



# Engineering Staff College of India

An Autonomous Organ of The Institution of Engineers (India)  
Old Bombay Road, Gachi Bowli, Hyderabad-500 032

An ISO 9001:2015, ISO 14001:2015, ISO/TEC 17025:2017, ISO 45001:2018,  
ISO 50001:2018 Certified, AICTE & CEA Recognized Institution



## CIVIL & TRANSPORTATION ENGINEERING DIVISION

### Training and Development Program On Concepts on Design, Construction and Maintenance of Culverts

13<sup>th</sup> – 17<sup>th</sup> May, 2024



Centre for Promotion of Professional Excellence

## INTRODUCTION:

Culvert is a tunnel carrying a stream under a road or railway. A culvert may act as a bridge for traffic to pass on it. They are typically found in a natural flow of water and serves the purpose of a bridge or a current flow controller. Culvert is provided under roads and highways for a crossing of water, as road embankment cannot be allowed to obstruct the water flow.

Culverts are suitable for difficult site conditions, require minimum maintenance and have a prolonged service life. The total design, construction and maintenance of Culverts or bridges can be as simple as or as complex as desired but ultimately it starts with a solid inspection program.

In this Training program Design, construction of culverts with latest technologies to reduce the construction time and Maintenance of Culverts by using Artificial Intelligence Technology is discussed.

## OBJECTIVES:

- It is proposed to discuss different issues related to design and execution of different types of culverts.
- Improving the quality control of constructions
- Reducing the construction time by using advanced supplements in the concrete
- Various issues regarding maintenance of Culverts is discussed.
- Enhancing the durability of the organization's constructions and reduce the maintenance cost in long run.

## COURSE COVERAGE :

- Overview of Design, Construction and Maintenance of Culverts
- Soil Investigations: Location of Culverts, Site Investigations
- Culverts – Types, Components and its Loading conditions
- Guidelines for Design of Culverts – IRC and Other relevant codes
- Construction Methodology of Culverts
- Factors affecting the failure of Culverts
- Maintenance of Culverts using **AI Technology**
- Restoration of Culverts– Case studies
- Field Visit
- Group discussion & Case study presentations by participants

## BENEFITS TO THE ORGANISATION AND PARTICIPANTS:

- Develop the organization investment identifying the advanced materials and technology and its practice in the real project
- Improve the organization investment by having an effective structure along its lifetime
- Understand basic knowledge on design and execution of Culverts
- Understand knowledge on Maintenance of Culverts time to time
- Developing the skill set of the employees to utilize the latest materials in concrete for Culvert construction.
- Understand the Culvert Design & Analysis
- Boost the skill for the betterment of quality in projects.

## TARGET PARTICIPANTS:

This course is suitable to all engineers and officers working at junior level to senior level from Roads and Buildings, PWD, Municipal Corporations, Panchayat Raj, Housing Boards, GHMC, RITES, SCCL Border Roads Development to participate in the program which will benefit to your organization and Engineers.

## 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** : Engineering Staff College of India (ESCI) Campus, Old Bombay Road, Gachi Bowli, Hyderabad- 500 032.

**DATES** : 13<sup>th</sup> – 17<sup>th</sup> May, 2024

Registration : 09:45hrs.

Session timings : 09:45 – 17:15 hrs with 3 times breaks.

## COURSE DIRECTOR:

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

## COURSE COORDINATOR:

**Ch. Tilak – Faculty**

## COURSE FEES:

**Rs.25,000/- (Rupees Twenty Five 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 program.

## 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) (ZC) 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

**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, 4107, 4134  
Email : [cte@escihyd.org](mailto: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).