

CUREE News

ssue No.: 15 - July 2007

CUREE is a nonprofit corporation devoted to the advancement of earthquake engineering research, education, and implementation.

A Message from CUREE's President

ver the course of the past 12 months CUREE has been most active and has submitted pre-proposals and proposals to a number of agencies and organizations, including the California Earthquake Authority, National Science Foundation (NSF), Federal Emergency Management Agency, National Institute of Standards and Technology (NIST), and the United Nations (UN). Some of the proposals and awards are discussed below.

In the last NSF NEESR cycle, CUREE facilitated the preparation of two NEESR-SG proposals and helped the University of Nevada at Reno to prepare a NEESR-GC proposal. Decisions on these proposals are pending.

CUREE received a grant from the UN International Strategy for Disaster Reduction (UN/ISDR) to formulate a plan to advance the study of natural hazards engineering at universities in developing nations. The hazards are earthquakes, floods, high winds (cyclones, hurricanes) and wild fires. The intent of the UN effort is to increase hazard mitigation and risk management efforts through improved education, research and public outreach. Natural disaster losses will decrease as governments, public, and private agencies

in underdeveloped countries become better prepared to handle disasters through better education and training. The high priority countries identified by the UN are: Bangladesh, Barbados, Ecuador, Guatemala, India, Iran, Malawi, Mozambique, Nepal, Philippines, and Vietnam. Development of earthquake engineering curriculum and research at one or more universities in one of these countries might be leveraged into future funded projects. If you would be interested in exploring ways to get involved as this new international program develops, contact either CUREE's Executive Director, Bob Reitherman (reitherman@curee.org) or myself at (awhittak@buffalo.edu).

In mid June, NIST released a solicitation to perform "...specified research, knowledge development, synthesis, and technology transfer that are required to transition fundamental seismic engineering research, and other fundamental structural or geotechnical engineering research, to forms usable by engineering practitioners. Products from the work outlined herein may take the form of recommended National model building code provisions, design and construction standards, design guidelines, enabling performance prediction and evaluation tools, and technical briefs..." Based on the requirements of the NIST solicitation and the need for an

organizational structure that could provide the best possible combination of structural and earthquake engineering practitioners and researchers from around the United States, CUREE and the Applied Technology Council (ATC) formed the NEHRP Consultants Joint Venture to provide the asvet undefined technical services. The three NSF-funded earthquake engineering research centers are involved in the Joint Venture proposal. Collectively, the Joint Venture provides unparalleled national expertise and experience in research, knowledge development, synthesis and technology transfer. I will keep you apprised of the status of the ATC-CUREE proposal.

CUREE continues to offer a significant number of services to its members. Some of those services are highlighted below and on page 2 of this newsletter. Information on other CUREE services can be found at www.curee.org. I encourage you to take full advantage of these services and the expertise of the CUREE staff.

Do not hesitate to contact either Bob Reitherman or me with questions or comments regarding our organization.

Professor Andrew Whittaker University at Buffalo, SUNY

Services to CUREE Members

University Member Faculty Involvement in CUREE Projects and Proposals

In the last five years, faculty at the following University Members of CUREE have been included in proposals developed by CUREE or issued funding under CUREE projects:

- California Institute of Technology
- Cornell University
- Georgia Institute of Technology
- Lehigh University
- North Carolina State University
- Oregon State University
- Pennsylvania State University
- Rensselaer Polytechnic Institute
- Stanford University
- Texas A & M University
- University at Buffalo, SUNY
- University of California at Berkeley
- University of California at Davis
- University of California at Irvine
- University of California at Los Angeles
- University of California at San Diego
- University of Colorado at Boulder
- University of Illinois at Urbana-Champaign
- University of Kansas
- University of Nevada at Reno
- University of Southern California
- University of Texas at Austin
- Virginia Polytechnic Institute
- Washington State University

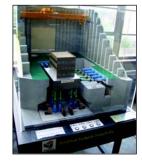
Faculty Database

This is a service to CUREE members to list themselves via our website and be more easily sought out for opportunities (being asked to join a proposal, be a consultant, come to a workshop, etc.). There have been several instances of faculty who have had doors opened to them via this service.

Traveling Shake Table Model

CUREE obtained from the NIED E-Defense agency in Japan their extremely high-quality and realistic scale model of the world's largest and highest capacity shake table, located in Miki City, Japan, near Kobe. The motorized model shows in slow motion how the actuators make the platform move on both horizontal and vertically axes, with pitch adjustment. Actions may be operated separately or together.

For nominal shipping, handling, and insurance cost, the model may be loaned to CUREE Member Universities. For further information, contact Reed Helgens, CUREE Associate Executive Director, at helgens@curee.org.





View shaketable video at: www.curee.org/EO/miki_table.html

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Faculty Position Openings

When a member university has a faculty opening in civil engineering, we post it at our website and email the 300 professor members of CUREE.

Books by CUREE Members

This homepage web function directs the user to books, or portions of books, that CUREE members have authored. The goal is to generate more "web traffic" to these books when people search on the web.

Web publicity for Member Schools

Visitors to the CUREE website can quickly access Member University information on graduate programs of study and access direct links to these schools for additional information.

Education and Outreach Outsourcing

This year, CUREE was written into three pending NEESR proposals from member universities capitalizing on our ability to cost-effectively handle NSF's increasingly stringent E & O requirements. Workshops, website development, graphics, video services, PR, and other functions have been handled efficiently in past CUREE activities.

Developing New Sources of Funding

CUREE has been active in developing funding beyond the usual sources such as the Engineering Directorate of NSF. For example, CUREE currently has a grant on Civil Engineers and Science Museums funded by Education and Human Resources at NSF. CUREE has also begun a project that offers potential for numerous CUREE members to be funded to provide engineering educational and research advice and involvement to a number of foreign nations, funded by the United Nations International Strategy for Disaster Reduction.

Event Planning

Besides workshops, CUREE has planned and provided on-site support for many sucessful annual meetings, symposiums and various social gathering, in support of professional meetings. This has included creating meeting logos and signage, handling registrations for speakers and/or guests, event site selection, meeting space planning, reserving sleeping rooms, catering for all meals, etc. This has included the first and second NEESinc annual meetings, and the 2005 and 2006 PEER Annual Meetings.

Publication Discounts

CUREE members receive a 20% discount on CUREE publications.

Publication Support

CUREE has developed expertise in the field of publishing research and meeting proceedings. We can reproduce graphics for a cleaner print, editing text, and overall formatting. We are currently formatting a 360 plus page document on General Guidelines for the Repair and Assessment of Earthquake Damage and will soon complete the full-color printing of the proceedings of the Strong-Motion Workshop.

Exhibit Development

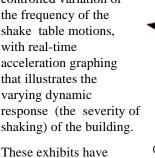
Working with both government and private clients, CUREE has designed and created many innovative exhibits that display and/ or demonstrate hazard and earthquake instrumentation and information on the field of earthquake engineering.

CUREE Education and Outreach Services: Educational Models and Displays

CUREE has designed and built Education and Outreach displays for use in public exhibits that demonstrate earthquake engineering history and/

or capabilities.

Shown right is an example of two metalclad building models that respond to usercontrolled variation of the frequency of the shake table motions, with real-time acceleration graphing that illustrates the varying dynamic response (the severity of



CUREE produced user-controlled shake table model with computer display

enhanced both proposals and meetings. Whether an interactive model, or a dramatic visual display, exhibits creatively fulfill the requirement of funding sources to make research results available to the general public.

To learn more about how CUREE can help in creating models and displays to meet your Education and Outreach requirements, contact us at curee@curee.org

CUREE Staff

Robert Reitherman, Executive Director; Reed Helgens, Associate Executive Director; Darryl Wong, Media Production Manager; John-Michael Wong, Computer Technician; Wendy Matlow, Accounting