

Industrial Training and Internships

Internships play a vital role in the M.Tech. program for students to get exposed to professional needs and work experience with the latest tools and techniques in the domain. The students in the final year take-up internships in leading structural engineering companies and consultancies. The students develop good communication along with diverse industry activities with the company personal and avail the advantage of getting placed to same company after the completion of curriculum



Centre of Excellence

NIE has identified many Centre of Excellence which hosts both research and consultancy work. As a policy at NIE Centre of Excellence are open to participation of students. The students of this M.Tech Structural Engineering program make full use of these facilities. Amongst the Centre of Excellence most relevant to this M.Tech. Program is Building Fire Research Centre (BFRC). The Department of Civil Engineering started BFRC, in the year 2007 to conduct fire resistant tests on structural elements. BFRC has introduced two elective courses in Structural Engineering curriculum. BFRC from its inception has involved in sponsored research work. To name a few

BARC – Software tool to conduct fire safety audit to quantify the fire safety index

VTU – Development of refractory chemicals to sustain elevated in concrete structures

IEDC – Effect of refractory chemicals on concrete subjected to elevated temperature.

Placements and Higher Education

The dynamic curricular and co-curricular activities crafted in M.Tech. program making students competent by developing industry relevant skills. The students owing to their competency have been placed in some of the leading structural design companies and consultancies such as WS Atkins & Partners, Design Tree consultants, Stedrant Technoclinic Private Limited, TRC Engineering India Pvt. Ltd. Few of the students have continued in the research field by registering to doctoral program in premiere research institutes like IITs, NITs, BITS Pilani.

Admission and Opportunities

The admission for the course is open to graduates of Civil Engineering through PG CET and GATE. Students with GATE score are eligible for a monthly scholarship. The total intake for the program is limited to 18.

Research Oriented Courses

The Department of Civil Engineering also offers research oriented courses such as M.Sc (Eng) and Ph.D. Under the VTU. Registration for these courses is generally made twice annually - during March and September every year.

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Affiliation & Accreditation



The National Institute of Engineering



M.Tech. Program in Structural Engineering



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About The Institute

The National Institute of Engineering (NIE) was started in the year 1964, under the grant in aid of the Government of Karnataka. The NIE is affiliated to the Vishveswaraiah Technological University (VTU), and All India Council for Technical Education (AICTE). Since 2007, NIE is one of the 18 prestigious colleges in Karnataka state that have been recognized and given autonomous status by VTU. Also, it has been selected under Technical Education Quality Improvement Programme (TEQIP) sponsored by MHRD-World Bank. NIE runs 7 UG, 12 PG and has 16 Centres of Excellence and the strength of students is nearly 4000. Many funded research projects supported by Central and State Governments, VTU, ISRO, BRNS-BARC, MoES, DST are being carried out at NIE.

About the Program

The Department of Civil Engineering has been in the forefront in giving quality engineers to the society. The Department is also recognised as a Centre for Research by VTU and as QIP centre by AICTE. The M.Tech. Program in Structural Engineering, started in the year 2012 to impart quality higher education to young and bright professional. The M.Tech. program Structural Engineering at NIE is recognized by the VTU, affiliated to All India Council for Technical Education (AICTE), and accredited by National Board of Accreditation (NBA). The Structural Engineering Course is being handled by multidisciplinary faculties having immense teaching and research experience. The program also involves experienced industry experts in the regular curriculum to enhance industry-academia interaction. The Structural Engineering laboratories have been installed with state-of-art equipment and software through World Bank-aided Technical Education Quality Improvement Programme (TEQIP I, II, & III). The industry-significant technical facilities available in Civil Engineering Department along with experienced teaching faculties, constantly bring cutting edge technology and knowledge bases to the students.

The Curriculum

The M.Tech. program is a two years course, in which learning is divided into 4 semesters. In the first two semesters, basics and advance courses tailored to match the industry requirements will be taught in class as well as in laboratories. To encourage students to access courses beyond the expertise available in the department, MOOC and SWAYAM courses have been introduced. To keep abreast with the latest in the field, experts from the industry are invited to deliver industry oriented courses.



The curriculum is strengthened through the laboratories with state-of-art equipment and software tools. Further field visits are arranged frequently to expose the students to industrial activities and seminars are hosted to augment advanced research issues. The students in third semester undergo 60 days of internship program and during the internship students will be made to undergo training in reputed industries. Further, the students will assist teaching faculties to conduct research oriented project and also supported to write funded projects (KSCST, DST, AICTE, NIE-CRD, etc.) to develop research project writing skills.

Laboratories and Facilities

The M.Tech. Program has introduced three exclusive program specific laboratories.

1. Structural Engineering Laboratory

- Compression testing machine, Flexural testing machine, Pull-Out testing machine, Accelerated Curing Tank, Lateral extensometer, Longitudinal extensometer, Proving ring

2. Dynamics Laboratory

- Shake Table, Data acquisition system – Displacement, Strain, Load, and Temperature sensors.

3. Computation Laboratory:

- Equipped with 20 Hi-Speed computers with i7 processor, 8GB RAM, and 512GB storage capacity to support advance structural analysis programs.
- Procured programming and analysis software such as MATLAB, ABAQUS, ATENA, ETABS (Non-linear), STAAD Pro, NISA – Civil (Display 1 &2), AUTO CADD

