ISSE Student Chapter Activity

November 20, 2025

Event Name	• Guest lecture by Mr. Ashish Bhangle – Structural planning for High rise systems • Guest Lecture by Mr. Omkar Chury - Composite System For Structural Strengthening of R.C.C • Induction of M.Tech 1st Year Students (Structural Engineering) into ISSE Student Chapter
Date	20th November, 2025
Time	2:00 PM to 05:00 PM
Venue	Room No 237, 2nd Floor, SPCE, Andheri (W)

The ISSE Student Chapter of Civil Engineering Department at Sardar Patel College of Engineering organized a formal induction ceremony to welcome the M.Tech 1st Year students (admitted in 2025) into the Chapter. The event combined the formal induction with technical sessions delivered by industry experts, bridging the gap between academic theory, provisions of structural system for High rise construction and modern strengthening solutions.

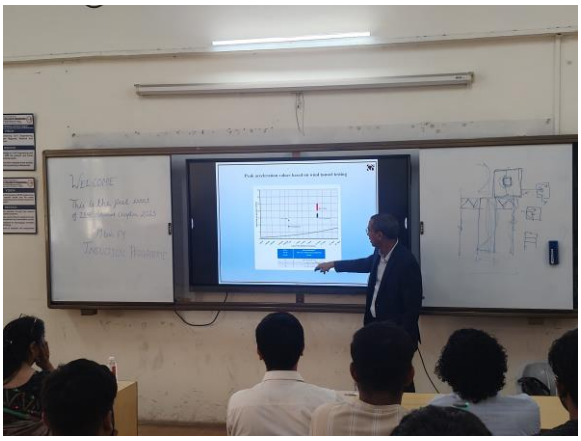
Session 1: Welcome & Introduction by Shri. Madhav Chikodi (Committee Member & Student Chapter Coordinator, ISSE)

Mr. Chikodi formally welcomed the new batch and provided an introduction to the history and mission of ISSE. He highlighted the benefits of student membership, emphasizing the importance of professional networking and continuous learning in the field of structural engineering.

Session 2: Technical Guest Lecture – Structural Planning of High-Rise Structures by Mr. Ashish Bhangle (Director, Dr. Kelkar Designs PVT. LTD)

This session covered the critical aspects of planning tall buildings, with a focus on Indian Standards (IS codes) and practical design challenges. Key topics covered were as follows:

- **Challenges in Structural Planning:** The speaker outlined primary hurdles such as managing lateral loads (wind and earthquake forces), foundation design limitations, human comfort (vibration control), and long-term deformation phenomena like creep and shrinkage.
- **Structural Systems (IS 16700):** Various configurations were analyzed for different building heights:
  - Moment Frames & Shear Walls: Effective for heights up to approx. 120m.
  - Tube-in-Tube & Outrigger Systems: Recommended for taller structures (approx. 250m) to maximize stiffness.
- **Wind Engineering & Analysis:**
  - Detailed gust wind calculations were demonstrated as per IS 875.
  - The importance of Wind Tunnel Testing was discussed.
  - A case study building with slenderness ratio 24:1 was used to explain serviceability criteria, specifically acceleration and inter-storey drift.
- **Design Criteria & Code Compliance:** Emphasis was placed on limiting the aspect ratio ($L/B < 5.0$) to control torsion. The session also covered ductility requirements via ”Strong Column-Weak Beam” design principles as per IS 13920.

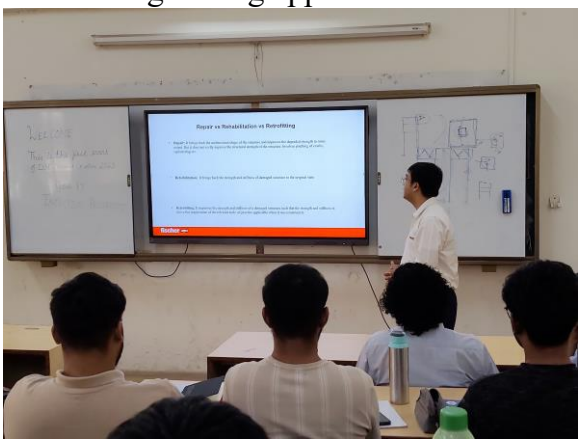


Glimpses of Technical Session by **Mr. Ashish Bhangle**

Session 3: Technical Guest Lecture – Advanced Composite System For Structural Strengthening of R.C.C by Mr. Omkar Chury (Technical Manager, fischer Building Materials India Pvt. Ltd.)

This session focused on modern techniques for retrofitting and strengthening existing concrete structures using Fiber Reinforced Polymers (FRP) and specialized repair materials.

- **FRP Composite Systems:** The speaker provided a technical breakdown of FRP systems:
- **Product Showcase (fischer):** Specific solutions for concrete repair were discussed, including the **FRS-PC 11 Epoxy Repair Mortar**, a high-strength, thixotropic, and shrinkage-compensated mortar used for patching damaged concrete elements before strengthening applications.



Glimpses of Technical Session by **Mr. Omkar Chury**

Vote of Thanks

The event concluded with a Vote of Thanks by Mr. Shreyash Mandavkar of M.Tech 1st Year (Structural Engineering) batch. On behalf of the students, gratitude was expressed to the esteemed speakers, Mr. Ashish Bhangle and Mr. Omkar Chury, for sharing their valuable industry insights and technical expertise. Special thanks were conveyed to Shri. Madhav Chikodi and the ISSE for facilitating the induction and providing a platform for professional growth. The college administration and faculty were also acknowledged for their continuous support in organizing the event.