



## **SDG 4: Quality Education**

**ENSURE INCLUSIVE AND EQUITABLE QUALITY EDUCATION AND PROMOTE LIFELONG LEARNING OPPORTUNITIES FOR ALL**

IIT Gandhinagar is committed to a holistic approach to education and cutting-edge research addressing global challenges. IIT Gandhinagar offers a unique curriculum for undergraduate and graduate education. We take pride in our student-centric philosophy resulting in a safe, nurturing, and empowering environment for students. The institute promotes critical and interdisciplinary thinking, integrating liberal arts, project-oriented learning, compulsory courses in domains such as design and the life sciences.

## **RESEARCH**

### **Partnership with Durham University and Climate Change Department, Government of Gujarat**

IITGN and the University of Durham, UK have entered into a Memorandum of Understanding (MoU) on November 17, 2021, for cultural, educational and scientific cooperation. The MoU was signed by Prof Claire O'Malley, Pro-Vice-Chancellor (Global), the University of Durham and Prof S P Mehrotra, Professor-in-Charge (External Relations), IITGN, during a virtual ceremony. This new agreement will facilitate students, faculty, and knowledge exchange between both institutions. Immediately after the signing of the MoU, the two institutions hosted a joint seminar on "Understanding the challenges of world heritage sites and the role of Archaeology in the global context".

IITGN has entered into a Memorandum of Understanding (MoU) with the Climate Change Department, Government of Gujarat, on February 21, 2022, to forge a strategic partnership for the development of climate change policy and a roadmap for net-zero by 2070 for Gujarat. Another agreement was signed with the Directorate of Technical Education, Gujarat and the Government of Gujarat, on January 5, 2022, to build a strategic partnership in the area of educational setup of external student exchange programmes at IITGN for students of Government Engineering Colleges in Gujarat. The Institute has also inked an MoU with the Gujarat Council of Science City on February 23, 2022, to promote STEM education and creativity.

## **Talk on Science and Scientists**

On November 12, 2021, the Institute hosted a talk by Prof Ashutosh Sharma, former Secretary, Department of Science and Technology, Government of India, and Professor, Department of Chemical Engineering, IIT Kanpur, on 'Science and Scientists in the New Millennium'. He also inaugurated the Institute's "Grantopedia" site, which is a one-stop destination for researchers to explore multiple opportunities for research grants, funding calls, fellowships, conferences, industry-academia partnerships, and so on.

## **IITGN's role in National Supercomputing Mission**

IIT Gandhinagar played a significant role in the National Supercomputing Mission (NSM) by commissioning 'PARAM Ananta,' a supercomputing facility. This facility, jointly steered by the Ministry of Electronics and Information Technology (MeitY) and the Department of Science and Technology (DST), will contribute to advancements in research and technology.

## **EDUCATION**

### **IITGN inaugurates Maker Bhavan**

IITGN launched Maker Bhavan, a multidimensional academic makerspace designed to nurture innovative thinking and hands-on learning among students. This initiative aligns with global educational institutions' active and project-based learning approach.

### **'Cubical Diwali Lamps – Cube ke 20 Avatar'**

The Centre for Creative Learning (CCL) at IITGN has introduced a unique online series called 'Cubical Diwali Lamps – Cube ke 20 Avatar,' offering an opportunity to create eco-friendly lamps while learning mathematical concepts.

### **AAROHAN 2021**

The Institute organised "Aarohan", an orientation programme for the new postgraduate students. The two-week online programme for MTech and PhD students and one-week programme for MSc and MA students was aimed at integrating these students into IITGN's ethos and culture through thought-provoking, creative, and sporting activities.

### **IITGN's success in NIRF Rankings 2022**

IIT Gandhinagar secured a remarkable position in the National Institutional Ranking Framework (NIRF) India Rankings 2022. The institute achieved the 37th rank in the overall category, the 23rd rank in the engineering category, and the 34th rank in the research institutions category.

## **THE World University Rankings 2022**

The Institute ranked in the 601-800 band globally and 7th in India in the Times Higher Education (THE) World University Rankings 2022. IITGN has secured a global place in this prestigious international educational ranking for the third consecutive year. THE World University Rankings 2022 included more than 1,600 universities across 99 countries and territories. It measures the performance of universities/institutions based on 13 carefully calibrated performance indicators across four areas: teaching, research, knowledge transfer, and international outlook.

## **10<sup>th</sup> Convocation**

IITGN hosted the landmark 10th Convocation on August 29, 2021, through a heartwarming virtual ceremony. The Institute conferred degrees to a total of 548 students, including 175 BTech students, 5 Dual Major BTech students, 1 BTech-MTech Dual Degree student, 155 MTech students, 95 MSc students, 30 MA students, 86 PhD students, and 1 PGDIIT student. Total 52 students received 58 medals, including 42 gold medals and 16 silver medals for excellence in various categories. This year, IITGN graduated the first batch of its five-year Dual Major BTech programme.

## **Winter admissions for international students**

For the first time, IITGN introduced winter admissions for international students to its postgraduate programmes in Engineering, Science, and Humanities & Social Sciences for international students. So far, international admissions were limited to the first semester starting in July. However, this year the Institute decided to create an additional opportunity for international students because of their different graduation deadlines.

## **MoU with Directorate of Technical Education (DTE) and Government of Gujarat**

IITGN signed a MoU in January 2022, with DTE and GoG to facilitate an external student exchange programme at IIT Gandhinagar for the students of the Government Engineering Colleges in Gujarat.

## **International exposure to students**

Nearly 25 students had gone abroad (or virtually participated) for attending events during the academic year 2021-22, in countries including Portugal, US, Spain, Singapore, Italy, Germany, France, Ireland, UK and Czech Republic.

## **OPERATIONS**

### **Collaboration with CBSE for NEP Implementation**

IITGN, in partnership with the Central Board of Secondary Education (CBSE), launched the '30-30 Eklavya' program. This online interactive education program is designed to decode the effective

implementation of the National Education Policy (NEP) across schools, promoting a holistic and modern education system.

A team of faculty members from IITGN, comprising Profs Amit Prashant, Ashutosh Srivastava, Jaison Manjaly, Neeldhara Misra, Nithin George, and Pratik Mutha visited several cities in the USA to promote international collaborations, expand institutional networks and strengthen alumni and well-wisher networks from May 30 to June 18, 2022. Meetings and events were held in Boston, Seattle, San Francisco, San Diego, Tampa, New Jersey, and Washington DC. During the visit, IITGN entered into a Memorandum of Understanding (MoU) with the Department of Mechanical Engineering, University of Washington, Seattle, on June 1, 2022, to promote global educational and research opportunities for students and faculty, and foster a spirit of collaboration and cooperation. Another agreement was signed with the University of Miami on June 10, 2022, to facilitate student exchange and academic and research collaboration between the two institutes.

### **'Curiosity' program to promote STEM education**

In collaboration with the Sarva Shiksha Abhiyan (SSA), Government of Uttar Pradesh, IITGN's Centre for Creative Learning (CCL) initiated the 'Curiosity' program. This program aims to encourage girls to pursue Science, Technology, Engineering, and Mathematics (STEM) education, reaching around 74,600 girl students across the state.

### **UK delegation at IITGN**

A 15-member UK delegation, led by British Deputy High Commissioner to Gujarat and Rajasthan, Mr Peter Cook, visited IITGN on June 9, 2022, and held deliberations with IITGN faculty for academic and R&D collaborations. The delegation included senior officials and functionaries from the Department of Education, UK Government; University of Birmingham; University of Glasgow; University of Southampton; University of Portsmouth; De Montfort University; and the officials of the British Council in India.

### **Partnership with IIT Madras**

IIT Gandhinagar and IIT Madras entered into an MoU on May 12, 2022, to initiate a project titled “Kotak-IITM Save Energy Mission (KISEM) - IITGN” to promote decarbonisation of the Indian industries. As a part of this MoU, both the institutes will collaborate on research, consultancy, education, and training through various modes of engagement.

### **MoU with Directorate of Archaeology and Museums**

IIT Gandhinagar has signed an MoU with the Directorate of Archaeology and Museums, Sports, Youth and Cultural Activities Department, Government of Gujarat, on May 20, 2022, to share mutual expertise, resources and commitment to the protection and preservation of historical and cultural environments and to conduct quality research and development in conservation, heritage management, and relevant archaeological sciences.

## **Formal education for village kids**

NYASA volunteers worked hard to formally enroll some of the children of construction workers in Basan village's government school. Invaluable efforts of Mr. Sunil Patel (Basan school principal), Prof. Gaurav Srivastava, Prof. Sharada C V, and Prof. Harish (for granting the permission during the covid period) are greatly appreciated to make this a reality. Twenty children have completed their schooling for the academic year 2021-22 and received their transfer certificate from Basan School. This is the first time in the history of IITGN. The special training program has been conducted for the kids to help them to get inducted into formal education.

## **Activities by CCL**

IITGN's Centre for Creative Learning (CCL) and the American India Foundation (AIF) have joined forces to launch the 'Sparkle Series.' This online interactive education program, funded by IBM India, targets Vigyan Jyoti scholars in Jawahar Navodaya Vidyalayas (JNVs) across the country. The series will reach approximately 10,000 girl students in 200 JNVs across 34 states and union territories.

The Centre for Creative Learning (CCL) conducted workshops for more than 300 teachers, students, and science communicators from April to June 2022. These workshops were focused on implementing the National Education Policy (NEP) 2020 at the classroom level; integrating sports and arts with curriculum; the scope of activities, models, etc. to make classrooms engaging; and making science experiential at science community centres. The Centre has also established a STEM lab for all 746 KGBV schools of UP and was visited by a team from the Ministry of Education, Bihar on May 27-28, 2022.

## **MoU with NIT Sikkim and NIT Hamirpur**

IITGN has signed two Memoranda of Understanding (MoU) with the National Institute of Technology Sikkim (NITS) and the National Institute of Technology Hamirpur (NITH) in July-August 2021 to facilitate student exchange, academic cooperation, and research collaboration among faculty members of both institutes.

## **Prof Amit Prashant receives Gopal Ranjan Technology Award**

Prof Amit Prashant, Professor of Civil Engineering and Officiating Director of IITGN, has been honored with the prestigious Gopal Ranjan Technology Award 2021. This award, presented by IIT Roorkee, acknowledges outstanding contributions in fields related to Soil Characteristics, Foundation Engineering, Ground Improvement, Soil Structure Interaction, Engineering Geology, Underground Structures, Rock Mechanics, and Subsurface, including marine structures in India.

### **Prof Vimal Mishra elected as Fellow of NASI**

Prof Vimal Mishra, Associate Professor of Civil Engineering at IITGN, has been elected as a Fellow of the National Academy of Sciences, India (NASI), the oldest Science Academy in India. His election recognizes his significant contributions to the field of science and engineering.

### **Prof Atul Dixit receives Swarnajayanti Fellowship**

Prof Atul Dixit, Associate Professor of Mathematics at IITGN, has been awarded the prestigious Swarnajayanti Fellowship in the Mathematical Sciences category. This fellowship, announced by the Department of Science and Technology (DST), Government of India, represents a notable achievement for mathematical research in Gujarat.

### **Prof Neeldhara Misra Becomes Associate of IASc**

Prof Neeldhara Misra, Assistant Professor of Computer Science and Engineering at IITGN, has been selected as an Associate of the Indian Academy of Sciences (IASc), Bengaluru. This recognition signifies her contributions to the field and her commitment to furthering scientific research.

### **Prof Michel Danino joins National Steering Committee for NCF**

Prof Michel Danino, Visiting Professor at IITGN, has been appointed as a member of the National Steering Committee responsible for developing National Curriculum Frameworks (NCFs). His involvement in shaping the curriculum will have a lasting impact on education in India.

### **Dr Rahul Kumar receives Fulbright-Nehru Postdoctoral Research Fellowship**

IITGN alumnus, Rahul Kumar, has been awarded the prestigious Fulbright-Nehru Postdoctoral Research Fellowship 2022-23, recognizing his contributions to the field of mathematics. This fellowship will enable him to advance his research at Penn State University, USA.

### **Sharing thoughts on education**

Prof Sudhir K Jain, Director, shared the vision of IITGN and his thoughts on education in a number of forums. He delivered a talk in an event to felicitate him by the Indian Association of Structural Engineers (IAStructE) on July 10, 2021. Prof Jain participated in a panel discussion on 'Roadmap to Bridging Employability Gaps in India' organised by Harappa Education on August 14, 2021. On August 19, 2021, he participated in a webinar organised by Harappa Education, as part of its 'Harappa Bridge' series, to speak

on 'Do Internships Matter?'. Prof Jain visited JK Lakshmi Pat University, Jaipur on September 4, 2021, and interacted with the faculty of JKLU on 'Institute Building'. Prof Jain, along with Prof Abhay Karandikar (IIT Kanpur), Prof V Ramgopal Rao (IIT Delhi), and Prof K N Satyanarayana (IIT Tirupati), participated in a panel discussion on 'IITs Gearing Up for New World', during the PAN IIT Global Virtual Technology Summit 2021. The session was moderated by Mr Raj Nair, Chairman, Avalon Consulting.

Prof Jain also participated in another virtual panel discussion organised by Sci-ROI (Science and Research Opportunities in India) on September 26, 2021, on 'Upcoming Academic Institute Panel'.

## **COMMUNITY OUTREACH**

### **Nyasa's successful summer camp for children**

Nyasa, an informal school run by students and community volunteers at IITGN, hosted a 10-day summer camp for approximately 90 children from neighboring villages and construction workers' colonies. The camp aimed to foster the exploration of hobbies and hidden talents among these children.

### **NEEV empowers rural youth and women**

NEEV, IITGN's community outreach program, successfully trained nearly 150 rural youth and women in six skill development courses during April to June 2022. The program provided them with valuable skills, enabling many to start earning income.

### **CAMP HSS 2021**

IITGN conducted a first of its kind free online event - 'Camp HSS' - for school students of classes 8-12 to help them develop critical thinking, empathy and creativity. The three-day virtual camp, held from July 30 to August 1, 2021, received more than 4,000 participant registrations from all over the country. Academics from India and abroad conducted the workshop. Prof Jaison Manjaly coordinated the event.

### **Science awareness programme for school students**

IITGN organized a week-long Science Awareness Programme for school students of classes 11th and 12th in the Science stream. This event aimed to engage more than 800 students and teachers from the Ahmedabad/Gandhinagar region in science-related activities.

### **Camp COGSCI**

IITGN's Curiosity Lab and Centre for Cognitive and Brain Sciences hosted 'Camp CogSci' from January 7 to 9, 2022, to introduce Cognitive Science, Artificial Intelligence and Neuroscience to students of classes 8th to 12th as well as teachers, parents, and scholars of education, to generate excitement, curiosity, and have fun during learning. Top academics from India and abroad addressed the workshop, which was coordinated by Prof Jaison Manjaly.

### **Science Awareness Week**

Ahead of the National Science Day on February 28, IITGN organised Science Awareness Week for school students of classes 11th and 12th (Science stream). More than 800 school students and teachers from the Ahmedabad/Gandhinagar region participated in the programme, which was packed with several exciting

and hands-on activities aimed at popularising STEM learning among school students. The event was coordinated by Profs Emila Panda, Sriram Kanvah, and Superb Misra.

### **IITGN hosts workshop on Higher Education opportunities**

IITGN organised a three-day exposure camp for about 26 students from the rural tribal district of Chhota Udepur, Gujarat. The workshop aimed to inform these students about various higher education opportunities and different career streams, fostering their pursuit of education and knowledge.

### **4<sup>th</sup> National Conference in Chemistry**

IITGN organised the 4th National Conference in Chemistry (N-ConC 2021) during August 6-7, 2021. The two-day virtual conference hosted 14 invited lectures from distinguished faculty of several prestigious institutions in India and abroad, 17 flash presentations from PhD students, and three special talks from IITGN alumni pursuing their doctoral degrees abroad. More than 100 delegates from different parts of the globe participated in the event. Prof Sivapriya Kirubakaran and Prof Sriram Kanvah were the convenors of the conference.

### **Exposure camp for students**

The Humanities and Social Sciences discipline, in collaboration with a local educational organisation based in Chhota Udepur and the Azim Premji University, organised a three-day exposure camp on higher education opportunities for about 26 students of Chhota Udepur, a rural tribal district in Gujarat, from May 20 to 22, 2022. The residential workshop was designed to inform students pursuing higher secondary and undergraduate studies about various higher education opportunities and different career streams across disciplines. The workshop was organised by Prof Nishaant Choksi.