

DEPARTMENT OF CIVIL ENGINEERING

Indian Institute of Technology Bombay

**BROCHURE
2022-2023**





VISION

To be the fountain-head of new ideas and innovations in Civil Engineering

MISSION

To offer world-class undergraduate and postgraduate education, research guidance, professional consultancy, outreach and manpower training as well as leadership in Civil Engineering.

GOALS

To be the highest-ranked Civil Engineering faculty in the country and among the best-rated departments in the world in terms of teaching and quality, research contributions, high-end consultancy, outreach and manpower training and academic leadership.

ABOUT US

The Department of Civil Engineering, one of the founding Departments of IIT Bombay established in 1958, over the years, has grown tremendously, and is now recognized and consistently ranked as one of the best and major engineering departments in the country and in the world, for civil engineering.

With its multifaceted faculty, the department focuses on research, development and consultancy across the disciplines of Transportation Systems Engineering, Geotechnical Engineering, Water Resources Engineering, Structural Engineering, Ocean Engineering, Remote Sensing, and Construction Technology and Management, besides emphasis on high quality teaching and instruction at undergraduate and postgraduate levels. The Department disseminates the knowledge gained from its high quality research through training programs and interacts with world renowned personalities through workshops and conferences.

The Department has attracted significant amount of sponsored research funding from government and private agencies and delivered excellent output in terms of implementable solutions. By providing high quality technical advisory support through various R&D projects, the department maintains strong contacts with various public and private corporations across the world.



53rd

**QS World
Department
Rank 2022**

1st

**The Week
Department
Rank 2022**

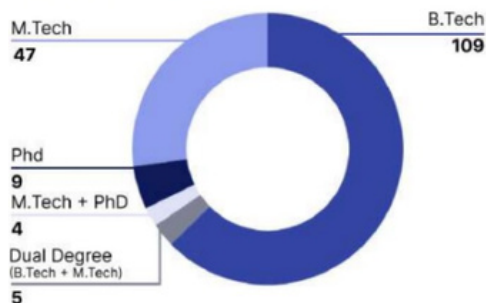
ACADEMICS

- B. Tech. (4 years)- yearly intake- ~175
- M. Tech. (2 years)-yearly intake- ~100
- Ph.D. - ~ 35
- Dual Degree(B.Tech + M.Tech.)(5 Years)
- Dual Degree (M.Tech + PhD)
- Transportation Systems Engineering
- Geotechnical Engineering
- Water Resources Engineering
- Structural Engineering
- Ocean Engineering
- Remote Sensing
- Construction Technology and Management

The department currently has 274 research scholars along with 145 postgraduate students in the above specialization. The Department also admits fresh Ph.D. holders as Post-doctorate fellows across disciplines.

We also have a diverse group of International students enrolled in our master's and doctoral programs.

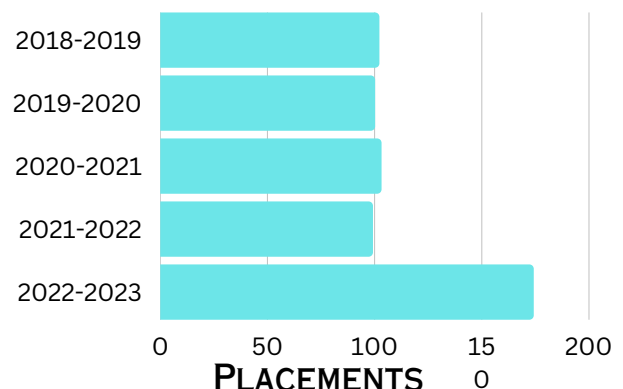
Civil Engineering : 2022-23



Placement in each program :

B.Tech : 109
M.Tech : 47
Ph.D : 09
M.Tech + Ph.D : 04
Dual Degree : 05

FINANCIAL YEAR



Students enrolled to the B.Tech. programme can also pursue a B.Tech. (Honours) degree in Civil Engineering. A B.Tech. student can apply for a transition to the Dual Degree programme by the 3rd year of study.

Entry to the M.Tech. programme is typically through the Graduate Aptitude Test in Engineering (GATE). For further details on the admission to M.Tech. and Ph.D. programmes, please refer to the IIT Bombay Academic Office website:
<http://www.iitb.ac.in/acad/>

PLACEMENTS



Excellent placement opportunities exist for graduated students. Most students secure a placement (in government, public and private sector, both within the country and outside) prior to completing their studies.

Our students have been placed primarily in the construction and infrastructure industry, including design consultancy (both national and multi-national corporations). The employers include Larsen & Toubro, Dar Al Handasah, Thornton Thomasetti, Walter P. Moore, Leslie E Robertson Associates, Mahindra EPC, etc. Our bachelor students also go on to pursue a career in research and academics. Some enthusiastic students with entrepreneurship skills launch their own start-up companies after graduating from this department.

Most of the B.Tech. students opt for an internship at the end of their 2nd/3rd year of study (in educational/research institutes or in the industry) which helps them choosing their career path after graduation.

Prospective recruiters may obtain additional details from the website of the Placement Cell of IIT Bombay: <http://placements.iitb.ac.in>

RESEARCH & DEVELOPMENT

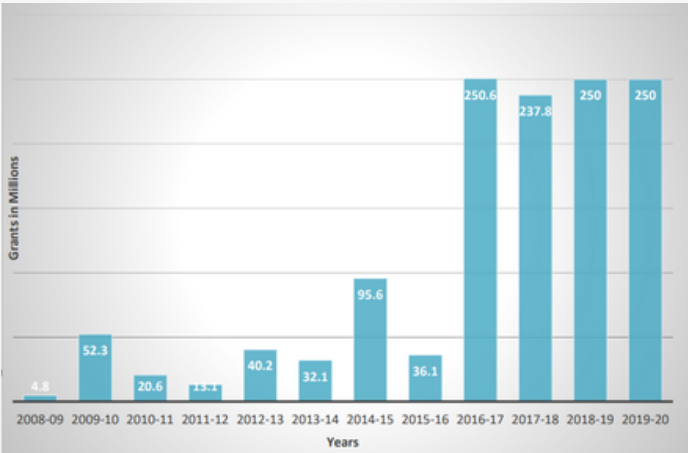
We are actively involved in basic and applied research sponsored by public and private organisations, such as, DST, DAE , DEIT, Ministry of Earth Sciences, MHRD (all Govt. of India divisions), ISRO, CSIR, CRRI, CDAC, NIOT, FICCI, FP7 (EU), UKIERI (UK), NSF (USA), SNSF (Switzerland), ArcelorMittal (Belgium), etc.

Apart from this, DST - FIST has sanctioned to the department a total financial grant of INR 51 million (2014 - 2019) under the theme "Sustainable Materials and Technologies in Civil Engineering Applications" for the procurement of Rheometer, Large Multi - purpose Flume, Cyclic Triaxial Facility, Gyratory Compactor, and Hamburg Wheel Tracker Rut Machine.

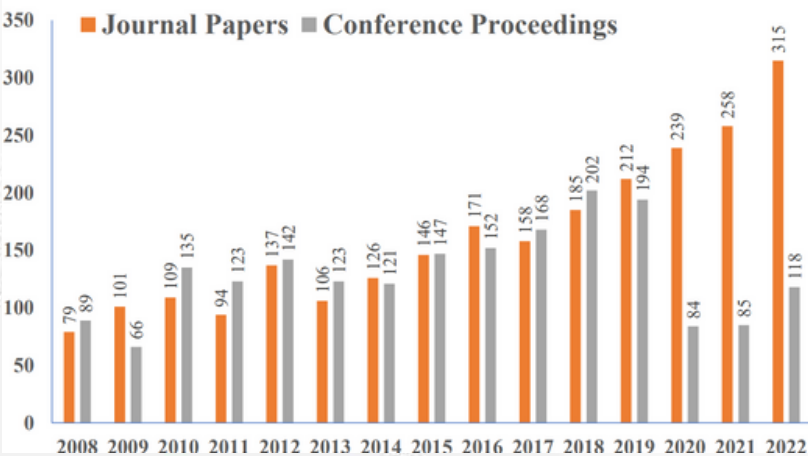
The department boasts excellent research facilities in various disciplines, including the National Geotechnical Centrifuge Facility. Our laboratories focus on key thematic research areas, and are equipped with state-of-the-art technological facilities.

Our research outcome, in terms of publishing research papers, monographs, technical reports, etc., is one of the best among all engineering departments in the country, keeping the department at a very high level in academic rankings consistently. The average number of journal papers published is 4 per faculty member per year (besides similar number of papers in conferences). Our faculty members are editors and editorial board members of many reputed national and international research journals. Ph.D. students form the core group of research students. Our M.Tech. students also pursue a research based dissertation.

Sponsored Research Grants



Number of Patents filed : 8



LABORATORY FACILITIES

The department provides state of the art laboratory facilities that help in carrying out high quality research work. These include

- Experimental Mechanics Lab
- Heavy Structures Lab
- Structural Safety, Risk and Reliability Lab
- Structural Health Monitoring & Retrofitting Lab
- Structural Nano & Bio Mechanics Lab
- Disaster Risk Mitigation Lab
- Engineering Surveying Lab
- Photogrammetry Lab
- Advanced Engineering Surveying Lab
- Geotechnical Earthquake Engineering (GEE) Lab
- Advance & Dynamic Soil Testing Lab
- Advanced Geotechnical Engineering Lab
- Structural Evaluation & Materials Technologies Lab
- Environmental Geotechnology Lab
- Geotechnical Engineering Lab
- National Geotechnical Centrifuge Facility
- Fluid Mechanics Lab
- Hydraulics Lab
- Highway Material Testing Lab
- Traffic Engineering Lab
- Advanced Pavement Engineering Lab
- Ocean Engineering Lab
- Material Characterisation Lab
- Construction Management Lab
- Departmental Computational Lab



INDUSTRIAL CONSULTANCY

Apart from sponsored research, the department maintains a very active association with the industry through consultancy projects, providing solutions to real-life engineering problems.

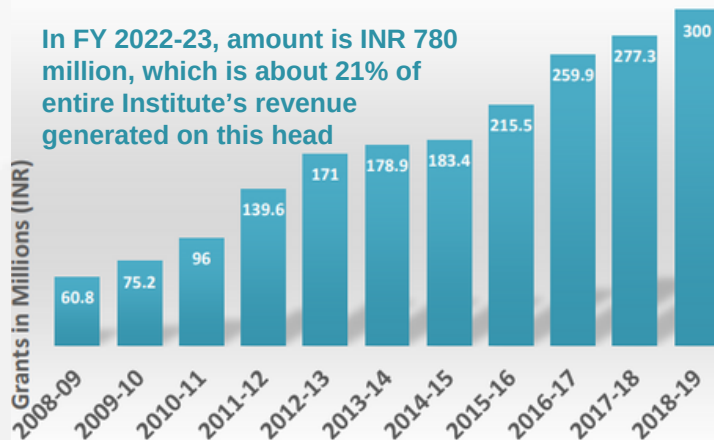
Our expert advice is sought for planning, design, construction, testing, performance assessment, maintenance, repair, rehabilitation, recycling, etc., in the building construction and infrastructure industry. However, our industrial consultancy is not limited only to this domain.

Clients for our consultancy projects include public and private sector organisations from India and abroad, for example Ministry of Defence, Indian Railways, NPCIL, ONGC, MCGM, CIDCO, MSRDC, MMRDA, JNPT, CS International Airport, OECD, Petrofac (UAE), etc.



Further information on our expertise and on consultancy projects in general are available in the webpages of the Industrial Research and Consultancy Centre, IIT Bombay:
<http://www.ircc.iitb.ac.in>

In FY 2022-23, amount is INR 780 million, which is about 21% of entire Institute's revenue generated on this head



PEOPLE

DEPARTMENT FACULTY:

Prof. Deepankar Choudhury
Geotechnical Engineering

Prof. Pradipta Banerji
Structural Engineering

Prof. Alok Goyal
Structural Engineering

Prof. Ravi Sinha
Structural Engineering

Prof. D. N. Singh
Geotechnical Engineering

Prof. Yogesh Desai
Structural Engineering

Prof. K. V. Krishna Rao
Transportation Systems Engineering

Prof. Jangid R. S.
Structural Engineering

Prof. Viswanadham B. V. S.
Geotechnical Engineering

Prof. Kapil Gupta
Water Resources Engineering

Prof. T. I. Eldho
Water Resources Engineering

Prof. Naresh K Chandiramani
Structural Engineering

Prof. Tom V. Mathew
Transportation Systems Engineering

Prof. V. Jothiprakash
Water Resources Engineering

Prof. Siddhartha Ghosh
Structural Engineering

Prof. Ashish Juneja
Geotechnical Engineering

Prof. Subimal Ghosh
Water Resources Engineering

Prof. Sauvik Banerjee
Structural Engineering

Prof. Gopal R Patil
Transportation Systems Engineering

Prof. Dasaka Murty.
Geotechnical Engineering

Prof. Bellie Sivakumar
Water Resources Engineering

Prof. Vedagiri Perumal
Transportation Systems Engineering

Prof. Janga Reddy Manne
Water Resources Engineering

Prof. Mandar Inamdar
Structural Engineering

Prof. Balaji Ramakrishnan
Ocean Engineering

Prof. Nagendra Rao Velaga
Transportation Systems Engineering

Prof. Avijit Maji
Transportation Systems Engineering

Prof. RAAJ Ramsankaran
Remote Sensing

Prof. Manasa Ranjan Behera
Ocean Engineering

Prof. Dharamveer Singh
Transportation Systems Engineering

Prof. Swagata Basu
Structural Engineering

Prof. Prasenjit Basu
Geotechnical Engineering

Prof. Prakash Nanthagopalan
Construction Technology And Management

Prof. Basudev Biswal
Water Resources Engineering

Prof. Arghadeep Laskar
Structural Engineering

Prof. Santiram Chatterjee
Geotechnical Engineering

Prof. Jayadipta Ghosh
Structural Engineering

Prof. Riddhi Singh
Water Resources Engineering

Prof. Venkata S Kumar Delhi
Construction Technology and Management

Prof. Arpita Mondal
Water Resources Engineering

Prof. Indu J.
Remote Sensing

Prof. Manish Kumar
Structural Engineering

Prof. Meera Raghunandan
Structural Engineering

Prof. Amit Das
Structural Engineering

Prof. Muhammad Salman
Construction Technology And Management

Prof. Albert Thomas
Construction Technology and Management

Prof. Eswar Rajasekaran
Remote Sensing

Prof. Srineesh V K
Ocean Engineering

Prof. Pinom Ering
Geotechnical Engineering

Prof. Najeeb Shariff
Mohammad

Prof. Swathy Manohar
Construction Technology And Management

Prof. Solomon Debbarma
Transportation Systems Engineering

Prof. M. C. Deo
Ocean Engineering

VISITING

PROFESSORS:

Prof. Milind Wankhede

Prof. M. K. Gupta

Eight of the department faculty members are listed among Sixty one (61) faculty members of IIT Bombay, who are listed as TOP 2% of world researchers up to Sept 2022 as per the report published by Elsevier, BV on 10th Oct 2022.

STAFF:

Shivsharan S Y, Administrative Officer
Dhanve V B, Administrative Assistant
Warik E S, Jr Assistant
Achrekar P, Jr. Mechanic
Batsav S M, Jr. Attendant
Adane G, Jr. Mechanic
Mohammed A, Technical Superintendent
Vishwakarma A. K., Jr. Lab Assistant
Patil S. D., Technical Superintendent
Palsania M K, Technical Superintendent
Chaturvedi S, Jr. Administrative Assistant
Gurkhe S, Jr. Mechanic
Gupta B D, Jr. Lab Assistant
Thakur p, Technical Superintendent
Narvekar G, Jr. Mechanic
Shingade P, Technical Superintendent
Prem Pun, Sr. Lab Helper
Manere V, Jr. Mechanic
Shekhar S, Technical Superintendent
Gangal S S, Jr. Mechanic
Sawant N, Jr. Lab Assistant
Aughade T S, Jr. Mechanic
Potjale V, Jr. Mechanic
Jadhav A, Jr Assistant
Joshi M, Technical Superintendent
Lodh Paras, Administrative Superintendent
Channe P P, Project Engineer
Warghade N H, Multi Skill Assistant
Palkar T, Apprentices
Sutar A, Technical Superintendent
Kshirsagar S, Technical Superintendent

OUTREACH

The department organises a host of activities to disseminate knowledge among stakeholders. In the **2022-23** academic year alone, 10 QIP programs and 10 CEP courses have been organized by the department. Also we engage with engineering professionals and college teachers through diverse outreach activities, such as

- Short-Term Training Programmes (STTP) and in-house courses under our Continuing Education Programme (CEP)
- Web and video courses under distance education programmes
- Doctoral and masters studies under the Quality Improvement Programme (QIP)
- Part-time Ph.D. degree in the College Teacher (CT) category
- Self-sponsored (part-time) Ph.D. degrees for the working professional

The department regularly organises national and international conferences, thematic workshops and symposia. Besides, we host distinguished researchers from across the world as visiting professor, who share their expertise through research collaboration and teaching.

The department pursues international collaborations:

Through Joint Supervision of Doctoral Students

- Monash University
- University of Illinois at Urbana-Champaign
- Drexel University
- HK Polytechnic
- University of New South Wales
- University of Chile

Through Sponsored Projects

- University of New South Wales
- Monash University
- Texas A&M University
- University of Maryland
- University of Illinois at Urbana-Champaign
- Univ. of Edinburgh.
- Purdue University (under IUSSTF) – KIT, TUD Germany (under DAAD)
- North-Eastern University
- The University of Sheffield
- South East European Research Center (SEERC)
- University of Padua (UNIPD)
- University of Aberdeen

STUDENT ACTIVITIES

The **Civil Engineering Association (CEA)**, IIT Bombay is one of the most active organizations of civil engineers in the country. The Association was established with a prime objective to proliferate knowledge and address industrial issues by bringing corporate, professors and students on to a common platform. CEA regularly organizes activities like technical seminars, research symposium, and talks on cutting edge academic research as well as innovations in industries. The association also organizes multiple site visits every year for the students, thus giving the chance to interact with key figures in the industry.

The department also encourages activities like seminars and workshops to cater the academic needs of the students throughout the year which are organised by the department placement team, academic council and the student companions. Apart from these, we encourage students to participate in national and international level competitions such as Solar Decathlon, National Canoe Competition, Tower of Babylon etc.





CONTACT

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