



# Engineering Staff College of India

An Autonomous Organ of The Institution of Engineers (India)

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



## CIVIL & TRANSPORTATION ENGINEERING

CONTINUING PROFESSIONAL DEVELOPMENT PROGRAMME ON

# Leakages and Water Proofing Treatment in Buildings

17 – 20 January, 2017



(An ISO 9001:2008 Certified, AICTE & CEA Recognized Institution)

Centre for Promotion of Professional Excellence

## INTRODUCTION

Majority of the structures built with materials / cement and exposed to weathering conditions are bound to show signs of distress in the form of cracks or deflections during some stage of it's life. Cement by virtue of it's physical and chemical properties is prone to cracking. Most of the cracking is on a microscopic scale and doesn't appear visibly. The cracking can also be macroscopic and can result in loss of strength, stability and durability. One of the very important aspect of the structure is dampness / leakage. Dampness or leakage indicates the permeability of the structure. Lack of Durability of RCC Structure is another agonizing concern especially in coastal areas. It reduces both life and serviceability of the structure.

There are a number of causes which create dampness and leakages in a structure due to different attributes. In this context, knowledge of basic causes of cracking, their extent and severity is essential in choosing suitable preventive and repair material, otherwise the repair may turn to be redundant. Hence water proofing techniques for buildings in which dampness / leakages existing are to be adopted with a standard and approved systems and materials

The new generation of construction / water proofing chemicals are derived from synthetic resins, rubber and silicon basis. Suitable solutions can be derived from a wide spectrum of products during construction stages as well as during post construction/ maintenance stages. The introduction of suitable water proofing process takes care of probable – moisture / thermal movement and atmospheric corrosion aspects.

It is essential for everyone involved in the construction and ,maintenance of structures to understand the intricacies involved in leakages of the structures and to know the latest trends in managing the issues by water proofing treatments. This programme on **“Leakages and Water Proofing Treatment in Buildings”** aims to address the issues involved in “Causes of Leakages and Remedial Measures by Water Proofing Treatments”.

## OBJECTIVES

The objective of this programme is to familiarize and improve the skills of the participants with the concepts of relevant IS specification of admixtures for concrete, integral water proofing admixtures, causes of cracks / dampness, new generation of admixtures with a systematic approach of water proofing, integral water proofing materials, effect of materials and workmanship including the usage of right materials at right place from the different available market products.

## COURSE COVERAGE :

- Concepts of Leakages and Water proofing treatments in buildings
- IS Specifications for admixtures for concrete
- Requirement of integral water proofing admixtures
- Causes for cracks/ dampness and effects in leakages of structures
- Water proofing at foundations, basement levels, and masonry walls, strained plastering
- Water proofing in Toilets, Kitchen, Water tanks in a structure
- Protective system against corrosion of reinforcement in concrete
- Waterproofing with membrane injection systems.
- Experience with selection of new materials and demonstration of water proofing chemicals use for structural protection.
- Case studies and Group Discussions 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

1. To Understand various causes of Leakages.
2. To understand use of construction Chemicals to arrest the leakages.
3. To Identify the solutions to arrest the leakages in the buildings from roof slabs, walls and foundations.
4. To understand latest Techniques in water proofing.

## RESOURCE PERSONS

Renowned persons from Industry who are experts in the area of Leakages and Water Proofing Treatment in Buildings.

## PROGRAMME VENUE & DATES & TIMINGS

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

### Dates:

17 – 20 January, 2017

### Timings:

On the first day Registration will commence at 0900 hrs 17<sup>th</sup> January, 2017. On all other days, the programme timings will be from 0945 - 1715 hrs with breaks in between for tea and lunch.

## COURSE DIRECTOR

**K.Muralidhar**

**Sr. Faculty and Head I/C, CTE Division**

## FEES

**₹. 20,000/- (Residential fee) (Rupees Twenty Thousand Only)** per participant. Fee includes, course material, course kit and twin-sharing / single AC accommodation as per availability, 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. **(All discounts are applicable only, if fee is received at ESCI before the commencement of the programme.)**

**Service Tax as applicable (FY 2016 - 17) 15% (BASIC SERVICE TAX 14%, SWACHH BHARAT CESS 0.5%, KRISHI KALYAN CESS 0.5%)** 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).**

Programme fee is to be paid in favour 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: Direct 040-6630 4114, 6630 4115 / Fax: 040-23000336

Email : [cte@escihyd.org](mailto: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 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)
- Well developed Information Centre and Internet facilities are available to the participants.