# Connections



2019-2020, Volume XII, Issue III January - March 2020

Connections is the quarterly newsletter for friends of IIT Gandhinagar

## **INSTITUTE ACTIVITIES**

#### PADMA SHRI TO PROF JAIN



**Prof Sudhir K Jain**, Director, IITGN was awarded a **Padma Shri** for the year 2020 at this year's Republic Day, for his distinguished service in the field of Science and Engineering. Prof Jain is an internationally acclaimed expert in earthquake engineering. Under his dynamic and visionary leadership as the founding director,

IITGN has scaled newer heights and developed a global reputation for its academic innovations, interdisciplinarity, emphasis on the liberal arts and globalisation. To celebrate this momentous achievement, the institute had organised a felicitation ceremony in his honour on February 22, 2020.

#### PROJECT ISAAC DURING COVID-19

IITGN launched 'Project Isaac' to engage its students in creative projects to enhance their critical skills while they were confined to their rooms or homes during the Covid-19 crisis. The project is inspired by Sir Isaac Newton, who faced a similar situation during the Great Plague of London in 1665. Under this project, IITGN has introduced several exciting contests around leadership, coding, programming, research, innovation, creative expression and writing, with prizes and rewards for its students as well as alumni, faculty and staff. Nearly 60% of the student body participated in these voluntary projects.

#### IITGN'S RESPONSE TO COVID-19 CRISIS

IITGN took several measures to deal with the COVID-19 crisis and to ensure safety and wellbeing of its entire community. The Institute has formed a five-member Crisis Management Group (**Prof Harish P M**, Chair) to continuously monitor the evolving situation and recommend necessary steps. An entirely student-run 24x7 Control Room was set up at the Institute to facilitate queries and provide necessary support. A Special Volunteer Force (**Prof Arnab Saha**, Coordinator) was formed with enthusiastic participation of community members to provide support for various essential services on campus. IITGN constituted Shramik Kalyan Samiti (**Prof Gaurav Srivastava**, Chair) to address the challenges faced by our construction workers. A Padosi Gram Sahyog Samiti (**Prof B Prasanna Venkatesh**, Chair) has been formed to undertake welfare activities in the neighbouring villages of Palaj and Basan.











The Institute organised its 9<sup>th</sup> Academic Advisory Council (AAC) on January 3, 2020, hosting eminent scholars and academicians from around the world. The Council focused on strategies for effective faculty service towards institution building, advancing faculty and staff development, promoting research among non-PhD students, and examining the need to adopt a general education component in the curriculum.

#### **10<sup>TH</sup> LEADERSHIP CONCLAVE**

IITGN's 10<sup>th</sup> Leadership Conclave held on January 4, 2020 focussed on devising a comprehensive strategy for "IITGN Next"; ways to sustain and build upon its distinctive culture; strategizing to deal with unexpected challenges; and approaches to scale-up fundraising. The conclave brought together eminent thinkers and industry experts from India and overseas.

#### SUPPORT FOR THE INSTITUTE

# DAYA SHANKER AND SHAKUNTALA SCHOLARSHIP

Mr Akash Keshav Singh, a BTech alumnus of 2015 batch, has instituted Daya Shanker and Shakuntala Scholarship in honour of his parents. The scholarship is open to all BTech students and offers Rs 1 lakh to one BTech student every year to



Akash Keshav Singh



Mrs Shakuntala & Mr Daya Shanker Singh

support internships, special projects and opportunities, financial needs, etc. Akash is currently associated with Arista Networks, Pune as a Business Development Executive. While at IITGN, he was the General Secretary of the Student Council and led Nyasa, a social outreach programme of IITGN for education of underprivileged kids.

#### SHRI ONKARPRASAD TANDON SCHOLARSHIP

Mr Akhilesh Gotmare, a BTech alumnus of 2016 batch, has set up Shri Onkarprasad Tandon Scholarship in honour of his late maternal grandfather. The scholarship of Rs 1 lakh per student per year is open to all BTech students and is awarded to one BTech student every year to support internships, special projects and opportunities, financial



Akhilesh Gotmare



Late Shri Onkarprasad Tandon

needs etc. After completing his BTech, Akhilesh pursued his Masters in Computer Science at École Polytechnique Fédérale de Lausanne (EPFL) in Switzerland. He is currently a Machine Learning Researcher with Salesforce Research in Singapore.

# ADVISORY COUNCIL OF IIEC AND RESEARCH PARK

The fourth meeting of the Advisory Council for IIEC and Research Park took place on March 5, 2020. Illustrious members who participated in the meeting included Mr Kris Gopalakrishnan, Mr Ajai Chowdhry, Ms Soumya Rajan, Mr R Gopalakrishnan, Mr Vijaya K Ivaturi, Mr Sajnay Randhar, Mr Anand Parekh, and Mr Kunal Upadhyay.

#### **VISITORS ON CAMPUS**

- Director of Alliance Française of Ahmedabad, Dr Gael De Kerguenec visited IITGN on February 11, 2020 to interact with students about opportunities for higher education and employment in France.
- Prof Claire Smith, an Archaeologist from Flinders University, Australia, visited IITGN in January for two months, accompanied by distinguished scholars Dr Gary Jackson, Dr Ralph Jordan; and her

#### **TEM FACILITY AT IITGN**

IITGN is now equipped with a Transmission Electron Microscopy (TEM) facility. The state-of-the-art facility was inaugurated by Prof Sudhir K Jain, Director, IITGN on February 25, 2020. The facility is one of its kind in Gujarat and among a handful such in the country. IITGN successfully established this special lab independently in less than 8 months under the leadership of **Prof Abhay Gautam**.

#### RA, Mr Luke Rooney.

- Mr Kamalesh Dwivedi, Business Partner, 3Lines Venture Capital, visited IITGN as a Mentor-in-Residence for start-ups and students during January 3-13, 2020.
- **Mr Atul Jain**, Founder & CEO, TEOCO, visited IITGN and interacted with faculty, student leadership team, and start-up owners on January 29, 2020.

## **FACULTY NEWS**

#### **PATENTS**

- Photochromic Organic Compounds and a Process for Preparation thereof: Inventors include Prof Chandrakumar Appayee, Venkata Mani Duppalapudi Padmaja, and Mahesh S Kutwal.
- Photochromic Organic Compounds and a Process for Preparation thereof: Inventors include Prof Chandrakumar Appayee and

#### Venkata Mani Duppalapudi Padmaja.

 A Cool Flame Reactor for Diesel Reformer: Inventors include Prof Atul Bhargav and Sagardeep Bhakta.

#### **AWARDS & RECOGNITIONS**

- **Prof Dhiraj Bhatia**, Assistant Professor, Biological Engineering, IITGN, received the Merck Young Scientist Award.
- **Prof Himanshu Shekhar**, Assistant Professor, Electrical Engineering, IITGN, was awarded

the Star Ambassador Lectureship Award for 2020 from IEEE Ultrasonics, Ferroelectrics, and Frequency Control Society.

# SPONSORED AND CONSULTANCY PROJECTS

To find the list of sponsored and consultancy projects at IITGN, please go to this link: https://iitgn.ac.in/newsletter/projects/q1\_2020 or scan the QR code.



#### **NEW FACULTY**

The following faculty members joined the institute during this quarter:

Name	Designation	Discipline	PhD/ Last Degree	Date of joining
Dr Jooyoung Kim	Assistant Teaching Professor	Humanities and Social Sciences	The University of Delaware	04-01-2020
Dr Rengarajan Srinivasan	Visiting Professor	Mathematics	Carleton University	30-01-2020
Prof Atul Singh	Visiting Professor	Humanities and Social Sciences	The Wharton School, University of Pennsylvania	02-03-2020

#### **SCHOLAR-IN-RESIDENCE**

Name	Discipline	Affiliation	Date of joining
Dr Frederick Coolidge	Humanities	University of Florida	04-01-2020
Dr Amita Sinha	Humanities	University of California at Berkeley	04-01-2020
Dr Anezka Sebek	Humanities	The New School for Social Research	04-01-2020
Dr Naresh Samtani	Civil Engineering	The University of Arizona, Tucson	04-01-2020
Dr Jyotika Ramaprasad	Kiran C Patel Center for Sustainable Development	University of Miami	07-01-2020
Dr Maria Amante	Humanities	Instituto Universitário de Lisboa	03-02-2020
Dr Raghubir Sharan	Electrical Engineering	University of Waterloo, Ontario, Canada	19-02-2020
Dr Andreas Schueler	Materials Science and Engineering	École Polytechnique Fédérale de Lausanne (EPFL)	19-02-2020
Dr Marcos Severo	Humanities and Social Sciences	University of Sao Paulo, Brazil	25-02-2020
Dr Vasco Matos Trigo	Humanities and Social Sciences	ISCTE – University Institute of Lisbon	02-03-2020

## **ACTIVITIES AT IITGN**

- CPWD R&D CELL AT IITGN: The Central Public Works Department (CPWD) has set up a Research & Development (R&D) Cell at the Research Park of IITGN, to develop efficient solutions to problems faced by the construction industry. IITGN and CPWD will collaborate on various academic, training and capacity building programmes that will enable CPWD to become technologically more advanced to address practical problems faced on the field.
- HEC TO HOST MSME GRANTS: IIT Gandhinagar Innovation and Entrepreneurship

Center (IIEC) has been recognised as a host institute to implement the entrepreneurship support programme by the Ministry of Micro, Small and Medium Enterprises (MSME), Govt. of India. As per the programme, a startup recommended by the host institute can get grant funding of up to Rs 15 lakhs.

• FINANCIAL AID FOR UG/PG STUDENTS:
From the academic year 2020-21, all undergraduate and post-graduate students at IITGN having an annual parental income of less than Rs 2.5 lakhs shall be provided with full tuition fee support by the Institute through its endowment funds.



cLAY STUDIO AT IITGN: Prof Sudhir K Jain inaugurated a Clay Studio in the student hostel area on March 7, 2020. The studio is full-fledged with modern facilities and equipment and will enable anyone from the Institute to unleash their creativity using potter wheels, kiln, glazing materials, clay carving tools, and other raw materials.

 CAN 2020: IITGN and GEER Foundation collaborated to organise a series of workshops on Climate Change and related issues, titled Gujarat CAN (Climate Action Now) 2020. The first segment of the series focussing on Policy and Governance was coordinated in February 2020 by Prof C N Pandey, with more than 300 participants.



- ACM-INDIA ANNUAL EVENT: IITGN hosted the Association for Computing Machinery-India (ACM-India)'s annual event on February 15, 2020. Several global experts shared their knowledge at the event that saw participation of more than 1200 students, researchers, faculty members, and professionals from all over India. The event was coordinated by Prof Neeldhara Misra.
- 14<sup>TH</sup> IRISS AND ACM-W WORKSHOP: The 14<sup>th</sup> Inter-Research-Institute Student Seminar in Computer Science (IRISS) was held at IITGN on February 13-14, 2020. The event was co-located with Association for Computing Machinery-Women India (ACM-W India)'s workshop on 'Women in Computer Science and Research' on February 14, 2020. The events were coordinated by Prof Neeldhara Misra.
- PHASE 2020: An Indo-UK Workshop on Photonics for Health, Atmosphere, Safety and Education (PHASE 2020) was conducted at IITGN during January 10-14, 2020. It was sponsored by the Royal Academy of Engineering, UK and was organised jointly by Dr Arup Lal Chakraborty (IITGN), Prof Ken Grattan (City University London) and Dr Ralf Bauer (University of Strathclyde, Glasgow).
- 2<sup>ND</sup> SUSTAINABILITY FAIR: The Dr Kiran
   C Patel Centre for Sustainable Development
   at IITGN hosted its 2<sup>nd</sup> Annual Sustainability
   Fair on February 28, 2020. This included
   keynote talks by experts, nearly 30 exhibitors
   including government agencies, NGOs, welfare
   organisations, and industry leaders across India.
- **IDE 2.0:** Five shortlisted student teams under the initiative Innovation Driven Entrepreneurship (iDE) 2.0 attended a boot-camp at Bangalore from March 9-14, 2020. They visited R&D centres of different companies & incubators, and interacted with leading entrepreneurs.
- SANJEEVANI HEALTH CAMP: NYASA, IITGN in association with Desai Foundation, IIPHG and M S University, Baroda, organised the fifth edition of Sanjeevani a health and awareness camp on January 19, 2020, for villagers residing in surrounding areas of IITGN. More than 1,000 people participated in various health check-ups and awareness activities
- · HOMI COLLOQUIUM: A colloquium was

- conducted to give tangible shape to the recently launched HoMI (History of Mathematics in India) project during February 24-25, 2020. Panel discussions with experts on specific areas of potential research and other activities were organised by **Profs Michel Danino**, **Indranath Sengupta** and **Sudipta Sarkar**.
- SYMPOSIUM ON NANOSCIENCE: Profs Krishna Kanti Dey and Rupak Banerjee organised a Symposium on Frontier Problems in Nanoscience and Nanotechnology (FPNN- 2020) during February 14-15, 2020. Several distinguished scientists from across the country delivered lectures and about 65 students and researchers from the neighbouring institutes participated in the two-day event.
- UTYAEI: IITGN, with the National Institute
  of Educational Planning and Administration,
  New Delhi, organised an international
  conference on Urban Transformations, Youth
  Aspirations and Education in India (UTYAEI)
  on February 20-21, 2020, co-organised by
  Prof Mona Mehta, IITGN and Prof Manisha
  Priyam, NIEPA.
- **NATIONAL CONFERENCE IN CHEMISTRY:** IITGN hosted the 3<sup>rd</sup> National Conference in Chemistry during February 12-13, 2020, coordinated by **Profs Sivapriya Kirubakaran** and **Sriram Kanvah**.
- INTERNATIONAL CONFERENCE ON AEE: IITGN in association with the Indian Council of Social Science Research (ICSSR), New Delhi, organised a three-day international conference on Affect, Embodiment and Ecology: Multi-disciplinary Perspectives during March 2-4, 2020. This was coordinated by Profs Ambika Aiyadurai, Arka Chattopadhyay and Nishaant Choksi.
- RECENT TRENDS IN ALGORITHMS: IITGN organised the 2<sup>nd</sup> edition of a workshop on Recent Trends in Algorithms (RTA) from February 16-19, 2020, coordinated by Prof Manoj Gupta.
- OUANTITATIVE GEOMORPHOLOGY:

IITGN organised a national workshop on Quantitative Geomorphology from February 7-21, 2020. This two-week workshop was coordinated by **Prof Vikrant Jain**.

- MATHEGON 2020: Discipline of Mathematics organised its annual outreach event, MatheGon on February 1, 2020. The event, coordinated by Prof Indranath Sengupta, engaged school children in various facets of Mathematics through day-long events, talks and activities.
- COGNITALKS 2020: The Centre for Cognitive and Brain Sciences at IITGN organised the 3rd edition of CogniTalks on February 7, 2020.
   The event coordinated by Prof Leslee Lazar had an ecologist, neuropsychologist, musician and a cartoonist, discussing cognition from different perspectives.
- **FUTURE FACULTY INITIATIVE:** As a part of the Future Faculty Initiative at IITGN, the Career Development Services (CDS) of the Institute organised a series of workshops on Navigating the Faculty Application Process.

Two sessions were conducted in February by **Prof Himanshu Shekhar**.

FROM BULK TO BOUNDARY: A workshop called From Bulk to Boundary: Recent Trends in Holography and Quantum Field Theory was organised by Prof Arpan Bhattacharyya on March 12-13, 2020. Leading physicists from institutes in India were invited as speakers. About 16 faculty and students from the Physics discipline of IITGN participated in the event.



#### REPUBLIC DAY

IITGN celebrated the 71st Republic Day with patriotism and grandeur. The celebrations started with flag-hoisting, recitation of the national anthem and Director's address to the community, followed by distribution of awards in various categories, cultural performances, the Dean's list felicitation programme and a tree plantation drive. The Faculty Excellence Awards were received by Prof Atul Dixit for Excellence in Teaching, Prof Arnab Dutta for Excellence in Research, Prof Gaurav Srivastava for Excellence in Institution Building, and Prof Neeldhara Misra for Excellence in Outreach Activities. Following staff members received the Staff Excellence Awards: Shri Krishan Birhman, Anand Pandey, Supin Gopi, Manubhai Chaudhari, Gaurav Kumar Singh, Hareshkumar Chaudhari, Rajnikant Patani, Parikshit Solanki, and Dinesh V Solanki. Recipients of the Campus Development Awards were: B V Puvar, Nupur Tandon, Soumya Harish, Dinesh Parmar, Nikulkumar Pravinsinh Bihola, Hardik Patel, and Prem **Singh Airi.** The Institute also presented awards to winners of Inter-IIT Staff Sports Meet 2019.

**Bada Khana:** Keeping up its practice of inclusiveness, IITGN organised a Bada Khana on Republic Day. All members of the IITGN community including faculty, staff, students, construction workers, engineers, architects, consultants, and their family members enjoyed eating together like one big family.



# WORKSHOPS AND COLLOQUIA

- Tell to Sell by Ms Vranda Rathi, an avid Toastmaster of Ahmedabad, January 19, 2020
- Introduction to the typesetting system LaTeX by the freshmen and sophomore members of **Team LaTeX**, IITGN, January 20-21, 2020.
- Science Comic Making Workshop by Mr Argha Manna, a Science journalist at ABP and a Comics Artist, February 8, 2020.
- Woodcut Printing Workshop by Prof Leslee Lazar, HSS, IITGN, February 15, 2020.
- · Colloquium on Avatars of Gravity by Prof

**Thanu Padmanabhan**, Inter-University Centre for Astronomy & Astrophysics (IUCAA), Pune, February 27, 2020.

#### **SHORT COURSES**

- Lasting Leadership by Mr Mukul Pandya, Executive Director and Editorin-Chief, Knowledge@Wharton, January 5-9, 2020.
- Soiling Effects on Solar Energy Generation by Dr Mike Bergin (Duke University), Dr Chinmay Ghoroi (IITGN), and Dr Naran Pindoriya (IITGN), January 6-10, 2020.
- Meditation and the Mind by Dr Srinivas Reddy, Guest Professor of Humanities, IITGN, January 6-10, 2020.

- Building Early-stage Startups and Valuations by Mr B V Jagadeesh, Managing Partner, KAAJ Ventures, January 20-25, 2020.
- Of Mosaic, Hybrids, and Braids Seminar on Human Evolution by Dr Yann-Pierre Montelle, a behavioral archaeologist, January 20-28, 2020.
- Nanostructured Materials for Solar Energy Applications by Dr Andreas Schüler, Research Group Leader, EPFL, Switzerland, February 15-20, 2020.
- Landscapes of Memory by Prof Amita Sinha, former Professor at the University of Illinois at Urbana Champaign USA, February 10-14 & 17-19, 2020.
- · Immunology for Disease Pathogenesis

- and Drug Development by **Dr Narendra Chirmule**, CEO, SymphonyTech
  Biologics, February 14-16, 2020.
- Social Media Marketing: Theory & Applications by Prof Marcos Severo, Professor, Federal University of Goiás, Brazil, February 24-28, 2020.
- On the Origin of Species by **Dr Supreet Saini**, Associate Professor, Chemical Engineering, IIT Bombay, March 14-15, 2020.

#### **LECTURES**

Follow this link events.iitgn. ac.in or scan the QR code to see the lectures held at IITGN.



### STUDENT AND STAFF ACTIVITIES

#### **AWARDS AND RECOGNITIONS**





**Srimadhavi R** and **Dependu Dolui**, PhD Scholars in Chemistry, IITGN, have been selected to attend the prestigious Lindau Nobel Laureate Meeting to be held at Lindau, Germany, from June 28 to July 3, 2020.

- Team NutriMonster, led by Kshitij Gajpure, a student at IITGN, won the Best of Vuforia track in MIT Reality Hack on January 16-20, at MIT, USA.
- Falak Vats, a PhD Scholar in Civil Engineering, IITGN, won the Most Innovative Idea Award in the postgraduate category at Prastuti 2020, an annual Techno-Management presentation contest held in Delhi on March 7, 2020.
- Mohit Ganeriwala, a PhD student in Electrical Engineering, IITGN, received the Outstanding Graduate Teaching Fellow Award for Semester I, 2019-20, for his excellent contributions to the course EE 644: Physics of Transistors.



#### STUDENT LEADERSHIP CONCLAVE

The third edition of the Student Leadership Conclave was held at IITGN during January 11-12, 2020. Student leaders from 21 IITs participated and extensively discussed various topics.

#### **BLITHCHRON 2020**

The tenth edition of Blithchron had its opening ceremony on February 1, 2020 and received a



massive footfall of 12,000. The student body of IITGN worked hard to successfully bring the fun and entertainment that Blithchron is known for, with amazing cultural performances and events.

#### **IASHN 9.0**

The ninth edition of Jashn, the intra cultural fest of IITGN, was held during January 9-12, 2020. The four-day event was full of fun and enjoyment for the community.



#### **ANNUAL PICNIC 2020**

This year's IITGN annual picnic on February 23, at Aranya Udhyan, Gandhinagar was replete with fun activities and entertainment for everyone.

#### **LUNCH AT ORGANIC FARM**

More than 170 members of the IITGN community visited the organic farm on the campus on January 19, 2020. The tour was followed by a village-style lunch and various recreational activities.

## **SPORTS NEWS**

- BEAT THE DEAN: To inculcate the habit of running amongst students, IITGN's Physical Education Section organised a 5km and 2.5km run for community members on Republic Day, combining it with an exciting 'Beat the Dean' challenge by Prof Harish P M, Dean, Student Affairs. Nearly 30 out of 74 participants completed the challenge.
- GDFA TOURNAMENT: IITGN hosted the Gandhinagar District Football Association (GDFA) tournament's opening ceremony on

- January 25, 2020. Host team IITGN A defeated Insane Rovers Football Club's team IRFC B and won the first league match by a huge margin.
- VIKRAM SARABHAI CUP: IITGN Cricket team defeated Indus University to win the Vikram Sarabhai Space Cup, hosted by Space Application Centre (ISRO), Ahmedabad.
- INTRA MURAL: IITGN witnessed zealous participation in the Intra Mural sports tournaments of football (LFP), basketball (IBL), volleyball (SML), and cricket (CCL), along with newly introduced games like badminton, table tennis and athletics.
- BRONZE MEDALS IN PETRO CUP: IITGN team won bronze medals in the following events of Petro Cup, the Annual Sports Fest of PDPU held February 13-18, 2020: Discus Throw Gautam Vashishtha, 200m Sprint Deependra Kumar, and 4\*100 m relay Deependra Kumar, Neeraj Kumar, Abhishek, and Ajay Karwasara.
- PARTICIPATION IN JUSTICE LEAGUE: IITGN secured a bronze medal in the discus throw event at Gujarat National Law University's Annual Sports Fest, Justice League held on February 20- 23, 2020.