



Engineering Staff College of India

An Autonomous Organ of The Institution of Engineers (India)

Old Bombay Road, Gachi Bowli, Hyderabad – 500 032, India



CIVIL & TRANSPORTATION ENGINEERING

CONTINUING PROFESSIONAL DEVELOPMENT PROGRAMME ON

Repair, Rehabilitation and Retrofitting of Buildings-Diagnosis, Preventive Actions and Repair Techniques

16 - 20 December 2019



(An ISO 9001:2015 Certified, AICTE & CEA Recognized Institution)

Centre for Promotion of Professional Excellence

INTRODUCTION:

All the Structures built with material and exposed to weathering conditions are bound to show signs of distress in the form of cracks or deflections during some stage of the life. If the structure shows the signs of distress before its design life, it can be made to perform well with appropriate repair / rehabilitation / retrofitting process. Before any of these remedial are applied, it is imperative that the structure needs to be evaluated thoroughly. In seismic active regions, the structures are subjected to both static and dynamic loads and hence, special care needs to be taken in evaluating the condition, as well as repairing processes.

Prevention, diagnosis and rectification of building defects, if neglected, sometimes leading to collapses, is the legal and moral responsibility of all those concerned with conceiving, planning, design and construction of building projects. Lack of durability of RCC structures is another agonizing concern especially in coastal areas. RCC buildings designed to last for a century needed "Rehabilitation works" within 30 years of construction.

It is essential for everyone involved in the construction industry to understand the intricacies involved in repair / rehabilitation / retrofitting of the structures for understanding the problem in a better manner and also to know the latest trends in managing these issues. This programme on "**Repair, Rehabilitation and Retrofitting of Buildings-Diagnosis, Preventive actions and Repair Techniques**", aims to address the issues involved in damage assessment and rectification of defects.

OBJECTIVES:

The objective of this programme is to familiarize and improve the skills of the participants with the concepts of repairs, damage evaluation techniques, implementation of rehabilitation and retrofitting techniques of buildings including Diagnosis and Preventive Actions.

COURSE COVERAGE:

- Concepts of Repair, Rehabilitation & Retrofitting of Structures
- Damage Assessment
 - Evaluation of Structural & Non-Structural Damages
 - Non-destructive Methods of Testing
- Selection criteria of materials for building construction & repair techniques
- Diagnosis of Building Failures
 - Case Studies on Failures & Remedial Measures
- Rectification of Defects and Rehabilitation of Buildings
- Demonstration & Use of New Materials in Repairing Buildings
- Rehabilitation Techniques including building lifting techniques
- Earthquakes prone areas
 - Damage of Structures due to seismic effects
 - Remedial measures to seismic effects
- Case studies and Group Discussions and local site visits / Lab will be included in the programme

METHODOLOGY:

The programme will be conducted in an interactive environment, providing ample scope for discussions. Emphasis will be on participatory style of learning. Methodology includes lectures by the invited speakers; presentation of case studies, sharing of experiences, group discussions etc., Each participant will be given reading material on all the topics covered during the training process.

TARGET PARTICIPANTS:

This programme is planned especially for analysts, designers, construction and maintenance engineers, architects, builders and consultants. The course is suitable to all engineers and architects working at middle and senior level working in government, public and private sectors as well as consultants, practitioners and builders.

BENEFIT TO THE PARTICIPANTS:

At the end of the program, participants will:

1. Be able to analyse various types of building damages, identify appropriate repair action to be taken and understand the preventive measures to be adopted.
2. Be able to understand and implement rehabilitation and retrofitting techniques for buildings and other structures.
3. Get exposure to new materials used in building repairs, latest trends in diagnosis & repairs of structures including all types of industrial floorings.

RESOURCE PERSONS”

Renowned personalities both from industry as well as educational institutes / 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, India.

Dates:

16 - 20 December, 2019

Timings:

On the first day Registration will commence at 0900 hrs. On all other days, the programme timings will be from 0945 - 1715 hrs with breaks in between for tea and lunch.

COURSE DIRECTOR

Shri P. Muralikrishna
Faculty & Head I/C

COURSE ADVISER

Shri A.R.K. Murty
Adviser, CTE Division

FEES

₹. 25,000/- (Residential fee) (Rupees Twenty Five Thousand Only) per participant. Fee includes, 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) (ZC) of Finance act – 1994).**

GSTN Number – 36AAATT3439Q1ZV (HSN Number – 999293)

Programme fee with GST 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:

Online registration shall be available on ESCI website

To register, manually please send your nominations giving details of name, designation, contact address, email address, mobile no, telephone and fax number of the participant along with the details of mode of payment of fee.

addressed to:

Head, Civil & Transportation Engineering Division

Engineering Staff College of India

Old Bombay Road, Gachi Bowli, Hyderabad - 500 032

Phone: 040- 66304100 (Reception) / Direct : 6630 4115, 4114, 4138

Programme officer : **9866771815**

Email : cte@escihyd.org

CERTIFICATE:

A certificate of participation will be awarded to each participant on conclusion of the programme.

GENERAL INSTRUCTIONS:

- ESCI encourages participants to present case studies from their respective organizations.
- For the convenience of outstation participants, ESCI will facilitate pick-up and drop **on payment basis** from Airport / Railway Stations / Bus Stations, if travel plans are received at least 3 days in advance along with mobile number by fax or email. The charges shall be paid by the participant directly to the Cab.
- ESCI provides complimentary accommodation and boarding to the participants one day before commencement (Check-in 1200 h) and one day after conclusion (Check-out 1200 h) of the programme duration. Overstay charges will be applicable as per ESCI rules (subject to availability of accommodation) please feel free to contact programme officer 040-66304115, **9866771815**.
- Well developed Information Centre and Internet facilities are available at free of cost to the participants.