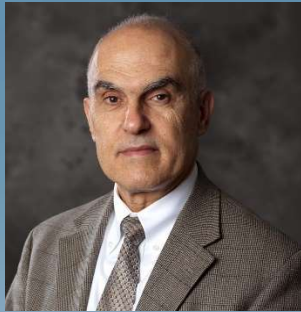


Structural Vibration Control of Nonlinear Dynamic Systems



Date : 22 July 2019
Time : 4:30-6:00pm
Venue : Room Z204, PolyU

Professor Sami F Masri
Department of Civil Engineering
University of Southern California, USA

Abstract

An overview will be provided of some recent developments in the broad field of structural vibration control of nonlinear systems under stationary or nonstationary dynamic environments. Both passive, active, and hybrid approaches will be discussed, with particular attention devoted to devices that combine features from different classes of damping augmentation systems to enhance the vibration mitigation efficiency of the combined nonlinear dampers. Studies involving analytical, computational, and experimental approaches, will be presented of the development and application of a class of highly nonlinear vibration mitigation devices for controlling the oscillation of multi-degree-of-freedom systems under the action of transient dynamic environments such as earthquakes and wind loads. The subject devices combine features from conventional tuned mass dampers as well as particle dampers, by capitalizing on the strength of different damping approaches.

Speaker's Biography

Sami F Masri is a Professor of Civil and Environmental Engineering, and a Professor of Aerospace and Mechanical Engineering, in the Viterbi School of Engineering, University of Southern California, Los Angeles, California, USA. He received a BS and MS degrees in Aerospace Engineering, from the University of Texas, and an MS and PhD in Mechanical Engineering from the California Institute of Technology. He has been on the faculty of USC since 1966. His research deals with the modeling, monitoring and control of nonlinear systems.

*****All Interested Are Welcome *****

For further information, please contact Ms. Autumn Lin at Tel. 3400 8535.
Certificates of attendance will be provided to participants if they attend the whole lecture.

