



Implementing Seismic Isolation and Added Damping in Structures – Planning, Design, Testing, Contracts and Construction

Course Description

Instructors will present applications, theory, analysis and design of isolation, dampers and other devices from planning through construction in structures. Three co-ordinated presentations will illustrate project applications, earthquake experience, recent code changes in North America that take advantage of isolation and damping, seismic behaviour, performance-based design considerations and advantages, modelling and dynamic analysis using commercially available structural analysis packages, implementation in analyses, testing, fabrication, quality control, construction and life-cycle maintenance.

Who Should Attend:

Design engineers, specification writers, advisors and construction QA engineers involved in all aspects of the planning, decision-making, costing, design and construction of structures using isolation or damping devices. The course will allow engineers to implement these devices into their modelling, analyses and designs. An understanding of the principles and analysis will benefit attendees in getting the most out of this course.

Course Outline

- Introduction.
- Code changes related to isolation and damping (Canadian, American, buildings, bridges).
- Concepts and applications.
- Performance attributes
- Earthquake performance.
- Modelling, properties and analysis.
- Procurement and contracting.
- Fabrication, testing, QC
- Construction.
- Question / answer sessions

Course Fee

Regular course fee: **\$230** plus tax and The fee includes course notes, resource material and refreshment breaks.

Instructors

Alan Klembczyk, VP Sales & Engineering,
Taylor Devices Inc.

Alan has 27 years' experience at Taylor Devices serving as Design Engineer through Chief Engineer. He has developed shock and vibration mitigating products many industries, including hundreds of applications to improve performance under wind, seismic, shock and vibration in aerospace, industrial, high-rise and bridge applications. He serves as advisor and instructor on the Technical Advisory Group for the US Shock and Vibration Information and Analysis Center, and has published papers on unique applications of isolation/added damping devices.

John Sherstobitoff, P.Eng. Principal,
Seismic & Structures, Ausenco

John has over 30 years of experience in the analysis and design of structures; the past 25 years have focused on earthquake engineering. He is Chair of the Standing Committee on Earthquake Design (SCED) that sets the seismic provisions for the National Building Code of Canada (2015, 2020), and championed new provisions for seismic isolation and supplemental energy dissipation into the 2015 code. His projects include the first use in Canada of viscous dampers in a seismic upgrade. John is leading the design of a base isolation seismic upgrade for a heritage school building, believed to be the first base isolated building in Canada.

Amarnath Kasalanati, Ph.D., P.E., Director of Engineering,
Dynamic Isolation Systems Inc.

Amarnath is the Director of Engineering at Dynamic Isolation Systems, Inc. (DIS) for the past 17 years, Amarnath Kasalanati has been involved in the design of isolators / isolation systems for over 200 buildings and bridges in 18 countries around the world. Some of the notable projects include the Asian Art Museum in San Francisco, Utah State Capitol Building, San Diego-Coronado Bay Bridge and Woodrow Wilson Bridge. Dr. Kasalanati authored several papers and presented widely (in 12 countries) on the topic of seismic isolation. He is a patent holder for the floor isolation system. bearings.