



EARTHQUAKE ENGINEERING RESEARCH INSTITUTE NEWSLETTER

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EARTHQUAKE ENGINEERING RESEARCH INSTITUTE

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News of the institute

2005 Annual Meeting: Call for Poster Abstracts

The enthusiastic organizing committee's plans for the 2005 EERI Annual Meeting are proceeding full speed ahead. Scheduled for February 2-6 at the Las Brisas Hotel in Ixtapa, Mexico, the meeting will commemorate the 20th anniversary of the devastating 1985 Mexico City earthquake. The program will highlight the impact of that event and the resulting progress that has occurred in all fields related to earthquake risk.

Individuals interested in participating in one of the Annual Meeting poster sessions are invited to submit abstracts to the organizing committee. 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 with one-inch margins on all sides, single-spaced in 11-point Times Roman or equivalent font. 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. They should be e-mailed **by December 1, 2004**, to EERI's Administrative Secretary Valarie Austin at valarie@eeri.org. Presenters will be notified in early January of acceptance.



Visitors to Ixtapa can enjoy beautiful beaches, excellent restaurants, interesting boutiques, and a golf course.

See page 9 for information about Annual Meeting travel scholarships for students and younger professional EERI members.

News of the Membership

Hausler Awarded Echoing Green Fellowship

The global social venture fund Echoing Green has named EERI member Elizabeth Hausler among the world's "Best Emerging Social Entrepreneurs" for her plan to reduce deaths caused by housing collapses during earthquakes in developing countries. Hausler will receive \$60,000 in seed funding and technical assistance over two years to launch the Center for Earthquake-Resistant Houses, a San Francisco-based nonprofit organization that promotes and implements the construction of low-cost, earthquake-resistant houses in less developed nations. Hausler's organization is



Elizabeth Hausler

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Learning from Earthquakes

Rare Earthquake Occurs in Argentina

Sources of information for this article were Virginia Rodriguez, Universidad Nacional de San Juan, Argentina; El Diario Clarin; and the U.S. Geological Survey.

An earthquake of magnitude 6.4 occurred in northwestern Argentina on September 7, 2004. The earthquake had its epicenter in a sparsely populated mountainous region, 15 km from the city of Catamarca (the capital of the province of Catamarca), about 975 km (625 miles) northwest of Buenos Aires.

Although felt throughout 14 provinces, including Buenos Aires, the relatively isolated epicenter and the depth of the earthquake (22 km) resulted in minimal damage. Since strong earthquakes occur rarely in Argentina, residents of this wide region expressed surprise over such strong shaking. At least one person was reported dead.

The provincial governor sent inspectors to conduct building evaluations.



Evacuation of public building (photo: El Diario Clarin).

Public buildings, including schools and government buildings, were evacuated.

Many churches in the province of Catamarca that are historical monuments were damaged. Church buildings in several towns sustained cracks in walls and ceilings. Similar damage occurred to several school buildings. In the town of Andalgalá, parents decided not to send their children to school No. 995 until it could be structurally evaluated; it is more than 100 years old and has more than 1,000 students.

At least one hospital, built in 1892, has been declared uninhabitable. Two hundred houses were destroyed, and officials reported that 500 pesos (US\$166) will be given to affected families to help subsidize temporary lodgings. The governor has asked the president of Argentina for federal assistance in reconstructing housing and repairing public buildings.

Past damaging earthquakes in Argentina include the magnitude 7.4 San Juan earthquake of 1977, which severely damaged the town of Caucete, and the magnitude 7.8 San Juan earthquake of 1944, killing almost 10,000 people and severely damaging the city of San Juan.



Damage to adobe structure in Catamarca (photo: El Diario Clarin).



Damage in city of Catamarca (photo: El Diario Clarin).

News of the Profession

California's Plan for Earthquake Research

As required by California law, the state's Seismic Safety Commission (SSC) has issued a new five-year statewide earthquake research plan entitled *A Safer, More Resilient California: The State Plan for Earthquake Research*. The law requires the plan to contain appropriate strategies to receive federal funding in order to facilitate the plan's implementation. In response to the legislated mandate that the SSC encourage research and coordinate earthquake safety activities, the commission's Research Committee, chaired by Lucile Jones, surveyed a broad spectrum of research activities and summarized its conclusions in this 14-page report. EERI members serving on the committee were Paul Jennings, Thomas Jordan, Jack Moehle, Cliff Roblee, and Susan Tubbesing.

The report recommends that the state take the following actions:

1. Improve coordination of research activities by enhancing dialog between researchers and research users, and encouraging research through academic consortia.
2. Establish the following research priorities: improvement of hazard assessments, support of seismic monitoring networks, development of cost-effective mitigation strategies, cataloging of post-earthquake investigations, improved knowledge of social and economic vulnerabilities, and encouragement of new product development.
3. Implement research results into practice.
4. Support cost-effective research.

To purchase (\$10) or download this report, visit www.seismic.ca.gov/sscpub.htm.

News of the Profession

Seismic Safety Commission in Danger

In response to a proposal to eliminate the California Seismic Safety Commission, EERI President Tom O'Rourke and Executive Director Susan Tubbesing sent the following letter to the California Performance Review (CPR) Commission. The goal of the CPR is to restructure, reorganize, and reform state government to make it more responsive to the needs of its citizens and business community. We urge EERI members to write letters as well, based on their own experience, in their own words. For more information about the CPR Commission and its recommendations, visit cpr.ca.gov/.

Dear CPR Commission Members:

We are writing on behalf of the Earthquake Engineering Research Institute to register our strong concern and objection to the proposed elimination of the California Seismic Safety Commission (SSC). The Earthquake Engineering Research Institute is a national association of professionals, with more than 1,000 members in California, who are actively engaged in earthquake mitigation. Our organization is comprised of the nation's earthquake leaders in the earth sciences, engineering, emergency management, and public policy. It is our goal to reduce earthquake risk by advancing the science and practice of earthquake engineering, improving understanding of the impact of earthquakes, and promoting measures to reduce the harmful effects of earthquakes.

California's earthquake risk and potential for earthquake losses are greater than in any other state in the country. Over the years, many excellent policies and programs have been developed and enacted that are making California a safer place in which to live and work. Since 1975, most of those policies and programs have been developed as a result of the guidance and technical advice of the SSC. Created to streamline seismic policy and coordinate earthquake programs at all government levels and in the private sector, the Commission advises the legislative and executive branches on earthquake policy and serves as a model for other states and countries.

The SSC has been able to harness the expertise of committed earthquake professionals to serve on its committees and to accept appointment as commissioners. They have generated valuable guidance documents, identified areas of seismic vulnerability that need attention by other agencies or the legislature, and evaluated seismic programs throughout state government. Those who serve on the Commission's numerous committees receive no salary. Even the commissioners serve virtually as volunteers, receiving a token \$100 per monthly meeting. Many of us have willingly contributed hours of valuable professional time in service to California because the Commission exists and because we respect and value its contributions so highly.

Tied directly to the legislative process, the Commission is ideally suited to convert technical discoveries into state practice. No other state agency or commission fills this role. No other agency has the independence to introduce ideas regarding policy changes without involving elected or administrative officials in matters potentially sensitive to the interests of particular groups. As an independent commission, the SSC is able to hold public hearings. The proposed reorganization would eliminate our one effective means of integrating public, private, and local and state government input into important seismic decisions.

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News of the Institute

Meet the Candidates

For Director A



Richard Eisner

Richard Eisner was recently reappointed as the administrator of the California Governor's Office of Emergency Services (OES) Coastal Region, and since 2002 has been manager of the California Integrated Seismic Network (CISN) and Earthquake Programs. He is responsible, as CISN manager, for implementing the expansion of the TriNet seismic network to northern and central California and for the maintenance of the program in southern California. Prior to 2002, he served for eight years as coastal region administrator, responsible for the state's responses to disasters in the San Francisco Bay region and North Coast counties. Prior to that, he served as the founding director of the Bay Area Regional Earthquake Preparedness Project (BAREPP), a FEMA- and state-funded program, where he developed and managed a program that promoted earthquake preparedness and hazard mitigation by local governments and businesses.

An architect, urban planner, and urban designer, Eisner has focused on issues of seismic design and urban earthquake hazard reduction for the last 30 years, including serving as program manager on a National Science Foundation-funded project to develop model hazard reduction and

preparedness techniques based on Japanese practice. A key element of his work at BAREPP was the implementation of these models and integration of knowledge from the earth sciences and social sciences into mitigation and preparedness programs.

Eisner participated in several post-earthquake investigations, including those for El Centro (1979), Coalinga (1983), Morgan Hill (1984), Palm Springs (1986), Whittier (1987), and Cape Mendocino (1992). He served on the state's investigative team that visited Mexico City after the devastating earthquake in 1985, and reported on its findings to the state legislature. In his role as director of BAREPP, he participated in the state's responses to the Loma Prieta (1989), Cape Mendocino and Landers/Big Bear (all in 1992), and Northridge (1994) earthquakes. He implemented the earthquake clearinghouse after Northridge to gather information and provide support to visiting researchers. Since 1993, he has served on the project working group overseeing the development of FEMA's HAZUS earthquake loss estimation tool.

As a recognized expert in community preparedness, Eisner has presented papers in the United States, Japan, China, Kyrgyzstan, and the Ukraine on California's comprehensive approach to earthquake preparedness. He has consulted on issues of hazard mitigation and emergency management, including serving on the Global Assessment of Earthquake Countermeasures, sponsored by Hyogo Prefecture in Kobe, Japan (1999 and 2000), which evaluated the response to the 1995 Kobe earthquake.

He has been a member of EERI since 1980 and has been active on numerous committees, including serving as chair of the U.S.-Japan Urban Earthquake Hazard Mitigation Committee that organized collaborative workshops with the Japanese in

1991, 1995, 1998, 1999, and 2003. He currently serves as co-chair of that committee, which is organizing the First International Conference on Urban Disaster Reduction (Kobe 2005); and is chair of the Special Projects and Initiatives Committee (formerly the Endowment Committee). He was elected to the board of directors of the Northern California Chapter of EERI in 2003.

Vision

We can only "solve the problem" of earthquake risk by building a better understanding of the vulnerability of the physical, social, and economic structures of our communities, and by using the knowledge of political, social, and economic scientists to motivate cost-effective mitigation, response, and recovery tools. I joined and participate in EERI because it is unique among professional organizations in that it is truly multidisciplinary, reflecting in its membership and activities the complexity of the earthquake problem — a problem that encompasses seismicity, geology, structures, lifelines, human behavior, and the political, economic, and social structure of communities.

The U.S.-Japan workshops and the initiatives of the Special Projects and Initiatives Committee (Endowment), including the small grants program, the World Housing Encyclopedia, and the Northern California Chapter advocacy projects, exemplify my vision of EERI. They bring together structural engineers, seismologists, architects, emergency managers, sociologists, political scientists, economists, and disaster medical, lifeline, and loss estimation experts to reduce the earthquake risk in our urban communities. The accomplishments of EERI and the earthquake engineering community need to be made widely known in the United States and adapted for use in those areas of the world where the threat is high and the resources are limited.

Meet the Candidates

For Director A



Fred Krimgold

Fred Krimgold is the director of the Center for Disaster Risk Management at Virginia Tech and a founder of the World Institute for Disaster Risk Management, an international network of institutions dedicated to research and implementation in the field of disaster loss reduction.

He has served as the associate dean for research and outreach in the College of Architecture and Urban Studies at Virginia Tech, as program director for architecture and planning in the earthquake program of the National Science Foundation, and as research associate in the Seismic Design Decision Analysis Project at MIT.

He received his B.A. in architecture from Yale University in 1968 and a doctor of technology degree in architecture and planning from the Royal Institute of Technology, Stockholm, in 1974.

Krimgold experienced his first earthquake on the ninth floor of Wurster Hall on the UC Berkeley campus in 1969. He went on to work on the reconstruction following the Gediz, Turkey, earthquake of 1970 and to prepare a doctoral thesis on the role of international aid in earthquake mitigation in developing countries.

He has worked for the past 35 years on architectural and planning

aspects of earthquake loss reduction. While at MIT, he authored publications on the policy process for adoption of seismic design standards in the Massachusetts Building Code.

He has carried out research on earthquake injury epidemiology and served as an advisor to the U.S. Office of Foreign Disaster Assistance and the Federal Emergency Management Agency (FEMA) on urban search and rescue and post-earthquake recovery. He served as a member of the FEMA Advisory Board in advance of the major reorganization of the agency in 1992.

Krimgold was a consultant to the World Bank on the establishment of disaster management capabilities in India, Mexico, and Turkey. He developed the "Market Incentives for Mitigation Investment" (MIMI) program at the World Bank.

Recently, he has completed a series of manuals for FEMA on "Integrated, Incremental Seismic Rehabilitation for Existing Buildings," and he has initiated a University Partnership between Virginia Tech, EERI, CUREE, and the Bangladesh University of Engineering and Technology on "Seismic Vulnerability Reduction in Bangladesh."

Krimgold is currently working on the application of seismic microzonation to land use management and building regulation in Turkey, and the development of the disaster management component of the Sustainable Urban Management Program of the U.S. Agency for International Development.

He has been an active member of EERI since 1974. He has served EERI as a member of the Endowment Committee and liaison to various Endowment Committee projects. He has also served on two post-earthquake reconnaissance missions: Armenia in 1988 and Iran in 2004. He was a co-author of the EERI "Lessons Learned Over Time"

report entitled *Innovative Earthquake Recovery in India* on reconstruction following the 1993 Maharashtra earthquake. He is currently working with the World Housing Encyclopedia's Reinforced Concrete Frame Residential Tutorial.

Vision

The Earthquake Engineering Research Institute is a unique institution. It has grown dramatically in scope, scale, and stature over the last half century. It has built on a strong technical foundation to serve a broad multidisciplinary membership and to play a major role in the development of private practice and public policy related to earthquake safety. It provides a model for responsible professional and academic participation in the public safety policy process.

The National Earthquake Hazards Reduction Program over the past quarter century has provided generous support to earthquake engineering research and to the interests of EERI. Times appear to be changing. Federal attention and funding are now being directed elsewhere. We must remain true to our mission but look beyond the limits of traditional funding sources. This is true for the earthquake engineering research community and for EERI.

Since joining NSF in 1977, I have worked in Washington, D.C., in active contact with the principal federal agencies, national trade associations, and international agencies concerned with earthquake engineering research and implementation. As an EERI Board member in the Washington, D.C., area, I can provide consistent liaison and logistical support to developing and maintaining productive relationships with the federal agencies, trade associations, and international organizations in the national capitol region.

I will work to organize and strengthen the EERI presence in Washington and the mid-Atlantic states.

Meet the Candidates

For Director B



Polat Gülkan

Polat Gülkan is currently a professor of structural engineering at Middle East Technical University (METU) in Ankara, Turkey, which he joined in 1971. He also heads the Disaster Management Research Center there, which he helped to create in 1997, and is a member of the board of directors of METU's Earthquake Engineering Research Center, which celebrates its thirtieth year in 2004.

During a period of over three decades, Gülkan has been a visiting engineer at the former EERC of the University of California, Berkeley (1977-79); a senior consultant with Basler and Hofmann, Engineers and Planners, Zürich, Switzerland (1986-88); and a visiting professor at the School of Civil Engineering at Purdue University (1995-96). Academic administrative positions Gülkan has held include stints as dean of the graduate school at METU (1981-82) and dean of engineering at Hacettepe University, Ankara (1982-86). He is a licensed civil engineer in California.

He joined EERI in 1992 and has contributed to the EERI World Housing Encyclopedia with two articles on commonly encountered building types in his country. Gülkan currently serves on the editorial board of

Earthquake Spectra and the *Turkish Journal of Engineering and Environmental Sciences*. He is a former Fulbright scholar, and the recipient of the 2004 NATO Summit Science Prize.

Gülkan has served as president of the Turkish chapter of the International Association for Bridge and Structural Engineering (IABSE) since 1988, and has been one of the directors of the International Association for Earthquake Engineering since 1996. He is also a member of the Advisory Council on Nuclear Safety for the Turkish Atomic Energy Authority.

Gülkan's professional areas of focus have shown a broad scope, comprising stress analysis, earthquake engineering and structural dynamics, ground motion prediction, seismic hazard mitigation policy development, seismic code enforcement, seismic hazard assessment, building retrofit, safety of school buildings, nuclear safety, and building instrumentation. He has authored more than 250 professional articles, papers, and reports.

A number of these works have produced lasting effects in his country by defining effective legislative tools in seismic hazard reduction. One was the development in 1993 of the first probability-based seismic zone map of Turkey that went into effect in 1996. Another was a critical evaluation of the legislative framework on urban development and the building construction supervision system in Turkey, a two-year study that has served as the basis of much of the reform that was put into effect following the two major 1999 earthquakes in the Sea of Marmara region.

Vision

I recall when we, a few local or visiting members of the EERI reconnaissance team, milled about in the mud in front of the Provincial Governor's Office in Adapazari five years ago. The drizzle had depressed every-

one further, and made the air heavy and clammy. The flower beds and shrubs in what had been the carefully laid out central divider of the broad street had been mutilated by rescue and heavy lifting equipment. The scenery seemed to be surreal, with tents serving as makeshift phone booths, precariously tilted on collapsed buildings, occasional sirens wailing in the distance. "What would be the lessons learned from all this?" I wondered.

A unique feature of EERI has been the Learning from Earthquakes Program, as every earthquake parts several veils in this interdisciplinary area. Supplement A to Volume 16 of *Earthquake Spectra* provided a survey of many lessons from the terrible year for Turkey, 1999, when August's Kocaeli event was replayed on a smaller scale in November in Düzce. Other EERI reports provide a lasting repository of carefully curated information and observation about important earthquakes that will serve to improve our collective awareness. Examination of the contents of *Spectra* will show that EERI has long outgrown its mantle of *engineering*, and has become a forum for many disciplines.

My vision for the Institute is that it will continue to provide global service, not only in quickly bringing to the engineering community's use the rapidly evolving tools of improved design and analysis, but also in acting as perhaps the only forum that offers public policy options in earthquake protection, community recovery, planning, and social science. These options provide insight into the complicated impact of earthquakes on humans. But I am, sadly, only an engineer. So you will appreciate why my favorite among all EERI publications has been the Oral History Series. For me, reading an interview with the likes of Housner or Degenkolb or Blume is like taking a journey back in time to when history was being made, spoken by those who were making it.

Meet the Candidates

For Director B



Sudhir K. Jain

Sudhir K. Jain is a professor of civil engineering at the Indian Institute of Technology, Kanpur, where he has been teaching structural engineering since 1984. He obtained a bachelor's degree from University of Roorkee, India, and masters and doctoral degrees from the California Institute of Technology, Pasadena. Jain was elected a fellow of the Indian National Academy of Engineering in 2002.

In addition to his teaching and research activities, Jain has been passionately working towards improving the state of the practice in India, through his deep involvement in the development of Indian seismic codes and extremely popular continuing education courses for professional engineers in India, with class sizes at times approaching 200 students. Jain's consulting activities include several major bridge projects in high seismicity regions of India.

To meet the information needs of professionals and the public, he set up the National Information Center of Earthquake Engineering (NICEE) at IIT Kanpur (www.nicee.org). To support NICEE, he raised an endowment fund principal of about US\$ 110,000. Some of the innovative outreach activities of NICEE are described in an article in the Sep-

tember 2003 issue of the *Seismological Research Letters*.

Jain was the key person behind the development of a National Program on Earthquake Engineering Education (NPEEE) in India (www.nicee.org/npeee) and currently acts as its national coordinator. NPEEE aims to build capacity in earthquake engineering in more than 1,000 civil engineering and architecture colleges across India.

Since 2001, Jain has organized an annual summer camp for undergraduates from all over India to motivate them towards the civil engineering profession. An article in the July 2004 issue of ASCE's *Journal of Professional Issues in Engineering Education & Practice* discusses this initiative.

He has been a member of EERI since 1987 and has been actively involved with a number of its activities. Through the LFE program, Jain conducted reconnaissance studies after several Indian earthquakes, was co-leader of the large EERI reconnaissance team after the 2001 Bhuj earthquake, and was co-editor of the special issue of *Earthquake Spectra* on that earthquake. Since 2003, he has served as the Asian editor for the World Housing Encyclopedia (WHE). He chairs the new Small Grants Program for Developing Countries sponsored by the EERI Endowment Fund.

Jain serves on the board of directors of the International Association for Earthquake Engineering and the World Seismic Safety Initiative, and also chairs an ad hoc committee of the IAEE on New IAEE Initiatives for Assisting Developing Countries.

Vision

The problem of global earthquake risk reduction is still of tragically large proportions. I share the vision wherein EERI provides leadership for earthquake risk reduction internationally through a variety of innovative approaches towards

information sharing, networking of professionals, motivating concerned stakeholders, and facilitating communication.

Damaging earthquakes provide very effective windows of opportunity for information sharing and communication, and EERI is uniquely placed to take advantage of such windows through its LFE project, one of the cornerstones of the Institute.

Today EERI is the only professional society related to earthquake engineering with substantial membership in numerous countries and a successful track record of engaging professionals across the globe through its LFE and WHE projects. The WHE project has been an acknowledged success, and there is tremendous potential in the recently launched Small Grants Program. EERI must continue to nurture and develop such innovative programs.

In this age of e-mail communication and web-based projects and conferences, the possibility for linking professionals globally continues to grow. EERI has recently signed MOUs with Mexico, Australia, and Japan. The next step for EERI is to develop sustainable collaborative activities with these countries while continuing to develop formal linkages with other national societies. For instance, while researchers in the United States and Japan may already have a good level of communication with each other, the same is not true of the professional engineers; the MOU with Japan may help professional engineers of the two countries come closer and learn from the engineering practices of each other. I envision great possibilities from the Institute's working with other national societies and the IAEE.

It will be a privilege for me to serve on the Board of Directors of EERI and, if elected, I will work with passion to further its goals.

Hausler

continued from page 1

one of nine to receive the 2004 Echoing Green Fellowship from nearly 700 applicants in 37 countries.

Hausler believes that, in the absence of building standard enforcement, the only way to bring about long-term change in building practice is to promote earthquake-resistant building methods that are competitive in cost with common (but vulnerable) methods. Hausler's organization will use detailed housing subsector studies to determine the most cost-effective ways of building earthquake-resistant houses using materials and skills that are available through the local private sector. Hausler's organization will work with local masons, carpenters, and homeowners to incorporate building techniques that are culturally accepted and easy to adopt with limited training and education. The Center for Earthquake-Resistant Houses will also partner with the academic community to transfer the lessons learned from experimental research into practice.

Hausler has a Ph.D. from the Civil and Environmental Engineering Department at the University of California, Berkeley. Starting in high school, she spent her summers laying bricks for a masonry construction company in rural Illinois. In 2003, she spent eight months in India on a Fulbright Fellowship assisting with and assessing the post-Bhuj earthquake housing reconstruction program. More recently, she has evaluated the long-term change in construction practice that followed the 1993 Killari and 1999 Chamoli, India, earthquakes with a Lessons Learned Over Time Project grant from the EERI Learning from Earthquakes Program.

For further information, contact Hausler at elizabeth@earthquakeresistanthouses.org.

Call for Abstracts

CMEM 2005

Wessex Institute of Technology and the University of Naples Federico II are sponsoring the Twelfth International Conference on Computational Methods and Experimental Measurements (CMEM 2005) to be held in Malta, June 20 to 22, 2005. Conference topics include:

- computer interaction and control of experiments,
- data acquisition and processing,
- direct, indirect, and in-situ measurements,
- computational and analytical methods,
- structural and stress analysis,
- damage mechanics,
- life cycle engineering,
- dynamics and vibrations, and
- computer imaging.

Abstracts not exceeding 300 words should be submitted **as soon as possible**. Electronic submission is encouraged. For more information, visit www.wessex.ac.uk/conferences/2005/cmем05/.

SEM Conference

The Society for Experimental Mechanics (SEM) will host the 2005 SEM Annual Conference on Experimental and Applied Mechanics and Concurrent Symposia at the Portland (Oregon) Marriott Downtown, scheduled for June 7-9, 2005. The theme is "Experimental Mechanics Applied to Advanced Material Systems."

SEM is accepting abstracts for technical papers for presentation through October 15, 2004. The topic areas include structural integrity and damage mechanisms, advanced composite materials and systems, and experimental and applied mechanics. Only electronic submissions are being accepted for this conference. For details about submitting abstracts and the submission form, visit the web site www.sem.org.

Publications

Woodframe Reports

The Consortium of Universities for Research in Earthquake Engineering (CUREE) has released *Recommendations for Earthquake Resistance in the Design and Construction of Woodframe Buildings* by Kelly Cobeen, James Russell, and J. Daniel Dolan, a report that draws conclusions from the other project reports and data generated by the CUREE-Caltech Woodframe Project. For more information, visit www.curee.org/publications/project-WF/info/w_30.html.

Also available is the report entitled *Cyclic Response of Shear Transfer Connections Between Shearwalls and Diaphragms in Woodframe Construction* by Seb Ficcadenti, Eric Freund, Gerard Pardoen, and Robert Kazanjy. For more information, visit www.curee.org/publications/project-WF/info/w_28.html.

AISC Moment Connection Guide

The American Institute of Steel Construction (AISC) has released the second edition of its *Design Guide 4: Extended End-Plate Moment Connections*. The updated guide, authored by Tom Murray of Virginia Polytechnic Institute and State University and Emmett Sumner of North Carolina State University, makes use of yield line theory in a new design philosophy for extended end-plate moment connections in wind and seismic applications, which allows extended end-plate moment connections to be designed using 50 ksi steel.

The *Design Guide 4* is available both as an electronic download (free to AISC members or \$60 to non-members) or as a printed book (\$30 to AISC members or \$60 to non-members). For more information, visit www.aisc.org/bookstore.

News of the Institute

Annual Meeting Travel Scholarships

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 participation in the poster sessions, either through the applicant's own research project, or as a representative of a student chapter depicting the chapter's activities (see page 1 for poster abstract specifications). Each scholarship will cover registration, lodging at the conference hotel for three nights, and round-trip economy airfare. To apply, send a letter of request **by December 1, 2004**, to the Student Activities Committee in care of EERI's Administrative Secretary Valarie Austin at valarie@eeri.org. Applicants should describe their current involvement in earthquake engineering or a related field and their status as students or professionals.

Announcements

ACI Seismic Design Seminars

The American Concrete Institute is sponsoring a series of one-day seminars in different cities around the country. They will cover earthquake and wind-resistant design, response of concrete buildings to earthquake and wind forces, and design requirements in the 2000 IBC. Applications of seismic and wind provisions will be illustrated by designing and detailing typical structural members in areas of varying seismic risk on different types of soil. The next seminar is October 8 in Portland, Oregon. Visit www.concreteseminars.com for more information.

Consequence-Based Engineering Institute

The Mid-America Earthquake Center is sponsoring its Second Consequence-Based Engineering (CBE) Institute for graduate students and other interested individuals at Texas A&M University, January 6-12, 2005. The institute will provide a concentrated earthquake engineering program with both cross-disciplinary and advanced discipline-specific approaches for earthquake engineering research. The program provides multidisciplinary instruction that encompasses topics related to hazard definition, damage synthesis, consequence minimization, and social science. This includes application of the methodology through exercises assigned to the participants. In addition, field trips will provide opportunities for professional and cultural activities. To learn more about the institute or to register, visit <http://cbe.civil.tamu.edu/>.

Job Opportunity

UCSB Geophysicist

The Department of Geological Sciences at the University of California at Santa Barbara seeks a geophysicist who conducts research in quantitative analysis of deformation processes within the lithosphere. The applicant should complement departmental strengths in tectonics, seismology, structural geology, and surface processes. This tenure-track appointment as an assistant professor will begin July 1, 2005. The appointee is expected to develop an externally funded research program (for example, by participation in EarthScope) and will teach undergraduate and graduate courses in geophysics and tectonics. A Ph.D. is required. Review of applications will begin November 1, 2004.

For application information, visit <http://www.acadpers.ucsb.edu/positions/listings/july30-04-geol-ad.htm>.

News of the Institute

Endowment Fund Donors

EERI would like to thank the donors to the Endowment Fund shown below and acknowledge their contributions received subsequent to the previous listing. EERI's Endowment supports those innovative projects that ensure the Institute's continuing leadership in the earthquake engineering professions.

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Henry J. Lagorio
Franklin Lew
Ugo Morelli
Daniel Shapiro
Nancy Tennebaum
Susan K. Tubbesing

* Donation made by his family shortly before his death.

Job Opportunities

Education and Outreach Manager

EarthScope seeks applicants for the position of Education and Outreach Manager at the EarthScope headquarters office in Washington, D.C. The successful candidate will be responsible for coordinating the development of a high-profile education program for EarthScope (www.earthscope.org) that emphasizes the integrated nature of the project and the importance of EarthScope's research initiatives.

A Ph.D. in earth science or equivalent experience is required, plus broad interests, a demonstrated record in education, and a reputation and interest commensurate with that of university academic responsibility or equivalent rank from government or industry. Applicants must have demonstrated leadership and community-building skills, communication and organizational skills, the ability to develop funding for educational and outreach activities, and effective teamwork.

The review process began September 15 and will continue until a candidate is selected. For a complete job announcement, contact Patricia Sheatsley, psheatsley@earthscope.org.

USGS Postdoctoral Opportunities

The U.S. Geological Survey has released its list of new postdoctoral opportunities that are available through its Mendenhall Postdoctoral Research Fellowship Program. Of the 30 opportunities, nine are in either earthquake geotechnical engineering, engineering seismology, or seismotectonics. Appointments are for two years and candidates must have received their Ph.D. no earlier than December 1, 1999, and no later than March 2006. Candidates can begin employment between

October 2005 and March 2006. The deadline for proposals and applications is December 1, 2004.

Information about the program is available at geology.usgs.gov/postdoc. Interested applicants are encouraged to contact research advisers listed for each opportunity.

Nabih Youssef & Associates

EERI Subscribing Member Nabih Youssef & Associates, a structural engineering firm, has immediate opportunities in its Los Angeles, Irvine, and San Francisco offices for several positions. **Senior project manager, project manager, and project engineer** positions require a minimum of ten, eight, and five years' experience respectively. These, as well as **senior engineer**

and **senior designer** positions, require knowledge of structural systems design and detailing of concrete, steel, masonry, and wood structures, and experience in seismic design and retrofit. An M.S. in structural engineering is preferred.

For **senior analyst** positions, a Ph.D. in structural engineering is preferred. Experience in cable structures, damping devices for seismic applications, displacement-based design, base isolation, and wind engineering is a plus.

Entry-level engineers require a BS in civil engineering. For **structural drafters**, five years' experience in AutoCAD and structural building experience (residential and commercial, AutoCAD 2002/2004) is preferred. For more information, visit www.nyase.com and see "Employment Opportunities" on the Contact Us page.

Seismic Safety Commission

continued from page 3

We understand the need to find ways to reduce government spending in California, but eliminating the SSC will not save a penny of General Fund money. Effective January 1, 2004, insurance companies in California were assessed a very modest annual fee (\$0.07 per in-force policy) to support the Commission's annual operational budget, which was less than \$900K in 2003/4. The Commission's functions are not covered or duplicated by any other state, regional or local entity. Abolishing the Commission will effectively do the opposite of what the CPR intended, scattering functions and reducing efficiency.

A recent study published by the Department of Homeland Security/FEMA indicates that California can expect to experience over \$3.26 billion in earthquake losses on an

average annual basis. We have been extremely fortunate not to have suffered a devastating earthquake in more than a decade. However, it is just a matter of time before a significant earthquake will cause damage and loss of life in one or more of California's large urban centers. We need the SSC now to provide leadership and to ensure that as much as possible is done to reduce that damage. After an earthquake, we will again need the SSC to provide wisdom and guidance for a rapid and full recovery.

For all these reasons, we urge you to remove the SSC from the list of organizations slated for elimination as part of the CPR and ask that you stand solidly behind the efforts of the California Seismic Safety Commission.

Sincerely,
T. D. O'Rourke, President, EERI

Susan K. Tubbesing,
Executive Director, EERI

CALENDAR

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

OCTOBER

5-6. Pacific Security Expo & ABAG General Assembly, Oakland, CA. Info: www.abag.ca.gov (8/04)

8. ACI Seismic & Wind Design Seminar, Portland, OR (also 10/13 Cincinnati, OH). See page 10. (10/04)

18-20. 3rd Int'l Conf. EQ Eng., Nanjing, China. Info: 3icee.njut.edu.cn/ (4/04)

25-Nov. 5. 7th Workshop on 3-D Modelling of Seismic Waves, Trieste, Italy. Info: agenda.ictp.trieste.it/smr.php?1586 (2/04)

28-29. Bridge Seismic Design Workshop, Cape Girardeau, MO. Info: umr.edu/dce/noncredit/facetoface/DistanceContinuingEducation-UniversityofMissouri-Rolla.htm (9/04)

NOVEMBER

5-11. 52nd Annual IAEM Conf., Dallas, TX. Info: www.iaem.com (9/04)

15-19. Committee on Safety of Nuclear Installations Workshop on Seismic Input Motions, Tsukuba, Japan. Info: www.nea.fr/html/nsd/workshops/SEIS2004/index.html (4/04)

28-Dec. 3. Coping with Risks Due to Natural Hazards in the 21st Century, Monte Verità, Switzerland. Info: www.csf.ethz.ch/services/registration/ (8/04)

DECEMBER

8-20. 4th Int'l Conf. on Dam Engr., Nanjing, China. Info: www.dam04.com (1/04)

2005

JANUARY

6-12. 2nd Consequence-Based Eng. (CBE) Institute, College Sta-

tion, TX. See page 9. (10/04)

9-13. TRB Annual Meeting, Washington, DC. Info: www.trb.org (8/04)

13-16. Int'l Symp. on EQ Eng., Japan. (2/04)

18-20. 1st Int'l Conf. on Urban Disaster Reduction, Kobe, Japan. Info: www.eeri.org/news/meetings.html (7/04)

31-Feb 3. IMAC XXIII, Orlando, FL. Info: www.sem.org (6/04)

FEBRUARY

2-6. EERI Annual Meeting, Ixtapa, Mexico. Info: www.eeri.org. See page 1. (4/04, 7/04, 9/04, 10/04)

19-22. Int'l Assoc. for Bridge Struct. Eng. Conf., New Delhi, India. Info: www.iabse.org (11/03)

APRIL

6-9. North American Steel Construction Conf., Montreal, Canada. Info: www.aisc.org/nascc (8/04)

MAY

30-June 1. ERES 2005, Skiathos, Greece. Info: www.wessex.ac.uk/conferences/2005/eres05 (7/04)

JUNE

7-9. SEM Annual Conf. on Experimental & Applied Mechanics & Concurrent Symposia, Portland, OR. See page 8. (10/04)

20-22. 12th Int'l Conf. on Computational Methods & Experimental Measurements (CMEM 2005), Malta. See page 8. (10/04)

AUGUST

21-24. Pipelines 2005, Houston, TX. Info: www.asce.org/conferences/pipelines2005/ (8/04)

22-24. ConMat'05, Vancouver, BC, Canada. Info: www.civil.ubc.ca/conmat05/ (7/04)

SEPTEMBER

14-16. IABSE Structures & Extreme Events, Lisbon, Portugal. Info: www.iabse.org/lisbon (7/04)

20-23. 3rd Int'l Structural Eng. & Const. Conf., Shunan, Japan. Info:

www.tokuyama.ac.jp/tcss1/ISEC_03/ (4/04)

OCTOBER

16-19. Council on Tall Bldgs. & Urban Habitat, New York, NY. Info: www.ctbuh.org (9/04)

2006

APRIL

18-21. 8th U.S. Nat'l Conf. on EQ Eng. (8NCEE), EERI Annual Meeting, SSA Annual Meeting, Disaster Resistant California, San Francisco, CA. Info: www.eeri.org (5/04)

AUGUST

14-17. 5th Int'l Conf. on Behavior of Steel Structures in Seismic Areas (STESSA), Tokyo, Japan. E-mail: wada@serc.titech.ac.jp (9/04)

Announcement

Summer Research Experiences in Japan

Each year the National Science Foundation (NSF) sends some 100 U.S. graduate students to Japan for an intensive summer research experience. Applications are sought from qualifying students in structural, earthquake, wind, and geotechnical engineering who would like to participate in the 2005 NSF Summer Program in Japan and a supplemental program of student seminars and extensive laboratory and site visits focusing on natural hazard mitigation. Students in other fields of engineering and science with an interest in natural hazard mitigation are also encouraged to apply.

The supplemental program is entitled "Natural Hazard Mitigation in Japan 2005" (NHMJ-2005). For more information on the program and the application procedure, visit www.nd.edu/~quake/nhmj/. For questions, contact the program coordinators Y. C. Kurama (ykurama@nd.edu) or B. F. Spencer, Jr. (bfs@uiuc.edu). The deadline for applications is November 1, 2004.

News of the Profession

Grand Opening of NEES Field Site

On Thursday, August 19, the George E. Brown, Jr. Network for Earthquake Engineering Simulation (NEES) reached another milestone with the grand opening of the NEES permanently instrumented field sites for the study of soil-foundation-structure interaction (SFSI). These two field sites, the Garner Valley Down-hole Array (GVDA) in Riverside County, west of Palm Springs, and the Salton Sea Wildlife Refuge Liquefaction Array (WLA) in Imperial County near El Centro, will be used to monitor responses generated by local and regional earthquakes and for active experiments with excitation by shakers. They will also be testbeds for geotechnical and geophysical studies. The facility is a collaborative project of Brigham Young University, the University of California Santa Barbara, and the University of Southern California (nees.ucsb.edu).

The gala event was attended by NSF project directors, engineers, local public officials, 40 very excited high school students, and 10 teachers. Marta Brown, wife of the late Rep. George E. Brown, Jr., performed the ribbon cutting as T-Rex, the 64,000-lb. mobile shaker from the NEES mobile equipment site at University of Texas at Austin (nees.uta.edu), simulated earthquake shaking, and the NEES mobile equipment site at UCLA (nees.ucla.edu) measured ground shaking with wireless sensors.

The students and teachers, members of the Black Future Leaders organization of San Bernardino and Riverside counties, are participants in the science, technology, and mathematics residence program at the University of California, Riverside. The George and Marta Brown Foundation invited the students to the ceremony to engage them in the



Les Youd, John Wallace, Jamie Steidl, Marta Brown, Vilas Mujumdar, and Ken Stokoe at ribbon cutting.

demonstrations and to inspire the next generation of scientists and engineers.

Participants visited four separate stations for 15-minute demonstrations of the UTA mobile shaker, the UCLA monitoring equipment and the mobile command center, the GVDA instrumentation building, and the permanent SFSI test structure. The students' enthusiasm was evident as they all expressed how much they had learned about earthquake impacts and preparedness. The event also featured an ongoing collaborative engineering-seismology pilot project by NEES, USGS, IRIS, and others. The UTA shaker was used as an active seismic source, and the response of the small valley was measured by USGS and IRIS instruments, the permanent NEES instruments at GVDA, and temporary NEES instruments from UCLA.



Students and teachers from the Black Future Leaders organization attended the grand opening.



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