



**EARTHQUAKE ENGINEERING
RESEARCH INSTITUTE
NEWSLETTER**

Editor Thalia Anagnos
Associate Editors Sarah Nathe
Gerald Brady
Editorial Assistant Eloise Gilland

Earthquake Engineering
Research Institute
499 14th Street, Suite 320
Oakland, California 94612-1934
Phone: 510/451-0905
Fax: 510/451-5411
E-mail: eeri@eeri.org
Web site: <http://www.eeri.org>

ISSN 0270-8337

Reproduction with attribution is permitted.

**EARTHQUAKE ENGINEERING
RESEARCH INSTITUTE**

PRESIDENT
Craig D. Comartin

PAST PRESIDENT
Thomas D. O'Rourke

SECRETARY-TREASURER
Ronald L. Mayes

BOARD OF DIRECTORS
John L. Aho
Bruce R. Clark
Richard K. Eisner
Craig D. Comartin
Polat Gülkan
Ronald L. Mayes
Farzad Naeim
Sarah Nathe
Thomas D. O'Rourke

EXECUTIVE DIRECTOR
Susan K. Tubbesing

News of the Institute

Election Results: Eisner and Gülkan Elected to Board of Directors



Richard K. Eisner



Polat Gülkan

Richard K. Eisner of the California Governor's Office of Emergency Services Coastal Region and **Polat Gülkan** of Middle East Technical University (METU) in Ankara, Turkey, were elected the newest members of the EERI Board of Directors in the 2005 election. Many thanks go to the members of this year's Tellers Committee: Jason Horwedel of Degenkolb Engineers, Susan Olig of URS Corporation, and Ivan Wong of URS Corporation.

Eisner and Gülkan will be formally welcomed to their new posts at the Board Meeting in Ixtapa, Mexico, on February 2. They will each serve three years as directors, replacing Donald Ballantyne and Mary Comerio, whose terms have expired. EERI extends thanks to Ballantyne and Comerio for their years

continued on page 11

EERI Sends Teams to Indian Basin

Few natural disasters in historical times have had such far-flung, catastrophic consequences as the Sumatra earthquake of December 26, 2004, and the tsunamis generated across the Indian Ocean. The research community has been deeply affected by the devastation, the still-increasing loss of life, and the valiant response and recovery efforts undertaken by survivors and outside volunteers. On January 6, 2005, EERI's incoming President Craig Comartin announced an unprecedented reconnaissance effort to capture critical perishable technical data from these tsunamis.

Comartin conveyed the sadness and frustration of those throughout the earthquake community: "Our hearts are heavy for those who have suffered

continued on page 6



Satellite images of the shoreline at Banda Aceh, Indonesia, before (left) and after (right) the earthquake and tsunami of December 26, 2004 (images: DigitalGlobe).

Call for Papers

Spectra Theme Issue Will Commemorate the 1906 SF Earthquake

The 1906 San Francisco Earthquake: An Earthquake Engineering Retrospective 100 Years Later, a special theme issue of *Earthquake Spectra* edited by Bill Holmes and Bob Reitherman, will be issued in conjunction with the 100th Anniversary Earthquake Conference commemorating the 1906 San Francisco earthquake currently being planned by EERI, the Seismological Society of America, and the California Governor's Office of Emergency Services. All papers will be relevant to the 1906 San Francisco earthquake and its effects.

Several papers by invited authors will be presented at plenary sessions of the joint conference. The subjects of these invited papers will cover two areas: (1) an historical overview of the societal setting; the earthquake; its effect on the region, including the fire and damage to the built environment; emergency response and recovery; long-term impacts on public policy; and preparedness; and

(2) the results of a regional loss estimate of the 1906 event for the Bay Area today, considering maps of the probable ground motion that occurred in 1906, geotechnical effects, damage to the current built environment, and current capabilities of response and recovery.

The balance of the special issue will consist of individual papers chosen from the response to this solicitation. Abstracts are requested that relate results of the 1906 event to the current practice of any of the disciplines of earthquake engineering, the development of public policy, or the capabilities of emergency planning and response. The final papers should reflect on the centennial by contrasting the 1906 and current conditions, including identification of progress or, if appropriate, lack of progress, in the subject area. Papers that highlight the significance of the centennial in other

interesting ways will also be considered.

Example subject areas for these papers include the following:

- seismology
- strong ground motion
- geologic hazards
- earthquake reconnaissance
- structural design of buildings or other structures
- public policy and building codes
- fires that follow earthquakes
- lifelines (particularly water supply)
- response and recovery
- protection of life safety

Abstracts not exceeding 500 words should clearly indicate the premise of the paper and the relationship to specific or general results of the 1906 event. Abstracts are due in the EERI office by March 11, 2005. Selected authors will be notified by April 15, 2005, and papers are due on August 19, 2005.

Faculty Positions

University of Minnesota

The Department of Civil Engineering at the University of Minnesota invites applications for two faculty positions in the area of structural engineering. Appointments will be considered at any level. One opening is for a new position, which allows for significant flexibility in the applicant's research area. Candidates engaged in imaginative and innovative research at the frontiers of engineering and science are encouraged to apply. Research areas of interest include, but are not limited to, advanced structural engineering materials, multi-scale and multiphase simulations, adaptive structures, and structural systems' response assessment.

The second position is in the field of steel structures, with emphasis in areas such as fracture, fatigue, and physical and numerical modeling of systems and materials. Screening of applications will begin February 1 and continue until the positions are filled. For details, visit www.ce.umn.edu/empopp/job_board/acad/.

University of Notre Dame

The Department of Civil Engineering and Geological Sciences at the University of Notre Dame invites nominations and applications for its Linbeck Chair, seeking a full professor or senior-level associate professor with an internationally recognized research program in structural engineering and dedicated to engi-

neering education. Areas of interest include, but are not limited to, multi-scale modeling, risk and structural reliability, structural health monitoring and dynamics, and design and behavior of structural systems. The department further welcomes candidates with highly innovative research agendas that cross traditional disciplinary boundaries and use advanced technologies to present novel solutions to structural engineering needs.

Send applications to Professor Peter Burns, CE/GEOS, 156 Fitzpatrick Hall, University of Notre Dame, Notre Dame, IN 46556-0767. Applications should include a curriculum vitae, teaching and research statements, and a list of five references. For more information, visit www.nd.edu/~cegeos/News/positions.htm.

News of the Institute

Stanford Student Qiang Fu Wins Graduate Student Paper Competition

Qiang Fu, a graduate student in the Department of Civil and Environmental Engineering at Stanford University, captured the top prize in the graduate student paper category in EERI's competition with his paper, "The Application of Incremental Dynamic Analyses to Fault-Normal Near-Field Ground Motion."

Fu's paper examines the suitability of the incremental dynamic (IDA) procedure for fault-normal near-field ground motion by evaluating seismic demand of a nine-story steel frame building subjected to an ensemble of 52 recorded fault-normal ground motions. The results indicate that the velocity pulse that is often present in such ground motion plays a key role in the resulting shape of the IDA

curve. IDA plots can assist an engineer in predicting the response of a structure to anticipated levels of ground shaking at the building site. Based on a careful examination of the interstory drift pattern over the height of the building and the corresponding IDA curve obtained for each ground motion, Fu proposes that the IDA curve associated with a fault-normal ground motion be classified as "higher-mode softening," "first-mode softening," or "transition hardening," according to the relationship between the period of the velocity pulse and the fundamental period of the structure. Use of the proposed classification can improve the estimates of the median value and dispersion of the interstory drift

response obtained from IDAs computed for fault-normal ground motion. The results reported in this study are only applicable to the nine-story building used for the analyses, but the concepts and methods described can be used with other structures. The improved estimates are beneficial for predicting the seismic response of buildings in the near field and for the development of hazard curves required for performance-based earthquake engineering.

We extend our appreciation to the members of the Student Paper Review Panel: Student Activities Committee Chair Eric Williamson of the University of Texas at Austin, Judy Liu of Purdue University, and Maria Garlock of Princeton University.

Publication

Retrofitting Byzantine Churches

The Getty Conservation Institute (GCI) recently published a 186-page book in its Scientific Program Reports Series entitled *Conservation and Seismic Strengthening of Byzantine Churches in Macedonia*, by P. Gavrilovic, W. S. Ginell, V. Sendova, and L. Sumanov. The report summarizes the results of a five-year study (1991 to 1996) to develop and test seismic retrofitting techniques for the repair and strengthening of medieval Byzantine churches.

Between the ninth and fourteenth centuries, hundreds of architecturally exquisite Byzantine churches were built in the area now known as the Republic of Macedonia. The condition of these buildings has been of ongoing concern because of deterioration and destruction from forces both human and natural, including devastating earthquakes.

The Institute for Earthquake Engineering and Engineering Seismology (IZIIS) in Skopje, Macedonia, proposed the development of a retrofitting methodology that could provide seismic stabilization for these culturally important buildings. Under the joint sponsorship of the GCI and IZIIS, a project was initiated to test this methodology. The volume considers the conservation of historic buildings in seismic zones; surveys the condition of 50 existing Byzantine churches in Macedonia; describes the theoretical basis for the experimental work that was performed to validate the proposed methodology; and details the de-

sign, construction, and seismic testing of a half-scale model church. The paperback volume includes 47 black and white photographs, 126 charts and graphs, and representative experimental and technical data. It is hoped that this contribution to the field of seismic retrofitting studies will become a valuable tool for conservation specialists charged with protecting the cultural heritage in earthquake-prone regions around the world.

The report may be purchased for \$45 plus shipping from GCI's online bookstore at www.getty.edu/bookstore/.



The church of the Holy Virgin Eleusa.



Model of prototype church of St. Nikita on shaking table.

News of the Institute

Summary Minutes of the September 17, 2004, Board of Directors Meeting

President Thomas O'Rourke called the meeting to order at 8:40 a.m. Also present were President-Elect Craig Comartin, Secretary/Treasurer Ron Mayes, Directors John Aho, Donald Ballantyne, Farzad Naeim, and Sarah Nathe, Executive Director Susan Tubbesing, and Administrative Assistant Valarie Austin. Bruce Clark and Mary Comerio were absent.

President's report on NEHRP re-authorization: O'Rourke indicated that since the last Board meeting, a compromise was finally reached on HR2608 that sets aside 10% of discretionary earthquake funds for performance-based engineering. Overall, there was an increase in NEHRP's authorized funding level from \$110 to \$175 million, but this is less than the \$190 million hoped for. The \$30 million amount authorized for ANSS was seen as a positive development, but this resulted in less money (\$47 million) for USGS. NIST's funding, as the lead agency for NEHRP, was increased from \$9 to \$10 million, but the agency is still concerned that it has not been adequately funded to carry out its new responsibility. The Board recognized that it will need to stay actively involved and to work with other NEHRP Coalition partners to get these increases actually appropriated by Congress.

Technical seminars update: Plans for the risk seminar are proceeding. Tubbesing will continue to communicate with Spencer and Kircher. Comartin is laying the groundwork for another technical seminar for practitioners. Ballantyne will pursue with the American Water Works Association the possibility of conducting a seminar on water lifelines

in southern California. Aho reported that the Alaska chapter will hold its first meeting on October 5 to plan a seminar, which hopefully will be conducted in April 2005. The Board will choose the location of the 2005 Board seminar during the December Board meeting. As a means of encouraging nonmembers to join EERI, seminars will be priced to give members a significant cost savings.

Publication distribution in developing countries: Jain has asked for the Board's consent to reprint the Yashinsky and Chopra monographs in India. The Board approved this request and asked that Jain document how these monographs are distributed and utilized and provide a report back to the Board next year.

Special '06 Spectra status: The Board approved a proposal by Holmes and Reitherman to publish a *Spectra* special issue on the centennial of the 1906 San Francisco earthquake.

Revenue and expense report: Mayes reviewed the Report of Revenue and Expenses as of August 31, 2004. The combined balance sheet showed an opening fund balance of \$126,654, which was augmented by \$209,084 in excess revenues over expenses to total \$335,738. EERI's total liabilities of \$100,797 combined with the total fund balance of \$335,738 equaled \$436,535.

The Endowment Fund's opening balance of \$680,723 was decreased by \$28,128 in expenses, for a total fund balance of \$652,595. Total liabilities in the amount of \$329,096 combined with the total fund balance of \$652,595 equaled \$981,691. The balance of the combined association, endowment, and technical programs equaled \$1,418,226.

The Investment Funds Report showed a balance of \$153,837 in the General Administrative Short-Term Investment Fund and \$36,325 in the Long-Term Investment Fund. The Endowment Fund balance

(above) totaled \$652,595, the Friedman Family Investment Fund totaled \$158,367, and the Shah Family Innovation Prize totaled \$170,729. The balance in the interest-bearing checking account was \$12,431. The combined funds in both the General Administrative checking and investment accounts totaled \$203,734.

The Grants Status Summary showed that of \$2,796,531 in active grants, \$2,275,997 has been expended, leaving a balance of \$520,534 as of August 31, 2004.

Investment meeting: Mayes reported that he met with EERI's investment manager. He will investigate the possibility of moving EERI's investments to a less expensive service and make a recommendation to the Board at the next meeting.

2005 budget: The 2005 budget will be presented to the Board for approval at the December Board meeting. The Board discussed whether to raise 2005 dues. The consensus was to keep the dues unchanged until the value gained from membership can be increased through activities such as the successful resumption of the technical seminars. An active membership campaign will be conducted, which, if successful, has the potential to generate more revenue than would increasing the dues. As a step in attracting younger members, the staff will include the promotional flyer prepared by Josh Marrow in mailings to all members.

Executive Director's report: Tubbesing will provide the Board with the numbers, broken down by affiliation, of members joining or renewing membership with EERI in the past few years, to complement the figures already provided on those who have resigned in each category.

Publications Policy Committee Report: Following up the discussion in the June Board meeting, the Board reviewed a memorandum prepared at its request by Roger Borchardt, a member of the Oral

History Committee, which outlined the advantages of placing the oral histories (the *Connections* series) online with AIP to provide enhanced search and retrieval capabilities and to enable the archiving of publications for future generations. The committee believes that the Institute should consider AIP's new platform environment referred to as the "Digital Library," which allows a professional society to maintain an electronic library for all its digital publications for a reduced hosting fee.

The Board is in agreement that electronic publication is the direction of the future. The Executive Committee will review this proposal to determine the cost of putting current and past volumes of the *Connections* series online. If the cost is less than \$10,000, money from the NSF oral history grant will be used for this purpose, and during the coming year the online usage of the *Connections* series will be monitored.

Learning from Earthquakes report: Marjorie Greene, LFE Program Manager, reported on progress in implementing the wireless Accela data collection system. Testing should occur within two weeks, and the system will be set up for individual use in a Windows-based environment, with Accela maintaining the database. The Board suggested that it is important to investigate potential multihazard uses for this technology and to demonstrate the utility of lessons learned in solving problems across disciplines.

Greene stated that reconnaissance teams would be provided training in gathering data systematically during their field investigations. The result should be more and higher-quality data for analyzing building performance. The LFE Committee will convene to follow up on feedback from the mid-course evaluation workshop, and committee chair Jay Love will be invited to the next Board meeting to discuss this and other achievements of the LFE

Program.

Special Projects and Initiatives (SPI) report: The Small Grants Program for Developing Countries has tentatively approved two proposals. Also, in early October, James Godfrey will visit USC to work with SCEC on linking EERI's web-based Mitigation Center to the earthquake resources in NSF's Digital Library for Earth System Education.

Seattle Scenario and Guidelines: Ballantyne distributed copies of a proposal from the Washington State Emergency Management Division (WSEMD) to manage completion of the Seattle Fault Scenario document. The document will be jointly sponsored by EERI and the WSEMD, with the latter paying the costs of printing and distributing 1,000 copies of the document. The scenario together with the guidelines will be sold as a CD-ROM. The Board approved this proposal to share joint editorial authority with the WSEMD, subject to the consent of the SPI Committee. The Board is most appreciative of the WSEMD's support.

Publication sales report: Publication sales for the third quarter were even with those in 2003. There were recent promotional e-mails to engineering and geoscience newsletters on the Molise earthquake special issue of *Spectra* and the new *Seismic Hazard and Risk Analysis* monograph by Robin McGuire.

2005 Annual Meeting: The Board approved limited costs for simultaneous translation during the meeting. There will be a joint U.S.-Mexico poster session. Tubbesing reported that the hotel would plan the banquet, which will have a Mexican theme. The current version of the program stands approved by the Board.

JAEE Kobe Symposium and the 1st International Conference on Urban Disaster Reduction: Sev-

enty-two abstracts were received by EERI. Papers have been accepted and will be presented in each meeting. Some participants will attend both conferences. Funding has been received from NSF for travel support for the participants.

2006 meeting planning: Tubbesing reported that the most recent 2006 planning meeting at the EERI office was more productive than previous monthly conference calls. Future meetings will be held at EERI every three months. Planning is proceeding well. A meeting planner and exhibition service have been hired.

NEES funding: Comartin reported that he, Chris Poland, and Chris Rojahn met with NSF staff to discuss the Grand Challenge funding process. NSF stated that it is vital that practitioners get on board and make NEES a success.

Membership development: The Board discussed suggestions made by the Board Membership Development Subcommittee that strongly supported reviving the practice of holding regional board meetings and seminars. At its December meeting, the Board will decide on the location for at least one Board seminar in 2005.

The Membership Subcommittee also recommended diversifying *Spectra* to include a new section devoted to articles of interest to practitioners and developing a strategy that will attract professionals in peripheral fields. The subcommittee will meet again to discuss and expand on its recommendations prior to further consideration at the December Board meeting.



Tsunami Teams

continued from page 1

such profound losses. The only solace I can offer is a commitment to redouble our efforts to improve technical knowledge and raise public awareness. It is important to know that we are not completely powerless in the face of similar risks. There are measures we can take to reduce losses in future earthquakes and tsunamis.”

Initial Teams

EERI dispatched teams of tsunami and earthquake engineering experts to join other international teams throughout the affected region. These initial EERI teams included geotechnical, structural, and coastal engineers; geologists; geophysicists; and experts in fluid mechanics. One team, led by Harry Yeh of Oregon State University, surveyed the eastern coast of India. Yeh's team includes R. K. Chadha (National Geophysical Research Institute, India), Mathew Francis (URS Corporation, Hawaii), and Curt Peterson (Portland State University).

A second team traveled to Sri Lanka and then to the Maldives. It is headed by Philip Liu of Cornell University and includes Harindra Joseph Fernando (Arizona State University), Bretwood Higman (University of Washington), Bruce Jaffe (U.S. Geological Survey), Patrick Lynett (Texas A & M University), Robert Morton (U.S. Geological Survey), Costas Synolakis (University of Southern California), reporters William Hermann (*The Arizona Republic*) and Tom Paulson (*Seattle Post-Intelligencer*), and Jeff Topping (Topping Photography, Phoenix).

Both teams have gathered data on estimated wave heights, the extent of inundation, geological scouring, and other perishable information related to the physical aspects of tsunamis. They are coordinating their work with teams from Japan and Australia and with Jose Borrero

(University of Southern California), who led a *National Geographic* team and was one of the first U.S. researchers to gain access to northern Sumatra.

A 13-member team of engineers led by EERI member Sudhir Jain, Indian Institute of Technology (IIT), Kanpur, has investigated structural damage and impacts on port facilities along the eastern coast of India as well as the Adaman and Nicobar Islands. Jain's team includes Suresh Ranjan Dash, Hermant Kaushik, Javed Malik, C. V. Murty, Durgesh Rai, Snigdha Sanyal, Lt. Col. Santosh, and Lt. Col. J. S. Sodhi (all from IIT Kanpur), as well as Pratibha Gandhi (IIT Madras), Arvind Jaiswal (Hyderabad), Gautam Mondal (Tata Institute of Fundamental Research, Mumbai), and Alpa Sheth (government of Gujarat).

Jay Love of Degenkolb Engineers, chairman of EERI's Learning From Earthquakes (LFE) Committee, noted that this event poses unique challenges. "Usually we focus on a local or regional area. The geographic scope of the tsunami impact demands the best people and the best technology we can muster." Team members are traveling with the latest in digital cameras, GPS units, and current satellite imagery to guide their field investigations and data gathering.

Subsequent Teams

For ten days beginning January 22, 2005, a joint EERI-DRC (Disaster Research Center, the University of Delaware) team focused on societal impacts in areas in India and Sri Lanka that were most severely impacted. The team has documented the impacts on communities and the region, including search and rescue operations, medical response, multinational relief, organizational response, effects on children and families, shelter and housing, and social and economic impacts. The goals were to collect perishable data, identify communities and organiza-

tions that were particularly hard-hit by these events, identify local and state agencies as well as local and international nongovernmental organizations that are taking part in the recovery and relief efforts, and make contacts with research centers in the affected nations. This effort will provide the first step in developing long-term collaborative relationships that will contribute to a better understanding of the disaster's social and physical impacts, the complexities of disaster response and relief across many nations that are coping with similar disaster problems at the same time, and issues that will affect the physical, social, and economic recovery of the region in general.

This team includes Havidán Rodríguez (DRC Director), James Kendra (University of North Texas), Joseph Trainor (DRC project coordinator), and Tricia Wachtendorf (DRC core faculty). Primary concerns for this investigation are the absence of integrated warning systems in countries around the Indian Ocean, transnational coordination and collaboration in the provision of response assistance, the distribution of disaster relief aid and supplies, disaster vulnerability and the social and economic consequences of the tsunamis in different nations, differences in disaster response and protective action, and the impact of the disaster on children and other vulnerable groups.

DRC was the first social science research center in the world devoted to the study of disasters. For additional information on DRC, visit www.udel.edu/DRC/.

A joint EERI-TCLEE (ASCE Technical Council on Lifeline Earthquake Engineering) team of engineers will focus on damage to lifelines, including highways, bridges, ports and harbors, water delivery systems, wastewater treatment facilities, and other utilities. Subteam leaders in this effort will be Donald Ballantyne

(ABS Consulting), Curt Edwards (Pountney Associates), and Anshel Schiff (Precision Measurement Instruments).

These reports will be compiled and published by EERI as part of the LFE Program (funded by the National Science Foundation). EERI member Bill Iwan will coordinate the investigation and report (see article on page 12 for more information).

Virtual Clearinghouse

EERI plans on using advanced techniques to coordinate and disseminate the data using a Web-based virtual clearinghouse. EERI member Haresh Shah has taken the lead in putting together a "virtual" or "cyber" team composed of the following:

- Bangladesh: Jamilur Choudhury (BRAC University)
- East Africa: Badru Kiggundu (Uganda Seismic Safety Association)
- India: Sudhir Jain (IIT Kanpur) and Ravi Sinha (IIT Mumbai)
- Indonesia: Teddy Boen (World Seismic Safety Initiative)
- Malaysia: Judin Abdul Karim (government of Malaysia)
- Maldives: Abdullahi Majeed (government of the Republic of Maldives)
- Myanmar: U Thant Myint (Myanmar Engineering Society), and the Director General of the Myanmar Department of Meteorology and Hydrology
- Singapore: Tso Chien Pan (Nanyang Technical University)
- Sri Lanka: Srikantha Herath (United Nations University)
- Thailand: N. Arambepola and Rajesh Sharma (Asian Disaster Preparedness Center)

In addition, Kerry Sieh of the California Institute of Technology will contribute a general write-up of the Sumatran fault, its past history, and the general seismic environment.

These individuals have been authorized to post reports on the new EERI web site for this event. Their reports will cover one or all of the

following topics:

- for tsunami-related impacts, accurate input on the time of arrival of the wave, number of waves, height of the waves, how far inland their effect was felt, data on the performance of engineered buildings to wave forces, and the main cause of failures
- any previous historical information on tsunamis in the region
- any past research or development on a tsunami warning system for the country of interest
- social, economic, and political impacts of the disaster
- a GIS-based map that can provide information on the location of affected sites, inundated regions, and any other geographic-based input

Mailboxes have been established on the EERI web site for submission of additional information to these country contacts. Those who wish to contribute information or to read reports from the field are encouraged to access the Tsunami Virtual Clearinghouse via the EERI web site: www.eeri.org.

Announcement

Call for Field Trip Proposals

Organizers of the 100th Anniversary Earthquake Conference to be held April 18-23, 2006 in San Francisco, California, are seeking proposals for field trips. Convened by EERI, the Seismological Society of America, and the California Governor's Office of Emergency Services, this meeting will bring together scientists, structural engineers, and emergency planners to commemorate the centennial of the 1906 San Francisco earthquake.

Field trips to areas of interest in the San Francisco Bay Area and northern California that integrate geology, seismology, engineering and disaster mitigation are especially encouraged. Trips can be half-day, full-day, or two days in length. Proposals should be brief (two pages maximum). Deadline for submission of proposals is March 1, 2005. Please contact Carol Prentice (cprentice@usgs.gov) for additional information.

Call for Abstracts

EERI Co-Sponsors SismoAdobe2005

The Department of Engineering of the Catholic University of Peru (PUCP) is organizing SismoAdobe2005, an international seminar of architecture, construction, and conservation of earthen buildings in seismic areas. The seminar, sponsored by Proterra (a research project of Science and Technology for Development), EERI, and the Getty Conservation Institute, will take place on the PUCP campus in Lima, Peru, May 16-19, 2005.

The event will include keynote lectures from international experts, oral and poster presentations, and technical demonstrations at the Structures Laboratory of the PUCP, where full-scale seismic simulation tests of adobe dwellings will be performed. The seminar will be held in English, Spanish, and Portuguese, and simultaneous translation between English and Spanish will be provided.

The deadline for submission of abstracts is February 15, 2005. For more information about SismoAdobe and to see the preliminary program, visit www.pucp.edu.pe/eventos/SismoAdobe2005, or contact Dr. Marcial Blondet, coordinator of SismoAdobe2005, at mblondet@pucp.edu.pe.

News of the Profession

Congressional Support for NEHRP

On January 7, 2005, Congressman Sherwood Boehlert (R-NY), chairman of the House Science Committee, and Congressman Vern Ehlers (R-MI), chairman of the Subcommittee on Environment, Technology, and Standards, sent the following letter to Joshua Bolten, director of the Office of Management and Budget.

Dear Director Bolten,

We are writing to urge you, as you put the finishing touches on the President's fiscal year (FY) 2006 budget request, to provide sufficient funding to the National Institute of Standards and Technology (NIST) for its new responsibilities as lead agency for the National Earthquake Hazard Reduction Program (NEHRP). The amount of money needed is minuscule by Federal standards — an additional \$3.5 million — but its impact would be significant.

The recent tragic events in Asia have brought home once again how vital it is for a nation to be prepared for natural disasters. Since 1977, NEHRP has enabled the United States to make great strides in reducing the death and destruction caused by earthquakes by funding fundamental earthquake research, earthquake monitoring and vulnerability assessment, emergency preparedness, and, most significantly, work to improve the ability of new and existing structures to withstand earthquakes.

Because research on buildings and other structures, the development of new building codes, and the dissemination of that information have turned out to be such critical elements in reducing death and destruction from earthquakes, Congress last year passed, and the

President signed, legislation making NIST the lead agency for NEHRP (P.L. 108-360). (Previously, the program was headed up by the Federal Emergency Management Agency, which never fully forged the inter-agency program into a coherent program.)

NIST (and more specifically its Building and Fire Research Laboratory) has demonstrated a great willingness and ability to take on NEHRP management responsibilities. The lab has already developed a detailed transition plan and has established performance metrics for the program. However, the BFRL budget is not large enough to hire the new personnel to manage and coordinate an approximately \$150 million interagency program. (And due to the timing of the legislation, NIST did not have the opportunity to request funds to run the program in FY 2006 during the normal budget process).

A relatively small additional invest-

ment of \$3.5 million for NIST's NEHRP leadership and coordination activities will enable NEHRP to function as a true interagency program, enabling it to build on its past accomplishments, which have already saved lives, property and Federal and private dollars. We shouldn't need a tragedy to take effective action to prepare for inevitable natural disasters. Especially as the Administration looks for additional funds to provide warnings for tsunamis in the U.S. and around the world, funding should be provided for a proven program that helps the nation withstand earthquakes — far more likely disasters that could occur in almost any state.

We look forward to continuing to work with you on this issue.

Sincerely,

Vern Ehlers
Member of Congress

Sherwood Boehlert
Member of Congress

News of the Institute

Endowment Fund Donors

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

\$5,000

David A. Friedman
& Paulette Meyer

\$1,000

Clarence R. Allen
John McKee Coil

\$500

Forrest T. Braun
Peter I. Yanev

\$200-\$499

Robert Chittenden
Ruth V. Gordon
Paul C. Jennings
Robert V. Whitman

\$100-\$199

Thalia Anagnos
Patricia A. Bolton
Ian G. Buckle
Ricardo Dobry
Andrew J. Eggenberger
Sigmund A. Freeman
Phillip L. Gould
Thomas C. Hanks
William T. Holmes
LeVal Lund
Anshel J. Schiff
Anthony F. Shakal
T. Leslie Youd

Other Amounts

Jay Allen
Claudio Chesi

Kelly E. Cobeen
James F. Davis
John R. Hayes
Ephraim G. Hirsch
James LaFave
Sarah Nathe
Irving J. Oppenheim
Victor M. Pavon
Satwant S. Rihal
Peter Somers
Fred M. Turner
Samuel WoldeSemait
Shoichi Yamaguchi
Yoshitaka Yamazaki
Bradley P. Youngman
Stan Zagajeski

Call for Papers

BSSA Special Issue on Parkfield EQ and Parkfield Experiment

The *Bulletin of the Seismological Society of America (BSSA)* will publish a special issue on the September 28, 2004, M_w 6.0 Parkfield, California, earthquake. This event occurred in one of the most densely instrumented regions due to the Parkfield Earthquake Prediction Experiment and provides an unprecedented view of a single significant strike-slip earthquake on the San Andreas fault. Further, because the 2004 main shock is only the latest in a sequence that goes back to the 1800s, this event allows study of the seismogenic behavior of a sequence of events.

This BSSA special issue, to be published in September 2006, will focus on results of investigations into all seismological, geodetic, other geophysical, geological, earthquake engineering, and public policy aspects of the 2004 Parkfield earthquake and the Parkfield Earthquake Prediction Experiment. All authors working in these areas are encouraged to submit research papers for consideration as part of this special issue.

Authors considering preparing papers for submission are encouraged to contact one of the guest editors, Ruth Harris (harris@usgs.gov) or Ramon Arrowsmith (ramon.arrowsmith@asu.edu) to discuss their intentions.

The submission deadline for manuscripts is August 31, 2005. Papers should be submitted to the BSSA Editorial Office at Los Alamos National Laboratory as described at www.seismosoc.org/publications/bssa.html and in issues of BSSA.

Request for Qualifications

CSMIP Projects

The California Strong Motion Instrumentation Program (CSMIP) of the California Geological Survey in the Department of Conservation is funding data interpretation projects focusing on the analysis and interpretation of the extensive strong-motion data set recorded from the magnitude 6.0 Parkfield earthquake of September 28, 2004. The goal of these projects is to further the understanding of strong ground shaking and the response of buildings and other structures, and to increase the utilization of strong-motion data in improving post-earthquake response, seismic code provisions, and seismic design practices.

To receive a copy of the Request for Qualifications (RFQ), e-mail Lisa Chisholm at lisa.chisholm@conservation.ca.gov, fax 916/323-7778, phone 916/322-3105 or 888/472-7647. The submission deadline is March 1, 2005, at 5:00 p.m.

Announcement

US-China Research Exchange Program

U.S. researchers are invited to participate in the 2005 US-PRC Research Exchange Program in Earthquake Studies. Since 2000, MCEER has coordinated this researcher exchange program between the United States and the Peoples' Republic of China on behalf of the National Science Foundation. The program supports individuals interested in pursuing joint research with colleagues in China by sponsoring a short trip to China for up to two weeks. Graduate student applicants are also considered. The application deadline is February 28, 2005, and the trip must be made before December 31, 2005. Additional information and application forms are available from mceer.buffalo.edu/outreach/intActivity/USPRC/usPrc2005.asp. Inquiries may be directed to Mai Tong at 716/645-3391 ext. 121, or via e-mail: mtong@mceermail.buffalo.edu.

News of the Institute

Annual Meeting Travel Grant Recipients

With support from FEMA, several full and partial travel grants have been awarded to encourage student members and younger EERI members (out of school no more than three years) to attend this year's Annual Meeting in Ixtapa, Mexico. This financial support was contingent upon participation in the poster session, either through the applicant's own research project or as a representative of a student chapter depicting the chapter's activities. Following are the travel grant recipients:

Dominic Dowling*	University of Technology, Sydney, Australia
Ekin Ekiz	University of Michigan
Christine Goulet	University of California at Los Angeles
Marlon Hill	Florida A&M
Anna Lang	University of California at San Diego
Lourdes Mieses	University of Puerto Rico at Mayaguez
Jamie Padgett	Georgia Tech
Shin-Tai Song	University of California at Davis
Lauren Stewart	University of California at San Diego
Bradley Weldon	University of Notre Dame
Widiyanto	University of Texas at Austin

*Funded by World Housing Encyclopedia Program

Calls for Abstracts

Irregular and Complex Structures Workshop

The European Association for Earthquake Engineering (EAEE) and the Department of Civil Engineering of the Aristotle University of Thessaloniki are calling for abstracts for the Fourth European Workshop on the Seismic Behavior of Irregular and Complex Structures to be held in Thessaloniki, Greece, August 26-27, 2005. The workshop will focus particularly on nonlinear response and experimental results. Special attention will be given to studies related to seismic code provisions for irregular structures.

The following topics are to be covered: asymmetric single-story buildings, asymmetric multistory buildings (frames, walls, wall-frames), vertically irregular structures, setback multistory buildings, seismically isolated and controlled asymmetric structures, and particular cases of irregularity in structures. A 300-word abstract was due by January 31, 2005, to Prof. Andreas J. Kappos (ajkap@civil.auth.gr). Check with Prof. Kappos on an extension. Include postal and e-mail addresses of the contact author. A final copy of the paper will be due by June 30, 2005. For more information, visit taz.civil.auth.gr/4ewics/.

INCEED 2005

The International Conference on Energy, Environment, and Disasters (INCEED 2005) will be held July 24-30, 2005, in Charlotte, North Carolina. The conference theme is "Bridging the Gaps for Global Sustainable Development." Abstracts are solicited in nine major topic areas, three of which will be of particular interest to EERI members: natural and technological disasters and their impacts, disaster and pollution prevention and management techniques, and monitoring and

visualization systems for risk assessment and decision support. Professionals interested in advancing global sustainable development through efficient and effective programs and research and policy implementation are invited to contribute ideas and communicate research results to a global audience.

The conference, which will be hosted by the Global Institute for Energy and Environmental Systems (GIEES) of the University of North Carolina at Charlotte, is jointly organized by the International Society of Environmental Geotechnology (ISEG), the Global Alliance for Disaster Reduction (GADR), and UNESCO, along with other large national and international organizations. More than 40 other organizations are supporters of this conference, which is expected to draw more than 800 researchers, corporate officials, policy makers, teachers, and students from all over the world. About 100 sessions, panels, and forums that will feature keynote lectures, presentations, recorded debates, and discussion panels are planned.

Some of the session discussions will be videotaped for subsequent television broadcast. The best papers on thematic topics will also be selected for further review and possible publication in special editions of reputable, peer-reviewed international journals. Research advances communicated at these events and some consensus positions will be put directly into public policies by agencies in many countries. The ISEG-GADR-UNESCO trio of organizers seeks to continue to promote scientific cooperation among countries, organizations, and individuals on the thematic issues of this conference.

Abstracts should be 250 to 500 words. Authors and co-authors should each submit a one-page summary of curriculum vitae (single-spaced) containing their degrees,

job responsibility and history, and professional contributions. Authors are encouraged to submit abstracts online at www.iseg.giees.uncc.edu/inceed2005, or via e-mail attachment to giees@email.uncc.edu.

STESSA 2006

The 5th International STESSA Conference on the behavior of steel structures in seismic areas will be held August 14-17, 2006, in Yokohama, Japan, 30 km southwest of Tokyo. Abstracts are solicited related to the following main topics: performance-based design of structures; seismic, wind, and exceptional load; material behavior; member behavior; connection behavior; global behavior; analytical and experimental methods; mixed and composite structures; passive and active control; strengthening and repairing; codification; and design, fabrication, and practice. Specialists from all over the world working in the field of the seismic response and design of steel structures are invited to share their knowledge and experience. The technical program will consist of working sessions that will each include a general report, oral presentation of papers, free discussion, and concluding remarks. Invited lectures will also be presented on recent developments in theory, design, and practice pertaining to relevant seismic-resistant steel structures in various parts of the world. STESSA 2006 is organized by the Tokyo Institute of Technology, Japan, and the University of Naples, Federico II, Italy.

For further information, visit the web site www.serc.titech.ac.jp/stessa2006/. The deadline for 500-word (one-page) abstracts is April 30, 2005. They should indicate the topic and may be e-mailed to stessa06@unina.it. The deadline for submission of full papers is December 31, 2005.

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**.

FEBRUARY

2-6. EERI Annual Meeting, Ixtapa, Mexico. Info: www.eeri.org. (4/04, 7/04, 9/04, 10/04, 11/04, 12/04, 1/05)

15, 22, and 25. Improvement of Nonlinear Static Seismic Analysis Procedures, Various locations. Info: www.atcouncil.org (1/05).

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

MARCH

3. New Knowledge of EQ Hazard in the Central US and Implications for Bldg. Seismic Design Practice, Memphis TN. Info: www.atcouncil.org (1/05)

APRIL

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

24-29. EGU 2005 - European Geosciences Union General Assembly, Vienna, Austria. Info: www.copernicus.org/EGU/ga/egu05/index.htm (1/05)

MAY

1-4. UCLA Conf. on Public Health & Disasters, Woodland Hills, CA. Info: www.cphd.ucla.edu/ (11/04)

10. SMIP05 Seminar for Utilization of Strong-Motion Data, Los Angeles, CA. Info: www.conservation.ca.gov/cgs/smip/seminar.htm (1/05)

15-18. Disaster Resistant CA Conf., Sacramento, CA. Info: www.sjsu.edu/cdm/drc05 (11/04)

16-19. SismoAdobe 2005, Lima, Peru. Info: www.pucp.edu.pe/eventos/SismoAdobe2005. See page 7. (2/05)

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. Info: www.sem.org (10/04)

20-22. 12th Int'l Conf. on Comp. Methods & Experimental Measurements (CMEM 2005), Malta. Info: www.wessex.ac.uk/conferences/2005/cmeme05/ (10/04)

JULY

10-13. 15th World Conf. on Disaster Management, Toronto, Canada. Info: www.wcdm.org (11/04)

24-30 INCEED 2005, Charlotte, NC. Info: www.iseg.giees.uncc.edu. See page 10. (2/05)

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)

26-27. 4th European Wkshp. on Seis. Behavior of Irregular & Complex Struc., Thessaloniki, Greece. Info: taz.civil.auth.gr/4ewics/. See page 10. (2/05)

SEPTEMBER

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

16-19. XV Mexican Nat. Conf. on Eq. Eng., Mexico City, Mexico. www.smis.org.mx (12/04)

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. Info: www.serc.titech.ac.jp/stessa2006. See page 10. (2/05)

SEPTEMBER

3-6. 1st European Conf. on EQ Eng. & Seismology, Geneva, Switzerland. Info: www.symporg.com/2006.html (1/05)

Election Results

continued from page 1

of outstanding service and dedication to the Institute.

Another significant transition will be the installation of Craig Comartin of C. D. Comartin, Inc., in Stockton, California, as EERI President. Outgoing President Thomas D. O'Rourke of Cornell University, New York, will continue to serve on the Board for one year as Past President.

It is not too early to start thinking about next year's election of a president-elect and directors. The Nominating Committee welcomes suggestions from the membership, including self-nominations. Nominees for president-elect must have previously served on the Board. Nominees for director 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.

News of the Institute

Iwan to Head Tsunami Investigation Effort



Wilfred D. Iwan

EERI President-Elect Craig Comartin appointed Professor Wilfred D. Iwan to coordinate the massive tsunami and earthquake investigation being carried out by EERI as part of its Learning From Earthquakes Program. Currently more than three dozen investigators from universities, government agencies, and private firms in the United States and India are carrying out field studies in more than half a dozen countries where tsunami and earthquake impacts have destroyed countless communities and taken the lives of more than 150,000 people.

Iwan, emeritus professor of applied mechanics and director of the Earthquake Engineering Research Laboratory at Caltech, is a member of the

National Academy of Engineering. He served for many years as chairman of the California Seismic Safety Commission and the National Research Council's Board on Natural Disasters. He has chaired numerous scientific committees of the International Association of Earthquake Engineering and the International Association for Seismology and Physics of the Earth's Interior. Iwan was co-chair of the U.S. delegation to the closing of the International Decade on Natural Disaster Reduction. He is the recipient of the Nathan M. Newmark Medal for contributions to dynamic analysis of structures, and the Alfred E. Alquist Award for achievement in earthquake safety. Comartin noted, "In addition to Bill's internationally recognized credentials as a researcher, he brings to this unprecedented investigation critical organizational skills and numerous contacts throughout the devastated region."

Iwan said, "We need to learn from this event. For one thing, we have to improve our understanding of the seismology of this M9 event, so we can improve our models and predictive capabilities and prevent these catastrophes from happening again."

Iwan will be working with leading seismologists, tsunami experts, civil and structural engineers, lifeline engineers, and social and policy scientists to compile a comprehensive picture of the events and to extract lessons for research and

practice in the United States and other countries at risk. Reports will be contributed by members of the reconnaissance teams as well as from experts in each of the affected countries. See the article beginning on page 1 for more information.

John A. Martin & Associates Supports Tsunami Efforts

EERI has received a generous \$2,000 donation from John A. Martin & Associates of Los Angeles, California, to support EERI's efforts to contribute to lessons learned from the Sumatra earthquake and tsunami disaster. These lessons will reduce future vulnerability and improve recovery practices following future disasters. EERI's activities include organizing several reconnaissance teams and sending them to the region impacted by the Sumatra disaster, and supporting a cyber-investigation team of reporters from nine of the affected countries, as described in the article beginning on page 1.

John A. Martin & Associates, a Gold Subscribing Member of EERI, is a structural and seismic design and consulting firm with 15 offices located throughout the United States. EERI member John A. Martin, Sr., is chairman of the board of Martin Associates Group, and member John A. Martin, Jr., serves as president of John A. Martin & Associates.



**EARTHQUAKE ENGINEERING
RESEARCH INSTITUTE**
499 14th Street, Suite 320
Oakland, CA 94612-1934
ADDRESS SERVICE REQUESTED

PRSRRT FIRST CLASS
U.S. POSTAGE PAID
Sundance Press
85719