

CIVIL ENGINEER/ STRUCTURAL ENGINEER

Civil Engineers design and maintain structures such as public and private buildings, water systems, airports and roads. Structural Engineers analyze, design, build and maintain the structures and materials that counteract or reinforce loads. Some of the tasks a Civil Engineer, is expected to perform include planning, organizing and supervising construction and repair of bridges, factories, towers, etc.; calculating and preparing estimated cost and detailed drawings; arranging for men, material, machinery and appliances, etc.

PERSONAL COMPETENCIES

- You have an analytical mind and can think critically
- You like mathematics
- You have excellent communication skills and can lead a team
- You pay attention to minute details



SCHOLARSHIPS

- **Merit-cum-Means based Scholarship** - About 20,000 such engineering scholarships are awarded by the Ministry of Minority Affairs every year. The full course fees of awardees is directly paid to their institutions under this scheme.*
 - **Indian Oil Educational Scholarship**- The IOC Ltd offers 300 scholarships every year to eligible students. Students need to be enrolled in an undergraduate course. The scholarship particularly focuses on students with physical disabilities, women and students from North East and J&K.*
 - **"Ishan Uday" Special Scholarship Scheme** - For promoting higher education and for encouraging children belonging to economically weaker section of the NE region, the UGC has launched "Ishan Uday" Special Scholarship Scheme for North Eastern Region students.
 - Visit www.scholarships.gov.in the National Scholarship Portal. Under this portal there are other central government schemes offered by different departments, UGC/AICTE Schemes and State Schemes.*
 - Visit www.buddy4study.com a gateway to scholarships starting from Class XI*
 - Scholarships are also available in the institutes based on merit.*
- *(Availability of these scholarships vary from time to time)

LOANS

- VidyaLakshmi, www.vidyalakshmi.co.in, is a portal for students seeking education loan. This portal has been developed under the guidance of the Department of Financial Services, (Ministry of Finance), Department of Higher Education (Ministry of Human Resource Development) and Indian Banks Association (IBA). Students can view, apply and track the education loan applications on the website.
- Some States have student credit cards with low interest rates, for instance, West Bengal, Odisha, Bihar, etc.
- All banks give education loans.



The approx. course fee ranges between **INR 2,00,000 – 7,00,000.***

*(The above mentioned figures are approximate numbers. This will vary from Institute to Institute)

ENTRY PATHWAY

1. Complete 10+2 in Science stream (Physics, Chemistry and Maths)
 2. Complete Bachelor's degree (B.Tech./B.E.) in Civil Engineering
- OR
- Complete Bachelor's degree and then pursue a Master's degree (M.Tech./M.E.) in Civil Engineering
- Entrance Exams for admission to UG course such as JEE Mains, TNEA, MET, KCET, VITEEE, etc. are conducted at the national, state or university level. Master's course requires entrance exams such as CAT, GATE, GRE.

Please check the duration of the course during enrolment



EXPECTED INCOME

The figures are from NCS and are indicative and subject to change

The approx. salary of a Structural/Civil Engineer with experience ranges between **INR 19,000 – 90,000***

Source - <https://bit.ly/3XsUd6V>

WHERE WILL YOU WORK

Places of Work:

Local authorities, Government departments, Railways, Water/electricity/gas companies across India. You can also work as Civil engineering contractors/consultants across India.

Work Environment:

Your job role will require you to travel locally, and handle a team of engineers. You will work for 8/9 hours per day and for 5/6 days per week.

Opportunities for differently abled exist in this field

EXPECTED GROWTH PATH



Civil/Structural Engineer → Sr. Civil Engineer → Project Manager → Assistant General Manager → Head of Division → Head of Company

Search keywords...



structural construction engineer, civil structural engineer, civil and structural design engineer

WHERE WILL YOU STUDY?

This course is offered by the Department of Civil Engineering/ Structural Engineering.

This list of institutes is indicative only.

GOVERNMENT INSTITUTES

1. Assam Science and Technology University, Guwahati
2. CIT Kokrajhar
3. IIT Guwahati
4. NIT Silchar
5. IIT Kanpur
6. Tezpur University, Tezpur
7. NIT Arunachal Pradesh
8. NERIST Itanagar

PRIVATE INSTITUTES

(Please check if institute is affiliated and accredited with UGC and AICTE before applying)

1. Assam Don Bosco University, Guwahati
2. Regional Institute of Science and Technology, Guwahati
3. Royal Global University, Guwahati
4. SASTRA Deemed University, Tamil Nadu
5. Lovely Professional University (Diploma)
6. Jaipur National University
7. Amity University, Raipur
8. Chandigarh University (Diploma)

Information on the institute rankings can be found at - <https://www.nirfindia.org/2022/Ranking.html>

ONLINE

1. Udemy - <https://www.udemy.com> › topic › structural-engineering
2. NPTEL* Swayam - <https://onlinecourses.nptel.ac.in> › noc20_ce02 › preview

*NPTEL - National Programme in Technology Enhanced Learning. It is by the Government of India and offers a variety of courses in an audio - video form.

EXAMPLE FROM THE FIELD



India's first female civil engineer, **Shakuntala A Bhagat**, pioneered many innovative designs and founded Quadricon — a Mumbai-based construction firm that has designed 200 bridges across the world, including UK, USA and Germany. She was the first Indian woman to obtain a civil engineering degree. In 1960, Bhagat earned her Master's degree in Civil and Structural Engineering from the University of Pennsylvania and went on to teach as an Assistant Professor of Civil Engineering and Head of the Heavy Structures Laboratory at IIT Mumbai. She passed away in 2012. *

Source: <https://www.thebetterindia.com> › Stories

**The above information is for training purposes only and will not be used for any commercial gains*