



**Fourth International Conference on Recent Advances
In Geotechnical Earthquake Engineering and Soil Dynamics
San Diego, California (USA) March 26-31, 2001
and Symposium in Honor of Professor W.D. Liam Finn
March 29, 2001**

REPORT

Fourth International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics San Diego, California, USA, March 26, - March 31, 2001 And Symposium In Honor of Professor W.D. Liam Finn March 29, 2001

The Fourth International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics was held March 26- 31, 2001 San Diego, California, and was hosted by the University of Missouri, Rolla in co-operation with International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE), International Association of Earthquake Engineering (IAEE), Japanese Geotechnical Society (J.G.S.), and several other national and international organizations. The conference had 366 participants from 33 countries, including the world experts on soil dynamics, geotechnical earthquake engineering and seismology. The conference was preceded by a short course on "Soil Dynamics in Engineering Practice," which attracted 52 practitioners from 11 countries.

The major aims of the conference included presentation and discussion of the advances in soil dynamics and geotechnical earthquake engineering since 1995 when the Third International Conference on the subject was held at St. Louis, MO. The conference themes were decided keeping in view the current interests of researchers and practitioners.

THEMES

- ** Dynamic Properties of Soils, Engineering Soil Parameters and Constitutive Relations, New Field and Laboratory Methods and Results.
- ** Wave Propagation, Engineering Vibrations and Solutions, Vibrations of Machine Foundations, Blast Traffic and Construction Vibrations, Vibration Absorption.
- ** Engineering Seismology, Near Fault and Directivity Effects, Geometric Effects on Ground Motions, Motion Parameters for Design, Local Site Effects, Predictions and Measurements, Non-linear versus Equivalent Linear Analysis, Effective Stress versus Total Stress Analysis, Borehole Arrays, Interpretation of Field Array Data, Site Amplification.
- ** Soil Amplification, Liquefaction and Ground Failures, Seismic Studies of Loma Prieta, Northridge, Kobe and other Recent Earthquakes, Spatial liquefaction
- ** Stability and Displacement Performance of Slopes, Landfills and Earth Dams Under Earthquakes.
- ** Soil- Structure Interaction Under Dynamic Loading, for both Shallow and Deep Foundations.
- ** Seismic Analysis and Design of Retaining and Marine Structures, Field Studies on retaining Walls in California, Japan and Around the World.
- ** Seismic Analysis and Retrofit of Foundations of Bridges and Other Sub-Structures, Seismic Retrofit projects and Procedures in California.
- ** Model and Full-Scale Tests of Geotechnical Structures including Centrifuge Tests.
- ** Case Histories of Geotechnical Earthquake Engineering, Failures and Geotechnical Analysis of Recent Earthquakes.
- ** Seismic Zonation: Earthquake Risk Assessment with Earthquake Risk Management, Microzonation Projects in California, Use of Building Code to Reduce Earthquake Hazard in California.



Earthquake Engineering
San Diego 2001

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HIGHLIGHTS

Keynote address to the conference was delivered by Dr. Kenji Ishihara (Japan), President of ISSMGE, on "Effects of Saturation on Liquefaction" which is highly relevant to behavior of soils during earthquakes.

Other subjects, which were discussed, include:

1. Seismic risk of dams
2. Liquefaction effects on piles stability
3. Bearing capacity of footing under cyclic loads
4. Liquefaction of soils under very high confining pressures
5. Rehabilitation of old earth dams

Special Reports were also presented on the geotechnical aspects of the recent earthquakes in Bhju, India (2001) and Chi-Chi, Taiwan (1999) and Greece Earthquake (1999).

Several features contributed to the success of the conference. A series of State-of-the-Art and Practice (SOAP) presentations were made by leading experts in the field of geotechnical earthquake engineering including Kenneth Stokoe (USA), Ahmed Elgarni (USA), W.D. Liam Finn (Japan), D. Hartford (Canada), Ricardo Dobry (USA), George Gazetas (Greece), I. M. Idriss (USA), Ed Kavazanjian (USA), Susumu Iai, (Japan), and Farrokh Nadim (Norway). In addition, several special lectures were presented by well known researchers, academicians and practitioners; T.S. Ueng (China), Jogeshwar P. Singh (USA), Cliff J. Roblee (USA), Ezio Faccioli (Italy), Kyle Rollins and Scott Ashford (USA), Pedro Simao Seco e Pinto (Lisboa), Raymond Seed (USA), and Scott Steedman (UK).

W.D. Liam Finn Symposium

A technical symposium was dedicated to felicitate Dr. W.D. Liam Finn, a long time friend, who retired from University of British Columbia (Canada) after a highly successful academic and research career. A glimpse into the life and philosophy of Dr. Finn was presented along with his professional achievements. A high light of the **symposium was a presentation by Dr. Ralph B. Peck, "What Do We Really Know About Rehabilitation of Old Dams?"**

A well-designed program for spouses was planned, which included a visit to several places of fun and amusement including trips to shopping malls.

The proceedings of the conference are available on a CD ROM and can be obtained from:

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