INSTITUTE HIGHLIGHTS

20 IITGN PHD SCHOLARS AWARDED PMRF

A record-high number of 20 PhD scholars from IITGN have received the coveted Prime Minister's Research Fellowship (PMRF) in the 11th Cycle, bringing the total PMRF scholars at the Institute to 67. The competitive fellowship will provide a significant financial boost to the impactful research being carried out by these awardees at the Institute.

COLLABORATION WITH DEAKIN UNIVERSITY

IITGN and Deakin University, Australia, joined hands on Nov 6, 2023, for academic and research collaboration. The Memorandum of Understanding (MoU) was signed and exchanged by **Prof Iain Martin**, Vice Chancellor, Deakin University, and **Prof Rajat Moona**, Director, IITGN, in presence of **Hon Jason Clare MP**, Minister for Education, Government of Australia, and **Shri Dharmendra Pradhan**, Minister of Education and Skill Development and Entrepreneurship, Government of India (GoI), during the India-Australia Bilateral Meeting between Ministers of Education of both nations, and the 1st Australia India Education and Skills Council meeting held at IITGN. This new partnership will facilitate students, faculty, staff, and knowledge exchange between both institutions for research, teaching, and learning in areas of common interest.

MoU WITH SAMAGRA SHIKSHA, TELANGANA

IITGN, through its Center for Creative Learning (CCL), and the Samagra Shiksha, Telangana (TSS), entered into an MoU on Oct 10, 2023, for capacity building of teachers and enhancing the learning experience for students and teachers in Telangana. As a part of this collaborative partnership, CCL will conduct experiential pedagogy-based workshops and training for master trainers and teachers; provide STEM learning kits and activity boxes to TSS; conduct weekly online sessions for hand-holding of the teachers and for all the KGBV schools in the state to make the learning engaging and inspiring for students. In addition, TSS will also support in setting up a laboratory in Hyderabad, following a model of the CCL-IITGN.

JAPANESE DELEGATIONS AT IITGN

A special industrial delegation with 21 delegates from Osaka, Japan, visited IITGN on Oct 18, 2023, to explore exciting possibilities for collaboration for internships and placements. This visit was coordinated by Career Development Services, IITGN. Earlier to this, a delegation from the Tokyo Metropolitan University (TMU) visited IITGN on Oct 17, 2023, to discuss potential partnerships in research, academic activities, and faculty and student exchange programmes. Both delegations met **Prof Rajat Moona**, Director, IITGN, along with other faculty members, and held engaging discussions to foster partnerships.

IITGN AWARDED 5G USE CASE LAB

IITGN has been awarded one of the 100 5G Use Case Labs announced by the Department of Telecommunications, GoI, at India Mobile Congress 2023 on Oct 26, 2023. These 5G labs will play a crucial role in upskilling local innovators, students, startups and MSMEs for the development of a new generation of applications for the country's needs in sectors like health, agriculture, and manufacturing to create innovative products and startups.

SUPPORT FOR THE INSTITUTE

MALINI VIJAY DESAI SCHOLARSHIP

Shri Nainan Vijay Desai and Smt Devyani Nainan Desai from Tampa, Florida, USA, have instituted the Malini Vijay Desai Scholarship in honour of their mother and her love for the heritage of Sanskrit language. Smt Malini Desai was passionate about imparting quality education to school students. This scholarship of Rs 1 lakh per year will be awarded to one student every year. Shri Nainan Desai holds a BTech from IIT Madras. Smt Devyani Desai is an MD and Child and Adolescent Psychiatrist.

SUSHILA PRABHA AND SATISH SINGLA SCHOLARSHIP

Shri Varun Singla, an alumnus of IIT Kharagpur has set up the Sushila Prabha and Satish Singla Scholarship in honour of his parents. This scholarship of Rs 1 lakh per year will support one undergraduate student every year. Shri Varun Singla is currently working as a Senior Manager at Amazon, Seattle.

PROF GV RAO SCHOLARSHIP

Prof Amit Prashant, Professor, Civil Engineering and Dean, Research & Development at IITGN, has instituted Prof G V Rao scholarship in honour of Prof G V Rao, a Visiting Professor in the Department of Civil Engineering at IITGN since Dec 2015. In addition to conducting numerous courses and lecture series, Prof Rao has been instrumental in the progress and diversification of the consultancy and research projects at IITGN through active industry partnerships. This scholarship of Rs 1 lakh per year will be awarded to one undergraduate student every year. Prof Amit Prashant's research interests include constitutive modelling for granular materials, numerical modelling of geotechnical structures, earthquake geotechnical engineering, and applications of geosynthetics etc.

COLLABORATION WITH IBM INDIA

IITGN has teamed up with IBM India Private Limited for innovative projects in the domains of Quantum Computing, Artificial Intelligence, and LLMs Hallucinations. The leadership teams from both the sides signed an Expression of Interest (EoI) on Oct 10, 2023, at IITGN to collaborate on student internships and projects, joint research projects, sponsored BTech and MTech projects, technology events, workshops, seminars, short courses, conferences, entrepreneurship promotion, and engagement through CSR support.

COLLABORATION WITH HEIL

IITGN signed a Memorandum of Agreement (MoA) with Harsha Engineers International Limited (HEIL) on Oct 10, 2023. As per the MoA, HEIL will sponsor an MTech thesis project at IITGN to develop and commercialise a class of seismic isolation devices that can substantially enhance the earthquake safety of buildings and other structures.

PARTNERSHIP WITH DG-FS, CD & HG

IITGN has entered into an MoU with the Directorate General - Fire Services, Civil Defence & Home Guards on Dec 12, 2023, to undertake joint programmes and activities in the field of fire engineering to promote research, development, and capacity building in this area. It will also encourage exchange of faculty, students, and officials for sharing of R&D and training facilities. The collaboration will also extend to joint R&D projects, conferences, workshops, courses, and entrepreneurship development programmes.

CSR PARTNERSHIP WITH TECHFAB INDIA

IITGN has partnered with TechFab (India) Industries Limited on Nov 22, 2023, to establish the 'TachFab India Initiative on Geotechnical Engineering and Geosynthetics' at IITGN. This collaboration is aimed towards promoting a range of activities and initiatives in geothermal engineering, geosynthesis and other related areas to advance these fields, including providing research fellowships/scholarships to IITGN students, faculty, and research staff; supporting R&D and capacity building activities; offering visiting positions to outstanding experts; among others.

CSR SUPPORT FROM K K VITHANI FOUNDATION

K K Vithani Foundation, the CSR arm of Farmson Pharmaceutical Gujarat Pvt Ltd, has collaborated with IITGN to provide financial support to bright students from economically disadvantaged backgrounds, who have secured a place at a premier institution like IITGN despite their financial constraints. The programme aims to increase access to quality education for these deserving students.

MoU WITH FULCRUM - CAPITALISING CSR

IITGN has signed an MoU with Fulcrum - Capitalising CSR on Nov 30, 2023, to jointly develop a scholarship programme to provide financial support to IITGN students from economically disadvantaged backgrounds. As a part of the agreement, Fulcrum - Capitalising CSR will also mobilise funds for these scholarships through its corporate/CSR partners.

FACULTY NEWS

AWARDS AND RECOGNITIONS

- **Prof Vimal Mishra**, Professor, Civil Engineering, was elected as a Fellow of the Indian Meteorological Society in recognition of his outstanding contributions to meteorology and allied fields of science and technology.
- **Prof Manish Kumar**, Associate Professor, Civil Engineering, was named as a co-chair of the World Housing Encyclopedia executive committee, which operates under the Earthquake Engineering Research Institute to enhance earthquake safety across the world.
- A collaborative work – titled "A Paradigm Shift in Infectious Diseases" – by **Prof Argha Manna**, Artist-in-Residence, Department of Humanities and Social Sciences', with **Prof Lydia Bourouiba**, Principal Investigator, Fluid Dynamics of Disease Transmission Laboratory, Massachusetts Institute of Technology (MIT), USA, was exhibited at the MIT Center for Art, Science & Technology from Dec 4 to 14, 2023.
- **Prof Projesh Nath Choudhury**, Assistant Professor, Mathematics, was awarded the Indian Mathematical Society's Subhash Bhatt Award for the year 2023, for his paper "Characterising total positivity : Single vector tests via linear complementarity, sign non-reversal, and variation diminution" published in the Bulletin of the London Mathematical Society.
- **Prof Vineet Vashista**, Associate Professor, Mechanical Engineering, was selected for membership in the Indian National Young Academy of Sciences (INYAS) for five years, in recognition of his credentials and commitment to service to society through science.

PATENTS GRANTED

- Quinoline Based Compounds and a Process for Preparing the Same: Inventors include **Prof Sivapriya Kirubakaran**, **Prof Vijay Thiruvenkatam**, **Srimadhavi Ravi**, **Sugata Barui**, and **Althaf Shaikh**. The patent number is: 466023.
- An Automated Story-Creation And Story-Telling Platform: Inventors include **Prof Uttama Lahiri**, **Pradeep Raj**, and **Sujata Sinha**. The patent number is: 472386.
- Flame Retardant Composition and a Process for Preparing the Same: Inventors include **Prof Kabeer Jasuja** and **Saroj Kumar Das**. The patent number is: 476931.
- System for Detecting Variations in Motor Movements: Inventors include **Prof Harish P M** and **Vinodkumar Shah Vrutangkumar**. The patent number is: 482896.

PATENTS FILED

- A System and a Method for Monitoring Physical Activities and Physiological Signals: Inventors include **Prof Biswajit Saha**, **Ravi Prakash Verma**, and **Prateekshya Suman Sahu**.
- Carbon Quantum Dots And a Process for Preparation Thereof: Inventors include **Prof Dhiraj Bhatia** and **Pankaj Yadav**.
- Cis-5-Substituted Alkyl Diarylprolinol Silyl Ether Organocatalysts and a Process of its Preparation: Inventors include **Prof Chandrakumar Appayee**, **Suraj Singh**, **Rohtash Kumar**, **and Navneet Nandgopal Dubey**.
- A System of Wearable Devices for Predicting Freezing of Gait and Pre- Assisting a User: Inventors include **Prof Uttama Lahiri**, **Priya Pallavi**, and **Ankita Raghuvanshi**.
- Hydrogel Flap for Wound Healing and Method of Fabrication Thereof: Inventors include **Prof Mukesh Dhanka**, **Hitasha Vithalani**, and **Harshil Dave**.
- A Process for Preparation of Titanium Oxide Nanoparticles: Inventors include **Prof Emila Panda**, **Remiya Roy**, **Ravi Teja Mittireddi**, and **Deepak Prajapati**.

NEW FACULTY

Name	Designation	Discipline	PhD/Last Degree	Date of Joining
Dr Madhav Kiritkumar Pathak	Assistant Professor	Electrical Engineering	Iowa State University, USA	21/12/2023
Dr Prafull Pandey	Assistant Professor	Materials Engineering	Indian Institute of Science Bangalore	21/12/2023

ACTIVITIES AT IITGN

GIAN COURSE

IITGN conducted an online GIAN course on "Artificial Intelligence and Machine Learning for Materials Science"from Dec 11-15, 2023. **Prof Subramanian Sankaranarayanan**, Associate Professor, Department of Mechanical Engineering, University of Illinois Chicago, was the primary instructor. The course was attended by more than 80 participants from across the country. It was coordinated by **Prof Raghavan Ranganathan**.

TRAINING ON GEOSPATIAL TECHNOLOGY

The Institute organised a 15-day online training course focused on Geospatial Technology for Archaeological and Heritage Studies from Dec 7-23, 2023. This course was designed to impart a strong foundation in remote sensing and GIS, offering hands-on experience in geospatial documentation, spatial data management, proximity analysis, image processing and interpretation, terrain modelling, and more. The course was attended by 25 participants and coordinated by **Prof V N Prabhakar**.

SESSION ON ROBOTICS

IITGN hosted a captivating interactive session for young robotics enthusiasts of classes 9 to 12 on Oct 7, 2023. The session, titled "Robotics Around Us", was conducted by **Prof Harish PM**, Associate Professor, Mechanical Engineering, IITGN. Students from 15 different schools participated in this session, which was filled with energy and delight, and nurtured curiosity among the young participants.

CONTEST ON METRO FIRE SAFETY

The Centre for Safety Engineering at IITGN, in association with Fire Safe Build India (FSBI), organised a student paper presentation contest on "Metro Fire Safety'" on Dec 10, 2023. The competition saw participation by several students, who showcased their research work in the fields of design, materials, egress, regulation and codes & standards.

ICCMS 2023

IITGN hosted the 9th International Congress on Computational Mechanics and Simulations (ICCMS 2023) from Dec 20 to 22, 2023. This edition of the premier biennial conference, organised under the auspices of the Indian Association for Computational Mechanics (IndACM), revolved around 14 thematic areas. More than 140 delegates, with backgrounds in civil engineering, mechanical engineering, aerospace engineering, materials engineering/science, physics, mathematics and allied areas, from India and abroad attended the conference. The event was coordinated by **Prof Amit Prashant**, **Prof Ravi Sastri Ayyagari**, and **Prof Gaurav Srivastava**.

DSIR-CRTDH CONCLAVE

IITGN, in collaboration with the Department of Scientific and Industrial Research (DSIR), Ministry of Science & Technology, GoI, organised "DSIR-CRTDH Conclave 2023: Viksit Bharat Abhiyan - Empowering MSMEs & Startups" on Nov 6 and 7, 2023. **Dr N Kalaiselvi**, Secretary, DSIR & Director General-CSIR, Ministry of Science & Technology, GoI, was the Chief Guest on the occasion. The two-day conclave brought together more than 250 scientists, researchers, and distinguished professionals from industries and startups from across the country. The event was coordinated by **Prof Chinmay Ghoroi**.

LAKSHADWEEP KNOWLEDGE SUMMIT

The first Lakshadweep Knowledge Summit was hosted by IITGN, in collaboration with The Habitats Trust and Nature Conservation Foundation (NCF), from Dec 3-6, 2023. This was a first-of-its-kind multidisciplinary event for Lakshadweep where different researchers from 14 organisations, along with locals from the islands, were brought together to discuss the science, research, and social aspects of the past, present, and future of Lakshadweep Archipelago. A total of 50 participants attended the event which was co-coordinated by **Prof Pankaj Khanna** from IITGN and **Dr Rohan Arthur** from NCF.

INFINITE INSIGHTS BY HOMI PROJECT

The History of Mathematics in India (HoMI) Project at IITGN organised 'Infinite Insights: A Journey Through India's Mathematical Marvels' on Nov 16-17, 2023. This conversation series explored the captivating journey through the rich tapestry of India's heritage with **Prof M D Srinivas**, Guest Professor, IITGN, and **Prof K Ramasubramanian**, Institute Chair Professor, Cell for Indian Science and Technology in Sanskrit, IIT Bombay. The joint sessions were moderated by **Prof Raghavasimhan Thirunarayanan**, Guest Faculty at IITGN, and **Prof Tanya Srivastava**.

HSS SYMPOSIUM

The Department of Humanities and Social Sciences organised a one-day symposium on 'Global Modernities and Modernisms in Art, Philosophy and Literature' on Nov 20, 2023. The two keynote speakers, **Prof Brinda Bose** from Jawaharlal Nehru University and **Prof Ashish Avikunthak** from University of Rhode Island, positioned discourses around Indian art practices in the dynamic rubric of modernities and modernisms. Plenary speakers **Prof Angus McBlane** and **Prof Sharmita Lahiri** from HSS, IITGN, opened instances from Indian philosophy and literature to the question of modernity. The opening and closing remarks of the symposium were delivered by **Prof Arka Chattopadhyay**.

CONTRIBUTION TOWARDS GANDHIPEDIA

IITGN has contributed significantly towards development of Gandhipedia - a project to commemorate the 150 years since Mahatma Gandhi's birth - which was inaugurated on Dec 27, 2023. Noteworthy contributions by the team at IITGN include implementing the letter timeline feature, digitising books written by Mahatma Gandhi, and creating a Twitter bot to post feeds on important events and tagging relevant documents on the specific date of each event.

NATIONAL WILDLIFE WEEK

The Dr Kiran C Patel Centre for Sustainable Development (KPCSD), IITGN, observed

National Wildlife Week from Oct 2-8, 2023, and organised several events, including lectures, workshops, fun activities, resource displays, poster presentation, birdwatching, and nature fest, as part of the celebrations. The events saw a huge turn out of more than 200 participants, including IITGN students, staff, and residents, school children from Palaj government school, kids of IITGN's educational outreach program NYASA, and college students of Ahmedabad-Gandhinagar region.

IIEC AND RESEARCH PARK

- IIT Gandhinagar Innovation and Entrepreneurship Center (IIEC) conducted a five-day programme called 'Build your Startup' with **Mr BV Jagadeesh**, a serial entrepreneur and angel investor, from Oct 28- Nov 1, 2023. The training programme was attended by a total of 37 students and startups from all over Gujarat and neighbouring states.
- IIEC organised a Fintech masterclass 'Tech-Driven Financial Inclusion: A Path to Empowerment - Journey from ATM to AI' on Nov 9, 2023, by Mr Ravi Shankar, Co-Founder & CEO of Active.ai. Around 20 students from IITGN and startups from IIEC attended this session.
- **New companies in Research Park:** Gujarat Energy Training & Research Institute (GETRI) and Prompt Dairy Tech have joined IITGN Research Park during this quarter.

WORKSHOPS

- Adivasi Identity, Culture and Traditional Knowledge, coordinated by **Prof Ashish Xaxa**, IITGN, in collaboration with Azim Premji Foundation, on Nov 3, 2023.
- Metro Fire Safety and Egress, coordinated by **Prof Gaurav Srivastava** and Fire Engineering Research Laboratory (FERL), IITGN, Nov 27, 2023.
- Fun with SDGs: Children's Day 2023 by **Library IITGN** and **KPCSD**, Nov 26, 2023.

LECTURES AND SHORT COURSES

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

STUDENTS AND STAFF

AWARDS AND RECOGNITIONS

- A paper by an IITGN team including **Aalok Gangopadhyay**, **Prajwal Singh**, **Ashish Tiwari**, and **Prof Shanmuganathan Raman** won the Best Poster Presentation Award in Pacific Graphics 2023 at Daejeon, South Korea.
- **Prathiksha Ramesh** and **Subhankar Raha**, MTech 2024 students of Biological Sciences & Engineering, were awarded the DAAD (Deutscher Akademischer Austauschdienst) Fellowship 2023-24.
- **Rishiraj Adhikary**, a PhD student of Computer Science and Engineering, was recognised as a finalist for the UbiComp Gaetano Borriello Outstanding Student Award.
- **Kishalay Raj**, an MTech student of Materials Engineering, was awarded the prestigious Reliance Foundation Postgraduate Scholar Award.
- **Avinash Jha** and **Bhabya Thakur**, and **Prof Sushobhan Sen** won the best paper award under the category of "Pavements and Materials" at the 7th Conference of the Transportation Research Group of India (7th CTRG) in Surat.
- **Shruti De** and **Rituparna Jana** from Electrical Engineering department won Best Paper Awards at the International Conference on Optics, Photonics and Quantum Information (OPTIQ 2023) (46th symposium of the Optical Society of India, OSI) held during Dec 11-13, 2023 at the Cochin University of Science and Technology (CUSAT), Kochi.

UNDERGRADUATE RESEARCH SHOWCASE

The Institute organised an Undergraduate Research Showcase on Nov 22, 2023. During the event, around 75 undergraduate students from various disciplines showcased their research in the form of posters, covering a wide range of interesting topics.

AMALTHEA 2023

Amalthea, IITGN's student-run annual technical summit, was held on Nov 4 and 5, 2023, on the theme of 'Synergising Knowledge'. Amalthea 2023 featured a host of thrilling events including a tech expo featuring drones, robots, electric bikes and more; a conclave with renowned industry leaders; pulsating drone racing; and a captivating drone show on the Sabarmati Riverfront in Ahmedabad.

YOUNG ALUMNI EXCELLENCE AWARD 2023

The Institute announced the Young Alumni Excellence Awards 2023 in October 2023 to recognise the excellence and success achieved by its young alumni early in their careers. This year's awardees are: **Aishwarya Agrawal**, Assistant Professor, University of Montreal, for Outstanding Academic Achievement; **Silky Agrawal**, Founder, GeoCarte Radar Technology, for Outstanding Entrepreneurship; **Saurya Prakash**, Co-Founder & CEO, Recko, for Outstanding Entrepreneurship; **Prashant Borde**, Co-Founder & CTO, Recko, for Outstanding Entrepreneurship.

HOMECOMING 2023

The Alumni Relations office hosted the fifth edition of 'Homecoming', an annual alumni reunion of the Institute, on Dec 16-17, 2023. More than 80 alumni from various places in India and abroad attended the Homecoming 2023 and engaged in insightful conversations with Prof Rajat Moona, Director, IITGN, faculty, and current students at IITGN during different interactive sessions spread across two-days. The event's highlight included a set-up of a Flea Market by the Art @ IITGN Team and a whole-night campfire.

SPORTS

INTER IIT AQUATICS MEET

The Institute hosted the 37th Inter IIT Aquatics Meet from Oct 4 to 8, 2023, with a total of 24 different events in Men's and Women's categories and a series of water polo matches. Nearly 300 swimmers and officials from 17 IITs participated in the five-day tournament for a thrilling display of aquatic prowess. In a magnanimous victory for the first time, IITGN emerged as the highest medal winner by earning a total of 10 medals, including 5 Gold, 3 Silver, and 2 Bronze in various swimming championships for Men and Women. The Institute also secured the First Runner-up position with 28 points in the Women's Swimming events. The swimming stars of IITGN who led the Institute to this remarkable position include **Adit Rambhia**, **Tanya Vyas**, **Ananya Balike**, **Shrijaya Maity**, **Kavuri Monisha**, and **Kalash Kankariya**.

INTER IIT SPORTS MEET

With the spirit of competition and sportsmanship, IITGN hosted the Inter IIT Sports Meets 2023 from Dec 14, 2023. The 56th Inter IIT Sports Meet for students, jointly hosted by IITGN and IIT Bombay, was held at IITGN from Dec 14 to 22, 2023, and the 28th Inter IIT Staff Meet, entirely hosted by IITGN, was held from Dec 24 to 29, 2023. Collectively, more than 3000 students and staff members from all 23 IITs across the country showcased their athletic prowess in a plethora of sports events which were held at the state-of-the-art Sports Complex at IITGN. The Institute's Squash team, comprising of **Prof Harish P M**, **Prof Pratyush Dayal**, **Prof Jaison Manjaly** and **Mr Shashank Yadav**, won the Gold medal, and **Ms Laxmi Hirani** won the Silver medal in Shot Put during the 28th Inter IIT Staff Sports Meet.