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

Smart & Digital Civil Engineering

22nd – 26th February, 2027

Venue : ESCI, Hyderabad

Centre for Promotion of Professional Excellence

INTRODUCTION:

The construction industry, traditionally slow to adopt new technology, is now actively embracing digital transformation, marking a significant shift towards modernization and increased productivity. This change is all about adopting new solutions that enhance efficiency, safety, and project management, offering significant benefits to businesses.

Smart & Digital Civil Engineering is the application of advanced digital technologies, data analytics, automation, and intelligent systems to the planning, design, construction, operation, and maintenance of civil infrastructure. It combines traditional civil engineering principles with modern technologies to improve efficiency, sustainability, safety, and decision-making. Smart & Digital Civil Engineering represents the transformation of traditional civil engineering through digital innovation. Digital transformation in construction involves using technology to improve efficiency, productivity, and safety across all stages of a project, from planning and design to on-site execution and maintenance. This includes implementing tools like BIM, cloud-based platforms, IoT sensors, and AI-powered software to streamline processes, enhance collaboration, and manage projects effectively.

Digital transformation is revolutionizing the construction industry by leveraging technology to improve efficiency, productivity, and safety. By embracing digital tools and processes, construction companies can stay competitive and deliver projects more effectively.

OBJECTIVES:

- To give knowledge on Present Construction technologies
- To Understand Digital Transformation in construction
- Gives knowledge on tools like BIM, IoT sensors, and AI used in Construction industry
- To impart knowledge on emerging technologies in the construction sector.

COURSE COVERAGE :

- Overview of Smart & Digital Civil Engineering
- Introduction to Civil Engineering 4.0
- Concepts on Technology Transforming the construction Industry and Key areas covered in a Digital Civil Engineering
- Building Information Modeling (BIM) and Digital Design
- IoT, Sensors, and Structural Health Monitoring
- Artificial Intelligence in Construction and Vital Technologies that can accelerate digital Transformation in construction –Augmented reality(AR) and Virtual Reality(VR)
- Digital Twin Technology, Drones and Geographic Information Systems (GIS)
- Challenges in Making Construction to digital Transformation
- Benefits of Digital transformation in the construction Industry and Future of Smart & Digital Civil Engineering
- Visit
- Group discussions, Presentation of Case Studies by Participants

BENEFITS TO THE PARTICIPANTS:

- Participants will Understand the Challenges in Making Construction to digital Transformation
- Participants will know the Benefits of Digital transformation in the construction Industry
- Participants will Understand the role of digital technologies in civil engineering.
- Participants will Identify key components of smart infrastructure.

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 : 22nd – 26th February, 2027

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

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
Mobile : **9490011311 / 9492011311**
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).