

Report on Conducted Expert Session at GTU-SET

Event: Webinar on title “Seismic Design of Tall Buildings and Challenges”

Date: 14th February 2025

Time: 7:30 PM to 8:45 PM (IST)

Location: Online

Organized by: Gujarat Technological University - School of Engineering and Technology

Department: Civil (Structural) Engineering

Expert Speaker: Dr. N. Subramanian

Convener: Prof. (Dr.) J. A. Amin, Professor, GTU-SET

Coordinator: Dr. K. M. Gondaliya, OSD-Assistant Professor, GTU-SET

Event Overview

The expert session on "Seismic Design of Tall Buildings and Challenges" was successfully conducted online on 14th February 2025. This session was organized by the Department of Civil (Structural) Engineering at Gujarat Technological University (GTU-SET) and featured the distinguished structural engineer Dr. N. Subramanian as the expert speaker. The session aimed to provide valuable insights into seismic hazards, structural safety, and the latest advancements in earthquake-resistant design.

Speaker Profile – Dr. N. Subramanian

Dr. N. Subramanian is a renowned structural engineer, consultant, researcher, and author with over 47 years of experience. He has made significant contributions to the field of earthquake engineering, structural safety, and high-rise building design. His widely acclaimed books, including *Design of Steel Structures* and *Design of Reinforced Concrete Structures*, published by

Oxford University Press, are widely recognized in the engineering community. His work has been instrumental in shaping modern engineering education and professional practices.

Key Highlights of the Event

- **Seismic Hazards and Their Impact on Tall Buildings** – Understanding ground motion effects and structural responses.
- **Advanced Earthquake-Resistant Structural Systems** – Analysis of shear walls, moment-resisting frames, and innovative damping techniques.
- **Performance-Based Seismic Design & Retrofitting** – Strategies for improving existing structures against seismic vulnerabilities.
- **Case Studies & Real-World Applications** – Practical examples demonstrating successful implementation of seismic design principles.
- **Future Trends in Seismic Engineering** – The role of AI, machine learning, and emerging technologies in earthquake-resistant construction.

Participant Engagement & Q&A Session

The session witnessed active participation from students, faculty members, and industry professionals. The **Q&A session was highly interactive**, with attendees posing insightful questions regarding the **practical applications of seismic design methodologies, material considerations, and retrofitting techniques**. Dr. Subramanian shared his **in-depth expertise and experience**, addressing real-world challenges in structural engineering.

Closing Remarks & Vote of Thanks

The session concluded with a **summary of key takeaways**, followed by a **vote of thanks** extended to **Dr. N. Subramanian** for his invaluable contributions. The **organizing team expressed gratitude to all participants** for their enthusiasm and engagement. The event was a **resounding success**, reinforcing the significance of seismic design in modern construction practices. GTU-SET will continue to organize such expert sessions to foster knowledge sharing and professional development in structural engineering.

Glimpse of the event

