



**Indian Concrete Institute**  
Chennai Centre

**INDIAN CONCRETE INSTITUTE  
CHENNAI CENTRE**

Organises  
**Two days Brainstorming Workshop on**

# **FORENSIC ENGINEERING: INVESTIGATING THE UNSEEN**

**Buildings, Bridges and  
other infrastructures**

**26<sup>th</sup> and 27<sup>th</sup> September 2025**

**Programme Venue:**

**Indian Concrete Institute-Technology Centre**  
201, First Floor, Ten Square,  
No: 64, Jawaharlal Nehru Road,  
Koyambedu, Chennai-600 107.  
(Close to CMBT Metro Station)

## Introduction

Every day, engineers design and build the world around us. But what happens when things go wrong? When structures collapse, machines malfunction, or materials fail, it's the forensic engineer who steps in to uncover the truth.

This workshop offers a unique opportunity to delve into the fascinating world of Forensic Engineering – a specialized field that combines engineering principles with investigative techniques to determine the root cause of failures, accidents, and other incidents.

This workshop is for engineers, contractors, architects, and students who want to learn the latest techniques for assessing, repairing, and strengthening existing buildings and infrastructure. As our structures age, understanding how to extend their service life and ensure their safety is crucial. This program combines theoretical principles with practical applications, giving you the knowledge and skills you need to tackle real-world challenges.

## Workshop Highlights:

- **Case Studies and Real-World Examples:** Analyzing famous and lesser-known engineering failures (e.g., bridge collapses, building failures, product defects).
- **Damage Assessment:** Master the methods for non-destructive testing (NDT) and structural health monitoring to accurately diagnose defects and deterioration in concrete, steel, and other materials.
- **Material Selection:** Understand the properties and applications of modern repair materials, including polymers, fibers, and specialized cementitious grouts.
- **Repair Techniques:** Explore cutting-edge methods for addressing common structural issues like cracks, spalling, corrosion, and seismic damage.
- **Strengthening Methods:** Learn how to implement techniques like fiber-reinforced polymer (FRP) wrapping, steel plate bonding, and section enlargement to enhance the load-bearing capacity of structures.

## Workshop Highlights

**Expert-Led Sessions:** Learn from leading professionals with extensive experience in structural engineering and rehabilitation projects.

**Networking Opportunities:** Connect with peers and industry experts.

## Expert Panel



### **Prof. Dr. A. R. SANTHAKUMAR**

Professor Emeritus, IIT Madras,  
Former Dean,  
Department of Civil Engineering,  
Anna University, Guindy, Chennai – 600 025



### **Er. RAVI SHHANKKAR SUBRAMANIAM. J**

Chief Executive – Technical and Operations,  
Padmavathy Buildmat, Chennai



### **Dr. RADHAKRISHNA G PILLAI**

Professor  
Indian Institute of Technology,  
Madras, Chennai



### **Dr. K. MUTHUMANI**

Managing Director STRUCTFLIX,  
Chennai, Tamilnadu.  
Former Chief Scientist,  
Structural Engineering Research  
Centre, Taramani



### **Dr. M MUTTHARAM**

Professor,  
Division of Soil Mechanics and  
Foundation Management,  
Anna University. Chennai.



### **Dr. V. RAJENDRAN M.E., (Struc.) Ph.D.,**

Managing Director  
Hitech Civil Engg. Services (M) Pvt Ltd.,



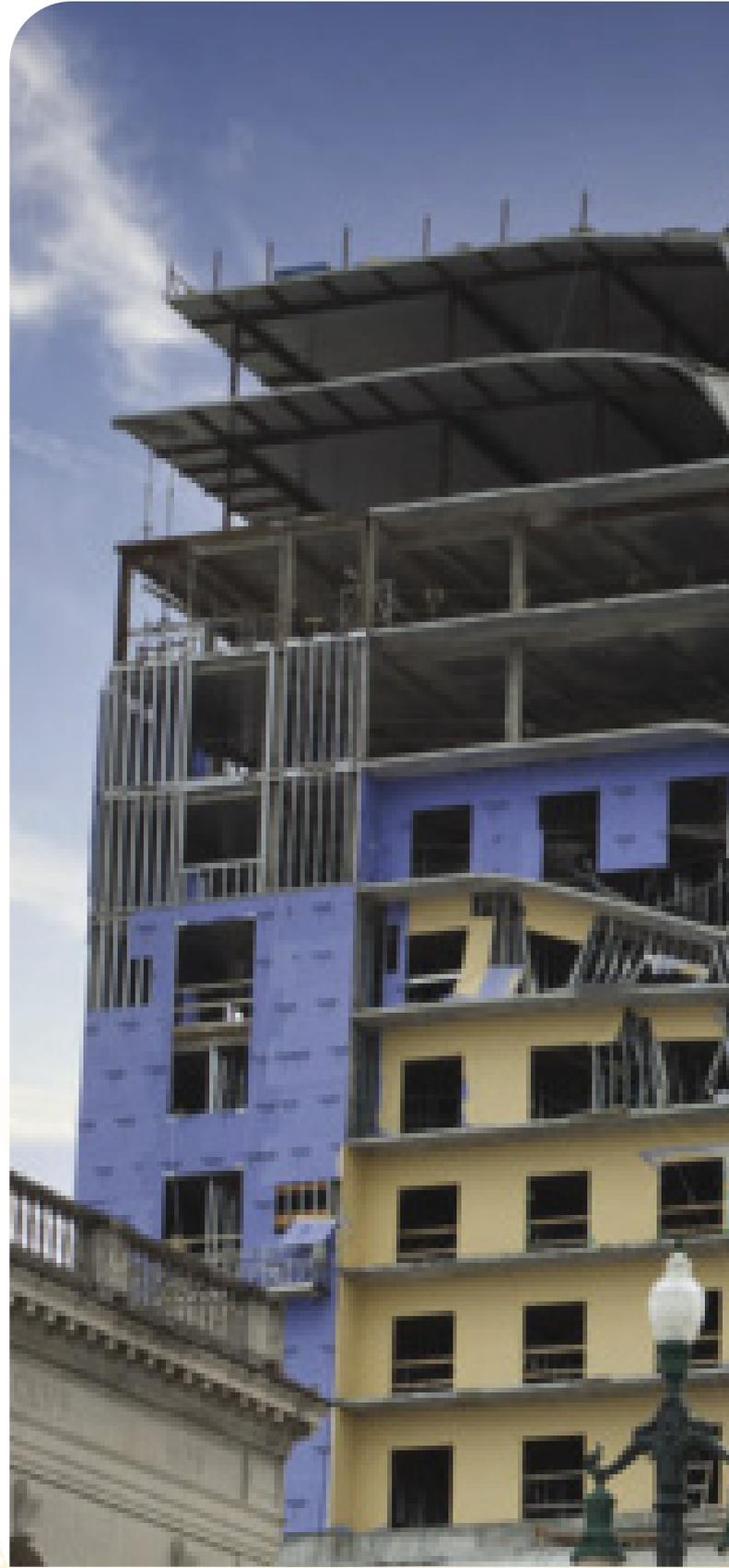
### **Mr. G. SIVAKUMAR**

Managing Director,  
BindTech Concrete Research, Chennai.



### **Er. C. KALYANASUNDARAM**

Structural Consultant  
Kalyanasundaram's Structural Academy  
& Research Centre Chennai and  
Former Superintending Engineer,  
TNPWD, Chennai.



## Who Should Attend?

- Civil & Structural Engineers looking to update their skills.
- Contractors & Builders focused on repair and maintenance projects.
- Architects and Consultants involved in building retrofitting.
- Academics & Researchers interested in structural longevity.
- Students pursuing a career in civil engineering.

Category	Course Fee + Temporary Membership fee (INR)	GST 18%	Total (INR)
ICI Members	2500	450	2950
ICI-Non Members	3000 + 750	675	4425
ICI Student Members	1000	180	1180
Students	1000 + 250	225	1475

**Registration :** <https://tinyurl.com/4uy54dze>

## Bank details :

Name of the Account : Indian Concrete Institute Chennai Centre

Name of the Bank : ICICI Bank

Branch : Adambakkam Branch, Chennai 600088

Account Number : 155401001688

IFSC : ICIC0001554

## Contact Person :

**Ms. Rekha Ramakrishnan**

99945 83807 / 97109 33933

icichennaicentre@gmail.com

# PROGRAM SCHEDULE

## Two-Day Brainstorming Workshop on Forensic Engineering: Investigating the Unseen – Building Bridges and other Infrastructures

26<sup>th</sup> & 27<sup>th</sup> September 2025

### AGENDA – DAY 1 – 26 September 2025

S.No	Schedule	Topic	Speaker
1	09.00 AM – 09.30 AM	Registration	
2	09:30 AM – 10:45 AM	Case Studies of Structural Failures and remedial measures	<b>Prof. Dr. A R Santhakumar</b> Prof. Emeritus, IIT Madras Former Dean – Dept. of Civil Engg Anna University, Chennai 25
3	10.45 AM – 11:15 AM	Tea Break	
4	11:15 AM – 12.30 PM	Forensic Study on Failure of Geotechnical Structures	<b>Dr. M MUTTHARAM,</b> Professor, Division of Social Mechanics and Foundation Management , Anna University, Chennai
5	12:30 PM – 01:30 PM	Lunch Break	
6	01:30 PM – 02:45 PM	Non-Destructive Testing in Forensic Engineering: Techniques, Applications, and Case Studies	<b>Er. G Sivakumar</b> Managing Director BindTech Concrete Research, Chennai
7	02:45 PM – 04:00 PM	Reviving Structures: Brainstorming Case Studies in Concrete Repair and Rehabilitation	<b>Dr. V Rajendran</b> Director, HiTech Concrete Solutions
8	04:00 PM	Closing and Tea	

### AGENDA – DAY 2 – 27 September 2025

S.No	Schedule	Topic	Speaker
1	09:15 AM – 10:45 AM	Corrosion control in concrete structures	<b>Dr. Radhakrishna G Pillai</b> Professor – IITM, Chennai
2	10.45 AM – 11:15 AM	Tea Break	
3	11:15 AM – 12.30 PM	Role of Dynamics in Forensic Engineering	<b>Dr. K Muthumani,</b> Managing Director, STRUCTFLIX, Former Chief Scientist, SERC, Chennai
4	12:30 PM – 01:30 PM	Lunch Break	
5	01:30 PM – 02:45 PM	Assessment of Structural Adequacy: Case Studies of Failures and Lessons Learned	<b>Er. C Kalyanasundaram</b> Structural Consultant Kalyanasundaram's Structural Academy & Research Centre, Chennai and Former Superintending Engineer, TNPWD, Chennai
6	02:45 PM – 04:00 PM	Forensic Assessment and Retrofitting of Distressed Structures	<b>Er. Ravi Shhankkar Subramaniam J</b> Chief Executive – Technical & O perations, Padmavathy Buildmat, Chennai
7	04:00 PM – 04.45 PM	Panel Discussion	
8		Closing and High Tea	