

**EARTHQUAKE ENGINEERING
RESEARCH INSTITUTE
NEWSLETTER**

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**EARTHQUAKE ENGINEERING
RESEARCH INSTITUTE**

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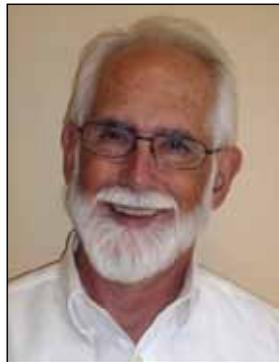
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News of the Institute

**Election Results: Tobin, President-Elect;
Maffei and Rathje Elected to Board**



L. Thomas Tobin



Joe Maffei



Ellen Rathje

L. Thomas Tobin of Tobin & Associates in Mill Valley, California, received the endorsement of the voters to be president-elect of the Institute, while Joe Maffei of Rutherford & Chekene in San Francisco, California, and Ellen Rathje of the University of Texas, Austin, were elected the newest members of the Board of Directors, in the 2010 election.

Tobin, Maffei, and Rathje assumed their new posts on February 3, 2010, the date of the first Board meeting of the year, held in San Francisco. Tobin will serve one year as president-elect, followed by two years as president and one additional year as past president. He will take up the position vacated by Past President Thalia Anagnos of San Jose State University, who is leaving the Board after four years of service. President Farzad Naeim will remain president in 2010 for the second year of his two-year term, and will become past president next year. Maffei and Rathje will each serve three years as directors, replacing S. K. Ghosh and Andrew Whittaker, whose terms have expired. EERI extends thanks to Anagnos, Ghosh, and Whittaker for their years of outstanding service and dedication to the Institute.

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EERI Responds to Haiti Earthquake of 1-12-10

On January 12, 2010, a magnitude 7.0 earthquake in Haiti caused extreme destruction to Haiti's infrastructure, economy, and society. Estimates suggest that more than 200,000 people died, with many more times that number critically injured, homeless, and destitute. EERI has appointed Reginald DesRoches, professor and associate chair of the School of Civil & Environmental Engineering at the Georgia Institute of Technology, a native of Haiti and a current EERI Board member, to lead EERI's reconnaissance team to Haiti. He has already visited Haiti as part of an MCEER team to conduct damage assessment, and has been coordinating with various other groups planning to send teams, including a joint USGS/EERI team, assisted by the U.S. military, consisting of Marc Eberhard, University of Washington, representing EERI and NEES; Glenn Rix, Georgia Institute of Technology, representing GEER (Geo-Engineering Extreme Events Reconnaissance Association); Steven Baldrige, Baldrige & Associates, Hawaii, representing ATC; EERI young professional Justin Marshall, Auburn University, and Walter Mooney,

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Election Results

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It is not too early to start thinking about next year's election of directors. The Nominating Committee welcomes suggestions from the

membership, including self-nominations. Nominees for director must have been active (or honorary) members of EERI for at least five years, and must not have been nominated to the Board in the last two years.

To submit a name for consideration, send a brief note giving the name and qualifications of the potential candidate to the Nominating Committee in care of the EERI office. All submissions are confidential.

Message from EERI's Outgoing Executive Director

It's Been a Wonderful 22 Years!

by Susan Tubbesing

When I arrived at EERI in the spring of 1988, it was a different world from that in which we now live. EERI's office was in a medical arts building in El Cerrito with tuck-under parking. The office had one computer, but neither an answering nor a fax machine. E-mail was just coming into popular use and EERI President Frank McClure was quick to sign us up. The fact that it took five pages of directions, just to connect, limited the number of people in the office smart enough to use it. I was not one of them. The *EERI Newsletter* and *Earthquake Spectra* were typed in columns and cut and pasted onto camera-ready boards. The first cell phone we purchased was about the size of a car battery. The EERI website, in fact the World Wide Web, did not exist, at least not for use by the general public.

Just as dramatic as the technological progress are the changes to EERI and the profession during the past 22 years. Before I take my final leave of those I hold most dear, I wish to indulge myself a few moments in calling to mind a short review of the past.

In 1988, EERI had approximately 1,400 regular members and three regional chapters (Alaska, Great Lakes, Southeast U.S.). Members lived in 44 countries. Today, EERI has nearly 2,300 individual members from 56 countries. In 1988 EERI had neither student members nor student chapters. Today, 400 of our members are students and over 200 are Young Professionals, and

there are more than 30 student chapters throughout the US, as well as in Canada, Mexico, Puerto Rico, and Italy. And we now have six regional chapters (Alaska, Great Lakes, New Madrid, Northern and Southern California, and our newest, San Diego). Our corporate Subscribing Members have increased from 14 to 52. It wasn't until 1994 that our Endowment Fund was created, and today it has approximately \$1 million in assets and provides seed funding for small, creative, and innovative projects that contribute to EERI's mission: to reduce earthquake risk throughout the world.

It was quiet, seismologically speaking, in 1988, as future earthquakes in Armenia, Santa Cruz, Los Angeles, Japan, Iran, Turkey, India, China, Pakistan, Haiti, and so many other places, had yet to exact their tragic tolls on lives and property. The National Earthquake Hazards Reduction Program had been authorized by Congress to support research and mitigation, but performance-based engineering didn't have a name yet and base isolation was still raising eyebrows in the US. NCEER had just been created, but the three earthquake engineering research centers and NEES were still years away. NSF funding supported EERI's LFE Program, allowing us to carry out multidisciplinary post-earthquake investigations, but our Cooperative Agreement with FEMA and projects with the USGS that would generate numerous publications, technical seminars, and

other products of benefit to our members had not yet begun.

Today, many EERI projects that would not have been possible two decades ago define excellence in engineering practice. The EERI website (www.eeri.org) provides links to our web-based World Housing Encyclopedia, Concrete Coalition, Confined Masonry Network, the Mitigation Center, post-earthquake clearinghouses and reconnaissance blogs, and the Bay Area Earthquake Retrofit Map. *Earthquake Spectra*, now in its 26th year, is included in the *Science Citation Index*, and both *Spectra* and the *Newsletter* are available online. While new technologies have made it possible for EERI to disseminate the latest technical information to earthquake professionals throughout the world, EERI members have contributed their expertise and countless invaluable hours to develop these programs and publications.

I have worked with 12 EERI presidents and 60 Board members, and I can honestly say that every one of them has helped to broaden the scope and contributions of EERI. And the many editors that have given so unstintingly of their time have made the *Newsletter* and *Spectra* first-class publications. The Institute's reconnaissance reports, monographs, and oral histories are classics, and many special publications have resulted from projects dealing with experimental research needs, scenario development, seismic public policy, disaster loss reduction, and earthquake resilience. These publications and their authors — our members — are well-recognized and are called upon by con-

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Haiti Earthquake

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USGS, who installed several seismographs to measure aftershocks. For more information, visit <http://www.eqclearinghouse.org/20100112-haiti/>.

Also part of the MCEER team was its director, EERI member Andre Filiatrault. The team's purpose was to help determine which structures left standing after the earthquake and its aftershocks may pose a threat to human safety. GEER has organized a team under the leadership of newly elected EERI Board member Ellen Rathje, professor at the University of Texas.

EERI Members Participate in Operation GEO-CAN

Hundreds of members responded to an e-mail from EERI on January 22 calling for help in analyzing high-resolution aerial imagery of Haiti in an effort to estimate and classify building damage, particularly collapse. The EERI volunteers signed

up to analyze one or more grids and had to complete the analyses within two days. The images, which are better quality than satellite imagery, were acquired by EERI Subscribing Member ImageCat; the firm had taken the lead in creating Operation GEO-CAN (Global Earth Observation – Catastrophe Assessment Network) in partnership with EERI, the Rochester Institute of Technology, and other institutions. The World Bank and GEO-CAN are working in a joint mission to collect and process these optical, thermal infrared, topographic images that make possible detailed visualization of houses, public buildings, cars, and vegetation.

Tectonic Setting

Haiti is located in western Hispaniola, which is part of one of several microplates within the boundary zone between the larger North America and Caribbean plates. The relative motion of the larger plates results in both internal deformation and distributed slip along discrete faults that bound the smaller micro-

plates. The January 12 event occurred on the previously mapped left-lateral strike-slip Enriquillo-Plantain Garden fault, which extends eastward into the Dominican Republic and westward across the Caribbean Sea toward Jamaica. This fault last ruptured in 1751 in an inferred $M_w 7.5$ left-lateral strike-slip event. The January 12 event ruptured along an ~80 km long segment of the Enriquillo fault. According to Glen Mattioli of the University of Arkansas, a regional model constrained this fault as having been accumulating elastic strain at ~7 mm/yr. This amounts to ~1.9 m of slip deficit since the 1751 event. Given reasonable assumptions about rupture area and shear modulus, the instantaneous release of this slip deficit yields 4.5×10^{19} Nm of seismic moment release — almost exactly what was observed during the January 12 event.

Reports from reconnaissance teams on the Haiti earthquake are planned for future issues of the *EERI Newsletter*.

Susan Tubbesing

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gressional committees, federal agencies, and international organizations for advice on a broad range of seismic safety issues.

With the establishment of EERI's Student Leadership Council, we are shaping the future leaders of our profession. The Undergraduate Design Competition run by the SLC is expanding every year, allowing hundreds of students to experience the challenges and rewards of earthquake engineering. The devastating losses we have seen recently in Haiti give new urgency to the needs that must be addressed to make this a safer world. You will soon hear more about President Naeim's plans to extend EERI's reach to earthquake professionals in developing countries. EERI has changed much

over the last two decades, but we have never lost sight of our mission.

I am leaving EERI in good hands. I know that Jay Berger will introduce new ideas and programs that will advance the goals EERI members share. Presidents and directors will continue to give generously of their time and advice. And my wonderful staff, whose commitment and loyalty to EERI go far beyond their 9 to 5

jobs, will continue to contribute to EERI's excellence.

I have had an enormously good and interesting time serving you, the smartest and most committed earthquake experts in the world, and I look forward to working on various EERI programs in the years to come. Thank you very much for the most rewarding years of my professional life.



Two outgoing members of the Board of Directors (l-r): Thalia Anagnos, and S. K. Ghosh, and outgoing Executive Director Susan Tubbesing.

Learning from Earthquakes Eureka, California, Earthquake of 1-9-10

A magnitude 6.5 earthquake occurred at 4:27 p.m. PST January 9, 2010 (local time), centered at a depth of about 29 km (19 miles) beneath the earth's surface, 21 miles NW of Cape Mendocino, 23 miles WNW of Ferndale and 29 miles WSW of Eureka. The Cape Mendocino region of Humboldt County and the adjacent offshore area make up the most seismically active region of the contiguous 48 states. The earthquake occurred in a deformation zone of the southernmost Juan de Fuca plate, referred to as the Gorda plate. The epicenter was northwest of the Mendocino Triple Junction, which is formed by the intersection of three plates (the Gorda, Pacific, and North America) and three plate boundaries — the Mendocino fault, the San Andreas fault, and the Cascadia subduction zone. The Gorda plate is subducting northeast beneath the North America plate at about 2.5-3.0 cm/year. The Gorda plate is also subjected to intense compressive stresses by the oblique convergence of the northwestward

migrating Pacific plate as well as localized eastward spreading at the Gorda Ridge. The resulting internal deformation of the Gorda plate is manifested primarily by intraplate strike-slip left-lateral events on vertical NE-oriented faults.

The focus of a small EERI reconnaissance team in Eureka was to document the performance of unreinforced masonry (URM) buildings, and buildings retrofit under a mandatory URM retrofit ordinance passed in 1989, as well as a repair and retrofit ordinance passed after 1992 earthquakes. The team included two San Francisco engineers, Bret Lizundia, a principal at Rutherford & Chekene, and David Bonowitz, a consulting structural engineer, as well as UC Berkeley graduate student Nick Sherrow-Groves. Lori Dengler of Humboldt State University also joined the team. They also coordinated with GEER investigators, who were documenting ground displacement, and with Ken Luttrell, who represented SEAOC's new Earthquake Performance Evaluation Program. The presence of several strong-motion instruments provided a good opportunity to gather data on building performance at various acceleration levels. Preliminary

observations have been posted on the EERI clearinghouse website at <http://www.eqclearinghouse.org/20100110-eureka/>.

About 30 people were treated at hospitals for minor injuries, and there was one report of a major injury (an elderly man with a broken hip). Damage was greatest in Eureka, where there were 219 reports of damage to homes and commercial buildings (foundation damage, damaged parapets, cracked walls and driveways, and toppled chimneys). Damage estimates as of January 12 exceed \$20 million in the county.

More than 36,000 people were initially without power, but electricity was restored to everyone shortly after 6 a.m. January 10. Numerous security cameras and home videos captured the event. One striking observation is that the majority of people did not drop, cover, and hold on, but walked or ran outdoors during the strong ground shaking. An important lesson from this event is to improve outreach efforts for the drop, cover, and hold on response.

A more complete report is planned for an upcoming *Newsletter*.

Solomon Islands Tsunami of 1-4-10

Report by Caltrans' Geologist
Martha Merriam

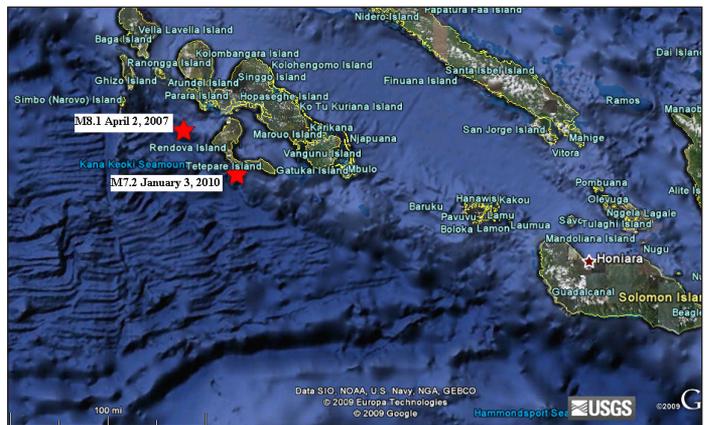
On January 4, 2010, at 09:36:27 a.m. (local time), an M7.2 thrust earthquake shook the Solomon Islands archipelago, triggering landslides and a local tsunami. The earthquake occurred less than 35 miles from the location of the M8.1 2007 event that resulted in 52 deaths and widespread damage related to both the earthquake and tsunami (see May 2007 *EERI Newsletter*). Repairs of schools and other buildings that were needed after the 2007 earthquake are still underway.

The event occurred at a depth of about 20 miles and was preceded by a shallower M6.5 foreshock in approximately the same location.

Several dozen aftershocks greater than M5.0 have occurred in the region over the past few weeks and define a shallow north-east-dipping subduction zone. The earthquake and resulting 10-ft. high tsunami damaged or destroyed many

homes on the island of Rendova, located about 5-10 miles north of the epicenter. Over 1,000 people,

continued on next page



Map showing location of M8.1 April 1, 2007 and M7.2 January 4, 2010, earthquakes.

News of the Membership

Build Change in *New York Times*

In the article, "Managing Disasters with Small Steps" in the January 19, 2010, national edition of the *New York Times* (page D1), writer Henry Fountain interviewed EERI member Elizabeth Hausler. She is the founder of Build Change, a nonprofit organization that helps communities build earthquake-resistant housing.

The article focuses on organizations using "innovative approaches to building or rebuilding infrastructure in developing countries, to help forestall disasters or, as in Haiti, recover from one." These organizations share a belief that successful long-term reconstruction requires changing local people's behavior by involving them in the effort. In Indonesia after the 2004 earthquake and tsunami and in China after the 2008 Sichuan quake, Hausler involved homeowners in modifying traditional designs to improve their earthquake resistance. She has trained aid officials and worked with local governments to enforce building standards, enabling her efforts to be leveraged to a larger scale. Build Change is now developing a plan to help rebuild homes in Haiti.

To access the complete article, visit <http://www.nytimes.com/2010/01/19/science/19reli.html?pagewanted=1&ref=science>.

China Award to Chopra

EERI member Anil K. Chopra, professor of structural engineering in the Department of Civil and Environmental Engineering at the University of California, Berkeley, was recently awarded the title of Honorary Professor of the Harbin Institute of Technology in China. This award required approval by the Ministry of Education in China. Chopra is the first such awardee in structural or earthquake engineering from the United States. Following the award ceremony, he presented a series of lectures on earthquake analysis of structures.



Anil K. Chopra

Chopra joined UC Berkeley's civil engineering faculty in 1967. He served a term on EERI's Board of Directors in the early 1990s. His numerous honors include EERI's highest honor, the George W. Housner Medal, in 2002. He has authored more than 300 published works, including the popular EERI monograph, *Earthquake Dynamics of Structures, A Primer* (second edition 2005), and a well-known textbook used worldwide, *Dynamics of Structures: Theory and Applications to Earthquake Engineering* (third edition 2007).

Solomon Islands

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or about a third of Renova Island's population, were left homeless. Tetepare, also located close to the epicenter, is an uninhabited ecotourism site and was also hit. No loss of life or serious injuries were reported.

Seismic activity in the Solomon Is-

lands is associated with movement in a northeast-dipping subduction zone resulting from the Australian/Woodlark/Solomon Sea plate being thrust beneath the Pacific plate.

Rate of movement at this plate boundary is about 90-110 mm/yr, or about three times the rate on the transform boundary between the Pacific and North America plates in California.

Obituary

Hugh D. McNiven, 1922-2009

Former EERI member Hugh Donald McNiven, professor emeritus of civil engineering at the University of California, Berkeley, died peacefully of heart failure in his sleep on December 7, 2009, at the age of 87. He was director of the Earthquake Engineering Research Center from 1980 to 1985.

After serving in the Canadian Army, McNiven obtained a masters degree from Cornell University (1949) and a doctorate from Columbia University (1957). He was an educator from 1957 to his retirement in 1991. He also served as president of the University Art Museum.

An author of over 100 scientific research papers and books and a well-loved lecturer, McNiven worked in the areas of mathematical modeling of structures during earthquakes and the mechanics of solids.

Call for Abstracts

SEAOC Convention

Abstracts are requested for papers to be presented at the 2010 Structural Engineers Association of California Convention to be held September 22-25 in Indian Wells, California. The theme for the technical program is "Building on the Past — Solutions for the Future."

Submissions are encouraged on recent projects, lessons learned, best design practice, and efficient and economical design. Abstracts (300 words maximum) are due by February 26 and should be e-mailed to the Technical Program Committee Chair Matthew Skokan at mkokan@sbise.com.

Authors will receive guidelines regarding paper format after acceptance of abstracts on April 19.

Announcements

Free UB Webinar Series on Bridge Engineering

Leading experts in the field of bridge engineering are visiting the University at Buffalo (UB) to deliver lectures as part of a Bridge Engineering Distinguished Speaker Series. The lectures are being held Monday evenings, January 11 through April 19, at 5:00 pm EST and will cover a wide variety of topics in bridge engineering. Individual presentations can be viewed on a live webinar each week. They are free, but pre-registration is required. For a list of speakers, additional information, and to register for the webinars, visit http://mceer.buffalo.edu/education/Bridge_Speaker_Series/default.asp.

The series is part of a new graduate course entitled "Bridge and Highway Infrastructure Management and Public Policy," offered through the Department of Civil, Structural and Environmental Engineering and taught by Professor Stuart Chen. The course will explain the issues, approaches, and practices used in the management of transportation infrastructure systems, with a focus on highway bridges. Students can apply to take the entire course in the University at Buffalo's EngiNet Distance Learning program by visiting www.eng.buffalo.edu/EngiNet.

The lecture series was developed in close collaboration with AASHTO's Subcommittee on Bridges & Structures, with the support of the Federal Highway Administration, in response to the national need for developing future leaders in the bridge engineering profession.

UC Student Presentations

EERI is cosponsoring an evening of four University of California student research presentations on Tuesday, February 16, 2010, at 6 p.m. offered by the San Francisco Section of the Geo-Institute of ASCE. SEAONC is also a cosponsor. EERI members will pay the GI-SEAONC member fee of \$10 (students are free) to attend. The location is the Caltrans District 4 Auditorium, 111 Grand Avenue, Oakland. RSVP with name, company, and phone or email address to admin@asce-sf.org or 415-546-6546 by February 15. Following are the speakers:

- **Ben Mason** (EERI student member), UC Berkeley
Topic: Seismic Performance Assessment in Dense Urban Environments
- **Lijun Deng** (EERI student member), UC Davis
Topic: Seismic Performance of Bridge Systems with Innovative Design Allowing Rocking Foundations
- **Joseph Weber**, UC Berkeley
Topic: Post-Liquefaction Residual Strength
- **Ronnie Kamai**, UC Davis
Topic: Characterizing Localization Processes During Liquefaction

To view abstracts of the presentations, visit http://www.asce-sf.org/index.php?option=com_content&task=view&id=529&Itemid=57.

5ICGEESD Early Bird Registration Discount

Save \$100 if you register on or before February 28 to attend the 5th International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics and Symposium in Honor of Professor I. M. Idriss, being held May 24-29, 2010, in San Diego, California. Registration is available online at <http://5geoeqconf2010.mst.edu>.

Asia-Pacific Smart Structures Summer School

The NSF-sponsored 3rd Annual Asia-Pacific Summer School (APSS) in Smart Structures Technology will be held from July 15 through August 4, 2010, at the University of Tokyo.

This summer school brings graduate students from the United States, Korea, Japan, and China together and lowers the barriers that currently divide the disciplines required to conduct cutting-edge research in smart structures technology through a student-oriented international program.

NSF funding will cover travel expenses, a daily allowance for housing and meals, and a \$500 stipend for ten US students. Applications are due by March 15, 2010. For more information, visit <http://sstl.cce.illinois.edu/apss/>.

Nominees Sought for Trifunac Award

The Indian Society of Earthquake Technology (ISET) seeks nominations for its 2010 Trifunac Award for Significant Contributions in Strong Motion Earthquake Studies. This quadrennial award is named in honor of EERI member M. D. Trifunac, professor of civil engineering at the University of Southern California in Los Angeles. The award includes a prize of INR 30,000 (US\$600). Any person, regardless of nationality, who has worked in strong-motion earthquake studies may be considered. Nominations must be submitted on or before March 31, 2010, to dpaulfeq@iitr.ernet.in in PDF format containing a detailed curriculum vitae, including the nominee's full contact information, date of birth, and a statement of 500 words on the nominee's contributions. For more information, contact EERI member Vinay K. Gupta at vinaykg@iitk.ac.in.

Announcement

SSA Annual Meeting

Online registration is open at <http://www.seismosoc.org/> for the 2010 Seismological Society of America Annual Meeting in Portland, Oregon, scheduled for April 20-23.

The evening of the first full day (Wednesday, April 21) will feature a town hall meeting entitled "The Big One Is Coming: What Are You Going To Do About It?" The latest information will be presented on the earthquake hazards and associated risks in the Portland area and the Pacific Northwest, and what steps are being taken and need to be taken to prepare for the Big One. Speakers include Portland Mayor Sam Adams and Oregon State Senate President Peter Courtney.

CALENDAR

The issue containing the first appearance is indicated at the entry's end. Items listed for the first time are shown in bold.

2010

FEBRUARY

10. NGA East "Sigma" Workshop, Berkeley, CA. Info: http://peer.berkeley.edu/ngaeast/workshop/sigma_workshop_feb_2010.html (1/10)

16 UC Student Presentations, Oakland, CA. See page 6. (2/10)

22-26. Ocean Sciences Meeting, Portland, OR. Info: <http://www.agu.org/meetings/os10/program/index.php> (9/09)

26. Khan Lecture, Lehigh University. Info: <http://www.lehigh.edu/frk-series> (9/09)

MARCH

3-5. 7th Conf. on Urban EQ Eng. (7CUUE), Tokyo. Info: http://www.cuee.titech.ac.jp/Conference_2010/index.htm (8/09)

5-6 Bangladesh EQ Symp. Dhaka, Bangladesh. Info: iesb3dhaka@gmail.com (1/10)

19. Khan Lecture, Lehigh University. Info: <http://www.lehigh.edu/frk-series> (9/09)

APRIL

16. Khan Lecture, Lehigh University. Info: <http://www.lehigh.edu/frk-series> (9/09)

20-23. 2010 SSA Annual Meeting, Portland, Oregon. Info: <http://www.seismosoc.org/meetings/2010/index.php>. See this page. (6/09, 2/10)

30. Soil Liquefaction Seminar, Se-caucus, NJ. Info: See page 3 of the *January Newsletter*. (1/10)

MAY

10-14. Risk Mitigation and Sustainable Development Conf., Trieste, Italy. Info: http://cdsagenda5.ictp.trieste.it/full_display.php?smr=0&ida=a09145 (1/10)

14. Soil Liquefaction Seminar, Atlanta, GA. Info: See page 3 of the *January Newsletter*. (1/10)

21. Soil Liquefaction Seminar, Chicago, IL. Info: See page 3 of the *January Newsletter*. (1/10)

22-27. 10th Chilean Conf. on Seismology & EQ Eng., Valdivia-Santiago, Chile. Info: www.achisina2010.uchile.cl (5/09)

24-29. 5th Int'l Conf. on Recent Advances in Geotech. EQ Eng. & Soil Dynamics & Symp. in Honor of I.M. Idriss, San Diego, CA. Info: 5geoeqconf2010.mst.edu. See page 6. (4/08, 1/09, 11/09, 2/10)

JUNE

2-4. Conf. on Structures in Fire (SiF'10), East Lansing, MI. Info: www.egr.msu.edu/sif10 (1/10)

20-23. 20th World Conf. on Disaster Mngmt (WCDM), Toronto, Canada. Info: <http://www.wcdm.org/> (11/09)

JULY

11-15. 5th Int'l Conf. on Bridge Maintenance, Safety & Mngmt (IABMAS), Philadelphia, PA. Info: <http://www.iabmas2010.org> (11/08)

25-29. 9th U.S. Nat'l & 10th Canadian Conf. on EQ Eng., Westin Harbour

Castle Hotel, Toronto, Canada. Info: <http://2010eqconf.org/> (2/08, 7/08, 1/09, 3/09, 6/09, 8/09, 10/09, 1/10)

AUGUST

8-11. 2010 Engineering Mechanics Conference, USC, Los Angeles, CA. Info: <http://viterbi.usc.edu/emi2010/> (11/09)

11-13. Int'l Workshop on Conservation of Heritage Structures Using FRM and SHM, Ottawa-Gatineau. Info: <http://www.ishmii.org/CSHM3/CSHM3home.html> (9/09)

30-Sept. 3. 14th Eur. Conf. on EQ Eng. (14ECEE), Skopje-Ohrid, Macedonia. Info: www.eaee.boun.edu.tr/eaee.htm (12/08, 10/09)

SEPTEMBER

5-9. 32nd Gen'l Assembly of Eur. Seis. Com. (ESC 2010), Montpellier, France. www.esc2010.eu (5/09)

16-18. Int'l Conf. on Urban Habitat Construction under Catastrophic Events, Naples, Italy. Info: www.civ.uth.gr/cost-c26/ (2/10)

22-25. SEAOC Convention, Indian Wells, CA. See page 5. (2/10)

OCTOBER

12-15. Deep Foundation Inst. 35th Annual Conf., Hollywood, CA. Info: <http://www.dfi.org/conferencedetail.asp?id=151> (1/10)

DECEMBER

18-20. 11th International Symposium on Structural Engineering (ISSE-11), Guangzhou, China. Info: <http://www.isse-11.org> (2/10)

2011

JANUARY

10-13. 5th Int'l Geotechnical EQ Eng. Conf. (5-ICEGE), Santiago, Chile. Info: www.5icege.cl (11/09)

JUNE

27-July 8. 25th IUGG Assembly, Melbourne, Australia. Info: <http://www.iugg2011.com/> (6/09)

JULY

4-6. 8th European Conf. on Structural Dynamics (EURODYN 2011), Leuven, Belgium. Info: www.eurodyn2011.org (1/10)



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ADDRESS SERVICE REQUESTED

EERI Newsletter, February 2010 Volume 44, Number 2

News of the Institute

PG&E Goes Platinum!

EERI is thrilled to announce that the Pacific Gas & Electric Company has joined Computers and Structures, Inc., at the Platinum Subscribing Membership level for 2010. Thanks to PG&E and CSI for their consistent and generous support. Degenkolb Engineers, John A. Martin and Associates, and Kinemetrics, Inc., are 2010 Gold Level Subscribers. The additional financial support from higher level Subscribing Memberships goes to the EERI programs of their choice or EERI's Endowment Fund, or both. Please contact Sonya Hollenbeck (sonya@eeri.org) for more information on Subscribing Membership opportunities.

EERI 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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Announcement

**GEM: Request for
 Proposals on Risk**

GEM (Global Earthquake Model) has issued five requests for proposals for global components of its risk module. GEM's risk module will calculate damage and the resulting direct losses, such as fatalities, injuries, and cost of repair. GEM will be the first global, open source model for seismic risk assessment at a national and regional scale, and aims to achieve its goals by developing state-of-the-art open source software and global databases necessary for reliably mapping earthquake risk.

The RFPs cover the following topics: GEM ontology and taxonomy, inventory data capture tools, global exposure database, global earthquake consequences database, and global vulnerability estimation methods. The target budgets for these calls range from €300,000 to €900,000. The deadline for submission of proposals is 18 March 2010. GEM anticipates that proposals will be submitted by international consortia. The GEM Secretariat will facilitate contact between institutions for the creation of these consortia. Proposals will be subject to peer review, and will be selected by GEM's Governing Board, with awards expected in July 2010.

To learn more about GEM, and to download the separate RFP documents, a background document and submission rules, visit www.globalquakemodel.org/node/373.