



MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE (Deemed to be University)



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A Report on **AICTE DPS One Day Seminar on** **"Engineering Seismology and Learning from Past Earthquakes"** Organized by **Department of Civil Engineering** Under the aegis of **ASCE MITS Student Chapter** On **23.09.2026**



Report Submitted by: Dr. Imran Kuttigola, Assistant Professor, Department of Civil Engineering.
Resource Person: Prof. Katta Venkataramana, Professor (Higher Administrative Grade), Retired, Department of Civil Engineering, National Institute of Technology Karnataka (NITK), Surathkal, Mangalore, India.

Faculty Coordinators:

1. Dr. Imran Kuttigola, Assistant Professor, Department of Civil Engineering, MITS.
2. Dr. Sudheer Kumar Y, Associate Professor, Department of Civil Engineering, MITS

Venue: Seminar Hall-A

Time: 10:00 am to 1:00 pm

Mode of Conduct: Offline.

Attendees Count: 125 students

Objective of the Program

- To introduce students to the fundamental concepts of engineering seismology, including earthquake causes, seismic waves, magnitude, intensity, and ground motion.
- To enhance students' understanding of earthquake-resistant structural design and the influence of seismic forces on buildings and civil infrastructure.
- To learn from past major earthquakes by examining their causes, structural failures, damages, and the lessons they provide for safer and more resilient construction.
- To create awareness about seismic safety and disaster preparedness and encourage students to apply earthquake-resistant principles in future civil engineering practice.

Importance of the Program

- Bridges the gap between theory and practice by providing students with expert insights into engineering seismology and earthquake-resistant design.
- Enhances professional knowledge and technical awareness among students through interaction with an experienced academician and distinguished professional.
- Promotes understanding of earthquake-induced structural failures and highlights the importance of safe, resilient, and sustainable infrastructure.
- Encourages disaster preparedness and responsible engineering practice, helping future civil engineers contribute effectively to seismic risk reduction and community safety.

Event details:

Under the aegis of the ASCE MITS Student Chapter, the Department of Civil Engineering organized an AICTE Distinguished Professional Scheme (DPS) One Day Seminar on “Engineering Seismology and Learning from Past Earthquakes” on 23 September 2026, from 10:00 AM to 1:00 PM at Seminar Hall-A, Madanapalle Institute of Technology & Science (MITS). The program was conducted in offline mode with the objective of creating awareness among students about engineering seismology, earthquake phenomena, and the important lessons that can be learned from past earthquakes for developing safer and more resilient infrastructure. A total of 125 students attended the seminar.

The program commenced with a welcome and introduction to the seminar and the distinguished resource person, **Prof. Katta Venkataramana**, Professor (Higher Administrative Grade), Retired, Department of Civil Engineering, **National Institute of Technology Karnataka (NITK), Surathkal, Mangalore**. Prof. Katta Venkataramana, who has extensive academic and professional experience in civil engineering and earthquake-related studies, was invited under the **AICTE Distinguished Professional Scheme** to share his expertise and practical insights with the students.

Dr. Imran Kuttigola, Assistant Professor, Department of Civil Engineering, initiated the session by highlighting the relevance of engineering seismology to civil engineering and the importance of understanding earthquake behaviour in the planning, analysis, design, and construction of safe structures. He emphasized the role of civil engineers in minimizing earthquake-induced risks and promoting disaster-resilient infrastructure. This was followed by the **welcome address by Dr. Vijayakumar N., Head of the Department of Civil Engineering**, who highlighted the significance of understanding earthquake engineering and seismic safety in the present context. He emphasized the responsibility of civil engineers in designing and constructing structures capable of withstanding seismic forces and encouraged students to actively learn from experts and real-world engineering experiences.

Dr. Dipankar Roy, Dean – School of Engineering, then addressed the gathering and emphasized the importance of interdisciplinary knowledge, continuous learning, and professional exposure for engineering students. He highlighted the need for students to develop strong technical competencies and awareness of emerging challenges in the field of earthquake engineering. He encouraged the students to make effective use of such distinguished professional interactions to enhance their academic and professional capabilities.

During the technical session, **Prof. Katta Venkataramana** delivered an insightful lecture on “**Engineering Seismology and Learning from Past Earthquakes**.” He explained the fundamentals of earthquakes and engineering seismology and discussed their causes, characteristics, and effects on structures and infrastructure. He highlighted important observations and lessons from major past earthquakes and explained how these experiences have contributed to improvements in earthquake-resistant design and construction practices. The resource person further emphasized the importance of understanding seismic hazards, structural response, appropriate design practices, and the role of civil engineers in reducing earthquake-induced risks. The session provided students with valuable practical insights into earthquake engineering and helped them relate theoretical concepts to real-world earthquake events and engineering practices.

The seminar concluded with a **vote of thanks by Dr. Imran Kuttigola**, who expressed sincere gratitude to the management, AICTE Distinguished Professional Scheme, the distinguished resource person **Prof. Katta Venkataramana**, the Dean, Head of the Department, faculty members, and student participants for their valuable contributions and active participation in making the seminar a successful academic event.

Outcomes of the Event

- Students gained a better understanding of the fundamentals of engineering seismology and the causes and characteristics of earthquakes.
- Students learned about the effects of earthquakes on buildings and infrastructure and the importance of seismic safety in civil engineering.
- The seminar helped students understand the lessons learned from past major earthquakes and their relevance to present-day engineering practices.
- Students gained practical insights into earthquake-resistant design, structural response, and seismic hazard mitigation.
- The interaction with the distinguished professional provided students with real-world perspectives and professional knowledge in the field of earthquake engineering.
- Students developed greater awareness of the role and responsibility of civil engineers in designing safe and resilient infrastructure.
- The program encouraged students to pursue continuous learning, technical competency, and professional development through interaction with experienced experts.

Program Outcomes (POs) Covered

The seminar contributed to the following **NBA Program Outcomes (POs)**:

- **PO1 – Engineering Knowledge:** Application of engineering knowledge to understand earthquakes, seismic behaviour, and earthquake-resistant design principles.
- **PO2 – Problem Analysis:** Understanding and analysis of earthquake-induced problems and their impact on structures and infrastructure.
- **PO3 – Design/Development of Solutions:** Awareness of developing safe, sustainable, and earthquake-resilient structural solutions.
- **PO5 – Modern Tool Usage:** Understanding the relevance of modern engineering approaches and analytical methods used in seismic assessment and structural safety.

- **PO6 – Engineer and Society:** Recognising the responsibility of civil engineers towards public safety and disaster-risk reduction.
- **PO7 – Environment and Sustainability:** Understanding the importance of resilient infrastructure and sustainable approaches for reducing losses due to natural hazards.
- **PO12 – Life-long Learning:** Encouraging continuous learning and professional development through expert interaction and exposure to current engineering practices.



SDG Goals Aligned with the Event

The seminar was aligned with the following United Nations Sustainable Development Goals (SDGs):

1. **SDG 4 – Quality Education:** Enhanced students’ technical knowledge and professional understanding through expert-led learning and interaction.
2. **SDG 9 – Industry, Innovation and Infrastructure:** Promoted awareness of safe, resilient, and earthquake-resistant infrastructure and modern engineering practices.
3. **SDG 11 – Sustainable Cities and Communities:** Highlighted the importance of disaster-resilient buildings and infrastructure for safer and more sustainable communities.
4. **SDG 13 – Climate Action:** Strengthened awareness of disaster risk reduction and the need for resilient infrastructure in response to natural hazards.

Students’ Feedback:

The seminar received positive feedback from the participating students. Students appreciated the opportunity to interact with an experienced professional and gain practical insights into engineering seismology and earthquake-resistant design. They found the discussion on past earthquake events, seismic behaviour, structural safety, and lessons learned from real-world cases particularly useful. Students also expressed that the session helped them connect their classroom knowledge with practical engineering applications. The interactive discussion provided an opportunity to clarify their doubts and improved their awareness of the role of civil engineers in disaster risk reduction and resilient infrastructure development. Overall, the participants found the seminar informative, relevant, and beneficial for their academic and professional development.

Conclusion:

The AICTE DPS One Day Seminar on “Engineering Seismology and Learning from Past Earthquakes” successfully provided students with valuable knowledge about earthquakes, seismic hazards, structural safety, and earthquake-resistant engineering practices. The expert insights and interactive discussions enabled students to relate theoretical concepts to real-world earthquake experiences and understand the responsibilities of civil engineers in developing safe and resilient infrastructure. The program also promoted professional learning, technical awareness, and continuous development among students. The active participation of 125 students and the positive response from the participants reflected the effectiveness of the seminar. Overall, the event achieved its intended objectives and served as a valuable academic and professional learning experience for the students of the Department of Civil Engineering.