CIVIL ENGINEERING INDUSTRIAL INTERNSHIP (CEII)
7 Days 60* hours Intensive Certified Internship

India’s one and only Course work based Internship Exclusively on Civil Engineering & Construction Technologies With Industry expert sessions, Factory & Site Visits, Team based Industry Projects

Internship Structure

Day wise – Session Plan
Day 1 – Basics of structures & Transportation structure design + Project Allocation
Day 2 – Field Lab 1 – Surveying/NDT – Basic operations training – Total Station, DGPS etc.
Day 3 – Industry Visit 1 – Visit to a construction site to learn onsite procedures.
Day 4 – Industry Visit 2 – Visit to a construction materials manufacturing facility with experts Interaction.
Day 5 – Industry Visit 3 – Visit to a concrete/reinforcement products related factory with experts Interaction.
Day 6 – Precast Technology & Earthquake resistant/Seismic structure design
Day 7 – Career Guidance & Presentation of project and Award Ceremony

Day 1 - Basics of various structural design + Project Allocation

Reinforced Structural Construction
• Planning Phase, Design Phase, Construction Phase
• Adoption of Adequate Structural System
• Design Codes & Handbooks
• Basic Design Consideration

Analysis & Design
• Safety, Serviceability & Economy
• Design Philosophies
• Behavior of Flexure, Shear & Bond
Tall Building Design – Philosophies, Practices, Codes followed and tools used
• Wind tunnel study
• Various Load considerations
• Various tools used
• Material consideration

Transportation Structure Design
• Advanced Materials in pavements and other Transport structures like Airports
• Metro, Bridges & Flyovers
• Activity of Transportation design structure

Structural Design Philosophy
• Various Phases From Planning to Execution Of Transport systems

Special Load Cases
• Seismic
• Wind
• Snow
• Dust
• Blast
• Hydrostatic
• Moving Loads
• Erection loads, Crane Loads and other Construction Loads
• Load combination

Project Phase
Students will be assigned in to teams and allotted a civil project on 1st day of the course and mentored by our in house expert’s team/visiting faculties.

Day 2
Introduction to Civil Surveying or Civil NDT
• Role of surveying at various stages of construction
• Equipment’s & Other tools (eg Total Station, Autolevel, GIS, Laser Distance meter, Ultrasonic Wall Scanner and Rebar Scanner etc)
• Hands on Training – All Basic operations in latest Total station & DGPS**
Day 3

Advanced Surveying or NDT

• Various Advanced Surveying techniques and practices
• Differential GPS (DGPS) – How it functions and techniques used in surveying.
• Survey project – Students will be split into teams and provided with Survey project to implement all the techniques they learned and submit it as a report.
• Various NDT Techniques used in the construction Industry.

Day 4 & 5 – Industry Visits

• To construction equipment/Materials manufacturing factories and lab session with experienced Industry expert guidance.

Day 6 – Precast Technology

Mechanization in the field of Civil Engineering

Framework

• Recent Developments in various systems of formwork like Tunnel formwork (Mivan..etc.)
• Durability & Workability
• Repeatability

Reinforcing Steel & Concrete

• Cut & Bend Steel
• Welded Wire Mesh
• Dynamic Concrete
• Self-Compacted Concrete

Precast Technology

• Latest Technologies & Tools used in precast industry

Earthquake Engineering

Performance of Structure during Earthquake

• Ground Shaking
• Ground Failure
• Inertia forces
• Seismic Loads
• Factors effecting Seismic loads
• Velocity & Acceleration Spectrum
Failure Mechanism of Earthquake
• Important Parameters of Seismic Design
• Ductility

General Concepts of Earthquake Resistant Design
• Category of Buildings
• Structural Framing
• Torsion in Buildings
• Concept of Isolation
• Detailing Procedures as per BIS Standards

Day 7
Presentation of Allotted Projects by various teams

• Best Teams will be selected and awarded “Winner of CEII Winter Internship ’18” with prizes.
• Best Students who perform well throughout the event will get “Best Intern Award” and certificate of Excellence.

Note: Expertshub has all rights to change the structure of the program based upon expert’s availability and lab conditions without prior notification to anybody.

*no of hours mentioned are calculated by both class room training & the time student spend outside the class room for their project work.

** Depend upon the equipment’s availability

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