EARTHQUAKE ENGINEERING RESEARCH INSTITUTE

NEWSLETTER

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News of the Institute

56th Annual Meeting: Ten Years after Northridge

EERI's 56th Annual Meeting, scheduled for February 4-8, 2004, in Los Angeles, California, will observe the tenth anniversary of the January 17, 1994, Northridge, California, earthquake. In five sessions over three days, more than 20 speakers will explore the multidisciplinary accomplishments in earthquake risk reduction that have taken place during the last decade. The first session will be an overview of developments in structural engineering, the earth sciences, geotechnical engineering, and the social sciences. The second session will look at progress made through mitigation initiatives. Other sessions will cover new directions in research and advances in making communities more resilient.

The Saturday morning session will feature a noteworthy panel discussion on the question, "Did the Northridge earthquake become an attorney's earthquake?" Saturday's lunch will feature the inaugural address of the First Annual William B. Joyner Memorial Lecture given by former EERI President and Honorary Member Lloyd S. Cluff of the Pacific Gas and Electric Company. This lecture is cosponsored by the Seismological Society of America.

During the Northridge earthquake, a precast concrete parking garage at the Northridge Fashion Center almost completely failed, even with little damage to some of its masonry shear walls. (Photo credit: EERI Northridge Earthquake Reconnaissance Team)

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New *Earthquake Spectra* Manuscript Submission and Review Process

EERI is pleased to announce an exciting new tool that will make the submission and review process for *Earthquake Spectra* manuscripts easier and faster. As of November 1, 2003, manuscripts submitted for possible publication in *Spectra* will go through the *Earthquake Spectra Manuscript Submission and Peer Review System* (EQS-PXP). Authors no longer will be required to submit multiple copies of their papers; in fact, except for extraordinary circumstances, **no** hardcopy manuscripts will be accepted after January 1, 2004. No changes are required for those manuscripts already under review.

Authors will fill out information forms online and upload their manuscripts, including cover letters, Word files, and figures. Authors may also mail their manuscripts in digital form to EERI after filling out the initial submission forms online. Every stage of the review process, from initial correspondence to final decision, will be handled electronically, which will ultimately save time, paper, and mailing costs.

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News of the Profession

California Building Standards Commission Selects Combination of Codes

The California Building Standards Commission approved at its July 29, 2003, meeting a combination of model codes from the National Fire Protection Association (NFPA) and the International Code Council (ICC) as the basis for the next California building and fire codes. These new codes are scheduled to go into effect in 2006. The commission's action, on an 8-2 vote, came after extensive public comment and multiple hearings. (The structural engineer seat on the commission had been vacant for over two years. See article about Kent Sasaki on page 3.) The selected codes are the 2003 *NFPA 5000 Building Code,* the structural provisions (primarily) of ICC's *International Residential Code* (covering approximately 80% of all construction in California), and the *NFPA 1 Uniform Fire Code.*

The NFPA building code selection occurred in spite of the fact that testimony at the public hearing was strongly in favor of ICC's *International Building Code (IBC)*. The Structural Engineers Association of California (SEAOC) took a position in favor of the IBC. EERI members David Bonneville (president of SEAOC's Northern California chapter), Kelly Cobeen, Craig Comartin (EERI president-elect candidate), and Jim Malley testified at hearings. Many professional organizations supported the IBC. SEAOC had favored the IBC for a number of technical reasons, including superior seismic provisions. The key NFPA code proponents were fire departments from San Francisco, Los Angeles, and Alameda counties and the unions representing the plumbing and mechanical contractors. The NFPA codes tend to be preferred over the ICC codes in areas where organized labor is strong because of provisions that favor their interests.

However, the evolution of seismic codes in California and the United States is relatively independent of politics. In the future, it is likely that the structural provisions in the two codes will converge, because they both reference ASCE 7-02 for their structural provisions, including seismic, wind, and gravity loads and load combinations. However, it will take another ASCE 7 code cycle (ASCE 7-05) before the various gaps and inconsistencies are resolved.

EERI Seeks Volunteers for U.S.-Mexico Commission

In 2002 the Mexican Society for Earthquake Engineering (Sociedad Mexicana de Ingeniería Sísmica) (SMIS) and EERI signed a general cooperative agreement (see page 1 of the January 2003 *Newsletter*). In order to carry out the ambitious goals of the agreement, EERI and SMIS are establishing a bilateral commission to develop programs, evaluate their effectiveness, and exchange information continuously on the development of policies and procedures. SMIS has designated the following representatives to be on this EERI-SMIS commission: Luis Esteva Maraboto, David Muria Vila, Eduardo Reinoso Angulo (EERI member), Francisco J. Sanchez Sesma, and Arturo Tena Colunga (EERI member).

EERI is inviting U.S. members to join this important commission. If you are interested in volunteering to serve, please submit your name for consideration to **eeri@eeri.org,** attention EERI International Activities Chair Sergio Alcocer, with a message describing your interest and expertise.

News of the Membership

Tierney Named Director of Natural Hazards Center

EERI member Kathleen Tierney, professor of sociology, is the new director of the Natural Hazards Research and Applications Information Center (NHRAIC) at the University of Colorado at Boulder. NHRAIC is the nation's leading repository of knowledge on human behavior in disasters.

Tierney is a nationally recognized expert on the human and social dimensions of hazards, disaster, and risk. Tierney joined CU this fall from the University of Delaware, where she was the director of the Disaster Research Center. She will teach classes on social movements, environmental sociology and qualitative research methods. Former Director Dennis Mileti, professor and chair of the CU sociology department and a past member of the EERI Board of Directors, will continue doing research at the center as a senior scientist.

With over 25 years of experience in the disaster field, Professor Tierney has studied many disaster events. Since September 11, 2001, she has been directing a study on the organizational and community response in New York following the terrorist attack on the World Trade Center. She is a member of a multi-university team conducting research on how advanced information technology can be used to improve the ability of local governments to respond to major disaster events.

Her other current and recent projects include studies on public perceptions of the earthquake threat in the Northern California Bay Area, behavioral issues associated with real-time warning systems for earthquakes, risk communication, and the business impacts of disasters.

News of the Membership

Filiatrault Named Deputy Director of MCEER

EERI member Andre Filiatrault is the new deputy director of the Multidisciplinary Center for Earthquake Engineering Research (MCEER) headquartered at the University at Buffalo (UB). Filiatrault, formerly a professor of structural engineering at the University of California-San Diego (UCSD), will be responsible for coordinating MCEER's nationwide research program in advanced technology applications.

He also has been appointed professor of civil, structural, and environmental engineering in the UB School of Engineering and Applied Sciences.

Filiatrault is past president of the Consortium of Universities for Research in Earthquake Engineering (CUREE) and was project manager for testing and analysis for the CUREE-Caltech Wood Frame Project, a federally funded effort to develop reliable and economical methods of improving wood-framed building performance in earthquakes. His full-scale dynamic tests on a variety of structural and nonstructural systems and components over the past 15 years have led to improved seismic design standards.

Filiatrault has led or been a member of several earthquake reconnaissance teams, including those that investigated the 2001 Nisqually, 1989 Loma Prieta, 1994 Northridge, and 1995 Kobe earthquakes.

Before joining UCSD, Filiatrault was professor of civil engineering at the Ecole Polytechnique in Montreal. He continues to serve on the scientific board and faculty of the Rose European School for Advanced Studies in Reduction of Seismic Risk at the University of Pavia in Italy.

Annual Meeting

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Two workshops are planned in conjunction with the Annual Meeting. A Learning from Earthquakes training program for field reconnaissance will take place all day Wednesday, February 4, before the regular technical program begins on Thursday. A two-hour NEES Education Outreach and Training Workshop is scheduled after the regular program adjourns on Saturday afternoon.

The meeting will conclude with a choice of four optional field trips offering something for everyone plus an additional optional trip on Sunday morning, February 8, to the J. Paul Getty Museum.

Registration forms will be mailed in November and registration information will also be available on the EERI web site (**www.eeri.org**). Be sure to mark your calendar – this is a meeting you won't want to miss!

Spectra Submission

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One of the many welcome changes in the review process is that it will no longer be necessary to embed figures into the text, as figures may be submitted as individual files (they will be positioned appropriately later in the production phase if the manuscript is accepted).

Another appealing feature is that the author, reviewers, and responsible editor all can track a paper in which they have a part by logging on with a name and password they establish at the beginning of their involvement. If, for example, you are an author and sometimes also serve as a reviewer, you can check on the status of all relevant papers that are in process.

EQS-PXP is accessible on the web at **eqs.peerx-press.org**.

News of the Membership

Sasaki Appointed to California State Building Standards Commission

Last month California Governor Gray Davis appointed EERI member Kent K. Sasaki to the State Building Standards Commission, which is responsible for codifying and publishing all building standards for state agencies. The commission also serves as an appeals forum for problems that may arise from the administration of state building standards.

Sasaki is consultant and unit manager of the San Francisco Bay Area office (in Emeryville) of Wiss, Janney, Elstner Associates, a nationwide structural engineering and architectural consulting firm. He is a registered civil and structural engineer in California. Sasaki is also a member of the American Society of Civil Engineers, the Structural Engineers Association of California, the American Concrete Institute, and the Post-Tensioning Institute. He received B.S. and M.S. engineering degrees from the University of California, Berkeley.

Kent K. Sasaki

Learning from Earthquakes

EERI LFE Team on Bhuj Recovery Issues

Recognizing that the recovery phase holds many important observations and lessons for the global earthquake engineering community, EERI's Learning from Earthquakes Committee has initiated the first in a series of reconnaissance missions focusing on observations of the post-earthquake recovery process. A multidisciplinary team was asked to investigate rebuilding following the Bhuj, India, earthquake of January 2001. Taking advantage of a small invitational workshop held last month by the government of Gujarat on earthquake reconstruction practices in several countries, a team was put together under the leadership of C. V. R. Murty, professor of structural engineering at the Indian Institute of Technology (IIT), Kanpur. Team members included Marjorie Greene, EERI (urban planner); Sudhir K. Jain, IIT Kanpur (structural engineer); Vipul V. Mehta, Bhuj (consulting structural engineer); and N. Purendra Prasad, University of Hyderabad (social anthropologist). Team members included those familiar with earthquake engineering in India as well as the government of Maharashtra's rebuilding experience.

The reconstruction program for this earthquake holds many important lessons for the United States as well as other countries, particularly with regard to the management of a large rebuilding effort spread over a vast geographic area. An emphasis on mitigation and future disaster preparedness, advances in the use of information technology, innovative planning techniques for rebuilding in urban areas, and creative strategies for involving citizens in their rebuilding are among the relevant lessons emerging from this earthquake.

The 2001 Bhuj, India, earthquake was a devastating event, causing over 13,800 deaths and 167,000 injuries, the loss or damage to 1.2 million housing units and over $4 billion in property losses. The scope and breadth of the reconstruction program are staggering. The government of the state of Gujarat quickly set up the Gujarat State Disaster Management Authority (GSDMA), with direct control over the entire rebuilding program and an explicit mandate to promote long-term disaster mitigation during the recovery phase and into the future. The GSDMA has supported the rebuilding of over 200,000 housing units and the repair of another 900,000. In most cases, owners have participated actively in the rebuilding, assisting in the design and construction of their homes. In 20% of the cases, partnerships between nongovernmental organizations and the government have rebuilt the housing. Little construction work has been done by government agencies themselves. Over 1,000 materials banks were established to supply cement and steel at subsidized prices. The GSDMA has brought in technical assistance to help in the rebuilding process, focusing in particular on promoting earthquake-resistant technology by providing training to almost 30,000 masons and 6,200 engineers. Much of this information can be tracked on the GSDMA web site, where many statistics and other background documents for the project are available (**www.gsdma.org**).

Four towns with substantial damage in the earthquake are developing new town and development plans that will include adjusting property lines and developing a more accessible road system. Even while facing pressures to rebuild quickly, the government is taking the additional time needed to develop these plans in a thoughtful manner. A pilot project has been developed in Bhuj to allow citizens access to information on the earthquake rehabilitation process through interactive computers at several kiosks around the city. A major change in India is taking place in giving greater priority to seismic safety on the national agenda. The central government, the government of Gujarat, and the academic and practicing engineering communities are beginning discussions that will result in higher standards of seismic safety and changes in codes and practice. Social science academics are stimulating discussion on models of disaster recovery and the relationship between earthquake recovery and ongoing development.

A full report from the reconnaissance team documenting its observations on this major reconstruction program will be available in a few months and sent to all EERI members. Further information can be obtained by contacting EERI's LFE Program Manager Marjorie Greene at **mgreene@eeri.org**.

8.3 Earthquake near Hokkaido

The following report was provided by Professor Scott Ashford of the Department of Structural Engineering at the University of California, San Diego. He was joined by his Ph.D. student, Yohsuke Kawamata, who is associated with Japan's Port and Airport Research Institute (PARI). Their trip, consisting of five days on the ground and covering 1,200 km, was funded by EERI's Learning from Earthquakes Program.

A magnitude 8.3 shallow earthquake struck at 4:50 a.m. local time Friday, September 26, 2003, about 60 km offshore from Hokkaido, Japan. The closest city to the epicenter (41.827 N, 143.83 E, depth of focus 33 km) was the port of Tokachi. The focal mechanism and preliminary location of this earthquake indicate that it resulted from thrust faulting on the plate interface between the overriding North American plate (which extends into the northeast corner

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Hokkaido Earthquake

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of the Eurasian landmass) and the subducting Pacific plate. The Pacific plate is moving west-northwest at a rate of about 8.2 cm per year relative to the North American plate. The recent earthquake appears to have involved rupture of the same section of the plate interface that ruptured in 1952.

The lack of damage, considering the strong recorded ground motions (as high as 0.9g in Hiroo), was surprising. Liquefaction occurred over a broad geographic area, but was localized and almost exclusively limited to man-made fills. Even for the dozens of uplifted manholes, only the backfill around the pipe liquefied, not the adjacent soil. A series of liquefaction-induced ground failures were observed in a farming area covering one km^2. One of these failures expelled 5,000 to 10,000 m^3 of sand.

Port facilities performed well, with the exception of Pier 4 in Kushiro. Structural damage to bridges and buildings was isolated but covered a broad area. For the most severely damaged bridges (all of which were still in operation), it appeared that the relative movement between spans was greater than that designed for, resulting in some bearing or key damage.

For lifelines, the damage appeared to be concentrated in storm sewers and some sanitary sewers. A few telephone poles were tilted, but still functioning. In one case a manhole was being bypassed by pumping. The damaged storm drains may cause trouble during the next rainy season.

There was concern among the Japanese that coastal evacuations after the tsunami warnings were not taken seriously. The evacuation rate was only about 50%. To see photos of damage caused by this event, visit **www.eeri.org/lfe/japan.html.**

Publications

International Handbook of Earthquake and Engineering Seismology

The *International Handbook of Earthquake and Engineering Seismology* is a new reference book published by the International Association of Seismology and Physics of the Earth's Interior (IASPEI) in collaboration with the International Association of Earthquake Engineering (IAEE).

IASPEI appointed a committee on education in 1995 "to promote sharing of seismological knowledge worldwide and transferring of technology to developing countries, and to ensure the continuation and coordination of training courses." One of the committee's activities was to prepare a reference book that summarizes present knowledge about earthquake and engineering seismology as a whole. In order to foster more communication between seismologists and earthquake engineers, IAEE accepted the invitation to collaborate in the preparation.

The aims of the *Handbook* are to (1) summarize the well-established facts, (2) review relevant theories, (3) survey useful methods and techniques, (4) summarize the historical development and current status of seismology and earthquake engineering, (5) document and archive some basic seismic data, and (6) include computer readable files of some important publications of seismology and earthquake engineering.

The *Handbook* (published in 2002 and 2003) consists of two printed volumes (Parts A and B) of nearly 2,000 total pages and three CD-ROMs containing supplementary materials that are equivalent to about 1,000 books. It is intended as a general reference on earthquake and engineering seismology, and also as a comprehensive resource library for anyone interested in earthquakes and related subjects.

EERI contributed an institutional report and granted permission for the *Handbook* to include seven EERI monographs, the *Proceedings of the First World Conference on Earthquake Engineering,* and a special issue of *Earthquake Spectra* as computer readable files on CD-ROM #2.

The *Handbook* was edited under a team of four general editors (C. Kisslinger and EERI members P. C. Jennings, H. Kanamori, and W. H. K. Lee). More than 2,000 scientists and engineers from over 60 countries participated. The printed volumes have 90 chapters under 11 sections: (1) History and Prefatory essays, (2) Theoretical Seismology, (3) Observational Seismology, (4) Earthquake Geology and Mechanics, (5) Seismicity of the Earth, (6) Earth's Structure, (7) Strong-Motion Seismology, (8) Selected Topics in Earthquake Engineering, (9) Earthquake Prediction and Hazards Mitigation, (10) National and International Reports: Seismology and Earthquake Engineering, and (11) General Information and Miscellaneous Data.

Frank Press, president emeritus of the U.S. National Academy of Sciences, praised the *Handbook* as "monumental in scope, authoritative in treatment, and historic in impact," and as "…the most important source book for seismology and its applications for years to come. This is one of those exceptional books that libraries and professionals ... cannot do without."

The *Handbook* was published in two parts by Academic Press. Each part has a list price of US$150, and can be purchased separately. For more information, visit the Academic Press web site at **books.elsevier.com.**

Call for Abstracts

IABSE Conference on Reduction of Poverty

The International Association for Bridge and Structural Engineering (IABSE) will hold a conference in New Delhi, India, with the theme "Role of Structural Engineers Towards Reduction of Poverty." The conference, scheduled for February 19-22, 2005, is designed to ensure a meaningful dialogue among structural engineers and various developmental professionals, including environmentalists, sociologists, and economists. Sub-themes, broadly covering infrastructure, will deal with a wide range of topics such as relevance of local conditions and environment, the need for introduction of appropriate and innovative technologies and materials, and fast-track construction.

Participants wishing to present a paper or poster are invited to submit an abstract before November 28, 2003**.** For additional information, visit **www.iabse.org**.

World Conference on Disaster Management

The Canadian Centre for Emergency Preparedness (CCEP) is calling for presentations for the *14th World Conference on Disaster Management* (WCDM) to be held June 20-23, 2004, in Toronto, Canada. The conference theme will be: "The Changing Face of Disaster Management — Are We REALLY Prepared?" WCDM delegates are predominantly practitioners from all levels of government and the private sector, including utilities, financial services, insurance, transportation, communications, manufacturing, petro-chemicals, and education. A major goal of the 14th WCDM is to offer a program that challenges delegates by examining traditional concepts and methods and that provides new ideas and approaches to problem solving.

For a detailed description of the program and abstract guidelines, visit **www.wcdm.org/**. Abstracts must be submitted by December 12, 2003. For questions contact Adrian Gordon at 905/331-2552 or **agordon@ccep.ca**.

Announcement

Seismic Geotechnics and Soil Dynamics Conference

The *11th International Conference on Soil Dynamics and Earthquake Engineering* and the *3rd International Conference on Earthquake Geotechnical Engineering* will be held jointly January 7-9, 2004, in Berkeley, California. The joint conference will provide a forum for communication and dissemination of ongoing advances in both research and practice. The conference will include the presentation of the first Ishihara Lecture, a new award-lecture created by the International Society of Soil Mechanics and Geotechnical Engineering to honor the lifetime contributions of Professor Kenji Ishihara to this field.

Conference topics will include seismicity, ground motions, and site effects; dynamic characterization and modeling of soils; soil-structure interaction; performance of soil-structure systems; liquefaction; bridges and highways; retaining, waterfront, and underground structures; lifeline earthquake engineering; blasting and other rapid, man-made loads; active and passive control of response related to geotechnical engineering; codes, policy issues, insurance, and standards of practice; and performance-based design.

Visit **www.sdee-ege.org** or contact the conference secretariat at **sdee@inmeet.com.sg** for details.

Publications

Geotechnical Case Histories Proceedings

The *Proceedings of the Fifth International Conference on Case Histories in Geotechnical Engineering* in CD-ROM format are now for sale in advance at the discounted price of $240 plus shipping and handling. The special rate is in effect until December 1, 2003. The conference is scheduled for April 13-17, 2004. The *Proceedings* contain approximately 350 papers including the keynote lecture, eight state-of-the-art presentations, 12 special lectures, and all general reports (edited by Shamsher Prakash). A printed abstract book will also be included. To download an order form, visit **campus.umr.edu/earthquake/5thCHConf/advance_proceedings_order.doc.**

USGS Fact Sheet on Seismic Monitoring

A new fact sheet from the U.S. Geological Survey's Earthquake Hazards Program presents the need for and benefits of enhanced seismic monitoring in structures. USGS Fact Sheet 068-03 (**geopubs.wr.usgs.gov/fact-sheet/fs068-03/**) explains and illustrates how recordings from seismic sensors in buildings enable engineers to design safer buildings, improve building codes, and rapidly assess building safety following a large earthquake.

The Advanced National Seismic System, authorized by Congress, envisions a major expansion of earthquake monitoring in buildings in the most earthquake-prone areas of the United States.

CALENDAR

Items that have appeared previously are severely abbreviated. The issue containing the first, or most informative, appearance is indicated at the entry's end. Items listed for the first time are shown in **bold**.

NOVEMBER

10-14. 30th Int'l Conf. on Remote Sensing of the Environment, Honolulu, HI. Info: **isrse.pdc.org** (6/03)

12-13. Inst. for Business & Home Safety Annual Congress on Natural Hazard Loss Reduction, Orlando, FL. Info: **www.ibhs.org** (9/03)

13-15. 1st Int'l Conf. on Structural Health Monitoring, Tokyo, Japan. Info: **www.civil.ibaraki.ac.jp/shmii/** (5/03)

14-16. 2nd Conf. on Disaster Management: Case Histories of Disasters, Pilani, India. E-mail: **spgupta@bits-pilani.ac.in** (7/03)

14-20. Int'l Association of Emergency Managers Annual Conf., Orlando, FL. Info: **www.iaem.com** (9/03)

19-22. 14th Mexican Nat'l Conf. on Earthquake Engineering, León-Guanajuato, México. Info: **www.smis.org.mx** (4/03)

DECEMBER

8-12. AGU Fall Meeting, San Francisco, CA. Info: **www.agu.org/meetings/fm03** (9/03)

8-9. ACI Seismic Bridge Design and Retrofit Conf. La Jolla, CA. Info: **www.aci-int.org** (7/03)

16-18. 9th East Asia Pacific Conf. on Structural Engineering and Construction, Bali, Indonesia. Info:**www.si.itb.ac.id/easec9** (10/02)

2004

JANUARY

7-9. 11th Int'l Conf. on Soil Dynamics and Earthquake Engineering/3rd Int'l Conf. on Earthquake Geotechnical Engineering, Berkeley, CA. See page 6. (11/03)

FEBRUARY

4-7. EERI Annual Meeting, Los Angeles, CA. Info: www.eeri.org. **See page 1.** (9/03, 10/03, 11/03).

9-11. 4th Nat'l Conf. on Bridges and Highways, Memphis, TN. Info: **www.conferences.uiuc.edu/seismic** (8/03)

19-21. World Conf. on Natural Disaster Mitigation, New Delhi, India. Info: **www.wfeo-cee.org** (7/03)

20-21. 2004 PEER Annual Meeting, Palm Springs, CA. Info: **peer.berkeley.edu** (10/03)

MARCH

5-6. Asia Conf. on Earthquake Engineering, Manila, Philippines. Info: **www.aseponline.org/ACEE.htm** (10/03)

APRIL

13-17. 5th Int'l Conf. on Case Histories in Geotechnical Engineering, New York, NY. Info: **www.umr.edu/~eqconf/5thCHConf** (1/03, 3/03)

MAY

20-21. NEES Annual Meeting, California (11/03)

22-26. Structures 2004, Nashville, TN. Info: **www.asce.org/conferences/structures2004/** (8/02)

JUNE

7-10. SEM X Int'l Cong. on Experimental and Applied Mechanics, Costa Mesa, CA. Info: **www.sem.org** (10/03)

10-11. 4th Int. Workshop on Structural Control, Columbia Univ., NY, Info: **www.civil.columbia.edu/4IWSC (11/03)**

20-23. 14th World Conference on Disaster Management, Toronto, Canada. See page 6. (11/03)

JULY

12-15. 3rd European Conf. on Structural Control, Vienna, Austria. Info: **www.samco.org/3ecsc** (10/03)

18-23. Composite Construction in Steel and Concrete V, Kruger National Park, South Africa. Info: **www.engconfintl.org/4ab.html** (12/02)

AUGUST

1-6. 13th World Conference on Earthquake Engineering, Vancouver, British Columbia, Canada. Info: **www.13wcee.com** (7/02, 3/03)

8-11. MOVIC 04 Motion and Vibration Control Conference, Washington University, St. Louis, MO. (11/02)

2005

FEBRUARY

19-22. Int'l Assoc. for Bridge and Structural Engineering Conf., New Delhi, India. See page 6. (11/03)

2006

APRIL

17-21. 8th U.S. Nat'l Conf. on Earthquake Engineering and EERI Annual Meeting, San Francisco, CA. (8/03)

News of the Profession

Hellenic Society for Earthquake Engineering Established

The recently established Hellenic Society for Earthquake Engineering (HSEE) announced its newly elected board of directors. The first president is EERI member George Gazetas, professor at the National Technical University in Athens. The new directors include EERI member Stavros Anagnostopoulos (professor at the University of Patras), Andreas Kappos, Olympia Vaggelatou, and Ioannis Vlachos.

Gazetas commented on the importance of strengthening international links with sister institutions and national organizations in Europe, the United States, Japan, China, and New Zealand. The society plans to hold the Third National Conference on Earthquake Engineering in 2005 and to establish an annual international distinguished lecture series. Details can be found at the newly established web site **www.etam.tee.gr.**

News of the Institute

EERI/FEMA Professional Fellowship Awarded to Keith Knudsen

Keith Knudsen, senior engineering geologist for the California Geological Survey, has been selected as the 2004 NEHRP Professional Fellow in Earthquake Hazards Reduction, awarded by EERI under a cooperative program funded by the Federal Emergency Management Agency. This activity is undertaken by FEMA as part of the National Earthquake Hazards Reduction Program. The fellowship is designed to provide an opportunity for a practicing professional to gain greater skills and broader expertise in earthquake risk reduction.

The Institute extends thanks to the review committee, consisting of Robert Olshansky, University of Illinois at Urbana-Champaign; Greg Deierlein, Stanford University; and C. B. Crouse, URS Corporation, Seattle, Washington.

Knudsen's research will seek to add interpretation of geologic parameters to liquefaction case-history databases, thereby developing a better understanding of the geologic nature of liquefiable materials. He will coordinate with several engineers responsible for many recent geotechnical advances, helping to bridge the gap between geologists and geotechnical engineers so that both sets of knowledge can be brought to bear jointly on this problem. He will carry out his research under the direction of Professor Raymond B. Seed at the University of California, Berkeley.

Keith Knudsen

Knudsen has been a senior engineering geologist at the California Geological Survey in San Francisco since 1999 and has managed the San Francisco Areal Mapping Unit of the Seismic Hazards Mapping Program. Prior to this, he worked in the private sector as a geologist. He has written numerous reports and publications, including recent articles regarding the production of regional liquefaction-induced deformation maps.

Knudsen earned his B.S. in geology at Carleton College in Minnesota and his M.S. in geology and environmental systems at Humboldt State University in Arcata, California. He is a registered geologist and certified engineering geologist in the state of California. He has served in leadership capacities in several professional geophysical and geological associations, including EERI's Northern California Chapter, the American Geophysical Union, the Association of Engineering Geologists, and the Seismological Society of America.

The professional fellowship is awarded annually and provides a stipend of $30,000, commencing in January 2004, for tuition, fees, and living expenses for a 12-month period.

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