



Engineering Staff College of India
An Autonomous Organ of The Institution of Engineers (India)
Old Bombay Road, Gachi Bowli, Hyderabad-500 032
(IMS (ISO 9001:2015, ISO 14001:2015, ISO 50001:2018,
ISO 45001:2018 Certified], AICTE & CEA Recognized Institution)
(NABL Accredited Civil Engineering Testing Laboratory)



CIVIL & TRANSPORTATION ENGINEERING DIVISION

Training and Development Programme on

Structural Engineering & Resilience

27th – 31st July, 2026

Venue : ESCI, Hyderabad



Centre for Promotion of Professional Excellence

INTRODUCTION:

Structural engineering and resilience focus on designing and adapting buildings to withstand, absorb, and quickly recover from extreme events like earthquakes, floods, or climate stresses. While traditional engineering ensures a building simply won't collapse, resilient design prioritizes continuous functionality, rapid post-disaster re-occupancy, and long-term community adaptation.

The increasing frequency of natural hazards, climate-related events, urbanization pressures, and aging infrastructure has highlighted the critical importance of resilient structural systems. Civil and structural engineers play a pivotal role in ensuring that buildings, bridges, and other infrastructure assets are designed, constructed, maintained, and rehabilitated to withstand both everyday demands and extreme events while minimizing disruption to communities and economies.

Structural Engineering and Resilience is an interdisciplinary field that integrates principles of structural analysis, design, risk assessment, disaster mitigation, and sustainability to enhance the performance and longevity of infrastructure. Modern engineering practice requires professionals to move beyond traditional design approaches and adopt resilience-based strategies that consider the entire lifecycle of structures, including preparedness, response, recovery, and adaptation.

OBJECTIVES:

- To know the fundamentals of Structural Engineering & Resilience
- To develop understanding of modern structural engineering principles.
- To Apply seismic, wind, flood, and climate-resilient design concepts.
- To familiarize participants with practical resilience strategies

COURSE COVERAGE :

- Overview and Fundamentals of Structural Engineering & Resilience
- Structural Analysis and Design for Resilience
- Structural Health Monitoring, Condition Assessment use of smart sensors
- Risk and Hazard Identification, Structural Risk Assessment, Hazard-Resistant Structural Design and Risk Mitigation and Recovery Planning
- Rehabilitation and Retrofitting - RC strengthening methods, Steel strengthening, FRP applications & Seismic retrofitting strategies
- Resilient Infrastructure Planning, Risk assessment methodologies
- Implementation of Digital Technologies like BIM for Resilience, AI Monitoring Systems & Remote Sensing applications
- Climate-Resilient Design, Sustainable Materials and Practices and Environmental Impact Considerations and Climate Adaptation
- Group discussions, Presentation of Case Studies by Participants

BENEFITS TO THE PARTICIPANTS:

- Participants will learn to; Increase knowledge of durability and lifecycle performance
- Participants will Analyze the impact of environmental and climate factors
- Improve the skills on Enhance reliability and safety of infrastructure systems
- Improving skills on AI-driven solutions for risk management.

TARGET:

This course is suitable to all Engineers and officers working at Junior Level to Senior Level from Government Departments like R&B, PWD, MES, Municipal Corporations, Panchayat Raj, Housing Boards, GHMC, RITES, and Border Roads Development & Defense. Engineers from all State and Central Government Departments, & Construction Companies.

RESOURCE PERSONS:

Renowned personalities both from Industry / Educational Institutions like IIT's/ NIT's / Research Institutes, Reputed Universities, who are experts in this field, will be involved in providing the training.

PROGRAMME VENUE, DATES & TIMINGS:

VENUE : ESCI, Hyderabad

DATES : 27th – 31st July, 2026

Registration : 09:45hrs.

Session timings : 10:00 – 17:00 hrs with 3 times breaks.

COURSE DIRECTOR:

Dr. R Venkat Reddy, Ph.D (Osmania), FIE
Head

COURSE COORDINATOR:

Ch. Tilak – Faculty
(9052313252)

COURSE FEES:

Rs.30,000/- (Rupees Thirty Thousand Only) + GST 18% per participant. Fee includes, Soft copy of course material, course kit and Twin Sharing AC accommodation, breakfast, lunch, dinner, tea / coffee and snacks during the actual days of training programme.

DISCOUNTS

- ❖ **Non-Residential Fee-** 10% discount on course fee is allowed for non-residential participants.
- ❖ **Group Discount:** Additional 10% discount for three or more participants, if sponsored by the same organization.

GST 18% is to be paid extra over and above the training fee, as training is also brought under the purview of **Service Tax. PAN Card No AAATT3439Q; Service Tax registration No AAATT3439QST008 (under commercial training or coaching services – clause 65(105) (ZZC) of Finance act – 1994). GSTN Number – 36AAATT3439Q1ZV (HSN Number – 999293)**

Programme fee is to be paid in favor of “**IE (I) – Engineering Staff College of India**” in the form of demand draft payable at Hyderabad.

Alternatively the payment may be made by **Electronic Fund Transfer (EFT) to ESCI - SB A/c No. 10007111201 with The SBI, PBB, Rajbhavan Road Branch, Khairatabad, Hyderabad-500004 by NEFT / RTGS / IFSC Code No. SBIN 0004159 – MICR No.500002075**. While using EFT method of payment, please ensure to communicate us your company name, our invoice reference and programme title.

REGISTRATION:

Please send your nominations from your Department/ Organization/ Institution/ if any.,

To
The Head
Civil & Transportation Engineering Division
Engineering Staff College of India
Old Bombay Road, Gachi Bowli, Hyderabad - 500 032
Phone: 040-6630 4114 / 4115
Email : cte@escihyd.org

CERTIFICATE:

A certificate of participation will be awarded to each participant.

GENERAL INSTRUCTIONS

- ESCI encourages participants to present case studies from their respective organizations.
- ESCI provides complimentary accommodation and boarding to the participants one day before commencement (Check-in 1200hrs) and one day after conclusion (Check-out 1100hrs) of the program duration. Overstay charges will be applicable as per ESCI rules (subject to availability of accommodation).