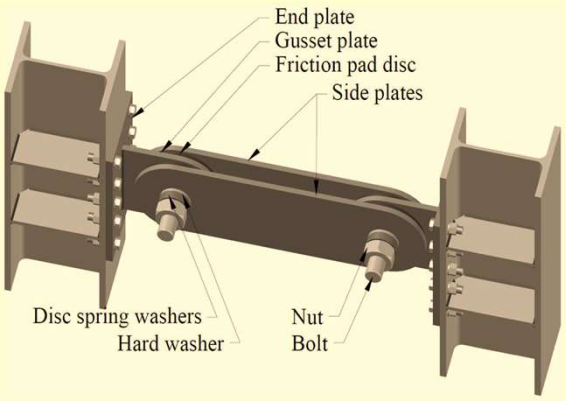

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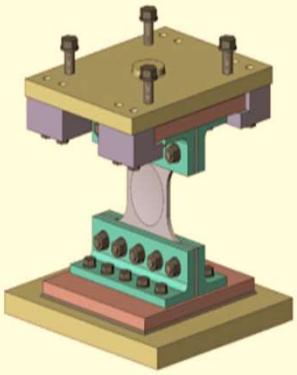

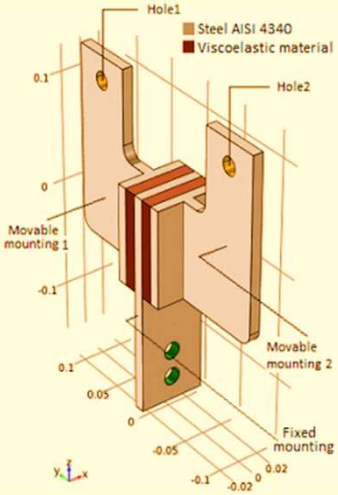

Zoom Online Talk

BEM Approved
CPD/PDP Hours: 3
Ref: IEM22/PG/187/T(w)

Professional Series : Seismic Design and Earthquake Engineering (Part 4 of 5) :

Passive Dampers and Their Application in Vibration Mitigation

Sat
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9:30am - 12.30pm

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Speaker :
Assoc. Prof. Dr. Mohammadreza Vafaei
PhD, P.Eng., M.ASCE, M.EERI

Moderator:
Goh Shing Yi
B.Eng (Hons) Civil Engineering, Grad. Eng;, Grad. IEM

This Talk is organized by:
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Synopsis

Tall buildings, slender structures, and long-span bridges have inherently a low damping level. Therefore, when they are subjected to dynamic forces, they exhibit a very large response at their resonance frequencies. As a solution, auxiliary damping devices have been successfully employed to mitigate vibrations in such structures. In this presentation, at first, the concept behind application of damping devices will be explained. Then, different types of dampers are illustrated, and their advantage and disadvantage are discussed. Viscoelastic, metallic yielding , and tuned liquid dampers will be introduced in detail and their design concept will be elaborated. Some real applications of these dampers will be presented and their efficiency in reducing structural responses will be illustrated. This presentation is useful for design engineers and contractors especially those dealing with tall buildings and long-span bridges.

About the Speakers

Assoc. Prof. Dr. Mohammadreza Vafaei

Mohammadreza Vafaei (PhD, P.Eng., M.ASCE, M.EERI) is currently an associate professor in the school of civil engineering, Universiti Teknologi Malaysia (UTM), Johor, Malaysia. Before joining UTM, he has served many consulting companies in Iran and has led the seismic design of many structures like tall buildings, air traffic control towers, airport terminals, water reservoirs, telecommunication towers, and monumental structures. His expertise includes seismic design and retrofitting of structures, vibration control through passive dampers, and structural health monitoring. He has been invited as the keynote speaker for several international conferences and workshops. He has also published more than 60 papers in referred journals and conferences.