

# Connections

A quarterly newsletter for friends of IIT Gandhinagar

2022-2023, Volume XV, Issue I  
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## INSTITUTE HIGHLIGHTS

### PROF RAJAT MOONA APPOINTED AS DIRECTOR

**Prof Rajat Moona** has been appointed as the Director of IITGN. His appointment has been approved by the President of India. Professor Moona has headed IIT Bhilai as Director for more than five years. Prior to joining IIT Bhilai, he served as Director General of the Centre for Development of Advanced Computing (C-DAC). He is also a faculty of Computer Science and Engineering at IIT Kanpur since 1991.



### 11TH CONVOCATION

IITGN hosted its 11th Convocation on July 30, 2022, by conferring degrees to a total of 397 students in an offline ceremony. The Institute awarded degrees to 179 BTech students, 4 Dual Major BTech students, 1 BTech-MTech Dual Degree student, 3 BSc in Engineering students, 43 MTech students, 105 MSc students, 20 MA students, 39 PhD students, and 3 PGDIIT students. This year, 35 students received 50 medals, including 33 gold medals and 17 silver medals for excellence in various categories. **Dr Krishnaswamy VijayRaghavan**, former Principal Scientific Adviser, Government of India, graced the occasion as the Chief Guest and motivated students to solve global challenges of this era. **Prof Amit Prashant**,



Officiating Director, congratulated the graduating students and medal winners and gave a brief overview of the Institute's activities and achievements during the year.

**Kushagra Sharma** was awarded the President's Gold Medal for BTech, **Hiren Solanki** secured the President's Gold Medal for MTech, and **Apoorva Sharma** received the President's Gold Medal for MSc and MA. **Praveen Venkatesh** bagged the Director's Gold Medal for BTech, Director's Gold Medal for MTech went to **Athulkumar R**, Director's Gold Medal for MSc and MA was awarded to **Abhinanda Dash**. The entire event was also streamed online on IITGN's YouTube channel.

### NIRF'S INDIA RANKINGS 2022

National Institutional Ranking Framework (NIRF) announced India Rankings 2022 on July 15, 2022. IITGN has once again fared among the top 50 educational institutions in the country. The Institute secured 37th rank in the overall category, 23rd rank in the engineering category, and 34th rank in the research institutions category.

### COLLABORATIONS WITH INDUSTRIES

IIT Gandhinagar Research Park and industrial giant **ArcelorMittal Nippon Steel India Limited** have entered into an MoU in Aug 2022 to promote industry-academia collaborations at a global scale and facilitate avenues of research-based partnerships with IITGN faculty members and students. The Institute has partnered with **Shri Mukesh Shah**, Managing Partner, Shah Bhogilal Jethalal & Bros (AAAG India), on July 02, 2022, to establish a passive fire testing lab and undertake multiple scholarly activities in the area of fire safety. In appreciation of his generous support, the new fire-testing research lab will be named as '**Shah Bhogilal Jethalal Laboratory for Passive Fire System Testing**', in memory of Shri Mukesh Shah's grandfather and founder of the Shah Bhogilal Jethalal & Bros. IITGN has also collaborated with **Firetech Equipment & Systems Pvt Ltd**, a Mumbai-based manufacturer of fire fighting systems, on July 05, 2022, to set up its operations at the Institute's Research Park and work with the IITGN students and faculty members to boost their product development and innovation strategies.

### PROF SUDHIR K JAIN CHAIR

The IIT Gandhinagar Foundation (IITGNF) in the USA and IITGN have joined hands to support educational excellence at IITGN by setting up **Prof Sudhir K Jain Chair**, to honour the contributions of **Prof Sudhir K Jain**, Founding Director of the Institute. The Faculty Chair will be offered to the regular Director of IITGN.

### UNION MINISTER AT IITGN

**Shri Ashwini Vaishnaw**, Union Minister of Railways, Communications, Electronics & Information Technology, visited IITGN on Sep 13, 2022, and interacted with start-ups, industry partners, and faculty members at the Institute on the sidelines of an expo and product demonstration session in the IIT Gandhinagar Research Park. Shri Vaishnaw also participated in an interactive session with the students and community at IITGN on the theme of 'Entrepreneurship and Innovation'.



### VISITING STUDENTS PROGRAMME

IITGN has started Visiting Students Programme to enable students of other institutes or universities to join its undergraduate and postgraduate programmes for a semester or even for a full academic year. The Institute has also launched a part-time Visiting Students Programme, wherein students, scientists or engineers of other institutes or industries can register for up to two courses for a semester while pursuing other endeavours at their parent organisation. A total of 24 students from across the country have enrolled into this programme during the first semester.

### IITGN-X: EDUCATION OUTREACH PROGRAMME

The Institute has launched IITGN-X, an education outreach programme that strives to engage with industry, professionals, educational institutions, schools, research entities, government and non-government establishments, and think tanks at national and international levels. It aims to build knowledge societies and contribute to the advancement of human aspiration through uniquely designed programmes and initiatives. The programme has already conducted a number of Education Outreach Activities, including conferences, research collaboration workshops, symposia, training programmes, short courses, etc. in various domains.



## SUPPORT FOR THE INSTITUTE

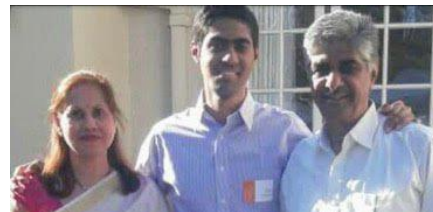
### ASHA & CHANDRAKANT NAVARKAR SCHOLARSHIP

**Abhishek Navarkar**, a BTech alumnus of 2015, has set up **Asha and Chandrakant Navarkar Scholarship** in honour of his parents. The scholarship of Rs 1 lakh per year will support students at IITGN. After completing BTech in Mechanical Engineering from IITGN, Abhishek did his Master's from Purdue University, USA, and is currently working as Data Scientist at Amazon, USA.



### DEVIKA AND PRASHANT NADKARNI SCHOLARSHIP

**Dr Neel Nadkarni**, a BTech alumnus of 2012, has set up **Devika and Prashant Nadkarni Scholarship** in honour of his parents. This scholarship of Rs 1 lakh per year will support students at IITGN. After graduating with a BTech in Electrical Engineering from IITGN, Neel completed his Master's and PhD from Caltech, USA. He is currently working as an Applied Scientist at Amazon, USA.



## FACULTY NEWS

### AWARDS AND RECOGNITIONS

- **Prof Neeldhara Misra**, Smt Amba and Sri V S Sastry Chair Associate Professor, Computer Science & Engineering, has been featured in a compendium of 'Women in STEM: Vanguard of India@75', an initiative by Confederation of Indian Industry (CII).
- **Prof Vimal Mishra**, Professor, Civil Engineering and Earth Sciences, has been selected as a member of the American Geophysical Union (AGU) Horton Medal Committee.
- **Prof Manish Kumar**, Associate Professor,

Civil Engineering, served as a reviewer in the selection for the first cohort of Quad Fellows, administered by Schmidt Futures, to be selected from the Quad countries (India, Australia, United States, and Japan), to pursue higher studies in STEM areas.

- A film titled "Kamala - The Swadeshi Nutri Indian", created by **Prof Sameer Sahasrabudhe**, Professor of Practice, Design, was nominated for public and jury screening for the "12th National Science Film Festival of India" (NSFFI). Another of his film, titled "The Quest", was selected at the Helsinki Education Film Festival International (HEFFI) for the year 2022.

### PATENTS FILED

- Sensor for Ammonia Gas Detection and a Method for Manufacturing the Sensor: Inventors include **Prof Rupak Banerjee**, **Tufan Paul**, **Avishek Maity**, and **Aditi Sahoo**.
- Transparent Electrode and a Process for its Preparation: Inventors include **Prof Emila Panda** and **Shivam Shukla**.

### SPONSORED AND CONSULTANCY PROJECTS

Please follow this link to find the list of sponsored and consultancy projects: [https://iitgn.ac.in/newsletter/projects/q3\\_2022](https://iitgn.ac.in/newsletter/projects/q3_2022) or scan the QR code.



## NEW FACULTY

Name	Designation	Discipline	PhD/Last Degree	Date of Joining
Dr Biswajit Saha	Assistant Professor	Chemical Engineering	Singapore MIT Alliance: NTU, Singapore & MIT, USA	18/07/2022
Dr Abinaya Sampath	Assistant Professor	Chemical Engineering	University of Illinois at Urbana Champaign	26/07/2022
Dr Krishnamachar Prasad	Visiting Professor	Electrical Engineering	University of Western Australia	01/08/2022
Dr Sameer Sahasrabudhe	Professor of Practice	Design	Yashwantrao Chavan Maharashtra Open University, Nashik	01/08/2022
Dr Aditi Kothiyal	Assistant Teaching Professor	Centre for Creative Learning	IIT Bombay	16/08/2022
Dr Projesh Nath Choudhury	Assistant Professor	Mathematics	IIT Madras	25/08/2022
Mr Atul Singh	Visiting Professor	Humanities and Social Sciences	The Wharton School, University of Pennsylvania	02/09/2022
Dr Krista R Khiangte	Assistant Professor	Physics	IIT Bombay	12/09/2022

## SCHOLAR-IN-RESIDENCE

Name	Discipline	Affiliation	Date of Joining
Prof P Sainath	Humanities and Social Sciences	People's Archive of Rural India	05/09/2022
Dr Christopher Roper Schell, Juris Doctor	Humanities and Social Sciences	The United Service Institution of India, Texas and Washington, DC, USA	15/09/2022
Dr Celso Camilo	Computer Science and Engineering	Federal University of Goias, Brazil	15/09/2022
Dr Marcos Inacio Severo de Almeida	Computer Science and Engineering	Universidade de Brasília, Brazil	15/09/2022

## ACTIVITIES AT IITGN

### FOUNDATION PROGRAMME - III AND AAROHAN 2022

IITGN organised Foundation Programme - III for the BTech batch of 2021 from July 04, 2022, and Aarohan 2022 for the new batches of MA, MSc, MTech, and PhD from July 18, 2022. Both programmes were packed with exciting activities and sessions to integrate new students into the

culture and ethos of IITGN and shape them into well-rounded personalities. The inaugural ceremonies were held with an interactive session with **Prof Amit Prashant**, Officiating Director, and faculty members and alumni of the Institute. While FP-III was coordinated by **Profs Balagopal Komarath, Biswajit Mondal, Mana Shah**, and **Utsav Mannu**, Aarohan 2022 was coordinated by **Profs Aashish Xaxa, Anirban Mondal**, and **Karthik Subramaniam Pushpavanam**.

### IITGN-DAKSHANA LEADERSHIP PROGRAMME

IITGN joined hands with Dakshana, a not-for-profit organisation, and **Mr Ruyintan Mehta**, a serial entrepreneur, and philanthropist, to conduct a month-long "IITGN-Dakshana Leadership Programme" from Sep 1-30, 2022. As a part of the programme at IITGN, some of the best mentors from India and abroad trained 100 academically outstanding Dakshana students



from humble backgrounds, predominantly from rural India, in essential skills of leadership, critical thinking, and communication. The programme was coordinated by **Prof Jaison Manjaly**.

### JEE OPEN HOUSE 2022

IITGN hosted an online JEE Open House session on Sep 15, 2022, to help JEE (Advanced) qualified BTech students and their parents better understand the IIT system and various career opportunities to make informed choices. The interactive event was segmented into different sessions with the IITGN Director, Deans of Academic Affairs and Student Affairs, faculty members, students, and alumni of the Institute, and saw participation from all over the world.

### VISHWAKARMA AWARDS 2022

**Dr Kiran C Patel Centre for Sustainable Development** at IITGN, in collaboration with the Maker Bhavan Foundation (MBF) and Wheels India Niswarth (WIN) Foundation, hosted the grand finale of the “Vishwakarma Awards for Engineering Innovation 2022” on Aug 27, 2022. The grand finale of the national-level competition witnessed some of the unique engineering solutions for water and sanitation challenges by engineering students from across the country.



### COMPETITION ON EV SAFETY

With an aim to encourage the young minds of our country to find solutions to improve the safety of Electric Vehicles, the **Centre for Safety Engineering (CSE)** at IITGN had organised a country-wide student competition - “Engineering Challenges on EV Safety” - during Summer 2022. Out of a total of 359 students (91 teams), who took part in the competition from different IITs, NITs and Universities across the country, seven teams from five institutes were invited to present their findings to an eminent jury, and winners were announced after the final evaluation on Sep 26, 2022.

### PORTALS TO RESEARCH

With an aim to celebrate the diversity of research by Postdoctoral Fellows of IITGN, enable them to engage with fellow researchers, and discuss potential collaborations, the Research and Development (R&D) division of the Institute organised “Portals to Research”, a first-of-its-kind poster presentation session for senior researchers, postdocs, and Early Career Fellows of the Institute on Sep 2, 2022. The session garnered an overwhelming response. The programme was coordinated by **Prof Ravi Sastri Ayyagari**.

### GIAN COURSE ON ELECTRIC MACHINES AND DRIVES

IITGN, under the aegis of Global Initiative of Academic Networks (GIAN), organised a course on “Electric Machines and Drives in Electrified Transportation Systems” during July 18-22, 2022. **Prof Mahesh Krishnamurthy**, Professor of Electrical Engineering at Armour College of Engineering, Illinois Institute of Technology, USA, conducted the five-day course, which explored emerging trends in this area with a focus on Electric and Hybrid Electric Vehicles. **Prof Ragavan K** was the course coordinator.



### SERB CONCLAVE ON WOMEN IN S&T

The Science and Engineering Research Board (SERB), Government of India and IITGN co-organised a national conclave on “Women in Science & Technology: Fostering Innovation” on Sep 29 & 30, 2022. **Prof Sandeep Verma**, Secretary, SERB, and **Prof Amit Prashant**, Officiating Director, inaugurated the Conclave. Nearly 200 women scientists, researchers, engineers, students, and postdoctoral fellows from industry and academia across the country participated in the two-day Conclave. The event was coordinated by **Profs Sivapriya Kirubakaran, Sriram Kanvah, Iti Gupta, and Bhaskar Datta**.

### 4TH ALL IITS CONCLAVE

IITGN hosted the 4th All IITs International Relations Conclave from Sep 30 to Oct 1, 2022. Nearly 35 participants representing the International Relations offices of 19 IITs participated in the Conclave, which focused on strengthening internal capacities in international student recruitment, global student exchanges and enhancing the experience of international students at the IITs. The conclave was coordinated by **Prof Achal Mehra** and **Prof Shanmuganathan Raman**.

### DST-STUTI WORKSHOPS

In its capacity as a Project Management Unit (PMU), IITGN coordinated various technical workshops-cum-hands-on-training-programmes on the Department of Science and Technology-funded equipment under the ‘STUTI’ scheme. A total of 10 institutes/universities from different parts of the country hosted the training workshops between July to Sep 2022. The STUTI project at IITGN is being handled by **Prof Emila Panda**.

### HISTORY OF IDEAS 3.0

IITGN organised the third edition of the “Seminar Series on History of Ideas” on Sep 10, 2022, with two interesting online seminars. The first seminar on “Darwin’s Theory of Evolution: Importance and Implications” was delivered by **Prof Rhitoban Ray Choudhury** from IISER Mohali. In the second seminar, **Prof Leslee Lazar** from IITGN explained “The History of the Brain Sciences: From a Cooling Device to Computing Device”. The seminar was coordinated by **Prof Sudipta Sarkar**.

### SYMPOSIUM ON E-MOBILITY IN INDIA

**CSE-IITGN**, in association with the Electrochemical Safety Research Institute (ESRI) of UL Research Institutes, Chicago, USA, organised a two-day symposium on “E-Mobility in India: Safety and the Way Forward” on Sep 27-28, 2022, in hybrid-mode. Several industry leaders and researchers from India, US and Europe shared various aspects of safety towards the E-Mobility mission.

### CCL CONTRIBUTES TO TOY-BASED PEDAGOGY AND SWACHH TOYCATHON

The **Centre for Creative Learning (CCL)**, IITGN was invited to be a part of the committee for developing a National Curriculum Framework on Toy-based Pedagogy. The report, released by the Department of School Education and Literacy, also features 66 of CCL’s toys. Moreover, CCL was a knowledge partner for the ‘Swachh Toycathon’ launched by the Ministry of Housing and Urban Affairs, which explored ways to make scalable, innovative, safe, and pleasing toys from waste materials. The Centre also conducted various workshops/activities from July to Sep 2022.

### ACTIVITIES BY NEEV

**NEEV**, IITGN continued its exemplary work of empowering grassroots communities with six skill development courses and an entrepreneurship development workshop from July to Sep 2022. A total of 188 rural and peri-urban youth and women received training across the projects, most of which were supported by the Desai Foundation. NEEV also conducted awareness sessions on ‘Menstrual Health Management’ and ‘Banking and Digital Payments’ for the neighbouring village in Sep 2022.

### A MILESTONE FOR NYASA

**Nyasa**, IITGN, through the persistent and collective efforts of Nyasa volunteers and the wholehearted support of the campus community, has reached yet another milestone. Its “Pathway Programme to Regular Schooling” has enabled eight children, including four girls, of the campus construction workers to get admission into a regular school for formal education. Besides, Nyasa volunteers also distributed mosquito repellent coils, sanitary pads, clothes, and about 600 boxes of sweets among the IITGN campus construction workers.



## ACTIVITIES BY THE ART STUDIO

The Art Studio of IITGN organised the first-ever IIT Gandhinagar Art Festival on campus from Aug 2-7, 2022. The event was packed with a number of art workshops exhibition, film screenings, artist talks, and performances to provide an immersive experience of different art forms to the participants. The Art Studio also hosted “भौम्य - Threshold: an ode to Womanhood”, a unique travelling exhibition of 50 original Bhil

and Gond art paintings of women tribal artists from Sep 30 to Oct 3, 2022.

## INDEPENDENCE DAY 2022

IITGN celebrated Independence Day 2022 with great patriotic fervour. Following the flag hoisting ceremony and address to the community by **Prof Amit Prashant**, Officiating Director, the Institute community hosted a number of interesting events, including Beat the former

Dean Challenge, poetry recitation competition, India quiz competition, and a cultural event to commemorate 75 years of India's Independence. On this occasion, IITGN also felicitated 20 employees (9 faculty and 11 staff members) with **Long Service Awards** to honour their dedicated service to the Institute for ten years. Students who had achieved a certain level of academic excellence in the last academic term were felicitated with the Dean's List Awards.

## WORKSHOPS

- Emerging Approaches in Earthquake Occurrence and Risks, by IITGN and SERB, coordinated by **Prof Utsav Mannu**, July 5 to 12, 2022.
- Visualization of Data by **Prof Manasi Kanetkar**, Assistant Teaching Professor, Design, IITGN, July 09, 2022.
- Cyber Crime Awareness for outsourced workers of the Institute by **Mr Manish Thakar**, a renowned Cyber Security trainer, July 16, 2022.
- Evaluating Information: Going Beyond Deceptive Publishing, Fake News, and Bias in Scientific Literature by **Ms Aditi Gupta**, Engineering & Science Librarian, University of Victoria Libraries, Aug 08, 2022.
- Web of Science & EndNote: Taking your Research to the Next Level by **Dr Subhasree Nag**, Solution Consultant, Scientific Research Division, Clarivate Analytics, Aug 26, 2022.
- Design, Installation, and Inspection of Perimeter and Through Penetration

Firestops, followed by a live full-scale fire experiment, by CSE-IITGN and Bureau of Indian Standards, Aug 27, 2022.

- 'CAS SciFinder-n' for Academic Research by **Mr Sangram Gokhale**, Account Manager and an expert trainer from ACS India, Aug 29, 2022.
- Visual Thinking Workshop by **Entrepreneurship Initiative IITGN (EII)** and **Leadership Development Initiative (LDI)**, Sep 10, 2022.
- Public Speaking Workshops by **Prof Atul Singh**, Founder, CEO, and Editor-in-chief, Fair Observer; **Prof Christopher Roper Schell**, Contributing Editor, Fair Observer; **Mr Peter Isackson**, Chief Strategy Officer, Fair Observer; and **Mr Mark Manners**, Public Speaking Expert, Sep 13-15 and 19-21, 2022.
- Quantum Information in QFT and AdS/CFT-III by IITGN, in collaboration with IIT Hyderabad and the University of Hyderabad, Sep 16-18, 2022.
- Karyashala workshop and hands-on training session on Advanced Training

in Biological Atomic Force Microscope (AFM), coordinated by **Prof Dhiraj Bhatia**, Sep 22-28, 2022.

- Resilience of Power and Allied Lifeline Infrastructure Systems, coordinated by **Prof Manish Kumar** and **Prof Udit Bhatia**, Sep 26, 2022.
- International Workshop on Unsettling Archaeology, co-organised by IITGN and Flinders University, Australia, coordinated by **Prof Alok Kumar Kanungo**, Sep 26 to 29, 2022.

Fundamentals of Theater Practice by **Dr Aparna Mahiyaria**, a theatre scholar and practitioner, Aug 6-7, 2022.

- Big Data Analytics Using Apache Hadoop and Spark by **Mr Tushar Kakaiya**, Senior Big Data Engineer, Epam Systems, Aug 28 and Sep 04, 2022.
- Senses and Common Sense by **Prof Sanjay Jain**, Professor Emeritus and Director of Outreach, Avantika University, Ujjain, Sep 10-11, 2022.
- Genetic Algorithm by **Prof Celso Camilo**, Associate Professor, the Informatics Department at the Federal University of Goias, Brazil, Sep 14-23, 2022.

## SHORT COURSES

- Feedforward Control for Precision Tracking and Cohesive Decentralized Networks by **Anuj Tiwari**, PhD Scholar, and **Prof Santosh Devasia**, Professor of Mechanical Engineering, University of Washington, Seattle, July 14-15, 2022.
- Scientific Writing by **Dr Monal K Desai**, Teaching Associate, Writing Studio, IITGN, every Tuesday and Wednesday from July 26 to Aug 24, 2022.
- Performer and the Body: the

## MORE WORKSHOPS, LECTURES, AND COLLOQUIA

Follow this link: <https://events.iitgn.ac.in/> or scan the QR code to see the lectures held at IITGN.



## STUDENTS AND STAFF

### AWARDS AND RECOGNITIONS

- Dr Soumyarup Banerjee**, National Postdoctoral Fellow in the discipline of Mathematics, has been selected for the prestigious 'INSPIRE Faculty Fellowship'.
- Progyan Das**, a BTech student in Computer Science and Engineering, has bagged the prestigious 'Cargill Global Scholarship' in the 2021-22 cycle.



Dr Banerjee



Progyan Das

### EXPLORER FELLOWSHIP 2022

The Explorer Fellowship, one of the flagship programmes of IITGN, was resumed this summer after a gap of two years due to the pandemic. A few select IITGN student teams undertook the fellowship and went on

to explore different parts of India with varied themes. Upon returning, the teams shared their journey experiences and learnings with the IITGN community in the form of presentations and short films on Sep 19, 2022.

## ACTIVITIES BY CULTURAL COUNCIL

The Cultural Council organised an interesting lineup of activities during this quarter, including “Make It Stick”, a sticker design competition by **Palette**; a Hip-Hop dance workshop organised by **Step Up**; a photography workshop by Fujifilm Experts; celebration of festivals; celebration of Hindi Week in coordination with the **Hindi Cell**; various movie screenings by **Cinematheque**; and a movie screening, followed by a focus group discussion of movie 'Darlings', by **Awaam**.



## SPORTS

### IITGN CO-HOSTED 36TH NATIONAL GAMES

IITGN co-hosted Athletics, Squash, Softball, and Triathlon events of the 36th National Games from Sep 30 to Oct 11, 2022. As a part of this sports extravaganza, IITGN hosted about 45 athletics events, including track, jumping, and throwing events; Squash matches; Softball; and Triathlon. Several national and international-level players and athletes from across the country visited the Institute and played at the world-class sports complex of IITGN.



### IIT GANDHINAGAR SQUASH OPEN

IITGN, in association with the Squash Racket Federation of India (SRFI) and All Gujarat Squash Racquet Association, hosted the first edition of 'IIT Gandhinagar Squash Open' from Aug 17-21, 2022, at the ultramodern Sports Complex of the Institute. The event hosted about 250 athletes from 20 different states across the country to play in 13 different categories. **Prof Jaison Manjaly** coordinated the event.

