



First Announcement

IS-Tokyo 2009



**International Conference on  
Performance-Based Design  
in Earthquake Geotechnical Engineering**

*- from case history to practice -*

**IS-Tokyo 2009**



Tsukuba International Congress Center

Tsukuba, Japan

June, 15 – 17, 2009

Organized by

TC4, Earthquake Geotechnical Engineering  
and Associated Problems. ISSMGE

Japanese Geotechnical Society

**Call for Abstracts**

For those who are interested in submitting technical papers, please send the title and abstract of a paper, authors' names, contact person and address with tel, fax and e-mail to the secretary editorial via the conference website :

<http://www.rs.noda.tus.ac.jp/ytsoil/IS2009.htm>

The deadline of abstract submission is May 31, 2008.

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## Conference Theme

One of the recent needs in practice of earthquake geotechnical engineering has been the development of performance-based design (PBD) principle, which had already been employed in seismic design of structures under strong earthquakes. The rapid development of practical and reliable performance-based design in geotechnical engineering is necessary for foundation design as well as for superstructures resting on incompetent soils.

The introduction of performance-based design requires a wide range of technical issues to be resolved, such as clarifying performance requirements of earth structures, introducing sound concepts of limit states in design principles, searching for better but affordable soil investigation technology leading to reliable prediction of seismic performance. This conference is aimed at collecting well-documented case histories in assisting the development of performance-based design, and introducing the concepts necessary for its development as well as some representative examples of design procedures. This conference is expected to provide leading researchers and practitioners with a suitable occasion to discuss issues and to exchange knowledge associated with seismic performance-based design in the light of well-instrumented case histories during recent destructive earthquakes.

## Language

The official language of this conference is English.

## Conference Topics

The conference will cover a range of topics associated with performance-based design in earthquake geotechnical engineering.

- (1) Case histories on ground motions, site effects and soil-structure interactions including shallow foundations and pile foundations, embankments and slopes, embankment dams and underground structures
- (2) Soil investigation with field and laboratory testing for performance-based design
- (3) Dynamic characterization and modelling of soils for performance-based design
- (4) Numerical analyses for performance-based design
- (5) Methodology of performance-based design
- (6) Recent developments in PBD codes

## Important Dates

- |                  |   |
|------------------|---|
| 31/May/2008      | : Submission of abstracts                 |
| 31/July/2008     | : Notification of acceptance of abstracts |
| 31/October/2008  | : Submission of draft papers              |
| 31/December/2008 | : Notification of outcome of review       |
| 28/February/2009 | : Submission of final papers              |

## Further Information

Further information on this conference will be available and posted from time to time to the conference website below :

<http://www.rs.noda.tus.ac.jp/ytsoil/IS2009.htm>

## Keynote Lectures

(1) **Prof. P.K. Robertson (Canada)**

“Performance-based design using in-situ testing to evaluate soil liquefaction and post - earthquake displacements”

(2) **Prof. K.H. Stokoe, II (USA)**

“Field and laboratory measurements of sandy and gravelling soils for performance-based design in earthquake geotechnical engineering (Tentative)”

(3) **Prof. G. Bouckovalas (Greece)**

“Performance of foundations in a liquefaction regime (Tentative)”

(4) **Prof. R. Verdugo (Chile)**

“Seismic performance based-design of large earth and tailing dams”

(5) **Prof. T. Kokusho (Japan)**

“Performance of foundation ground in Kashiwazaki-Kariwa nuclear power plant during 2007 Chuetsu-oki EQ”

(6) **Prof. K. Tokimatsu (Japan)**

“Seismic soil-structure interaction of pile foundations with special reference to performance - based design based on case histories and model tests”

## Academics - Practitioners Discussion Sessions

(1) “Learning from case history”

Coordinator : **yet to be decided**

(2) “Evaluating seismic performance of earth structures”

Coordinator : **Prof. R.W. Boulanger (USA)**

(3) “Role of soil investigation in PBD”

Coordinator : **yet to be decided**

(4) “Determining criteria for seismic performance of earth structures”

Coordinator : **yet to be decided**

## Theme Lectures

Several theme lectures relevant to the individual topics will also be addressed in the 3-day conference programme.

## Technical Sessions

Technical sessions for submitted papers and other special sessions will be organized in the 3-day conference programme.

## Case History Volume

The publication of a case history volume accommodating well-instrumented geotechnical and earthquake data of good qualities is planned as one of the activities of Technical Committee 4 of ISSMGE. Conference participants will receive a book of case history volume. Some representative case histories will be addressed in the one of the Academics - Practitioners Discussion Sessions.

## Technical Exhibition

An exhibition of instruments, equipment, software, and publications in earthquake geotechnical engineering will be held in conjunction with the conference. Interested organizations and persons are kindly requested to submit their reservations for booth space. The details of exhibition registration will be available soon on the conference website. Meanwhile, please do not hesitate to contact us.

<http://www.rs.noda.tus.ac.jp/ytsoil/IS2009.htm>