



EARTHQUAKE ENGINEERING RESEARCH INSTITUTE NEWSLETTER

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News of the Institute

2008 Annual Meeting: Register Online Today!

The program brochure and online registration are now available at www.eeri.org for the 60th EERI Annual Meeting on "Hurricane Katrina: Lessons for Earthquake Risk Reduction," to be held February 6-9, 2008, at the Astor Crowne Plaza Hotel in New Orleans' historic French Quarter. The meeting is an extraordinary opportunity to capture lessons from the largest natural disaster in U.S. history. The planning committee has designed a unique program that will appeal to professionals and researchers in earthquake engineering and other hazard fields. Sessions cover the resilience of hospitals, restoring critical lifelines, offshore infrastructure design, scenario-driven catastrophe planning, responding to a large-scale urban event, and recovering from it.

On Thursday evening's Community Forum on Mitigation Advocacy, EERI collaborates with the University of New Orleans' Center for Hazard Assessment Response and Technology. Attendees will be able to join New Orleans area residents and leaders in a discussion led by a panel of seismic advocates from across the United States who have successfully promoted earthquake risk reduction in their regions. The forum will be followed by a reception with local residents and leaders.

The Friday night banquet speaker is Jed Horne, author of *Breach of Faith: Hurricane Katrina and the Near Death of a Great American City*.

continued on page 2



Break in the levee in the 9th ward, New Orleans, in the aftermath of Hurricane Katrina, August 2005 (photo: Jocelyn Augustino/FEMA).

Electronic Voting in EERI Election

For the first time in EERI history, ballots will be cast electronically in the annual election to determine who will serve on EERI's Board of Directors. Please take a moment to check that your correct e-mail address is on file in the online roster located in the "EERI Members Access" area of the website at www.eeri.org. After you enter the "Members Only" area, you can locate your current information by searching for your last name in the EERI Member Search section. If we do not have your correct e-mail address, please go to the "Roster Information Update" section and enter it to make sure you receive voting information. Instructions on how to cast your electronic ballot will be e-mailed to members and can be found at www.eeri.org/membership/vote. If you prefer to vote by paper ballot, please e-mail Juliane Lane at juliane@eeri.org no later than November 15, 2007, or call 510/451-0905.

Annual Meeting *continued from page 1*

The EERI room block at the Astor Crowne Plaza begins on February 6. EERI's group room rate is \$139 plus tax. This room rate is not guaranteed after **January 8, 2008**. Don't wait — the block might sell out before that! Hotel reservations can be made from a link on EERI's home page, www.eeri.org. When making reservations, provide code "EER." In 2008, Fat Tuesday, the last day of Mardi Gras festivities, will be February 5, the day before the opening reception of the Annual Meeting. If you wish to go two days early, a small number of rooms are available at the Astor Crowne Plaza on February 4 and 5 at the \$139 rate, on a first-come, first-served basis. If you wish to go to New Orleans for the previous weekend's festive events, the rate will be higher, and you must make your reservation by phone (1-866-750-4202), NOT from the above link.

2008 Undergraduate Seismic Design Competition: Innovative student-built structures shaking their stories to the tunes of Kobe, Northridge, and El Centro—it's fun for everyone! Students at any institution are welcome to form a team, design and build an earthquake-resistant balsa wood structure, and bring it to the competition at the Annual Meeting. No longer an undergrad? There's just as much fun in store for you. Sponsor a prize, sponsor a team, advise a team, or just come watch. To get in on the action, contact Christine Goulet (christinegoulet@engineering.ucla.edu), or to register a team, go to <http://peer.berkeley.edu/students/seismic.html> (see the enclosed poster).

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.

\$1,000

John A. Martin Sr.
Nabih Youssef

PBS&J

William J. Petak
Roland L. Sharpe

Naser Mostaghel
Vilas Mujumdar
Akira Wada

\$500

Creative Differences TV
Parsons Brinckerhoff

\$100-\$199

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Other Amounts

Sudhir K. Jain
E. Manos Maragakis
Marcia K. McLaren
Mitsumasa Midorikawa
Susan Tubbesing
*(in memory of Augusta
and Frank McClure)*

\$200-\$499

Christopher Arnold
Asadour H. Hadjian
Thomas L. Holzer
Praveen Malhotra

Kevin J. Coppersmith
Phillip L. Gould
Kazuta Hirata
Andrew T. Merovich

New Student Chapter at Delaware

EERI is pleased to announce that a new EERI student chapter has been established at the University of Delaware (UD). Because UD is the home of the Disaster Research Center, which is devoted to the systematic study of the social aspects of disasters, its student chapter plans to focus on those aspects of earthquakes and disasters. The founding students, Jennifer Santos-Hernandez and Lynn Letukas, are both graduate research assistants in the Department of Sociology and Criminal Justice. Their interdisciplinary chapter is intended to have both graduate and undergraduate members and to represent an important step towards a more holistic understanding of disasters. Their faculty advisor is assistant professor Tricia Wachtendorf.

News of the Membership

Scawthorn Lecture

EERI member Charles Scawthorn will present the 2007 Shah Distinguished Lecture at Stanford University at 4:30 p.m. on Tuesday, November 13, 2007, on the topic of "Catastrophic Risk — Past and Future." Scawthorn is a professor of lifeline engineering at Kyoto University, Japan, and a structural engineer with more than 30 years experience assessing enterprise and infrastructure risks. His lecture will examine the historical development, current trends, and future needs in catastrophe risk analysis and mitigation. For more information, visit <http://blume.stanford.edu/>.

Gülkan Award



Polat Gülkan

The Scientific and Technological Research Council of Turkey (TÜBİTAK) Science Award is the most prestigious national scientific distinction in Turkey.

The 2007 TÜBİTAK Science Award will be conferred in December on EERI Board member Polat Gülkan, professor at the Middle East Technical University in Ankara, Turkey. The award recognizes Gülkan for his dedication in reducing earthquake hazards through data collection and systematic processing, reinterpretation and statistical generalization, the use of modern instrumentation for acquiring more reliable data, and the development and implementation of computer-based methods for the analysis of results. Gülkan's achievements have significantly contributed to policy developments that have led to reduced seismic risk.

News of the Institute

Kalkan Awarded EERI/FEMA Professional Fellowship

Erol Kalkan, a research engineer-seismologist with the California Geological Survey, has been selected as the 2008 NEHRP Professional Fellow in Earthquake Hazard Reduction, awarded by EERI under a cooperative program funded by the Federal Emergency Management Agency. This activity is undertaken by FEMA as part of the National Earthquake Hazards Reduction Program. The fellowship is designed to provide an opportunity for a practicing professional to gain greater skills and broader expertise in earthquake risk reduction. The Institute extends thanks to the review committee, consisting of Thalia Anagnos, San Jose State University; Marshall Lew, MACTEC Engineering; and Jonathan Bray, University of California, Berkeley.

Kalkan will work with Professor Anil Chopra at the University of California, Berkeley, to develop practical guidelines to select and scale earth-

quake records for nonlinear response history analysis of structures. According to Chopra, Kalkan's project has the potential to influence directly the current practice of earthquake engineering by addressing a critical technical problem facing the profession. "There is an urgent need for practical guidelines indicating how a certain suite of records would affect the response results and how they should be selected and scaled to achieve reliable estimates of seismic demand." Kalkan proposes to bridge the gap between seismologists and structural engineers, bringing together both sets of knowledge and understanding, to help select and scale records to provide robust prediction of the earthquake response of structures.

Kalkan holds a Ph.D. in structural engineering with a minor in geotechnical engineering from the University of California, Davis. He holds two masters degrees, one in engi-

neering seismology from the Middle East Technical University (METU) in Ankara, Turkey, and the other in structural engineering from Bogazici University in Istanbul, Turkey. He obtained his bachelor's degree from METU in civil engineering with an emphasis on structural engineering. Kalkan is currently acting as a guest co-editor for a special edition of the journal *Engineering Structures*, published by Elsevier.

The professional fellowship is awarded annually and provides a stipend of \$30,000, commencing in January 2008 for tuition, fees, and living expenses for a 12-month period.



Erol Kalkan

News of the Membership

Collapse Test in Japan

A full-scale, four-story, welded steel moment-frame building was shaken to collapse on September 27, 2007, using the E-Defense shake table in Miki, Japan. EERI members Bruce Maison, Kazuhiko Kasai, and Gregory Deierlein are using this building as a case study to investigate how well U.S. performance-based design guidelines (*ASCE-41-06*, *FEMA-351*) characterize collapse, as part of Maison's 2007 EERI/FEMA NEHRP Professional Fellowship project. These results will be available in 2008.

The structure reflects current Japanese design criteria and construction practices. The building was subjected to three components of the JR

Takatori Station motion recorded in Kobe, Japan, during the 1995 Hyogo-Ken Nambu (Kobe) earthquake. Collapse occurred when the ground motion intensity was increased to the level actually recorded in Kobe. This motion had peak ground velocity more than 2.5 times as large as that stipulated in Japanese design codes. The collapse mode was a side-sway mechanism in the first story. The test was part of the NEES/E-Defense Collaborative Earthquake Engineering Research Program (<http://www.nees.org/NEES-NIED/>), and was funded by the Japanese Ministry of Education, Culture, Sports, Science and Technology. For more information and to see a video of the test, visit the E-Defense web site, www.bosai.go.jp/hyogo/ehyogo/.

A blind analysis contest is underway (see page 12 of the May *EERI*

Newsletter), with more than 52 submissions by groups of design professionals, researchers, and students from around the world. Winners and statistics will be announced in December 2007.



Plastic hinging and severe local buckling occurred at the bottom and top of the first-story columns, with little evidence of significant girder yielding (photo: Maison/Kasai).

News of the Profession

Nominations Solicited for Alquist Award

The California Earthquake Safety Foundation (CESF) is soliciting nominations for the 2008 Alfred E. Alquist Medal for Achievements in Earthquake Safety. This medal is awarded periodically to individuals, public agencies, corporations, and charitable and other organizations that have demonstrated outstanding achievements in basic and applied research, public policy advancement, education, volunteer service, and program management in earthquake safety in California.

Nominations should include the name and contact information of the nominee, a paragraph describing the nominee's contribution, and the name and contact information of nominator. They can be e-mailed to Richard Eisner, chair of CESF's Board of Directors, at richeisner@gmail.com.

The purpose of the California Earthquake Safety Foundation is to promote earthquake safety in California. For more information, visit <http://www.calesf.org/>.

Call for Papers

Disaster Management Conference

The Canadian Centre for Emergency Preparedness (CCEP) is calling for presentations for the 18th World Conference on Disaster Management (WCDM), to be held in Toronto, Canada, June 15-18, 2008. Its theme will be "Resiliency: Individual, Community, Business." Presentations should fall into one of the following areas: lessons learned, emerging trends, the human element, technical issues, principles and practices, and research and development. The deadline for abstract submission is December 2, 2007. For more information, visit <http://www.wcdm.org/>.

Announcements

PERISHIP Hazards Fellowships

The Public Entity Risk Institute (PERI), a nonprofit risk management training and educational organization, and the Natural Hazards Center at the University of Colorado at Boulder recently announced an application deadline of February 1, 2008, for the National PERISHIP Award Program. It will award up to six dissertation fellowships of up to \$10,000 each for work related to hazards (whether natural or human-made), risk, and disasters in any relevant field of the natural and physical sciences, social and behavioral sciences, specialties in engineering, or interdisciplinary programs such as environmental studies.

The PERISHIP fellowship program is supported with funding from the National Science Foundation and Swiss Re, and is managed by PERI and the Natural Hazards Center. The PERISHIP program is intended to foster the advancement of knowledge in the interdisciplinary hazards field. For application information, visit <http://riskinstitute.org/PERI/NEWS/>.

NSF Summer Institutes for Grad Students

The National Science Foundation East Asia Pacific Summer Institutes (EAPSI) Program provides the following unique opportunity to U.S. graduate students in science and engineering: (1) first-hand research experience in Australia, China, Japan, Korea, New Zealand, Singapore, or Taiwan; (2) an introduction to the selected location's science and science policy infrastructure; and (3) orientation to the society, culture, and language. The primary goals of EAPSI are to introduce students to East Asia and Pacific science and engineering in the context of a research laboratory, and to initiate personal relationships that will enable them to collaborate with foreign counterparts in the future. The institutes last approximately eight weeks from June to August. The National Institutes of Health co-sponsor the Summer Institute in Japan. The stipend amount is \$5,000. The application deadline is December 12, 2007. For information about proposal preparation, visit www.nsf.gov/eapsi.

Publications

Proceedings of Strong Motion Research Needs

Although the availability of strong motion data and its use to promote public safety have improved dramatically since the technology was first introduced, there is still much that remains to be accomplished. The Consortium of Universities for Research in Earthquake Engineering (CUREE) recently published *Proceedings of the NSF-CUREE Workshop on Strong Motion Research Needs and Opportunities*, held October 19-20, 2006, in Oakland, California, and edited by EERI member Wilfred Iwan of Caltech. This workshop focused on how the most important research needs in strong motion studies might be satisfied through existing and new programs. The proceedings summarize concisely the workshop's conclusions and recommendations and contain an overview of major world strong motion programs, special vision papers, and working group findings. All the maps and figures are published in color. The publication (No. CS-07), which includes a CD with the workshop presentations, can be ordered for \$25 by visiting <https://secure.curee.org/catalog/> and clicking on "Conferences and Symposia."

News of the Profession

New Testing Facility at UB and MCEER

A new testing facility at the University at Buffalo and MCEER is the world's first test apparatus specifically designed to subject costly equipment and mechanical systems in hospitals and other critical facilities to the detailed floor vibrations that they might experience during the strongest earthquakes. An inaugural demonstration of the new Nonstructural Components Simulator (NCS) in UB's Structural Engineering and Earthquake Simulation Laboratory (SEESL) was successfully completed recently, reproducing full-scale earthquake vibrations in real-time on a two-story, life-sized replica of a fully equipped composite hospital room. EERI member Gilberto Mosqueda, assistant professor of civil, structural, and environmental engineering in the UB School of Engineering and Applied Sciences, was the lead designer and builder of the

facility, with the assistance of EERI student member Rodrigo Retamales.

The launch of the UB Nonstructural Components Simulator comes as sweeping changes affect building codes nationwide and a new California law challenges hospitals to secure "nonstructural components." California's Senate Bill 1953 requires that by the year 2030, acute care medical facilities must remain fully functional after an earthquake. Both the California legislation and the building code changes signal a major shift in how structural engineers, architects, and other professionals protect new and existing construction projects from earthquake damage. The new UB facility may be able to help manufacturers qualify their equipment and systems manufactured according to new International Building Code regulations.

Additional information on the NCS is available at http://seesl.buffalo.edu/Facilities/Major_Equipment/ncs.asp.



The NCS features a two-story-high, four-column swivel test frame supporting two steel grid platforms that represent two adjacent floor levels. The system uses four hydraulic actuators that push and pull the platforms up to 40 inches in each direction, at velocities of 100 inches per second, simulating in real time how upper floors move during earthquakes.

NEESR Grand Challenge Award to UNR

The George E. Brown, Jr., Network for Earthquake Engineering Simulation (NEES) research program of the National Science Foundation has awarded the University of Nevada at Reno (UNR) a \$3.6 million Grand Challenge five-year grant for the project "Simulation of the Seismic Performance of Nonstructural Systems." It will focus on ceiling-piping-partition (CPP) systems.

The seismic response of CPP systems, their interaction with the structural system they are suspended from or attached to, and their failure mechanisms are not well understood. Using the UNR and the University at Buffalo (UB) NEES equipment sites, this Grand Challenge project will integrate multidisciplinary system-level studies that will develop, for the first time, a simula-

tion capability and implementation process for enhancing the seismic performance of CPP systems. Public policy investigations are designed to support the implementation of the research results. The project pioneers an integrated program including involvement of underrepresented groups.

The project principal investigator is EERI member E. "Manos" Maragakis from UNR. The Consortium of Universities for Research in Earthquake Engineering (CUREE) will serve as the project manager. Other participating universities include Cornell, North Carolina State University, North Carolina A&T University, and University of North Carolina at Chapel Hill. For more information, visit <http://www.unr.edu/nevadanews/detail.aspx?id=2318> and <http://www.nsf.gov/awardsearch/showAward.do?AwardNumber=0721399>.

Call for Papers

Structural Design Optimization

Researchers in the field of design optimization are invited to submit papers to the Minisymposium on Performance-Based Structural Design Optimization at the 8th World Congress on Computational Mechanics (WCCM8) and the 5th European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS 2008), June 30-July 5, 2008, in Venice, Italy. This minisymposium covers all aspects of structural optimization, engineering optimization and inverse problems, and industrial applications. The deadline for submitting a two-page abstract is December 15, 2007. For more information, visit <http://www.iacm-eccomascongress2008.org/>.

Subscribing Member News

CSI Donations

EERI Subscribing Member Computers and Structures, Inc., (CSI) disseminates its technology and educational materials free of charge to numerous educational institutions and research organizations. Through its partnership with the National Information Center of Earthquake Engineering (NICEE) at IIT Kanpur, India, CSI has distributed free copies of SAP2000 and ETABS software to more than 250 educational institutions throughout India. For more information, visit http://www.csiberkeley.com/csi_India.html.

CSI recently donated software to CyArk, a nonprofit organization that is working to preserve cultural heritage sites by generating the 3D models, archiving them, and making them available on the Internet. Information obtained from CyArk's optical laser technology is fed into CSI's SAP2000 to study the structural integrity of ancient monuments. Sites being studied include ancient Thebes, Egypt; Angkor, Cambodia; Pompei, Italy; and Mesa Verde in the United States. For more information, visit www.cyark.org.

Announcement

FRF Student Paper Competition

The Fanni Reunion Foundation (FRF), Inc., has announced its First Graduate Student Paper Competition, on the topic of the seismic retrofit of structures, in honor of Mehdi Ghalibafian, an outstanding professor in the Civil Engineering Department at the University of Tehran, Iran. The competition is open to current graduate students or those who graduated during the past academic year.

The winner of the competition will receive a \$1,000 cash award and a plaque, and will be invited to present the paper at one of the FRF lecture

Job Opportunities

UCSD, NIST, and Notre Dame Positions

The Department of Structural Engineering at the **University of California, San Diego**, is seeking candidates for the positions of assistant, associate, and full professor in the areas of 1) smart and adaptive structures, 2) structural, geotechnical, and bridge engineering, 3) marine/ocean engineering, and 4) applied/computational mechanics. Innovation, systems-oriented engineering, and potential for multidisciplinary research and for development of a strong externally funded research program are important. Required: a doctorate or equivalent degree. Review of applications will begin 11/30/07 and will continue until the positions are filled. For more information and application instructions, visit http://structures.ucsd.edu/?page=structural_engineering/employment/faculty.

In support of its role in the National Earthquake Hazards Reduction Program (NEHRP), the **National Institute of Standards and Technology NIST** Building and Fire Research Laboratory in Gaithersburg, Maryland, anticipates recruiting new senior engineers with strong backgrounds in seismic structural design and analysis, development of seismic provisions in national model building codes, structural dynamics, performance-based engineering, numerical modeling of structural behavior, nonlinear structural analysis, software development, and building performance and design. Required: a Ph.D. degree in the structural engineering field or equivalent experience in research and/or practice. The deadline for submission of applications is November 30, 2007. Interested applicants should submit resumes to Amber Stillrich, e-mail: amber.stillrich@nist.gov. For more information, visit http://www.eeri.org/news/career_opportunities.html or contact NEHRP Director Jack Hayes (e-mail jack.hayes@nist.gov, phone 301/975-5640).

The Department of Civil Engineering and Geological Sciences at the **University of Notre Dame** invites applications for two tenure-track faculty positions in the areas of (1) structural and materials engineering and (2) structural and geotechnical engineering. Required: a Ph.D. in civil, structural, geotechnical, or materials engineering or a related field. Qualified candidates at all levels will be considered. Of particular interest for the first position are applicants with a research focus on the development of, performance assessment of, and implementation of innovative civil engineering materials, components, and systems for civil infrastructure. For the second position, applicants are encouraged to apply who are interested in problems involving civil infrastructure systems, including foundations. Review of applications has begun and will continue until the positions are filled. For application information, visit <http://www.nd.edu/~cegeos/>, then click on "News" and "Positions Available."

series in Los Angeles, California. Two runners-up will be recognized with honorable mentions and certificates. The winning paper will be published in the FRF newsletter and on its website. The deadline for abstract submission is June 1, 2008; full papers are due by September 1, 2008. For more information, visit <http://www.fannireunion.org>.

Publications

Logging on to Spectra Online

To find instructions to access *EQ Spectra Online* (if you've never registered or have forgotten what to do), visit http://www.eeri.org/cds_publications/spectra_about.html.

Publication

Extreme Loads

A new book published by WIT Press, entitled *The Art of Resisting Extreme Natural Forces*, addresses safer structural designs for resisting extreme natural forces. It features contributions from the First Conference on Engineering Nature, held in the UK in July 2007. Topics covered include wave forces and tsunamis; landslides and avalanches; earthquakes; volcanic activities; bridges and tall buildings; large roofs and communication structures; industrial construction; coastal and maritime structures; risk evaluation; surveying and monitoring; risk prevention; remediation and retrofitting; and safety-based design.

For more details and ordering information (price US\$90/£45/€67.50.), visit <http://www.witpressusa.com/acatalog/9781845640828.html>.

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**.

NOVEMBER

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

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

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

13. Shah Distinguished Lecture (C. Scawthorn), Stanford University, 4:30 p.m. See page 2. (11/07)

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

27-29. 2nd ICUDR Conference, Taipei, Taiwan. Info: <http://www.ncdr.nat.gov.tw/2ICUDR> (10/06)

DECEMBER

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

3-12. EIAE Conference, online. Info: <http://www.cisse2007.org/CFPEIAE07.doc> (10/07)

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

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

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

2008

JANUARY

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

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

FEBRUARY

6-9. EERI Annual Meeting, Astor Crowne Plaza Hotel, French Quarter, New Orleans, LA. Info: www.eeri.org. See page 1. (2/07, 3/07, 7/07, 8/07, 9/07, 10/07, 11/07)

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

APRIL

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

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

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

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

MAY

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

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

JUNE

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

15-18. World Conference on Disaster Management (WCDM), Toronto, Ont. Info: www.wcdm.org/. See page 4. (10/07, 11/07)

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

30-July 5. Performance-Based Struct. Design Optimization Minisymposium, Venice, Italy. <http://www.iacm-eccomascongress2008.org/> See page 5. (9/07, 11/07)

JULY

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

AUGUST

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

SEPTEMBER

17-19. IABSE Conf., Chicago. Info: <http://www.wcdm.org/> (10/07)

OCTOBER

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

NEES News

Turning Tall Buildings Into Seismic Test Beds

A new study using NEES facilities will develop an embedded sensing network that could be deployed within tall and special buildings in greater Los Angeles to monitor structural health and conduct damage assessment. Led by Professor John Wallace at UCLA, this study will use the built environment as a laboratory: collecting data that would otherwise be impossible to gather due to issues of scale, materials, boundary conditions, system interactions, and most significantly, cost.

The project is a first step towards providing vital data to improve modeling capabilities for wind events, low-level to mid-level amplitude shaking in relatively frequent earthquakes, and large seismic events. When fully implemented, the data supplied by this network will permit improved linear and nonlinear modeling, rapid emergency response, post-event assessment, and improved loss estimation scenarios using tools such as HAZUS. Long-term project goals include developing a user friendly html-based data visualization portal in an open-source

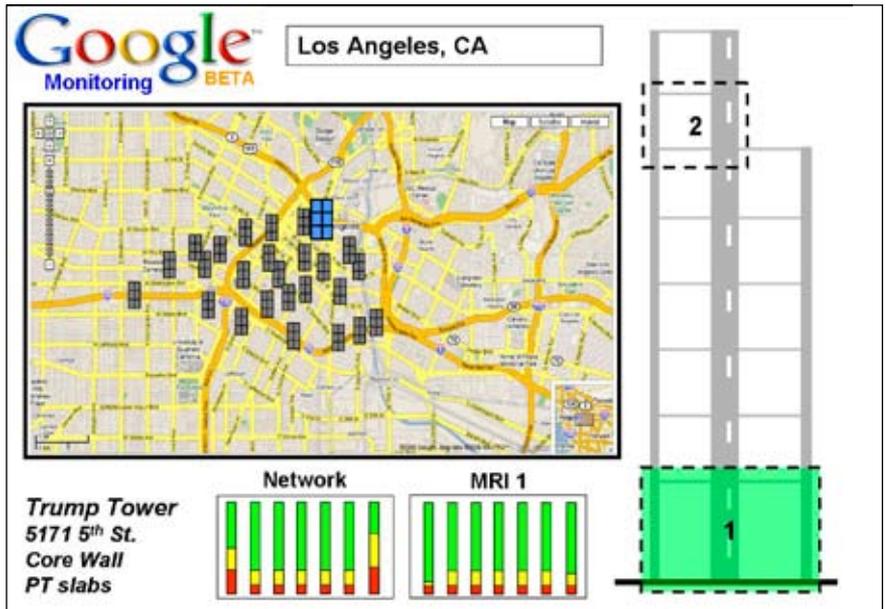
environment to help combine data from various structural health monitoring systems.

As a first step, researchers will test a small network of prototype sensors on the NEES@UCLA linear shaker. These tests allow side-by-side comparisons of both wired and wireless systems for a broad array of sensor types, structural configurations, response quantities, and response amplitudes. The study takes advantage of the NEES "shared-use" policy, which under-

writes lab recharge rates for research projects that participate in activities such as publicly sharing research data.

Future steps include field deployments in three or four instrumented buildings, with a broader long-term goal of a wider deployment to a super-network of tens or hundreds of buildings.

For more information about the study, visit http://research.cens.ucla.edu/projects/2007/Seismic/Tall_Special/.



Example, with details, of a super-network of buildings that could be equipped with damage assessment and visualization tools.



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