

**EARTHQUAKE ENGINEERING
RESEARCH INSTITUTE**

NEWSLETTER

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News of the Institute

Monterey, California Selected as Site of 2001 Annual Meeting

The 2001 Annual Meeting will be held February 7-10, 2001 at the DoubleTree Hotel in Monterey, California, 80 miles south of San Francisco on scenic Highway 1. The Monterey area is truly a most popular destination, featuring the world-renowned Monterey Bay Aquarium and the Monterey Bay National Marine Sanctuary.

The area is also close to other attractive destinations such as Santa Cruz, Carmel, and Big Sur. This venue is certain to appeal to EERI members — be sure to save the date on your calendar, and watch for more information in the *Newsletter*, in the mail, and on the EERI web site later this year.

News of the Institute

Election Results: Poland Endorsed as President-Elect, Green and Mileti Elected to Board of Directors



Chris Poland



Melvyn Green



Dennis Mileti

Chris Poland, President of Degenkolb Engineers in San Francisco, received the endorsement of the voters as President-Elect of the Institute. **Melvyn Green**, President and Chief Engineer of Melvyn Green and Associates in Torrance, California, and **Dennis Mileti**, Professor and Chair of the Department of Sociology and Director of the Natural Hazards Research and Applications Information Center at the University of Colorado at Boulder, were elected the newest members of the Board of Directors. Many thanks go to the members of this year's Tellers Committee: Ed Rinne of Kleinfelder, Inc., and Janiele Maffei and Darrick Hom of Degenkolb Engineers.

The newly elected President-Elect and Directors will be formally welcomed to their new posts at the Board Meeting on March 3. Chris Poland will serve one year as President-Elect, followed by two years as President and one year as Past President. He takes up the position left vacant by Joanne Nigg, the current Past President, who is leaving the Board after four years of service. Melvyn Green and Dennis Mileti will each serve three years as Directors, replacing outgoing Directors Ronald Hamburger and James Jirsa. EERI thanks Joanne Nigg, Ron Hamburger, and Jim Jirsa for their outstanding service and dedication to the Institute.

In addition to the election of officers, members also passed a proposed amendment to Article I of the Bylaws, concerning the objective of the Institute. This amendment had been adopted by the Board of Directors at their December 5, 1998 meeting. Following is the text of the new Article I: *Objective: The objective of the Earthquake Engineering Research Institute shall be to reduce earthquake risk by advancing the science and practice of earthquake engineering, by improving understanding of the impact of earthquakes on the physical, social, economic, political and cultural environment, and by advocating comprehensive and realistic measures for reducing the harmful effects of earthquakes.*

It is not too early to start thinking about next year's election of Directors. The Nominating Committee welcomes suggestions from the membership, including self-nominations. Nominees must have been Active (or Honorary) Members of EERI for at least five years, and must not have been nominated to the Board in the last two years. To submit a name for consideration, send a brief note giving the name and qualifications of the potential candidate to the Nominating Committee in care of the EERI office. All submissions are confidential.



National Earthquake
Hazards Reduction
Program

NSF Announces NEES Program Solicitations

The National Science Foundation (NSF) has announced the Program Solicitations for the Network for Earthquake Engineering Simulation (NEES). The goal of the NEES Program is to provide a networked, national resource of geographically-distributed, shared-use, next-generation experimental research equipment installations, with teleobservation and teleoperation capabilities, which will shift the emphasis of earthquake engineering research from current reliance on physical testing to integrated experimentation, computation, theory, databases, and model-based simulation. NEES will be a communications and curated repository system, developed to support collaboration in earthquake engineering research and education. Through NEES, the earthquake engineering community will be catalyzed to utilize its advanced experimental capabilities to test and validate more complex and comprehensive analytical and computer numerical models that will improve the seismic design and performance of our nation's civil and mechanical systems. NSF plans that the NEES collaboratory will be developed by September 30, 2004, and will be operational through September 30, 2014. The NEES Program will be developed through a series of solicitations.

The first solicitation is NSF 00-6, "NEES: Earthquake Engineering

Research Equipment," which requests proposals to develop the NEES experimental earthquake engineering research equipment portfolio by investing in relevant new and upgraded equipment. NSF intends to hold two competitions to complete the NEES research equipment portfolio. This solicitation serves as Phase 1 of the NEES equipment competition. A second, similar NEES research equipment solicitation, Phase 2, is expected to be released by NSF in FY 2002.

The NSF Program Officer is Joy Pauschke, NEES Program Director, phone: 703/306-1380, fax: 703/306-0290, e-mail: nees@nsf.gov. To ensure that all proposers receive the same information, all questions concerning this solicitation will be accepted only by e-mail. E-mail questions to nees@nsf.gov and include in the heading "RESEARCH EQUIPMENT SOLICITATION." NSF will post the responses of interest to all proposers on the NSF NEES FAQ web site at: www.eng.nsf.gov/nees. For the full text of the Program Solicitation NSF 00-6, see the web site: www.nsf.gov/cgi-bin/getpub?nsf006.

The second solicitation is NSF 00-7, "NEES: System Integration," which requests proposals to develop the high performance system that will enable the NEES collaboratory for the earthquake engineering research community. The NEES collaboratory will provide end-to-end connectivity supporting two interconnected subsystems: 1) an operating subsystem that provides access to the teleobservation and teleoperation capabilities of NEES experimental research equipment and a curated repository of experimental data, user-developed simulation software, and models; and 2) a computational subsystem that enables computation and distributed simulation for earthquake engineering research. NSF will use a two-step process to select one

System Integration award. First, as a precursor to the System Integration award, NSF intends to fund up to three awards for six-month scoping studies. Second, depending on the quality of the scoping study reports and the original proposal, NSF intends to select one System Integration award from among one of the scoping study awardees. Proposals submitted to this solicitation will therefore contain two proposals in the project description: the full system integration proposal and the scoping study proposal. The NSF Program Officer on this solicitation is also Joy Pauschke, NEES Program Director. E-mail questions to nees@nsf.gov and include in the heading "SYSTEM INTEGRATION SOLICITATION." NSF will post the responses of interest to all proposers on the NSF NEES FAQ web site at: www.eng.nsf.gov/nees. For the full text of the Program Solicitation NSF 00-7 see the web site: www.nsf.gov/cgi-bin/getpub?nsf007.

Briefing on NEES

An NSF Briefing on NEES and NSF Funded Research on Networked Collaboration in Science and Engineering will be held on February 10, 2000 from 8:30 AM - 5:00 PM in NSF Room 110. This event is open to the public. For more information see the NEES web site at www.eng.nsf.gov/nees.

NSF Solicits Research Related to Turkey and Taiwan Earthquakes

NSF announces a Program Solicitation (NSF 00-32) for Exploratory Research Related to the 1999 Earthquakes in Turkey and Taiwan. The goals of this research opportunity are the capture of time-sensitive data and field information, records of constructed facility performance and institutional response,

and collaborative exploratory research.

Research funded under this opportunity is expected to be mutually beneficial for the U.S. and the collaborating country (Turkey or Taiwan). It is desirable that research in this opportunity be implemented as a coordinated effort between the U.S. and Turkey or Taiwan. Proposers are encouraged to include interactions with researchers either in Turkey or Taiwan as integral to the research goals. Proposals must include a commitment to making data and observations available on the World Wide Web, especially to researchers in the participating countries. This requirement will be made a condition of award.

Proposals will be accepted only from U.S. colleges and universities in support of individual investigators or small groups. The deadline for proposals is April 4, 2000. Depending on the availability of funds, approximately \$1.5 million will be available to support up to 20 projects under this initiative in FY 2000. Projects should be framed for up to a 12-month duration, and budgets up to \$75,000 may be requested. The anticipated date of awards is June 2000.

This solicitation follows the NSF-funded workshop held October 25-26, 1999 by EERI. The report of the outcomes of this workshop is on EERI's web site at www.eeri.org. Proposers are encouraged to consult this document, as well as the various reconnaissance reports of the Turkey and Taiwan earthquakes, when considering proposed research projects. The full text of the NSF 00-32 Program Solicitation is available on the NSF web site at www.nsf.gov.



News of the Institute

Year 2000 Annual Meeting: Call for Poster Abstracts

Planning is well under way for this year's EERI Annual Meeting at the Adam's Mark Hotel in St. Louis, scheduled for May 31-June 3, with the theme of *Reducing Losses for Infrequent but High Consequence Earthquakes*.

Among the highlights will be sessions dealing with building and transportation retrofit issues, technical committee forums, a Friday evening banquet, and a Saturday tribute to Otto Nuttli, the father of the New Madrid Seismic Zone, followed by a field trip to the recently retrofitted Anheuser Busch Brewery. Individuals interested in participating in the Poster Session are invited to submit



abstracts. This session will be coordinated by Edward Wang of Horner & Shifrn, Inc., St. Louis. Presentations on current work of interest to EERI members will be considered. The abstracts for posters accepted for presentation will be included in the Annual Meeting notebook and therefore must be submitted in final form. They will be reproduced as submitted. All abstracts should be prepared on plain white paper with one-inch margins on all sides. The abstracts should be single-spaced and printed in a Times Roman or equivalent font (11 point or larger). Text should be flush left. The title of the poster presentation should be centered at the top of the page and capitalized. Presenters should be identified by name, title, and organizational affiliation. Abstracts should not exceed two pages in length. Do not number the pages, but write your name in pencil on the back of the second page. Please submit three copies of each abstract **by April 1, 2000** to Susan Tubbesing at the EERI office. Presenters will be notified in late April of acceptance.

Annual Meeting Travel Scholarships Available

As in years past, several scholarships are available to encourage student members and younger EERI members (out of school no more than three years) to attend the Annual Meeting, thanks to support from FEMA. The financial support will be contingent upon the applicant's participation in the Poster Sessions, either through his or her own research project, or as a representative of a student chapter depicting the chapter's activities (see above article for poster abstract specifications). Each scholarship will cover registration, lodging at the conference hotel for three nights, and round-trip excursion air fare. To apply, send a letter of request to the Student Activities Committee in care of the EERI office **by April 1, 2000**. Applicants should describe their current involvement in earthquake engineering or a related field and their status as students or professionals.

News of the Institute

EERI Visiting Professional Program Going Strong

With funding provided by EERI's Endowment Fund, a Visiting Professional Program was created several years ago to foster better understanding and communication among earthquake practitioners and academics. The program matches potential visiting professionals with host institutions, usually universities, for a two- to three-day exchange in current topics related to earthquake engineering and earthquake risk reduction. The exchange is meant to be part lecture and part informal discussion with faculty and students. Exchanges are encouraged in a wide range of disciplines, including engineering, earth science, seismology, architecture, planning, public policy and the social sciences. Reciprocal exchanges are encouraged, where a practitioner may visit a university, and a professor from that university then visits the professional office.

The program has just completed its third year and has supported the visits of eleven professionals to various universities around the country. More visits are currently planned. Partial funding for the program is provided by funds received in memory of Nicholas F. Forell, a distinguished San Francisco Bay Area earthquake engineer. Nick was involved in the creation of the Visiting Professional Program; his passion and desire for knowledge created an atmosphere in which he challenged himself and others to learn and grow continually, and it is in this spirit that the funds are used.

The program has been very successful. University faculty and students find the discussions and interactions an excellent way to gain a better appreciation of the world of engineering practice, and

the practitioners find the experience intellectually stimulating and professionally rewarding. As one practitioner wrote, "Much has changed from my days in graduate school. Fortunately, these changes have been virtually all in a positive direction. Graduate students are not only being educated, but also are educating us by their examples."

Universities, organizations, and professional offices are encouraged to participate in this program. EERI reimburses the travel expenses for the Visiting Professionals, who volunteer their time. Most host institutions are responsible for any social functions, providing local transportation, and working with the Visiting Professionals to design a visit that best accommodates their interests. To arrange a visit and to obtain a list of Visiting Professionals who have agreed to volunteer in 2000, contact Sonya Hollenbeck or Marjorie Greene at the EERI office. Donations to the Nick Forell Fund of the Endowment Fund continue to be welcomed and will be used to support this worthwhile program.

Farzad Naeim (in white shirt), a 1999 Visiting Professional, participates with students and faculty in a discussion at SUNY Buffalo.



Publications

Seismic Wave Propagation

Wave Motion in Earthquake Engineering is the title of a new book edited by EERI member E. Kausel of the Massachusetts Institute of Technology, and G.D. Manolis of Aristotle University in Greece. Recently published by MIT Press, this volume contains state-of-the-art information on new developments in seismic wave propagation. Designed to appeal to a broad audience of professionals working in the fields of structural dynamics, seismology, and earthquake engineering in general, it features invited contributions from a select group of researchers. The 362-page volume is available for \$178 and can be ordered from Computational Mechanics, Inc. by phone: 978-667-5841; fax: 978-667-7582; or web site: www.compmech.com. A 20% discount off the price is available to EERI members who place orders within one month of this announcement appearing in the *Newsletter*.

News of the Institute

EERI Web Site Selected for Scout Report

The EERI web site (www.eeri.org) was recently chosen as a selection for the Scout Report for Science and Engineering, the premier bi-weekly collection of useful Internet sites for researchers, educators, students, and librarians in the life sciences, physical sciences, and engineering. The Scout Report for Science and Engineering is provided by the Internet Scout Project (scout.cs.wisc.edu), an NSF-funded, university-based project at the University of Wisconsin-Madison.

Publications

New Journal on Natural Disaster Reduction

The American Society of Civil Engineers (ASCE) announces the release of *Natural Hazards Review*, a cross-disciplinary journal designed to provide innovative and practical solutions to the problems and challenges faced by all sectors of the hazards community, including government, academia, the private sector, and non-governmental organizations. Articles containing detailed case studies are complemented by original research findings describing both practical projects and the latest cutting-edge knowledge on significant hazards issues.

The inaugural issue of the journal, scheduled for release this month, will focus on the outcomes of the International Decade for Natural Disaster Reduction (IDNDR). The theme will be "A Celebration of Multidisciplinary Approaches to Multihazard Reduction." Subsequent issues will cover topics in engineering and the social and behavioral sciences. Engineering topics include: characterization of hazard forces; the planning, design, construction, maintenance, performance, and use of structures in the physical environment; physical properties of materials; methods of analysis; management; demolition and recovery; rehabilitation, retrofit, and modification; and the evaluation of structural integrity. Social and behavioral sciences topics include: development regulations, building standards, property acquisition, public facilities policies, taxation, the role of financial markets and insurance, indirect economic losses from hazards, zoning for hazard loss reduction, government roles in hazard mitigation, risk perception, adjusting society to environment, and post-traumatic stress disorder.

The Editors-in-Chief of *Natural Hazards Review* are EERI members Dennis Mileti and James Beavers. They are currently seeking submissions for the journal. Professionals from both the engineering and social sciences fields are encouraged to submit articles. They should provide insights into actual projects, programs, and proposed policy changes as well as innovations in natural hazards loss and cost reduction. Submit three double-spaced copies of articles to: ASCE, Journals Production Dept., 1801 Alexander Bell Drive, Reston, Virginia 20191-4400; phone: 703/295-6290; fax: 703/295-6339; e-mail: journal-services@asce.org.

Call for Abstracts

Smart Civil Infrastructure Systems

The *International Journal on Computer-Aided Civil and Infrastructure Engineering* will publish a special issue on "Smart Civil Infrastructure Systems" in early 2001. Papers describing state-of-the-art, state-of-the-practice, pioneering development or visionary research are welcome. The technical subjects to be covered include, but are not limited to: infrastructure condition assessment technologies (sensing systems, actuating systems, signal processing techniques, applications of smart materials, and characterization of smart infrastructures); and intelligent engineering (performance-based engineering of smart infrastructures, advanced structural control, intelligent engineering renewal, autoadaptive media, and interactive use of information technology). Abstracts of papers are due February 15, 2000. For more information, contact S.C. Liu, editor of the special issue, by phone: 703/306-1361, fax: 703/306-0312, or e-mail: sliu@nsf.gov.

Announcements

Conference on Seismic Repair and Rehabilitation

The Second Annual Conference on Seismic Repair and Rehabilitation of Structures (SRRS2) will be held March 21-22, 2000 at California State University, Fullerton, California. The objective of the conference is to expose the construction industry to the ongoing research activities and recent developments related to state-of-the-art technologies for seismic repair and rehabilitation of structures. The conference is sponsored by Cal State Fullerton and co-sponsored by FHWA, Caltrans, ICRI, and SEAOC. The cost of the two-day event is \$175, with a discounted rate of \$125 for government employees. To register or for more information, call 949/366-6073 or 949/366-1056 or see the web site www.srrs2.com.

News of the Profession

New Executive Director of CUSEC

James M. Wilkinson, Jr. has been appointed to serve as the new Executive Director of the Central U.S. Earthquake Consortium (CUSEC). He has served as the Mitigation Specialist for the multi-state earthquake preparedness coalition since 1994. Wilkinson has a degree in urban and regional planning, and worked as the earthquake program manager with the Mississippi Emergency Management Agency. Headquartered in Memphis, CUSEC was founded in 1983, and receives funding from FEMA. CUSEC represents the seven charter state members of Arkansas, Kentucky, Indiana, Illinois, Mississippi, Missouri, and Tennessee, as well as ten associate states.

News of the Institute

Student Paper Competition Broadened to Include Undergraduates

The EERI Student Activities Committee, chaired by Eric Williamson of the University of Texas at Austin, has broadened the Annual Student Paper Competition to include an undergraduate category. The committee wishes to promote the involvement of more undergraduates in the student chapters, which now are comprised almost entirely of graduate students. The winner of the undergraduate competition will be recognized at the Annual Meeting but will **not** be required to present his or her paper there. Guidelines have been developed that follow closely those for the graduate student competition, with a few modifications outlined below. (See page 8 of the October *Newsletter* or check the web site at www.eeri.org for the graduate student competition guidelines).

For undergraduates, the committee has relaxed the requirement of original contribution to the discipline of earthquake hazard reduction. To help ensure the submission of high-quality papers, the committee felt it important for undergraduates to have either an industry or faculty mentor be a sponsor for the paper. The student is still responsible for the content of the paper, but the mentor may provide feedback to the student before the paper is submitted.

Therefore, following are the rules for the undergraduate competition:

1. The paper must be directly related to earthquake engineering and earthquake hazard reduction.
2. The paper is not to exceed 12 pages in length inclusive of all tables and figures.

3. The paper must be authored by the student alone. In addition, a faculty member or other advisor is required to oversee the preparation of the manuscript. The advisor may provide feedback before submission of the paper but may not co-author the paper. The advisor's name should be included in an "Acknowledgments" section of the paper.
4. Guidelines for preparing the manuscript can be obtained from EERI's web site or from: EERI, 499 14th Street, Suite 320, Oakland, CA 94612, phone 510/451-0905, fax 510/451-5411. All papers must be received by March 31, 2000 at the EERI office.

Publications

New USGS Maps for the San Francisco Bay Area

A new set of maps from the U.S. Geological Survey explains in depth more than 30,000 earthquakes that occurred in north-central California between 1967 and 1993. The area covered by the maps corresponds to the USGS 1:250,000 San Francisco and San Jose quadrangles, and extends from San Rafael and Stockton on the north, to Davenport and Gilroy on the south, and as far east as Fresno and the Sierra foothills. Most cities and towns are labeled, as are major highways and streets. Earthquake faults are shown in colors that indicate how recently the fault has been active. In addition to the standard circles, the maps portray the direction of slip in an earthquake and the orientation of the fault on which it occurs. The map set should be of interest to anyone who wants to know more about how and where earthquakes happen in north-central

California, particularly the San Francisco Bay area. The maps do not depict local geology or soil conditions, so should not be confused with maps that assist homeowners in determining how much the ground at their location will shake, or what actions they should take to retrofit properties.

The set of maps, *Seismicity Maps of the San Francisco and San Jose 1-degree x 2-degree Quadrangles, California, for the Period 1967-1993*, is available from the USGS at its Earth Science Information Center in Menlo Park, California, or by calling 888/275-8747. The cost for each three-map set is \$4, plus a shipping charge of \$3.50 for mail orders. When ordering, ask for "Map I-2580."

Single Set of Construction Codes Now Available

The construction industry objective of a single set of comprehensive, coordinated, national model construction codes has been implemented with the publication of three new International Codes and updated editions of existing International Codes. The three new codes are the 2000 *International Building Code*, which addresses design and installation of building systems with requirements that emphasize performance; the 2000 *International Fire Code*, coordinated with the *International Building Code*, which references national standards to address comprehensively fire safety in new and existing buildings; and the 2000 *International Residential Code*, which replaces the *International One- and Two-Family Dwelling Code* and brings uniformity to construction of one- and two-family dwellings and townhouses up to three stories high. The 2000 editions of the International Codes are available from BOCA International at 800/214-4321 x710.

News of the Institute

Endowment Fund Donations

EERI has received the following donations to the Endowment Fund.

\$3500

David Friedman
& Paulette Meyer

David Bonowitz
Fu Lien Chang
Sheldon Cherry
Ted Christensen
A.J. Eggenberger
Sigmund Freeman
Ruth Gordon

Jan & Tom
Wosser
Richard Wright
Timothy Yeun
Edwin Zacher

Klaus Jacob
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Joseph Kallaby
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G. Lopez-Arciga
Vicki May
Linda Noson
Alan Peabody
Max Porter
Peggy Quijada de
Franke

\$1000

Anonymous
Josephson-Wedowatz
& Associates
Thornton-Tomasetti
Engineers

Other Amounts

Riyad Aboutaha
Goutam Bagchi
Roger Borchardt
Linda Bourque
Ian Buckle
Gilles Bureau
Claudio Chesi
Yan Yan Chew
David Cocke
William Correia
Gabor Czitrom
Teresa Elliott
Ross Esfandiari
Douglas Foutch
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Wanda Henke
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Joe Hollstein
Larry Hultengren

Richard Quittmeyer
Eugenio Retamal
Denis Rodriguez
Robert Swain
Sanford Tandowsky
Chris Thompson
Blair Tulloch
Ernesto Vicente
Robert Victor
Shoichi Yamaguchi
Les Youd
Eugene Zeller

\$500 – 999

Anne Kiremidjian

\$200 - \$499

C. Terry Dooley
Roland & Jane Sharpe
May-Shyong Sheu
Spangle Associates
Robert Wallace
Robert Whitman

Jacob Grossman
Jesus Iglesias
James Jirsa
E. Kavazanjian Jr.
James Lai
Le Val Lund
Andrew Merovich
James Mitchell
Bijan Mohraz
Vilas Mujumdar
Douglas Nyman
Tsuneo Okada
Irving Oppenheim
Gerard Pardoen
Clarkson Pinkham
Issac Shina
Pane Stojanovski
Michael Valley
Andrew Whittaker
Sharon Wood

\$100 – \$199

Norman Abrahamson
John Aho
Donald Anderson
BEAR Testing Lab
David Bergman

News of the Profession

Strong-Motion Data from 1994 Northridge Earthquake and Aftershocks

A strong-motion database was compiled of records of the magnitude 6.4 Northridge main event of January 17, 1994 and of five of its magnitude >5 aftershocks between January 17 and March 20, 1994, recorded by stations of three major strong-motion networks in the Los Angeles metropolitan area (operated by the University of Southern California, the U.S. Geological Survey and the California Division of Mines and Geology) and one smaller network (operated by Los Angeles Department of Water and Power). The contributing aftershocks include the magnitude 5.9 event which occurred one minute following the main shock, and the magnitude 5.2 event of March 20, 1994, which triggered the largest number of stations (98). A total of 211 main shock and 276 aftershock records were gathered. A report on this database is available on-line at www.usc.edu/dept/civil_eng/Earthquake_eng/North_M5/. The USC, USGS and LADWP processed records can be downloaded by anonymous FTP via this project web page. The digitization and processing of most of the aftershock records, and the gathering of this database were supported by a grant from the U.S. Geological Survey to the University of Southern California (award 1434-HQ-98GR00023), as part of the project "Repeatability of Site Effects: Northridge Aftershock Data Recorded at Strong-Motion Stations." For more information contact Maria Todorovska at 213/740-0616 or tomtodorov@usc.edu.

Call for Papers

Special Session on Taiwan, Turkey, and Greece Earthquakes

A special session on "Geotechnical Aspects of Taiwan, Turkey, Greece, and Other Recent Earthquakes" will be held during the Fourth International Conference on Recent Advances in Geotechnical Earthquake Engineering, March 26-31, 2001 in San Diego, California (see the June 1999 *Newsletter*).

The themes of the special session include: damage due to spreading, liquefaction, and failure of soils; analysis of lifelines and geotechnical systems failure; retrofit of geotechnical systems; and comparison of soils behavior among Kobe, Loma Prieta, Northridge, and other earthquakes. Abstracts of about 500 words are due by May 30, 2000, and full papers will be due by August 1, 2000. For submission of abstracts and more information, contact: Shamsheer Prakash, Civil Engineering Department, University of Missouri-Rolla, 1870 Miner Circle, Rolla, MO 65409-0030; fax: 573/341-4729; e-mail: prakash@novell.civil.UMR.edu; web site: www.UMR.edu/~conted/conf8767.html.

Announcements

International Conference on Global Disaster Network

The Third International Conference on Global Disaster Information Network (GDIN) will be held April 26-29, 2000 in Ankara, Turkey. For more information, visit the following web sites: www.state.gov/ww/issues/relief/gdin.html, www.deprem.gov.tr/gdin2k, and www.meetu.edu.tr/home/wwwdmc.

Publications

ATC Introduces New Report Series

The Applied Technology Council (ATC) announces the introduction of a new series of engineering applications for use in structural engineering offices. Known as ATC Design Guides, these documents will present succinct, state-of-the-art information on a wide variety of important design issues for practicing structural engineers. The Design Guides are produced with funding from ATC's Henry J. Degenkolb Memorial Endowment Fund.

ATC Design Guide 1, *Minimizing Floor Vibration*, provides guidance on design and retrofit of floor structures to limit vibrations from human activity and machinery to acceptable levels. This 64-page document also includes guidance for estimating floor vibration properties and example calculations for

a variety of floor types and design conditions. *Minimizing Floor Vibration* was prepared by a team of floor vibration specialists, with overview and guidance provided by an advisory panel.

Other ATC Design Guides are under development and are expected to cover important structural engineering topics such as dynamic analysis and wind loading. Copies of ATC Design Guide 1, *Minimizing Floor Vibration*, can be obtained from ATC, 555 Twin Dolphin Dr., Suite 550, Redwood City, California 94065; phone: 650/595-1542; fax: 650/593-2320; e-mail: atc@atccouncil.org; web site: www.atccouncil.org. The cost is \$40.00 per copy plus applicable tax and shipping charges.

Call for Abstracts

2000 SEAOC Convention

The 69th Convention of the Structural Engineering Association of California (SEAOC) will be held in Vancouver, British Columbia, Canada on August 16-19, 2000. Abstracts are requested for papers to be presented at the August 16 and August 18 sessions. Papers may either focus on a recent project or address a more general topic, such as a new design concept, analysis procedure, or construction method.

The emphasis of the August 16 sessions will be on California and most authors are anticipated to be members of SEAOC. The emphasis of the August 18 sessions will be on the Pacific Northwest and it is expected that most authors will be from Canada, Washington or Oregon.

Abstracts of not more than 250 words are due by March 1, 2000, and should be submitted electronically at www.seaonc.org/2000convention.html, or faxed to the Technical Committee c/o SEAONC Office at 415/764-4915. Authors will be notified of abstract acceptance by April 1, 2000. For more information, contact the Technical Committee Co-chairs, Charles Kircher (650/968-3939, cakircher@aol.com) and Constantine Shuhaibar (415/989-9900, csh@soha.com).

Announcements

National Earthquake Hazards Conference

The Western States Seismic Policy Council (WSSPC) announces a National Earthquake Hazards Conference to be held September 17-22, 2000, at the Seattle Airport DoubleTree Hotel, Seattle, Washington. The conference will bring together a broad cross-section of public and private organizations to focus on policy solutions; mitigation of seismic hazards; and implications for governments and the banking, real estate, and insurance industries. Plenary session topics are: Cost of Disasters and Does Mitigation Pay?, Real-Time Warnings, Public Policy, Lessons Learned from the Pacific Rim, and Building Codes and Standards for the Next Century.

The conference is sponsored by the Western States Seismic Policy Council, the Federal Emergency Management Agency, the U.S. Geo-

logical Survey, the Cascadia Region Earthquake Work Group, and several co-sponsors.

For more information contact the WSSPC at 121 Second Street, 4th Floor, San Francisco, CA 94105; phone: 415/974-6435; fax: 415/974-1747; e-mail: conferences@wsspc.org; web site: www.wsspc.org.

Publications

FEMA 273 Case Studies

The Federal Emergency Management Agency (FEMA) publication 343, *Case Studies: An Assessment of the NEHRP (FEMA 273) Guidelines for the Seismic Rehabilitation of Buildings*, is now available. The report was prepared by the Building Seismic Safety Council (BSSC). The report is free and can be ordered from the FEMA Publication Center at 800/480-2520. FEMA 273, *NEHRP Guidelines for the Seismic Rehabilitation of Buildings*, and FEMA 274, the *Commentary to FEMA 273*, and the relevant USGS map package are also available from the FEMA Publication Center.

News of the Profession

New Research Project in Japan

A new research project in Japan titled "Enhancement of Earthquake Performance of Infrastructures Based on Investigation into Fracturing Process" is being funded at \$2.5 million per year by the Science and Technology Agency. The Kobe and Northridge earthquakes prompted this project to develop technologies for diagnosing and retrofitting existing structures in order to enhance the earthquake resistance of urban areas.

The project is led by Professor Masanori Hamada of Waseda University and is divided into three research groups: 1) Experimental Technology headed by Professor Nobuyuki Shimizu of Iwaki Meisei University; 2) Failure Mechanisms headed by Professor Hirokazu Iemura of Kyoto University; and 3) Ground and Foundation Failures headed by Professor Fusanori Miura of Yamaguchi University. The project web site is wwwsoc.nacsis.ac.jp/jsce2/.

For more information contact Professor Hamada's office by phone: +81-3-5286-3406; fax: +81-3-3208-0349; or e-mail: hamada@mn.waseda.ac.jp.

ICOLD Seismic Terms of Reference

The International Commission on Large Dams (ICOLD) Committee on Seismic Aspects of Dam Design recently approved Terms of Reference during the Annual ICOLD Meeting held in Antalya, Turkey in September 1999. The approved Terms of Reference and associated comments are as follows:

- 1) *Seismic safety of existing dams.*
The analytical tools and numerical procedures applied to safety

analyses of dams under seismic loading are in steady development, and recordings of dam performances are accumulating. However, a large number of existing dams were designed using analytical techniques prevailing at the time the respective dams were built. More precise knowledge of the safety of these existing dams is considered a necessity. Guidelines on the State of the Art in this area is the objective.

- 2) *Seismic interpretation of integrated recordings.* Time histories of dams response to seismic shaking (accelerations and resulting transient stresses) are usually desired from strong-motion monitoring of dams. But modern automated recordings also furnish response time-histories of deformations and stresses within the dam and its foundations under seismic loads. Integrated consideration of such results, providing a fuller picture of dam response, is the objective.
- 3) *Reservoir-triggered seismicity.* An understanding of reservoir-triggered seismic phenomena was reached during the 1970s. But recorded data and general knowledge about the seismic response to a dam's impounding are accumulating. A general reassessment of the state of knowledge in this field is the objective.
- 4) *Seismic risk determination and related techniques.* A basic objective in safety consideration is the determination of seismic risk for each dam. Far-reaching consequences might stem from such initial analyses. A number of procedures have been developed, integrating available recorded data, and deducing the degree of seismic risk and acceptable loading levels. A review of the relevant seismic parameters is planned.

Announcements

Short Course on Structural Damage ID

A two-day short course on the State of the Art in Vibration-Based Structural Damage Identification will introduce engineers to recently developed techniques for detection and location of damage in structures by changes in their measured vibration properties. In addition, the course will cover the theory, application, and computerized implementation of this technology. The course will be given in three locations this year: March 2-3 in Los Angeles, California, April 10-11 in Washington, DC, and June 5-6 in Madrid, Spain. The course is offered by Los Alamos Dynamics, LLC. For more information, call 435/603-0375, e-mail courses@la-dynamics.com, or see the web site www.la-dynamics.com.

Publications

Geotechnical Conference Proceedings

Proceedings of several geotechnical engineering conferences are now available. These include the Second and Third International Conferences on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics, held in 1991 and 1995, respectively, and the First, Second, Third, and Fourth International Conferences on Case Histories in Geotechnical Engineering, held in 1984, 1988, 1993, and 1998, respectively.

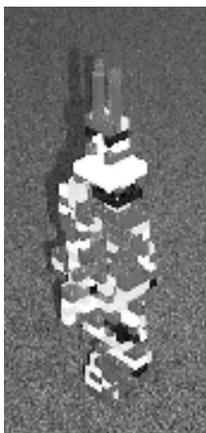
Those who purchase one set of proceedings at the regular price will receive a 25% discount on all others. For purchasing information, contact: Continuing Education, University of Missouri-Rolla, 103 ME Annex, Rolla, Missouri 65409-1560; phone: 573/341-4200; fax: 573/341-4992.

News of the Institute

Notre Dame EERI Student Chapter Outreach Program

The EERI Student Chapter at the University of Notre Dame recently conducted a successful outreach program for middle school students in South Bend, Indiana. The program focused on the seismic behavior of masonry and steel buildings. The middle school students designed and constructed model buildings made of Legos building blocks and K'Nex building toys, which were then tested on a small-scale tabletop earthquake simulator.

The middle school students formed teams of four, with each student assuming the role of the building owner, the architect, the engineer, or the builder. Each team designed and constructed its building according to the provided specifications, and made a short presentation to the class on its completed building. The teachers made awards for the most attractive buildings, the buildings that could provide the most rental income, and the tallest buildings. Masonry buildings were modeled with the Legos building blocks and steel buildings were modeled with the K'Nex building toys. The completed model buildings were subjected to simulated earthquakes on the table-



Example "masonry" building of Legos building blocks

Example "steel" building of K'Nex building toys

top shaking testing machine to observe the seismic behavior. At the end of the project, the middle school students wrote short reports documenting the design and construction process, the lessons learned, and the differences in failure modes between the masonry and steel model buildings.



Testing of model buildings on small-scale earthquake simulator

For more information on this outreach program, contact the University of Notre Dame EERI Student Chapter President Blake Hoskisson (bhoskiss@nd.edu), or look under "Outreach" on their web page at www.nd.edu/~eeriund/.

Announcements

ASDSO Annual Conference

The 2000 West Regional Conference of the Association of State Dam Safety Officials (ASDSO) will be held May 15-17 in Portland, Oregon. The conference will be geared toward both dam safety engineers and dam owners and operators. A Technical Seminar on Dam Construction Inspection will follow the conference on May 18-19. Papers on the following topics are encouraged: seismic issues in the Northwest, risk-based dam safety approaches, geotechnical issues, emergency action planning, and case studies in rehabilitation of dams. The deadline for abstracts was February 1, 2000, but interested authors should contact Doug Johnson, Dam Safety Office, Washington State Department of Ecology, P.O. Box 47600, Olympia, WA 98504; phone: 360/407-6623; e-mail: djsd461@ecy.wa.gov.

CALENDAR

continued from page 11

Info: malta.2001@iabse.ethz.ch, web site: www.iabse.ethz.ch/conferences/malta (11/99)

26-31. 4th International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics, San Diego, CA. Info: prakash@novell.civil.umn.edu. See page 7. (6/99, 2/00)

MAY

21-23. ASCE Structures Congress 2001, Washington DC. Info: www.asce.org/conferences/structures-2001 (5/99, 8/99)

2002

JULY

21-25. 7th National Conference on Earthquake Engineering, Boston, MA. Info: www.eeri.org (9/99)

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**.

2000

FEBRUARY

21-25. Japan-Turkey Workshop, Istanbul, Turkey. Info: bodurogl@itu.edu.tr (8/99)

MARCH

2-3. Structural Damage ID Short Course, Los Angeles, CA. See page 9. (2/00)

21-22. SRRS2 Conference, Fullerton, CA. See page 5. (2/00)

22-24. 6th ASCCS International Conf. on Steel-Concrete Composite Structures, Los Angeles, CA. Info: yanxiao@usc.edu (2/99)

26-30. Bridge Engineering Conf., Sharm El-Sheikh, Sinai, Egypt. Info: www.iabse.ethz.ch (7/99)

APRIL

9-12. Seismological Society of America Annual Meeting, San Diego, CA. Info: www.seismosoc.org (8/99)

10-11. Structural Damage ID Short Course, Washington, DC. See page 9. (2/00)

26-29. Third International Conference on GDIN, Ankara, Turkey. See page 7. (2/00)

MAY

5-6. 5th Conference on Tall Buildings in Seismic Regions, Los Angeles, CA. Info: Marshall Lew, mlew@lawco.com (11/99)

8-10. Structures Congress 2000, Philadelphia, PA. Info: www.asce.org/conferences/structures2000 (9/99)

15-17. ASDSO Western Region Annual Conference, Seattle, WA. See page 10. (2/00)

21-24. Engineering Mechanics 2000 Conference, Austin, TX. Info: www.ce.utexas.edu/em2000 (9/99)

21-24. ASCE Forensics 2000 Conference, San Juan, Puerto Rico. Info: www.asce.org/conferences/forensics (12/99)

28-June 2. Composite Construction in Steel and Concrete IV, Banff, Alberta, Canada. Info: www.uefoundation.org (7/99)

31-June 3. EERI Annual Meeting, St. Louis, MO. Info: EERI office, eeri@eeri.org, www.eeri.org (7/99)

JUNE

5-6. Structural Damage ID Short Course, Madrid, Spain. See page 9. (2/00)

18-21. International Conference on Monte Carlo Simulation, Monte Carlo, Monaco. Info: www.uibk.ac.at/c/c8/c810/conf/mcs_2000.html (10/99)

19-22. Conference on Vibration Theory and Applications, Xi'an, China. Info: fax +86-29-3237910 (4/99)

JULY

24-26. ASCE Probabilistic Mechanics and Structural Reliability Conference, Notre Dame, IN. Info: www.nd.edu/~pmc2000 (6/99)

24-26. Structural Stability Research Council Annual Meeting, Memphis, TN. Info: www.ce.ufl.edu/~inssrc/ssrc.html (8/99)

AUGUST

16-19. SEAOC 2000 Annual Meeting, Vancouver, British Columbia. See page 8. (2/00)

17-21. 5th International Symposium on Environmental Geotechnology and Global Sustainable Development, Minas Gerais, Brazil. Info: www.5iseggsd.eng.ufmg.br (2/99)

21-24. STESSA 2000 Conference, Montreal, Canada. Info: Robert

Tremblay, tremblay@struc.poly.mtl.ca (3/99)

SEPTEMBER

17-22. WSSPC Natural Hazards Conference, Seattle, WA. See page 8. (2/00)

18-21. 16th Congress of the International Association of Bridge and Structural Engineering, Lucerne, Switzerland. Info: www.iabse.ethz.ch (1/99)

25-26. 3rd International Conference on Ground Improvement Techniques, Singapore. Info: fax +65-235-3530, cipremie@signet.com.sg (7/99)

OCTOBER

5-7. Deep Foundations Institute International Conference and Exposition, New York, NY. Info: www.dfi.org (11/99)

11-13. Risk 2000 Conference, Bologna, Italy. Info: www.wessex.ac.uk (1/00)

NOVEMBER

7-9. 5th International Conference on Corporate Earthquake Programs, San Jose, CA. Info: Steven Vukazich, vukazich@email.sjsu.edu (11/99)

12-15. 6th International Conf. on Seismic Zonation, Palm Springs, CA. Info: EERI office, eeri@eeri.org, www.eeri.org (6/98, 12/99)

2001

JANUARY

7-12. Conference on Computer Methods and Advances in Geomechanics, Tucson, AZ. Info: epd@engr.arizona.edu, web site: intermix.engr.arizona.edu/~epd/#IACMAG (11/99)

FEBRUARY

7-10. 2001 EERI Annual Meeting, Monterey, CA. See page 1. (2/00)

MARCH

21-23. Safety, Risk, and Reliability — Trends in Engineering, Malta.

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News of the Profession

Employment Opportunities

University of California, Riverside. Tenure-track assistant professor position in the Department of Earth Sciences. Applicants with specific interests in the physics of earthquakes and the ability to integrate field-based observations with experiment and theory are especially invited to apply. Contact: Stephen Park, Chair - Geophysics Search, Department of Earth Sciences, University of California, Riverside, CA 92521; phone: 909/787-4501; e-mail magneto@ucrm.t.ucr.edu; web site: cnas.ucr.edu/~earth/es.html.

United States Geological Survey, Pasadena, CA. Four-year term, full-time position implementing rapid response ground-shaking maps for the southern California TriNet

Seismic Network. Responsible for the planning, development, implementation, and maintenance of fail-safe, effective systems for the rapid portrayal of earthquake ground motions. Contact: David Wald, USGS, phone: 626/583-7238, e-mail: wald@usgs.gov, web site: www.usajobs.opm.gov/wfjic/jobs/VF0007.HTM. Refer to vacancy number USGS-W-99-359.

News of the Institute

Next Ethics Case Study Posted on Web Site

A new case study in ethical dilemmas in earthquake risk reduction has been posted on EERI's web site. This interactive feature is funded by EERI's Endowment Fund and contains a general approach to ethical problems as well as case studies of ethical dilemmas that might

face earthquake risk reduction professionals.

The new case study is entitled "Presentation on Earthquake Risk." Following is the synopsis: A staff member of a local office of emergency services is to make a presentation on earthquake preparedness to the faculty of a private elementary school. At the request of the school administrator, the presentation is not to cover the structural performance of the particular school buildings. Upon arriving at the school, the emergency services staff member notes that the building is an unstrengthened, unreinforced masonry building that seems to have features that would lead to worse-than-average expected performance. A teacher asks a question regarding performance. What should the staff member say? To participate in the selection of responses and to provide comments on the case, visit EERI's web site at www.eeri.org.



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