



EARTHQUAKE ENGINEERING RESEARCH INSTITUTE NEWSLETTER

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News of the Membership

Eguchi to Provide a View from Space as 2008 Distinguished Lecturer

Ronald T. Eguchi, president and CEO of ImageCat, Inc., headquartered in Long Beach, California, will be EERI's 2008 Distinguished Lecturer. During EERI's 60th Annual Meeting in February in New Orleans, he will present his lecture, entitled "Earthquakes, Hurricanes and other Disasters: A View from Space," for the first time.

An EERI member since 1976, Eguchi has over 30 years of experience in risk analysis and risk management studies. In 2000, with Charles K. Huyck, he formed ImageCat, Inc., a risk management company that specializes in the development and use of advanced technologies for risk assessment and reduction, and that has contributed substantially to research on and implementation of remote sensing technologies for earthquakes, other natural hazards, life-line earthquake engineering, and earthquake risk assessment. He has authored over 200 publications, many of them dealing with these issues.



Ronald T. Eguchi

Eguchi has directed major research and application studies in these areas for government agencies and private industry. Over the last decade, he has focused on remote sensing for reconnaissance after earthquakes, tsunamis, hurricanes, and other natural disasters and human threats. This work has revolutionized the way that reconnaissance for extreme events is performed. Eguchi's work is recognized worldwide for its innovative and useful application of advanced technology for infrastructure inventory, damage assessment, emergency response, and disaster recovery. He is a past member of the Scientific Earthquake Studies Advisory Committee of the U.S. Geological Survey and a current member of the National Academies Disaster Roundtable. In 2006, Eguchi accepted an ATC Award of Excellence on behalf of the ATC-61 project team for work on *An Independent Study to Assess Future Savings from Mitigation Activities* that showed that a dollar spent on hazard mitigation saves the nation about \$4 in future benefits.

Singh Appointed NSF Program Director

Effective January 2008, Professor M. P. Singh will become program director for the Structural Systems and Hazard Mitigation (SSHM) Program within the Division of Civil, Mechanical and Manufacturing Innovation at the National Science Foundation. An EERI member since 1978, Singh is currently Preston Wade Professor of Engineering in the Department of Engineering Science and Mechanics at Virginia Tech, where he has served on the faculty for 30 years. The SSHM program focuses on experimental, analytical, and computational research on design and performance enhancement of structural systems. Singh's research interests have been in the areas of structural health monitoring, random vibrations, structural reliability, structural dynamics and control, and earthquake engineering. He has taught several graduate and undergraduate courses in these areas, and published more than 200 papers in archival journals and in conference proceedings.

Learning from Earthquakes 2007 Sumatra, Indonesia, Earthquakes

The following report was prepared by Rich Briggs at the Caltech Tectonics Observatory.

Two large ruptures on the Sunda megathrust (M 8.4 and M 7.9) and dozens of large aftershocks (up to M 7.0) occurred on September 12 and 13 off the west coast of Sumatra, Indonesia. They are the most recent in a remarkable sequence of M 7.3 and greater earthquakes along the Sunda subduction zone since 2000. These recent events reflect progressive failure of the plate boundary, as the Indian and Australian plates subduct beneath Southeast Asia.

According to the NEIC, the M 8.4 rupture occurred 12 September UTC at 6:10 p.m. local time. NEIC data and the Global CMT solution show a hypocentral depth of ~23 km with an epicenter ~125 km offshore of Bengkulu. Slip along the megathrust is consistent with the shallow-dipping (12°) plane of the focal mechanism.

The M 7.9 event occurred on an adjacent section of the megathrust just over 12 hours later (6:49 a.m. local time, 12 September UTC), with a ~45 km deep hypocenter just off the coast of western Sumatra. A series of large aftershocks, including one M 7.0 beneath Sipora Island, are occurring near the edges and within the slip areas of the larger ruptures.

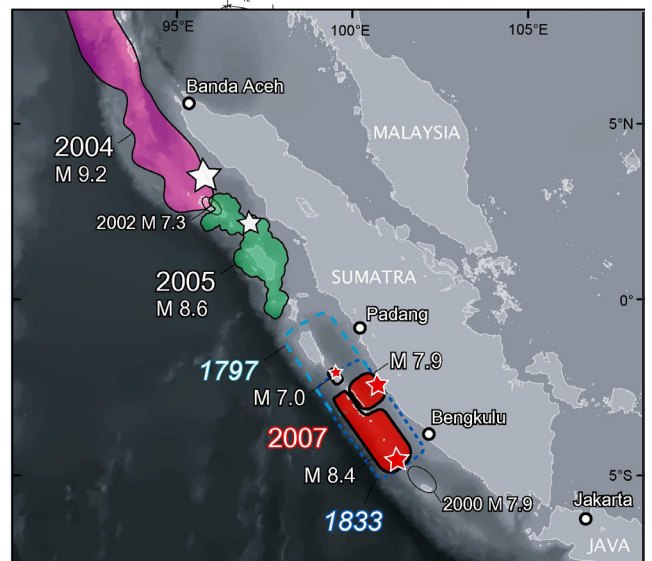
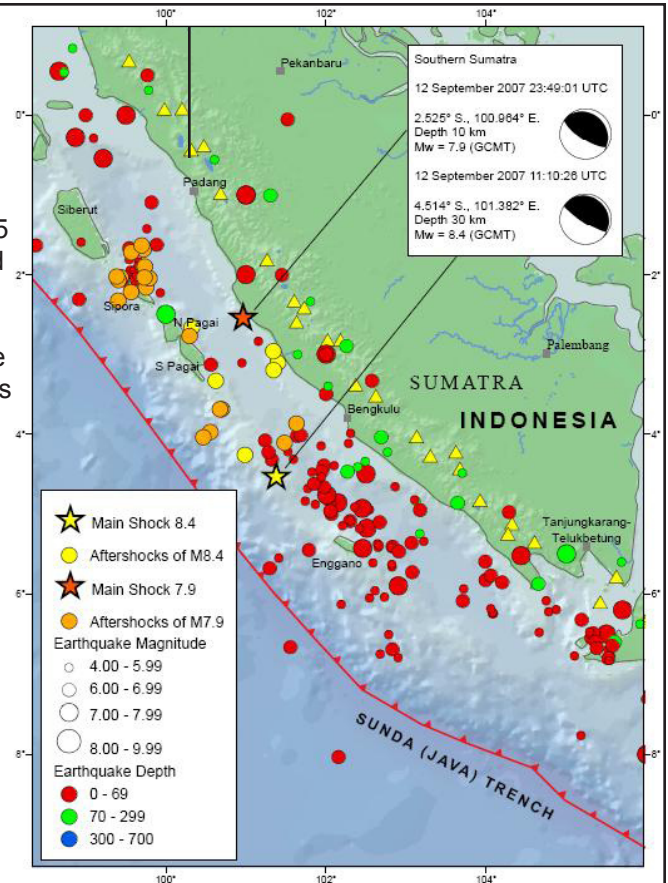
Cumulative damage from shaking that accompanied the ruptures is widespread along the western Sumatran coast and Mentawai Islands, and ranges from moderate to locally severe. A few dozen deaths have been reported so far. Bengkulu, Mukomuko, Padang, and the Mentawai Islands have reported thousands of heavily damaged structures, including many schools, hos-

pitals, and other public buildings. The United Nations Office for the Coordination of Humanitarian Affairs (OCHA) reports that 45,000 houses and 995 schools were damaged as of 17 September 2007; these data only partially reflect damage on the Mentawai Islands

Each rupture generated a tsunami. Fortunately, the waves were not destructive basin wide, and the large cities of Bengkulu and Padang appear to have been spared heavy damage. Information about locally destructive waves, several meters high, along the coast between Bengkulu and Padang, and on the Mentawai Islands, is just beginning to be reported.

Much of the plate boundary off Sumatra has now ruptured, but a large unbroken patch remains. The recent M 8.4 and M 7.9 ruptures occurred along a section of the megathrust that last ruptured in 1833, leaving a large portion of the 1797 rupture area to the north unbroken.

The fortuitous presence of outer arc islands has allowed for dense instrumentation of the rupture areas during the preceding decade by the Tectonics Observatory at Caltech, and ongoing geologic, geodetic, and seismologic studies are addressing the amount and location of slip during the recent events.



Figures: Historical ruptures and seismicity (available from NEIC at ftp://hazards.cr.usgs.gov/maps/sigeqs/20070912/mainmap_pg.pdf).

A more complete report on these earthquakes will be published in a future Newsletter.



News of the Institute

Meet the Candidates

For President-Elect



Farzad Naeim

Farzad Naeim is vice president and general counsel at John A. Martin and Associates, Inc., consulting structural engineers, headquartered in Los Angeles, California. He holds doctorate degrees in both engineering and law and is a registered civil and structural engineer in California; a member of the California bar, and a patent attorney.

A member of EERI since 1983, Naeim's five-year term as the editor of *Earthquake Spectra* expires at the end of 2007. He has served EERI as vice president, a member of the Board of Directors, and chair of the Special Projects and Initiatives Committee and the Nominations Committee. He is currently a member of the Honors and the Publications Policy committees. In addition to his EERI activities, Naeim is a member of industry advisory boards to UCLA, USC, and CSUN civil engineering departments, a director of COSMOS, and serves on the Advisory Council of the Southern California Earthquake Center.

Naeim has received numerous awards for his contributions to earthquake engineering, the latest one being the 2007 Fazlur Khan Medal Award by the Council on Tall Buildings and Urban Habitat.

Vision

EERI is indeed a unique organization. Where else can one find such a fascinating mixture of professionals and academicians from various disciplines? In my opinion, expansion of broader horizons for EERI and further enhancing of its multi-disciplinary attributes are essential elements of long-term success for EERI.

George Housner made two statements that I will never forget. First, that in earthquake engineering, the young are the exciting force and the old are damping. There is a profound concept hidden in this humorous statement. EERI needs to actively seek the wisdom of its old guard, those who have been around earthquake engineering for a long time and have had a leading hand in making EERI what it is today, and ask them for their active and frank advice on how to handle future challenges. This could be achieved by treating the veteran members as a council of elders providing seasoned guidance to the organization.

EERI is also blessed with a new generation of very talented and hard-working young members of various disciplines. A glimpse at the list of Shah Family Prize recipients shows that we have a group of fantastic future EERI leaders coming up.

The active young members should also be treated as a council of advisors who provide EERI with exciting new directions for the future. They can dare to dream bigger than we can, and we should fully utilize that capability. We should redouble our efforts in attracting new members, particularly younger members and students to EERI and expand the number and quality of EERI student

chapters as guarantors of the continued vitality of EERI.

The second statement by George Housner was that the EERI acronym does not accurately represent the nature of the organization we have. EERI is not just about earthquakes, not merely about engineering, not solely focused on research, and it is really a broad membership organization rather than an institute.

What we have learned from earthquakes can have a profound influence on natural and man-made hazard mitigation of practically all kinds. We need to expand and strengthen our ties to and collaboration with organizations that are focused on non-earthquake hazards, share our experiences with them, and learn from theirs. A broad coalition is the only way to attract direly needed and neglected levels of attention and funding. Something is wrong when the federal funding for EERI's Learning from Earthquakes program, which has been distinguished as one of a handful of outstanding engineering achievements of the 20th century, is drastically slashed year after year.

EERI is known as the worldwide authority in earthquake engineering. Its various publications are invariably treated as representing the highest standards of professionalism and knowledge. EERI has forged close working relationships with similarly situated national organizations of many countries. While we need to concentrate on addressing the needs of our members, the majority of whom are U.S. based, we cannot underestimate the value of international cooperation with individuals and organizations located outside this country. A glimpse at the pages of *Earthquake Spectra* and post-earthquake reconnaissance reports is sufficient to reveal the tremendous contribution of our international colleagues to this organization. After all, we are all in this together.

Meet the Candidates

For Director A



Richard E. Klingner

Richard E. Klingner is a professor in the Department of Civil, Architectural and Environmental Engineering at the University of Texas at Austin. He received his academic degrees (B.S.C.E. and M.S. in structural engineering and Ph.D. in earthquake engineering) from the University of California at Berkeley in the late 1960s and mid-1970s. During that period, he worked for several years in engineering consulting offices in the San Francisco Bay area and also served as a Peace Corps volunteer in Honduras. He is a registered professional engineer in Texas and is active in the Structural Engineers' Association of that state.

His field of specialization is structural engineering with emphasis on the analytical and experimental investigation of the dynamic response of structures, earthquake-resistant design of masonry and concrete structures, and anchorage to concrete. He is an active investigator in those areas, and has authored or co-authored more than 60 refereed journal articles, 20 books or book chapters, and 350 other technical publications. He is currently PI on an NSF NEES small group project on performance-based design of new

masonry structures. Since 2004, he has been associate department chair in charge of the architectural engineering program at UT Austin.

He takes a leading role in the work of many technical committees in the United States and other countries, including EERI, the American Concrete Institute (ACI), The Masonry Society (TMS), and the American Society for Testing and Materials (ASTM). For the period 2002-2008, he is chair of the Masonry Standards Joint Committee, sponsored by ACI, TMS, and the American Society of Civil Engineers (ASCE). For the period 2005-2008, he is a member of the Board of Direction of the ACI. For the period 2004-2008, he is chair of the Building Seismic Safety Council's Technical Subcommittee 5 (Masonry). He is a member of the consultants' panel for development of procedures for seismic design parameters (the ATC-63 Project).

He has extensive experience in post-disaster reconnaissance, reporting, and technology transfer (Mexico City 1985, Loma Prieta 1989, Northridge 1994, Tecomán-Colima 2001, and central Peru 2007). From 1996 to 2001, he chaired TMS's Investigating Disasters Program. He has been an EERI member since the mid-1970s. In 2001, he was co-leader of EERI's Tecomán-Colima reconnaissance team (jointly with Mexican engineers), and in 2005 he was co-chair of the program committee for the EERI Annual Meeting in Ixtapa, Mexico.

Vision

Among technical and professional organizations in the United States, EERI is uniquely charged and qualified to reduce risk from earthquakes. It does this by advancing the science and practice of earthquake engineering; by improving understanding of the impact of earthquakes on the physical, social, economic, political, and cultural environment; and by advocating

comprehensive and realistic measures for reducing the harmful effects of earthquakes. My professional, academic, research, and organizational experience has prepared me to help EERI act wisely in each of these areas.

Over the past 35 years, I have seen EERI evolve from a context in which advances in earthquake engineering were most important, to a context in which fewer technical "lessons" are new, and in which our most important challenges are to communicate those technical lessons to code development and enforcement efforts in the United States and elsewhere, and to work with social scientists to increase our collective awareness of earthquake safety.

During that time, in the United States and internationally, I have worked towards each of those goals. I have helped establish the technical bases for rational seismic design provisions for masonry in many countries; I have participated in and led the development of codes and standards embodying those provisions; and I have used my writing, communication, and listening skills to find common ground and work effectively with social scientists, educators, and public officials. I ask for your support to continue that work as an EERI Board member.

Announcement

6ICCHGE Registration

Online registration is now available at <http://www.6icchge2008.org> for the Sixth International Conference on Case Histories in Geotechnical Engineering and Symposium in Honor of Professor James K. Mitchell (an EERI member) to be held August 11-16, 2008, in Arlington, Virginia. Organizers anticipate more than 450 papers to be submitted representing over 50 countries. Proceedings of previous geotechnical conferences may also be purchased at a discount.

Meet the Candidates

For Director A



Jack Moehle

Jack Moehle is professor of civil engineering at the University of California, Berkeley, where he joined the faculty in 1980. He also is founding director of the Pacific Earthquake Engineering Research Center (PEER). He is a licensed civil engineer in the state of California, has served on the boards of the Consortium of Universities for Research in Earthquake Engineering (CUREE) and the Structural Engineers Association of Northern California (SEAONC), serves on the Advisory Council of the Southern California Earthquake Center (SCEC), and is an active member of ASCE, ACI, and SEAOC. For EERI, his notable activities have included earthquake reconnaissance, the editorship of *Earthquake Spectra* (1993-1996), and serving as technical program chair for the 100th Anniversary Earthquake Conference commemorating the 1906 San Francisco earthquake (co-convened with SSA and OES).

As director of PEER, he oversees a multidisciplinary, multi-institutional research, education, and technology

transfer program focused on performance-based earthquake engineering. The program has successfully integrated the work of seismologists, geotechnical and structural engineers, architects, and social scientists for the purpose of earthquake risk reduction, involving students, university professors, practitioners, and government and industry stakeholders. PEER continues as a vibrant research and technology transfer program in earthquake engineering.

Moehle has been actively engaged in a range of professional activities. He is beginning his third six-year term as chair of the Seismic Subcommittee of the ACI Building Code Committee. He has been active as a project team member for several engineering guideline development projects on bridge and building construction, including FEMA-funded projects for seismic assessment and rehabilitation of buildings (FEMA 306-308, 310, 356, and 440), and is a member of the project management committee for the FEMA-funded ATC 58 project for development of next-generation performance-based engineering guidelines. He currently chairs the peer review panel of the Bay Area Rapid Transit (BART) seismic upgrade program, and assists several west coast cities in the review of high-rise building designs.

Vision

I share EERI's vision of a world in which potential earthquake losses are widely understood and for which prudent steps have been taken to address those risks.

The EERI Learning from Earthquakes Program has been the most important program worldwide to inform earthquake professionals about the potential consequences of earthquakes. While we will continue to benefit from a leaner version of this program, scenario studies based on realistic simulations, involving multiple stakeholders and

disciplines, can accelerate learning and help our communities understand and prepare for future earthquakes. EERI should continue to promote community-based scenario studies and expand efforts to get the scenario message before our stakeholder communities.

Earthquake professionals today are expected to exercise greater skill sets than professionals in past decades. The quality and rate of technology transfer today, while good, can be greatly improved. EERI can play a key role. Day-long technical seminars (like recent ones on nonductile concrete and soil-foundation-structure interaction), technical briefs, targeted *Earthquake Spectra* articles, and an expanded monograph series can build skills efficiently and should be accelerated.

Seismic resilience of our communities requires community action informed by experts. While EERI members are active in many community efforts, EERI as an institute should examine the opportunities and develop strategies to accelerate community programs in productive directions.

Success in earthquake risk reduction requires knowledge, a well-informed community, and, especially, vigor in our program membership. EERI student and young member programs, including student chapters, student poster sessions, student paper awards, the Shah Innovation Prize, and the recently inaugurated Undergraduate Seismic Design Competition are bringing new members to EERI and creating excitement for long-standing members. These programs and others that bring new committed members to EERI must be pursued as top priorities.

As a member of EERI's Board of Directors, I will work hard to live up to its legacy and guide it to further success.

Meet the Candidates

For Director B



Masayoshi Nakashima

Masayoshi Nakashima, professor at the Disaster Prevention Research Institute, Kyoto University, graduated from Kyoto University and earned his doctoral degree from Lehigh University. He worked for the Building Research Institute of the Japanese Ministry of Construction and at Kobe University before joining Kyoto University. Since 2004, Nakashima has served as director of E-Defense, National Research Institute for Earth Science and Disaster Prevention (NIED). E-Defense is a research center that operates the world's largest shaking table.

Over the past two decades, Nakashima has been visiting researcher or professor at Technische Hochschule Darmstadt (1986), Stanford University (1990), the University of California at Berkeley (1994), and the European School for Advanced Studies in Reduction of Seismic Risk at Pavia University.

Nakashima is vice-president of the Architectural Institute of Japan (AIJ), a learned society of about 36,000 members with expertise in all areas of building technology. He has served on many AIJ research committees as chair or technical secretary, including the Disaster Re-

sponse Committee, AIJ Journal Editorial Committee, and the Steel Building Committee. He served on the board of directors in charge of foreign affairs for the Japan Association for Earthquake Engineering (JAEE) (2001 to 2003) and helped establish the partnership agreement between EERI and JAEE. He belonged to the Building Center of Japan's Peer Review Panel for the design of base-isolated buildings (1995 to 2005). Since 2003, he has chaired the Review Panel of the Architecture and Building Engineering Program of the Japan Accreditation Board for Engineering Education (equivalent to the U.S. Accreditation Board for Engineering and Technology, Inc.).

Nakashima's fields of research include the inelastic, stability, and collapse behavior of steel members and frames, seismic analysis and design of steel building structures, experimental techniques for simulating the earthquake responses of large structural systems, and the seismic design of base-isolated buildings. He and his students have published some 250 technical papers, over 100 of them in archival journals. Nakashima has received seven national research awards, including Best Paper Prize of AIJ (1997), Best Paper Award of the Japan Society for Steel Construction (JSSC) (1999, 2000, 2004), and the Moisseiff Award of the American Society of Civil Engineers (2000). He is an editor of the *International Journal of Earthquake Engineering and Structural Dynamics*, the official journal of the International Association for Earthquake Engineering.

Vision

Because I am Japanese, I live in a country and society that suffers constantly from damaging earthquakes. Over the past 25 years, as a researcher and educator engaged in earthquake engineering, I have worked for the mitigation of earthquake disasters worldwide. My

experience has convinced me that the greatest progress is made when scientific findings and advanced technologies are effectively communicated to concerned people in all sectors. This includes the general public, whose lives and day-to-day activities are exposed to earthquake hazards. Education and training are indispensable, and only by sensibly tailoring our efforts to specific audiences can our communications be effective. Over the years I have concentrated on improving communication among the various sectors—engineers, researchers, architects, urban planners, building managers, and the general public—whose interactions are the key to mitigating earthquake disasters.

With this concern in mind, I read with intense interest the strategic initiatives in EERI's Strategic Plan 2006-2010. The first two initiatives (enhance and expand educational materials and technical programs, and promote outreach and advocacy) resonate with my abiding concerns, and represent areas in which EERI has played a leadership role on the world stage for decades. I am eager to participate in EERI's pursuit of these initiatives. The third initiative (maintain a strong program of international activities) touches my own history and efforts. As a founding board member of JAEE, I helped establish the partnership between EERI and JAEE. I hope to help other countries and regions establish similar partnerships with EERI.

As we have learned, there is no universal solution. Effective earthquake disaster mitigation must take into account the environment, culture, and life within a region by implementing a communicative approach that embraces diversity and locality. As a representative from outside the United States, and as an individual passionately committed to communication, I will work diligently as a director of EERI to meet the critical challenge of global seismic safety.

Meet the Candidates

For Director B



Carlos Ventura

Carlos Ventura is a civil engineer who specializes in structural dynamics and earthquake engineering. He has been a faculty member of the Department of Civil Engineering at the University of British Columbia (UBC) in Canada since 1992. He earned his B.Sc., MCE, and Ph.D. degrees from Rice University. He is a registered professional engineer in British Columbia, California, and Guatemala and has practiced structural engineering for many years. He is currently the director of the Earthquake Engineering Research Facility at UBC, and is the author of several hundred papers and reports on earthquake engineering, structural dynamics, and modal testing. He is a member of several national and international professional societies and advisory committees.

Ventura has conducted research on the dynamic behavior and analysis of structural systems subjected to extreme dynamic loads. His research work includes field and laboratory experimental studies of structural systems and components. Significant contributions from his research include novel techniques for regional estimation of damage to structures during earthquakes, detailed studies on nonlinear dy-

amic analysis of instrumented structures, and methods to evaluate the dynamic characteristics of existing structures. Ventura has a substantial research record in shake table testing and vibration studies of existing structures subjected to different levels of dynamic loading and seismic retrofit of existing structures. His current research is focused on the development of performance-based guidelines for seismic retrofit of schools, on methods to evaluate the interdependencies of critical infrastructure vulnerable to natural and man-made hazards, and on structural health monitoring of bridges.

Vision

For twenty years I have been a member of EERI. I joined EERI as a young professional with a great desire to contribute in some manner to the reduction of earthquake risk in the world. At that time, EERI's objective of reducing earthquake risk by advancing the science and practice of earthquake engineering made perfect sense to me and provided me with a direction that I could take. My professional growth over the years has been significantly influenced by what I have learned as a member of this organization. EERI has helped me improve my understanding of the impact of earthquakes on society in general, and has helped me become well aware of the multidisciplinary nature of earthquake engineering. I can say with great certainty today that EERI's vision of a world in which potential earthquake losses are widely understood and for which prudent steps have been taken to address those risks is also my vision.

The leadership at EERI has skillfully steered the direction of the organization to fulfill its role as a leader in earthquake investigations and in the dissemination of earthquake risk reduction information. The tremendous technological advances in recent years have provided a unique

opportunity for EERI to expand its cooperation with the diverse communities around the world dedicated to earthquake risk mitigation. Today we can promote research and exchange information among members and others in a fast and expeditious manner. We have now a unique opportunity to forge a consensus and speak with a common voice to public forums and legislative bodies on behalf of the diverse risk management community. It is up to us, EERI members, to take the necessary steps to make this happen. And a great way to make this happen is by implementing the four initiatives of the five-year Strategic Plan prepared by the Board (<http://www.eeri.org/home/5yearplan.html>). The four strategic initiatives address education and training, outreach and advocacy, international cooperation, and financial aspects. I am particularly interested in contributing to maintain a strong program of international activities and to support seismic advocates at all levels of society. It is important to find ways to engage and motivate the membership to participate in EERI activities.

I recognize that EERI is a truly multidisciplinary organization comprised of talented, diverse, and devoted professionals committed to the goal of reducing earthquake risk. EERI should continue to develop opportunities for its members so that they can contribute to achieve this goal. I have truly enjoyed being a member of EERI for twenty years. Many of us cherish the learning and sharing environment that EERI has given to us, as well as the opportunity to meet outstanding professionals and develop enduring friendships. This motivates me to find ways to ensure that younger members, specially those starting their professional careers, have the same rewarding experience as many of us have had over the years. I am committed to find ways to ensure that younger members make EERI's vision their own vision.

News of the Institute

Summary of the Minutes of the Board of Directors Meeting of May 14, 2007

President Thalia Anagnos called the meeting to order at 8:40 a.m. Also present were Past President Craig Comartin; Vice President Jonathan Bray; Secretary-Treasurer Marshall Lew; directors Richard Eisner, S. K. Ghosh, Laurie Johnson, and Andrew Whittaker, Executive Director Susan Tubbesing; and Special Projects Manager Marjorie Greene. Ronald Mays joined at 3 p.m.

President's Report: New Madrid Scenario Workshop: Anagnos reported that she and Tubbesing participated in a kickoff meeting of the New Madrid Chapter's scenario planning in St. Louis. Approximately 50 participants from a broad spectrum of organizations participated.

The scenario will have the opportunity to raise awareness and influence public policies in the region in conjunction with the 200th anniversary of the 1811-12 series of earthquakes. Greg Hempen, incoming president of the EERI New Madrid Chapter, is heading the effort.

Member survey summary and implications for publications and strategic planning: The survey highlighted the need to increase student membership and to transition student members into young professionals. The Executive Committee will consider Bray's suggestion to cut in half the already reduced Young Professional Membership for the first year after graduation (See page 2 of the September *EERI Newsletter*).

More members are willing to receive *EQ Spectra Online* compared to three years ago, but at the same time, nearly half of the EERI membership has not yet signed up with AIP to access *Spectra* electronically.

Concerns were voiced that *Spectra* is becoming too academic.

Anagnos reported that an Ad Hoc Publications Policy Strategic Planning Committee has been created and that Bill Iwan has agreed to chair the committee. They will try to identify ways to bring publication expenses down, while meeting the needs of the membership.

Strategic Plan review: Anagnos reminded Board members that she wants to select the highest priority items under each goal of the strategic plan to identify the key issues to focus on during the next year-and-a-half. The Board engaged in an extensive discussion on each of the following goals.

Goal 1: Educational Materials and Technical Programs: (a) develop a strategic plan for EERI publications, (b) develop an integrated product development plan, (c) reach out to the next generation, (d) engage students who are the future of EERI.

Goal 2: Outreach and Advocacy: (a) support scenario development, (b) better understand EERI's role in the multihazard context, (c) support the Concrete Coalition.

Goal 3: International Activities: (a) strengthen cooperative efforts with existing partners, (b) identify new resources to support further development of the World Housing Encyclopedia.

Goal 4: Membership and Financial Resource Base: (a) develop a strategy to increase membership, (b) develop a fund-raising campaign to raise an additional \$1 million for the Endowment by 2010.

Based on this input, Anagnos promised to come back to the Board in September with the strategies to achieve the goals identified in each of the above areas.

2008 Annual Meeting in New Orleans: Johnson said that her committee is planning a strong opening

session that lays out the story of Katrina. They are planning to have speakers for each session who tie lessons back to earthquakes. The story of the levee failure is complex and interesting, and has obvious lessons for California. The Board recommended that structural engineering issues also be identified. This could include addressing structures subject to extreme events and the engineering of offshore platforms. The Board encouraged Johnson and her committee to look for issues that would be relevant to a range of EERI members.

Secretary/Treasurer's Report: Overview of revenue and expense reports: Lew reviewed the April 30, 2007, combined balance sheet. The sheet showed that EERI's total liabilities of \$162,674 combined with the total fund balance of \$652,820 equaled \$815,494. The Endowment Fund opening balance of \$859,538 was augmented by \$63,999 in excess revenue over expenses, for a total balance of \$923,537, which combined with its total liabilities of \$409,497 equaled \$1,333,034.

Lew reported that the Annual Meeting showed a small loss this year, in part because not as many people attended as were originally anticipated, and there were more expenses booked to the meeting. The geotechnical seminars were a success, and, as projected in the budget, generated approximately \$50K in revenue.

Investment report and overview: Lew reported that as of April 30, EERI's investments were doing well. There is \$1.3 million in the Endowment Fund and \$815K in Association Programs. In the Endowment Fund, \$884K is in the Special Projects fund, \$189K in the Shah Family Prize, and \$238K in the Friedman Family program.

Executive Director's Report: Future of Multidisciplinary research: This NSF-funded project is addressing the implications for interdisciplin-

ary research after the Earthquake Engineering Centers no longer receive NSF funding. A draft white paper will be developed and put on the EERI website for review. A small workshop will be held in September to finalize recommendations to NSF.

Redesign of EERI website:

Tubbesing reported that the new website should be ready in a few months. EERI is looking for a student intern to help switch materials over to the new website.

Membership report: Tubbesing drew the Board's attention to the membership report and the fact that EERI membership is slowly decreasing. Board members were encouraged to remind their student chapters about the Young Professional category, and senior members should be asked to encourage their younger colleagues to join EERI. Tubbesing asked that a Membership Committee be established to help identify ways to attract and retain members.

Publications Policy: Anagnos has appointed a small committee to look at publication-related issues, with Bill Iwan as chair. The committee includes Arzhang Alimoradi, Mahmoud Hachem, Farzad Naeim, Bill Holmes, Thalia Anagnos, Ross Boulanger, and Eloise Gilland.

Technical Seminars: Ron Mayes joined the meeting. The Board engaged in brainstorming about future technical seminar topics, locations, and expected attendance.

The joint EERI/NEES webinar was successful in reaching more than 100 viewers during the live presentation and nearly twice that number in the month following the live telecast. Future webinars need to be coordinated with various professional engineering organizations to reach more of their members. Web-based seminars appear to be an effective vehicle to transfer current information from research to the professional community.

In the past, EERI has had consider-

able success in putting on a seminar the day before a Board meeting held outside Oakland. In these "Board seminars," Board members make presentations in their areas of expertise. It was agreed to aim for a Board Seminar for May 2008 in New York City. It was also agreed that Mayes should target January or March 2008 for the next technical seminar on deep foundations. The Executive Committee will try to identify a new Technical Seminars Committee chair to work with Mayes, to enable him to retire as chair by the end of this year.

News of the Membership

Naeim Awarded Khan Medal

The Council on Tall Buildings and Urban Habitat will honor EERI President-Elect nominee Farzad Naeim with its Fazlur Rahman Khan Medal at its annual awards dinner on October 25 in Chicago. Established in 2004, this medal recognizes contributions to any discipline involved in the design of tall buildings and the built urban environment. The awards jury commented that "Dr. Naeim has dedicated his life to a very focused topic pertinent to high-rise: seismic design. Although his focus has been narrow, its content and impact has tremendous depth."

As director of research and development for John A. Martin & Associates, Naeim is the principal in charge of setting and implementing policies with respect to the technical, analytical, and legal issues involved in operating one of the largest structural and earthquake engineering consulting firms in the United States.

Naeim's dedication to his profession has earned him many engineering awards, including the Los Angeles Tall Buildings Structural Design Council's Outstanding

Subscribing Members: The Board agreed with Anagnos that EERI should find better ways to recognize existing Subscribing Members and to identify potential Subscribing Members. Tubbesing is developing a new brochure. All agreed that the Board should meet with Subscribing Members at least once a year as a group, and Board members should make personal contacts with their assigned Subscribing Members to meet their needs better.

The meeting was adjourned at 4:15 p.m.

Journal Paper Award five times, the Structural Engineers Association of California's Superior Structural Engineering Award of Excellence four times, and the SAC Joint Venture's Major Contribution Recognition Award (2000).

Job Opportunities

NEES Specialist

NEESinc headquarters in Davis, California, has an opening for a maintenance, calibration and operations specialist for its nationwide network of 15 experimental research facilities. Desirable qualifications include an engineering degree and experience with large-scale testing equipment. For more information and application instructions, visit www.nees.org/About_NEES/jobListings/.

USGS Research

The U.S. Geological Survey seeks applicants for a research position in structural engineering with its Western Region Earthquake Hazards Team in Menlo Park, California. Required: a professional engineering degree. For more information and to apply, visit <http://jobsearch.usajobs.opm.gov/>, put "WR-2007-0572" (vacancy announcement #) in the "keyword search" box, and click on the "search for jobs" button.

Obituaries

Alexander Scordelis, 1923-2007

Alexander C. Scordelis, professor emeritus of structural engineering at the University of California, Berkeley, and among the world's most influential experts on long-span bridges and pre-stressed concrete, died of pneumonia on August 27 at the age of 83. An inspiring teacher to many EERI members, Scordelis taught in UC's structural engineering, mechanics and materials program from 1951-1990 and helped steer the campus into the front rank of the field. He was a pioneer in the application of finite element methods in the nonlinear analysis of reinforced and prestressed concrete structures.

In 1989, California Gov. George Deukmejian appointed Scordelis to the Board of Inquiry into the Loma Prieta Earthquake. The Board recommended formation of the Seismic Advisory Board, which Caltrans founded in 1991. Scordelis was a longtime member of that board. He also chaired the Golden Gate Bridge Seismic Instrumentation Advisory Panel, served as a consultant on the Golden Gate Bridge seismic retrofit project, and was an influential voice in the decision to replace the eastern half of the San Francisco-Oakland Bay Bridge.

Scordelis was a role model for his dedication to teaching, research, and civil engineering. Among the honors he received was the Berkeley Citation, the highest accolade the campus bestows on faculty. He was a three-time winner of the Leon S. Moisseiff Award for ground-breaking research in structural design from the American Society of Civil Engineers (ASCE). Scordelis was a member of the National Academy of Engineering, a Fellow of the American Concrete Institute, and an honorary member of ASCE.

Takuji Kobori, 1920-2007

Professor Takuji Kobori, a pioneer and innovator in the field of structural and earthquake engineering, died on September 5 in Kyoto, Japan, at age 86. During his career, Kobori influenced the theoretical and practical developments of structural and earthquake engineering, and contributed to the education of many students and researchers.

After serving on the faculty of Kyoto University for nearly 40 years, he retired in 1984. In 1986, he established the Kobori Research Complex, Inc. In 1992, he became a chief executive advisor to Kajima Corporation. He chaired the High-Rise Building Appraisal Committee at the Building Center of Japan.

His research interests included the dynamic characteristics and seismic response of soil-structure interaction systems, the aseismic performance of structures, and nonlinear and random vibration aimed at establishing a rational aseismic structural design method. He introduced the concept of dynamic ground compliance to clarify the interaction between structure and soil. He investigated the interaction of groups of structures embedded in the visco-elastic ground and its influence on each structure. He examined structural response influenced by the direction of input seismic excitation and spatial locations of structure and soil.

Kobori helped to found the field of structural response control. He designed the world's first actively-controlled and semi-actively controlled buildings, now a commonly used method for reducing lateral displacements. Kobori was named an honorary member of the International Association for Earthquake Engineering in 1996.

Calls for Papers

IABSE Congress

The USA Group of the International Association for Bridge and Structural Engineering (IABSE) invites contributions to the 2008 IABSE Congress to be held in Chicago September 17-19, 2008. The theme is "Creating and Renewing Urban Structures: Tall Buildings, Bridges, and Infrastructure." The four general tracks are (1) design challenges, (2) learning from experience, (3) creative design and construction processes, and (4) engineering as a global profession. Abstracts are due online by October 31, 2007. For more information on suggested topics within the tracks and submission instructions, visit www.iabse.org/chicago08.

MERCEA'08 in Italy

A call for papers has been issued for the 2008 International Seismic Engineering Conference commemorating the 1908 Messina and Reggio Calabria earthquake, to be held June 24-27, 2008, in Reggio Calabria, Italy. Abstracts not exceeding 500 words should be submitted by e-mail to mercea08@unirc.it no later than November 15, 2007. For more information, visit <http://www.mercea08.org>.

EIAE Conference

The Third International Conference on Engineering Education, Instructional Technology, Assessment, and E-learning (EIAE 2007) will take place December 3-12, 2007, technically cosponsored by the Institute of Electrical & Electronics Engineers and the University of Bridgeport. Held entirely online, EIAE 2007 will be a virtual conference conducted on the Internet. Prospective authors are invited to submit full papers online by October 5, 2007, at <http://www.cisse2007online.org>. For more information, visit <http://www.cisse2007.org/CFPEIAE07.doc>.

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

1-6. 12th IACMAG Conference, Goa, India. www.12iacmag.com (4/07)

1-13. 9th Workshop on Nonlinear Dynamics and Earthquake Prediction, Trieste, Italy. Info: <http://agenda/ictip.it/smr.php?1864> (2/07)

8-11. Modern Trends in Structural Eng. for Seismic Design, Ariel, Israel. Info: ribakov@yosh.ac.il (8/06)

12. UB-NEES Symposium and Dedication, Buffalo, NY. See page 9. (10/07)

11-13. Deep Foundations Institute 2007 Annual Conf., Colorado Springs, CO. www.dfi.org/conferencedetail.asp?id=80 (12/06, 7/07)

16-20. 6th Turkish Nat'l Conf. on EQ Eng, Istanbul. <http://www.6udmk.org.tr/6UDMK.ENG.DOC> (3/07)

31-November 3. XVI Mexican Conference on Earthquake Engineering (SMIS), Ixtapa, Mexico. Info: <http://www.smis.org.mx/xvi/index.htm> (9/07)

NOVEMBER

1-2. Conference on Disasters: Recipes and Remedies, NYC. Info: www.newschool.edu/disasters. (9/07)

6-8. 4th Annual CRHNET Symposium, Vancouver, BC. Info: www.jibc.ca/crhnet/papers/papers.htm (4/07)

9. COSMOS Annual Meeting & Technical Session, Emeryville, CA. Info: <http://www.cosmos-eq.org/> (8/07, 9/07)

23-25. AEES Conference, Wollongong University, New South Wales, Australia. Info: <http://www.aees.org.au/> (6/07)

27-29. 2nd ICUDR Conference,

Taipei, Taiwan. Info: <http://www.ncdr.nat.gov.tw/2ICUDR> (10/06)

DECEMBER

2-7. International Conference on Engineering Education and Research, Melbourne, Australia. Info: <http://enk.webstrikesolutions.com/vuconference/> (7/07)

3-12. EIAE Conference, online. See page 10. (10/07)

5-7. 8th Pacific Conference on Earthquake Engineering, Singapore. Info: www.ntu.edu.sg/cee/8PCEE/ (2/07)

6-9. International Conference on Forensic Engineering, Mumbai, India. Info: <http://www.icaci.com/Forensic%20Sem.htm> (5/07)

10-13. 7th International Symposium on Cable Dynamics, Vienna, Austria. Info: <http://www.aimontefiore.org/cable/> (5/07)

2008

JANUARY

3-5. Innovative and Smart Structural Systems for Sustainable Habitat (INSHAB-2008), Tamil Nadu, India. Info: www.citinshab2008.info (8/07)

13-17. Seismic Retrofitting of Long-Span Bridges, Washington D.C. Info: <http://www.trb.org> (9/07)

FEBRUARY

6-9. EERI Annual Meeting, Astor Crowne Plaza Hotel, French Quarter, New Orleans, LA. Info: www.eeri.org. See page 1. (2/07, 3/07, 7/07, 8/07, 9/07, 10/07)

17-20. 14th Int'l Brick and Block Masonry Conference, Sydney, Australia. Info: <http://www.ibmac.org/> (3/07)

APRIL

14-15. ICEEDM08, Jakarta, Indonesia. Info: <http://www.si.itb.ac.id/iceedm08> (9/07)

16-18. Seismological Society of America 2008 Annual Meeting, Santa Fe, New Mexico. Info: <http://www.seismosoc.org/meetings/2008/index.html> (9/07)

22-26. 2008 National Earthquake Conference, Seattle, WA. Info: <http://www.earthquakeconference.org/> (3/07)

24-26. 1st Int'l Conf. on Transport Infrastructure, Beijing, China. Info: <http://www.jtzx.net.cn/icti/> (7/07)

MAY

18-22. Geotechnical Earthquake Engineering and Soil Dynamics Conf. IV, Sacramento, CA. Info: www.geesd.org (10/06)

26-28. XXXIII South American Structural Engineering Congress (SASEC), Santiago, Chile. Info: <http://ingenieria.uccentral.cl/ooccc/jornadas2008/> (6/07)

JUNE

4-6. IABSE Conf, Helsinki. Info: <http://www.iabse.org/conferences/helsinki2008/index.php> (6/07)

15-18. World Conference on Disaster Management (WCDM), Toronto, Ont. Info: www.wcdm.org/ (10/07)

24-27. MERCEA'08, Reggio Calabria, Italy. Info: <http://www.mercea08.org>. See page 10. (9/07, 10/07)

30-July 5. Performance-Based Struct. Design Optimization Mini-symposium, Venice, Italy. Info: <http://www.iacm-eccomascongress2008.org/> (9/07)

JULY

27-30. 6th National Seismic Conf. on Bridges and Highways, Charleston, S.C. Info: www.scdot.org/events/6NSC (7/07)

AUGUST

11-16. 6th International Conf. on Case Histories in Geotechnical Engineering (6ICCHGE), Washington, D.C. Info: <http://www.6icchge2008.org>. See page 5. (4/06, 9/06, 2/07, 6/07, 10/07)

SEPTEMBER

17-19. IABSE Conf., Chicago. See page 10. (10/07)

OCTOBER

12-17. 14th World Conference on EQ Engineering, Beijing, China. Info: www.14wcee.org (12/05, 6/07, 7/07, 9/07)

NEES News

New NSF Grants to NEES Facilities

Eight new awards by the National Science Foundation will help earthquake engineering research and encourage collaboration between leading researchers and institutions. Totalling more than \$4 million, these NEESR grants underwrite topics such as the performance of isolation systems, methods for detecting damage to buried pipelines, and novel ground improvement techniques for bridges.

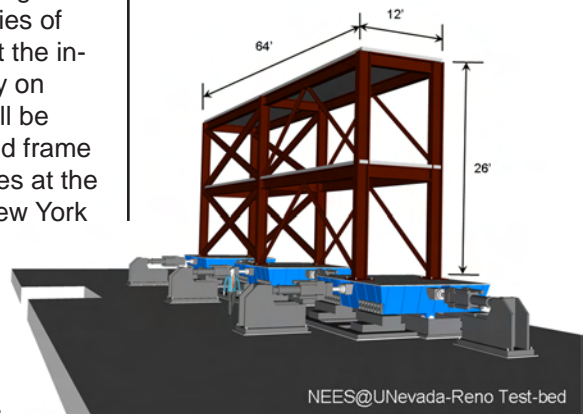
Research will be conducted at equipment sites within the NEES network, with many projects involving multiple partners. For example, seven universities will team up to study the seismic behavior of nonstructural ceiling-piping-partition systems. Nonstructural systems represent 75% of the loss exposure of U.S. buildings to earthquakes. Ceiling-

piping-partition systems consist of several components and subsystems, have complex three-dimensional geometries, complicated boundary conditions (because of multiple attachment points to the main structure), and are spread over large areas in all directions. Their seismic response, their interaction with the structural system, and their failure mechanisms are not well understood.

The NEESR research project will tackle these challenges through a variety of methods. One series of tests, designed to document the influence of partition geometry on loads on ceiling systems, will be conducted on a 20' x 50' rigid frame mounted on twin shake tables at the NEES State University of New York at Buffalo site. Larger, more complex structures will be constructed on three synchronized shake tables at the NEES facility at the University of Nevada, Reno.

By conducting experiments on full-scale, multicomponent systems, researchers will be able to capture how complex geometries and realistic boundary conditions affect failure mechanisms and system interactions. Additional testing will be conducted in collaboration with the E-Defense shake table facility in Miki, Hyogo, Japan.

For more specific information, visit www.nees.org/Research_Activities/ResearchProject.



UB-NEES Symposium

On October 12, 2007, a one-day Symposium on Seismic Regulations and Challenges for Protecting Building Equipment, Components, and Operations, organized by the Network for Earthquake Engineering

Simulation facility, MCEER, and the Structural Engineering and Earthquake Simulation Laboratory at the University at Buffalo, will help researchers and industry members gain a better understanding of recent building design code changes.

A dedication ceremony for the recently commissioned UB Nonstructural Component Simulator will conclude the symposium. For more information, visit http://www.nees.org/About_NEES/Calendar/calendar.php?cal_id=165.



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