



ASCE-JSCE International workshop on new trends of seismic geotechnical design based on performance and life cycle analysis

Date: Thursday, May 22, 2008

Venue: GEESD Conference, Sacramento, California

Seismic design of geotechnical structures is shifting internationally toward performance-based design as illustrated by the new ISO Code for Geotechnical Earthquake Resistant Design. Topics of interest include the use of deformation predictions versus factor of safety methods, the accuracy of deformation predictions, the reliability of field investigations, specification of earthquake motions, specification of allowable performance criteria or fragility relationships, and the use of deterministic versus probabilistic approaches. The aims of this workshop are to discuss progress in the development of performance based design procedures in different countries, present results of recent studies on life-cycle-cost criteria of seismic performance, and discuss issues involved in realizing the advantages of performance based design procedures in practice.

The event is free, but attendance is limited by the room capacity. Please register in advance either during on-line registration for the GEESD or by emailing Professor Towhata at towhata@geot.t.u-tokyo.ac.jp.

8.30 – 9.00	Registration and Coffee
9.00 – 9.15	Introduction <i>Professor Steven L. Kramer (University of Washington), Professor Ikuo Towhata (University of Tokyo)</i>
9.15 – 9.45	Design principles in ISO23469 and example applications <i>Professor Susumu Iai (Kyoto University)</i>
9.45 – 10.15	Performance based evaluation of liquefaction hazards <i>Dr. Roy Mayfield (geotechnical consultant)</i>
10.15 – 10.45	Coffee break
10.45 – 11.15	Performance based evaluation of a bridge with liquefaction hazards <i>Professor Pedro Arduino (University of Washington)</i>
11.15 – 11.45	Life cycle analysis of seismic design <i>Professor Ikuo Towhata (University of Tokyo)</i>
11.45 – 12.15	Seismic risk management studies for the Sacramento San-Joaquin Delta <i>Dr. Said Salah Mars (URS Corporation)</i>
12.15 – 1.15	Lunch
1.15 – 1.45	2D and 3D simulations for evaluation of bridge performance <i>Professor Ahmed Elgamal (University of California, San Diego)</i>
1.45 – 2.15	Discussion on reliability and limitation of numerical analyses. <i>Moderators: Professors I. Towhata and A. Elgamal</i>
2.15 – 2.45	Performance based evaluation of ground improvement projects <i>Masa Sakikabara (Fudo Construction)</i>
2.45 – 3.15	Coffee break
3.15 – 3.45	Performance based design for slopes and recent Canadian developments <i>Professor W. D. Liam Finn (University of British Columbia)</i>
3.45 – 4.15	Eurocode and UK developments <i>Dr. Gopal Madabhushi (Cambridge University)</i>
4.15 – 4.45	Discussion on performance based design principles in design codes and practices <i>Moderators: Professors S. Iai and W. D. L. Finn</i>
4.45 – 5.00	Closure <i>Professors I. Towhata and S. L. Kramer</i>