



Experimental Assessment & Numerical Modeling of Seismically Isolated Structural Systems

The present course consists of 24 hours of both theory and practical applications related to the experimental assessment of full-scale isolation devices, together with the numerical modeling of case study structures. The outcomes of dynamic tests performed to full-scale devices of real applications will be analyzed, through data reduction procedures, according to the European Standard code for Anti-Seismic devices UNI:EN15129:2009. Finally, fast design procedure will be presented for the typologies of isolators adopted in the common practice, and the seismic response of a base-isolated case study structure will be assessed, through Non-Linear Time History Analysis (NLTHA), by means of a commercial F.E.M. software.

Contents:

<u>Week #1</u>	<u>Topic:</u>	<u>Time:</u>
Monday 11/11	Introduction to Seismic Isolation	14:00 – 16:00
Tuesday 12/11	European standard for Anti-Seismic devices	14:00 – 16:00
Wednesday 13/11	Data reduction of dynamic tests on full-scale isolators	14:00 – 18:00
Thursday 14/11	Tutorial on modeling of isolated structures in SAP2000	14:00 – 16:00
Friday 15/11	Fast design procedures for isolation systems	14:00 – 16:00
<u>Week #2</u>	<u>Topic:</u>	<u>Time:</u>
Monday 18/11	<i>Technical Seminar – Part 1 *</i>	14:00 – 16:00
Tuesday 19/11	<i>Technical Seminar – Part 2 *</i>	14:00 – 16:00
Wednesday 20/11	Case Study Structure: design, input, modeling and analysis	14:00 – 18:00
Thursday 21/11	Simplified lumped mass oscillators	14:00 – 16:00
Friday 22/11	Analysis of results	14:00 – 16:00

* *Technical Seminar*

Real Practice Design Applications of Seismic Isolation Systems

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Dates: 2 weeks: November
11th to 15th and 18th to 22nd
2024

Time: 24 hours

Online course: zoom platform

For any enquires, contact creaco@unipv.it