

**EARTHQUAKE ENGINEERING
RESEARCH INSTITUTE**

NEWSLETTER

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News of the Institute

Last Chance for Input on EERI Awards

The EERI Honors Committee is soliciting input from members for award nominations that it forwards to the Board of Directors for approval. This year's deadline for nominee suggestions from the membership is August 31, 2000. The awards will be presented at the 2001 Annual Meeting to be held in Monterey, California, and include the George W. Housner Medal, Honorary Membership, and the 1999 Outstanding Paper from *Spectra*. Send your nominee suggestions, with a brief citation giving the reasons your nominee deserves to be honored, to the Honors Committee at the EERI office. Past recipients of the Housner Medal and Honorary Members are listed in the EERI Roster.

News of the Institute

Penzien Presents the 2000 EERI Distinguished Lecture on Earthquake Engineering for Transportation Structures

Joseph Penzien of International Civil Engineering Consultants and Professor Emeritus of Structural Engineering at the University of California, Berkeley, presented the 2000 Distinguished Lecture at the EERI Annual Meeting in St. Louis in June. His topic was "Earthquake Engineering for Transportation Structures — Past, Present, and Future."

Penzien summarized the revolutionary advances over the past 50 years in earthquake engineering as applied to transportation structures, focusing on seismic loading criteria, dual strategy of design, modelling and analysis, design detailing, retrofit measures, and assessment of seismic performance. The greatest stimulant to implementing the technological advances in bridge engineering was the 1971 San Fernando earthquake, which demonstrated the vulnerability of bridges to seismically induced vibratory motion. More recent events, such as the Loma Prieta (1989), Northridge (1994), Kobe (1995), and Taiwan (1999) earthquakes, have led to further improvements.

Penzien reviewed current state-of-the-art methodologies for seismic design of bridges, pointing out areas of needed improvements, including the characterization of free-field ground motion for functional and life-safety levels of design, evaluation of soil-foundation-structure interaction effects, modelling of structural components for seismic demand and capacity evaluations, and seismic performance assessments.

Penzien encouraged advancing the state of the art in bridge engineering through future research, both analytical and experimental, and advancing the state of the practice through the development of new performance-



Joseph Penzien

focused code specifications. He hopes that the next major changes in the seismic design criteria included in the American Association of State Highway and Transportation Officials' Bridge Design Specifications will require that validated state-of-the-art modelling and analysis procedures be incorporated directly into the design process. This requirement would increase assurance that structures will meet specified performance criteria during future seismic events. It would also reflect a shift of the major focus from seismically induced forces to seismically induced global displacements and corresponding local member deformations.

Penzien commented on the importance of public involvement and the role of architects in the aesthetics of the design process. As an example, he displayed a picture of the original design of the Golden Gate Bridge. Upon the public's negative reaction to this design, the bridge's chief engineer, Joseph Strauss, consulted with additional experts, including architect Irving Morrow, resulting in the creation of the existing world-renowned structure.

Announcements

SAC Seminar Series on New Seismic Design Criteria

The SAC Joint Venture announces a series of two-day seminars to introduce four newly developed sets of recommended seismic design criteria for steel moment-frame buildings. The documents represent the culmination of a six-year, \$12 million research and development project, funded by FEMA, to develop reliable and cost-effective design criteria to reduce the earthquake hazards of steel moment-frame buildings.

The seminars will be held in San Francisco (September 11-12, 2000), Los Angeles (September 22-23, 2000), and Seattle (September 27-28, 2000). The purpose of the seminars is to provide a comprehensive overview of the recommended seismic design criteria and to present relevant technical information needed to understand fully the intent and background of the various recommendations. The seminars have been tailored to meet the needs of engineers, building officials, and others concerned with the design and seismic safety of this important class of construction.

Seminar participants can attend one or both days, depending on their interests. On Day 1, the seminar program will address these questions: What happened to welded steel moment-frame buildings in the Northridge and other recent earthquakes? What factors contributed to this behavior? What seismic demands are expected for steel moment-frame buildings located in the United States? What essential features need be incorporated in a connection to achieve improved performance, and what are the characteristics of the new "pre-qualified" welded and bolted connections? What is the expected

reliability of steel moment-frame buildings in achieving specific performance objectives?

On Day 2, the program will address these questions: How do the recommended design criteria for new steel buildings differ from those used today? What new quality assurance procedures are recommended in the construction of steel buildings? How do we evaluate and upgrade existing buildings? Is it necessary to inspect and evaluate steel moment-frame buildings following an earthquake, and how should they be repaired if damage is found?

Participants will be provided with the following four volumes of recommended seismic design criteria: *Recommended Seismic Design Criteria for New Steel Moment-Frame Buildings* (FEMA 350), *Recommended Seismic Evaluation and Upgrade Criteria for Existing Welded Steel Moment-Frame Buildings* (FEMA 351), *Recommended Postearthquake Evaluation and Repair Criteria for Welded Steel Moment-Frame Buildings* (FEMA 352), and *Recommended Specifications and Quality Assurance Guidelines for Steel Moment-Frame Construction for Seismic Applications* (FEMA 353).

In addition, each participant will receive a copy of the seminar notes and a CD-ROM containing six comprehensive reports summarizing the technical background considered in the development of the recommended criteria.

Persons interested in attending a seminar can obtain more information from the Applied Technology Council, 555 Twin Dolphin Drive, Suite 550, Redwood City, California 94065, phone 650/595-1542, fax 650/593-2320, e-mail atc@atccouncil.org, web site: www.atccouncil.org.

The pre-registration fee is \$75 for one day, or \$120 for both days. On-site registration fees (and registration fees postmarked or faxed

less than 10 days from the first day of the seminar), subject to the availability of space, are \$100 or \$145 for one or two days, respectively.

News of the Profession

Wallace Earthquake Center Dedication

The U.S. Geological Survey has named a new earthquake research center on its Menlo Park, California, campus in honor of Robert Wallace. A dedication ceremony will take place on Friday, September 8, 2000, beginning at 10:00 a.m. in the USGS Building 3 conference room, and ending at 2:00 p.m. in the Wallace Center. **The Robert E. Wallace Earthquake Center** will unite activities of the USGS focused on earthquake hazards research. Both Wallace and his wife, Trudy, will be present for the dedication.

Wallace played a major role in the writing, promotion, and enactment of legislation creating the National Earthquake Hazards Reduction Program, working closely with EERI members. He served as Chief Scientist of the Office of Earthquakes, Volcanoes and Engineering for 14 years, and chaired the National Earthquake Prediction Evaluation Council. Last year, EERI published a book-length interview with Wallace as part of its Oral History series, *Connections*.

The ceremony will include presentations by Kerry Sieh (Professor of Geology, Caltech) and Steve Wesnousky (Director, Center for Neotectonic Studies, University of Nevada, Reno) on Wallace's contributions to San Andreas fault research and basin and range research, respectively.

A catered box lunch and cappuccino bar are available for \$13.50,

but purchase of lunch is not required. To purchase the lunch, mail a check to Nancy Sandoval, payable to her, at USGS MS 977, Menlo Park, CA 94025 by August 15, with a note indicating if you prefer a vegetarian meal. You will be mailed a ticket, which should be brought to the dedication. Lunches cannot be purchased on site. Parking will be tight.

For further information, contact Sandoval by phone: 650-329-4883, ore-mail: nsandoval@usgs.gov.

Call for Abstracts

IABSE Conference on Wooden Structures

"Innovative Wooden Structures and Bridges" is the title of an International Association of Bridge and Structural Engineering (IABSE) Conference to be held in Lahti, Finland, August 29-31, 2001.

The objectives of the conference are to exchange ideas related to innovative use of wood in structural engineering and architecture, and to discuss the latest test results, analysis methods, and code provisions that enhance or prevent innovation in wooden structures.

The conference themes include: Innovative Architecture in Wooden Structures; Wood as Structural Material; Design, Analysis, and Code Predictions; Innovative Solutions for Wooden Structures; Joints and Connections; Wood-Based Composite Structures; Wooden Structures in Seismic Areas; and Rehabilitation of Existing Wooden Structures.

The deadline for abstracts is August 7, 2000. For more information, contact the IABSE Secretariat by phone: +41-1-633-2647; fax: +41-1-633-1241; e-mail: secretariat@iabse.ethz.ch; or web site: www.iabse.ethz.ch.

News of the Membership

Lucile M. Jones Receives Alquist Medal

The California Earthquake Safety Foundation awarded Lucile M. Jones the 2000 Alfred E. Alquist Medal for Outstanding Achievement in Earthquake Mitigation at the EERI Annual Meeting in St. Louis in June. The citation accompanying the award noted that "Dr. Jones is well known in the scientific community and to the general public as well. She represents the rare scientist who takes her concerns and expertise beyond the confines of a normal job to reach out to society at large."

Jones is scientist-in-charge for USGS activities in southern California, including leading the Pasadena office of the USGS, serving on the National Committee of the Advanced National Seismic System, and coordinating earthquake research funded by the USGS in southern California. She is actively involved in seismological research and has authored more than 50 papers on seismology, primarily in earthquake statistics and hazard assessment. Jones has been a seismologist with the USGS and a Visiting Research Associate at the Seismological Laboratory of Caltech since 1983. She is the Secretary of the Seismology Section of the American Geophysical Union and a



Lucile Jones

past Director of the Seismological Society of America.

Jones has appeared in hundreds of television interviews in the past 15 years. These have included appearances on the Discovery Channel, the Nova program, and major network news programs. She has also worked with numerous local communities in southern California to help them prepare emergency response plans. She has worked extensively with local elementary and high school teachers and school districts in preparing educational materials and programs. In 1993, Jones received the "Women Making History Award" from Senator Barbara Boxer.

News of the Profession

Live Webcast of UCSD Shake Table Testing

On Tuesday, July 11, there was a live webcast of the University of California at San Diego shake table test of a two-story house. The test featured the full-scale model in its most realistic state, with stucco exterior and gypsum board interior, subjected to the Rinaldi record (1g, with near-fault pulse) from the Northridge earthquake. The house was fitted with a complete array of nonstructural components — seismically restrained and unrestrained examples of a water heater, home entertainment center, and bookshelves. The web page for this event and previous tests can be accessed from the CUREe website at www.curee.org. The video footage should be high quality if you have at least a 56K or faster internet connection, and you have the latest version of the free software needed to view and hear the webcast (available at www.real.com).

News of the Institute

EERI/FEMA Graduate Fellowship Awarded

Tara Hutchinson, a Ph.D. candidate in structural engineering at the University of California, Davis, has been selected as the NEHRP Graduate Fellow in Earthquake Hazard Reduction awarded by EERI under a cooperative program funded by the Federal Emergency Management Agency. FEMA funds the award as part of the National Earthquake Hazards Reduction Program. The fellowship is designed to foster the participation of capable individuals in working toward the goals and practice of earthquake hazard mitigation. It provides a nine-month stipend of \$12,000 and \$8,000 for tuition, fees, and research expenses.

Hutchinson was chosen from a group of twelve applicants. Applications were reviewed by a Subcommittee of the Student Activities Committee, composed of Committee Chair Eric Williamson of the University of Texas, Dawn Lehman of the University of Washington, Michael Engelhardt of the University of Texas, and Jonathan Stewart of the University of California. Candidates came from ten different universities in California, Indiana, Massachusetts, Michigan, New Jersey, New York, Oregon, Pennsylvania, Washington, and Washington, D.C. They represented structural, civil, geotechnical, systems, and environmental engineering, engineering management, and geography.

Hutchinson is currently working on research in the area of soil-structure interaction, evaluating the seismic performance of structures supported on flexible pile-shaft extensions through both experimental testing and analytical studies. Her work thus far has been a collaboration with Caltrans and PEER (Pacific Earthquake Engineering Research Center). Hutchinson indicates that this type



Tara Hutchinson

of collaborative work is representative of what she hopes to achieve in the future as a researcher for an academic institution, closing the disciplinary gap to work with seismologists, geotechnical engineers, geologists, and statisticians to aid in the development of performance-based design guidelines and reduce the losses associated with earthquake hazards. According to Professor Rob Y.H. Chai of the University of California, Hutchinson's research "...will have an important impact on how future structures will be designed." In addition to her academic pursuits, Hutchinson has donated much of her time to a broad range of community outreach activities, including Habitat for Humanity, Expand Your Horizons, a program for 7th and 8th grade young women interested in engineering, and the Undergraduate Mentoring Program.

News of the Profession

Mendenhall Postdoctoral Research Fellowship Program

The USGS, in an effort to incorporate recent Ph.D. scientists into its Geologic Division science programs, has started a new post-doctoral research program, the Mendenhall Postdoctoral Research Fellowship Program. There are 24 research opportunities available for fiscal year 2001. Detailed information on the Mendenhall Program and the research opportunities can be found at the web site geology.usgs.gov/postdoc.

Announcements

BOCA Conference

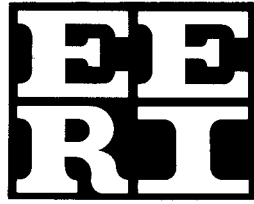
The 85th Annual Conference of Building Officials and Code Administrators (BOCA) International will be held September 18-21, 2000 in Rochester, New York. Highlights of the conference include code development hearings; professional development training for code enforcement and fire service officials, architects, engineers, and other construction professionals; invited speaker presentations; and a trade show. For more information, contact BOCA International by phone at 708/799-2300, ext. 212 or see the web site www.bocai.org.

Announcements

SSA Annual Meeting

The 2001 Annual Meeting of the Seismological Society of America will be held April 18-20, 2001 in San Francisco, California. The meeting is being hosted by Stanford University's John A. Blume Earthquake Engineering Center and the USGS, Menlo Park

Campus, and it will commemorate the 95th anniversary of the 1906 San Francisco earthquake. The deadline for abstracts is January 19, 2001. For more information, contact David Schwartz of the USGS (650/329-5651, dschwartz@usgs.gov), Anne Kiremidjian of Stanford (650/723-4164, ask@ce.stanford.edu), or see the web site www.seismosoc.org/meetings/.



- PLEASE POST -

EERI ANNUAL STUDENT PAPER COMPETITION

The Earthquake Engineering Research Institute is pleased to announce its Annual Student Paper Competition. The purpose of the competition is to promote active involvement of students in earthquake engineering and the earthquake hazards research community.

The general rules of the contest are as follows:

Graduate Category

1. The paper must be an original contribution in a discipline directly related to earthquake engineering and earthquake hazard reduction.
2. The paper is not to exceed 12 pages in length, inclusive of all tables and figures.
3. The paper must represent the original work of the student and be authored by the student alone. A faculty member or other advisor may not co-author the paper.

Undergraduate Category

1. The paper must be directly related to earthquake engineering and earthquake hazard reduction.
2. The paper is not to exceed 12 pages in length, inclusive of all tables and figures.
3. The paper must be authored by the student alone. In addition, a faculty member or other advisor is required to oversee the preparation of the manuscript. The advisor can provide feedback before submission of the paper but may not co-author the paper. The advisor's name should be included in the "Acknowledgments" section of the paper.

Guidelines for preparing the manuscript can be obtained from the EERI web site (www.eeri.org) or from: EERI, 499 14th Street, Suite 320, Oakland, CA 94612, phone 510/451-0905, fax 510/451-5411. All papers must be **received** by November 6, 2000 at the EERI office.

Up to four student authors will be invited to the Annual Meeting of EERI in Monterey, California, February 7-10, 2001, and will receive travel support for this purpose. Their papers will also be considered for publication in *Earthquake Spectra*. The top paper in the graduate category will be presented at the Annual Meeting.

**** DEADLINE November 6, 2000 ****

News of the Profession

PEER Database of Strong Ground Motion

The Pacific Earthquake Engineering Research Center (PEER), a National Science Foundation earthquake engineering research center, announces the immediate availability of a new online database of selected strong ground motion records. The strong motion database can be accessed from the World Wide Web at peer.berkeley.edu/smcat/. At this time the database contains 1,083 publicly available strong motion records from 19 data providers covering 140 earthquakes and 655 stations. Design professionals, researchers, and students can use the database to select ground motion records for engineering analyses, simulations, and parameter studies of structural and geotechnical systems.

The database was developed with the sponsorship of the Pacific Gas & Electric Company (PG&E) as part of PEER's research program on lifelines. Dr. Walt Silva of Pacific Engineering, El Cerrito, California, processed and cataloged the data in the PEER Strong Motion Database. As part of the continuing collaboration with PG&E, and the expansion of the PEER lifelines research program to include sponsorship by the California Energy Commission and the California Department of Transportation, PEER and Pacific Engineering plan to update the database with additional records from large earthquakes, as the data become publicly available.

To make this dataset available to the earthquake engineering community, PEER and the NSF-sponsored National Information Service for Earthquake Engineering (NISEE) created a web-based search and retrieval system using an advanced relational database management system. Users can browse, search, and download individual records

from the database. Strong ground motion records can be selected from the database by earthquake characteristics, site characteristics, peak ground motion values, and response spectrum values. An innovative feature is the Java plug-in technology for browsing and plotting of strong motion data. The web interface is designed for downloading a small number of records. For users interested in large numbers of records, NISEE plans to distribute a CD-ROM of the dataset. The use of the CD-ROM will be compatible with web-based searching and browsing.

Publications

Report on Turkey Earthquake

The Marmara, Turkey Earthquake of August 17, 1999: A Reconnaissance Report was recently published by the Multidisciplinary Center for Earthquake Engineering Research (MCEER). The report is edited by Charles Scawthorn, with major contributions from Michel Bruneau, Ronald Eguchi, Thomas Holzer, Gayle Johnson, John Mander, James Mitchell, William Mitchell, Apostolos Papageorgiou, and Gary Webb. MCEER provided the funding for the research on the event and the publication of the report. The 170-page report includes the following ten sections which describe the earthquake and its impacts: Introduction; Seismology; Geotechnical Effects; Structural Damage; Damage to the Transportation Infrastructure; Performance of Industrial Facilities; Lifeline Performance; Social, Political, and Emergency Response; Restoration Activities; and The Marmara Earthquake: A View from Space. Copies of the report can be ordered by contacting MCEER by phone: 716/645-3391, e-mail: mceer@acsu.buffalo.edu, or web site: mceer.buffalo.edu.

Obituary

Dimitri Papastamatiou

Dimitri Papastamatiou, an EERI member since 1975, died in Athens on July 4, 2000 after a short, severe battle with pancreatic cancer. He was an Associate Professor in Engineering Seismology in the Civil Engineering Department of the National Technical University of Athens (NTUA). Papastamatiou would have been promoted to full Professor in mid-July.

Papastamatiou received a Ph.D. from the Imperial College, Engineering Seismology Section. He left Imperial College in 1974 and worked until 1980 in the Advanced Technology Group of Dames & Moore in London. Between 1980 and 1981, Papastamatiou was Director of Geognosis Ltd, London, and in 1981, he established his own consulting practice, *delta pi associates*, in London, of which he was Managing Director until 1988.

Papastamatiou returned to his native Greece with his family in 1988 to take up the post of Senior Lecturer in Engineering Seismology in the Civil Engineering Department of NTUA. In 1994, he was promoted to Associate Professor.

His work included teaching and research in active tectonics, strong ground-motion recording and analysis, seismic hazard assessment and seismic response of classical monuments.

One of his major achievements at NTUA was setting up the Earthquake Field Laboratory, a compact borehole strong-motion array on the island of Kefalonia, to collect ground response data in one of the most active seismic areas in Europe.

In 1994 he was awarded the T.K. Hsieh award for the paper "Earthquake Response at Grangemouth," published in *Géotechnique*.

CALENDAR

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

2000

AUGUST

14-26. Workshop on Design in Kocaeli EQ Area, Istanbul, Turkey. Info: www.itu.edu.tr/cevse (7/00)

16-19. SEAOC 2000 Annual Meeting, Vancouver, British Columbia. Info: www.seaonc.org/2000convention.html (2/00)

17-21. 5th Int. Symp. on Environmental Geotechnology and Global Sustainable Development, Minas Gerais, Brazil. Info: www.5iseggsd.eng.ufmg.br (2/99)

21-23. 9th U.S.-Japan Workshop on Structural Design and Construction, Vancouver, British Columbia. Info: www.atcouncil.org (6/00)

21-24. STESSA 2000 Conference, Montreal, Canada. Info: tremblay@struc.polymtl.ca (3/99)

SEPTEMBER

5-8. Post-Earthquake Highway Response and Recovery Seminar, St. Louis, MO. Info: www.fhwa.dot/odiv/quake.htm (5/00)

8. Robert Wallace Dedication Ceremony, USGS, Menlo Park, CA. See page 2. (8/00)

11-12. SAC Seminar, San Francisco, CA. See page 2. (8/00)

13-14. HAZUS Bay Area Users Group Meeting, Cupertino, CA. Info: www.hazus.org (6/00)

13-15. IBHS Annual Congress, Newport, RI. Info: www.ibhs.org (6/00)

14. SMIP 2000 Seminar, Sacramento, CA. See page 8. (8/00)

17-22. WSSPC Natural Hazards Conference, Seattle, WA. Info: www.wsspc.org (2/00, 7/00)

18-20. Symposium on Automation and Robotics in Construction, Taipei, Taiwan. Info: www.ce.ntu.edu.tw/~isarc17 (5/00)

18-21. BOCA Annual Conference, Rochester, NY. See page 4. (8/00)

18-21. 16th Congress of the International Association of Bridge and Structural Engineering, Lucerne, Switzerland. Info: www.iabse.ethz.ch (1/99)

21-24. 43rd Association of Engineering Geologists Annual Meeting, San Jose, CA. Info: www.aegweb.org (3/00)

22-23. SAC Seminar, Los Angeles, CA. See page 2. (8/00)

24-26. Eastern SSA Meeting, Atlanta, GA. Info: www.seismosoc.org (7/00)

25-26. 3rd International Conference on Ground Improvement Techniques, Singapore. Info: fax +65-235-3530, cipremie@signet.com.sg (7/99)

25-October 6. Workshop on 3-D Modeling of Waves, Trieste, Italy. Info: www.ictp.trieste.it (5/00)

27-28. SAC Seminar, Seattle, WA. See page 2. (8/00)

OCTOBER

5-7. Deep Foundations Institute International Conference and Exposition, New York, NY. Info: www.dfi.org (11/99)

11-13. Risk 2000 Conference, Bologna, Italy. Info: www.wessex.ac.uk (1/00)

NOVEMBER

4-7. IAEM Annual Conference, Austin, TX. Info: iaem@aol.com (7/00)

7. Kobori Symposium, Kyoto, Japan. Info: suzuki@zeisei.dpri.kyoto-u.ac.jp or wdiwan@caltech.edu (3/00)

7-9. 5th International Conference on Corporate Earthquake Programs, San Jose, CA. Info: Steven Vukazich, vukazich@email.sjsu.edu (11/99)

12-15. 6th International Conf. on Seismic Zonation, Palm Springs, CA. Info: EERI office, eeri@eeri.org, www.eeri.org (6/98, 12/99)

15-16. AEES Annual Conference, Hobart, Tasmania. Info: www.aees.org.au/News/2000_AGM.html (6/00)

DECEMBER

13-15. ASD 2000, Hong Kong. Info: ceylxu@polyu.edu.hk (3/00)

2001

JANUARY

7-12. Conference on Computer Methods and Advances in Geomechanics, Tucson, AZ. Info: intermix.engr.arizona.edu/~epd/#IACMAG (11/99)

FEBRUARY

7-10. 2001 EERI Annual Meeting, Monterey, CA. Info: www.eeri.org (2/00)

MARCH

19-22. International Symposium on Deformation Measurements, Anaheim, CA. Info: www.pasadena.wr.usgs.gov/scign/fig/ (3/00)

21-23. Safety, Risk, and Reliability - Trends in Engineering, Malta. Info: malta.2001@iabse.ethz.ch, web site: www.iabse.ethz.ch/conferences/malta (11/99)

26-31. 4th Int. Conf. on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics, San Diego, CA. Info: prakash@novell.civil.umn.edu (6/99, 6/00)

APRIL

18-20. SSA Annual Meeting, San Francisco, CA. See page 4. (8/00)

AUGUST

29-31. IABSE Conference on Wooden Structures, Lahti, Finland. See page 3. (8/00)

2002

JULY

21-25. 7th National Conference on Earthquake Engineering, Boston, MA. Info: www.eeri.org (9/99)

News of the Institute

Mays and Hart Win Student Paper Competition

Timothy W. Mays, an NSF Graduate Research Fellow in Virginia Polytechnic Institute's Department of Civil and Environmental Engineering, captured the top prize in the graduate student paper category in EERI's competition with his paper, "Seismic Design of Lightweight Metal Building Systems." Mays received a travel grant to present his paper at the Annual Meeting in St. Louis last month. In the undergraduate category, Jason F. Hart of Texas A&M University submitted the winning paper entitled "Analysis of a Typical Building in St. Louis Subjected to Seismic Loads."

Mays analyzes metal building systems using an equivalent lateral

force method and a linear time-history analysis to show that typical metal building systems will respond elastically to the design earthquake. Using the *International Building Code* and the *AISC Seismic Provisions for Structural Steel Buildings*, Mays makes the case that the AISC document's design provisions for moment-frame structures are not required in most cases of lightweight metal building structures, except for locations on the West Coast and a few regions east of the Rocky Mountains.

In Hart's undergraduate paper, he analyzes a type of five-story reinforced concrete office building that was typical of those built in St. Louis during the mid-1980s. The structure was analyzed using synthetic ground motion for an earthquake likely to occur in the Midwest. His results indicate that the building's performance varies widely in response to earthquakes with probabilities of exceedance of two

and ten percent in fifty years.

Eric Williamson of the Civil Engineering Department at the University of Texas, Austin, chaired the Student Paper Review Panel. The other members of the Review Panel were Dan Alesch, Kevin Collins, Lance Manuel, and Jane Preuss. EERI extends its appreciation to all for their thoughtful and critical input.

Announcements

SMIP 2000 Seminar

The California Department of Conservation, Division of Mines and Geology, Strong Motion Instrumentation Program (SMIP) will hold its Strong Motion Data Utilization Seminar on September 14, 2000 in Sacramento, California. For more information, phone 916/322-3105 or e-mail mhuang@consrv.ca.gov.



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