



Centre for Career Development,
Indian Institute of Technology Guwahati

**Placement
Brochure-2024**

**Department
of Civil Engineering**



About The Institute

Indian Institute of Technology, Guwahati

Established in **1994**, as an 'Institute of National Importance', IIT Guwahati has grown into being a preferred destination for people passionate about learning and innovation. IIT Guwahati has been ranked among the **Top 100 Young Universities in the world** by the Times Higher Education, one of the two Universities from BRICS nations. IIT Guwahati has several factors contributing to how in a short span of time it has established itself as one of the best institutes of its kind in the country. The programmes and courses that are offered at IIT Guwahati are perpetually evolving to adapt to the **ever changing global requirements** and along with the diversity of the fields of study, this has helped the institute become one of the nation's nerve centres for research and development, and technical education. The faculty ensure that the students of the campus are ready to face the challenges of the professional world by providing them with a sound conceptual understanding of their respective disciplines. The institute also offers a plethora of opportunities to students for their holistic development, through the excellent facilities that it has for sports and general extracurricular activities.

About The Civil Engineering Department

Vision

To embark on an endeavor of knowledge through innovation in Civil Engineering education and research for sustainable development of the nation with special emphasis on the Northeastern region.

Mission

- Civil Engineering is considered to be the **most versatile branch** among all the engineering branches. It is the branch with a lot of diversity from Geotechnical Engineering to Structural Engineering, Environmental to Earth System, and Transportation to Hydraulics; Civil Engineering can be considered as the single largest branch among all the engineering branches.
- **The academic program commenced in 1995 and is one of the oldest departments of the institute. The Department of Civil Engineering at IIT Guwahati was established in 1997 and has continually upgraded itself in terms of academic programs and research infrastructure**, including state-of-the-art laboratories. The department attracts the finest young and 53 dynamic faculty members and the best of the students for its Bachelors, Masters and Doctoral programs.
- The Department is committed to providing excellent in-classroom infrastructure, enrichment of the academic and professional experience of students, outreach to the engineering community and society, and advancement in Civil Engineering.

The Department of Civil Engineering at IIT Guwahati, **established in 1997**, is **one of the oldest departments** at the institute. It boasts state-of-the-art facilities, academic programs, and research infrastructure. Our students benefit from a vibrant campus life with diverse activities. We offer **industry interaction**, exchange programs, and training opportunities to prepare them for successful careers.

Our graduates and postgraduates have been selected by leading national and multinational firms and research/academic institutes. The achievement of our students has really made us proud! The department is committed to providing excellent classroom infrastructure, enrichment of the academic and professional experience of students, outreach to the engineering community and society, and **advancements in Civil Engineering**.

IIT Guwahati is among the top-tier colleges in India (**ranked among the top 7 by NIRF, MHRD, India**) in the field of Engineering. IITG has also entered the list of top 50 institutes in the world by securing the **41st** rank globally (**Indian Rank - 2**) in the 'Research Citations per Faculty' category of the latest QS World University Rankings 2022.

Our faculty members, renowned experts in their fields, have dedicated themselves to imparting cutting-edge knowledge, practical skills, and a deep understanding of the engineering principles that shape the world around us. With Best Wishes!



PROF.SHARAD GOKHALE

**From the Head
of the
Department**

Undergraduate Programs – B.Tech

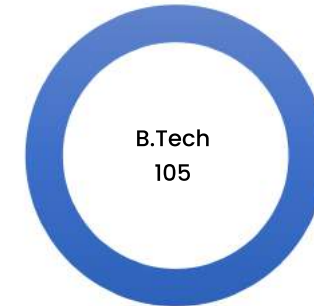
Our B.Tech program in Civil Engineering offers a meticulously crafted curriculum that covers all major disciplines of civil engineering, including structural engineering, geotechnical engineering, transportation engineering, environmental engineering, to remote sensing. We provide our students with a well-rounded education that prepares them for **diverse career paths** within the field. The B.Tech curriculum involves an eight-semester program with the objective of providing a platform for the students to develop skills and knowledge in the field of Civil Engineering. Apart from that, the program also includes courses on humanities and social sciences and many electives. Our students gain hands-on experience and valuable skills by collaborating with industry leaders in the civil engineering sectors.

Postgraduate Programs – M.Tech

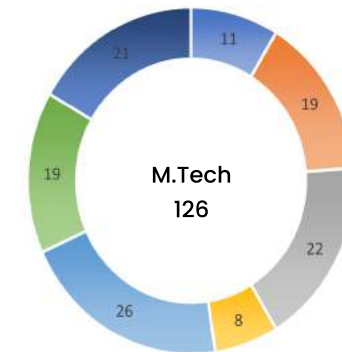
The M.Tech curriculum involves a rigorous four-semester program tailor-made to the area of specialization. The program follows a balanced approach of training in both qualitative/experimental and quantitative aspects of the respective field of specialization.. The students are also required to undertake teaching assistantships, thus grooming them into well-rounded individuals capable of completing challenging assignments. The Department offers degrees in seven different specializations: **Earth System Science and Engineering, Environmental Engineering, Geotechnical Engineering, Infrastructure Engineering and Management, Structural Engineering, Transportation Systems Engineering, Water Resources Engineering and Management.**

Ph.D

Our Ph.D. program, currently enrolling 203 students, is designed to facilitate comprehensive proficiency in the chosen field. This is accomplished through a structured curriculum comprising coursework and culminating in intensive doctoral research. Our students actively engage in both experimental and theoretical research across **seven specialized areas within Civil Engineering.**



Total No of Students in Graduating Batch



- Earth System Science and Engineering
- Environmental Engineering
- Geotechnical Engineering
- Infrastructure Engineering and Management
- Structural Engineering
- Transportation System Engineering
- Water Resources Engineering and Management

Key Research Areas

Earth System Science and Engineering

- Remote Sensing and Advanced Image processing
- Applications of Geographic Information System(GIS) and Scientific computing for geospatial Analysis
- Photogrammetry, LIDAR and UAV Applications
- Petrophysical modeling for petroleum exploration
- Hydrocarbon exploration
- Rock Mechanics
- Geophysical Survey and Exploration
- Geodynamics and Natural Resources Management
- Sensor Calibration and Synthetic Simulation
- Isotope Hydrology



Geotechnical Engineering

- Shallow and deep Foundations
- Stability of slopes
- Unsaturated Soil Mechanics
- Ground improvement Techniques
- Seismic Hazard Analysis and Ground motion simulations
- Soil Stabilization
- Offshore Foundation
- Seismic soil-structure Interaction
- Vegetation soil Interaction
- Geoenvironmental Engineering



Infrastructure Engineering and Management

- Sustainability in construction
- Cost of Quality
- Durability in concrete
- Geopolymer concrete
- BIM and construction automation
- Resource optimization
- Construction workers
- PPP projects
- Infrastructure Management



Environmental Engineering

- Wastewater treatment
- Solid waste management
- Biogas
- Pollution modeling
- Air quality modeling
- Sludge treatment
- Heavy metal removal and recovery
- Environmental impact, risk assessment & management



Key Research Areas

Structural Engineering

- Seismic control of a structure
- Earthquake engineering
- Continuum damage mechanics
- Seismic strengthening
- Wind-induced vibration and control
- Structural health monitoring
- Fracture mechanics
- Finite Element Analysis
- Durability of structures



Water Resources and Engineering

- IDF curve development
- River linking projects
- Rainfall clustering and zoning
- Sediment influx management
- Groundwater Quality
- Rainfall modeling
- River Hydraulics
- Hydrodynamic of alluvial channel
- Watershed and Irrigation management
- Dam-break analysis



Transportation Systems Engineering

- Sustainable transportation planning
- Transportation demand management
- Traffic flow modeling
- Rigid and flexible pavement
- Performance testing and modeling of asphalt concrete
- Geometric design of transportation facilities
- Highway quality control and pavement material
- Accident Analysis and road safety
- Pavement analysis and design



For more information on the research areas and laboratories, please visit [here](#)

Research Laboratories

- Concrete Laboratory
- Computational Laboratory
- Earth System Science and Engineering Laboratory
- Environmental Engineering Laboratory
- Fluid Mechanics Laboratory
- Geoinformatics Laboratory
- Geotechnical Engineering Laboratory
- Hydraulic Engineering Laboratory
- Infrastructure Engineering and Management Laboratory
- Pavement Evaluation Laboratory
- Structural Engineering Laboratory
- Transportation Systems Laboratory
- Water Resources Engineering Laboratory
- Water Quality Laboratory



Structures Lab - 1



Water Resources Lab

Research Laboratories



Geophysical Survey



Spectroscopy Lab



Transportation Lab - 1



Transportation Lab - 2



Structures Lab - 2



Air pollution Lab

Sponsored Research Projects

Title of the Project	Investigator	Sponsor
Propagation path characterization and determination of in-situ slips along different active faults in the Shillong Plateau	Dr Abhishek Kumar	Department of Science and Technology, Government of India
Impact of Climate Change on the Integrated Flood Vulnerability Index of Hilly terrain	Dr.Rajib Kumar Bhattachariya	DST, Ministry of Science and Technology, Govt. of India
Road Surface Quality Assessment of Selected Border Roads Sections of India Through Advanced RemoteSensing	Dr Rishikesh Bharti	Defence Research and Development Organisation(DRDO), MoD, GoI
Evidence comparison between Tharsis, Hawaii island volcanism and Deccan Volcanic Provinces based on geomorphology and lithology	Dr.Archana M Nair	ISRO (Indian Space Research Organization)
Infiltration and drainage studies for designing efficient retention reservoirs in low per capita water available regions	Prof. Tadikonda Venkata Bharat	DST-INSPIRE, Govt.of India

For a complete list of sponsored projects, [visit the website](#)

Year at a Glance

Achievements

- International Journals Research Papers Published for the year 2022-2023: **216**
- National and International Conference Research Papers Published: **85**
- IIT Guwahati has achieved global recognition by securing the **32nd rank worldwide** (3rd in India) in the 'Research Citations per Faculty' category of the esteemed **QS World University Rankings 2022**.
- QS world ranking 2023: **Civil Engineering Department**, IIT Guwahati achieved an impressive milestone, with an outstanding rank in the range of **150-200. & 7th in India** in the Engineering category as per NIRF Rankings 2023
- Our Post Graduate Students from Civil Engg. have secured the prestigious **DAAD Scholarship** in Germany for the year 2023.
- Achieved **3rd place** in the **INTER IIT Civil Conclave 2022**.

Internship

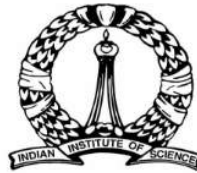
Our students have undergone internships and training in industries and universities around the world. We believe in equipping our students with real-world experiences that prepare them for the challenges of the professional landscape. Through our extensive network of industry partners and esteemed universities, we offer unparalleled internship opportunities that expose our students to diverse cultures, cutting-edge technologies, and innovative practices.



Georg-August University of
Göttingen, Germany



UNIVERSITY OF LEEDS



IISC, Bangalore



Project Collaborations:

- SP Singla constructions
- Engineering Consultants Group, Dubai
- Gammon India Ltd, Guwahati
- RITES India Ltd, Kolkata
- Shapoorji Pallonji & Co Ltd
- Maritime Research Centre, Pune
- Central Mine Planning and Research Institute, Ranchi
- Shree Cement
- National hydropower corporation at LSHEP, Assam

Previous Recruiters

Schlumberger

amazon

Uber



Walmart

TATA PROJECTS
Simplify.Create



Microsoft

ओएनजीसी
ONGC

आर ई सी
REC
असीमित ऊर्जा, अनन्त संभावनाएँ
Endless energy. Infinite possibilities.

Adobe

LANCO

इंडियनऑयल
Indian Oil Corporation Limited

innovaccer



AXIS BANK

Ansys

WELLS
FARGO

ATKINS



Degrémont
Suez

UltraTech
CEMENT
The Engineer's Choice

synergy

Reliance
Industries Limited

Previous Recruiters



ARKITECHNO



Deloitte.



accenture



... and many more.

Contact Us



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