

T.T. SOONG STUDENT LECTURE SERIES

The "T. T. Soong Student Lecture Series" recognizes Prof. Soong's outstanding research accomplishments and contributions to the field of structural and earthquake engineering over the course of his 48-year career at the University at Buffalo.

Presentation 1: Full-Scale Steel Building Tests Using the World's Largest Shake-Table

Presentation 2: Recorded Performance of Tall Buildings during the 2011 Great East Japan Earthquake

Abstract

Presentation 1: Earthquake responses of full-scale 5-story building specimens with and without dampers were realistically simulated in March 2009 using the world's largest three-dimensional shake table facilities at E-Defense, Hyogo Prefecture, Japan. The building was tested repeatedly, inserting and replacing each of 4 damper types: steel, viscous, oil, and viscoelastic dampers. This presentation discusses the test concept, specimens, method, and test results. It is a follow-up to a lecture given in 2008 prior to the tests.

Presentation 2: Many tall buildings in the Tokyo metropolitan area were strongly shaken during the East Japan Earthquake of March 11, 2011. Most of them are less than 40 years old, and have not experienced shaking at such a strong level. This presentation discusses the responses of Japanese tall buildings based on motions recorded during the 2011 East Japan Earthquake. The structures of the tall buildings vary, and include conventional seismic resistant structures, response-controlled structures, and base-isolated structures.



Kazuhiko Kasai, Ph.D.

**Professor and Director of Structural Engineering Research Center (SERC)
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Prof. Kazuhiko Kasai received his Ph.D. from the University of California, Berkeley in 1985. He was a faculty member at Illinois Institute of Technology and later at Lehigh University in the US, and became a professor in 1997 at the Tokyo Institute of Technology. Prof. Kasai is an internationally recognized researcher and educator in the areas of steel structures, response control, and earthquake engineering.

Prof. Kasai has been the chairman of both the Response Control Committee and Passive Control Effects Sub-Committee, Japan Society of Seismic Isolation (JSSI); Steel Passive Control Sub-Committee, Architectural Institute of Japan (AIJ); and various other structural engineering and response control committees in Japan. He also served as the chief editor for "JSSI Manual for Design and Construction of Passively Controlled Building," monthly academic journals of AIJ, and others.

Prof. Kasai was the Japan-side leader of the NEES and E-Defense US-Japan steel building research projects, including full-scale experiments of conventional structures and value-added (passive-controlled or innovative) structures. He is also the Japan-side leader of the China-Japan joint research on seismic evaluation and mitigation for super-tall buildings, sponsored by the National Natural Science Foundation of China (NSFC) and Japan Science and Technology Agency (JST).

Date: Monday, November 26, 2012 Time: 11:00 AM – 1:00 PM

Location: 140 Ketter Hall, North Campus, University at Buffalo

Webcast: <http://civil.eng.buffalo.edu/webcast>

Technical Questions: seeslwebcast@gmail.com

Refreshments will be served!



Organized by the Student Chapter of EERI at UB, CSEE-GSA, MCEER, Dept. of CSEE and NEES