

6th International Conference on  
**Case Histories in Geotechnical Engineering**

*and Symposium in Honor of Professor James K. Mitchell*

August 2008



**UMR** UNIVERSITY OF MISSOURI-ROLLA

**CALL FOR PAPERS**

***Sixth International Conference on Case Histories in  
Geotechnical Engineering***

**Washington, D.C. – August 4 - 9, 2008**

**<http://www.6icchg2008.org>**

**Presented by  
University of Missouri – Rolla - Civil Engineering Department  
and  
Natural Hazard Mitigation Institute**



# THEMES – page one

1. “ **Case Histories of UNEXPECTED BEHAVIOR AND FAILURE OF SHALLOW, DEEP AND OTHER FOUNDATIONS**, including Soil Structure Interaction, Foundations in Expansive, Collapsible and Sulphative Rich Soils, Foundations in Arid, Semi-Arid Zones; Case Histories Involving Rapid Load Testing (Statnamic, Fundex, Drop Weight) for Deep Foundations, Pile Driving and Evaluation”
2. “**Case Histories on FAILURES OF SLOPES, DAMS, EMBANKMENTS AND LANDFILLS**, Including those on Landslides and other Mass Movements (Debris Flows, Mudslides in California, Venezuela and Elsewhere) due to Rain, Flooding, Earthquakes, Anthropological and other Causative Factors”
3. “**CASE HISTORIES AND FAILURE OF GEOTECHNICAL EARTHQUAKE ENGINEERING**, Including Land Slides; Lessons learned from Kobe 1995, Turkey 1999, Chi-Chi 1999, Greece 1999, Bhuj India 2001, Alaska and Italy 2002, Mexico, China and Algeria 2003, 2004 M-9 SE Indonesia and Japan Earthquake, 2005 Chile, Japan and 2006 – 2008 other recent Earthquakes, and Reports on Recent Earthquakes”
4. “**Case Histories of ENGINEERING VIBRATIONS**, Vibration Control for Underground and Surface Constructions with Specific Emphasis on the Urban Environment; Predictions, Monitoring and Solutions; Blasting for Tunnels in Soft Ground and Rock, Discontinuous Rocks and their Application to Water Resources Projects”

# THEMES – (page two)

5. "Case Histories and FAILURE OF RETAINING STRUCTURES, Slurry Walls, and Deep Excavations," Dewatering, Stability"
- 6a "A Case Histories and FAILURE OF GEOLOGICAL, ROCK AND MINING ENGINEERING, UNDERGROUND STRUCTURES and Excavations, and Subsidence of Deltas"
- 6b. "Anticipation, Characterization, Design and Construction in the Geological Complexity of Mélanges, Fault Rocks, Weathered Rocks, Boulder Colluvium, Lahars, and Similar Bimrocks (Block-in-Matrix Rocks) and Rock/Soil Mixtures"
- 7a. "Case Histories of SOIL PROPERTY IMPROVEMENT, EXPANSIVE AND COLLAPSIBLE SOILS; for Earthquake Mitigation, Use of Lightweight Materials, Application of Geo-Synthetics; Freshly Loaded Filled Ancient Marshy Lands – The Effects and Risks of Foundation, (Vanished Ports such as Alexandria and Other Unknown, (Also from India-Puri-Mahabalipuram), Site Characterization"
- 7b. "Case Histories of ENVIRONMENTAL CONTAMINATION AND PROBLEMS INCLUDING GEOTECHNICAL AND HYDROLOGICAL MANAGEMENT and Remediation of Solid, Hazardous and Low-Level Radioactive Wastes, including Liner Cover Systems and Landfill Closure for Brownfield Development"
- 8a. "Case Histories of PROBLEMS OF DISTRICT OF COLUMBIA, MARYLAND AND VIRGINIA; New I-95 Woodrow Bridge over the Potomac D. C. Metro, Springfield Interchange, The Dulles Light Rail Prospect, including Application of Geotechnical Engineering in Removing Mines from War Zones and other Warlike and Terror Applications"

# THEMES – (page three)

- 8b. "Case Histories of FORENSIC GEOTECHNICAL ENGINEERING, Where Things Went Wrong; Reliability of Codes; Risk Analysis Pertaining to Public Structures, Non-Destructive Evaluation and Load Testing of Drilled Shafts, Auger Cast Piles and Driven Piles; and Damage Evaluation" and "Advance Information, Systems in the Geotechnical Risk Predication and Assessment"
- 8c. "Case Histories of HEALTH MONITORING AND RETROFIT OF INFRASTRUCTURE, including Bridges, Tunnels, and other Transportation and Geotechnical Structures"
9. "Case Histories of OFFSHORE GEOTECHNICS; Effects of Soft Clay on Off-shore Foundations; and Gas Production on Soils and Foundation and Stability"
- (NEW THEME)
10. "APPLICATION OF GEOTECHNICAL ENGINEERING IN OUTER SPACE, including Granular Material Behavior in Lunar and Martian Environments; Granular Material Behavior in Asteroidal and Cometary Environments; Extra-terrestrial Mining, Construction, and Transportation Infrastructure Development; R&D and Technology Trial Results"

# INVITATION

**We anticipate participation of professionals from 30 or more countries from around the world to present their recent research findings. The exchange of information during the conference will advance the state of the art and practice in several areas and will give definitive direction to future work. You are invited.**

**PLEASE MARK YOUR CALENDAR  
AUGUST 4 -9, 2008**

# CONFERENCE SPEAKERS

**Special Presentation:  
Ralph B. Peck (USA)**

**Keynote:**

- **W.D. Liam Finn (Canada)**  
*"The Mining of Case Studies"*

**James K. Mitchell (USA)**

*"Special Session – Most Memorable Project and Lessons for the Geotechnical Engineering Students and Fresh Practitioner"*

# CONFERENCE SPEAKERS

## ■ State of the Art and Practice:

- Kenji Ishihara (Japan) *"Pile Design in Liquefiable Soils"*
- Pedro S. Seco e Pinto (Portugal) *"Lessons Learned from two Case Histories of Retaining Structures"*
- K. Rainer Massarsch (Sweden) *"Vibratory Driving of Piles and Sheet Piles"*
- J. David Rogers/Ronaldo Luna (USA) *"Further (2004+) Studies of Geographical Information Systems on Geotechnical Engineering"*
- Des Hartford (Canada) *"Risk Analysis in Geotechnical and Earthquake Engineering State-of-the-Art and Practice for Embankment Dams"*
- Ed Kavazanjian (USA) *"The Indispensable Role of Case Histories in Landfill Engineering"*
- William Van Impe (Belgium) *"Evaluation of the Experience in Underwater Dam Construction of Soft Soils"*
- Scott Steedman (United Kingdom)

# SPECIAL LECTURES

**George Gazetas (Greece)** *"Newmark Sliding-Block Analysis: Surprising Results with Directivity-Affected Near-Fault Shaking"*

**D.S. "Sax" Saxena (USA)** *"Case Studies in Forensic Geotechnical and Foundation Engineering"*

**Tony Canale (USA)** *"New York City High-rise on "Rock" Uncovering the Unknown Leads to Variable Foundation Solutions"*

**Rolf Katzenbach (Germany)** *"Case Histories of Underground and Surface Construction with Specific Emphasis on the Urban Environment – Actual Developments for the City of the Future"*

**A. Verghese Chummar (India)** *"Case Studies of Failures of Cast-in-Situ Piles"*

**Nikos Gerolymos (Greece)** *"Seismic Response of Caisson Foundations in the Presence of Soil and Geometric Non-Linearities, with Applications to Major Bridge Piers"*

**Mark R. Svinkin (USA)** *"Soil and Structure Vibration from Construction and Industrial Sources"*

# *SYMPOSIUM IN HONOR OF PROFESSOR JAMES K. MITCHELL - Speakers*

**Ed Kavazanjian (USA)**

- *"Microbiological Improvement of the Physical Properties of Soil"*

**Rudy Bonaparte (USA)**

- *"Design and Construction of a Low Level Radioactive Waste Disposal Facility"*

**Kenichi Soga (UK)**

- *"Why They are What They are"*

**Richard A. Mitchell (USA)**

**James Michael Duncan (USA)**

**H. Turan Durgunoglu (Turkey)**

# EXHIBITION

**An exhibition of instruments, equipment, software, and publications in geotechnical engineering will be held in conjunction with the conference. Interested organizations and persons should submit their reservations for booth space by completing exhibit registration form located on the conference web site.**

**<http://www.6icchg2008.org>**

# SOIL DYNAMICS SHORT COURSE

**A 2 day short course on Soil Dynamics in *Engineering Practices* will be offered on August 4-5, 2008, in conjunction with the conference.**

**Course instructors:**

**Shamsher Prakash and Ahmed Elgamal**

**The topics will cover**

**Dynamic Soil Properties, Elementary Seismology, Ground Motion Amplification, Liquefaction Analysis of Soils, Stability of Rigid Retaining Walls, Bridge Abutments, Pile Foundations, etc.**

# SPOUSES PROGRAM

Bring your family – Washington, D.C. is an exciting and interesting city to visit. Plans are underway to provide a special program of sight-seeing in and around the area for spouses and children of conference attendees. This tour will possibly include The US Capital Building, The Washington Monument, The Lincoln Memorial, Arlington National Cemetery, Jefferson Memorial and many other points of interest along the way.

This program is under the direction of *Sally Prakash*

Please come and enjoy  
our hospitality.

# MARK YOUR CALENDAR

- This conference is organized by the Civil Engineering Department and Natural Hazard Mitigation Institute of University of Missouri – Rolla. The first, second, third, fourth and fifth conferences were held successfully in 1984, 1988, 1983, 1998 and 2004 respectively.
- Please fax this form to Wanda Furniss, Conf. Secretary at: (573) 341-4992, to receive a call for papers and other information on this conference.

- Name: \_\_\_\_\_
- Address: \_\_\_\_\_
- \_\_\_\_\_
- City/State/Other/Country: \_\_\_\_\_
- E-mail: \_\_\_\_\_

■ I would like to join the team to help organize a session: YES  NO

■ I would like to review paper/s: YES  NO

■ If you have any questions, please contact Shamsheer Prakash at [prakash@umr.edu](mailto:prakash@umr.edu)

■ February 2006 (Geo-Conference Atlanta)

# STORY of CASE HISTORIES CONFERENCES

- 1) First conference planned in 1984 for the 1984 event.  
1981 Soil Dynamics conference was an unprecedented success
- 2) Incentives from Terzaghi and Peck  
"Observational Method"

# Story of CASE HISTORIES CONFERENCE- (continued)

3) In the beginning the challenges faced when organizing the conference

- a) Practicing Engineer
- b) Papers by mostly professors
- c) National and International cooperation and non-cooperation
- d) Different practices in North America, Europe, Africa and Asia
- e) Review of abstracts and full length papers
- f) Quality of papers

# International Commission on Case Histories

- President - Professor Fengshen Shen,  
*Water Resources & Hydropower Planning  
& Design General Institute (MWR)*
- Secretary - Professor Zuyu Chen, *China  
Institute of Water Resources &  
Hydropower Research (IWHR)*

# SCHEDULE OF WORK

- Establish a Working Group on Database for "*Geohazard and Rock Engineering*"
- Half-day workshop on Database for "*Geohazards and Rock Engineering before the 2007 ISRM Congress*"
- Hold a one-day workshop, "*Realtime Monitoring on Landslides*" before the 10<sup>th</sup> International Symposium on Landslides June 30 to July 4 in the city of Xian, China

# ISSMGE

- Representation:

- 3 – Core members

- - 1) From North America

- 1) From Asia

- 1) From Australia (under nominations)