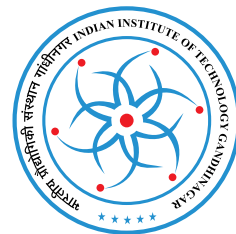


Connections

IIT Gandhinagar



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Connections is the quarterly newsletter for friends of IIT Gandhinagar

Institute Activities



7TH CONVOCATION CEREMONY

IIT Gandhinagar hosted its seventh convocation on July 28, 2018 with 328 students graduating this year. A total of 112 BTech, 2 BTech-MTech Dual Degree, 96 MTech, 78 MSc, 14 MA, 2 PGDIIT and 24 PhD students were awarded degrees. In addition, 47 graduating

students were awarded medals and awards, including 21 gold medals, 10 silver medals, and 16 bronze medals for excellence in various categories. **Ms Anu Aga**, Director, Board of Thermax Limited and Chairperson, Teach for India, graced the occasion as the Chief Guest. She encouraged the students to get in touch with their extraordinary selves and to not settle for mediocrity. IITGN Director **Prof Sudhir Jain** talked about the institute's journey from 2008 to reaching a major landmark - completing 10 years. He proposed to undertake exercises in retrospection and plan for the years ahead. **Aketi Sai Aparna** was awarded the President's Gold Medal for BTech, **Subhanshu Gupta** was awarded the President's Gold Medal for MTech, and **Purna Subramanian** received the President's Gold Medal for MSc and MA. The Director's Gold Medal for BTech went to **Ayushman Tripathi**, Director's Gold Medal for MTech went to **Rana Pratap Singh**, and Director's Gold Medal for MSc and MA was awarded to **Purna Subramanian**.

DECENNIAL CELEBRATION

In 2008, IIT Gandhinagar embarked upon its journey with a vision to become a preferred destination for future generations of students, faculty and staff. 2018 marks the completion of 10 years of this stupendous journey to build an institution which is recognized as a leader in educational innovation. To reflect on this journey made so far and to carve out the path for the future, the institute kick-started its decennial celebrations with an inaugural event on August 10, 2018 where faculty, alumni, students, partners, past employees, and staff recounted and shared their special attachment and experiences with the institute. **Shri Pankaj Patel**, Chairman, Cadila Healthcare Ltd was Chief Guest on the occasion. On this occasion some of the contributors and partners of IITGN from past 10 years journey are felicitated.



design, music, origami, communicating with comics, sports, heritage walk, theatre activities, street cleaning and tree-planting. There were also organized talks on various topics such as leadership, gender sensitivity, ethics and values. The last week of the program witnessed the Intramural Ceremony. The program ended with Eureka, a cultural evening organized by freshers. The program was coordinated by **Prof Madhu Vadali**, **Prof Leslee Lazar**, **Prof Uddipta Ghosh**, **Prof Mithun Radhakrishna** and **Mrs Poonam Mutha**.

5-STAR GRIHA LD RATING TO IIT GANDHINAGAR

The IIT Gandhinagar campus became the first campus in the country to obtain a 5-star rating from Green Rating for Integrated Habitat Assessment for Large Developments (GRIHA LD) for implementation of Phase 1A constructions. The institute improved further its earlier 5-star rating score of 25.9% for the master plan to obtain 20.36% score for implementation. This is a unique Indian National Rating System for green buildings to rate the overall impact of large developments on their surrounding environment. As per the GRIHA LD rating criteria, score of 35% or less qualifies for a 5-star rating, indicating less damage to the environment and higher sustainability of the project.

FOUNDATION PROGRAM

IITGN is known for its pioneering five week long Foundation Program for the holistic development of the new batch of BTech students. This year the program was conducted between July 23 to August 26, 2018. It included sessions on sketching, photography for

Support for the Institute

BHAI SURESH MOHAN MITTAL SCHOLARSHIP

Shri Sudhir Mohan Mittal has set up a scholarship of Rs 1 Lakh per year for BTech students, in memory of his brother bhai **Suresh Mohan Mittal**. The objective is to award an excellence scholarship to one student every year to carry out summer research internship



overseas. **Shri Sudhir M Mittal** is currently the Director in Sukriti Viduyt Udyog (P) Ltd., Ghaziabad. He did his BTech in Chemical Engineering from IIT Kanpur. Mr Mittal actively pursues village and primary education. He is involved in numerous social projects and is currently President, Vardan Sewa Sansthan that runs an eye hospital and a 280 bed hospital in Ghaziabad.

PROF S P SUKHATME SCHOLARSHIP

Prof S P Sukhatme has set up a scholarship of Rs 1 Lakh per year for the B'Tech students at IIT Gandhinagar. The scholarship will be awarded to a student every year to carry out summer research internship overseas. Prof Sukhatme has been a faculty member in the Department of Mechanical Engineering at IIT Bombay since 1965

and served as the Director of the Institute from 1995 to 2000. He is known for his outstanding contributions to teaching and research in the fields of Heat Transfer and Energy. Prof Sukhatme was awarded the Padma Shri by the Government of India in 2001. Prof Sukhatme obtained his undergraduate degree from Banaras Hindu University and did his postgraduate studies at the Massachusetts Institute of Technology.

Faculty News



Prof Jaison A Manjaly



Prof Chinmay Ghoroi



Prof Nithin V George

FACULTY CHAIR POSITIONS

Several well-wishers of the Institute have established endowed chair positions at IITGN to reward excellence, and help retain outstanding faculty. Three colleagues were awarded these chairs with effect from July 16, 2018: **Prof Jaison A Manjaly**, Associate Professor in Humanities and Social Sciences (*Jasubhai Memorial Chair*), **Prof Chinmay Ghoroi**, Associate Professor in Chemical Engineering (*B S Gelot Chair*), and **Prof Nithin V George**, Assistant Professor in Electrical Engineering (*TEOCO Chair*).

PATENTS

Additive manufacturing using self compacting concrete: Inventors include **Prof Manish Kumar** (CE), **Shashank Shekhar**, and **Rishabh Mathur**, IITGN.

AWARDS AND RECOGNITIONS

- **Prof Kabeer Jasuja**, Chemical Engineering, received the prestigious Indian National Academy of Engineering (INAE) **Young Engineer Award** for the year 2018.

NEW FACULTY

The following faculty members joined the institute during this quarter:

Name	Designation	Discipline	PhD/ Last Degree	Date of joining
Dr Dhiraj Bhatia	Assistant Professor	Biological Engineering	Tata Institute of Fundamental Research	03-07-2018
Mr Mayank Singh	Assistant Research Professor	Computer Science & Engineering	IIT Kharagpur, India	03-07-2018
Dr Nipun Batra	Assistant Professor	Computer Science & Engineering	IIT Delhi, India	10-07-2018
Dr Sudipta Basu	Associate Professor	Chemistry	Max-Planck Institute for Molecular Physiology, Dortmund, Germany	12-07-2018
Dr Nirat Ray	Assistant Professor	Physics	Massachusetts Institute of Technology, USA	17-07-2018
Dr Nishaant Choksi	Assistant Professor	Social Sciences	University of Michigan-Ann Arbor, USA	17-07-2018
Dr Gopinadhan Kalon	Assistant Professor	Physics	IIT Delhi, India	17-07-2018
Dr Jaichander Swaminathan	Assistant Professor	Mechanical Engineering	Massachusetts Institute of Technology, USA	18-07-2018
Dr Akshaa Vatwani	Assistant Professor	Mathematics	Queen's University, Canada	23-07-2018
Professor Rahul Kanadia	Visiting Professor	Biological Engineering	University of Florida, USA	23-07-2018
Ms Vandana Luximon	French Language Trainee Teacher	Humanities & Social Sciences	Aix Marseille University	07-08-2018

- **Prof Dhiraj Bhatia**, Biological Engineering, received the prestigious **Ramanujan Fellowship** by the Science & Engineering Research Board (SERB).
- **Prof Uttama Lahiri**, Electrical Engineering, and **Prof Prachi Thareja**, Chemical Engineering, received the prestigious **Prof Indira Parikh 50 Women in Education Leaders Award** in Mumbai at the World Education Congress on Sustainable Development Goals, Quality Education for All.

SPONSORED PROJECTS

- Developing low cost bipolar transistors for analog and RF applications in 0.18µm CMOS technology, Science & Engineering Research Board, Principal Investigator: **Prof Nihar Mohapatra**, Electrical Engineering
- Development of simulation tools and experimental validation for investigating the application of Al7xxx (7050 base alloy) in aerospace and automotive sector, Science & Engineering Research Board, Principal Investigator: **Prof Manas Paliwal**, Materials Science and Engineering
- Development of a prosumer driven integrated SMART Grid, Department of Science and Technology, Principal Investigator: **Prof Naran Pindoriya**, Electrical Engineering
- Towards development of sustainable water cyber-physical systems: Implementation in Gujarat Water Network Systems, WIN Foundation, Principal Investigator: Prof Pranab Mohapatra, Civil Engineering and **Prof Babji Srinivasan**, Chemical Engineering
- Micro-components quantification of end uses of water consumption in low income settings, WIN Foundation, Principal Investigator: **Prof Manish Kumar**, Earth Sciences
- Pilot scale in-situ application for arsenic and fluoride

- removal from the groundwater: A safe drinking water production perspective, WIN Foundation, Principal Investigator: **Prof Manish Kumar**, Earth Sciences
- Vulnerability assessment and sustainable solutions for water quality management in the urban environment, Department of Science and Technology (International Bilateral Cooperation Division), Principal Investigator: **Prof Manish Kumar**, Earth Sciences
- Theoretical and experimental study of wave propagation in granular metamaterials, Department of Science and Technology, Principal Investigator: **Prof Jayaprakash K R**, Mechanical Engineering
- Development of a predictive geomorphic model as a tool for a sustainable river management, Ministry of Earth Sciences, Principal Investigator: **Prof Vikrant Jain**, Earth Sciences
- HDR-GIF and HDR video generation for dynamic scenes, Science & Engineering Research Board, Principal Investigator: **Prof Shanmuganathan Raman**, Electrical Engineering

CONSULTANCY PROJECTS

- Time and motion study: Earth work under MGNREGA in Gujarat, Principal Investigator: **Prof Pranab Kumar Mohapatra**, Civil Engineering
- Design of size reduction system and characterization of the micronized powders for DP Pulveriser Industries, Mumbai, Principal Investigator: **Prof Chinmay Ghoroi**, Chemical Engineering
- Water resources and climate change for Ministry of Environment, Forest and Climate change, Principal Investigator: **Prof Vimal Mishra**, Civil Engineering
- Assistance for geotechnical investigation and Design – Khonsa, Arunachal Pradesh for WAPCOS India Ltd., Principal Investigator: **Prof Amit Prashant**, Civil Engineering
- Geotechnical investigation at Bhadbhut Barrage for Gulf of Khambat Development Project (WR), Principal Investigator: **Prof Amit Prashant**, Civil Engineering
- Techno economic feasibility of foundation system for solar parks/solar projects in Dholera SIR for Dholera Industrial City Development Limited, Principal Investigator: **Prof Amit Prashant**, Civil Engineering

SCHOLAR-IN-RESIDENCE

Name	Discipline	Affiliation	Date of joining
Dr Ashish Deshpande	Mechanical Engineering	Associate Professor, University of Texas, Austin	14/08/18
Dr Shalene Jha	Biological Engineering	Associate Professor, University of Texas, Austin	14/08/18
Dr Shungo Kawanishi	Humanities	Director of Global Communication Center, JAIST, Japan	28/08/18

Activities at IITGN



INAUGURATION OF HOUSING FOR CONSTRUCTION WORKERS

IIT Gandhinagar continues to put in great effort to provide dignified living conditions for construction workers. The next set of housing units for construction workers were inaugurated by **Mr Prabhakar Singh**, Director General of CPWD on August 16, 2018. These 202 housing units for the construction workers of the Research Park project are equipped with pukka flooring, water supply, electricity, and clean sanitation facilities.



WORKSHOPS

- Elemental Analysis with ICP-MS and Isotopic Analyses with MC-ICP-MS and TIMS by **Dr Laure Dussubieux**, Integrative Research Center, Field Museum and **Dr Thomas R Fenn**, Assistant Professor, Department of Anthropology, University of Oklahoma, July 30-31, 2018.
- Implementing Successful Library & Information Teaching Session in Academic Libraries by **Ms Rebecca Raworth**, Island Medical Program & Health Sciences Librarian and **Ms Aditi Gupta**, Engineering & Science

SHORT COURSES

- Ground Water Development and Management by **Dr R C Jain**, formerly Chairman of Central Ground Water Board, New Delhi, August 04 to September 02, 2018.
- Introduction to Public Performance by **Mr Stefan Haves**, International Impresario at CIRQUE DU SOLEIL, August 06 to August 09, 2018.
- Find the Leader in You (FLY) by **Mr Uday Nadkarni** and **Mr Harsh Bhargava**, **Mr Erik Dauwen**, **Dr Aruna Bhargava**, **Dr Aparna Rajagopal**, **Dr Amrsh Garg**, August 11-12, 2018.
- Indian Military Strategy by **Maj Gen (Retd) B K Sharma**, **Lt Gen (Retd) G S Katoch**, **Dr Roshan Khanijo**, August 18-19, 2018.
- Vehicle Navigation: Principles & Practices by **Prof Ashok Joshi**, Aerospace Engineering Department, IIT Bombay, August 22-26, 2018.
- Research Methods for Successful PhD by **Prof Dinesh Kant Kumar**, Biomedical Engineering at RMIT University, Melbourne, Australia, August 24-28, 2018.
- Understanding Diversity by **Prof Shungo Kawanishi** and **Dr Kotona Motoyama**, Japan Advanced Institute of Science and Technology (JAIST), September 03-07, 2018.

Librarian from the University of Victoria Libraries in British Columbia, Canada, and **Dr J K Vijaykumar**, Library Director, King Abdullah University of Science and Technology (KAUST), Saudi Arabia, August 18, 2018.

- How to write a quality research paper for IEEE Publications & IEEE Xplore Digital Library: Delivering Research Better Than Ever by **Dr Dhanu Pattanashetti**, Client Services Manager, IEEE, August 20, 2018.
- New Product Idea to Business Innovation by **Dr Jayanta Chatterjee**, Adjunct Professor IIT Kanpur, September 07-09, 2018.

- Electro and electroless plating: From theory to applications by **Dr Véronique Vitry**, University of Mons, Brussels, September 24-25, 2018.

LECTURES

- The Neuroscience of Peak Performance - how to tinker your brain to be more productive and innovative by **Dr Abhijit Das**, Director, Neurorehabilitation Program at Institute of Neurosciences, AMRI Mukundapur, Kolkata, July 11, 2018.
- Towards the Field of Curiosity Studies by **Dr Arjun Shankar**, Hamilton College, July 13, 2018.
- X-ray Photoelectron Spectroscopy by Thermo Scientific representatives, July 14, 2018.
- Application of Multi-Variate Analysis in Sediment Yield Modelling for Small watershed: A Case Study on Upstream Catchment of River Mahanadi by **Dr P K Das**, VSSUT, Burla, Odisha, July 16, 2018.
- Founding the Team by **Mr K Thyagrajan** and **Mr Madhu Mehta**, Mentors at IIEC and Founding team

EXPLORER FELLOWSHIP OPEN HOUSE

IIT Gandhinagar Explorer Fellowship is a unique annual summer program which aims to introduce students to different aspects of life and to increase their societal connection by enabling them to travel for six weeks across the length and breadth of the country on a very limited budget. A total of 96 students undertook the Explorer Fellowship this summer in 32 different teams with themes such as Food, Education, Sports, Schooling, Architecture, Agriculture and so on. Students shared their journey experiences and learnings through short video documentaries on September 8, 2018.



72ND INDEPENDENCE DAY

IITGN celebrated the 72nd Independence Day at the campus on August 15, 2018. The celebrations started with flag hoisting by the Director **Prof Sudhir K Jain**, singing of the national anthem, and distribution of Campus Development Awards. A felicitation program of the Dean's list was also organized for all the undergraduate students, to appreciate their hard work and academic performances in each semester. The celebrations concluded with a cultural program.

- COMSOL Multiphysics for Teaching and Research by **Mr Ajit Bhuddi**, Applications Engineer, COMSOL, September 12, 2018.
- SciFinder Database for Academic Research by **Mr Anand S Singh**, an Expert Trainer, ACS International (American Chemical Society), September 14, 2018.
- Effective use of SCOPUS Citation Database & MENDELEY - Reference Management Software by **Dr Shubhra Dutta**, PhD Customer Consultant (Core Content)- South Asia A&G Team, ELSEVIER Publisher, September 24, 2018.



The seventh Roddam Narasimha Lecture titled Role of Advanced Materials in Transforming India into a Global Leader was delivered by **Prof B S Murty**, IIT Madras on August 13, 2018.

- members at I-create, July 20, 2018.
- Etched in Stone: Early Urdu Epigraphy in Gujarat and the Deccan by **Prof Walter N Hakala**, State University of New York, Buffalo, July 23, 2018.
- The challenge and potential of printing lightweight and flexible solar panels by **Dr Anurag Panda**, Massachusetts Institute of Technology, August 9, 2018.
- Force generation by multiple rigid filaments and molecular motors by **Dr Tripti Bameta**, Mumbai University, August 10, 2018.
- Strain bias induces suboptimal responses post influenza vaccination by **Dr Vamsee Aditya**, Stanford University, August 10, 2018.
- Nuclear Magnetic Resonance (NMR) by **Ms Mamta Joshi**, Expert in NMR Instrumentation, August 17, 2018.

- On the reduction of turbulence-aerofoil interaction noise by **Dr Chaitanya Paruchuri**, Institute of Sound and Vibration Research (ISVR), University of Southampton, August 21, 2018.
- The Magic of DNA by **Prof Manish K Gupta**, DA-IICT, Ahmedabad, August 24, 2018.
- The Ghosted Empire: Haunting and Memory in Postcolonial Urban Culture by **Dr Anuparna Mukherjee**, Australian National University (ANU), August 29, 2018.
- Patterns in drying drops of colloidal suspensions by **Dr Basavaraja Gurappa**, IIT Madras, August 31, 2018.
- To be or not to be?! A session on what does it takes to embark into entrepreneurship as a career choice by **Mr K Thyagrajan**, Mentor, IIEC, IITGN, September 1, 2018.
- Biochar and its potential role in addressing the Water-Food-Energy Nexus by **Prof David Warner**, Newcastle University, UK, September 5, 2018.
- Understanding the role of minor intron splicing in disease and development by **Prof Rahul Kanadia**, University of Connecticut, USA, September 5, 2018.
- Role of Biomarkers in Translational Cancer Research by **Prof Heena Dave**, Director, Research and Innovation at Nirma University, September 7, 2018.
- Operation of water distribution networks by **Dr Sridharakumar Narasimhan**, IIT Madras, September 7, 2018.
- Gift A Life: Million Donor Adventure by **Mr Anil Srivatsa**, CEO, Mediawalla Inc, September 7, 2018.
- Towards Enhanced Thermal Transport through Micro and Nano Surface Engineering by **Prof Chander Shekhar Sharma**, IIT Ropar, September 14, 2018.
- Anatomy of a Crisis: Explaining Inter-State Crisis Onset from India and Pakistan by **Ms Emily Tallo**, the South Asia Program at the Stimson Center, and **Ms Akriti Vasudeva**, South Asia Program at The Stimson Center, September 17, 2018.
- Fiber reinforced polymer matrix composite: impact behavior and manufacturing opportunities by **Dr Pierpaolo Carlone**, Department of Industrial Engineering, University of Salerno, Italy, September 26, 2018.
- A selective ER-phagy exerts procollagen quality control via a Calnexin-FAM134B complex by **Dr Alison Forrester**, Institut Curie, Paris, September 27, 2018.
- Computational Modelling: Capabilities and Challenges. A perspective from the energy industry by **Dr Majeed Shaik**, Senior Researcher, Digital Rock and Image Analysis team, Shell Technology Centre, Bangalore, September 28, 2018.
- Light sheet microscopy by **Dr Ralf Bauer**, Department of Electronic and Electrical Engineering, University of Strathclyde, September 28, 2018.

Student and Staff Activities

AWARDS AND RECOGNITIONS

- **Gayathri Purushothaman**, a final year PhD student of Biological Engineering, attended the prestigious 68th Lindau Nobel Laureate Meeting, held between June 24-29, 2018 at Lindau, Germany.
- **Prajakta Jadhav**, a PhD student in Civil Engineering, received Young IGS Member Session Award at the International Conference on Geosynthetics held in Seoul, South Korea.
- **Neha Manav**, a PhD student in Chemistry discipline, received the prestigious Shastri Research Student Fellowship to undertake a research project on Porphyrin-Lipid Conjugates where she will be hosted by Professor Gang Zheng in the Department of Medical Biophysics at the University of Toronto, Canada.
- **Anirban Roy**, a PhD student in the Electrical Engineering discipline, won two travel grants namely, International Travel Grant of the Department of Science and Technology, and Zurich Instruments Student Travel Grant for his doctoral work on the measurement of atmospheric carbon dioxide and water vapor in built-up urban areas in the Gandhinagar-Ahmedabad region in India using a laser.
- **Chandan Kumar Jha**, a PhD student in Electrical Engineering, won the **Outstanding Results Award** for his oral presentation at the 26th Optical Fiber Sensors (OFS 26) conference held between September 24 to 28 2018 at Lausanne, Switzerland. Chandan presented his research on “A Fiber Bragg Grating-based Sensing Glove with a Sensitivity of 18.45 pm/degree to Accurately Assess Finger Flexure”. The work also involves key contributions from **Shivang Agarwal**, a final year undergraduate student in Electrical Engineering at IIT Gandhinagar.



UNDERGRADUATE RESEARCH CONCLAVE

The third Undergraduate Research Conclave (UGRC) was organized at the campus on August 25, 2018. Total 17 students presented posters of their research work in UGRC 2018 as a part of their summer internship program. The Conclave was organized by **Prof Iti Gupta**, **Prof Manish Kumar**, **Prof Krishna Kanti Dey**, and **Prof Vineet Vashista**. The Best Poster awards were received by **Anusha Kamath** and **Alrick Dsouza**.

IIT GANDHINAGAR'S GOT TALENT (IGT)

IIT Gandhinagar organized its second edition of IIT Gandhinagar's Got Talent (IGT) during September 7-9, 2018. The program offered an opportunity to all the students to showcase their talents. The event witnessed students giving some mind blowing performances in dance, singing, drama, fashion show and many more.

Sports News

INTRA MURAL

IITGN hosted its 5th Intra-Mural opening ceremony in the concluding week of Foundation Program from August 20-24, 2018. The students made different groups, each with a unique name like Team Aakash, Team Prithvi, Team Naag, and Team Agani. The groups gave dance performances that included several acrobatic moves, human pyramid, and zumba dance.

RELIANCE CUP

IITGN football team took part in the Reliance Foundation Youth Sports tournament for football. The tournament started on September 16, 2018. The team played two matches in the tournament and have won both the matches with the margin of 4-0 and 3-0 respectively.

SHAURYA 2018

IIT Gandhinagar participated in 15 different sports events in Shaurya 2018, an annual sports festival organized by IIM Ahmedabad from September 20-23, 2018. The Frisbee team & Badminton Women team made it to the semifinals whereas the Basketball Women team were able to make it to the first round.