

Workshop Objectives

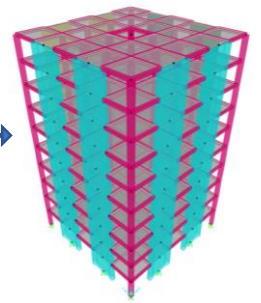
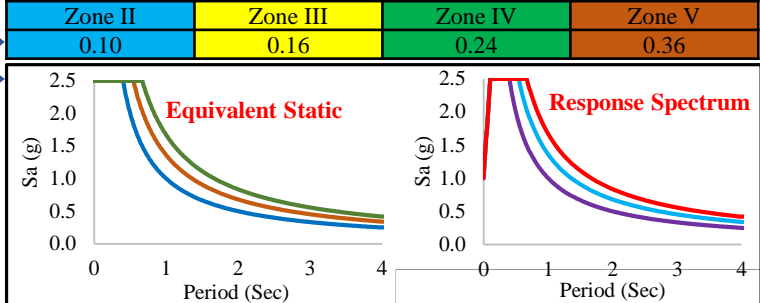
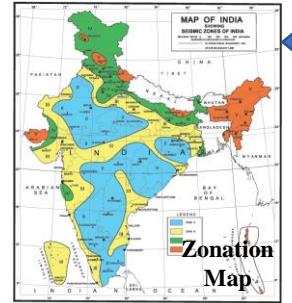
Expertise on the design of a proposed facility and the performance assessment of a constructed facility against an anticipated seismic event is crucial to reduce the associated risk within an assumed exposure. Characterization of seismic hazard and the resulting ground motion play a pivotal role in this framework. While the seismic hazard is characterized through a probabilistic seismic hazard assessment (PSHA) framework, the seismic design and performance assessment are based on the design/ site-specific spectra. The transition from PSHA to design/ site-specific spectra is not clearly discussed in the present Indian Standards and this workshop is aimed to discuss the various possible approaches. In particular, the workshop is designed to keep the participants abreast with the background and state-of-the-art of PSHA and its possible influence on the design spectrum. The workshop will also highlight the possible impact of site-amplification. Finally, the procedure for selection and scaling of ground motion suite consistent with the target/ design (site-specific) spectra will be discussed to enable routine seismic design and performance assessment.

Participants

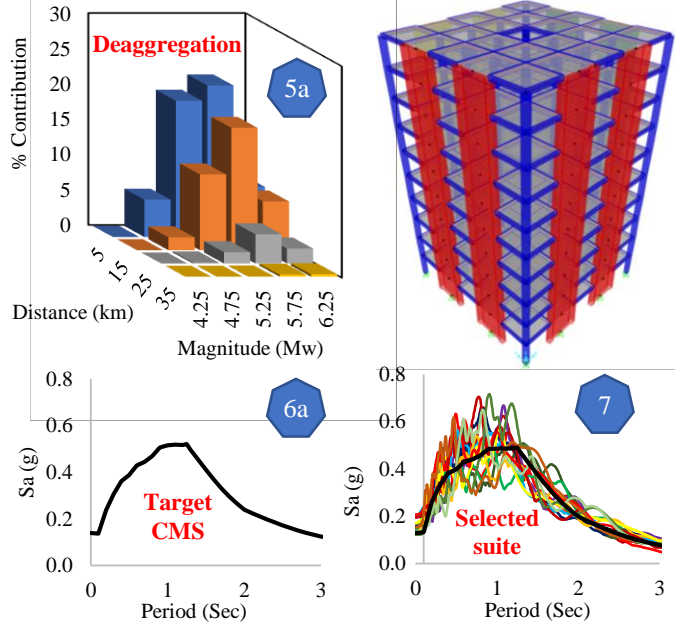
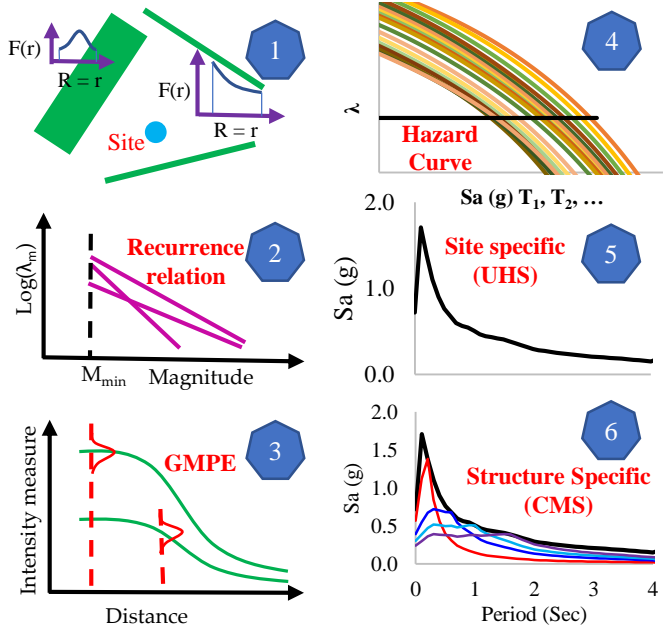
- The workshop is designed for
 - ✓ Structural Engineers involved in seismic design and performance assessment.
 - ✓ Senior professionals responsible for directing these activities.
 - ✓ Faculty members and MTech/PhD students of Structural Engineering, Seismology and Earth Sciences in Academic institutions.

Contents

- ❖ Elementary Seismology for Seismic Design
- ❖ Seismicity in India
- ❖ Elementary Structural Dynamics for Seismic Design
- ❖ Ground Motion Predictive Equations (GMPEs)
- ❖ Physics-based Simulation and Future Perspectives
- ❖ PSHA-Background and Framework
- ❖ PSHA-Case Studies over Indian Subcontinent
- ❖ Take away from PSHA and Way Forward
- ❖ Seismic Load and Analysis per IS 1893
- ❖ Seismic Design Philosophy and IS 13920
- ❖ Site Characterisation and Amplification
- ❖ Design and Target Spectrum
- ❖ Selection and Scaling of Ground Motion Suite for Seismic Design and Performance Assessment



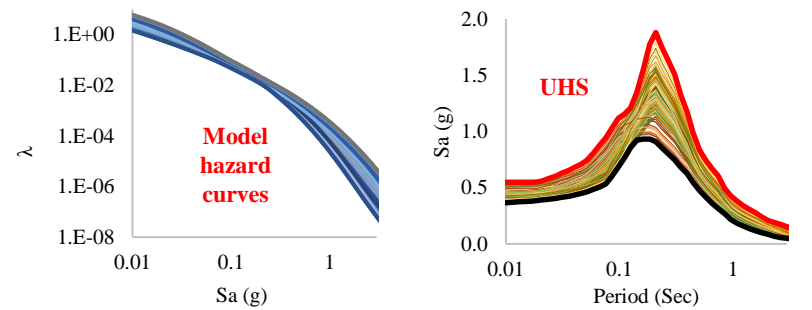
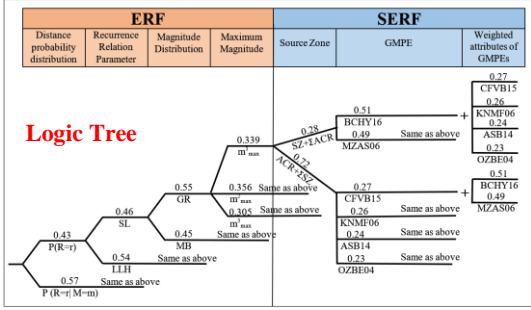
Present Indian Standard



PSHA and Seismic Design

Seismic Performance Assessment

Beyond Codal Recommendation



Epistemic Uncertainty

Registration

Fee

The workshop fee is Rs. 8,000/- plus 18% GST per participant with a waiver of 50% for the MTech/PhD students in Civil Engineering. It includes the study material, working lunch, and tea breaks.

Procedure

The workshop registration can be made via online form which can be obtained using the QR code/link given below. The fee is payable in advance by a crossed cheque, demand draft in favor of IIT Gandhinagar Conference Account, payable at Gandhinagar, or via online transfer at the account details given below:

Bank: Canara Bank

Account name: IIT Gandhinagar Conference Account

Account no.: 1414132000015

IFS Code: CNRB0005159

Note: During NEFT /bank transfer fill the Remarks column with the text, "GMCS-D-2023"



Meet

The Speakers



I D Gupta

Formerly CWPRS Pune & IIT Roorkee



Manish Shrikhande
IIT Roorkee



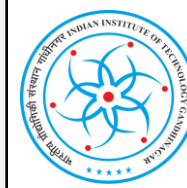
S T G Raghukanth
IIT Madras



P Anbazhagan
IISc Bangalore



Dhiman Basu
(Convenor)
IIT Gandhinagar



**Indian Institute of Technology
Gandhinagar**

Structural Seismic Engineering Group

Workshop

on

**Understanding the Linkage:
From Seismic Hazard to
Ground Motion
Characterization for Seismic
Design**

20th – 21st January 2023



Indian Institute of Technology, Gandhinagar
Palaj, Gandhinagar, India - 382055

Link to workshop website and registration:

<http://events.iitgn.ac.in/2023/gmcsd>

Contact us:

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