



EARTHQUAKE ENGINEERING RESEARCH INSTITUTE NEWSLETTER

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News of the Institute

2004 Annual Meeting: Call for Poster Abstracts

The enthusiastic organizing committee's plans for the 2004 EERI Annual Meeting are proceeding full speed ahead. Scheduled for February 4-7 at the Omni Hotel in Los Angeles, the meeting will occur just after the tenth anniversary of the January 17, 1994, Northridge, California, earthquake. The meeting will highlight progress that has occurred in all fields of earthquake risk reduction.

Individuals interested in participating in one of the Annual Meeting poster sessions are invited to submit abstracts to the organizing committee. The abstracts for posters accepted for presentation will be reproduced as submitted in the Annual Meeting notebook, and therefore must be submitted in final form. All abstracts should be prepared with one-inch margins on all sides, single-spaced in Times Roman or an equivalent font (11 points or larger). Text should be flush left. The title (all in caps) of the poster presentation should be centered at the top of the page. Presenters should be identified by name, title, and organizational affiliation. Abstracts should not exceed two pages in length. They should be e-mailed **by December 1, 2003**, to EERI's Administrative Secretary Valarie Austin at valarie@eeri.org. Presenters will be notified in early January of acceptance.

See page 3 for information about Annual Meeting travel scholarships for student and younger professional EERI members.



*Walt Disney Concert Hall,
home of the Los Angeles
Philharmonic
(photo courtesy of John A.
Martin & Associates)*

News of the Profession

Report on NEES Research Agenda Available

The National Research Council (NRC) has released its report entitled *Preventing Earthquake Disasters: The Grand Challenge in Earthquake Engineering: A Research Agenda for the Network for Earthquake Engineering Simulation*. Information on the report may be obtained from the National Academies Press web site: www.nap.edu/catalog/10799.html.

The George E. Brown, Jr., Network for Earthquake Engineering Simulation (NEES) is a collaboratory for integrated experimentation, computation, theory, databases, and model-based simulation in earthquake engineering research and education. Administered by the National Science Foundation (NSF), NEES is to be operational by October 1, 2004. NEES will include 16 geographically distributed research equipment installations. Equipment includes new and upgraded shake tables, centrifuges, an enlarged tsunami

continued on page 2

NEES Research Agenda

continued from page 1

wave basin, large-scale laboratory experimentation systems, and field experimentation and monitoring installations. NSF has issued the first NEES Research (NEESR) solicitation, for which proposals are due January 22, 2004 (www.nsf.gov/pubs/2003/nsf03589/nsf03589.htm).

NSF has awarded over \$80 million in grants to establish NEES, which is envisioned as a new paradigm for earthquake engineering research. To take advantage of the unique NEES capabilities, NSF requested the assistance of the NRC in developing a long-term research agenda, which will guide the next generation of research and shape the conduct of a program of great national and international importance. The NRC assembled an independent panel of 14 experts, representing a cross-section of the earthquake engineering profession, to be the Committee to Develop a Long-Term Research Agenda for NEES. The committee's overarching vision is that earthquake disasters can ultimately be prevented, even if earthquakes cannot. This is the grand challenge to the broad community of NEES stakeholders — the goal of preventing earthquake disasters — which will require creativity in formulating research problems that tax the capabilities of NEES and will require skill in building the partnerships to carry out the research.

From the challenges and issues identified in seven topical areas (namely, seismology, tsunamis, geotechnical engineering, buildings, lifelines, risk assessment, and public policy), the committee distilled the following six research problems that it believes are ideal grand challenge tasks for initial NEES efforts: (1) development of economical methods for the retrofit of existing structures, (2) cost-effective procedures to mitigate seismically induced ground

failures, (3) standards for affordable performance-based seismic design, (4) loss prediction models to guide zoning and land use decisions, (5) continuous post-earthquake operation of critical infrastructure, and (6) prediction and mitigation strategies for coastal areas subject to tsunamis.

Chapter 1 of the *Research Agenda* provides a brief overview of the threat posed by earthquakes, the contributions of earthquake engineering research to reducing that risk, a brief description of NEES, and the role anticipated for NEES in future research. Chapter 2 discusses research issues in the seven key topical areas. Chapter 3 discusses the role of NEES in grand challenge research, outlines several research ideas, and presents examples of how NEES equipment sites could be configured to carry out collaborative research proposals. Chapter 4 discusses the possible roles of new information technologies and communications technologies and how they will affect NEES. Chapter 4 also considers the issues associated with teleobservation and teleparticipation in research, as well as sharing, archiving, and retrieving data. Chapter 5 presents the committee's research plan. Chapter 6 presents the committee's overall conclusions and specific recommendations on the role of NSF and NEES in preventing earthquake disasters.

In the *Research Agenda*, research grand challenges are defined as major tasks that are compelling for both intellectual and practical reasons, that offer the potential for major breakthroughs, and that are feasible. Grand challenge tasks should have a high probability of technical and practical payoff, large scope, and a requirement for multidisciplinary collaboration. The committee believes that NEES truly is synergistic and can become much more than the sum of its parts. The promise of NEES is that the collaborative ap-

proach can engage investigators from multiple disciplines located both at the NEES equipment sites and elsewhere. Understanding can thus be advanced in quantum leaps rather than small, incremental steps. All of these efforts will require collaboration among scientists, engineers, social and political scientists, and educational specialists.

The NEES sites will permit the controlled simulation of complex problems in seismology, seismic excitation, and structure response that formerly had to await an actual earthquake. Through the NEESgrid, the curated data from these efforts will be widely available to researchers, educators, and practitioners throughout the United States and around the world. A fundamental objective of NEES, and the purpose of NEESgrid, is to change traditional methods so that research becomes a collaborative effort. Substantial progress will require multidisciplinary research studies of unprecedented scope and scale. Major advances will be required in the computational simulation of seismic events, wave propagation, and the dynamic performance of structures. Ultimately, knowledge-based systems will be developed to support decision making by policy makers and planners. When the results of the NEES research are adopted into building codes and incorporated into existing and new buildings and infrastructure, they will improve the seismic design and performance of our nation's civil and mechanical systems.

EERI's recently issued report entitled *Securing Society Against Catastrophic Earthquake Losses: A Research and Outreach Plan in Earthquake Engineering* is used as a reference in the *Research Agenda* to strengthen its overall analysis and, in particular, its forecasts of NEES's operational costs. For more information on EERI's *Plan*, see the yellow flyer inserted between pages 10 and 11 of this *Newsletter*.

News of the Institute

EERI Team Returns to Colima, Mexico

A new element of EERI's Learning from Earthquakes (LFE) Program has recently been initiated. As called for by the National Science Foundation grant that supports the LFE Program, the LFE Advisory Committee has awarded two grants under a new Beyond Reconnaissance Grants (BRG) program.

The concept of a BRG is to supplement immediate post-earthquake reconnaissance with more focused reconnaissance/data collection in an intermediate time frame after an earthquake. This program is intended to capture information that will not be available if too much time passes.

Two BRGs will be supported initially — one to document more carefully the recovery process after the Colima, Mexico, earthquake and one to document the Italian experience with data collection and the usefulness of such data in identifying damage to reinforced concrete and masonry structures.

Under their BRG grant, Paul J. Flores (formerly of ABS Consulting) and Anna F. Lang (graduate student, University of California at San Diego, formerly of Tipping Mar and Associates) returned twice to the city of Colima to document the reconstruction process following the January 21, 2003, magnitude 7.6 earthquake that they had previously studied as members of the original EERI reconnaissance team. The original team had been led by Richard E. Klingner (University of Texas at Austin).

Following a cooperative agreement signed in November 2002, the EERI team worked closely with a team that represented the Mexican Society for Earthquake Engineering (SMIS) and other groups, led by Sergio Alcocer, a member of the

News of the Institute

Annual Meeting Travel Scholarships Available

As in years past, several scholarships are available to encourage student members and younger EERI members (out of school no more than three years) to attend the Annual Meeting, thanks to support from FEMA. The financial support will be contingent upon the applicant's participation in the poster sessions, either through his or her own research project, or as a representative of a student chapter depicting the chapter's activities (see page 1 for poster abstract specifications). Each scholarship will cover registration, lodging at the conference hotel for three nights, and round-trip excursion airfare. To apply, send a letter of request **by December 1, 2003**, to the Student Activities Committee in care of EERI's Administrative Secretary Valarie Austin at valarie@eeri.org. Applicants should describe their current involvement in earthquake engineering or a related field and their status as students or professionals.

EERI Board of Directors. A Special Earthquake Report was published in the March 2003 *Newsletter* (www.eeri.org). A more in-depth examination of the earthquake's effects will be published in a forthcoming *Spectra* special issue.

During the team's January 2003 visit to the affected areas, an opportunity was identified for continued research to document more thoroughly and observe more carefully the rebuilding process. The framework discussed among the EERI team and Mexican counterparts was to research and evaluate various methods for transferring technical knowledge and analytical tools to those persons and entities involved in government-managed disaster recovery programs, as well as to those who will be directly involved in the repair, restoration, or rebuilding of damaged structures, processes that began quickly after the event.

In continued recognition of the collaborative agreement with SMIS, Lang and Flores traveled to Colima in late June and again in late September as part of the BRG program. With assistance from Mexico's Civil Protection Agency and other local engineering and university groups, the team investigated the overall status of reconstruction in Colima and surrounding municipalities.

Their study includes the application of technical knowledge for reconstruction of residential structures, the availability and use of government-sponsored assistance programs, and the application of GIS analytical tools for recovery and planning. The team expects that this study will offer increased insight into the factors contributing to the success of disaster mitigation, recovery, and analysis programs. Their results are expected to be available in the second quarter of 2004.



Rebuilding in Pueblo Juarez, outside Colima, Mexico. The piles of bricks, gravel, and sand were provided with the assistance of government-sponsored reconstruction programs. (Rebuilding and repair of adobe structures was limited.)

Publications

Crustal Motion Map

The Southern California Earthquake Center (SCEC) has released *The SCEC Crustal Motion Map, Version 3.0*, by Z.-K. Shen, D. C. Agnew, R. W. King, D. Dong, T. A. Herring, M. Wang, H. Johnson, G. Anderson, R. Nikolaidis, M. van Domselaar, K. W. Hudnut, and D. D. Jackson. This release contains 833 estimates of current station velocities (relative to North America) at 762 points in Southern California and northern Baja California, together with coseismic offsets for many of these points from the Landers, Northridge, and Hector Mine earthquakes. Downloadable files and additional information can be found at epicenter.usc.edu/cmm3.

Announcement

NSF Student Travel Fellowships

The National Science Foundation is providing travel fellowships for approximately eight to ten graduate students to attend the 5th International Ph.D. Symposium in Civil Engineering in Delft, The Netherlands, in June 2004.

The symposium is a great opportunity for students to highlight the results of their research and interact with students from all over the world. For more information, visit the symposium web site: www.phdce5.nl.

To be eligible for travel support, students must be enrolled in a Ph.D. program in a U.S. college or university and conduct research in one of following categories: structural analysis and design; behavior and modeling of materials; concrete structures; steel structures; masonry, timber, or composite structures; geotechnical engineering and underground structures; and road and railway structures. Students also must

have an abstract accepted for presentation by the symposium. Abstracts should be submitted to the above-mentioned symposium web site.

For a link to an application form, visit www.ce.gatech.edu/~rdesroch/

Misc/misc.htm. After submission of an abstract, applicants should forward a copy of the abstract and the application to **reginald.desroches@ce.gatech.edu**, phone 404/385-0826, fax 404/894-0211. The deadline is Monday, November 3, 2003.

News of the Institute

Endowment Fund Donors

EERI would like to thank the generous donors to EERI's Endowment Fund listed below and acknowledge their contributions, which were received from February through August 2003. The Endowment Fund supports innovative projects that ensure the Institute's continuing leadership in the earthquake engineering professions.

\$501-\$1000

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Akira Wada

Other Amounts

Carlos Baltodano
James Davis
James LaFave
Eduardo Miranda
Andrew Mole
Hiroyuki Yamanouchi

Donations to 13WCEE Travel Fund

Most EERI members received an e-mail message in July inviting them to make contributions to a fund that will be used by the Organizing Committee of the 13th World Conference on Earthquake Engineering (13WCEE) to enable colleagues from countries with less favorable economic conditions to attend the 13WCEE. These colleagues would be otherwise unable to attend the conference, which will be held in Vancouver, BC, Canada, August 1-6, 2004.

The EERI Board of Directors voted to contribute \$3,000 from EERI. The individual donations sent to EERI as a result of the July e-mail message will be over and above the \$3,000, and will be transmitted to the International Association of Earthquake Engineering (IAEE) before the end of the calendar year.

EERI would like to thank the generous donors to this 13WCEE travel fund listed below and acknowledge their contributions. It is not too late to make a donation to this worthy cause. You may send your check, made payable to EERI (indicate that it is a contribution to the 13WCEE) or send an e-mail request to eeri@eeri.org to receive a form for paying with a MasterCard or Visa credit card.

\$2,000

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News of the Institute

Meet the Candidates

For President-Elect



Craig Comartin

Craig Comartin has been a structural engineer for over thirty years. After graduating from Santa Clara University and the University of California, Berkeley, he learned structural design at Rutherford & Chekene in San Francisco, working on schools, hospitals and other buildings. Later he joined his good friend Boris Bresler as the second employee of the west coast office of Wiss Janney Elstner. There he gathered skills in the investigation of existing buildings, bridges, and other structures. In the early 1980s, he joined Coffman Engineers in Seattle and Anchorage and helped expand a small structural office into a large multidisciplinary firm.

In 1990, Comartin returned to California and his interests in earthquake engineering. He advised the Stanford University administration on the repair and retrofit of buildings damaged in the Loma Prieta earthquake. There he implemented performance-based engineering (PBE) procedures that he was helping to develop on projects with the Applied Technology Council (ATC). He continues to play a similar role at UC Berkeley. He and his partner, Evan Reis, combine economic and financial analysis techniques with PBE to assist clients in making informed decisions on risk management.

Comartin was EERI's team leader for the post-earthquake investigations of the 1993 Guam and 1995 Kobe earthquakes. He also investigated the Kocaeli earthquake in Turkey for ATC in 1999. He served as a member of the EERI Board of Directors and was Secretary-Treasurer from 1994 through 1999. He was active in the establishment of EERI's Endowment Fund and participated in several of its early projects. He continues to serve on the Development and International Activities Committees, is editor for North America and Oceania for the Encyclopedia of World Housing, and is a member of the Editorial Board of *Earthquake Spectra*.

Vision

EERI is simply a stellar organization among earthquake professionals. It has kept me up-to-date and enthusiastic about my profession and introduced me to many good friends. I know that others feel the same way because of the essence of EERI — learning and sharing. Our treasured founders and early leaders were devoted to these principles as they faced the multidisciplinary challenges of the new field. Today learning and sharing are still what we do best, from the Learning from Earthquakes Program to conferences and workshops, political advocacy, regional and student chapter activities, and high-quality publications. The question for us now is: How do we move forward from our sturdy platform to meet today's challenges?

Sadly, we have been reminded in recent years of the broad range of catastrophic hazards that we face. A comprehensive solution requires a coordinated balance of risk assessment, performance-based engineering, mitigation, risk transfer, and disaster response and recovery planning for all hazards. The earthquake engineering community has a lot to offer. Tom O'Rourke and Chris Poland have done a tremendous job in raising EERI's profile in Washing-

ton. EERI's comprehensive research and outreach plan, *Securing Society Against Catastrophic Earthquake Losses*, has been endorsed by dozens of national and international organizations. It is vitally important for us to maintain and expand the leadership role we play at the national level. It is equally important that we continue to communicate and act at the local level through our regional and student chapters. But our challenge extends even further.

Twenty percent of EERI's membership resides outside the United States. As an international organization, we have both an obligation and an opportunity. The risks from earthquakes and other hazards are global problems that cannot be effectively addressed with a piecemeal and uncoordinated effort. We have made important initial progress in forming alliances with organizations in other countries, through the Learning from Earthquakes Program and the highly successful Encyclopedia of World Housing, a truly international effort. We need to move forward with joint conferences and investigative efforts with our partners around the world. Collectively, we must aim to strengthen and expand the worldwide network for seismic safety.

To meet these challenges successfully, we must nurture our most important resource for the future. We are blessed with an enthusiastic group of younger members. Those of us in the "non-younger" generation need to make a conscious effort to meet them and encourage their participation in everything we do. One of my mentors, Constantine Chekene, used to say, "We may be junior and senior learners, but we are all learners."

I hope that you will share your ideas and enthusiasm with me. EERI has made an important difference within our own earthquake community and in the world around us. Let's work together to live up to — and perhaps even reach beyond — our legacy.

Meet the Candidates

For Director A



Farzad Naeim

Farzad Naeim is the Vice President and General Counsel for John A. Martin & Associates, Inc., (JAMA) in Los Angeles, California, one of the largest structural and earthquake engineering consulting firms in the United States. He joined the firm as a seismic design analyst in 1982 after obtaining his Ph.D. in structural engineering from the University of Southern California. In 1984 he formed JAMA's Research and Development Department, which he has headed ever since. He is a licensed civil and structural engineer in California. In 2002 Naeim obtained his J.D. with highest honors from Concord Law School. He has been admitted to practice law in California and before several federal district courts. In addition, he is licensed as a patent attorney and can practice before the U.S. Trademark and Patent Office.

Naeim has served EERI in many ways. Currently he is the editor of *Earthquake Spectra*. He is also the current chair of the Endowment Committee and a member of the Information Technology Committee and the Editorial Board of the EERI/IAEE World Housing Encyclopedia. He has served as a past chair of the Nominating Committee. In 1993, Naeim was named as the FEMA/EERI NEHRP professional fellow, and in 1995 he wrote EERI's first Electronic Information Management Plan, which paved EERI's path into

cyberspace. His group at JAMA has been responsible for development and maintenance of the World Housing Encyclopedia database and web site.

Besides his EERI activities, Naeim serves on the National Steering Committee of ANSS (Advanced National Seismic System), the Board of Directors of the Consortium of Organizations for Strong-Motion Observation Systems (COSMOS), the Industrial Advisory Councils of UCLA and Cal State Northridge (CSUN), and the Advisory Council of SCEC (Southern California Earthquake Center).

Naeim has served as the technical director for a large number of landmark design and renovation projects, including UCLA's Royce Hall and Knudsen Hall seismic upgrades, the new UCLA replacement hospital, the Walt Disney Concert Hall, and numerous tall buildings in several cities. He is a past president of the Los Angeles Tall Buildings Structural Design Council.

Naeim is the editor of *The Seismic Design Handbook*, now in its second edition, and the co-author with James Kelly of *Design of Seismic Isolated Structures*, published by John Wiley and Sons. Naeim has published more than 120 papers on various aspects of earthquake engineering and has developed more than 45 different software systems for earthquake engineering design and education. Two of his software systems, *Earthquakes — Be Prepared!* and *Northridge Earthquake Information System*, have been funded and distributed by public agencies.

Vision

George Housner was correct when he said EERI has outgrown its acronym. EERI is no longer only about earthquakes (E); it is not limited to engineering (E), or research (R), nor is it really an institute (I). We need to embrace and nurture this reality.

To me, the multidisciplinary nature of EERI is its most valuable asset. It is what separates EERI from more common, traditional, narrow-minded, and often boring professional organizations that all of us deal with regularly in one way or another.

Since 1983 when I joined, EERI's membership has grown dramatically in both numbers and diversity of expertise. The EERI *Roster* is probably the document to look to when world class expertise in engineering, earth science, social science, risk management, or emergency response is desired. We need to develop a variety of programs and procedures that facilitate a more consistent, regular, and in-depth discussion among these experts. Nothing makes us better in what we do and nothing makes EERI stronger than the active learning of these disciplines from each other.

EERI can also educate the policy makers and the public about the enormous value that EERI and its members can bring to the table in order to deal with other natural and man-made disasters. I am glad that under the leadership of Tom O'Rourke, EERI has started the process of documenting the collective contribution of disciplines that together form EERI. We need to do whatever we can to further advance this objective.

Every organization needs youth and new blood to preserve its vitality. The formation and nurturing of a larger number of EERI student chapters in universities ensures the supply of this new blood. Over the past few years, EERI student chapters have become much more active in EERI's affairs. We should make sure that this trend continues to grow.

Last but not least, a careful balance of national and international objectives and programs can further enhance the value of EERI to its current members and bring new members to the organization from all over the world.

Meet the Candidates

For Director A



John Wallace

John Wallace is associate professor of civil and environmental engineering at UCLA. Prior to joining UCLA in 1996, he was on the faculty at Clarkson University from 1989 through 1996. His research interests focus on the behavior and performance of structural elements and systems to earthquake actions, with an emphasis on integrating laboratory and field testing with detailed analytical studies. He received his BSCE magna cum laude from the University of Vermont in 1982, and his MSCE and Ph.D. in 1984 and 1989, respectively, from UC Berkeley.

Wallace's current research efforts include experimental and analytical studies of reinforced concrete columns, shear walls, flat plate floor systems, and the column and foundation systems of bridges, as well as studies associated with instrumentation and forced-vibration testing of structures. He is the PI for the UCLA NEES equipment site for *Field Testing and Monitoring of Structural Performance* and is an active member of the Center for Embedded Networked Sensing (CENS), an NSF Science and Technology Center headquartered at UCLA. Through his participation with NEES and CENS, as well as other projects, he and his colleagues have developed extensive capabilities for field testing at UCLA. They are

working on development of novel sensors and the application of sensor networks for earthquake engineering applications. His research findings have been published in *Earthquake Spectra*, the *ASCE Journal of Structural Engineering*, the *ACI Structural Journal*, and other journals.

An active EERI member since 1989, Wallace has participated in a range of EERI activities, making presentations at Annual Meetings and technical seminars, serving as lead author on a chapter of an earthquake reconnaissance report, participating in LFE training, and serving as a co-advisor of the UCLA EERI student chapter. Wallace is a fellow of the American Concrete Institute, a voting subcommittee member of ACI Committee 318, and former chair of ACI Committee 368 on Earthquake-Resisting Concrete Structural Elements and Systems. He also is serving as a voting member of the ASCE 7 Seismic Task Committee and is a former associate editor of the *ASCE Journal of Structural Engineering*. He is an equipment site member of the NEES Committee on Shared Use and Site Operations; over the last two years, he has gained considerable experience on the shared use of equipment by participating in two shared-use projects, one as a user of equipment (shake table at UC Berkeley) and one as a provider (forced-vibration testing at UCSD using the UCLA NEES equipment).

Vision

EERI serves as the primary advocate for earthquake safety and loss reduction by drawing on its diverse membership and supporting outstanding activities. These important and diverse activities include managing the Learning from Earthquakes Program, organizing conferences and seminars, distributing quality documents (e.g., *Earthquake Spectra*), and providing an environment for consensus and community building (e.g., developing a *Re-*

search and Outreach Plan in Earthquake Engineering).

My vision for EERI is to maintain and strengthen efforts in these areas and others where EERI leadership is well established and a continued presence is essential, as well as to work with other board members to implement and update aspects of EERI's five-year plan (see the May 2003 issue of *Spectra*). To achieve these goals and initiate new activities will require an active membership with a spectrum of skills and backgrounds; therefore, it is important that EERI reach out to new (and young) members. EERI should be able both to support and take advantage of the NEES program to help achieve the goals set forth in the five-year plan. I would be honored to serve on the Board and pledge to work effectively with the EERI Board and staff to build on the outstanding work of others to maintain and strengthen the Institute.

Call for Abstracts

Structural Control Conference

The Third European Conference on Structural Control (3ECSC) will be held at the Vienna University of Technology, Austria, July 12-15, 2004. Abstracts are being solicited in the areas of active, passive, semi-active or hybrid control in linear and nonlinear structural problems. Non-destructive testing, health monitoring, damage detection, and lifeline assessment will be addressed as well. Smart civil, mechanical, and space structures interacting with their environments and undergoing various loads such as wind, earthquakes, or traffic are main targets of this conference.

For abstract submission and other information, visit www.samco.org/3ecsc. Abstracts are due November 1, 2003.

Meet the Candidates

For Director B



John Aho

John Aho is a vice president and principal project manager with CH2M Hill in Anchorage, Alaska. He holds a Ph.D. in aerospace engineering with an emphasis in structural engineering.

During the past 30 years, Aho has served as project manager or designer on more than 300 projects located in all geographical areas of Alaska. Before returning to Anchorage, the city of his birth, he was an associate professor of structural engineering at the Rose-Hulman Institute of Technology in Terre Haute, Indiana.

Aho has been actively involved in earthquake risk mitigation activities at the municipal and state levels for over three decades. In the early 1980s, he developed the vision and mission statements for EERI's first regional chapter. The Alaska Chapter was subsequently chartered by the EERI Board of Directors. He also championed legislation that resulted in the recent State of Alaska Seismic Hazards Safety Commission.

Aho has been a lead instructor of the Federal Emergency Management Agency course on earthquake hazard risk mitigation for utility life-lines systems, currently serves as an instructor for the Municipality of Anchorage post-earthquake damage assessment training, and is chair-

man of the Municipality of Anchorage Geotechnical Advisory Commission. He served as a structural damage assessment engineer after the recent Denali Fault earthquake, traveling to each of the affected communities. He is co-editor of a future special issue of *Earthquake Spectra* dedicated to that earthquake.

Aho is president of the EERI Alaska Chapter. He chairs the Advisory Panel for the Alaska Science and Technology Foundation Project on Seismic Microzonation in Anchorage, the Alaska Advisory Committee for the Advanced National Seismic System (ANSS), and the University of Alaska Anchorage Engineering School Advisory Committee.

Aho also serves as an ex officio member of the ANSS Alaska Regional Working Group. Recognizing the importance of ANSS to Alaska and the nation, Aho actively supported the system by recently traveling to Washington, D.C., to assist the U.S. Geological Survey in conveying its message to the Alaska congressional delegation.

Because of his numerous presentations at local elementary and high schools on issues relating to earthquake engineering, safety, and risk mitigation, he has been given the name "Earthquake Man" by the students.

Vision

I believe a diverse board membership is important from both a professional and geographic standpoint in order to address seismic safety issues appropriately and to gain an understanding of what the EERI membership truly desires from participation in the organization.

As the premier multidisciplinary earthquake engineering organization in the nation, EERI has a responsibility to continue to foster an atmosphere that encourages continued efforts in the area of earthquake risk mitigation.

I subscribe fully to an EERI objective of "increasing activism at the local level through an expanded network of regional chapters." EERI members can have a far greater impact on earthquake risk mitigation by becoming involved in local public policy formation than could ever be accomplished by a single building design.

A network of strong regional chapters throughout the country could have a tremendous influence on risk mitigation policy decisions through discussions with public officials, information dissemination, and public education. There is no substitute for local advocacy of an issue. Membership in regional chapters can also have a tremendous influence on young people at the elementary and high school levels through presentations on and education about earthquake engineering and seismic safety.

EERI can do a better job of introducing the organization to those who are not familiar with its goals and objectives. Increasing membership in the organization is important to its survival and continued influence. While EERI enjoys substantial support from typical earthquake-related professions, it has limited participation from other disciplines, such as mechanical and electrical engineering, that could have an influence on seismic safety issues. EERI should actively reach out to professions that have not historically been associated with the Institute.

EERI has established admirable goals and objectives and has developed a strategy for achieving those objectives. What appears to be missing is quantifiable measurements of success. These should be developed and included in the Institute's Strategic Plan.

I am honored to have the opportunity to run for election to the EERI Board of Directors and fully support its goals and objectives.

Meet the Candidates

For Director B



Andrei M. Reinhorn

Andrei M. Reinhorn, P.E. Ph.D., is the Clifford Furnas Professor in the Department of Civil, Structural, and Environmental Engineering at University at Buffalo (UB-SUNY), where he teaches courses in structural engineering with emphasis on experimentation and simulations in structural dynamics and earthquake engineering. Prior to joining UB-SUNY in 1979, he divided his time between consulting in private practice and academia in Israel. He has a BS (1968) and a Ph.D. (1978) in structural earthquake engineering from the Technion, Israel Institute of Technology.

He has been involved in the development of research programs on structural control and on lightly reinforced concrete buildings at the Multidisciplinary Center for Earthquake Engineering Research (MCEER) since its inception. He is currently a member of MCEER's Executive Committee and directs the networking program. He performed experimental studies and developed computational tools for simulation of behavior of structures near collapse.

He has published over four hundred articles and reports in archival journals, conference proceedings, and institutional publications. He developed several computer platforms, currently used by engineers and researchers around the world, on in-

elastic analysis and base isolation.

Reinhorn is director of the UB-SUNY Structural Engineering and Earthquake Simulation Laboratory, and was one of the leading team members who developed the lab expansion, leading to the largest node of the George E. Brown, Jr., Network for Earthquake Engineering Simulation (NEES). He serves as a member of the Board of Directors of NEES Inc., the organization that coordinates the new network, and as the chair of the Data Sharing and Archiving Committee, one of its seven standing committees.

Reinhorn has been a member of EERI for over 20 years and has served on the Experimental Research Committee that initiated the developments leading to the NSF initiative of NEES. Currently he is a member of the Editorial Board of *Earthquake Spectra* and is its associate editor. He served as co-chair of the technical program committee of the Seventh U.S. National Conference on Earthquake Engineering in Boston in 2002. This conference emphasized the importance of the social sciences along with engineering solutions in mitigating urban disasters.

Vision

EERI is a unique engineering organization in which social scientists, architects, and engineers gather to help solve the issues of reducing risks from earthquake hazards and improving the resilience of communities. Through promotion of investigations, advocacy programs, and dissemination of information in the community, EERI has been successful in influencing local and federal government decisions. Through EERI, practicing engineers and industry representatives meet researchers and advocates for earthquake risk mitigation.

The organization is the result of decades of gradual development and understanding social and engineer-

ing issues. Its activities were recently successful in influencing decisions on government funding for the National Earthquake Hazards Reduction Program and in the development of the NEES program with support for the next decade. The multidisciplinary expertise of EERI membership makes this organization a leader in hazard mitigation.

I think that the time is ripe to extend the leadership role in earthquake risk mitigation to related hazards for which there are no alternative organizations. Both natural and man-made hazards could be addressed with the same model as EERI, a leader of the engineering community that addresses earthquake issues. Although there is much work to be done on earthquake risk mitigation, EERI — with the help of its infrastructure and educational and advocacy activities — could organize multidisciplinary teams of engineers and social scientists to address other severe natural hazards such as windstorms, or man-made hazards such as explosions and blasts. After the World Trade Center disaster, for example, the engineering community used information developed by EERI for post-disaster investigations and in the recovery process. These indirect outcomes can be better targeted, and many of the achievements of the earthquake community can be transferred to solve these major issues of the international community.

The involvement and leadership of EERI in other hazards could provide further challenges for the integration of social sciences and engineering. I believe that publications and educational programs should promote much more intensely such integration, and I hope to have the opportunity to influence this process, along with the leaders of EERI. If elected, I would like to help provide leadership and promote the multidisciplinary approach to associated hazards, without diluting the current successful strategies and activities.

Call for Abstracts

ACEE 2004

The Asia Conference on Earthquake Engineering (ACEE 2004), organized by the Association of Structural Engineers of the Philippines, will be held March 5-6, 2004, in Manila, the Philippines. With the theme of "Science, Engineering, Rehabilitation, and Response," it will provide a venue for dialogue and cooperation among scientists, engineers, researchers, and planners addressing the issues of earthquake engineering practice and research, seismic hazards, and loss mitigation in both highly and moderately seismic regions in Asia.

The deadline to submit 200-to-300-word abstracts was September 22. An extension may be requested by e-mailing acee_2004@yahoo.com with the subject line "ACEE 2004 ABSTRACT." Abstracts should include contact information and specify one of these topics: geology and seismology; geotechnical engineering; seismic design; information and computing technology; lessons from past earthquakes; performance of structures; seismic diagnosis and strengthening; lifeline engineering and management; or disaster preparedness, mitigation, and management.

The deadline for submission of full papers is December 17, 2003. The conference registration fee is US\$75 if paid before December 17 and US\$100.00 thereafter.

SEM X Congress

Abstracts are being solicited by the Society for Experimental Mechanics (SEM) for the SEM X International Congress on Experimental and Applied Mechanics scheduled for June 7-10, 2004, in Costa Mesa, California. The congress theme is "Future Experimental Mechanics Challenges with Special Focus on Extreme Environments."

Of the four tracks, track 1 on the topic of "damage mechanics, structural integrity, and health monitoring" would be of greatest interest to EERI members. This topic area encompasses a broad multidisciplinary field of research and application in which important roles are played by methods of stress analysis, studies on material behavior, identification of damage mechanisms, detection of accumulated damage, prediction and measurement of damage rate, effectiveness of inspection, nondestructive evaluation, sensor development, and monitoring techniques.

Only electronic submissions are being accepted for this conference. For details about submitting abstracts, visit www.sem.org. Abstracts, which are due by October 17, 2003, should not exceed 200 words and should not contain figures or equations. The deadline for finished papers is March 22, 2004.

Publications

Business Survival Kit

The Cascadia Region Earthquake Workgroup (CREW) has produced an educational and planning tool called the *Business Survival Kit*. The *Kit* includes a video (or DVD) and a Disaster Planning Toolkit CD-ROM with worksheets and emergency checklists by the Institute for Business and Home Safety (IBHS). It showcases how businesses coped with the impacts of real disasters, describing what did and did not work.

Practical tips on how to survive natural and man-made disasters are provided by the Boeing Company, the Starbucks Corporation, the University of Washington, and the Snohomish County Department of Emergency Management. The *Kit* presents material in a way that would be helpful in preparing a response and recovery plan. It should be useful for a wide variety of audiences, including businesses of all sizes, emergency

management agencies, and fire departments.

CREW is a nonprofit organization made up of representatives from the engineering, scientific, emergency management, and business communities. One of its missions is to broaden the understanding of disasters and encourage risk reduction.

Copies of the *Business Survival Kit* are available for \$99.95 plus \$6.95 shipping/handling at CREW's web site at www.crew.org or Global Network Production's web site at www.globalnetproductions.com/products.html. Government, educational, and quantity discounts are available.

World Disasters Report 2003

The International Federation of Red Cross and Red Crescent Societies has announced the availability of the 240-page 2003 *World Disasters Report*. It explores the key ethical dilemmas, threats, and opportunities facing humanitarian organizations. It deals with emergencies such as post-conflict situations, natural disasters, and forgotten crises, and analyzes how the political agenda of donors affects the aid industry, humanitarian principles, and vulnerable people.

The *World Disasters Report* details difficulties encountered in building local capacities in disasters and practical challenges facing agencies in measuring the impact of humanitarian aid. The report's data chapter reviews how data collection on people affected by natural and technological disasters can be improved.

Published annually since 1993, the *World Disasters Report* provides the latest trends, facts, and analyses of the world's humanitarian crises. It is a useful reference work for those searching for strategies and tactics in dealing with disasters. It can be purchased for US\$25 plus shipping from www.kpbooks.com.

CALENDAR

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

OCTOBER

6-10. 8th World Seminar on Seismic Isolation, Energy Dissipation, and Active Vibration Control of Structures, Yerevan, Armenia. Info: www.aua.am (10/02)

15-17 Int'l Seismic Instrument and Emergency Rescue Equipment Exhibition, Beijing, China. Info: www.exh.dizhen.ac.cn (3/03, 6/03)

22-24. 28th Annual Conf. on Deep Foundations, Miami Beach, FL. Info: www.dfi.org/conferences.asp (1/03)

23-24. ATC Seminar on Seismic Design, Performance, and Retrofit of Nonstructural Components in Critical Facilities, Newport Beach, CA. Info: www.ATCCouncil.org (7/03)

29-31. World Conf. on Disaster Management, Infrastructure, and Control Systems, Hyderabad, India. Info: www.schanisj.com (7/03)

30-31. 2nd Int'l Symposium on New Technologies for Urban Safety in Megacities of Asia, Tokyo, Japan. Info: icus.iis.u-tokyo.ac.jp/isus03/ (6/03)

NOVEMBER

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

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

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

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

14-20. Int'l Association of Emergen-

cy Managers Annual Conf., Orlando, FL. Info: www.iaem.com (9/03)

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

DECEMBER

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

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

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

2004

FEBRUARY

4-7. EERI Annual Meeting, Los Angeles, CA. **See page 1.** (9/03, 10/03).

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

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

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

MARCH

5-6. Asia Conf. on Earthquake Engineering, Manila, Philippines. **See page 10.** (10/03)

APRIL

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

MAY

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

JUNE

7-10. SEM X Int'l Cong. on Experimental and Applied Mechanics, Costa Mesa, CA. **See page 10.** (10/03)

JULY

12-15. 3rd European Conf. on Structural Control, Vienna, Austria. **See page 7.** (10/03)

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

AUGUST

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

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

2006

APRIL

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

Announcement

Summer Research Experiences in Japan

Each year the National Science Foundation (NSF) sends some 100 U.S. graduate students to Japan for an intensive summer research experience. Applications are sought for 2004 from qualifying students in structural, earthquake, wind, and geotechnical engineering who would like to participate in both the NSF Summer Programs in Japan and a supplemental program, entitled Natural Hazard Mitigation in Japan 2004 (NHMJ-2004), consisting of student seminars and extensive laboratory and site visits focusing on natural hazard mitigation.

For more information on the NHMJ Program and the application procedure, visit www.nd.edu/~quake/nhmj/, or e-mail one of the program coordinators, B. F. Spencer, Jr. (bfs@uiuc.edu) or Y. C. Kurama (ykurama@nd.edu). The application deadline is November 1, 2003.

News of the Membership

Kurama and Allen Receive T. Y. Lin Award

Yahya C. Kurama, associate professor, and Michael Allen, former graduate student at the University of Notre Dame's Department of Civil Engineering and Geological Sciences, received the 2003 T. Y. Lin Award from the American Society of Civil Engineers (ASCE).

Previously named the Prestressed Concrete Award, the award was endowed in 1968 by T. Y. Lin to encourage the preparation of meaningful papers in prestressed concrete. T. Y. Lin is internationally renowned for pioneering both the technology and industry of prestressed concrete in the 1950s and for using the revolutionary material to push building technology beyond existing limits. The award is presented annually to a paper in the topic area of prestressed concrete published in the journals of the American Concrete Institute, the Precast/Prestressed Concrete Institute (PCI), and ASCE. This year's winning paper, published in the March-April 2002 PCI Journal, was also recognized earlier, receiving the 2002 Martin P. Korn Award from PCI.

Honorary Doctorate for Shamsher Prakash

Shamsher Prakash, professor emeritus of civil engineering at the University of Missouri-Rolla (UMR), has been conferred Doctor, Honoris Causa, by the Technical University of Civil Engineering in Bucharest, Romania.

He was cited for his pioneering research on liquefaction of silts, non-linear analysis of geotechnical structures, and prediction and performance in geotechnical engineering; for outstanding friendship; and for promoting cooperation among nations.

During his distinguished career, Prakash has chaired four International Conferences on Case Histories in Geotechnical Engineering (1984-1998) and will chair the fifth in 2004. He also chaired four International Conferences on Recent Developments in Geotechnical Earthquake Engineering and Soil Dynamics (1981-2001).

Other awards he has received include honorary fellowship in the Indian Society of Earthquake Technology for his contributions in geotechnical earthquake engineering and soil dynamics and his pioneering research on liquefaction and machine foundation analysis.

Dave Swanson Engineer of the Year

EERI member Dave Swanson was presented the 22nd annual Engineer of the Year award from the Seattle Chapter of the Structural Engineers Association of Washington (SEAW) at the chapter's year-end dinner in May. Candidates for the award are considered for their visibility, their technical expertise, their ability to encourage and nurture others in their professional development, and for their service to SEAW.

Swanson is a principal and the director of structural engineering at Reid Middleton, Inc. Notable projects he has worked on include seismic upgrade and renovation projects for a county courthouse, Alaska Airlines, the Anchorage International Airport, and many projects for the U.S. Navy. He has organized and led SEAW-sponsored reconnaissance teams to investigate the 1995 Kobe and the 1999 Taiwan earthquakes. He has organized and led ATC-20 training seminars and represents SEAW on a national level on the NCSEA Structural Engineers Emergency Response Program organizing committee. He is a speaker on post-earthquake evaluation of structures and co-chaired the 1994 Uniform Building Code Revisions Seminar.



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