

Connections

A newsletter for friends of IIT Gandhinagar



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INSTITUTE HIGHLIGHTS

ERACH AND MEHEROO MEHTA FINTECH INITIATIVE

IITGN launched the Erach and Meheroo Mehta Fintech Initiative on July 7, 2024 to create academic and research opportunities for faculty and students. This initiative, supported by Shri Ruyintan (Ron) Mehta, a long-time well-wisher of the Institute, aims to offer internships, support startups, and facilitate collaborations between IITGN, industry, and government to drive technological advances in fintech. To mark the launch, a 24-hour fintech hackathon- 'Finnovate Hack 2024' - was organised on July 7 and 8, 2024. The hackathon hosted around 50 talented students from prominent institutions across the country.



Shah Chair Associate Professor, Chemical Engineering; Prof S P Mehrotra, Visiting Professor, Materials Engineering; and Prof Nithin V George, TEOCO Chair Associate Professor, Electrical Engineering. The Consul General expressed a keen interest in collaborative research addressing global challenges.



IITGN RESEARCHERS DEVELOP HINDI AI LANGUAGE MODEL

IITGN researchers developed 'Ganga-1B', an AI language model designed specifically for Hindi. This pre-trained model, created from scratch using Hindi datasets, supports both Hindi and English, as well as a mix of the two languages. Designed and developed over 1.5 years, Ganga-1B has outperformed existing open-source models and gained quick popularity with more than 1000 downloads within two weeks of its launch. The research team includes **Prof Mayank Singh**, PhD students **Himanshu Beniwal** and **Pritam Kadasi**; and MTech students, **Aamod Thakor**, **Hitesh Lodwal**, and **Siddhesh Dosi**.

DOUBLE DEGREE MASTERS PROGRAMME

IITGN and the Asian Institute of Technology (AIT), Thailand launched a Double Degree Master's Programme (DDMP) in Aug 2024. The collaboration offers students an opportunity to earn two separate master's degrees, one from IITGN and another from AIT. DDMP encompasses courses in cutting-edge disciplines, including Data Science and AI, Bio-Nano Materials Science and Engineering, Environmental Engineering and Management, Remote Sensing and Geographic Information Systems (GIS), Geotechnical and Earth Resources Engineering, Water Engineering and Management, and Sustainable Energy Transition.

VISIT BY CONSUL GENERAL MIKE HANKEY

IITGN welcomed **Consul General Mike Hankey** from the US Consulate General, Mumbai on July 16, 2024. The visit aimed to explore bilateral cooperation in higher education between the United States of America and India. Consul General Hankey met with Prof Kabeer Jasuja, Dr Dinesh O

VISIT BY DELEGATION FROM GOVT OF KARNATAKA

A high-level delegation from the Govt of Karnataka headed by **Dr M C Sudhakar**, Hon'ble Minister of Higher Education, Govt of Karnataka, visited IITGN on Sep 16, 2024. The delegation met **Prof Rajat Moona**, Director, IITGN and other faculty members and held engaging discussions on various aspects of academics and research. The officials were also given a campus tour and explored the state-of-the-art sports facilities, hostels, and academic area.



COLLABORATION AT THE INSTITUTE

MoU WITH IIIT SURAT

IITGN entered into a Memorandum of Understanding (MoU) with the Indian Institute of Information Technology (IIIT) Surat on July 3, 2024. The agreement aims to foster academic and research collaborations between the two Institutions. The MoU outlines plans to explore opportunities for staff and student exchanges.



MoU WITH ECIL

IITGN signed an MoU with the Electronics Corporation of India Limited (ECIL) on Aug 21, 2024. This collaboration marked a significant milestone in the advancement of high-tech security products, as ECIL, renowned for its cutting-edge contributions, established its presence within IITGN's Research Park. IITGN will collaborate with ECIL on the development of advanced Under Vehicle Surveillance (UVS) Systems.



MoU WITH JAIST

IITGN signed an MoU with Japan Advanced Institute of Science and Technology (JAIST) on Aug 28, 2024 to develop educational and scientific exchange and cooperation. Under the agreement, both the organisations will conduct joint research projects, exchange academic publications and reports, and will collaborate to organise joint symposia, workshops, lectures, and conferences.



MoU WITH LTSC

IITGN inked an MoU with L&T Semiconductor Technologies (LTSC) on Aug 24, 2024, to foster collaborative research and development in the semiconductor sector. The collaboration will focus on the joint development of key Govt of India ID IC projects such as ePassport, eDriving licence, eAadhar, and EVM among others. Additionally, the partnership will advance Quantum Encryption Algorithm (QEA) development under the Telecom Technology Development Fund (TTDF) scheme.



MoU WITH MILACRON INDIA

IITGN signed an MoU with Milacron India as part of their Corporate Social Responsibility (CSR) initiative on July 7, 2024. This collaboration will enable the Institute to further its efforts in providing scholarships for differently-abled students. Additionally, this partnership will support NEEV, IITGN's community outreach programme, which plays a crucial role in uplifting and empowering local communities. The MoU was signed by **Prof Pratik Mutha**, Dean, Institutional Advancement, IITGN and **Mr Hitesh Sharma**, Chief Financial Officer, Milacron India.



MoU WITH SHAH BHOGILAL JETHALAL AND BROS.

IITGN has signed an MoU with Shah Bhogilal Jethalal and Bros. on Aug 19, 2024, to enhance the fire engineering research facilities at the Institute. As part of this agreement, Shri Mukeshbhai Shah has generously pledged to fund the construction of a new laboratory building dedicated to fire research. In recognition of this contribution, both the new facility and the existing research laboratory will be together named the 'Shah Bhogilal Jethalal Laboratory for Passive Fire System Testing.'

FACULTY NEWS

AWARDS AND RECOGNITIONS

- **Prof Pankaj Khanna** and **Prof Rusa Mandal**, Assistant Professors, Earth Sciences and Physics, respectively, were selected as Associates of the Indian Academy of Sciences in Earth Sciences. Professor Khanna was also awarded the J. C. 'Cam' Sproule Memorial Award.
- **Prof Iti Gupta**, Associate Professor, Chemistry, was selected as a member of the National Academy of Sciences, India (NASI) in the Physical Sciences category.
- **Prof Sushobhan Sen**, Assistant Professor, Civil Engineering, was awarded the American Concrete Pavement Association's (ACPA) Robert G Packard Award for Design Innovations in Concrete Pavements together with collaborators from the University of Pittsburgh, USA.
- **Prof Aditi Kothiyal**, Assistant Teaching Professor, Humanities and Social Sciences; **Prof Sameer Sahasrabudhe**, Professor of Practice, Humanities and Social Sciences; and **Prof Madhu Vadali**, Assistant Professor, Mechanical Engineering, won the 'Best Research Paper' award at the Annual Conference of the European Society for Engineering Education.
- **Prof Chandrakumar Appayee**, Associate Professor, Chemistry, was included in the Pioneering Investigators collection by ChemComm, a Royal Society of Chemistry journal.
- **Prof Manish Kumar**, Associate Professor, Civil Engineering, was named as ASCE Outstanding Reviewer 2023 by the editor of Journal of Structural Engineering.

PATENTS GRANTED

- Fluorophore Compounds and a Process of Preparation Thereof: Inventors include **Prof Sriram Kanvah**, **Tarushyam Mukherjee**, and **Dr Soppina Virupakshi**. The patent number is: 550658.
- A Metal Complex and a Process of its Synthesis: Inventors include **Arnab Dutta**, **Prof Chinmay Ghoroi**, and **Afsar Ali**. The patent number is: 546674.
- A Composite Propellant and a Process for its Preparation: Inventors include **Prof Kabeer Jasuja**, **Prof Chinmay Ghoroi**, and **Harini Gunda**. The patent number is: 543818.

PATENTS FILED

- Injectable Hydrogel and a Process for its Preparation: Inventors include **Prof Mukesh Dhanka**, **Harshil Dave**, and **Hitasha Vithalani**.
- A Substrate for Producing Hydrogen and a Process Thereof: Inventors include **Prof Soumyakanti Khatua**, **Prof Soumyadip Sett**, **Gayatri Joshi**, and **Akanksha Sharma**.
- A Low Voltage Electrostatic Discharge Protection Device: Inventor includes **Prof Sandip Lashkare**.
- Adsorbent and a Process for Recovery of Rare Earth Elements: Inventors Include **Prathmesh Bhadane**, **Prateek Goyal**, **Priya Mahato**, and **Prof Superb Misra**.

SPONSORED AND CONSULTANCY PROJECTS

Please follow this link: https://iitgn.ac.in/newsletter/projects/q3_2024 or scan the QR code to find the list of sponsored and consultancy projects.



NEW FACULTY

Name	Designation	Discipline	PhD/Last Degree	Date of Joining
Dr Sonal Khanolkar	Assistant Professor	Earth Sciences	IIT Bombay	02/07/2024
Dr Prem Chand Pandey	Visiting Professor	Earth Sciences	Allahabad University	02/07/2024
Dr Jugal K Verma	Visiting Professor	Mathematics	Purdue University, West Lafayette, USA	03/07/2024
Dr Tanka Bahadur Subba	Visiting Professor	Humanities and Social Sciences	University of North Bengal	29/07/2024
Dr Rakesh Singhai	Professor of Practice	Mechanical Engineering	Shiv Nadar University	29/07/2024
Mr Tony Xavier	Teaching Associate	Humanities and Social Sciences	SS College of Engineering, Calicut University	29/07/2024
Dr Dinesh Kumar Sharma	Visiting Professor	Electrical Engineering	Tata Institute of Fundamental Research, University of Bombay	02/08/2024

SCHOLAR-IN-RESIDENCE

Name	Department	Affiliation	Date of Joining
Dr Amaresh Jaiswal	Physics	National Institute of Science Education and Research, Odisha	03/07/2024
Dr Dennys Frenez	Earth Sciences	Department of Archaeology, University of Bologna, Italy	02/08/2024
Dr Barbara Bruno	Mechanical Engineering	Karlsruhe Institute of Technology (KIT), Germany	18/09/2024

ARTIST-IN-RESIDENCE

Name	Discipline	Last Degree	Date of Joining
Mr Suman Choudhury	Humanities and Social Sciences	Kala Bhavana, Visva Bharati	12/08/2024

ACTIVITIES AT IITGN

21-DAY DST SUMMER SCHOOL

The Dr Kiran C Patel Center for Sustainable Development (KPCSD) IITGN hosted a 21-day DST Summer School on Geospatial Science and Technology from July 1-21, 2024, supported by the National Geospatial Program (NGP) of the Department of Science and Technology, Govt of India. A total of 25 participants from across the country working in different domains attended the training.

AAROHAN 2024



IITGN organised 'Aarohan' 2024, the foundation programme for the incoming Masters and PhD students. This intensive programme was held from July 18-31, 2024 with an aim to integrate students coming from heterogeneous educational and socioeconomic backgrounds into the Institute's ethos, culture, and rigours. The students were part of various events focusing on inventing and discovering, communication, professionalism and ethics, social engagement, and well-being.

FOUNDATION PROGRAMME 2024



The Institute welcomed the new BTech batch of 2024 with its flagship Foundation Programme which was organised from July 22-Aug 15, 2024. This year 386 students joined the BTech batch of 2024. **Dr Sharad Kumar Saraf**, CMD, Technocraft Group and Chairman BOG, IIT Bombay, graced the inaugural session as chief guest. During this month-long event, students were introduced to a range of hands-on-activities to prepare them to embrace a life beyond engineering.

STHAPANA DIVAS

IITGN commemorated 16 years of its foundation by celebrating Sthapana Divas on Aug 3, 2024. The event was graced by the presence of **Mr Gaurav Sharma**, Vice President, IBM India Labs and Ecosystem as the chief guest. **Prof Rajat Moona**, Director, IITGN also delivered a speech reminiscing the journey of the Institute. Several friends and well wishers of the Institute



were also present to celebrate the occasion. The programme was marked by several mesmerising cultural performances from the IITGN community members.

INAUGURATION OF cNARMADA

IITGN in collaboration with IIT Indore inaugurated the Centre for Narmada River Basin Management (cNARMADA) at IITGN on Aug 10, 2024, which was followed by a workshop for stakeholders. This centre was established by the Ministry of Jalshakti, Govt. of India, to conduct the Condition Assessment & Management Plan (CAMP) for the Narmada River basin. This will be based on a joint study between IITGN and IIT Indore with the stakeholders playing a major role. The Centre was inaugurated by chief guest **Shri Ashok Thakur**, Narmada Control Authority in the august presence of **Prof Rajat Moona**, Director, IITGN.

CCL'S CURIOSITY PROGRAMME SPREADS TO 12 STATES

The Centre for Creative Learning (CCL) at IITGN's Curiosity Programme has expanded to 12 states, benefiting over 2,00,000 young girls from Kasturba Gandhi Balika Vidyalayas (KGBVs). Through 80 live biweekly online STEM sessions and hands-on activities with the Curiosity Box, the programme covers fundamental science and mathematics concepts in a fun, easy-to-understand manner.

COLLOQUIUM WITH MARENGO CIMS HOSPITAL

IITGN hosted a colloquium with Marengo CIMS Hospital on Sep 28, 2024, where both the institutions came together to explore the vast potential of 'medicine with engineering' in India. The event marked a unique confluence of academia and practice, foregrounding its importance in radically improving the healthcare system of the country. More than 20 doctors from the MCIMS group, across their Ahmedabad and Delhi-NCR hospitals participated in the event.

OPEN SESSION ON THREE NEW CRIMINAL LAWS

IITGN hosted an open session on July 1, 2024, on the three newly-enacted laws namely Bharatiya Nyaya Sanhita, 2023, Bharatiya Nagarik Suraksha Sanhita, 2023, and Bharatiya Sakshya Adhinyam, 2023 replacing the Indian Penal Code, 1860, the Code of Criminal Procedure, 1973 and the Indian Evidence Act, 1872, respectively. The speaker for the event was **Dr Anjani Singh Tomar**, Professor of Law, Gujarat National Law University.

EK PED MAE KE NAAM- TREE PLANTATION DRIVE



IITGN organised a Tree Plantation Programme on Aug 10, 2024 as part of Hon'ble Prime Minister's 'Ek Ped Maa Ke Naam' campaign, a nationwide tree plantation movement. **Shri Raj Kumar**, Chief Secretary, Govt of Gujarat, graced the occasion as Chief Guest. Led by Prof Rajat Moona, Director, IITGN, several students, faculty, and staff members took part in the programme with great enthusiasm. The event was supported by the Forest Department, Govt of Gujarat.

NATIONAL SPACE DAY

IITGN in collaboration with Space Applications Centre (SAC) ISRO organised a symposium to celebrate National Space Day 2024 on Aug 10, 2024. Several eminent scientists and experts in space science and technology delivered talks on a wide range of topics and interacted with school and college students.

INDEPENDENCE DAY 2024

The IITGN community celebrated the 78th Independence Day with immense patriotic spirit on Aug 15, 2024. The event began with the hoisting of the national flag and the singing of the national anthem, followed by an inspiring address by Prof Rajat Moona, Director, IITGN. The ceremony also included the presentation of Long Service Awards to dedicated IITGN employees, as well as the Best Poster Awards for the Research Showcase, recognising the outstanding work of students.

FLOOD AI HACKATHON



Innovation and Entrepreneurship Center (IIEC) at IITGN in association with the Interdisciplinary Program in Climate Studies at IIT Bombay organised the FloodAI Hackathon on Sep 8, 2024, an event designed to tackle the pressing global challenge of urban flooding. The hackathon provided a unique platform for students and innovators to develop cutting-edge solutions to reduce the impact of urban floods. A total of 55 students participated in the hackathon.

'SWACHHATA HI SEVA' CAMPAIGN



As part of the Ministry of Jal Shakti's 'Swachhata Hi Seva' campaign, IITGN hosted the 'SafaiMitra Suraksha Shivir' on Sep 25, 2024. Dr Kinjal Shah, a gynaecologist from Ahmedabad, addressed sanitation workers and other housekeeping staff members of the Institute, foregrounding some key measures required for their physical well being. A health check up and awareness camp was also organised at the Palaj and Basan villages as part of the campaign.

INDIGENOUS FILM FESTIVAL

IITGN in collaboration with the Tribal Design Forum and Green Hub India, conducted a two-day indigenous film festival on Sep 21 and 22, 2024. During the festival, a set of 16 short films were screened, attracting a host of cinephiles.

CIVIL ENGINEERS' DAY

The civil engineering department, IITGN, organised 'Civil Engineers' Day 2024' on Sep 21, 2024. During the event, various competitions, a research showcase, and a town hall discussion with an industry expert were conducted.

WORKSHOPS

- Art of Geometrical Design by CCL and Library, Aug 4, 2024.
- CAS SciFinder for Scientific & Academic Research Workshop by Vinit Kunte, ASCI India Pvt Ltd, Aug 30, 2024.

STUDENTS AND STAFF

AWARDS AND RECOGNITIONS

Rishiraj Adhikary, PhD Scholar, Computer Science & Engineering, was invited to participate in the prestigious Heidelberg Laureate Forum (HLF).



SPORTS

AWARDS AND RECOGNITIONS

IITGN student Lobsang Tenzing Kom, won the runner-up title in the Reliance Cup Senior Men's Inter District Football Tournament 2024-25, organised by Gujarat State Football Association.



ACTIVITIES BY NYASA

Nyasa at IITGN conducted several activities and initiatives during July-Sep 2024. These included outreach activities in the Stavva construction colony near IITGN and regular surveys to assess residents' needs and raising awareness about essential vaccinations for children. Under the Akansha initiative, volunteers supported fifth-grade students from Basan and Palaj. Nyasa also collaborated with the IITGN Library for interactive sessions and engaged children in extracurricular activities like movie hours, computer classes, and art sessions.

ACTIVITIES BY NEEV

NEEV, the community outreach programme of IITGN, hosted several activities this quarter including a Job Fair in collaboration with District Employment Exchange, Gandhinagar

on July 16, 2024, which was attended by 642 people. Additionally, NEEV organised a 'Navaratri Mahila Haat' wherein local women from Gandhinagar and Ahmedabad put up various stalls of traditional festive wear, handicrafts, apparel, jewellery, cosmetics, etc on Sept 26, 2024 at the IITGN campus.

BRUKER AXS INDIA PHARMA ROADSHOW

IITGN hosted Bruker AXS India Pharma Roadshow 2024 on Sep 12, 2024, a one-day workshop aimed at discussing the technological advances in the field of X-ray crystallography, particularly single crystal X-ray diffraction, and its applications in the pharmaceutical field. The workshop included invited talks from academic researchers as well as Bruker executives, and also included a demo session on the single crystal X-ray diffraction instrumentation.



YUVA MANTHAN MODEL UNITED NATIONS

The Student Council of IITGN in collaboration with Awaam, the Society, Politics, and Debating Club of the Institute, organised the 'Yuva Manthan Model United Nations' (Y MUN) on Sep 20, 2024. Following the directives of the Ministry of Youth Affairs, the MUN focussed on 'Lifestyle and Environment', bringing together delegates from a wide range of countries, to facilitate discussions around global climate action, sustainable development, and environmental cooperation.

- Statement of Purpose (SOP) Writing Workshop by the Writing Studio, Sept 13, 2024.
- Navigating the pathways of publishing in high-quality journals with Scopus and Mendeley by Vinita Saroha, Sept 13, 2024.

LECTURES AND SHORT COURSES

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



ACTIVITIES BY WELFARE COUNCIL

IITGN's Welfare Council organised a Blood Donation Camp to commemorate Sthapna Divas on Aug 4, 2024. The camp saw an overwhelming response with a footfall of around 200 students, the highest in the past few years. The council also celebrated 'Anti Ragging Week' from Aug 12-18, 2024. Innovative competitions like meme-making, short-film making, poster making, and slogan writing were organised.

ACTIVITIES BY SAC

The Student Academic Council (SAC) actively engaged in several initiatives during July-Sep 2024. These included organising 'FinQuizitive', a finance quiz held in collaboration with PDC and Annuity on Sthapna Divas. The SAC also hosted multiple skill-building sessions, such as SOP Building and Crafting CVs, a resume-building workshop with LaTeX (by Team LaTeX), and a guidance session on academic internships and cold mailing.

FACULTY AND STAFF INTRAMURAL TOURNAMENTS

Sports department at IITGN organised faculty and staff volleyball, badminton, and basketball intramural tournaments from July-Sep 2024. The events saw enthusiastic participation from the faculty and staff members alike. These tournaments were organised with an aim to foster team spirit and camaraderie among colleagues.

ANANTA MARATHON

Blithchron team and the Sports Committee of IITGN organised 'Ananta Run', a marathon event on Sep 1, 2024. The marathon, themed 'Run for Clean Rivers,' aimed to raise awareness about environmental sustainability and the importance of preserving water bodies. The event featured a 3.5 km and 10 km race, attracting 700 participants, including IITGN students and runners from outside the campus.