POLITECNICO DI TORINO

EARTHQUAKE ENGINEERING RESEARCH INSTITUTE

Dipartimento di Ingegneria Strutturale e Geotecnica

STRUCTURAL CONTROL: INTRODUCTION AND FRUITFUL RESEARCH AREAS

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Abstract

This talk gives an overview of some of the basic control concepts as applied to civil engineering structures, and provide examples of structural applications of this technology. Included in this presentation are some unique requirements and challenges of civil engineering structural control. Several promising research areas are identified and discussed.

BIOGRAPHICAL SKETCH

Tsu-Teh Soong is Professor of Engineering Science in the Department of Structural & Environmental Engineering at the University at Buffalo, the State University of New York (SUNY). Professor Soong is recognized worldwide for his pioneering work, innovations and leadership in the theory and applications of structural control systems in civil infrastructure facilities. He was a co-principal investigator of the National Science Foundation grants that established the National Center for Earthquake Engineering Research (NCEER) in 1986 and the Multidisciplinary Center for Earthquake Engineering Research (MCEER) in 1997. He has conducted his research in the area of engineering structural dynamics, reliability, control and random vibration. His recent work has focused on the development of passive and active control systems for protecting structures against potential damage due to large environmental forces, such as earthquakes, strong winds and large waves. A unique aspect of Soong's research in protective systems is that it spans the entire spectrum, from conceptualization, modeling analysis and experimental verification in the laboratory and in the field to implementation in actual structures. His work has led to the development of these systems for actual applications in the United States, Japan and China. Professor Soong is the author or co-author of eight books and some 240 publications. Among Soong's notable awards are the Humboldt Foundation Senior U.S. Scientist Award (the Humboldt Prize) in 1988 and 1992, and the 1999 Norman Medal and the 2002 Nathan M. Newmark Medal, both from the American Society of Civil Engineers (ASCE) and SUNY Distinguished Professor in 2004.

DATE: Thursday, MARCH 12, 2008

TIME: 2:30 PM
LOCATION: AULA ALBENGA 2nd floor, Department of Structural and Geotechnical Engineering (DISTR), Polytechnic of Torino
Faculty, graduate students, and all others are invited to attend.

Gian Paolo Cimellaro

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