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PRESS-RELEASE

IIT (ISM) Dhanbad to Offer NPTEL Course on Earthquake Seismology from July 21

The Indian Institute of Technology (Indian School of Mines) Dhanbad, is set to offer a 12-week online course on Earthquake Seismology through the Swayam NPTEL platform, starting from July 21, 2025, and concluding on October 10, 2025. The final examination for the course is scheduled for November 2, 2025.

The course will be conducted by Prof. Mohit Kumar Agarwal, Assistant Professor in the Department of Applied Geophysics at IIT (ISM) and aims to equip learners with a deep understanding of earthquake phenomena through the lens of modern seismology.

Designed for students and professionals across geophysics, geology, mineralogy, tectonics, planetary science, and earthquake engineering, the course will delve into the principles of seismology—defined as the study of earthquakes and the propagation of elastic waves through the Earth. It will integrate concepts from physics, mathematics, and geology to provide a comprehensive view of the Earth's interior and its dynamic processes.

Prof. Agarwal's course will cover key aspects of seismology, including the earthquake source, seismic wave propagation, and data reception. Learners will explore how seismic data is interpreted to understand earthquake mechanisms, seismic attenuation, and the construction of Earth models. The course also highlights the societal implications of seismological studies, particularly in mitigating seismic hazards.

Supporting materials such as PowerPoint presentations, lecture notes, assignments, and homework will be made available to all enrolled participants. The recommended textbook for the course is An Introduction to Seismology, Earthquakes, and Earth Structure by Seth Stein and Michael Wysession.

This initiative reflects IIT (ISM)'s ongoing commitment to expanding access to high-quality education in earth sciences through digital learning platforms.

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