



ISET Kolkata Chapter

Organizes an Online Lecture

on

“Seismic Isolation: A Benefit with Hidden Risks?”

To register, [click here](#)

[max. 150 participants on first come first served basis]

Date: 5th June, 2026

Time: 7.00 PM

Talk Summary

Base isolated buildings and the buildings designed to enter the nonlinear hysteretic range under strong ground excitations, reduce force transmission to the superstructure through energy dissipation, but sudden stiffness changes redistribute energy among modes, amplifying high-frequency responses such as floor accelerations and any attached component demands. The present lecture focuses on the development of a mechanics-based analytical framework to quantify modal energy redistribution under impulse-type excitations, providing deeper insight into acceleration amplification and enhancing the resilience of non-structural systems.

Dr. Sanjukta Chakraborty is an Associate Professor in the Department of Civil Engineering, IIT Palakkad, with expertise in structural vibration control, structural dynamics, and earthquake engineering. She holds a PhD and MTech in Structural Engineering from the IIT Kanpur, and completed her post-doctoral research at Tsinghua University under a distinguished institute fellowship. Her research focuses on adaptive and passive control mechanisms for buildings and bridges, integrating analytical, numerical, and experimental investigations for resilient infrastructure systems. She has published extensively in leading international journals and has successfully led multiple sponsored research projects in the areas of structural control, bridge monitoring, and smart infrastructure systems.

Speaker



Dr. Sanjukta Chakraborty

Associate Professor, Department of
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