaluation, DOI: 10.1080/09349847.2012.699609, vol 24, No 2, Apr 2013

Srinivasan B, Voa T, Zhang Y, Gang O, Kumar S and Venkatasubramaniana V, *Designing DNA-grafted particles that self-assemble into desired crystalline structures using the genetic algorithm*, Proceedings of the National Academy of Sciences (PNAS), DOI: 10.1073/pnas.1316533110, vol 110, no 46, pp 18431-18435, Oct 2013

Srinivasana N and **Mukherjee S***, *Even "unconscious thought" is influenced by attentional mechanisms*, Behavioral and Brain Sciences, DOI: 10.1017/S0140525X1300085X, vol 37, no 1, Feb 2014

Subramanian S V, Corsi D J, **Subramanyam M A** and Smith G D, *Jumping the gun: the problematic discourse on socioeconomic status and cardiovascular health in India*, International Journal of Epidemiology, DOI: 10.1093/ije/dyt017, vol 42, no 5, pp 1410-1426, Apr 2013

Subramanian S V, **Subramanyam M A**, Corsi D J and Smith G D, *Rejoinder: need for a data-driven discussion on the socioeconomic patterning of cardiovascular health in India*, International Journal of Epidemiology, DOI: 10.1093/ije/dyt181, vol 42, no 5, pp 1438-1443, Oct 2013

Subramanyama M A, James S A, Diez-Roux A V, Hickson D A, Sarpong D, Sims M, Taylor H A and Wyatt S B, *Socioeconomic status, John Henrysim and blood pressure among African-Americans in the Jackson heart study*, Social Science & Medicine, DOI: 10.1016/j.socscimed.2013.06.016 , vol 93, pp 139-146, Sep 2013

Sunny M M and Mühlenen A, *Attention capture by abrupt onsets: re-visiting the priority tag model*, Frontiers in Psychology, DOI: 10.3389/fpsyg.2013.00958, vol 4, Dec 2013

Sunny M M and Mühlenen A, *The role of flicker and abrupt displacement in attention capture by motion onsets*, Attention, Perception, & Psychophysics, DOI: 10.3758/s13414-013-0587-x, vol 76, no 2, Feb 2014

Thakker M, **Karde V***, Shah D O, Shukla P and Ghoroi C, *Wettability measurement apparatus for porous material using the modified washburn method*, Measurement Science and Technology, DOI: 10.1088/0957-0233/24/12/125902, vol 24, no 12, Nov 2013

Thareja P, *Rheology and microstructure of pastes with crystal network*, Rheologica Acta, DOI: 10.1007/s00397-013-0716-4, vol 52, no 5, pp 515-527, May 2013

Tyagi J, *A nonlinear Picone's identity and its applications*, Applied Mathematics Letters, DOI: 10.1016/j.aml.2012.12.020 , vol 26, no 6, pp 624-626, Jun 2013

Tyagi J, *A note on the stability of solutions to quasilinear elliptic equations*, Advances in Calculus of Variations, DOI: 10.1515/acv-2012-0014, vol 6 No 4, pp 483-492, Oct 2013

Tyagi J, *An existence of positive solutions to singular elliptic equations*, Bollettino dell'Unione Matematica Italiana, DOI: 10.1007/s40574-014-0003-z, vol. 7, no. 1, pp. 45-53, Mar 2014

Tyagi J, *Multiple solutions for singular N-Laplace equations with a sign changing nonlinearity*, Communications on Pure and Applied Analysis, DOI: 10.3934/cpaa.2013.12.2381, vol 12, No 6, pp 2381-2391, Nov 2013

Tyagi J, *Stability of positive solutions to p&2-laplace type equations*, Differential Equations & Applications, DOI: 10.7153/dea-05-32, vol 5, No 4, pp 549-559, Nov 2013

CONFERENCE PAPERS

Behera C R*, **Srinivasan B**, Chandrand K and Venkatasubramanian V, *Towards development of eco-friendly and energy efficient biological nitrogen removal process with minimal green house gas emissions*, 4th International Conference on Advances in Energy Research (ICAER 2013), IITB, Mumbai, IN, Dec 10-12, 2013

Bhatt B, Kar G, Shashank S and Somarajan S, *Designing interfaces for healthcare workers: a case study of electronic partogram*, Proceedings of APCHI Conference, Bangalore, IN, Sep 2013

Bhattacharya S*, **Joshi C***, **Chauhan A*** and **Lahiri U**, *A step towards developing a virtual reality based rehabilitation system for individuals with post-stroke forearm movement disorders*, IEEE International Conference on Control, Automation, Robotics and Embedded System (CARE), Jabalpur, IN, Dec 16-18, 2013

Bhoraniya R* and **Narayanan V**, *Global stability analysis of axisymmetric boundary layers*, 66th Annual Meeting of the APS Division of Fluid Dynamics - Bulletin of the American Physical Society, Pennsylvania, US, vol 58, No 18, Nov 24-26, 2013

Chawla M* and **Miyapuram K P**, *Meta-analysis of functional neuroimaging data*, 2013 IEEE Second International Conference on Image Information Processing (ICIIP), Shimla, IN, DOI: 10.1109/ICIIP.2013.6707594, pp. 256-260, Dec 9-11, 2013

Dahale A*, *Magnetic levitation and control using two solenoids with their axes in a vertical plane, International Conference on Control*, Automation, Robotics and Embedded Systems (CARE), Jabalpur, IN, DOI: 10.1109/CARE.2013.6733728, Dec 16-18, 2013

Das R, **Agrawal A***, Upton M P and Seibel E J, *Optically clearing tissue as an initial step for 3D imaging of core biopsies to diagnose pancreatic cancer*, Proc. SPIE 8941, Optical Interactions with Tissue and Cells XXV; and Terahertz for Biomedical Applications, San Francisco, US, Feb 01, 2014

Dayal P, Kuksenok O and Balazs A C, *Stability analyses of the model for photosensitive self-oscillating polymer gels*, APS March Meeting 2014, American Physical Society, Denver, Colorado, US, Mar 3-7, 2014

Dwivedi V*, **Prasad R*** and **Damodaran M**, *Computation of blended wing-body unmanned configuration aerodynamic characteristics*, Society for the Promotion of Indigenous Computational Engineering Science (SPICES 2013) Test Configuration Symposium - Indian Institute of Science (IISC), Bangalore, IN, Aug 31, 2013

Dwivedi V* and **Damodaran M**, *Computational modelling of terrain and building aerodynamics for enhancing architectural designs*, 8th Asia Pacific Conference on Wind Engineering (8APCWE), Chennai, IN, Dec 10-14, 2013

Enduri M K* and **Jolad S**, *Spatial spread of dengue with human and vector mobility in urban areas*, 8th conference on Non linear Systems and Dynamics, Indian Institute of Technology Indore, IN, Dec 11-14, 2013

Garg S*, **Patkar S*** and **Das S J***, *Proposal for students' mechanism contest design of a hybrid dual pin stapler*, 1st International and 16th National Conference on Machines and Mechanisms (iNaCoMM 2013), Roorkee, IN, Dec 18-20, 2013

Gavasane R*, Pai P and Kumar V, *Numerical simulation of pitching and plunging motion of flat plate using overset mesh*, Symposium on Applied Aerodynamics and Design of Aerospace Vehicle (SAROD 2013), Hyderabad, IN, Nov 21-23, 2013

George N V, Panda G and Kumar V, *On the development of a partial update multichannel nonlinear active noise control system*, 7th International Conference on Signal Processing and Communication Systems, Gold Coast, AU, Dec 16-18, 2013

Goulla P, Kapoor P and **Padhiyar N**, *Hybrid differential evolution for optimization: using modi-*

fied Newton's method, Advanced Engineering Optimization Through Intelligent Techniques (AEOTIT - 2013), NIT Surat, IN, Jul 01-03, 2013

Gupta A*, **Chakraborty A** and **Upadhyay A***, *Interrogation of an FBG-based temperature measurement system using a tunable diode laser and a fiber ring resonator*, DAE-BRNS National Laser Symposium (NLS-22), Karnataka, IN, Jan 8-11, 2014

Gupta A*, **Sharma G***, **Heda S***, **Dave U***, **Ghoroi C** and **Srinivasan R**, *Towards an Indian fire accident database - an android app for automated data gathering*, National Conference on Fire Research & Engineering, IIT Roorkee, IN, Mar 1-2, 2014

Gupta P and **George N V**, *An improved face recognition scheme using transform domain features*, IEEE International Conference on Signal Processing & Integrated Networks (SPIN 2014), Noida, IN, Feb 20-21, 2014

Guru K V*, Sai M R and **Gupta S**, *Prediction of antibiotic resistance in vibrio cholerae based on genotypic information*, 66th Annual Session of Indian Institute of Chemical Engineers, (CHEMCON 2013), ICT, Mumbai, IN, Dec 27-30, 2013

Isaacson M, **Samanta T**, D'Ambrosio L A and Couhlin J F, *Mobility, consumption and well being in the lives of older adults in Gujarat, India*, 20th IAGG World Congress of Gerontology and Geriatrics, Seoul, KR, Jun 23-27, 2013

Jagwani A*, **Bhargava H*** and **Bhargav A**, *Design of efficient cooling systems for hot and dry climate*, 22nd National and 11th International ISHMT-ASME Heat and Mass Transfer Conference 2013, IIT Kharagpur, IN, Dec 28-31, 2013

Jain A*, **Nyati P***, **Nuwal N***, **Ghoroi C** and Gandhi P D, *Pre-detection of kitchen fires due to auto-ignition of cooking oil and LPG leakage in Indian kitchen*, 11th International Symposium on Fire Safety Science (IAFSS), University of Canterbury, NZ, Feb 10-14, 2014

Jain A*, Pineda A, **Ghoroi C**, Papadaki M and Mannan M S, *Thermal decomposition of alkyl pyridine N-oxides: thermal runway study using the automatic pressure tracking adiabatic calorimeter (APTAC)*, International Conference on Chemical and Bio-process Engineering, NIT Warangal, IN, Nov 17, 2013

Jain G, Plappally A K and **Raman S**, *InternetHDR: enhancing an LDR image using visually similar internet images*, 20th National Conference on Communications (NCC), IIT Kanpur, IN, Feb 28-Mar 2, 2014

Jolad S, *Spatial modeling of spread of dengue cellular automata and reaction diffusion methods*, International conference on Progress in Nonlinear Dynamics, Hyderabad, IN, Jul 2013

Joshi K A* and **Pindoriya N M**, *Risk assessment of unintentional islanding in a spot network with roof-top photovoltaic system - a case study in India*, Innovative Smart Grid Technologies - Asia 2013 (IEEE PES-ISGT Asia 2013), Bangalore, IN, Nov 10-13, 2013

Kanojia G* and **Raman S**, *FacialStereo: facial depth estimation from a stereo pair*, 9th International Conference on Computer Vision Theory and Applications (VISAPP), Lisbon, PT, Jan 5-8, 2014

Kapoor P, Goulla P and **Padhiyar N**, *Modified differential evolution for optimization using alien population member*, Advanced Engineering Optimization Through Intelligent Techniques (AEOTIT - 2013), NIT Surat, IN, Jul 01-03, 2013

Kar S* and **Damodaran M**, *Computational assessment of air pollution dispersion in Ahmedabad*, 8th Asia Pacific Conference on Wind engineering (8APCWE), Chennai, IN, Dec 10-14, 2013

Karde V* and **Ghoroi C**, *Study of wettability and surface energy characteristics of nano-coated pharmaceutical excipient powders*, International Conference & Exhibition of Powder, Granule and Bulk Solids: Innovations and Applications, Thapar University, Patiala, IN, Nov 28-30, 2013

Kaushik R A* and **Pindoriya N M**, A *hybrid AC-DC microgrid: opportunities and key issues in implementation*, IEEE international conference on Green Computing, Communication and Electrical Engineering (ICGCCEE'14), Coimbatore, IN, Mar 6-8, 2014

Keshav G# and **Damodaran M**, *Design and prototyping of a low-cost manually operated bamboo-cored incense-stick making machine*, 1st International and 16th National Conference on Machines and Mechanisms (iNaCoMM-2013), Indian Institute of Technology Roorkee, IN, Dec 18-20 2013

Khan Patan A* and **Padhiyar N**, *Experiment study of bechamp process for the reduction of p-Nitrotoluene*, International Conference on Frontiers in Chemical Engineering, NIT, Rourkela, IN, Dec 9-11, 2013

Khan Patan A*, **Singh U*** and **Padhiyar N**, *Kinetic study of bechamp process for nitrobenzene reduction to aniline*, International Conference on Chemical and Bioprocess Engineering, NIT, Warangal, IN, Nov 16-17, 2013

Kondle S* and **George N V**, *Improving convergence of nonlinear active noise control systems*, IEEE Students' Technology Symposium (TechSym 2014), IIT Kharagpur, IN, Feb 28 - Mar 02, 2014

Korjan D, *Plan D: finding design solutions*, Systemic Design Emerging Contexts for Systems Perspectives in Design Relating Systems Thinking and Design Symposium, Oslo, NO, Oct 9-11, 2013

Kothari R, *Why translate in India*, Transferring Translation Studies, Low Countries Conference II, Ku Leuven University, Antwerp, BE, Nov 28-30, 2013

Kuriakose S*, **Kunche S***, **Balasubramoni N***, **Jain P***, **Sonker S*** and **Lahiri U**, *A step towards virtual reality based social communication for children with autism*, IEEE International Conference on Control, Automation, Robotics and Embedded System (CARE), Jabalpur, IN, Dec 16-18, 2013

Maheshwari P, **Srinivasan B** and **Mohapatra N R**, *Nonlinear PCA for source optimization in optical lithography*, 18th International Conference on Simulation of Semiconductor Processes and Devices (SISPAD), 2013 IEEE, Glasgow, SCN, UK, pp. 216-219, Sep 3-5, 2013

Maheshwari P, Wang Y and Waite T D, *Iron speciation and aging in organicrich aquatic systems*, Goldschmidt2013, Florence, IT, Aug 2013

Maiti S C*, **Karde V*** and **Ghoroi C**, *Improvement of aerated discharge rate of cohesive powders by nano-coating*, International Conference & Exhibition of Powder, Granule and *Bulk Solids: Innovations and Applications*, Thapar University, Patiala, IN, Nov 28-30, 2013

Masoodi A, **Sengupta A**, Khan F A, Sharma G P, *A mathematical approach for predicting the spread of alligator weed (Alternanthera philoxeroides)*, 18th International Conference on Aquatic Invasive Species, Ontario, CA, Apr 21-25, 2013

Mekie J and **Ved S***, *Network on chips: the journey overview*, 27th International Conference on VLSI Design, Indian Institute of Technology Bombay, Mumbai, IN, Jan 5-9, 2014

Mishra V and **Shah R***, *Evaluation of the reanalysis products for the monsoon season droughts in India*, National Conference on Sustainable Water Resources Planning, Management and Impact of Climate Change, BITS Pilani, Hyderabad, IN, Apr 5-6, 2013

Miyapuram K P, Schultz W and Tobler P N, *Predicting the imagined contents using brain activation*, 4th National Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics (NCVPRIPG), Institute of Technology, Jodhpur, IN, DOI: 10.1109/NCVPRIPG.2013.6776230, pp 1-3, Dec 18-21, 2013

Miyapuram K P, *Inter-temporal choice: from basic research to the market*, 2nd International Conference on Cognition, Emotion and Action, Indian Institute of Technology, Gandhinagar, IN, Dec 6-8, 2013

Mukherjee A, *Discovering hidden degradation using ultrasonic wave propagation: theory and experimentation*, International Conference on Vibration Problems, Lisbon, PT, pp 218, 9-12 Sep 2013

Mukherjee A, Dhami N, Reddy B V V and Reddy, M S, *Bacterial calcification for enhancing performance of low embodied energy soil- cement bricks*, 3rd International Conference on Sustainable Construction Materials and Technologies, Kyoto, JP, pp 488, Aug 18-23, 2013

Mukherjee P C* and **Rath A**, *A Counter-voice in the carnival square: 'Bhadramahila' in Tagore's Ghaire Baire*, 3rd International Congress of Bengali Studies, University of Calcutta, Kolkata, IN, Nov 19-22, 2013

Mukherjee P C* and **Rath A**, *Cloaks and coverings: sartorial carnival in Goopy Gyne Bagha Byne and Harry Potter and the sorcerer's stone*, International Conference on Literature to Cinema: Appropriation, Adaptation, Adulteration, NIT Durgapur, IN, Jun 1-3, 2013

Mukherjee P C* and **Rath A**, *Dialogic encounters in cosmopolitan knowledge spaces*, International Conference on Bakhtin in India: Exploring the Dialogic Potential in Self, Culture and History, Central University of Gujarat, Gandhinagar, IN, Aug 19-21, 2013

Mukherjee P C* and **Rath A**, *Emergence of the cosmopolitan-national in midnight's children and maximum city*, 14th Annual South Asian Literary Association, Chicago, US, Jan 8-9, 2014

Mukherjee P C* and **Rath A**, *Home: the dilemma of belongingness in Taslima Nasrin's Lajja and Mohsin Hamid's the reluctant fundamentalist*, 20th Annual 2014 Association for Asian Studies Conference, Philadelphia, US, Mar 27-30, 2014

Mutha P K, Stapp L H, Sainburg R L and Haaland K Y, *Motor adaptation deficits in ideomotor apraxia*, Annual Conference on Cognitive Science, India International Centre, New Delhi, IN, Mar 3-5, 2014

Naresh S S*, **Mohapatra N R** and Duhan P, *Effects of HfO2 and lanthanum capping layer thickness on the narrow width behavior of gate first high-k and metal gate NMOS transistors*, International Conference on Solid State Devices and Materials, Fukuoka, JP, 2013

Panda E and **Manwani K***, *Role of interface(s) for the growth of ultra-thin amorphous oxides on Al-Si alloys*, 7th International Conference on Materials for Advanced Technologies (ICMAT), Suntec, SG, Jun 30-Jul 5, 2013

Pindoriya R M, **Rajendran S** and Chauhan P J, *Speed control of BLDC motor using sinusoidal PWM technique*, National Conference on 'Emerging Trends in Computer and Electrical Engineering' (ETCEE - 2014), Rajkot, IN, Mar 7-8, 2014

Popat V* and **Padhiyar N**, *Kinetic study of bechamp process for the reduction of p-nitrotoluene*, International Conference on Chemical Engineering and Applications, Paris, FR, Oct 12-13, 2013

Prasad R*, **Shah T*** and **Damodaran M**, *Computational modeling of design of low cost windmills for sustainable energy applications in the rural sector*, 14th Asian Congress for Fluid Mechanics (14th ACFM), Hanoi and Halong, VN, Oct 15-19, 2013

Rath A, *Chronotopes of love and death in Pratibha Ray's Yajnaseni*, International Conference on Bakhtin in India, Central University Gujarat, Gandhinagar, IN, Aug 19-21, 2013

Rath A, *The visualscape in the poetry of Sitakant: space/place in rotations of unending time*, 31st Annual Association for Third World Studies Conference, IIT Madras, IN, Dec 28-30, 2013

Reddy S, *New literatures and old translations: the cases of Kannada and Telugu*, in 3rd International Translation Studies Conference, Yildiz Technical University, Istanbul, TR, May 8-10, 2013

Reddy S, *Shifting Skopoi in South Asian Translations*, Transferring Translation Studies, Low Countries Conference II, Ku Leuven University, Antwerp, BE, Nov 28-30, 2013

Rooprai N*, Gangil B and **Mishra A**, *Fiber reinforced polymer composites in implants: a review*, Proceedings NCRAME-2013, National Conference on Recent Advances in Mechanical Engineering (NCRAME-2013), Department of Mechanical Engineering, Govind Ballabh Pant Engineering College, Uttarakhand, IN, Jul 8-9, 2013

Samanta T, *Living arrangements and health spending of the elderly in India*, 20th IAGG World Congress of Gerontology and Geriatrics, Seoul, KR, Jun 23-27, 2013

Sanke P R*, **Kuriakose S*** and **Lahiri U**, *A step towards a robotic system with smartphone working*

as its brain: an assistive technology, IEEE International Conference on Control, Automation, Robotics and Embedded System (CARE), Jabalpur, IN, Dec 16-18, 2013

Santillo M and **Karnik A**, *Model predictive controller design for throttle and wastegate control of a turbocharged engine*, American Control Conference (ACC), Washington, DC, US, pp. 2183-2188, Jun 17-19, 2013

Shah R* and **Mishra V**, *Evaluation of the reanalysis products for the monsoon season droughts in India*, National conference on sustainable water resources planning management and impact of climate change - BITS Pilani, Hyderabad, IN, Apr 5-6, 2013

Shah T*, **Prasad R*** and **Damodaran M**, *Computational modeling of wind energy systems*, 8th Asia Pacific Conference on Wind Engineering (8APCWE), Chennai, IN, Dec 10-14, 2013

Sinith M S, Tripathi S and **Murthy K V V**, *SSM wavelets for analysis of music signals using particle swarm optimization*, International Conference on Signal Processing and Communication (ICSC), Noida, IN, DOI: 10.1109/ICSPCom.2013.6719791, Dec 12-14 2013

Suman P*, **Tongbram K*** and **Meena N***, *Design of a deforming speed breaker mechanism for energy extraction from road traffic*, 1st International and 16th National Conference on Machines and Mechanisms (iNaCoMM-2013) - Indian Institute of Technology Roorkee, Roorkee, IN, Dec 18-20 2013

Thorat A*, **Yadav M*** and **Dalvi S V**, *Preparation of stable aqueous suspensions of curcumin nanoparticles for pharmaceutical applications*, International Congress on Particle Technology (PARTEC 2013), Nuremberg, DE, Apr 23-25, 2013

Thorat A*, **Yadav M*** and **Dalvi S V**, *Controlled liquid antisolvent precipitation of ultrafine particles of curcumin in aqueous suspensions using ultrasound and stabilizers*, 10th Conference of Outstanding Young Chemical Engineers, (OYCE 2014), Thadomal Shahani, Engineering College, Mumbai, IN, Mar 8-9, 2014

Tyagi S, **Katre V*** and **George N V**, *A local variance approach to time frequency localization*, 4th IEEE International Advance Computing Conference (IACC 2014), Gurgaon, IN, Feb 21-22, 2014

Upadhyay A*, **Dighe A*** and **Chakraborty A**, *Rapid detection of methane, carbon dioxide and ammonia for harsh environments using tunable diode laser spectroscopy*, International Conference on Microwaves and Photonics (ICMAP2013), ISM Dhanbad, IN, DOI: 10.1109/ICMAP.2013.6733517, Dec 13-15, 2013

Vasudevan A B, Muralidharan S, Chintapalli S P and **Raman S**, *Dynamic scene classification using spatial and temporal cues*, 5th International Workshop on Video Event Categorization, Tagging and Retrieval (VECTaR2013), in conjunction with IEEE International Conference on Computer Vision (ICCV), Sydney, AU, Dec 8, 2013

Vasudevan A B, Muralidharan S, Chintapalli S P and **Raman S**, *Motion characterization of a dynamic scene*, 9th International Conference on Computer Vision Theory and Applications (VISAPP), Lisbon, PT, Jan 5-8, 2014

Vyas D*, *From Krishna to Little Krishna- a comparative study of representations of mythology in Indian English Children's Literature*, 21st Biennial International Research Society for Children's Literature (IRSCL) Conference, Maastricht, NL, Aug 10-14, 2013

Yadav M*, **Thorat A*** and **Dalvi S V**, *Stability of aqueous nanosuspensions of curcumin nanoparticles prepared in presence of ultrasound and stabilizers during antisolvent precipitation*, in 66th Annual Session of Indian Institute of Chemical Engineers, (CHEMCON 2013), ICT, Mumbai, IN, Dec 27-30, 2013

POSTERS PRESENTED

Antani J and **Dalvi S V**, Current trends in academic research in chemical engineering, in 10th *Conference of Outstanding Young Chemical Engineers (OYCE 2014)*, Thadomal Shahani, Engineering College, Mumbai, IN, Mar 8-9, 2014

Arora A* and **Mishra A**, *Peptide driven structural transformations in membranes: mechanism of*

CPPs & AMPs, Nanoscale Excitation in Emergent Materials Workshop(NEEM-2013), Ahmedabad, IN, Nov 22-26, 2013

Banerjee H* and **Srinivasan B**, *Modelling, optimization and control of droplet based microfluidic technology for single-cell high-throughput screening*, Microfluidics and Lab-on-a-Chip International Conference, Bangalore, IN, Sep 27-28, 2013

Chawla M* and **Miyapuram K P**, *Neuroinformatic tools in functional neuroimaging: meta-analysis and reverse inference*, 2nd International Conference on Cognition, Emotion and Action, Indian Institute of Technology Gandhinagar, IN, Dec 6-8, 2013

Enduri M K*, **Reddy V***, **Das B** and **Jolad S**, *Modelling spatial spread of dengue epidemic in urban areas*, International Conference on Chemical Biology (ICCB 2014), Perspectives in Nonlinear Dynamics, University of Hyderabad, Hyderabad, IN, Jul 15-18, 2013

Fulpagare Y S*, **Mahamuni G S*** and **Bhargav A**, *Plenum flow simulation of raised floor air cooled data center, Research Scholars' Day*, Indian Institute of Space Science and Technology, Thiruvananthapuram, IN, Dec 16-17, 2013

Gupta I, **Balsukuri N*** and **Das S***, *Corrole-carbazole conjugates*, Symposium on Modern Trends in Inorganic Chemistry - XV, Indian Institute of Technology Roorkee, IN, Dec 13-16, 2013

Guru K V*, **Kulkarni S V***, **Thareja P** and **Gupta S**, *Effect of shearing and seeding in amyloid formation*, International Conference of Surface Science and Nanotechnology (ICON-NANO 2013), DDU, Nadiad, IN, Dec 10-12, 2013

Guru K V*, **Ralhan K*** and **Gupta S**, *Formation and validation of BSA aggregates in the presence of detergent and denaturant*, International Conference on Chemical Biology (ICCB 2014), Indian Institute of Chemical Technology, (IICT), Hyderabad, IN, Feb 6-8, 2014

Kulkarni S* and **Padhiyar N**, *Modelling multicomponent diffusion and associated fluid flow*, International Conference on Interdisciplinary Areas with Chemical Sciences (ICIACS), Chandigarh, IN, Oct-30 to Nov 01, 2013

Kulkarni S*, **Samant A***, **Seth S*** and **Thareja P**, *Liquid crystal films and their sensing application*, International Conference on Surface Science and Nanotechnology (ICON NANO), Nadiad, IN, Dec 10-12, 2013

Kulkarni S*, **Samant A***, **Seth S***, **Ojha A** and **Thareja P**, *Liquid crystal films patterns on glass surfaces and its utilization*, in International Conference on Surface Science and Nanotechnology, DDU, Nadiad, IN, Dec. 10 - 12, 2013

Mishra N*, **Ojha A*** and **Thareja P**, *Self assembly of nano-particles in liquid crystalline hexagonal phases*, in 66th Annual Session of Indian Institute of Chemical Engineers, (CHEMCON 2013), ICT, Mumbai, IN, Dec. 27-30, 2013

Mishra N* and **Thareja P**, *A Rheology and microstructure study of self assembled nano particles in liquid crystalline hexagonal phases*, in International Conference on Surface Science and Nanotechnology, DDU, Nadiad, IN, Dec 10 - 12, 2013

Miyapuram K P and **Chawla M***, *Evolution of chunking patterns*, 1st Annual Conference on Cognitive Science (ACCS 2014), India International Centre, New Delhi, IN, Mar 3-5, 2014

Miyapuram K P and **Chawla M***, *Natural language typing frequencies*, 1st Annual Conference on Cognitive Science (ACCS 2014), India International Centre, New Delhi, IN, Mar 3-5, 2014

Patel S, Fang J, Leavey A, He S, Kang C, O'Malley K, **Shah S*** and Biswas P, *A comparative study on emission characteristics of different cook stoves and modeling of particle formation during cookstove operation*, 32nd Annual Conference of the American Association for Aerosol Research (AAAR), Portland, US, Sep 30 - Oct 4, 2013

Pandey P* and **Gupta S**, *Inhibitor peptide design for TAU protein aggregation*, in International Conference on Chemical Biology (ICCB 2014), Indian Institute of Chemical Technology, Hyderabad, IN, Feb 6-8, 2014

Praseetha E K* and **Gupta I**, *Carbazole substituted boron dipyrromethene dyes*, 16th CRSI National Symposium in Chemistry, IITB, Mumbai, IN, Feb 7-9, 2014, Poster no P128

Rawat P* and **Padhiyar N**, *Optimal operation of a fed batch reactor for the synthesis of a recombinant -1,3-glucanase*, International Conference on Interdisciplinary areas with Chemical Sciences (ICIACS 2013), Punjab University, Chandigarh, IN, Oct 29 - Nov 01, 2013

Samanta T, *Determinants of healthcare utilization among older adults in India: barriers and facilitators*, Health Systems in Asia: equity, governance and social impact, Singapore, SG, Dec 13-16, 2013

Singh D* and **Sunny M M**, *Emotion-induced blindness: a review*, International Conference on Cognition, Emotion and Action (CEA-2013), Ahmedabad, IN, Dec 6-8, 2013, Poster no S3

Srivastava G and Matous K, *Multi-physics mesoscale finite element simulation of HMX-based solid propellant subjected to thermal insults*, in the APS March Meeting 2014, American Physical Society, Denver, Colorado, US, Mar 3-7, 2014

Thiruvenkatam V, Chen Q and Wang J, *Prediction of horseshoe configuration in neural receptors: Structural Studies on Dscam isoforms*, in National Seminar on Crystallography (43A), Indian Institute of Science Education and Research Mohali, IN, Mar 28-30, 2014

Thomas T* and **Sunny M M**, *Hand proximity influences attention capture by a feature singleton*, First Annual Conference on Cognitive Science (ACCS-2014), New Delhi, IN, Mar 3-5, 2014 Poster No 62

Thomas T*, **Kumar N*** and **Sunny M M**, *The role of limb proximity in attentional prioritization*, International Conference on Cognition, Emotion and Action (CEA-2013), Ahmedabad, IN, Dec 6-8, 2013 Poster no S1- 1

Upadhyay A* and **Chakraborty A L**, *Optimization of calibration-free wavelength modulation spectroscopy technique for gas parameter measurement*, in the International Conference on Optics and Optoelectronics (ICOL-2014) at Instruments Research and Development Establishment (IRDE), Dehradun, IN, Mar 5-8, 2014

Varadhan S K M, Moitro A, **Mutha P K**, *Effect of visual feedback on coordination of grip force and load force in prismatic precision grip*, Annual Conference on Cognitive Science, India International Centre, New Delhi, IN, Mar 3-5, 2014.

MAGAZINE/NEWSPAPER ARTICLES

Das B, *A Buddhist marvel in Golaghat*, Electic Northeast, pp 52-54, Sep, 2013

Ghoroi C, *Kitchen safety per IIT-G nu unique model (In Gujarati)*, Sandesh - City Life, p 1, Apr 12, 2013

Kothari R, *India-Ki-Khoj: a deeper understanding of things around us*, DNA Ahmedabad, p 4, Jul 14, 2013

Sarkar A, *The secrets of NRI success*, Business Standard, Mumbai, p 13, Dec 8, 2013

BOOK REVIEW

Joshi K*, *Review of the book Ishmael: An adventure of the mind and spirit by Daniel Quinn*, Current Science, vol 106, no 5, pp 755-757, Mar 2014

Rath A, *Review of the book the inlet by Claire Tham*, Asiatic, vol 7, no 2, Dec 2013

PRE-PRINTS (E-PRINT ARCHIVES)

Ali A F and **Majumder B**, *Towards a cosmology with minimal length and maximal energy*, arXiv, Cornell University Library, DOI: arXiv:1402.5104v2, Feb 2014

Garatinni R and **Majumder B**, *Electric charges and magnetic monopoles in gravity's rainbow*, arXiv, Cornell University Library, DOI: arXiv:1305.3390v1 [gr-qc], May 2013

Jayaprasad N*, **Sadani P***, **Bhalerao M M***, **Sengupta A** and **Majumder B**, *Exploring viscous damping in undergraduate physics laboratory using electromagnetically coupled oscillators*, arXiv, Cornell University Library, DOI: arXiv:1311.7489, Nov 2013

Majumder B and Garattini R, *Naked singularities*

are not singular in distorted gravity, arXiv, Cornell University Library, DOI: arXiv:1311.1747 [gr-qc], Nov 2013

Patel P*, Mridha S and Baker T N, *Influence of shielding gases on preheat produced in surface coatings incorporating SiC particulates into microalloy steel using TIG technique*, strathprints, University of Strathclyde Library, Dec 2013

Sengupta A et al, *Application of a Hough search for continuous gravitational waves on data from the 5th LIGO science run, arXiv*, Cornell University Library, DOI: arXiv:1311.2409 [gr-qc], Nov 2013

Sengupta A et al, *Constraints on cosmic (super) strings from the LIGO-Virgo gravitational-wave detectors*, arXiv, Cornell University Library, DOI: arXiv:1310.2384v1 [gr-qc], Oct 2013

Sengupta A et al, *First searches for optical counterparts to gravitational wave candidate events*, arXiv, Cornell University Library, DOI: arXiv:1310.2314v1 [astro-ph.IM], Oct 2013

Sengupta A et al, *Implementation of an f-statistic all-sky search for continuous gravitational waves in Virgo VSR1 data*, arXiv, Cornell University Library, DOI: arXiv:1402.4974v2, Feb 2014

Sengupta A et al, *Prospects for localization of gravitational wave transients by the advanced LIGO and advanced virgo observatories*, arXiv, Cornell University Library, DOI: arXiv:1304.0670 [gr-qc], Apr 2013

Sengupta A et al, *Search for gravitational wave ringdowns from perturbed intermediate mass black holes in LIGO-Virgo data from 2005-2010*, arXiv, Cornell University Library, DOI: arXiv:1403.5306 [gr-qc], Mar 2014

Sengupta A et al, *The NINJA-2 project: detecting and characterizing gravitational waveforms modelled using numerical binary black hole simulations*, arXiv, Cornell University Library, DOI: arXiv:1401.0939 [gr-qc], Jan 2014

Shah V*, Singh G, Goyal S and **Palanthandalam-Madapusi H**, *A control-system perspective on parkinsonian tremor with implications on diagnosis and disease monitoring*, arXiv, Cornell University Library, DOI: arXiv:1403.0296, Mar 2014

*IITGN STUDENTS # IITGN STAFF

STUDENT ACTIVITIES

Students are actively encouraged to participate in extra-curricular and co-curricular activities to enrich their overall academic experience and develop their personalities. Students have excelled at such activities throughout the year and continue to initiate new ones.

CO-CURRICULAR ACTIVITIES

CAMPUS PLACEMENTS

The organizations that offered campus placements in the second year of placements for the outgoing batch include Ricoh Innovations, National Instruments, ONGC, GNFC, GSFC, Honda, Volvo-Eicher, Hospira Inc, Grasim Industries, Flipkart, Timetooth, Infosys, Cognizant Technology Solutions, Texas Instruments and DRDO among others. Of the 66 undergraduates who sought placements, 60 students were successful in securing placements of their liking.

SUMMER INTERNSHIPS 2013

Nearly 148 undergraduate IITGN students did their internships in universities, research institutes, PSUs and various industries during the summer of 2013. Six of these students went to research institutions such as BARC, DRDO, Nuclear Training Center, Rawatbhata, and Research Center Imarat, Hyderabad while eight students went to Indian academic institutes such as IIM Ahmedabad and IIT Bombay. Twenty seven students did their internship at foreign universities such as Caltech, Duke University, Syracuse University, Washington University and University of Notre Dame, while 107 students spent their summers in industries such as Adani Power, Arvind Mills, Dass Oil Field, GAIL, HMT, HPCL, L&T, ONGC, TATA Motors, Reliance Industries, National Instruments and Texas Instruments.

RESEARCHERS' FERRET CONFAB'13 (REFECO'13)

Researchers' Ferret Confab (Refeco '13) is an annual event that is organized by the PhD scholars of IITGN that aims to provide an interdisciplinary platform for young researchers where they

showcase their scientific ideas and. The second edition of **Refeco** organized on April 6, 2013, was open to the entire student community comprising BTech, MTech and PhD students of IITGN and PRL Ahmedabad. **Prof Ajanta Sachan, Prof Rosa Maria Perez,** and **Prof Sudhanshu Sharma** judged the oral and poster presentations. **Vinay Dwivedi**, mechanical engineering and **Payel C Mukherjee**, humanities secured the first position in oral presentation. **Pritish Sankhe**, electrical engineering secured the first position in the poster presentation. **Sumitava Mukherjee** and **Sherin Sabu**, both of social sciences stood second in the oral presentation and poster presentation, respectively.

RESEARCHERS' FERRET CONFAB 2014 (REFECO'14)

The third edition of the Researchers' Ferret Confab 2014 (Refeco '14), was organized by PhD research scholars at IIT Gandhinagar during March 8-9, 2014. The event saw participation of the student community of IITGN as well as those from other institutes such as IIT Roorkie and GEC Rajkot. A total of 69 oral and 41 posters were presented.

LIFE SKILLS SERIES

- A session on **Leadership skills** by **Ms Rashmi Datt** was held during April 6-7, 2013. All 120 students of the first year batch participated in this session.
- A session on **Exam anxiety: do not let it take its toll** was conducted by **Ms Jasbirkaur Thadhani** on Sep 14, 2013. Thirty students participated in the session coordinated by **Prof Sharmita Lahiri**.
- An interactive session on **Understanding people: A look through Maslow's lens** by **Ms Meenakshi Kirtane**, a practicing psychotherapist and behavioural trainer, Jan 17, 2014.

MECHANISM MOCK-UP DISPLAY

The batch of 2010 mechanical engineering students organized a gadget/mechanism mock-up display open house on April 16, 2013 to display the gadgets they had built as part of Kinematics and Dynamics of Machines Lab. The focus of this exercise was on identifying a task to be simplified by a mechanism, followed by designing and building a workable model of their mechanism to address the problem. Fifty students formed 17 groups and worked on gadgets such as bush cutter machine, seed sowing machine, multi-pin stapler, hanging table, mechanical drain cleaner, multi-purpose furniture.

UL-IITGN ELECTRIC VEHICLE PROJECT

The project is in continuation of the UL Engineering Challenge that was organized by Underwriters Laboratories Inc. The team comprising **Akash Keshav Singh, Harsh Gupta, Kimaya Kale, Madan Taldevkar, Prathamesh Bhat, Preet Shah, Rounak Mehta** and **Vaibhav Gandhi**, all from BTech 3rd year, have converted a CNG-operated 4-stroke auto-rickshaw into a battery-operated vehicle without making too many changes to the existing structure. The team plans to study the various challenges that electric vehicles face in the current market such as lack of charging stations and safety issues. They also want to enhance the performance of the current design. The students are guided by **Prof Atul Bhargav** and **Prof Chinmay Ghoroi** from IITGN, and **Dr Amey Karnik**, Research Engineer at Ford Motors USA.

CNG operated 4-stroke auto-rickshaw converted into a battery-operated vehicle

UL-IIT GANDHINAGAR WATER CHALLENGE 2013

The undergraduate students of IITGN have been participating in the Underwriters Laboratories-IIT Gandhinagar (UL-IITGN) challenge since 2009. The last few years have seen several UL-IITGN challenges related to fire safety, photovoltaics and electric vehicles generate plenty of enthusiasm among students. This year students are engaged in a water project entitled **Designing and developing a research platform for drinking water station for community use**. **Mr August Schaefer**, senior vice president, UL, Chicago and **Mr R A Venkitachalam**, vice president and managing director, UL, India announced the winners of Phase 1 on March 26, 2014. The following members will receive the prize money of $500 each and the opportunity to visit UL, Chicago during the summer. In Phase 2 of the project, the students will implement their idea into reality and visit different community water purification units in India including a trip to UL, Bangalore water research lab.


Group 1


Group 2

Winning teams:
Group 1: Manjot Singh, Monish Bhangale, Sanjit Jena and **Saurabh Vaichal.**

Group 2: Ch Suryavinay Koundinya, Rakesh Ranjan, Shubham Pachori and **Vidyanand Wagh**.

EXTRA-CURRICULAR ACTIVITIES

AMALTHEA '13

The 4th edition of **Amalthea**, the annual technical summit of IITGN based on the theme **Shaping the world through Innovation and Technology** was held during Oct 19-20, 2013. An "Innovation Conclave", a "Design and Innovation Expo" and a plethora of technical and non-technical events were held during the two days. The conclave was inaugurated by **Mr Manu Seth**, director, Marketing, HTC India and **Mr Maheshwar Sahu**, additional chief secretary, Industries and Mines Department, Government of Gujarat. Among the eminent speakers at the conclave were **Dr Kamlesh Lulla**, chief scientist and research director, NASA; **Mr Alan Emtage**, inventor of Archie, the world's first search engine; **Mr Paparao Kodali**, vice president, Ingersoll Rand; **Mr Hadi Syed Abdul**, vice president, Robert Bosch Engineering and Business Solutions; and **Dr Srinivas Garudachar**, Grameen Intel Social Biz. Some of the prominent exhibitors at the Design and Innovation Expo included **ISRO, DC Design, International Thermonuclear Experimental Reactor (ITER-India)**, **iNDEXTb** and **KPIT Technologies**. The event was a huge success with about 13,000 people from academia and industry attending it. The student coordinators of the event were **PVS Anurag, Mudit Rathor, Samarth Vaijanapurkar,** and **Gaurav Sharma**.

BLITHCHRON 2014

Blithchron, the two-day cultural festival of IIT Gandhinagar was back with its sixth edition during Jan 25-26, 2014. The success of this event and its popularity among the youth has surpassed all expectations since the event started 5 years ago. Besides being known for the fun and excitement it generates, the event acts as a catalyst for budding talents from various universities, colleges and institutes from across the country. This year it showcased 25 events across two days with events like fashion shows, The Butler Did It, Antaragnee, Panache, Jobless, the rock competition String Theory, and a dance competition named Synchronize; among others. A major attraction of Blithchron was the performance by the rock band Pentagram with Vishal Dadlani as the lead singer. The entire event saw a total footfall of 22,000 students from colleges in Ahmedabad, Gandhinagar, Surat, and Vadodara. A blood donation drive, aptly named Boond, that was organized during Blithchron '14 collected 83 units of blood from over 110 students, staff, and faculty.

SUMMER CAMP 2013

The summer camp held during July 16-26, 2013 was designed to expose students and the campus community to a variety of creative, intellectual and relaxing activities such as film-making, neuromarketing, Hindustani classical music and animation. The summer camp was coordinated by Professors **Bhaskar Datta** and **Bhaskar Bhatt**. Nearly 50 participants comprising students, staff and faculty participated in the events that included a beginner's course in Spanish, a workshop on Soft Skills and Personality Development and a series of workshops on computational tools and methods. The activities were conducted by a combination of IITGN faculty as well as external resource persons.

UDAAN- A MUSICAL EVENING

UDAAN, the formal dinner night was held on April 5, 2013 to bid farewell to the graduating BTech batch of 2009 and the pioneer MTech batch. The event was attended by around 330 members including faculty, staff and students. **Shashank Pandey** and **Shashank Sheohare**, from the outgoing batch shared their thoughts and experiences. **Gourav Dubey's** soulful performance magnificently captured the sentiment of the outgoing students and moved everyone in the audience. The event was organized by **Nitai Bajaj** and **Mayank Jhalaria** along with a team of students.

AVANT GARDE 2013

Avant Garde 2013, a visual imagery conference-cum-workshop on photography and cinematography was held on April 7, 2013. More than a 100 participants from colleges like IIM Ahmedabad, PDPU, CEPT, NID, NIFT, besides IITGN interacted with **Dr Deepak John Mathew**, NID; **Mr Shiv Ahuja**, professional music photographer; and **Mr Kevin Antao**, a freelancer. The event was organized by **Bhaskarjyoti Das, Pankaj Gautam,** and **Shreyans Nahar**.

WINTER CARNATIONS

Winter Carnations, a theme-based carnival to celebrate the long-awaited onset of winter was celebrated at IIT Gandhinagar on Nov 10, 2013. The theme of the event was the Indian village setting with exotic food stalls and games stalls set up jointly by the professors and the students. The event was organized by **Eepsit Tiwari** and **Sneha Ved**.

AERO MODELING WORKSHOP AND AIR SHOW

The first **Aero modeling workshop and Air show**, 'Let's Fly' was organized at IIT Gandhinagar, March 16, 2014. **Abhishek Ranjan**, electrical engineering and **Prashant Shekhar**, chemical engineering, both second year BTech students conducted a workshop for 42 students. The participants were divided into 7 teams and learnt designing and fabricating an RC glider and understood the aerodynamics, controls and stability in the simplest manner. All the 7 gliders were seen flying after the event.

SPECIAL OCCASIONS

INDEPENDENCE DAY CELEBRATIONS

The 67th Independence Day celebrations on Aug 15, 2013 began with the flag hoisting by the director, **Prof Sudhir K Jain**. **Prof M R Patel**, the principal of VGEC, was an enthusiastic participant, as were many faculty and staff of IITGN and their families, and the student community. On this occasion the 118 students who featured on the Dean's List 2012-13 (semester II) by securing an SPI of 8.5 or more, were felicitated by **Prof Sudhir K Jain, Prof Brian Brophy** and **Prof Wakankar** with a book (**The Last Lecture** by **Randy Pausch** & **Jeffrey Zaslow**) and a letter of appreciation. It was followed by musical performances by faculty and students. A panel debate was also organized on the topic **Should Indian state leaders decide national policies?** The day's events were brought to a fitting close by Abhinaya, the drama club of IITGN who presented an enjoyable play named Cultural Shock.

REPUBLIC DAY CELEBRATIONS

The 65th Republic day celebrations on Jan 26, 2014 began with flag hoisting by **Prof Sudhir K Jain**, director, IITGN and **Dr A K Prabhakar**, principal, VGEC. The highlight of the event was the recitation of poems by children mentored by Nyasa, a social initiative of IIT community members was appreciated by everyone present. The students also presented a cultural programme to mark the occasion.

AWARDS AND RECOGNITION

CASH AWARD FOR RESEARCH

In its 9th meeting held on March 28, 2013 the BoG approved a cash award scheme to incentivize undergraduate and postgraduate students for papers published in peer-reviewed journals. The following students were given cash awards during the year 2013-14:

Name of the Student	Programme	Amount
Mr Yogesh Goyal	BTech (Chemical Engineering)	Rs 50,000
Mr Swetava Ganguli	BTech (Mechanical Engineering)	Rs 25,000
Mr Vikram Karde	PhD (Chemical Engineering)	Rs 25,000
Mr Manish Kumar	PhD (Chemical Engineering)	Rs 50,000
Ms Alpana Thorat	PhD (Chemical Engineering)	Rs 25,000
Mr P Veerbhadraiah	PhD (Chemistry)	Rs 25,000
Mr Reepal Dinesh Shah	PhD (Civil Engineering)	Rs 25,000
Mr Neeraj Kumar	PhD (Cognitive Science)	Rs 25,000
Mr Sumitava Mukherjee	PhD (Cognitive Science)	Rs 50,000
Mr Krishna Manwani	PhD (Materials Science & Engineering)	Rs 25,000

IITGN ANNUAL SPORTS AWARDS FOR ACADEMIC SESSION 2012-2013

The following awards for the academic year 2012-13 were given in different categories on the basis of the performance of students:

Best Player of the Year
Shivani Rani
Best Upcoming Player of the Year
Animesh Kumawat
Badminton Open (Singles)
Pranshul Saini
Badminton Open (Doubles)
Niral Parikh and Deepak Sagar
Chess Open
Chetas Joshi, Pratik Thackar and Parag Chitnis
Inter-Departmental Championship (Boys)
Chemical Engineering
Inter-Departmental Championship (Girls)
Electrical Engineering

STUDENTS ON DEAN'S LIST FELICITATED

Based on the performance during semester-I of Academic Year 2013-14, a total of 147 BTech students were felicitated by the director, Prof Sudhir K Jain; with a letter of appreciation and a topical book (**To Kill a Mockingbird** by **Harper Lee**), March 7, 2014.

TINKERTANK WINS 5TH ISB IDIYA NATIONAL SOCIAL VENTURE COMPETITION

TinkerTank Pvt Ltd, a for-profit technology social enterprise, founded by **Keshav G**, IITGN alumnus, batch of 2008, won the 5th edition of iDiya Challenge, a social venture competition held at the Indian School of Business, Hyderabad, on Nov 30, 2013. The award includes an investment support of Rs 2 lakhs from ISB. TinkerTank, the second company incubated at IITGN's Incubation Center, is moving forward with the commercialization of Doopica, a low-cost semi-automated incense-stick machine that helps women produce four times more incense sticks, increasing their monthly income.

OTHER STUDENT ACHIEVEMENTS

- **Ankita Arora**, PhD Student, Materials Science and Engineering won the award for **Best Poster** in Chemistry Symposium **Advances in Drug Discovery- Bench to Bedside** organized jointly by the Chemistry and Biological Engineering disciplines of IITGN on May 24-25, 2013. **Ankita Arora** attended a School on **Advanced Characterization Methods for Nanophase Materials (ACNM 2013)** and a workshop on **Nanoscale Excitation in Emergent Materials (NEEM 2013)** held at the Institute for Plasma Research Ahmedabad on Nov 22-26, 2013, as part of a bilateral collaboration between India and Italy organized by the Department of Science and Technology, Embassy of Italy, INFN Franscati, University of Rome and the Institute for Plasma Research. Ankita was among the 30 students selected from India and also presented a poster titled **Peptide driven structural transformations in membranes: mechanism of cell penetrating peptides & anti microbial peptides** with **Prof Abhijit Mishra** as the co-author.
- The **Texas Instruments innovation challenge - India Analog Design Contest** (college level), was won by the team comprising **Mandar Bhoir**, **Mohit Chand**, **Mohit G**, **Chandrashekhar Tunga** and **Apoorva Ojha**. A total of 17 teams of 4 to 5 members competed against one another on Oct 16, 2013. **Prof Joycee Mekie** coordinated the event.
- **Manisha Chawla**, doctoral candidate (Cognitive Science), participated in **Indo-Italian training workshop** on EEG and MEG data processing organized by the Centre for Neural and Cognitive Sciences, University of Hyderabad. April 1-4, 2013. She also participated in a neuroscience workshop on **Emerging trends in neuroscience: molecular and cellular approaches** organized by IBRO at BHU, Varanasi. Oct 19-23, 2013.
- **Bhaskarjyoti Das's** photo-essays on **A Buddhist marvel in Golaghat** and **The tea tribes of Assam** have been published in the magazines Eclectic Northeast and Little India, respectively.
- **Yogesh Shantaram Fulpagare**, a PhD scholar in mechanical engineering, has been awarded the INSPIRE Fellowship 2013 from the Ministry of Science & Technology, Government of India. He is working on the thesis titled **Data Center Thermal Management** with **Prof Atul Bhargav** as his advisor.
- **Rounak Mehta** and **Akshay Randad**, both from 2nd year mechanical engineering have been selected for the **GE Foundation Scholar Leaders Program** and will receive a scholarship amount of $2250 each for the next two years. They participated in the **Energize to Innovate** workshop organized by the GE Foundation at the Jack F Welch Technology Centre, Bangalore during June 9 -12, 2013.
- **Payel C Mukherjee** has been awarded the **Graduate Student Paper prize** at the 14th Annual South Asian Literary Association Conference (SALA 2014) in Chicago, IL, USA for the paper (co-author Prof Arnapurna Rath) titled **Emergence of the cosmopolitan-national in Midnight's Children and Maximum City**. SALA presents three graduate student paper prizes every year. The other two papers in addition to IIT Gandhinagar that have got this year's award are from University of Pittsburgh and University of California, Berkeley.
- **Akshay Randad**, inspired by the IITGN Foundation Programme initiated **Aplomb**, a programme for rural area students of secondary schools; at his school **Shri Yogeshwari Nutan Vidyalaya**, **Ambajogai, Maharashtra**. The programme aims to enlighten the students about career goals and communication skills. Two events were conducted on July 6, 2013 and Oct 6, 2013. **Prof Amit Prashant**, dean of Academic Affairs, IITGN talked about the importance of ethics in life. **Mr Gunvant Jain**, founder & director at Shikshalaya guided the group about getting into creative offbeat careers. **Mr Rajesh Chanchlani** conducted a one-day workshop on rapid reading skills and memory management for effective learning. The event was attended by a group of 250 students on both the occasions. The programme was funded by Akshay himself through his General Electric Foundation Scholarship.
- **Payel C Mukherjee**, a research scholar in Humanities won the **Best Paper Presenter** award for the paper **Cloaks and Coverings: Sartorial Carnival in Goopy Gyne Bagha**

Byne and Harry Potter and the Sorcerer's Stone (co author: **Prof Arnapurna Rath**) at the International Conference on Literature to Cinema: Appropriation, Adaptation, Adulteration, at NIT Durgapur during June 1-3, 2013.

- **Abhivyakti: the story writing competition**, witnessed 15 interesting and creative entries from both students and staff on a variety of themes. The stories were reviewed by a panel of professors. The story **Everything, I do!** by **Shubham Ranka** of 4th year, electrical engineering was adjudged the best entry.
- **Nisarg Shah** was selected for the MIT Media Labs, India initiative for a five-day inter-disciplinary workshop. A total of 350 students from different parts of the country participated in the event organized during Jan 27-31, 2014. **Dr Raghunath Mashelkar** and **Prof Ramesh Raskar** were among the prominent speakers.
- **Sushant Kumar Suman**, senior undergraduate, chemical engineering has come up with a **Roof-top Garden** that he has created on one of the terraces of the institute. The aim of the project is to design a model which is affordable and ergonomic and therefore attractive to a large number of people. Compared to conventional roof-top gardens this design exerts less pressure on the roof and does not require any solid construction. It does not hinder rainwater drainage and is easy to install and dismantle, and is also economical.
- Three teams comprising **Balaji Venkatesh, Hoosein Safdari, Smit Soni, Nishank Jain, Sunil Nair, Anuj Topiwala, Shashank Agarwal, Suyash Patkar** and **Aryan Kumar** were judged 'meritorious' in the **2013 Mathematical Contest in Modeling (MCM)**, which recently declared its results. One of the three other teams from IITGN comprising **Akshay Jain, Nakul Nuwal** and **Prateek Nyati**, received an 'honourable mention' while two teams other, comprising of **Saksham Kohli, Nitesh Udhani, Mohit Sharma, Yash Goyal, Shashank Tyagi** and **Shivanshu Arora**, received recognition for 'successful participation.' The MCM is organized by the Consortium for Mathematics and Its Applications (COMAP), a US-based non-profit organization.

STUDENT'S PATENTS FILED

- **Generating a Discussion Group in a Social Network Based on Similar Source Materials**, Patent application number: 20130031100. Inventors: **Mr Jamey Graham**, San Jose, CA, US; **Mr Timothee Bailloeul**, Sunnyvale, CA, US; and **Adit Gupta**, class of 2013, IITGN. This patent describes how a social discussion group can be created around a visual search technology.
- **Low-cost hand-driven bamboo-cored incense-stick making machine**, India Patent Number 2969/MUM/2013. Inventor: Mr Keshav Giriyapnavar, class of 2012.

SPORTS NEWS

HALLA BOL '14

The 4th edition of Halla Bol, the all-night intra-college sports festival, was organized from March 14-23, 2014. **Mr A C Joshi**, ONGC (International Chess Arbiter) and **Mr Gulab Singh Chohan,** ex-FIFA referee and Gujarat State Football Association Secretary; were the chief guests for the opening ceremony. The festival comprised 11 entertaining games played over 10 days. More than 400 matches attracted 2953 registrations from students, staff and faculty, who formed mix teams. The event was coordinated by **Surya Kiran**, sports secretary and **Joy Narang**.

49TH INTER-IIT AQUATICS MEET

Animesh Kumawat won silver medals in 1500m free-style, 100m back-stroke and 200m back-stroke at the **49th Inter-IIT Aquatic Meet** held during Oct 1-4, 2013 at IIT Guwahati. **Parth Sane** won a silver medal in 50m butterfly and a bronze in 100m back-stroke while **Nisha Rawat** won a bronze medal in 50m breast-stroke in the women's category.

CONCOURS'13

The **Men's basketball team** defeated Indus Institute of Technology (50-19), Oct 20, 2013 and won the final of Concours '13. **Aditya Samant** was the top scorer of the match with 18 points. **Krishan Meena's** performance was also noteworthy. A total of 16 teams participated in the preliminary rounds.

INTRA-COLLEGE SPORTS TOURNAMENT

A total of around 150 students (BTech, MSc, MTech and PhD), faculty and staff members participated in games such as cricket, volleyball, badminton, and table-tennis during Aug 26-Sep 9, 2013. The team of BTech students defeated the team of staff & faculty in cricket and volleyball. **Deepak Samal** won the **badminton tournament** while **Tapan Shah** won in **table tennis**. The event was coordinated by **Suryakiran** (sports secretary) and **Wasim Khan**.

OPEN BADMINTON CHAMPIONSHIP

The badminton championship was organized at IITGN during Jan 16-24, 2014. The boy's singles title was won by **Ishan Upadhyaya** while the girl's singles title was won by Aishwarya Agrawal. **Kanak Sharma** and **Pranshul Saini** won the boys doubles title. The girls doubles title was won by Aparna Arya and Pratyusha Challa. The event was organized by **Pranshul Saini, Kanak Sharma, Naman Bansal** and **Malireddi Sri Raghu**.

CRICKET COMBAT LEAGUE (CCL) 2013-14

IITGN started its own **Cricket league** comprising of BTech, MTech, and PhD students. A total of 187 students were auctioned and formed 8 teams. Apart from this, 18 members from staff and faculty formed a separate team named **Maroon Gladiators** under the captaincy of **Rohit Chaudhary**. **Maroon Gladiators** defeated **White Wolves** (Captain- Hare lal Mahato) in the finals. **Pawan Kumar** was declared as best player of the league, scoring more than 200 runs and taking 14 wickets; and **Krishna Manwani** took more than 16 wickets and was adjudged the best bowler. The event was facilitated by the core team of **Durgesh Bagri, Mohit Bajaj** and **Ankur Meena, Yash Mehta** and **Vishvendra Singh** supported by 25 team members.

GUJARAT STATE ATHLETICS CHAMPIONSHIP 2014

Pradeep Diwakar won gold medal in shot put and silver medal in discus throw in the men's category. A dominant performance by **Shivani Rani** saw her win the gold medal in discus throw and silver medal in shot put in the women's category.

JUSTICE LEAGUE '14

The Justice Cup'14 Annual Sports Festival, held at the GNLU Gandhinagar during March 8-10, 2014 witnessed excellent performance by the IITGN contingent. **Taruna Yadav**, an MTech student of electrical engineering, won gold medals in shot put and discus throw. **Pradeep Diwakar** won gold medal in shot put and silver medal in discus throw. **Pardeep Phullay** won bronze medal in javelin throw while **Abhimanyu Singh** won bronze medal in triple jump.

PDPU PETRO CUP'14

The IITGN team has put in strong performances in the the Petro Cup over the last few years. **Naveen Kumar Endla** won gold medal in javelin throw in the men's category while **Aditya Shah** won gold medal in triple jump. In the women's category, **Silky Agrawal** won gold medal in discus throw while **Taruna Yadav** won silver medal in discus throw and a bronze medal in shot put. **Sanchayni Bagade** won silver medal in long jump.

INTER-DEPARTMENT TOURNAMENT

- The final of men's basketball tournament was played between teams from chemical engineering and electrical engineering. The electrical engineering team became the first IDC Champion and registered a 26-16 victory. **Sanjay Meena, Prince Kumar Singh** and **Darshil Doshi** impressed everyone with their skilful performances.
- The team from mechanical engineering defeated the chemical engineering team 2-0 in the football final to win the title for the fourth time. **Ojas Joshi** was the top scorer of the tournament. **Rajat Chand's** performance was particularly impressive.

OTHER STUDENT ACTIVITIES

FIELD TRIP TO KUDASAN WATER TREATMENT PLANT

A group of 20 MTech and PhD students visited the water treatment plant in Gandhinagar on Sep 7, 2013. The plant has a capacity of 30 MLD and provides clean water to approximately 1 lac people. It uses Conductive Polymer Solid Capacitors, a more effective coagulant than alum. The trip was facilitated by **Mr D G Kalaria**, executive engineer, Gujarat Jalsewa Training Institute (GJTI), Gandhinagar, **Mr B B Patel**, chief engineer and director of GJTI and **Mr Paresh Bhai Sheth**, design engineer. The trip helped students learn the technological aspects of hydraulics and structural components involved in water treatment process. The trip was organized by **Prof Indrajit Ghosh** and **Shivani Rani**, research assistant.

TRIP TO JAMNAGAR REFINERY AND NARARA ISLAND

Thirty-two MTech and PhD students and two faculty members visited the Jamnagar Refinery complex during Dec 1-3, 2013 and also the Narara Island which is famous for its marine life. The trip comprised a visit to the jetty where the crude oil is received, the production plants, the residential township and finally to the Green Belt where many species of trees are grown organically using treated effluent and rain water. On the way back the group visited Narara Island, one of the few places in the world where one can look at corals without having to dive into the water. The trip provided an opportunity for valuable educational dialogue in an informal setting and was organized by **Prof Indrajit Ghosh** with the assistance of **Shivani Rani**.

STAFF ACTIVITIES

21ST INTER-IIT STAFF SPORTS MEET

Mr Santosh Raut won a bronze medal in javelin throw at the **Inter-IIT Staff Sports Meet** held during Dec 25-29, 2013. The 24-member strong IITGN contingent secured 3rd place in the march-past competition. **Mr Manu Pratap Singh** qualified for the finals of 100m and 200m track-and-field events. **Mr Mayur Chauhan** and **Mr Bhikha Bhai Patel** put in excellent performances in shot put throw and cricket respectively.

OTHER STAFF ACTIVITIES

Ms Jasbir Thadani has been awarded the **Counselor of the Year** award by the Department of Psychology of the Gujarat Law Society on June 16, 2013, where she is associated as a visiting faculty. She was also invited as a subject matter expert on **Guidance & counseling development and implementation in the secondary schools** for Gujarat state board schools. The session comprised seven lectures, each of one and a half hours during Oct 7-21, 2013.

EXCELLENCE AWARD TO STAFF


MR B V PUVAR


MR ASHWIN R


MS KOMAL


MR P VANKAR


MR I THAKOR

Mr B V Puvar, Security Advisor; **Mr Ashwin R Kubasadgoudar**, Junior Technical Superintendent; **Ms Komal Vadhvani**, Junior Assistant; **Mr Piyushbhai P Vankar**, Junior Assistant; and **Mr Ishwarbhai Thakore**, Library Attendant were awarded the **Excellence award for non-teaching staff** for the year 2013 for exemplary service.

EXTERNAL RELATIONS

IITGN has been constantly building strong and mutually beneficial relationships with internationally renowned academic institutions and non-academic organizations. Several partnerships forged in the last year will benefit the students and the faculty.

INTERNATIONAL MoUs

Organization/Institution	Objective
Technion-Israel Institute of Technology, Haifa, Israel	To expand scholarly ties and facilitate academic cooperation
The University of Canterbury, New Zealand	To develop and carry out collaborative activities
Cape Breton University, Sydney, Nova Scotia, Canada	To exchange faculty, scholars and administrators and to collaborate in joint research and various events of mutual interest
Japan Advanced Institute of Science & Technology, Japan (JAIST) (Student exchange)	Agreement on student exchange

Japan Advanced Institute of Science & Technology, Japan (JAIST) (Faculty exchange)	Develop educational and scientific exchange and cooperation
The Nielsen Company, Oldsmar, Florida	To support IITGN undergraduate students' participation in international conferences, workshops, internships, etc that offer broad exposure, and to further motivate such students toward extraordinary performance
School of Public Health, University at Albany, State University of New York	To encourage direct contact and research cooperation between faculty members and to cooperate in the field of public health
Government of Gujarat/ iNDEXTb, The Board of Kangan Institute, Melbourne, Australia, Maruti Suzuki India Ltd, Pandid Deendayal Petroleum University	IITGN will pay the role of the National Academic Partner along with PDPU (a Strategic Partnership)
California Institute of Technology (Caltech), Pasadena, California	Undergraduate student exchanges

NATIONAL MoUs

Organization/Institution	Objective
Government Spine Institute & Physiotherapy College, Civil Hospital, Ahmedabad	To establish a programme for collaborative research in areas of mutual interest
Institute of Infrastructure, Technology, Research and Management (IITRAM), Ahmedabad	To establish and enrich academic interaction and create synergy between the two institutes
Alliance Francaise d' Ahmedabad	French language classes
Government Funded/Government Aided Engineering Institutions in Gujarat	Training and capacity building in technical education quality improvement programme (TEQIP) in Gujarat
i-Create India	Promote entrepreneurship at the grassroots by providing training, mentoring and networking opportunities.
Institut Francais	French language classes

SUMMER/ WINTER INTERNSHIPS IN 2013

FOREIGN INSTITUTIONS

Host Institution	Student Name	Discipline
A* Star, Singapore	Aryan Kumar, Pranav Bagaria, Akshay Jain	Chemical
	Yash Kotak	Electrical
	Akanksha Jagwani	Mechanical
California Institute of Technology, Pasadena, CA, USA	Deepti Chopra, Nitesh Udhani, Kartik Saxena, Nishank Jain, Nishant N Rao, Shivam Mani Tripathi	Electrical
	Dhwanil Shukla, Shashank Agarwal	Mechanical
DAAD, Technische Universität Berlin, Berlin, Germany	Ritesh Jain	Electrical
Duke University, Durham, NC, USA	Sunil Nair, Balaji Venkatesh, Yash Goyal, Shashank Tyagi	Electrical
National University of Singapore, Singapore	Anirudha Vishwakarma, Sanjay Saroj	Chemical
Purdue University, West Lafayette, IN, USA	Nandan Paresh Vora	Chemical
Syracuse University, Syracuse, NY, USA	Adit Bhardwaj, Smit Soni	Electrical
Texas A&M University, TX, USA	Pranav Bagaria, Akshay Jain	Chemical
Underwriters Laboratories, Chicago, USA	Kimaya Uday Kale, Vaibhav Gandhi, Shubham Gupta, Kishan Suthar	Electrical
	Madan Janardan Taldevkar, Prathamesh Ganesh Bhat, Varun Gupta, Shreyas Vaidya	Mechanical
University of California Merced, CA, USA	Shaliwahan Singh Rathore	Mechanical
University of Notre Dame, IN, USA	Hoosein Safdari	Electrical
University of Saskatchewan, Saskatoon, Canada	Mayank Jhalaria	Chemical
University of Washington, Seattle, WA, USA	Aishwarya Agrawal	Electrical
	Ankita Sharma	Mechanical
Washington University, St Louis, Missouri, USA	Smit Shah	Chemical
Werner Reichardt Centre for Intergrative Neuroscience, Universität Tübingen, Germany	Ameya Joshi	Electrical

DOMESTIC INSTITUTIONS

Host Institution	Student Name	Discipline
Asea Brown Boveri Ltd	Dave Ujash Rameshwar	Electrical
Adani Power Ltd	Mohit Bajaj, Anuj Topiwala, Kiran Parmar	Electrical
Add Sale	Pankaj Gautam, Heda Shashank Kamlesh	Electrical
Anand Consultants	Tushti Shah	Chemical
Arvind Ltd	Vikram Vishnoi	Mechanical
Ashok Leyland Ltd	Prashant Bhatewara	Mechanical
Atul Ltd	Abhishek Sancheti	Chemical
Bhabha Atomic Research Centre	Deep Karpe, Jinesh Shah	Mechanical
	Durvesh Shinde	Electrical
Bharat Heavy Electricals Ltd	Amit Jharbade	Mechanical
Bombay Dyeing	Aditya Samant	Chemical
Botil Oil Tools India Pvt Ltd	Joy Narang	Mechanical
Bharat Petroleum Electricals Ltd	Pradeep Nikhade, Poonam Chand Meena	Mechanical
Brakes India Ltd	G N Lakshminarasimhan	Mechanical
CD-adapco	Shubhangi Bansude	Mechanical
Clariant Chemicals India Ltd	Shaurya Seth	Chemical
Consci Consultancy Pvt Ltd	Mishita Jaiswal	Electrical
Daiichi Sankyo India Pharma Pvt Ltd	Sukriti Gakhar	Chemical
Dass Oil Field Technologies Pvt Ltd	Manjot Singh, Naman Bansal, Wagh Vidyanand Girish, Vakkantula Harika, Pamulapati Sushma Sri, Jitender Kumar	Chemical
	Rahul Garg, Sanjit Jena, Ajay Chandubhai Vora, Chaudhari Dhruvishkumar, Rakesh Pargi	Mechanical
	Mrityunjaya Kumar	Electrical
Research & Development Establishment (Engineers), DRDO	Sandesh Achari	Electrical
Ecolibrium Energy Pvt Ltd	Rajesh Jangid	Electrical
Eicher Motors Ltd	Ayush Choudhary	Mechanical
Eicher Trucks and Buses	Ronak Khandelwal	Mechanical
Enelek Power	Sumit Deshmukh, Nihar Kotak, Amit Sahu	Mechanical

Host Institution	Student Name	Discipline
Fluidyn	Prateek Nyati, Nakul Nuwal, Suyash Patkar, Geddada Sri Sivaganesh	Mechanical
Gas Authority of India Ltd	Rinku Meena	Chemical
General Electric Aviation	Manne Sri Sudhamsu Krishna	Mechanical
Genus Power Infrastructure Ltd	Kailash Meena	Electrical
Go Auto Pvt Ltd	Rahul Harnotia	Mechanical
Goldman Sachs	Ameya Joshi, Nisarg Shah, Snigdha Manogyna	Electrical
GridAnts	Aalok Gangopadhyay, Ishan Upadhyaya	Electrical
Gudel India Pvt Ltd	Piyush Mahajan	Electrical
Gujarat Energy Research & Management Institute	Devendra Singh Yadav	Electrical
Hero MotoCorp Ltd	Saurabh Garg	Mechanical
HMT Machine Tools Ltd	Abhay C A	Mechanical
Hindustan Petroleum Corporation Ltd	Dasari Yashwanth Kumar	Chemical
Indian Institute of Management Ahmedabad	Arjita Sharma	Electrical
Indian Institute of Technology Bombay	Abhishek Navarkar	Mechanical
Indian Oil Corporation Ltd	Bhaskarjyoti Das	Chemical
Invictus Oncology	Priya Jalutharia, Sanjay Saroj	Chemical
Kalisindh Thermal Power Station	T Kehbruce Singh, Tushar Kodap	Mechanical
Kanoria Chemicals & Industries Ltd	Prashant Kumar Singh, Rajat Inderiya	Chemical
Knorr Bremse	Akshay Mall	Mechanical
Kota Thermal Power Station	Rajat Chaudhary	Electrical
KPIT Cummins Infosystems Ltd	Preet Shah	Electrical
Larsen & Toubro, Chiyoda Ltd	Sudiksha Sridhar	Chemical
Larsen & Toubro, Mitsubishi Heavy Industries Boilers Pvt Ltd	Akash Kumar	Mechanical
Larsen & Toubro	Avinash N Tumkur	Mechanical
Madhya Pradesh Power Generating Company Ltd	Nitya Pawar	Electrical
Magneti Marelli	Bhavya Madasu	Mechanical

Host Institution	Student Name	Discipline
Mahindra & Mahindra	Parag Pradeepkumar Ramteke	Chemical
Maruti Suzuki India Ltd	Shubham Bhargav, Kamarapu Thrinath Chander, Kaushal Kumar Chavda	Mechanical
National Instruments	Spandan J Das	Mechanical
Nuclear Training Center Ltd	Rohan Patidar	Electrical
Oil & Natural Gas Corporation Ltd	Nitai Bajaj, Sanket Mahajan, Wasim Khan Pathan, Durgesh Bagri, Dhruv Pancholi	Chemical
	Purushottam Lal Suman, Navneet Meena, Prasit Pal, Ramesh Kumar, Utsav Mistry	Mechanical
Panki Thermal Power Station	Abhishek Singh	Electrical
Pyrotech Electronics Pvt Ltd	Animesh Singh Kumawat	Electrical
Reliance Industries Ltd	Rajat Sharma, Rohan Kokane	Chemical
Research Centre Imarat, DRDO	Saksham Kohli	Mechanical
Ricoh Innovations Pvt Ltd	Yash Kotak	Electrical
	Ankit Suchanti	Mechanical
Royal Bank of Scotland	Jatindeep Singh	Mechanical
Schneider Electric India Pvt Ltd	Prateek Baldwa	Electrical
Siemens Ltd	Shivanshu Arora	Electrical
South Central Railway	Aashrith K S	Mechanical
Tata Motors Ltd	Prashant Verma	Electrical
Texas Instruments	Vibhav Vikas Katre, Akash Bapat	Electrical
Tata Robins Fraser Ltd	Vivek Prakash	Mechanical
United Phosphorus Ltd	Rutuparna Pramod Karandikar, Anirudha Vishvakarma	Chemical
Uttar Pradesh Power Corporation Ltd	Dharm Ratna Baudh	Electrical
Vegetable Vitamin Foods Company Pvt Ltd	Prashant Patel	Chemical
Xylem Water Solutions India Pvt Ltd	Aryan	Mechanical
Zydus Cadila	Pratyush Shastri	Chemical

STUDENTS SCHEDULED FOR SUMMER INTERNSHIPS IN 2014

FOREIGN INSTITUTIONS

Host Institution	Student Name	Discipline
California Institute of Technology, Pasadena, CA, USA	Aalok Gangopadhyay, Nishant N. Rao, Shivam Mani Tripathi	Electrical
	Aashrith K S, Prathamesh Ganesh Bhat, Rounak Mehta	Mechanical
Cisco Systems, USA	Ravi Kumar	Electrical
Clemson University, SC, USA	Rajesh Patidar	Mechanical
Columbia University, NY, USA	Sudiksha Sridhar	Chemical
	Apoorv Patwardhan	Electrical
Case Western Reserve University, OH, USA	Ajinkya Tupkar Jain	Electrical
DAAD Wise Programme, Technische Universität München, Germany	Raj Shah	Electrical
Duke University, NC, USA	Durvesh Shinde, Ishan Upadhyaya	Electrical
Ecole Nationale Superieure d'Arts et Netiers, Paris, France	Abhishek Navarkar	Mechanical
EPIR Technologies, Bolingbrook, IL, USA	Akshay Goyal	Electrical
	Abhay CA	Mechanical
Institute of Chemical & Engineering Sciences, Juroug Island, Singapore	Rizu Khanwilkar	Electrical
	Ayush Choudhary	Mechanical
ISCTE, Lisbon University, Lisbon	Anshul Gupta	Mechanical
National University of Singapore, Singapore	Pamarthi Chandra Kanth, Thrinath Reddy	Electrical
	Milan Singh, Sachit Vekaria, Soham Harshe, Vadera Meet Prakashbhai	Mechanical
RajeevCircle Fellowship for Entrepreneurs, CA, USA	Eepsit Tiwari	Mechanical
Singapore University of Technology & Design, Singapore	Prateek Baldwa, Ashish Kumar Gupta, Kushal Salecha	Electrical
Technion - Israel Institute of Technology, HAIFA, Israel	Karma Patel, Akash Keshav Singh, Dhyey Shah	Mechanical
	Dave Ujash Rameshwar	Electrical

Host Institution	Student Name	Discipline
Texas A&M University, TX, USA	Aditya Samant, Sukriti Gakhar, Tushti Shah	Chemical
	Madan Janardan Taldevkar	Mechanical
University of California Merced, CA, USA	B Manasa	Mechanical
Underwriters Laboratories, Chicago, USA	Manjot Singh, Wagh Vidyanand Girish	Chemical
	Ch Suryavinay Koundinya	Electrical
	Rakesh Ranjan, Sanjit Jena, Vaichal Saurabh Sandeep, Shubham Pachori	Mechanical
Universiti Teknologi Petronas, Malaysia	Akash	Mechanical
University of Notre Dame, IN, USA	Mayank Shekhar	Mechanical
University of Saskatchewan, Saskatoon, Canada	Rahul Khandait, Shaurya Seth	Chemical
	Prashant Verma	Electrical
	Shreyans Nahar	Mechanical
University of Washington, WA, USA	Akshay Randad, Joy Narang, Sahil Mehta	Mechanical
University of Southern California, USA, Viterbi India Programme	Vaibhav Gandhi	Electrical
Washington University, St Louis, Missouri, USA	Gaurav Mahamuni	Mechanical
	Monish Bhangale	Chemical
DOMESTIC INSTITUTIONS		
Asea Brown Boveri Ltd	B Shanmukha Manoj	Chemical
Ambuja Cements Ltd	Rishi Bubna	Chemical
A-Ray Systems Pvt Ltd	Devendra Meena	Mechanical
Aasaan Jobs	Ajay Devedwal, M Surya	Mechanical
Automation Teknix	Kimaya Uday Kale	Electrical
Bosch	Nandan Paresh Vora	Chemical
Bharat Sanchar Nigam Ltd	Himanshu Yadav	Electrical
Bhilai Steel Plant	Rocky Dongre	Mechanical
CD-adapco	T Sravan Kumar	Chemical
	Ronak Khandelwal, Sai Teja Pachipulusu	Mechanical
Delhi Control Devices Pvt Ltd	Deep Rahul	Electrical
Ecolibrium Energy Pvt Ltd	Preet Shah	Electrical

Host Institution	Student Name	Discipline
Educational Initiatives	Shah Sanket Viren	Mechanical
Fluidyn	Dhruv Pancholi	Chemical
General Electric Foundation	P V S Anurag	Mechanical
Hindustan Aeronautics Ltd	Rajat Shiv Chand	Mechanical
Hero MotoCorp Ltd	Rahul Harnotia	Mechanical
Indian Institute of Science Bangalore	Ayushi Patel, Reddy Dwarakanath	Chemical
	Pranshul Saini	Mechanical
Indian Institute of Technology Bombay	Piyush Mahajan, Animesh Singh Kumawat	Electrical
	Sanchayni Bagade	Chemical
	Patil Radhika Pramod, Tushar Anchan	Mechanical
Indian Institute of Technology Kanpur	Adappa Ashray Amarnath, Prashant Shekhar	Chemical
	Byrapuram Venkata Vijaya Bharath R	Electrical
	Muzammil Rawoot, Koushik Mani, Pardeep Phullay, Ritwik Shukla, Shashank Nigam	Mechanical
Indian Institute of Technology Madras	K Abhishek, Sunil Sahra	Chemical
Indian Oil Corporation Ltd	Sagar Chawla	Chemical
Ishi Information Systems India Pvt Ltd	Ashwin Dalvi	Electrical
Jyoti Ltd	Mihir Milind Bhalerao	Mechanical
Space Application Centre, ISRO	Naman Bansal, Mehta Yash Sanjay, Abhishek Ranjan, Prashant Kumar, Jatindeep Singh	Electrical
	Bhargav Chauhan	Mechanical
Kota Thermal Power Plant Station	Vishvendra Singh	Mechanical
Maruti Suzuki India Pvt Ltd	Aryan, Utkarsh Panchbhai, Utsav Mistry	Mechanical
Mather & Platt Pumps Ltd	Mihir Milind Bhalerao	Mechanical
Pravah	Lavdeep Kaur	Chemical
National Thermal Power Corporation Ltd	Sanjay Kumar Meena	Electrical
	Pradeep Kumar	Mechanical
Olam International Ltd	G N Lakshminarasimhan	Mechanical


IIT

Host Institution	Student Name	Discipline
Oil & Natural Gas Corporation Ltd	Vinod Rangi, Palak Sadani, Hema Choudhary, Sweta Parmar	Chemical
	Krishan Kumar Meena, Divyansh Tripathi	Mechanical
Rakshak Foundation	Raj Shekhar	Electrical
Reliance Industries Ltd	Abhishek Sancheti	Chemical
Ricoh Innovations Pvt Ltd	Pankaj Gautam, Shisode Sushil Kumar	Electrical
Sai Impex	Hydarali M T	Mechanical
Sandvik Asia Pvt Ltd	Dilip Kumar Badgurjar	Chemical
	Chetan Kumar Choudhary, Manoj Kumar	Electrical
Sarvajal	Anoop Pinjala	Chemical
Satluj Jal Vidyut Nigam Ltd	Deep Rahul	Electrical
Schneider Electric India Pvt Ltd	Rajat Chaudhary	Electrical
Semi-Conductor Lab, Department of Space, Government of India	Ankita Sharma	Mechanical
SM Auto Stamping Pvt Ltd	Saurabh Singhal	Mechanical
Tata Motors Ltd	Abhishek Singh, Kamanuru Vamsidhar Reddy	Electrical
	Hiralal	Mechanical
Tata Power Ltd	P Sandeep Reddy	Electrical
	Vivek Prakash	Mechanical
Texas Instruments	Mishita Jaiswal, Parth Gudhka, Heda Shashank Kamlesh	Electrical
Underwriters Laboratory India Pvt Ltd	Vaibhav Mathur	Electrical
	Sujit Dunga	Mechanical
UVSofts Technologies Pvt Ltd	Latika Meena	Electrical
Vehicle Factory Jabalpur	Nikita Patta	Mechanical
Wipro Ltd	Vinit Joshi	Electrical

CLASS OF 2014 GRADUATES EXPECTED TO PURSUE HIGHER STUDIES ABROAD/IN INDIA

Name	Institute	Programme	Discipline at IITGN
MTech			
Amita Bedar	Indian Institute of Technology Bombay	PhD	Chemical
Roshan Anandrao Chavan	Indian Institute of Technology Gandhinagar	PhD	Mechanical
Ritesh Jain	Bergische University, Wuppertal, Germany	MTech	Electrical
Laya	Indian Institute of Technology Gandhinagar	PhD	Electrical
Rohit Mishra	Indian Institute of Technology Gandhinagar	PhD	Materials Science & Engineering
Satyajit Mohapatra	Indian Institute of Technology Gandhinagar	PhD	Electrical
Rachit Prasad	Virginia Polytechnic Institute & State University, VA, USA	PhD	Mechanical
Shreejith R	Indian Institute of Technology Delhi	PhD	Electrical
BTech			
Aishwarya Agrawal	Virginia Polytechnic Institute & State University, VA, USA	PhD	Electrical
Pranav Bagaria	Texas A & M University, TX, USA	PhD	Chemical
Durgesh Bagri	Hindu College, University of Delhi, New Delhi, India	MA	Chemical
Akash Bapat	University of North Carolina, Chapel Hill, NC, USA	MS and PhD	Electrical
Bhaskarjyoti Das	National Institute of Design Ahmedabad	MDes	Chemical
Spandan J Das	Cornell University, NY, USA	M.Engg	Mechanical
Ritu Gavasane	Indian Institute of Management Calcutta	PGP	Mechanical
Yash Goyal	Virginia Polytechnic Institute & State University, VA, USA	PhD	Electrical
Akshay Jain	Texas A & M University, TX, USA	PhD	Chemical
Mayank Jhalaria	Cornell University, NY, USA	MS	Chemical
Ameya Joshi	Stanford University, CA, USA	MS	Electrical
Deep Karpe	University of Florida, FL, USA	MS	Mechanical
Saksham Kohli	Indian Institute of Management Lucknow	PGP	Mechanical
Nihar Kotak	Carnegie Mellon University, Pittsburgh, PA, USA	MS	Mechanical

Name	Institute	Programme	Discipline at IITGN
Sanket Mahajan	Indian Institute of Management Calcutta	PGP	Chemical
Snigdha Manogyna	Indian Institute of Management Bangalore	PGP	Electrical
Nakul Nuwal	Purdue University, IN, USA	MS	Mechanical
Kartik Saxena	University of California, CA, USA	MS	Electrical
Smit Shah	Texas A & M University, TX, USA	PhD	Chemical
Ankita Sharma	Indian Institute of Management Ahmedabad	PGP	Mechanical
Dhwanil Shukla	Georgia Institute of Technology, GA, USA	PhD	Mechanical
Smit Soni	University of California, CA, USA	MS	Electrical
Pamulapati Sushma Sri	Rice University, TX, USA	PhD	Chemical
Balaji Venkatesh	University of California, CA, USA	MS	Electrical

REACHING OUT

- **Prof Sudhir K Jain**, director, IITGN, was the keynote speaker at the 2013 New Zealand Society for Earthquake Engineering Conference held in Wellington, New Zealand during April 26-28, 2013. He delivered a talk on **Earthquake engineering in the modern world**. He also delivered public lectures on **Historical developments in India towards seismic safety and the road ahead** in Auckland, April 30, 2013.
- **Prof Jain** participated in the **UL Council meeting** in Chicago during May 6-8, 2013. He also met with Pan-IIT alumni in Chicago. Prof Jain delivered a talk **The IIT Gandhinagar story: innovations in forming a new IIT** to the Pan-IIT Alumni of the Greater Washington DC Region, May 13, 2013.
- **Prof Jain** gave a speech on **Top to bottom: the role of IITs in meeting India's societal needs** at the Indian Consulate General in New York, May 15, 2013.
- **Prof Jain** was part of an Indian delegation to Helsinki, Finland that aims to develop collaborations between Indian institutions and Finnish universities. He visited Aalto and Helsinki universities and met the leadership of government and universities, Sep 23-25, 2013. The delegation was coordinated by the MHRD.
- **Prof Jain**, **Prof G K Sharma** and **Prof Bhaskar Datta** participated in the Young Investigators Meet (YIM), Sep 27-29, 2013 in Cambridge, MA to recruit faculty. Later Prof Sharma and Prof Datta also visited Northeastern University and Boston University to explore student and faculty exchanges and collaborations.
- **Prof Jain**, and **Prof Achal Mehra**, dean, Strategic Planning and Special Initiatives visited Australia during Nov 6-13, 2013 to participate in the **Pravasi Bharatiya Divas**. They visited several Australian Universities, including, The University of Melbourne, RMIT University; Swinburne University of Technology; Victoria University; Monash University; DEAKIN University of Australia; University of Western Australia; and University of Canberra either singly or jointly. **Prof Jain** also attended UNISDR/GA Regional Workshop on **Structural Vulnerability Models for the GAR Global Risk Assessment**, Canberra, Australia, Nov 11, 2013.
- **Prof Jain**, and **Prof Achal Mehra** attended the **Pan-IIT Conference** in Houston during Dec 6-8, 2013. They also visited a number of universities during Dec 1-12, 2013 to promote student and faculty exchanges. The universities include University of South Florida, Tampa, Georgia Tech, Texas A&M University, Rice University, University of Texas, Austin, University of Connecticut, University of Houston.

SUPPORT FOR IIT GANDHINAGAR

IITGN has been continually building relationships with organizations and individuals both in India and abroad, to support its varied activities and help the institute grow and achieve its goals and thereby realize its potential. The major milestones passed in this direction in 2013-14 are as follows:

MAJOR UL GRANT FOR SAFETY INITIATIVES

IIT Gandhinagar has received a five-year grant from Underwriters Laboratories Inc (UL) to develop safety initiatives at the institute. The grant will support undergraduate and post-graduate research projects for students of IIT Gandhinagar. IITGN will also use the grant to set up a fire engineering laboratory and other safety research and education initiatives. **Underwriters Laboratories Inc (UL)**, USA is a not-for-profit product safety testing and certification organization. Under the five-year grant, IITGN will collaborate with UL on major safety initiatives.

RICOH COMPANY, LTD

Ricoh Company, Ltd, has given a major grant to IIT Gandhinagar for the establishment of a Centre for Design and Innovation at the Institute. The grant will be used by the Institute for curriculum development, student projects, organization of meetings and conferences and academic and industrial collaborations in the areas of design and innovation. Headquartered in Tokyo, Ricoh is a global technology company specializing in office imaging equipment, production print solutions, document management systems and IT services.

GMDC CHAIR

Gujarat Mineral Development Corporation Ltd (GMDC), a 50-year-old company with primary interests in minerals, lignite and energy has set up a GMDC Chair at IITGN in the areas of materials, minerals, metallurgical engineering and earth sciences. The GMDC Chair will enable the institute to provide additional financial support to outstanding faculty and students.

NIELSEN GRANT FOR INTERNATIONALIZATION

The Nielsen company has entered into an agreement to support the internationalization programme at IITGN. Nielsen Holdings N V (NYSE: NLSN) is a global information and measurement company with leading market positions in marketing and consumer information, television and other media measurement, online intelligence, mobile measurement, trade shows and related properties. Nielsen has a presence in approximately 100 countries, with headquarters in New York, USA and Diemen, the Netherlands.

SUPPORT BY MR AVI NASH

Mr Avi Nash has made a significant contribution to IITGN to support fellowships for faculty and for other innovative student and academic initiatives. Mr Nash is a former partner of Goldman Sachs, where he headed the Global Chemical Industry Group. He has advised many of the world's leading chemical companies on strategy, acquisitions and corporate finance. He is a Director of Sigma-Aldrich Corporation and serves as a Trustee of several educational and charitable organizations. He earned an MBA from Northwestern University, an MS from Syracuse University and a BTech from IIT Bombay.

SWABHANU CHALLENGE GRANTS TO ENCOURAGE EXCELLENCE IN UG RESEARCH

Prof A V Anilkumar of Vanderbilt University has set up **Swabhanu Challenge Grants** to encourage excellence in undergraduate research. The grant has been named in memory of his maternal uncle **Shri Nanjangud Gangadariah Viswanath**, who was trained as a lawyer and later became a successful entrepreneur. Students awarded the Swabhanu Grants will receive a certificate and funds that will support their travel to participate in international conferences.

DONORS LIST

Name	Category	City
More than Rs 5,00,000		
Anonymous	Well-wisher	USA
Apple Computers	Well-wisher	San Jose, CA
Indira Foundation	Well-wisher	Greenwich, USA
Atul Jain	Well-wisher	Vienna, VA
Rs 1,00,000 - Rs 4,99,999		
Sudhir K Jain	Faculty	Ahmedabad
Amrutur V Anilkumar	Well-wisher	Tennessee, USA
Durga Bearings (Mumbai) Pvt Ltd	Well-wisher	Mumbai
Mugdha Mukund Divekar	Well-wisher	Vadodara
Rs 25,000 - Rs 99,999		
Prerit Terway	Alum	Ann Arbor, USA
Ramesh Gaonkar	Faculty	New York, USA
Amey Karnik	Faculty	Mumbai
Achal Mehra	Faculty	Ahmedabad
D V Pai	Faculty	Ahmedabad
Kishor Trivedi	Faculty	Ahmedabad
Deepak Bhagat	Well-wisher	Fremont, CA
Shankar Jyoti Deb	Well-wisher	Kolkata
Neotia Foundation	Well-wisher	Kolkata
Sant Gupta	Well-wisher	Lorton, USA
Ashok Jhunjhunwala	Well-wisher	Chennai
Rs 5,000 - Rs 24,999		
Tanmay Hiralal Balwa	Alum	Bhuj
Vineeth Dasaraju	Alum	Vijayawada
Yogesh Goyal	Alum	Princeton, NJ, USA
Pratyul Kapoor	Alum	Jaipur
Pankaj Kumar Yadav	Alum	Rewari
Andrea Babbio	Faculty	Ahmedabad
Atul Bhargav	Faculty	Ahmedabad
Arup Lal Chakraborty	Faculty	Ahmedabad
Kalowatie Deonandan	Faculty	Saskatoon, Canada
Indrajit Ghosh	Faculty	Ahmedabad

Name	Category	City
Rajen Jaswa	Faculty	Saratoga, CA
S P Mehrotra	Faculty	Ahmedabad
S L Narayanmurthy	Faculty	Bangalore
Arnapurna Rath	Faculty	Ahmedabad
Srinivas G Reddy	Faculty	Ahmedabad
Sudhanshu Sharma	Faculty	Ahmedabad
Meera Mary Sunny	Faculty	Ahmedabad
Nitish Thakor	Faculty	Clarks Ville, USA
U A Yajnik	Faculty	Ahmedabad
Meena Joshi	Staff	Ahmedabad
Pijush Majumdar	Staff	Ahmedabad
Anil Agarwal	Well-wisher	Glassboro, NJ, USA
Timothy Huff	Well-wisher	Nashville, TN
Vijay Madisetti	Well-wisher	Alpharetta, USA
Rachelle Kucera Mehra	Well-wisher	Torrington, CT, USA
Kamal Nanavaty	Well-wisher	Mumbai
Gaurav Sant	Well-wisher	Los Angeles, USA
Partha P Sarkar	Well-wisher	Ames, IA
Balkrishna B Soneji	Well-wisher	Ahmedabad
Sandeep Kumar Verma	Well-wisher	Indore
Principal Secretary Department of Education GOG	Well-wisher	Gandhinagar
Institute of Industrial Sciences	Well-wisher	Allahabad, UP

Upto 4,999

Ravi Agarwal	Alum	Banswara
Harikrishnan C B	Alum	Thrissur
Narendranath Balasubramoni	Alum	Vasai
Divya Bansal	Alum	Kota
Nidal Raj Bhuria	Alum	Jammu
Shubham Chauhan	Alum	Ujjain
Anil Kumar Chejara	Alum	Srimadhopur
Dhruv Chokshi	Alum	Mumbai
Rohit Chouksey	Alum	Vidisha
Bobbur Abhilash Chowdary	Alum	Hyderabad
Naveen Deepak	Alum	Karimnagar
Himanshu Dewangan	Alum	Bharuch

Name	Category	City
Chetan Dhande	Alum	Pune
Aditi Dighe	Alum	Indore
Gourav Dubey	Alum	Indore
Neerav Gadhvi	Alum	Junagadh
Siddharth Gora	Alum	Sikar
Adit Gupta	Alum	Mumbai
Prakash Gupta	Alum	Mirzapur
Deepak Jadhav	Alum	Beed
Pritish Jain	Alum	Tonk
Rajat Jain	Alum	Ganagapur
Sarthak Ashok Jain	Alum	Mumbai
Rahul Jeshnani	Alum	Ulhashnagar
Chetas Joshi	Alum	Surat
Kaustubh Kapure	Alum	Aurangabad
Shalinee Kavadiya	Alum	Kushalgrah
Shyamal Kishore	Alum	Vishkhapatanam
Susmitha Purnima Kotu	Alum	Hyderabad
Deep Dinesh Kumar	Alum	Mathura
Ravi Kumar	Alum	New Delhi
Subhash Kunche	Alum	Palakol
Mohit Malu	Alum	Nizamadab
Piyush Meshram	Alum	Nagpur
Satyajit Mukherjee	Alum	Mankundu
Akshay Navalakha	Alum	Pune
Shashank Pandey	Alum	Jaipur
Puneeth Bhat Paniyadi	Alum	Mumbai
Kislay Pankaj	Alum	Birpur
Jainil Parekh	Alum	Mumbai
Arth M Patel	Alum	Ahmedabad
Mohak Patel	Alum	Mehsana
Prashant Patel	Alum	Barwani
Sunil Patidar	Alum	Indore
Vrushiket Patil	Alum	Kolhapur
Vivek Popat	Alum	Rajkot
Rudra Prasad	Alum	Tirupati
Ekta Prashnani	Alum	Jabalpur
M Chaithanya Rajeev	Alum	Hyderabad

Name	Category	City
Shivani Rani	Alum	Garhmikteshwar
Ved Prakash Sahu	Alum	Kota
U Revanth Sandeep	Alum	Repalle
Pritesh Sankhe	Alum	Mumbai
Parth M Shah	Alum	Bhiwandi
Pratham Shah	Alum	Mumbai
Yash Shah	Alum	Ahmedabad
Mani Shankar Shahi	Alum	Patna
Cheruvu Siddartha	Alum	Tirupati
Amit Singh	Alum	Mathura
Nagender Singh	Alum	Meerut
Tarkeshwar Singh	Alum	Kolkata
Saurya Prakash Sinha	Alum	New Delhi
Suraj Sonker	Alum	Mirzapur
Sushant Kumar Suman	Alum	Purnea
Yalla Sushmitha	Alum	Visakhapatnam
Hima Teja	Alum	Hyderabad
S R G Krishna Teja	Alum	Kakinada
Shreyas Vaidya	Alum	Indore
Mohit Verma	Alum	Indore
Tarun Verma	Alum	Bharuch
Monica Yadav	Alum	Lucknow
Satyendra	Alum	Kota
Nithin V George	Faculty	Ahmedabad
Sriram K Gundimeda	Faculty	Ahmedabad
Nihar Ranjan Mohapatra	Faculty	Ahmedabad
Emila Panda	Faculty	Ahmedabad
Ram Babu Bhagat	Staff	Ahmedabad
Memo Gupta	Staff	Ahmedabad
Jay Mehta	Staff	Ahmedabad
Sanjeev Pandey	Staff	Ahmedabad
Santosh Raut	Staff	Ahmedabad
Shashin A Raval	Staff	Ahmedabad
Komal Vadhvani	Staff	Ahmedabad
Aruna T	Staff	Ahmedabad
Pallavi Chilka	Student	Ahmedabad
Manish Kumar	Student	Ahmedabad

ORGANIZATION

BOARD OF GOVERNORS

CHAIRMAN

Dr Baldev Raj
President
Indian National Academy of Engineering &
Director
National Institute of Advance Studies
Indian Institute of Science Campus
Bangalore - 560 012

MEMBERS

Prof S P Sukhatme
former Director, IIT Bombay and
former Chairman, Atomic Energy Regulatory Board
Mumbai - 400 076

Prof Surendra Prasad
former Director, IIT Delhi
Indian Institute of Technology Delhi
New Delhi - 110 016

Prof Deepak B Phatak
Subrao M Nilekani Chair Professor
Kanwal Rekhi School of Information Technology
Indian Institute of Technology Bombay
Mumbai - 400 076

Mr Kamal Nanavaty
President, Strategy Development
M/s Reliance Industries Limited
Mumbai - 400 021

Dr Varesh Sinha
Chief Secretary
Government of Gujarat
Gandhinagar - 382 010

Mr Umesh Kumar Tyagi
Director, Technical Education
U T Administration of Daman & Diu
Secretariat
Moti Daman - 396 220

Prof N Ramakrishnan
Visiting Professor
Indian Institute of Technology Gandhinagar
Ahmedabad - 382 424

Prof G K Sharma
Professor-in-Charge, Faculty Affairs
Indian Institute of Technology Gandhinagar
Ahmedabad - 382 424

Prof Sudhir K Jain
Director
Indian Institute of Technology Gandhinagar
Ahmedabad - 382 424

SECRETARY

Mr P K Chopra
Registrar
Indian Institute of Technology Gandhinagar
Ahmedabad - 382 424

ALL LISTINGS AS ON MARCH 31, 2014

FINANCE COMMITTEE

CHAIRMAN
Dr Baldev Raj
President President
Indian National Academy of Engineering &
Director
National Institute of Advance Studies
Indian Institute of Science Campus
Bangalore - 560 012

MEMBERS
Prof Sudhir K Jain
Director
Indian Institute of Technology Gandhinagar
Ahmedabad - 382 424

Prof S C Sahasrabudhe
Director
Dhirubhai Ambani Institute of Information and
Communication Technology
Gandhinagar - 382 007

Prof Ashwini Kumar
Professor-in-Charge, Planning & Resources
Indian Institute of Technology Gandhinagar
Ahmedabad - 382 424

Mr Ashok Thakur
Secretary
Ministry of Human Resource Development
Government of India
New Delhi - 110 003

Mr Yogendra Tripathi
Financial Advisor, TE
Ministry of Human Resource Development
New Delhi - 110 003

SECRETARY
Mr P K Chopra
Registrar
Indian Institute of Technology Gandhinagar
Ahmedabad - 382 424

BUILDING AND WORKS COMMITTEE

CHAIRMAN
Prof Sudhir K Jain
Director
Indian Institute of Technology Gandhinagar
Ahmedabad - 382 424

MEMBERS
Mr K S Wagh
Chief Advisor (Civil Infrastructure)
Indian Institute of Technology Bombay
Powai, Mumbai - 400 076

Mr L P Srivastava
Advisor (Works)
Indian Institute of Technology Gandhinagar
Ahmedabad - 382 424

Mr A K Jain
Special Director General (retd)
Central Public Works Department
New Delhi - 110 003

Mr Prabhat Kumar
Chairman-cum-Managing Director
Bharatiya Nabhikiya Vidyut Nigam Limited
Kalpakkam, Kancheepuram
Tamil Nadu

Prof N Chhaya
Former Dean, Faculty of Architecture
CEPT University
Ahmedabad - 380 009

Prof Ashwini Kumar
Professor-in-Charge, Planning & Resources
Indian Institute of Technology Gandhinagar
Ahmedabad -382 424

SECRETARY
Mr P K Chopra
Registrar
Indian Institute of Technology Gandhinagar
Ahmedabad - 382 424

SENATE

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

MEMBERS
Prof Atul Bhargav
Prof Andrea Bobbio
Prof Svetlana Bzrev
Prof Arup Lal Chakraborty
Prof Sameer Dalvi
Prof Murali Damodaran
Prof Prakesh Dandekar
Prof Bhaskar Datta
Prof Pratyush Dayal
Prof Emmanuel Deriat
Prof Ramesh Gaonkar
Prof Nithin V George
Prof C Gopalakrishnan
Prof Mohan Joshi
Prof Rita Kothari
Prof Ashwini Kumar
Dr T S Kumbar
Prof Harish P M
Prof S S Major
Prof Jaison Manjaly
Prof Achal Mehra
Prof S P Mehrotra
Prof Abhijit Mishra
Prof Jyoti Mukhopadhyay
Prof K V V Murthy
Prof Vinod Narayanan
Prof D V Pai
Prof Amit Prashant
Prof N Ramakrishnan
Prof Srinivas Reddy
Prof D P Roy
Prof Ajanta Sachan
Prof Utpal Sarkar
Prof Anand Sengupta
Prof R Sharan
Prof G K Sharma
Prof Rajagopalan Srinivasan
Prof Kishore S Trivedi
Prof Jagmohan Tyagi
Prof Pradyumna Vyas
Prof Siddharth Wakankar

SECRETARY
Mr P K Chopra
Registrar

STUDENT INVITEES
Mr Yash Kotak
Mr Vibhav Katre
Mr Abhishek Upadhyay

STANDING COMMITTEES OF THE SENATE

SENATE ACADEMIC PERFORMANCE EVALUATION COMMITTEE (SAPEC)
Prof D V Pai, Convenor
Prof Amit Prashant, Dean, Academic Affairs
Prof Bireswar Das
Prof Anulekha Dhara
Prof Naran Pindoriya
Prof Shanmuganathan Raman

SENATE ACADEMIC PROGRAMMES COMMITTEE (SAPC)
Prof Amit Prashant, Dean (Academic Affairs), Chairman
Prof Arup Lal Chakraborty
Prof Sameer Dalvi
Prof Bhaskar Datta
Prof Rita Kothari
Prof Jaison Manjaly
Prof Abhijit Mishra
Prof Vinod Narayanan
Prof Ajanta Sachan
Prof Jagmohan Tyagi
Mr Pranav Bagaria
Mr Rohith Varier

SENATE SCHOLARSHIPS AND PRIZES COMMITTEE (SSPC)
Prof Jaison A Manjaly, Dean (Student Affairs), Chairman
Prof Amit Arora
Prof Kabeer Jasuja
Prof Sharmita Lahiri
Prof Sudhanshu Sharma

SENATE STUDENT AFFAIRS COMMITTEE (SSAC)
Prof Jaison A Manjaly, Dean (Student Affairs), Chairman
Prof Atul Bhargav
Prof Nithin George
Prof Srinivas Reddy
Prof Tannistha Samanta
Prof Anand Sengupta
Mr Monish Bhangale
Mr Arun Nair

SENATE LIBRARY COMMITTEE
Prof R Sharan, Chairman
Prof Sharad Gupta
Dr T S Kumbar
Prof Babji Srinivasan
Prof Gaurav Srivastava
Prof Meera M Sunny
Mr Yogesh Fulpagare
Mr Pratyush Shastri

ACADEMIC OFFICIALS

Prof Atul Bhargav
Associate Dean, Students Affairs

Prof Ravikumar Bhaskaran
Honorary Advisor, External Affairs

Mr P K Chopra
Registrar

Prof Anirban Dasgupta
Warden, New Boy's Hostel

Prof Bhaskar Datta
Associate Dean, Academic Affairs

Prof Sudhir K Jain
Director

Prof Kabeer Jasuja
Head, Counseling Service

Prof Ashwini Kumar
Professor-in-Charge, Planning and Resources

Dr T S Kumbar
Librarian

Prof Uttama Lahiri
Warden, Girl's Hostel

Prof S S Major
Convener, IITGN Cell, IIT Bombay

Prof Jaison A Manjaly
Dean, Student Affairs

Prof Achal Mehra
Dean, Strategic Planning and Special Initiatives

Prof S P Mehrotra
Professor-in-Charge, External Relations

Prof Nitin U Padhiyar
Faculty Advisor, Sports

Prof D V Pai
Professor-in-Charge, Sciences & HSS Disciplines

Prof Naran M Pindoriya
Chairman, Student Placement Committee

Prof Amit Prashant
Dean, Academic Affairs

Prof D P Roy
Professor-in-Charge, Engineering Disciplines

Prof G K Sharma
Professor-in-Charge, Faculty Affairs

Prof Sudhanshu Sharma
Warden, Ashok Vihar Hostel

STUDENT LEADERSHIP

The following students were declared elected as office bearers for the academic year 2014-15:

General Secretary	: Akash Keshav Singh
Technical Secretary	: Chitranshu Kumar
Sports Secretary	: Krishan Kumar Meena
Academic Secretary	: Harsh Gupta
Cultural Secretary	: Mudit Rathor

ALL LISTINGS AS ON MARCH 31, 2014

FACULTY (2013-14)

Discipline	Designation	PhD/Last Degree	Specialization
Biological Engineering			
Sharad Gupta	Assistant Professor	University of Pittsburgh, 2009	Protein misfolding in Alzheimer's and Huntington's diseases
Sharmistha Majumdar	Assistant Professor	Cornell University, 2006	Genomic and proteomic analysis
Pratik Mutha	Assistant Professor (jointly with Electrical Engineering)	Pennsylvania State University, 2009	Sensorimotor Control and Learning
Vijay Thiruvenkatam	Assistant Research Professor (jointly with Physics)	Jiwaji University, 2009	Small molecules X-ray crystallography
Chemical Engineering			
Raj P Chhabra*	Visiting Professor	Monash University, 1980	Multiphase (gas/liquid) flow in pipes and in packed beds
Sameer V Dalvi	Assistant Professor	IIT Bombay, 2007	Supercritical fluid processing
Pratyush Dayal	Assistant Professor	University of Akron, 2007	Self-oscillating polymer gels
Subhash Deodhar*	Visiting Professor	Syracuse University, 1975	Water usage in chemical processing
Mukund H Divekar*	Adjunct Professor	IIT Bombay, 1977	Heat transfer, fluid flow, process control and design
Chinmay Ghoroi	Assistant Professor	IIT Bombay, 2007	Particle engineering and powder processing
Kabeer Jasuja	Assistant Professor	Kansas State University, 2011	Synthesis of two-dimensional nanomaterials
Nitin Padhiyar	Assistant Professor	IIT Bombay, 2008	Process optimization and control
Prakash K Paranjape*	Visiting Professor	IIT Bombay, 1990	Process control
Arnab Sarkar	Visiting Professor	Catholic University of America, 1973	Optical fiber fabrication processes
Babji Srinivasan	Assistant Professor	Texas Tech University, 2011	Control loop performance monitoring

Discipline	Designation	PhD/Last Degree	Specialization
Rajagopalan Srinivasan	Professor	Purdue University, West Lafayette, 1998	Computational Systems Biology
Prachi Thareja	Assistant Professor	University of Pittsburgh, 2008	In-situ rheology of crystallizing fatty acid pastes
Chemistry			
Chandrakumar Appayee	Assistant Professor	Indian Institute of Science, 2008	Asymmetric Catalysis
Bhaskar Datta	Assistant Professor	Carnegie Mellon University, 2004	Nucleic acid based chemical biology
Sriram Kanvah G	Assistant Professor	IIT Bombay, 2001	Bio-organic chemistry
Iti Gupta	Assistant Professor	IIT Bombay, 2005	Macrocyclic receptors & expanded porphyrinoids
Sivapriya Kirubakaran	Assistant Professor	IISc Bangalore, 2007	Medicinal chemistry and drug discovery
Sairam Swaroop Mallajosyula	Assistant Professor	Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore, 2009	Carbohydrate-Protein Interactions
Sudhanshu Sharma	Assistant Professor	IISc Bangalore, 2009	Materials, electrochemistry
Civil Engineering			
Dhiman Basu	Assistant Professor	University at Buffalo, 2012	Rotational seismology, complex structures
Svetlana Brzev	Visiting Professor	IIT Roorkee, 1994	Earthquake risk mitigation in developing countries
Gaurav	Assistant Professor	University of Minnesota, 2011	Uncertainty quantification
Indrajit Ghosh	Adjunct Professor	University of Surrey, UK, 1967 (MSc)	Analytical solution of plate with various loading and boundary conditions
Sudhir K Jain	Director, Professor	Caltech, 1983	Earthquake engineering, structural dynamics
Ashwini Kumar	Visiting Professor	University of Waterloo, 1974	Stability and large deformation of structures

*FOR PART OF THE YEAR

ALL LISTINGS AS ON MARCH 31, 2014

Discipline	Designation	PhD/Last Degree	Specialization
Pradeep Maheshwari*	Assistant Research Professor	University of New South Wales, Sydney (ABD)	Kinetics of P-removal by Fe (II) in various systeMs.
Vimal Mishra	Assistant Professor	Purdue University, 2010	Surface water hydrology
Pranab Kumar Mohapatra	Associate Professor	IIT Kanpur, 1999	Hydraulics and Water Resources Engineering
Abhijit Mukherjee*	Professor	IIT Kharagpur, 1988	Sustainable materials, health monitoring
Amit Prashant	Associate Professor	University of Tennessee, 2004	Constitutive modeling for granular materials
Satwant S Rihal	Visiting Professor	University of New Mexico, Albuquerque, 1969	Innovative, interdisciplinary & integrated structural engineering design
Ajanta Sachan	Assistant Professor	University of Tennessee, 2005	Material characterization
Computer Science and Engineering			
Andrea Bobbio	Visiting Professor	Politecnico of Torino, 1969	Reliability Engineering
Bireswar Das	Assistant Professor	Institute of Mathematical Sciences, Chennai, 2010	Computational complexity theory and algorithms
Anirban Dasgupta	Associate Professor	Cornell University, 2005	Algorithms for large scale data
Vinod Stokes*	Visiting Professor(jointly with Humanities & Social Sciences)	University of Michigan, Ann Arbor, 1988	Stability of self-perpetuating systems.
Kishor S Trivedi	Visiting Professor	University of Illinois, Urbana, 1974	Fault-tolerant and dependable computing
Design			
Bhaskar Bhatt	Assistant Professor	National Institute of Design, 2003	Industrial Design & New Product Engineering
Dinesh Korjan	Adjunct Faculty	National Institute of Design, Ahmedabad, 1983	Systemic Design Intervention in complex, real world problems

Discipline	Designation	PhD/Last Degree	Specialization
Earth Sciences			
Vikrant Jain	Associate Professor	IIT Kanpur, 2001	Earth Surface Processes
Electrical Engineering			
Arup Lal Chakraborty	Assistant Professor	University of Strathclyde, 2010	Tunable diode laser spectroscopy for gas parameter measurement
Prakash Dandekar	Visiting Professor	IIT Bombay, 1975	Embedded design & product development in industrial automation
Ramesh Gaonkar	Visiting Professor	Syracuse University, 1975	Inter-disciplinary curriculum design and evaluation
Nithin V George	Assistant Professor	IIT Bhubaneswar, 2012	Active noise control, adaptive signal processing
Kaliappan Gopalan*	Visiting Professor	The University of Akron, 1983	Speech analysis, Digital systems
Rajen Jaswa*	Visiting Professor	Stetson University	Entrepreneurship skill development
Ragavan K	Assistant Professor	IISc Bangalore, 2006	Transformer diagnostics
Uttama Lahiri	Assistant Professor	Vanderbilt University, 2011	Virtual reality based human computer interaction
Joycee M Mekie	Assistant Professor	IIT Bombay, 2009	VLSI design
Nihar Ranjan Mohapatra	Assistant Professor	IIT Bombay, 2003	Semiconductor devices and technology
K V V Murthy	Visiting Professor	IIT Bombay, 1977	Electrical network theory
Naran M Pindoriya	Assistant Professor	IIT Kanpur, 2009	Restructuring power systems.- technical and economical issues
S Rajendran	Associate Teaching Professor	MTech, IIT Madras, 1988	High speed packaging machines- VFFS and HFFS technologies

*FOR PART OF THE YEAR

ALL LISTINGS AS ON MARCH 31, 2014

Discipline	Designation	PhD/Last Degree	Specialization
Shanmuganathan Raman	Assistant Professor	IIT Bombay, 2011	Computational Photography
R Sharan	Visiting Professor	University of Waterloo, Canada, 1968	Technological progress and human values
Humanities			
Robin Anav*	French Instructor	Bachelor of Language Sciences, University of Besançon, 2011	Communication ethnography
Frederick Coolidge*	Visiting Professor	University of Florida, 1975	Behavior Genetics
Bruno Gaminha	Assistant Research Professor	Lisbon University Institute, 2012	Complex Adaptive Systems
Rita Kothari	Associate Professor	Gujarat University, 2000	Hinglish, cultural history of Sindh & Gujarat
Sharmita Lahiri	Assistant Professor	University of Houston, 2008	Postcolonial literature and composition
Jaison A Manjaly	Assistant Professor	IIT Kharagpur, 2008	Experience, consciousness, rationality
Achal Mehra	Professor	Southern Illinois University, Carbondale, 1985	Online media, media management.
Krishna Prasad Miyapuram	Assistant Professor	University of Cambridge, UK, 2008	Brain imaging (fMRI) & cognitive science
Manuel Ramos*	Visiting Professor	ISCTE-IUL, 2000	Symbolic Anthropology
Arnapurna Rath	Assistant Professor	IIT Bombay, 2010	Indian fiction, Bakhtin studies, postcolonial theories
Srinivas Reddy	Assistant Professor	University of California, Berkeley, 2011	Sanskrit, Tamil and Telugu literary traditions
Siddharth Wakankar	Visiting Professor	M S University of Baroda, 1995	Games in Sanskrit Literature and Manuscriptology
Materials Science and Engineering			
Amit Arora	Assistant Professor	The Pennsylvania State University, 2011	Friction stir welding, heat transfer and visco-plastic flow
S P Mehrotra	Visiting Professor	IIT Kanpur, 1973	Mineral processing and process metallurgy

Discipline	Designation	PhD/Last Degree	Specialization
Abhijit Mishra	Assistant Professor	University of Illinois, Urbana-Champaign, 2010	X-Ray diffraction, membrane properties
Superb Misra	Assistant Professor	Imperial College London, UK , 2007	Biomaterials and Tissue Engineering
Jyoti Mukhopadhyay	Visiting Professor	IIT Bombay, 1982	Structure – property correlation
Emila Panda	Assistant Professor	Max Planck Institute, Germany, 2009	Investigations of thin films and nanostructured materials
Mathematics			
Anulekha Dhara	Assistant Professor	IIT Delhi, 2010	Nonsmooth Optimization
Mohan Joshi	Visiting Professor	Purdue University, USA, 1973	Nonlinear Analysis
Surjeet Kour	Assistant Professor	IIT Kanpur, 2013	Simple Derivations
N Kishore Kumar*	Assistant Professor	IIT Kanpur, 2006	Nonconforming spectral element methods, tensor decompositions
N R Ladhawala	Adjunct Professor	Purdue University, 1976	Harmonic analysis
D V Pai	Visiting Professor	IIT Bombay, 1972	Functional analysis, Approximation Theory
Jagmohan Tyagi	Assistant Professor	IIT Kanpur, 2008	Ordinary differential equations, elliptic partial differential equations
Mechanical Engineering			
B D Agarwal	Visiting Professor	Illinois Institute of Technology, 1972	Composite materials, stress analysis
Atul Bhargav	Assistant Professor	University of Maryland, College Park, 2010	Fuel cell systems. design and simulation
M Damodaran	Professor	Cornell University, 1987	Aerodynamics, flight mechanics and aeroelasticity
Emmanuel Deriat*	Visiting Professor	University Paris 6, 1999	Viscous flows
Raghu Echempati*	Visiting Professor	IIT Kharagpur, 1976	Design of machine elements and mechanical assemblies
Vedanth Kadambi*	Visiting Professor	Princeton University, 1961	Energy conversion

*FOR PART OF THE YEAR

ALL LISTINGS AS ON MARCH 31, 2014

Discipline	Designation	PhD/Last Degree	Specialization
Amey Karnik*	Assistant Professor	University of Michigan, 2007	Modeling and control of energy systems.
Shankarjee Krishnamoorthi	Assistant Professor	University of California, Los Angeles, 2013	Computational structural and solid mechanics
Vinod Narayanan	Assistant Professor	JNCASR, 2006	Fluid mechanics
Harish Palanthandalam-Madapusi	Assistant Professor	University of Michigan, Ann Arbor, 2007	Systems and control theory, system identification (data-based modeling)
N Ramakrishnan	Visiting Professor	IIT Bombay, 1980	Manufacturing, automation & composite materials
D P Roy	Visiting Professor	Tech University Aachen, 1976	Fluid dynamics and fluid machinery
G K Sharma	Visiting Professor	Moscow Power Engineering Institute, 1974	Thermal engineering
Physics			
Shivakumar Jolad	Assistant Professor	The Pennsylvania State University, 2010	Networks - complex systems, information theory
Barun Majumder	Assistant Professor	University of Calcutta, 2008 (ABD)	Quantum cosmology
Sudipta Sarkar*	Assistant Professor	University of Pune, IUCAA, 2009	Field theory in curved space-time: Hawking effect, aspects of black hole entropy
Anand Sengupta	Assistant Professor	IUCAA Pune, 2005	Detection of gravitational waves, aspects of CMB data analysis
Vijay Thiruvenkatam	Assistant Research Professor (jointly with Biological Engineering)	Jiwaji University, 2009	Small molecules X-ray crystallography
Social Sciences			
Amy S Desantis	Visiting Assistant Professor	Northwestern University, IL, 2009	Racial/ethnic and socioeconomic health disparities
Mona G Mehta	Assistant Professor	University of Chicago, 2010	Democracy, ethnic conflict, civil society, nationalism

Discipline	Designation	PhD/Last Degree	Specialization
Rosa Maria Perez	Visiting Professor	ISCTE, Lisbon, 1992	Social structures, social segregation
Tannistha Samanta	Assistant Professor	University of Maryland, 2011	Social demography, aging in developing countries
Vinod Stokes*	Visiting Professor (jointly with Computer Science & Engineering)	University of Michigan, Ann Arbor, 1988	Stability of self-perpetuating systems
Malavika Subraman-yam	Assistant Professor	D Sc, Harvard University, 2009	Socioeconomic context on nutrition and diabetes
Gaurav Sukhija	Research Associate	University of Illinois, 2011	Microeconomics
Meera M Sunny	Assistant Professor	University of Warwick, 2011	Visual attention, attention capture

*FOR PART OF THE YEAR

ALL LISTINGS AS ON MARCH 31, 2014

DISTINGUISHED HONORARY PROFESSORS

Name	Affiliation
Prof J B Joshi	DAE Homi Bhabha Distinguished Chair Professor
Prof Harinarayana Kota	Dr D S Kothari DRDO Chair at ADA,Bangalore
Prof Surendra Prasad	Former Director, IIT Delhi
Prof V Rajaraman	Former Chairman, Supercomputer Education and Research Centre, Indian Institute of Science, Bangalore
Prof V S Raju	Former Director, IIT Delhi
Prof S P Sukhatme	Professor Emeritus, Mechanical Engineering, IIT Bombay
Prof Nitish Thakor	Professor, Biomedical Engineering, Johns Hopkins School of Medicine

GUEST PROFESSORS

Name	Affiliation
Dr A V Anilkumar	Professor, Vanderbilt School of Engineering
Dr Nikhil Balram	President and CEO of Ricoh Innovations Inc, USA
Dr R S Bisht	Joint Director General (retd), Archaeological Survey of India
Prof Bijoy Boruah	Humanities & Social Sciences, IIT Delhi
Dr K Chelvakumar	President, EPIR Technologies, Inc., Bolingbrook, IL
Prof R P Chhabra	Fellow of the Indian National Science Academy, the Indian Academy of Sciences, Bangalore, the National Academy of Sciences, India and the Indian National Academy of Engineering
Mr Michel Danino	Independent Scholar of Indian Civilization
Dr Pravinray Gandhi	Director, Corporate Research, Underwriters Laboratories Inc
Prof Dipan K Ghosh	Provost (Vice-Chancellor), Navrachana University, Vadodara
Prof Suchitra Mathur	Associate Professor, Humanities and Social Sciences, IIT Kanpur
Prof Ashok Mittal	Formerly with IIT Kanpur and Kellogg School of Management, Northwestern University, USA
Prof S L Narayanamurthy	Formerly Dean, Academic Affairs, IITGN
Dr Sandeep Pandey	Social activist, Lucknow and Co-founder, Asha for Education
Prof A Ramanathan	Professor (Economics), IIT Bombay
Prof Mythily Ramaswamy	Professor, TIFR Centre for Applicable Mathematics, Bangalore

Prof Dheeraj Sanghi	Dean, Academic Affairs, IIT Kanpur
Dr Shiladitya Sengupta	Assistant Professor, Medicine & Health Sciences & Technology, Harvard Medical School Brigham & Women's Hospital
Dr Koshy Tharakan	Associate Professor, Goa University

DISTINGUISHED SCHOLARS-IN-RESIDENCE

Name	**Affiliation**
Dr Rajmohan Gandhi	Research Professor, Center for South Asian & Middle Eastern Studies, University of Illinois at Urbana-Champaign
Dr M Ramamoorty	Former Director General, Central Power Research Institute, Ministry of Power, Government of India

SCHOLARS-IN-RESIDENCE

Name	**Affiliation**
Prof Bijoy Boruah	Professor, Humanities, IIT Delhi
Prof Brian Brophy	Director, Theater Arts Program, California Institute of Technology (Caltech)
Prof Suresh Chandra	Professor Emeritus, College of Engineering, North Carolina A&T State University
Prof Lina Fuzzetti	Professor of Anthropology, Brown University, USA
Prof Jorge Louca	ISCTE-IUL Lisbon University Institute
Prof Ranadhir Mitra	Education, Communication and Public Policy Consultant
Prof Akos Ostor	Emeritus Professor, Anthropology and Film Studies, Wesleyan University
Prof Raj Srinivasan	Associate Professor, University of Saskatchewan, Canada

ALL LISTINGS AS ON MARCH 31, 2014

NON-TEACHING STAFF AGAINST REGULAR POSITIONS

Employee Name	Designation
M Armugam	Junior Laboratory Attendant
Suganya Arumugam	Junior Technical Superintendent
Viral J Asjola	Senior Library Information Assistant
Ramasimha B	Junior Laboratory Assistant
Babloo	Junior Laboratory Attendant
Palak R Bagiya	Junior Laboratory Assistant
Timirben M Darji	Junior Assistant
Manu Pratap Singh Bhadauria	Physical Training Instructor
Ram Babu Bhagat	Assistant Registrar
Rahulendra Bhaskar	Junior Technical Superintendent
Tushar Harshadkumar Brahmbhatt	Junior Laboratory Attendant
K C Chandrajith	Junior Superintendent
Pannaben P Chaudhari	Senior Library Information Assistant
G C Chaudhary	Superintending Engineer
Mayur Natvarbhai Chauhan	Junior Laboratory Attendant
Krupeshkumar P Chauhan	Junior Accountant
Yashvant Kumar Chauhan	Assistant Engineer
Prem Kumar Chopra	Registrar
Rohitkumar B Chaudhary	Junior Technical Superintendent
Tapas Kumar Das	Senior Library Information Assistant
Sonali S Dawada	Junior Assistant
Dinesh Babarbhai Desai	Junior Laboratory Attendant
Supin Gopi	Junior Technical Superintendent
Jagannadham Naidu Gunoor	Junior Technical Superintendent
Laxmi P Hirani	Junior Laboratory Assistant
Yogesh Dattatraya Jade	Junior Superintendent
Meena Joshi	Assistant Registrar
Jithesh V K	Junior Superintendent
Ashwin R K	Junior Technical Superintendent
Sanjaykumar Karshanbhai Kachiya	Junior Laboratory Assistant
Navdiwala Ankur Kanchanlal	Junior Laboratory Assistant

Employee Name	Designation
Dharmeshkumar Vallabhabhai Kapadiya	Junior Laboratory Attendant
T S Kumbar	Librarian
Prajapati Ramanand Lalsaheb	Junior Laboratory Attendant
Pijush Majumdar	Assistant Registrar
Prashant G Makwana	Junior Assistant
Shreejit B Menon	Junior Superintendent
Tanha K Modi	Junior Assistant
Vaishali Padhiar	Deputy Registrar
Dharmendrakumar S Panchal	Junior Engineer
Sanjeev Kumar Pandey	Junior Accounts Officer
Pragnesh D Parekh	Junior Technical Superintendent
Dineshkumar H Parmar	Physical Training Instructor
Darshan C Patel	Junior Assistant
Sanketkumar J Patel	Junior Technical Superintendent
Arika K Patel	Junior Accountant
Kaminiben J Patel	Junior Assistant
Sanjaykumar T Patel	Junior Laboratory Assistant
Bhikhabhai R Patel	Junior Laboratory Attendant
Jignesh S Patel	Junior Laboratory Assistant
Twinkle Patel	Junior Accounts Officer
Harshadkumar J Patel	Junior Accounts Officer
Narendra J Rabadiya	Junior Assistant
Santosh Raut	Junior Superintendent
S A Raval	Assistant Registrar
Pranav S Rohit	Assistant Registrar
Pavitra Kumar Rout	Junior Accountant
Komal Sangtani	Junior Assistant
Sujitkumar R Shah	Junior Assistant
Viral Y Shah	Junior Superintendent
Mukesh Sharma	Staff Nurse
Gaurav Shukla	Junior Superintendent
Nitin Shukla	Junior Technical Superintendent

ALL LISTINGS AS ON MARCH 31, 2014

Employee Name	Designation
Gaurav Kumar Singh	Junior Assistant
Pankaj Kumar Sinha	Assistant Registrar
Narendrakumar M Solanki	Junior Accountant
Raghuveer G Solanki	Junior Assistant
Mrugesh R Solanki	Junior Superintendent
Nileshkumar B Soni	Junior Engineer
Una Sujit	Junior Superintendent
Sachin S Tawde	Junior Technical Superintendent
Prabhuji J Thakor	Junior Laboratory Attendant
Supresh S Thaleshri	Junior Laboratory Attendant
Sunny Thomas	Junior Laboratory Assistant
Hiren P Vadhavana	Junior Laboratory Assistant
Rajendra Vaishnav	Junior Accounts Officer
Piyushbhai P Vankar	Junior Assistant
Nand Lal Vishwakarma	Junior Superintendent
Rahul J Wadhwani	Junior Accountant

PHD SCHOLARS

Name of the Student	Discipline	Supervisor/ Programme Advisor
Ms Rashmi Bhakuni	Biological	Prof Sivapriya Kirubakaran
Mr Siddhant Bhoir	Biological	Prof Sharad Gupta
Ms Pallavi Chilka	Biological	Prof Bhaskar Datta
Ms Geethanjali Savithri Dhakshinamurthy	Biological	Prof Superb Mishra and Prof Sharmistha Majumdar
Mr Abhijeet Ojha	Biological	Prof Prachi Thareja
Ms Poonam Pandey	Biological	Prof Sairam Swaroop Mallajosyula
Ms Krittika Ralhan	Biological	Prof Sharad Gupta
Mr Guru Krishnakumar Viswanathan	Biological	Prof Sharad Gupta
Ms Shital Arunbhai Amin	Chemical	Prof Nitin Padhiyar and Prof Pratyush Dayal
Ms Thorat Alpana Ankush	Chemical	Prof Sameer V Dalvi
Mr Nitish Choudhary	Chemical	Prof Sameer Dalvi
Mr Saroj Kumar Das	Chemical	Prof Kabeer Jasuja
Ms Asha Liza James	Chemical	Prof Kabeer Jasuja
Mr Vikram Ashok Karde	Chemical	Prof Chinmay Ghoroi
Mr Siddharth Vijay Kulkarni	Chemical	Prof Prachi Thareja
Mr D Jaya Prasana Kumar	Chemical	Prof Pratyush Dayal
Mr Kalaga S Dinesh Kumar	Chemical	Prof J B Joshi and Prof Sameer Dalvi
Mr Manish Kumar	Chemical	Prof Supreet Saini and Prof Kalyan Gayen
Mr Patel Narendra Madhavlal	Chemical	Prof Nitin Padhiyar
Mr Sanat Chandra Maiti	Chemical	Prof Chinmay Ghoroi
Mr Hariharan P	Chemical	Prof J B Joshi and Prof Sharad Gupta
Ms Komal Upendra Pandey	Chemical	Prof Sameer Dalvi
Mr Awaneesh Kumar Upadhya	Chemical	Prof Sameer V Dalvi
Ms Sophia Varghese	Chemical	Prof Chinmay Ghoroi and Prof Rajagoplan Srinivasan
Mr Ghatage Swapnil Vilasrao	Chemical	Prof J B Joshi and Prof Nitin Padhiyar
Ms Harsha Agnihotri	Chemistry	Prof Sriram Kanvah Gundimeda

ALL LISTINGS AS ON MARCH 31, 2014

Name of the Student	Discipline	Supervisor/ Programme Advisor
Ms Deekshi Angira	Chemistry	Prof Vijay Thiruvenkatam and Prof Sivapriya Kirubakaran
Mr Naresh Balsukuri	Chemistry	Prof Iti Gupta
Mr Palakollu Veera Bhadraiah	Chemistry	Prof Sriram Kanvah Gundimeda
Mr Anuj Bisht	Chemistry	Prof Sudhanshu Sharma
Mr Sudipta Das	Chemistry	Prof Iti Gupta
Mr Bhanu Pratap Gangwar	Chemistry	Prof Sudhanshu Sharma
Ms Praseetha E K	Chemistry	Prof Iti Gupta
Mr Katla Jagdish Kumar	Chemistry	Prof Sriram Kanvah Gundimeda
Mr Prathap Reddy Patlolla	Chemistry	Prof Bhaskar Datta
Mr Hadiananawala Murtuza Shabbirali	Chemistry	Prof Bhaskar Datta
Mr Althaf Shaik	Chemistry	Prof Sivapriya Kirubakaran
Ms Anuji K V	Chemistry	Prof Sriram Kanvah Gundimeda
Mr Syed Khateeb Ahmad	Civil	Prof Dhiman Basu
Mr Haider Ali	Civil	Prof Vimal Mishra
Ms Abhigna Sandipkumar Bhatt	Civil	Prof Gaurav
Mr Debayan Bhattacharya	Civil	Prof Amit Prashant
Ms Prajakta Ramesh Jadhav	Civil	Prof Amit Prashant
Ms Rajkumari Kaurav	Civil	Prof Pranab Kumar Mahopatra
Mr Nasar Ahmad Khan	Civil	Prof Gaurav
Ms Seethalakshmi P	Civil	Prof Ajanta Sachan
Ms Saloni Prashant Pandya	Civil	Prof Ajanta Sachan
Mr Patnayakuni Ravi Prakash	Civil	Prof Gaurav
Mr Gopala Krishna Rodda	Civil	Prof Dhiman Basu
Mr Reepal Dinesh Shah	Civil	Prof Vimal Mishra
Mr Harsh Lovekumar Shah	Civil	Prof Vimal Mishra
Mr Murali Krishna Enduri	CSE	Prof Bireswar Das and Prof Shivakumar Jolad
Mr Priodyuti Pradhan	CSE	Prof Anirban Dasgupta and Prof Shivakumar Jolad
Mr I Vinod Kumar Reddy	CSE	Prof Bireswar Das

Name of the Student	Discipline	Supervisor/ Programme Advisor
Mr Devendra Mani Tripathi	CSE	Prof Krishna Prasad Miyapuram
Mr Rahul Kumar Kaushal	Earth Sciences	Prof Vikrant Jain
Mr Ramendra Sahoo	Earth Sciences	Prof Vikrant Jain
Ms Sonam	Earth Sciences	Prof Vikrant Jain
Mr Rishabh Abhinav	Electrical	Prof Rajagopalan Srinivasan and Prof Babji Srinivasan
Ms Patel Nikita Bharatbhai	Electrical	Prof Babji Srinivasan and Prof Rajagopalan Srinivasan
Mr Punitkumar Kanubhai Bhavsar	Electrical	Prof Babji Srinivasan and Prof Rajagopalan Srinivasan
Mr S Chandrasekaran	Electrical	Prof Ragavan K
Mr Naveen Kumar Endla	Electrical	Prof Ragavan K
Mr Kalpeshkumar Arvindbhai Joshi	Electrical	Prof Naran M Pindoriya
Mr Pardeep Kumar	Electrical	Prof Nihar Ranjan Mohapatra and Prof Babji Srinivasan
Mr Deepesh Kumar	Electrical	Prof Uttama Lahiri
Mr Sujeet Kumar	Electrical	Prof Harish PM
Ms Selvia Kuriakose	Electrical	Prof Uttama Lahiri
Mr Satya Sivanaresh M	Electrical	Prof Nihar Ranjan Mohapatra
Ms Apoorva Ojha	Electrical	Prof Nihar Ranjan Mohapatra
Mr Vinal Patel	Electrical	Prof Nithin George
Mr J Ram Prabhakar	Electrical	Prof Ragavan K
Ms Manju Bhashini R	Electrical	Prof Ragavan K and Prof Naran M Pindoriya
Mr Batchu Rajasekhar	Electrical	Prof Naran Pindoriya
Ms Shah Krupa Rajendra	Electrical	Prof Ragavan K
Ms Zarin A S	Electrical	Prof Arup Lal Chakraborty
Mr Abhishek Upadhyay	Electrical	Prof Arup Lal Chakraborty
Mr Naveen Deepak V	Electrical	Prof Ragavan K
Ms Sneha Nitin Ved	Electrical	Prof Joycee Mekie
Ms Manisha Chawla	HSS (Cog Sc & Philosophy)	Prof Krishna Prasad

ALL LISTINGS AS ON MARCH 31, 2014

Name of the Student	Discipline	Supervisor/ Programme Advisor
Mr Neeraj Kumar	HSS (Cognitive Science)	Prof Jaison Manjaly
Mr Krishnesh Shantilal Mehta	HSS (Cognitive Science)	Prof Jaison Manjaly
Mr Nagireddy Neelakanteswar Reddy	HSS (Cog Sc & Philosophy)	Prof Jaison Manjaly
Mr Tony Thomas	HSS (Cognitive Science)	Prof Meera Mary Sunny
Mr Vijay Ramkaran Tripathi	HSS (Economics)	Prof A Ramanathan
Ms Annie Rachel Sam George	HSS (English)	Prof Arnapurna Rath
Ms Payel Chattopadhyay Mukherjee	HSS (English)	Prof Arnapurna Rath and Prof Koshy Tharakan
Ms Pooja Susan Thomas	HSS (English)	Prof Rita Kothari
Mr Chirag Harendrabhai Trivedi	HSS (English)	Prof Rita Kothari
Ms Diti Vyas	HSS (English)	Prof Sharmita Lahiri
Ms Dyotana Banerjee	HSS (Political Science)	Prof Mona Mehta
Ms Divita Singh	HSS (Psychology)	Prof Meera M Sunny
Ms Ankita Rameshkumar Shah	HSS (Social Epidemiology)	Prof Malavika Subramanyam
Ms Jagriti Gangopadhyay	HSS (Sociology)	Prof Tannistha Samanta
Ms Ankita Arora	Materials Science & Engineering	Prof Abhijit Mishra
Mr Narendra Bandaru	Materials Science & Engineering	Prof Emila Panda
Mr Singh Chetan Chandan	Materials Science & Engineering	Prof Emila Panda
Ms Sasmita Majhi	Materials Science & Engineering	Prof Abhijit Mishra
Mr Krishna Manwani	Materials Science & Engineering	Prof Emila Panda
Ms Sheetal Rameshchandra Pandya	Materials Science & Engineering	Prof Amit Arora
Mr Pankaj	Materials Science & Engineering	Prof Amit Arora
Mr Tvarit Ashokbhai Patel	Materials Science & Engineering	Prof Emila Panda
Mr Mahesh VP	Materials Science & Engineering	Prof Amit Arora
Mr Gaurav Dwivedi	Mathematics	Prof Jagmohan Tyagi

Name of the Student	Discipline	Supervisor/ Programme Advisor
Ms Ranjana Mehta	Mathematics	Prof Anulekha Dhara
Mr Ram Baran Verma	Mathematics	Prof Jagmohan Tyagi
Ms Renika Baruah	Mechanical	Prof Atul Bhargav
Mr Rameshkumar M Bhoraniya	Mechanical	Prof Vinod Narayanan
Mr Divyaprakash	Mechanical	Prof Vinod Narayanan
Mr Yogesh Shantaram Fulpagare	Mechanical	Prof Atul Bhargav
Mr Akshay Anil Kanoria	Mechanical	Prof Murali Damodaran
Mr Ravi Kant	Mechanical	Prof Vinod Narayanan
Mr Sandeep Kumar Mishra	Mechanical	Prof Murali Damodaran
Mr Ravi Prahladbhai Patel	Mechanical	Prof Vinod Narayanan
Mr Vrutangkumar Vinodkumar Shah	Mechanical	Prof Harish PM
Ms Ankita Sinha	Mechanical	Prof Vinod Narayanan (PA)

PHD SCHOLARS UNDER IITGN-PRL MoU

Name of the Student	Discipline
Mr Aadhi A	Physics
Ms Rukmani Bai	Physics
Mr Abhishek Basak	Physics
Mr Pankaj Bhalla	Physics
Mr Naveen Chandra	Physics
Mr Tanmoy Chattopadhyay	Physics
Mr Manu George	Physics
Mr Chandan Hati	Physics
Mr Deepak K Karan	Physics
Ms Navpreet Kaur	Physics
Mr Girish Kumar	Physics
Mr Upendra Kumar Singh Kushwaha	Physics
Mr Fazlul Islam Laskar	Physics
Mr Midhun M	Physics
Mr Tanmoy Mondal	Physics

Name of the Student	Discipline
Mr Apurv Chaitanya N	Physics
Mr Dillip Kumar Nandy	Physics
Mr Newton Nath	Physics
Mr Arun Kumar Pandey	Physics
Mr Shashi Prabhakar	Physics
Mr Pandey Kuldeep Rambabu	Physics
Ms Anjali Rao	Physics
Mr Arko Roy	Physics
Mr Kuldeep Suthar	Physics
Mr Alok Ranjan Tiwary	Physics
Mr Gaurav Kumar Tomar	Physics
Mr Kumar Venkataramani	Physics

ALL LISTINGS AS ON MARCH 31, 2014

THE 2013 BATCH OF MTECH STUDENTS

Name of the Student	Discipline	Supervisor's Name
Ms Gunda Harini	Chemical	Prof Pratyush Dayal
Mr Dalip Kumar	Chemical	Prof Nitin Padhiyar
Ms Preeti Rathi	Chemical	Prof Rajagopalan Srinivasan
Ms Sarojini Tiwari	Chemical	Prof Babji Srinivasan
Mr Prafull Mani Tripathi	Chemical	Prof Sameer Dalvi
Ms Silky Agrawal	Civil	Prof Ajanta Sachan
Ms Rujuta Avinash Bhat	Civil	Prof Chinmay Ghoroi & Prof Abhijit Mukherjee
Mr Kunal Vinayak Ghaisas	Civil	Prof Dhiman Basu
Mr Puneet Kumar	Civil	Prof Gaurav
Mr Mantu Majumder	Civil	Prof Amit Prashant
Mr Amar Mandhyan	Civil	Prof Gaurav
Ms Kiran Prakash Rangwani	Civil	Prof Dhiman Basu
Ms S Smitha	Civil	Prof Ajanta Sachan
Mr Gundeep Kaur Sudan	Civil	Prof Sharad Gupta & Prof Abhijit Mukherjee
Mr Ravi Verma	Civil	Prof Dhiman Basu
Mr Mandar Suresh Bhoir	Electrical	Prof Nihar Ranjan Mohapatra
Mr Mohit Chand	Electrical	Prof Ragavan K
Mr Mohit Dineshkumar Ganeriwala	Electrical	Prof Nihar Ranjan Mohapatra
Ms Fathima Sinin P	Electrical	Prof Joycee Mekie
Mr Dhaval Shashikantbhai Solanki	Electrical	Prof Uttama Lahiri
Mr Chandra Sekhar Tunga	Electrical	Prof Joycee Mekie
Ms Taruna Yadav	Electrical	Prof Uttama Lahiri
Mr Darshan Ajmera	Materials Science & Engineering	Prof Emila Panda
Mr Abdur Rahmanal Azad	Materials Science & Engineering	Prof Jyoti Mukhopadhyay
Mr Umang Bhupatrai Desai	Materials Science & Engineering	Prof Jyoti Mukhopadhyay
Mr Deendayal Kumar	Materials Science & Engineering	Prof Abhijit Mishra

Name of the Student	Discipline	Supervisor's Name
Mr Vighnesh Prasad	Materials Science & Engineering	Prof SP Mehrotra
Mr Rajiv Ranjan	Materials Science & Engineering	Prof Abhijeet Mishra
Mr Abhishek Sarmah	Materials Science & Engineering	Prof Jyoti Mokhopadhyay
Mr Krishna Kumar Saxena	Materials Science & Engineering	Prof Jyoti Mukhopadhyay
Mr Sudani Jay Arvindbhai	Mechanical	Prof Murali Damodaran
Mr Pratik Surayakant Shirbhate	Mechanical	Prof Atul Bhargav

THE 2012 BATCH OF MTECH STUDENTS

Name of the Student	Discipline	Supervisor's Name
Ms Amita Bedar	Chemical	Prof Kabeer Jasuja
Mr Chitta Ranjan Behera	Chemical	Prof Babji Srinivasan
Ms Sanobar Niyaz Ahmad Khan	Chemical	Prof Chinmay Ghoroi
Mr Patan Ameer Khan	Chemical	Prof Nitin Padhiyar
Ms R Aparna Menon	Chemical	Prof Atul Bhargav
Ms Mishra Nidhi S	Chemical	Prof Prachi Thareja
Mr Manishkumar Dinesh Yadav	Chemical	Prof Sameer V Dalvi
Ms Tejaswi Kota	Civil	Prof Dhiman Basu
Mr Subhra Majhi	Civil	Prof Gaurav
Ms Bhavini Kirtikantbhai Mehta	Civil	Prof Ajanta Sachan
Ms Pavni Digant Pandya	Civil	Prof Ajanta Sachan
Mr Palugulla Raja Mohan Reddy	Civil	Prof Dhiman Basu
Mr Deepak Kumar Samal	Civil	Prof Amit Prashant
Mr Kaustubh Jayant Udas	Civil	Prof Amit Prashant & Prof Vimal Mishra
Ms Anuradha	Electrical	Prof Joycee Mekie
Mr Hritwick Banerjee	Electrical	Prof Babji Srinivasan
Mr Sutapa Bhattacharya	Electrical	Prof Uttama Lahiri
Ms Ashita Chandnani	Electrical	Prof Nihar Ranjan Mohapatra

Mr Sharad Kumar Jain	Electrical	Prof Nihar Ranjan Mohapatra
Mr Ritesh Jain	Electrical	Prof Nihar Ranjan Mohapatra
Ms Sherry Jain	Electrical	Prof Naran Pindoriya
Mr Rahul Anand Kaushik	Electrical	Prof Naran Pindoriya
Mr Gourav Kumar	Electrical	Prof Naran Pindoriya
Mr Laya	Electrical	Prof Babji Srinivasan
Mr Satyajit Mohapatra	Electrical	Prof Nihar Ranjan Mohapatra
Mr Utkal Ranjan Muduli	Electrical	Prof Ragavan K
Mr Arun Gopalakrishnan Nair	Electrical	Prof Naran Pindoryia
Mr Narendra Parihar	Electrical	Prof Nihar Mahopatra
Mr Sreejith R	Electrical	Prof Naran M Pindoriya & Prof Babji Srinivasan
Mr Chandresh Sharma	Electrical	Prof Babji Srinivasan & Prof Rajagopalan Srinivasan
Mr Rohith Varier	Electrical	Prof Naran Pindoriya
Ms Bala Saranya Yeleswarapu	Electrical	Prof Joycee Mekie
Mr Pragya Nandan Banjare	Materials Science & Engineering	Prof Amit Arora
Mr Manoj Kumar	Materials Science & Engineering	Prof Jyoti Mukhopadhyay
Mr Rohit Mishra	Materials Science & Engineering	Prof SP Mehrotra
Mr Navjodh Singh Rooprai	Materials Science & Engineering	Prof Abhijit Mishra
Mr Irfan Ahmed	Mechanical	Prof Harish PM and Prof Abhijit Mukherjee
Mr Neelesh Bhandari	Mechanical	Prof Murali Damodaran
Mr Roshan Anandrao Chavan	Mechanical	Prof Harish P M
Mr Vinay Dwivedi	Mechanical	Prof Murali Damodaran
Ms Sonia Gupta	Mechanical	Prof Atul Bhargav
Mr Manish Pillai	Mechanical	Prof Vinod Narayan & Prof Atul Bhargav
Mr Rachit Prasad	Mechanical	Prof Murali Damodaran
Mr Himanshu Sharma	Mechanical	Prof Murali Damodaran

ALL LISTINGS AS ON MARCH 31, 2014


AMRITHEA '13
TEAM AMRITHEA
Abhishek Anand

THE 2013 BATCH OF BTECH STUDENTS

Name of the Student	Discipline
Ankit Agarwal	Chemical
Rishab Anand	Chemical
Gawas Ramchandra Babali	Chemical
Kushagra Bhargava	Chemical
Prathyusha Challa	Chemical
Lakh Chand	Chemical
Maurya Jainidhi Chandraveer	Chemical
Vora Aatman Chandresh	Chemical
Sakkari Akash Goud	Chemical
Rajat Kumar Gupta	Chemical
Devanshu Manoj Jain	Chemical
Sargam Jain	Chemical
Kanzariya Bhavya Jayantilal	Chemical
Kesani Kalyani	Chemical
Patel Kishankumar Kaushikbhai	Chemical
Harsh Khandelwal	Chemical
Amber Kothari	Chemical
Purushottam Kumar	Chemical
Suman Kumari	Chemical
Joshi Vaibhav Mohan	Chemical
Pawan	Chemical
Desadla Rushabh Pravin	Chemical
Priyanka	Chemical
Ramniwas	Chemical
Dewansh Rastogi	Chemical
Nisha Rawat	Chemical
Bubna Rakesh Rishi	Chemical
Ekta Umesh Samani	Chemical
Madhurya Sankhla	Chemical
Anurag Singhania	Chemical
Sourabh Soni	Chemical
Sahilkumar Tabiyad	Chemical
Akshay Kumar Verma	Chemical
Prince Kumar Verma	Chemical
Srinivasan A	Civil

Name of the Student	Discipline
Roshan Agarwal	Civil
Abhishek Anand	Civil
Sai Kiran Bojja	Civil
Manu Chaudhary	Civil
Ram Pranav Agasthya Purhit Chavaly	Civil
Shaleen Chhajer	Civil
Bulabai Sreedhar Gopikrishna	Civil
Anurag Goyal	Civil
Mayank Jain	Civil
Rishabh Jain	Civil
Yogendra Jaiswal	Civil
Baviskar Pushpak Kailas	Civil
Mayank Khewaria	Civil
Aashish Kose	Civil
Dharmendra Kumar	Civil
Hemant Kumar	Civil
Punit Kumar	Civil
Rahul Kumar	Civil
Sachin Kumar	Civil
Shailendra Kumar	Civil
Osker	Civil
Praveen Pandey	Civil
Pomraj Prajapat	Civil
Narendra Sarswat	Civil
Mohammad Faisal Seh	Civil
Nikhil Sharma	Civil
Prerna Singh	Civil
Vaddineni Srija	Civil
Ajmeera Venkanna	Civil
Amit Yadav	Civil
Damacharla Aravind	Electrical
Aparna Arya	Electrical
Ankit Pritam Bhange	Electrical
Aditya Ganesh	Electrical
Patil Shubham Hanumant	Electrical

ALL LISTINGS AS ON MARCH 31, 2014

Name of the Student	Discipline
Doshi Darshil Hiteshbhai	Electrical
Rushi Jariwala	Electrical
Pathak Kapil Jayesh	Electrical
Anikesh Satish Kamath	Electrical
Samarth Kashyap	Electrical
Jitendra Kuldeep	Electrical
Pabbathi Akhil Kumar	Electrical
Puja Kumari	Electrical
Shubham Malav	Electrical
Siyaram Meena	Electrical
Sumit Kumar Meena	Electrical
Shashank Mehra	Electrical
Niharika	Electrical
Kashyap Patel	Electrical
Vipin Prajapati	Electrical
Manav Raj	Electrical
Vootla Krishna Sai	Electrical
Vyas Samir	Electrical
R Sanjana	Electrical
Goel Pratham Rajkumar Saroj	Electrical
Namana Naga Sindhu	Electrical
Kshitij Singh	Electrical
Lokesh Singh	Electrical
Rajendra Singh	Electrical
Shah Aditya Suresh	Electrical
Nikhil Tank	Electrical
Amit Tiwari	Electrical
Dinendra Pratap Singh Tomar	Electrical
Bhuwan Vyas	Electrical
Sakshi Yadav	Electrical
Bhumil Acharya	Mechanical
Venu Gopal Agarwal	Mechanical
Anurag Agrawal	Mechanical
Bhagat Rajan Balister	Mechanical
Thakor Nilaysinh Bharatsinh	Mechanical
Chauhan Bhargav Bipinbhai	Mechanical

Name of the Student	Discipline
Harsh Chandra	Mechanical
Manjeet Chaudhary	Mechanical
Bhosale Surajkumar Dhananjay	Mechanical
Rana Jainishkumar Dineshbhai	Mechanical
Jitendra Gehlot	Mechanical
Vaibhav Gupta	Mechanical
Chauhan Darshil Jitendrabhai	Mechanical
Tanay Kankane	Mechanical
Sumit Kumar	Mechanical
Mundru Hemanth Surya Madhav	Mechanical
Suryakumar Mane	Mechanical
Ramtekkar Shashank Manohar	Mechanical
Ankit Mittal	Mechanical
Rohit Nanavati	Mechanical
Nishanth	Mechanical
Biradala David Noel	Mechanical
Shubham Patle	Mechanical
Valleti Sai Mani Prudhvi	Mechanical
Somireddy Uday Kumar Reddy	Mechanical
Chenchala Sai Ramana Reddy	Mechanical
Raut Abhishek Satish	Mechanical
Shah Jugal Saurin	Mechanical
Kanak Sharma	Mechanical
Sarabjeet Singh	Mechanical
Guguloth Srinivas	Mechanical
Sharad Kumar Tiwari	Mechanical
Teki Vinay	Mechanical
Joshi Ojas Yashwant	Mechanical

THE 2012 BATCH OF BTECH STUDENTS

Name of the Student	Discipline
Palkar Vaibhav Abhay	Chemical
K Abhishek	Chemical
Adappa Ashray Amarnath	Chemical
Sanchayni Bagade	Chemical
Surendra Beniwal	Chemical
Himanshu Bikonia	Chemical
Sagar Chawla	Chemical
Hema Choudhary	Chemical
Diwakar Pradeep Dayaram	Chemical
Wagh Vidyanand Girish	Chemical
Kishore Kumar J	Chemical
Dheeraj Kumar Kanoje	Chemical
Lavdeep Kaur	Chemical
Mukesh Kumar	Chemical
Sushil Kumar	Chemical
Mangi Lal	Chemical
Vivek Maida	Chemical
Kanak Kumar Dasharathlal Nayak	Chemical
Virendra Singh Panwar	Chemical
Sweta Parmar	Chemical
Chaudhary Kunal Ramkishun	Chemical
Palak Sadani	Chemical
Sunil Sahra	Chemical
Prashant Shekhar	Chemical
Nishit Shetty	Chemical
Abhimanyu Singh	Chemical
Manjot Singh	Chemical
Suman Kumar Singh	Chemical
Abhishek Verma	Chemical
Vikram Alriya	Electrical
Deyyam Avinash	Electrical
Naman Bansal	Electrical
Rajat Chaudhary	Electrical
Gullapally Sai Chowdary	Electrical
Shashank Gautam	Electrical

Name of the Student	Discipline
Akhilesh Gotmare	Electrical
Ashish Kumar Gupta	Electrical
Gaurav Gupta	Electrical
Ajinkya Tupkar Jain	Electrical
Rajat Singh Jeriya	Electrical
Muhammed Yaseen K	Electrical
Narendra Kawaria	Electrical
Ajnadkar Chinmay Kishor	Electrical
Ch Suryavinay Koundinya	Electrical
Chitranshu Kumar	Electrical
Naveen Kumar	Electrical
Prashant Kumar	Electrical
Animesh Singh Kumawat	Electrical
Salecha Kushal	Electrical
Paturu Veerabadra Lokesh	Electrical
Latika Meena	Electrical
Rajesh Kumar Meena	Electrical
Sanjay Kumar Meena	Electrical
Somani Dipen Omprakash	Electrical
Shubham Pachori	Electrical
Shrikant Patel	Electrical
Malireddi Sri Raghu	Electrical
Abhishek Ranjan	Electrical
Mudit Rathor	Electrical
Medaramatla Sidhartha Reddy	Electrical
Kamanuru Vamsidhar Reddy	Electrical
Byrapuram Venkata Vijay Bharath Reddy	Electrical
Nikhil Samariya	Electrical
Mehta Yash Sanjay	Electrical
Raj Shekhar	Electrical
Alok Singh	Electrical
Jatindeep Singh	Electrical
Naman Singh	Electrical
Prince Kumar Singh	Electrical

ALL LISTINGS AS ON MARCH 31, 2014

Name of the Student	Discipline
Manish Soni	Electrical
N S Subrahmanya Teja	Electrical
Gudaram Sai Vaibhav	Electrical
Tushar Anchan	Mechanical
P V S Anurag	Mechanical
Mihir Milind Bhalerao	Mechanical
Rajat Shiv Chand	Mechanical
Sultania Yash Deepak	Mechanical
Kunal Devedwal	Mechanical
Rocky Dongre	Mechanical
Rahul Garg	Mechanical
Shah Shrey Hitesh	Mechanical
Chitnis Parag Jayant	Mechanical
Nirmal Jayaprasad	Mechanical
Sanjit Jena	Mechanical
Naveen Kumar	Mechanical
Penumaka Aruna Kumarudu	Mechanical
Koushik Mani	Mechanical
Devendra Meena	Mechanical
Shashank Nigam	Mechanical
Karan Palaskar	Mechanical
Rahul Kumar Pandey	Mechanical
Shashank Kishore Pareta	Mechanical
Karma Patel	Mechanical
Nikita Patta	Mechanical
Pardeep Phullay	Mechanical
Jithin Prabha	Mechanical
Mane Prasannajeet Pradip	Mechanical
Vadera Meet Prakashbhai	Mechanical
Anarse Ashish Pralhad	Mechanical
Patil Radhika Pramod	Mechanical
Rakesh Ranjan	Mechanical
Muzammil Rawoot	Mechanical
Pranshul Saini	Mechanical
Vaichal Saurabh Sandeep	Mechanical
Vaijanapurkar Samarth Sanjiv	Mechanical

Name of the Student	Discipline
Ankita Sharma	Mechanical
Gaurav Sharma	Mechanical
Ritwik Shukla	Mechanical
Harshvardhan Singh	Mechanical
Abhinav Singh	Mechanical
Vishvendra Singh	Mechanical
Yash Pratap Singh	Mechanical
M Surya	Mechanical
Hydarali M T	Mechanical
Konduru Venkata Naga Sai Ravi Teja	Mechanical
Divyansh Tripathi	Mechanical
Margaj Om Vijay	Mechanical
Shah Sanket Viren	Mechanical

THE 2011 BATCH OF BTECH STUDENTS

Name of the Student	Discipline
Pinjala Anoop	Chemical
Dilip Kumar Badgurjar	Chemical
Yashodeep Prabhu Chavhan	Chemical
Manasa Jangala	Chemical
Rahul Prabhakar Khandait	Chemical
Banoth Surya Kiran	Chemical
Gubbala Pawan Kumar	Chemical
Turibilli Sravan Kumar	Chemical
Bhumireddy Shanmukha Manoj	Chemical
Prem Prakash Meena	Chemical
Reddy Dwaraka Nath	Chemical
Shah Mihika Nitin	Chemical
Dhruv Pancholi	Chemical
Ankit Pandole	Chemical
Ayushi Patel	Chemical
Parag Pradeep Kumar Ramteke	Chemical
Vinod Kumar Rangi	Chemical
Aditya Amol Samant	Chemical
Abhishek Sancheti	Chemical
Chowhan Santhosh	Chemical
Shaurya Seth	Chemical
Tushti Shah	Chemical
Sudiksha Sridhar	Chemical
Sukriti	Chemical
Bhangale Monish Sunil	Chemical
Nandan Paresh Vora	Chemical
Akshay	Electrical
Gangopadhyay Aalok Ashok	Electrical
Thakkar Dhaval Ashwin	Electrical
Prateek Baldwa	Electrical
Chetan Kumar Choudhary	Electrical
Shah Preet Devang	Electrical
Dalvi Ashwin Dinesh	Electrical
Pankaj Gautam	Electrical
Parth Gudhka	Electrical

Name of the Student	Discipline
Mishita Jaiswal	Electrical
Mahajan Piyush Jeevan	Electrical
Heda Shashank Kamlesh	Electrical
Pamarthi Chandra Kanth	Electrical
Rizu Khanwilkar	Electrical
Manoj Kumar	Electrical
Ravi Kumar	Electrical
Shah Raj Manish	Electrical
Vaibhav Mathur	Electrical
Sanjay Kumar Meena	Electrical
K R B Lokeswar Naik	Electrical
Rao Nishant Nanubhai	Electrical
Pathe Tilak Narendra	Electrical
Rohan Patidar	Electrical
Patwardhan Apoorv Prakash	Electrical
Shinde Durvesh Pravin	Electrical
Deep Rahul	Electrical
Kondagorri Pridhvi Raj	Electrical
Shisode Sushilkumar Rajendra	Electrical
Gandhi Vaibhav Rajesh	Electrical
Dave Ujash Rameshwar	Electrical
Mukesh Singh Rawat	Electrical
Panuganti Sandeep Reddy	Electrical
Lingala Thrinath Reddy	Electrical
Joshi Vinit Sanjay	Electrical
Abhishek Singh	Electrical
Abhishek Soni	Electrical
Shivam Mani Tripathi	Electrical
Kale Kimaya Uday	Electrical
Ishan Upadhyaya	Electrical
Prashant Verma	Electrical
Sane Parth Vishwas	Electrical
Himanshu Yadav	Electrical
Abhay C A	Mechanical
Akash	Mechanical

ALL LISTINGS AS ON MARCH 31, 2014

Name of the Student	Discipline
Aryan	Mechanical
Navarkar Abhishek Chandrakant	Mechanical
Ayush Choudhary	Mechanical
Ajay Devedwal	Mechanical
Bhat Prathamesh Ganesh	Mechanical
Anshul Gupta	Mechanical
Rahul Harnotia	Mechanical
Taldevkar Madan Janardan	Mechanical
Vekaria Sachchit Kalyan	Mechanical
Ronak Khandelwal	Mechanical
Saraswathibhatla Aashrith Koundinya	Mechanical
Bajrang Lal Kudi	Mechanical
Mahesh Kumar	Mechanical
Pradeep Kumar	Mechanical
Ramesh Kumar	Mechanical
Hira Lal	Mechanical
B Manasa	Mechanical
Shah Dhyey Mayankkumar	Mechanical
Krishan Kumar Meena	Mechanical
Rounak Mehta	Mechanical
Utsav Y Mistry	Mechanical
Shreyans Nahar	Mechanical
Joy Narang	Mechanical
G N Lakshmi Narasimhan	Mechanical
Prasit Pal	Mechanical
Utkarsh Prakash Panchbhai	Mechanical
Rajesh Patidar	Mechanical
Lalit Prajapat	Mechanical
Vivek Prakash	Mechanical
Randad Akshay Puroshottamji	Mechanical
Mehta Sahil Ramesh	Mechanical
Harshe Soham Ravindra	Mechanical
Gupta Harsh Sanjay	Mechanical
Mayank Shekhar	Mechanical
Mahamuni Gaurav Shivhar	Mechanical

Name of the Student	Discipline
Akash Keshav Singh	Mechanical
Milan Singh	Mechanical
Saurabh Singhal	Mechanical
Dunga Sujit	Mechanical
Pachipulusu Sai Teja	Mechanical
Eepsit Tiwari	Mechanical
Vishal Yadav	Mechanical

THE 2010 BATCH OF BTECH STUDENTS

Name of the Student	Discipline
Shah Smit Alkesh	Chemical
Pranav Bagaria	Chemical
Durgesh Bagri	Chemical
Patil Chetan Chandrakant	Chemical
Bhaskarjyoti Das	Chemical
Patel Prashant Dineshbhai	Chemical
Vakkantula Harika	Chemical
Nuthalapati Sri Harsha	Chemical
Mahajan Sanket Hemant	Chemical
Rajat Inderiya	Chemical
Akshay Jain	Chemical
Priya Jalutharia	Chemical
Mayank K Jhalaria	Chemical
Amandeep Kaur	Chemical
Rohan Sambhaji Kokane	Chemical
Aryan Kumar	Chemical
Dasari Yashwanth Kumar	Chemical
Jitender Kumar	Chemical
Askhya Kumar	Chemical
Rinku Meena	Chemical
Bajaj Nitai	Chemical
Wasim Khan Pathan	Chemical
Karandikar Rutuparna Pramod	Chemical
Punit Rawat	Chemical
Sanjay Saroj	Chemical
Rajat Sharma	Chemical
Pratyush Shastri	Chemical
Prashant Kumar Singh	Chemical
Pamulapati Sushma Sri	Chemical
Anirudha Vishvakarma	Chemical
Bapat Akash Abhijit	Electrical
Aishwarya Agrawal	Electrical
Shivanshu Arora	Electrical
Mohit Bajaj	Electrical
Pingale Akshay Balaso	Electrical

Name of the Student	Discipline
Dharm Ratna Baudh	Electrical
Adit Bhardwaj	Electrical
Pavanagundla Raghavendra Chary	Electrical
Topiwala Anuj Dhananjay	Electrical
Soni Smit Dilipbhai	Electrical
Sanjay Kumar Gill	Electrical
Yash Goyal	Electrical
Nishank Jain	Electrical
Rajesh Kumar Jangid	Electrical
Gagan Kanojia	Electrical
Mrityunjaya Kumar	Electrical
Parimi Snigdha Manogyna	Electrical
Kailash Chand Meena	Electrical
Sanjay Meena	Electrical
Ravindra Kumar Meena	Electrical
Ankur Meena	Electrical
Brijesh Kumar Meena	Electrical
Sushrut Pramod Meshram	Electrical
Sunil Nair	Electrical
Shah Nisarg Nikhil	Electrical
Kiran Parmar	Electrical
Nitya Pawar	Electrical
Kotak Yash Prashant	Electrical
Sumpi Riningam	Electrical
Hoosein Safdari	Electrical
Deepak Sagar	Electrical
Achari Sandesh Sanjay	Electrical
Kartik Saxena	Electrical
Ashish Kumar Sehra	Electrical
Mohit Sharma	Electrical
Arjita Sharma	Electrical
Arun Kumar Singh	Electrical
K Sirisha	Electrical
Patel Tanay Somnath	Electrical
Shashank Tyagi	Electrical

ALL LISTINGS AS ON MARCH 31, 2014

Name of the Student	Discipline
Nitesh Udhani	Electrical
M J Balaji Venkatesh	Electrical
Chopra Deepti Vijay	Electrical
Katre Vibhav Vikas	Electrical
Devendra Singh Yadav	Electrical
Joshi Ameya Yashwant	Electrical
Patil Atharva Abhay	Mechanical
Shashank Agarwal	Mechanical
Shubham Bhargav	Mechanical
Hariomlaxminarayan Bhargava	Mechanical
Prashant Bhatewara	Mechanical
Kamarapu Thrinath Chander	Mechanical
Vora Ajay Chandubhai	Mechanical
Kaushal Kumar M Chavda	Mechanical
Spandan Jyoti Das	Mechanical
Kohli Saksham Dineshkumar	Mechanical
Mangesh Popatrao Gangarde	Mechanical
Saurabh Garg	Mechanical
Karpe Deep Girish	Mechanical
Chaudhari Dhruvishkumar Gokulbhai	Mechanical
Deshmukh Sumit Hemant	Mechanical
Akanksha Jagwani	Mechanical
Amit Jharbade	Mechanical
Kotak Nihar Kamlesh	Mechanical
Tushar Kodap	Mechanical
Manne Sri Sudhamsu Krishna	Mechanical
Abhishek Kumar	Mechanical
Bhavya Madasu	Mechanical
Akshay Mall	Mechanical
Poonam Chand Meena	Mechanical
Navneet Meena	Mechanical
Pankaj Kumar Meena	Mechanical
Gaurav Kumar Meena	Mechanical
Gavasane Ritu Milind	Mechanical
Pradeep P Nikhade	Mechanical
Nakul Nuwal	Mechanical
Prateek Nyati	Mechanical
Rakesh Pargi	Mechanical
Shah Jinesh Rajesh	Mechanical
Shaliwahan Singh Rathore	Mechanical
Amit Sahu	Mechanical
Bansude Shubhangi Shamsundar	Mechanical
Ankita Sharma	Mechanical
Dhwanil Shukla	Mechanical
Gadewad Pankaj Shyamsundar	Mechanical
Tongbram Kehbruce Singh	Mechanical
Geddada Sri Sivaganesh	Mechanical
Patkar Suyash Subhash	Mechanical
Ankit Suchanti	Mechanical
Purushottam Lal Suman	Mechanical
Avinash N Tumkur	Mechanical
Vikram Vishnoi	Mechanical
Anu Vivek	Mechanical

THE 2009 BATCH OF BTECH STUDENTS

Name of the Student	Discipline
Gourav Kumar Saini	Electrical
Suresh Kumar Choudhary	Mechanical
V Jashuva	Mechanical
Gangapatnam Dinesh Kumar	Mechanical
Sunnykumar Dalpatbhai Patel	Mechanical
K Vinay	Mechanical

THE 2008 BATCH OF BTECH STUDENTS

Name of the Student	Discipline
Hare Lal Mahato	Mechanical

THE 2012 BATCH OF PGDIIT STUDENTS

Name of the Student	Discipline
Mr Manjunath Hondadkatti	Civil
Ms Soniya Nibhani	Electrical

THE 2013 BATCH OF PGDIIT STUDENTS

Name of the Student	Discipline
Mr Rituraj Chauhan	Mechanical

THE 2013 BATCH OF MSc STUDENTS

Name of the Student	Discipline
Amit	Chemistry
Nisha Hasija	Chemistry
Palash Jana	Chemistry
Ashok Kumar	Chemistry
Amarjyoti Das Mahapatra	Chemistry
Aman Panwar	Chemistry
Khyati Relhan	Chemistry
Sampada Chandrashekhar Gharpure	Cognitive Science
Kinley Mehra	Cognitive Science
Ashwani Kumar Mishra	Cognitive Science
Ujjval A Pamnani	Cognitive Science
Ratna	Cognitive Science
Simily Sabu	Cognitive Science
Samyak Shah	Cognitive Science
Rajat Shukla	Cognitive Science
Aditya Singh	Cognitive Science
Goldy Yadav	Cognitive Science
Hamza Mohd Zubair	Cognitive Science
Shivam Dhama	Mathematics
Ekta	Mathematics
Shruti Gupta	Mathematics

Name of the Student	Discipline
Ashwani Kumar Malik	Mathematics
Mukund Kumar Mishra	Mathematics
Nitin	Mathematics
Prem Singh	Mathematics
Mukesh Kumar Verma	Mathematics
Vishakha	Mathematics

ALL LISTINGS AS ON MARCH 31, 2014

VISION, MISSION AND VALUES

GOALS

- To build and develop a world-class institution for creating and imparting knowledge at the undergraduate, post graduate and doctoral levels, contributing to the development of the nation and the 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 language skills as part of the institutional culture.
- To prepare students not just for their first job, but their last job as well.

VISION

- To shape IIT Gandhinagar into an exciting place for learning, teaching and research.
- To establish a process of learning that is free, fulfilling and 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.

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

CORE FEATURES

- A safe and peaceful environment
- Relevant and responsive to the changing needs of our students and the society
- Academic autonomy and flexibility
- Research Ambiance
- Nature of faculty and students:
    - Faculty recruiting norms are much higher than most of the academic institutes in India
    - Students are inducted strictly on a merit basis
- Sustainable and all-inclusive growth, including community outreach programmes
- Infrastructure: Liberal funding to the laboratory facilities and amenities to make them comparable to those best in the world
- Administration: Exclusive concern of IIT Gandhinagar, and handled internally
    - Director given adequate powers to manage most academic, administrative and financial issues (within the framework)
- Residential Campus:
    - Leads to closer academic and social interaction between students and faculty
    - Develops stronger community spirit and provides opportunity to learn from each other
    - Sustained academic ambiance resulting in higher creativity from everyone.

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 make mistakes
- Social and Moral responsibility
- Respect for every individual, and diversity
- Co-operation, Collaboration and Team Work

INDIAN INSTITUTE OF
TECHNOLOGY GANDHINAGAR
VGEC CAMPUS, CHANDKHEDA
AHMEDABAD 382 424