News of the Institute

2007 Annual Meeting Field Trips

Attendees at the 2007 Annual Meeting scheduled for February 7-10, 2007, in Los Angeles, will be able to participate in two fascinating field trips (both optional) that offer sharply contrasting experiences.

The after-hours Universal Studios Subway Earthquake Ride is on for Thursday evening, February 8. Universal Studios will open the back lot of their amusement park for a nighttime studio tour, including an earthquake ride that simulates a magnitude 8.3 event in an underwater subway. Jack Moehle, chair of the BART Seismic Retrofit Peer Review Committee, will serve as tour guide for the ride. The tram will pick up riders at the hotel at 7:30 p.m. and return at 8:30 to City Walk for dining at one of many restaurants, or back to the hotel. There are only 150 seats available, so sign-ups are required for this fun tour, which costs $22 per person.

After the technical sessions are over on Saturday, February 10, participants can visit the 64-acre site of the Getty Villa Museum, which vividly evokes the classical world in both its landscape and architecture. The villa’s settings, collections, and programs are woven together to create

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EERI Seminar Series on Soil-Structure Interaction for Performance-Based Engineering

EERI has developed a technical seminar series entitled “Practical Aspects of Soil-Structure Interaction for Performance-Based Earthquake Engineering.” The seminars will address issues of concern to both structural and geotechnical engineers in the application of performance-based procedures for the seismic evaluation and design of structures. Properly implemented, these techniques can provide better and more economical designs for new construction, and for retrofit of existing facilities, than the traditional pre-scriptive code approach. According to Ron Mayes, chair of EERI’s Technical Seminars Committee, the series will focus on the use of these procedures by practicing engineers. “Performance-based procedures are revolutionizing all aspects of earthquake engineering. EERI’s technical seminars are aimed at helping design professionals use the new procedures,” said Mayes.

Changes in practice are particularly demanding on geotechnical engineers. “Traditional tests and analysis procedures don’t provide the information needed to make realistic assessments of structural performance,” according to Marshall Lew, a geotechnical and structural engineer and EERI’s secretary/treasurer. “Seismic behavior is often controlled by foundation and site geotechnical conditions. Structural engineers also are challenged to develop a

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continued on page 5
Learning from Earthquakes

Crescent City Suffers Damage from the November 15 M8.3 Kuril Islands Earthquake and Tsunami

A great (M8.3) earthquake occurred in the Kuril Islands north of Hokkaido on Wednesday, November 15, 2006, at 3:14 AM PST. At this location, the Pacific plate is subducting beneath the Okhotsk plate at the Kuril Trench with a velocity of about 90 mm/year. The mainshock occurred at a shallow depth within about 80 km of the trench axis. It was the largest earthquake to have occurred since the early 20th century in these islands, which commonly experience one or more shocks of magnitude 6 or greater in a decade (similar to California).

The earthquake produced a tsunami due to the rapid vertical displacement of the ocean floor. The wave packet fanned out in all directions, moving with great speed across the ocean, then slowing down and increasing in height as it reached different shores.

**Measured wave heights (peak-to-trough) of the tsunami:**

- Japan: 0.60 m at Tokachi, 0.40 m at Nemuro, and 0.20 m at Kushiro.
- Hawaii: 1.52 m at Kahului, 1.14 m at Haleiwa, and 0.99 m at Hilo.
- Alaska: 0.20 m at Shemya Island and 0.08 m at Amchitka Island.
- California: 2.0 m at Port San Luis and 1.6 m in Crescent City.

A tsunami watch was immediately ordered for Japan, Russia, the Northern Marianas, the Marshall Islands, Taiwan, Micronesia, the Philippines, Johnston Island, Hawaii, Indonesia, Kiribati, Nauru, and Papua New Guinea. E-mail bulletins from the Tsunami Warning Center in Alaska were sent to coastal areas of Alaska, Washington, British Columbia, California, and Oregon.

Tide gauges recorded the waves at Crescent City Harbor, California (about 560 km north of San Francisco), where crews worked in the rain to stabilize damaged docks and secure boats knocked loose by the waves.

Paul McAndrews, harbor facility manager said that waves over one meter high struck the town for about 20 minutes. “It was a tidal surge, about two or three feet of water. It kept coming and going for 20 minutes. It was very violent,” McAndrews said. “We have a tremendous amount of damage—boats sitting on docks, two docks severely damaged.” The amount of damage to the harbor is estimated to be approximately $700,000.

The most tsunami-vigilant city in California, Crescent City has had a history of receiving the brunt of every tsunami that strikes the state. In 1964, a tsunami killed 11 people in the city. Tsunami evacuation routes have been established and signs posted.

![ShakeMap of November 15 earthquake (overlaid onto Google Earth).](image)

![Damage to dock at Crescent City Harbor from the Kuril Islands tsunami.](image)
News of the Institute

Reference Manager for Spectra

For EERI members who are often writing reports and technical papers, keeping track of and properly formatting references or citations can be a considerable chore. However, in the last few years a specialized class of database software, tailored for managing references, has emerged. Examples include Biblio-Express (commercial, but with a free limited capability version at http://www.biblioscape.com/biblioexpress.htm), Endnote (commercial, http://www.endnote.com/), Procite (commercial, http://www.procite.com/) and Pybiographer (free open-source, http://www.pybiographer.org/Welcome/). The commercial versions typically cost several hundred dollars, but are more user-friendly.

As a service to EERI members, all 949 papers published in Earthquake Spectra from Volume 1 Number 1 in 1984 through May 2006 have been entered into the Endnotes database. The resulting “Endnote library” file can be downloaded from the EERI web site (file name: EQ Spectra 1984-May 2006.enl). http://www.eeri.org/cds_publications/spectra_about.html. Most other reference managers can input the “.enl” format.

Endowment Fund Donors

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

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Remember to Vote!

All EERI members eligible to vote (regular, young professional, and honorary members) should have received the ballot for this year’s election. The terms of directors John Aho and Farzad Naeim will expire in 2007. Nominated to fill those two slots are Sharon Wood (University of Texas, Austin) and Andrew S. Whittaker (SUNY Buffalo) for Director A, and Stacy Bartoletti (Degenkolb Engineers, Seattle) and S. K. Ghosh (S. K. Ghosh Associates, Illinois) for Director B. The election materials include biographies and vision statements of each of these candidates. The ballot also includes several important amendments to the Institute’s Bylaws. Be sure to mail your ballot so that it is received by January 1, 2007. Contact the EERI office if you have not received it.

Endnotes

Many universities offer a free copy of Endnotes or other software to affiliated scholars.

Subscribing Member Posting Geomatrix Position

EERI Subscribing Member Geomatrix Consultants is seeking a staff-level seismologist/engineer for its Oakland office. Requirements include an M.S. or Ph.D. in geophysics

analysis, probabilistic seismic hazard analysis, development of response spectra, site response analysis, time history analysis, and report preparation. For further information and to apply online, visit http://www.geomatrix.com/.

Geomatrix Consultants, Inc. is seeking a staff-level seismologist/engineer for its Oakland office. Requirements include an M.S. or Ph.D. in geophysics (emphasis: seismology) or geotechnical engineering (emphasis: earthquake engineering) and familiarity with current approaches used in probabilistic seismic hazard analysis and strong-motion seismology. Duties will include earthquake catalog
News of the Membership

**Dowty Appointed to California BSC**

California Governor Arnold Schwarzenegger has appointed EERI member Susan Dowty to California’s Building Standards Commission for a four-year term beginning this year. Dowty has been project manager for S. K. Ghosh Associates, Inc., in Laguna Niguel since 2000. Established in 1953 by the California Building Standards Laws, the California Building Standards Commission is an independent commission responsible for codifying and publishing approved building standards into one state building standards code (*California Code of Regulations*, Title 24) and for administering California’s building code adoption process.

Dowty was nominated by the Structural Engineers Association of California and will be the only structural engineer on the 11-member commission. She has over 15 years of experience in the administration and development of the *Uniform Building Code* provisions. In recent years she has played an active role in the development of structural provisions for the *International Building Code*, serving as the Structural Committee secretariat.

She has also been instrumental in the development of a number of structural engineering-related publications produced by the International Conference of Building Officials. She served as the consultant for the reformat of the ASCE 7-05 seismic provisions.

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**Helland VP of VISCMA**

The Vibration Isolation and Seismic Control Manufacturers Association (VISCMA) of Wayne, Pennsylvania, has elected EERI member Torbjørn Q. Helland as its new vice president. Helland is president and CEO of M.W. Saussé & Co., Inc., in Valencia, California. He is a graduate of the Norwegian Institute of Technology, with an M.S. in structural engineering. He has more than twenty years of professional engineering experience in California.

VISCMA is a nonprofit association representing the manufacturers of seismic restraint, vibration isolation, and noise control equipment. The primary objectives of the organization are to educate the construction industry on the proper use and application of vibration isolation and seismic restraint technologies and to develop standards to improve the industry. In partnership with FEMA and ASCE, VISCMA currently publishes three seismic installation and inspection manuals designed to assist field personnel. Electronic copies are available at [www.viscma.com](http://www.viscma.com).

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**Edwards Receives 2006 Khoury Award**

EERI member Curtis Edwards received the 2006 Said Khoury Award from the World Federation of Engineering Organizations on October 17, 2006, in Chicago. Curt was chosen for his work organizing post-disaster investigations to study the performance of lifelines and develop improved design criteria.

The Khoury award is granted every two years on the basis of a successfully completed project that has had a positive impact on the quality of life.

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**Frangopol at Lehigh**

EERI member Dan M. Frangopol has been appointed as the first holder of the Fazlur Rahman Khan Endowed Chair of Structural Engineering and Architecture at Lehigh University in Bethlehem, Pennsylvania, and as a professor in the Department of Civil and Environmental Engineering. Frangopol has moved to Lehigh from the University of Colorado at Boulder. For more information on his distinguished career, see page 3 of the March 2005 *EERI Newsletter.*
NEES Research RFP

The Division of Civil, Mechanical, and Manufacturing Innovation in the Directorate for Engineering of the National Science Foundation (NSF) invites proposals for research that use the George E. Brown, Jr., Network for Earthquake Engineering Simulation (NEES) to advance knowledge discovery and innovation for (1) earthquake and tsunami loss reduction in our nation’s civil infrastructure and (2) new experimental simulation techniques and instrumentation for NEES.

NEES is authorized under the National Earthquake Hazards Reduction Program (NEHRP) (http://www.nehrp.gov), and awards made under this program solicitation contribute to NEES’s participation in NEHRP.

Proposals may be submitted in five categories: Individual Investigator, Small Group, Grand Challenge, Simulation Development, and Payload. Request for proposal details can be found in HTML, PDF, and TXT formats at the following URL: http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf07506. The deadline to submit a full proposal is 5:00 p.m. (proposer’s local time) January 30, 2007. Information about NEESinc is available at http://www.nees.org.

Annual Meeting

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an integrated educational experience for all audiences to enjoy. Bordered by coastal mountains and the Pacific Ocean, the Villa is dedicated to the study of the arts and cultures of ancient Greece, Rome, and Etruria. Modeled after the Villa dei Papiri, a first-century Roman country house, the original villa, built in 1970, has been renovated and fuses contemporary design ideas and elements with architecture inspired by antiquity. Over 1,200 objects are on view. Conservator Jerry Podany will give an introductory talk on how the artwork and antiquities are protected from earthquakes. A bus will depart from the hotel at 2:15 p.m. and return by 6:00 p.m. There is no extra charge for this exciting opportunity, but registration is required.

Online registration for the Annual Meeting is now available at www.eeri.org along with the program brochure. EERI members will be receiving a copy in the mail in December.

SSI Seminar Series

continued from page 1

better understanding of foundation behavior and seismic demand for strong shaking.” EERI President Craig Comartin, a structural engineer specializing in performance-based procedures, says, “These seminars will encourage a continuing dialogue between the two disciplines. Communication...is the key.”

The first seminar will cover the basic principles of soil-structure interaction and current guidelines for practice. The focus will be on spread footings and current guidelines for practice. The daylong seminar will be given in Seattle (March 12, 2007), Los Angeles (March 14, 2007), and San Francisco (March 21, 2007). Registration fees will be $200 for members of EERI and sponsoring organizations, $175 for EERI Subscribing Members, $300 for nonmembers, and $100 for EERI Student/Young Professional/Retired Members. To register, visit www.eeri.org.

Geoff Martin, professor of civil engineering at USC and seminar series organizer, says that future seminars will cover deep foundations, seismic pressures on basements and embedded structures, new procedures for ground motions, and other topics of practical interest to structural and geotechnical engineers.

New Holistic Masters Program in London

A new M.Sc. degree in earthquake engineering with disaster management will be offered by University College London beginning September 2007. The program will embrace an holistic approach to the field, imparting a combination of specialist earthquake engineering knowledge and an understanding of the social, economic, and political impacts of earthquake events in order to prepare engineers to provide holistic design solutions and work in both engineering and disaster management roles. Graduates of the program will be able to:

• understand the roles and interactions between seismology, soil dynamics, and structural dynamics;
• apply both current seismic codes and novel methodologies of seismic design, repair, and assessment;
• understand the national and worldwide social, economic, and political consequences of earthquakes;
• select and assess the effectiveness of pre-event risk mitigation and post-event risk management solutions when applied to different contexts.

The program has been developed in collaboration with civil engineering and nuclear industry professionals, disaster managers, re-insurers, academics, and nongovernmental organizations.

For more information, visit www.civeng.ucl.ac.uk/.

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Call for Abstracts

Protect 2007

The First International Workshop on Performance, Protection, and Strengthening of Structures under Extreme Loading (Protect 2007) is scheduled for August 20-22, 2007, in Whistler, Canada. It will bring together experts from diverse backgrounds to exchange ideas and create a multidisciplinary forum aimed at enhancing our understanding of the underlying complex issues and challenges. Original papers are sought on performance and strengthening of structures under extreme loading, performance of materials, structural management and protection, and other related topics.

Abstracts not exceeding one page should be e-mailed to protect2007@civil.ubc.ca by January 31, 2007. For more details on topics and other information, visit www.civil.ubc.ca/protect2007.

Risk Reduction Symposium

A call for papers has been issued for the International Symposium on Seismic Risk Reduction to be held in Bucharest, Romania, April 26-27, 2007. The symposium will gather specialists from research, education, and industry. The first day will be devoted to the presentation of the results of the technical cooperation project (now in its fifth year) between Romania’s National Center for Seismic Risk Reduction and the Japan International Cooperation Agency entitled “Seismic Risk Reduction for Buildings and Structures.” The second day will have presentations from contributors. On both days, keynote lectures will be given by leading specialists from Japan and Europe.

Abstracts are encouraged on all issues related to seismic risk, such as ground motion, ground conditions, seismic evaluation, seismic rehabilitation, and education. Submissions not exceeding one page must be e-mailed to isssrr2007@utcb.ro by January 15, 2007. For more information, visit http://cnrs.utcb.ro/isssrr2007/isssrr2007.html.

World Conference on Advanced Technology

A call for papers has been issued for the 10th World Conference on Seismic Isolation, Energy Dissipation and Active Vibration Control of Structures, scheduled for May 28-31, 2007, in Istanbul, Turkey. The conference will provide an opportunity for the exchange of information concerning the development and applications of innovative and state-of-the-art anti-seismic techniques. Topics covered will include base and floor isolation and passive energy dissipation; development and applications of active, semiactive, and hybrid control of seismic and nonseismic vibrations; and critical issues concerning the application of innovative antiseismic techniques in areas of both low and moderate seismicity. In addition, special topics will be included on the assessment of design-basis ground motion, base isolation applications in industrial and electrical power facilities, seismic isolation in bridge design, and earthquake-resistant design codes for seismic isolation.

The conference will encompass oral and poster presentations, panel discussions, special sessions, technical exhibitions, and a technical tour. The oral sessions will consist of presentations by invited lecturers from regions that are the most involved in the development and applications of new structural control techniques in both civil and industrial fields, overviews of ongoing R&D projects and future programs, observations during actual earthquakes, development of codes and standards, design rules, design-basis ground motion, and cost evaluation. New developments will also be addressed in active, semi-active, and hybrid control techniques for seismic and nonseismic vibrations, and key issues in the application of innovative antiseismic techniques in regions of both low and moderate seismicity.

The deadline to submit abstracts not exceeding one page is December 15, 2006. For submission instructions, visit www.did-tasi.org/seminar.

DFI Conference


From the accepted abstracts, approximately 20 will be selected for oral presentation at the conference. Remaining papers accepted will be published in the proceedings and may be afforded an opportunity for a poster session presentation.

The DFI Annual Conference will also feature the 3rd Annual Young Professors’ Paper Competition and the 5th Annual Student Paper Competition. Suggested topics are historical evolution of deep foundations; relationship between design, construction, and equipment utilization; quality control, quality assurance, and nondestructive testing; and case studies involving foundation systems common to the Colorado region.

The online submission process of abstracts not exceeding 250 words for both the young professors’ and student competitions is the same as indicated above, with the same deadline.
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.

DECEMBER
7-8. 3rd ATC-35/USGS Workshop on National Earthquake Ground-Motion Mapping. Marriott Hotel in San Mateo, CA. Info: www.ATCouncil.org (9/06, 10/06)

11-15. Seismogenesis & Tsunami Hazards of 'Aseismic' Island Arcs. AGU Fall Meeting, San Francisco, CA. Info: http://www.agu.org/meetings/fm06/ (9/06)

18-20. 13SEE-06, Roorkee, India. Info: http://www.iitr.ernet.in/common/symposia/pages/about.htm (8/06)

2007
JANUARY

FEBRUARY
TBA. EERI New Madrid Chapter Student Poster Competition, St. Louis, MO. Info: www.eeri.org (10/06)

7-10. EERI Annual Meeting, Los Angeles, CA. Info: www.eeri.org. See page 1. (3/06, 9/06, 10/06, 11/06, 12/06)


MARCH
12. EERI Seminar on SSI for PBEE Seattle, WA. See page 1. (12/06)


21. EERI Seminar on SSI for PBEE S.F., CA. See page 1. (12/06)


APRIL
26-27. Int'l Symposium on Seismic Risk Reduction, Bucharest, Romania. See page 6. (12/06)

30-May 2. 2nd Int'l Modal Analysis Conference, Copenhagen, Denmark. Info: www.iomac.dk (10/06)

MAY

14-16. SEE5 on EQ Risk Reduction in Developing Countries, Tehran, Iran. www.ieees.ac.ir/SEE5 (7/06)

28-31. 10th World Conf. on Seis. Isolation, Energy Dissipation, & Active Vibration Control of Structs., Istanbul, Turkey. See pg. 6. (12/06)

JUNE

4-6. 24th Int'l Bridge Conf, Pittsburgh, PA. Info: www.eswp.com/bridge/abstract.htm (11/06)


25-28. 4th Int'l Conf. on EQ Geotech. Eng. (4ICEGE), Thessaloniki, Greece. www.4icege.org (2/06)

26-29. 9th Canadian Conf. on EQ Eng. (9CCEE), Ottawa, Canada. Info: www.9ccee.ca (2/06)

JULY
8-11. 17th World Conf. on Disaster Management, Toronto, ON, Canada. Info: http://www.wcdm.org/ (11/06)

AUGUST

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


NOVEMBER
27-29. 2nd International Conference on Urban Disaster Reduction (ICUDR), Taipei, Taiwan. Info: http://www.ncdr.nat.gov.tw/2ICUDR (10/06)

2008
MAY
18-22. GEESD IV, Sacramento, CA. Info: www.geesd.org (10/06)

AUGUST

OCTOBER
12-17. 14th World Conf. on EQ Eng., Beijing, China. Info: www.14wcee.org (12/05)

Tsunami Run-up Values Correction
In response to last month's article on tsunami run-up values (page 8), Martin Eskijian of the California Land Commission wrote, “The tabular values for northern California are too old; they’re too high, and they should not be used. We have informed all marine oil terminal operators of this, and we will correct the MOTEMS soon in an update.” He can be contacted at eskijim@slc.ca.gov or 562/499-6312.
News of the Institute

Remember EERI Before This Tax Year Ends

December brings with it the last chance for you to reduce next year’s taxes by making a donation to the EERI Endowment Fund. A contribution to the EERI Endowment Fund has never been more important than it is today. We can no longer count on government funds to fully support even our most valued programs. Member contributions provide essential funding for innovative projects. Gifts of cash or appreciated securities from individuals or corporations are usually the most convenient ways to make charitable donations.

In 2006 EERI’s Endowment Fund played an important role in the success of the April 100th Anniversary Earthquake Conference commemorating the 1906 San Francisco earthquake.

- **Support to the Northern California chapter**: For the past few years, the Endowment Fund has supported the chapter’s Quake '06 Project, resulting in popular workshops and tutorials at the conference, many of which are now online at [http://www.1906eqconf.org/tutorials.htm](http://www.1906eqconf.org/tutorials.htm).

- **Student travel support**: Thirty-eight students attended the conference with Endowment support. This investment will help ensure that there will be future professionals dedicated to continued involvement in earthquake loss reduction.

- **Scenario Development and Concrete Coalition**: A sophisticated new scenario of a repeat of the 1906 earthquake was developed as part of the conference, indicating that a large proportion of the deaths and serious injuries will be attributable to collapse of nonductile concrete construction. Building on this, EERI Endowment funds are supporting a grassroots effort, the Concrete Coalition, to come up with technically sound, economically effective, and socially acceptable solutions to this problem.

- **Adobe construction and mitigation issues**: A web-based forum for adobe construction and mitigation issues is now being developed with help from the Endowment Fund. That database will become a part of EERI’s World Housing Encyclopedia (WHE), greatly increasing the documentation of building practices in earthquake regions throughout the world. WHE has also just released its third tutorial—this one on reinforced concrete frame construction with masonry infill walls, helping to break the cycle of repeated earthquake losses.

These projects represent creative multidisciplinary strategies targeted at improving the sustainability of the built environment. We must continue to support existing programs, embark on new mitigation projects, and advocate for increased funding for research and implementation. Your donation will allow EERI to build on the powerful momentum of the 100th Anniversary Earthquake Conference and lend support to new and significant programs in the years ahead.

As individual members reflect on EERI’s achievements, they can be assured that each gift benefits many generations to follow. To make an online donation, visit [http://www.eeri.org/home/committees_endowment.html](http://www.eeri.org/home/committees_endowment.html).

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