



EARTHQUAKE ENGINEERING RESEARCH INSTITUTE NEWSLETTER

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Message from the President

Contributions to Small Grants Program for Tsunami-Affected Region

by EERI President Craig Comartin

Immediately after the recent M9.3 earthquake and tsunami in the Indian Ocean, our fellow EERI member, John Filson, was quoted in the New York Times: "Natural hazards are inevitable. Natural disasters are not." John's statement captures the essence of EERI succinctly. While we may never eliminate the sad consequences of such events, there is much we can do to reduce them. John A. Martin and his firm have been one of EERI's biggest supporters. After the recent disaster, he sent yet another check to EERI. When I called to thank him, he told me that he knew that EERI would ensure that his contribution would be used effectively to reduce future suffering. We intend to put Jack's generosity to work through the Small Grants Program for Developing Countries. This program is supported by EERI's Endowment Fund. At the Annual Meeting in Ixtapa, the EERI Board voted unanimously to increase funding for the program with the intention of encouraging good small grant proposals from the tsunami-affected areas.

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News of the Institute

2005 Annual Meeting Highlights

"Twenty Years after Mexico City" was the theme chosen by EERI for its 2005 Annual Meeting, and Ixtapa, Mexico, the beautiful and exotic location for presentations by members of EERI and representatives from the Mexican Society on Earthquake Engineering (SMIS) and the Mexican Society of Structural Engineers (SMIE) focusing on progress made in the intervening decades. In 2002, EERI and the SMIS entered into a collaborative agreement that pledged cooperative efforts to promote increased seismic safety and risk reduction, and this meeting provided an excellent opportunity to work toward these goals.

Craig Comartin, president of EERI, welcomed participants to the meeting. The program provided a forum to examine old issues, emerging issues, and accomplishments in design ground-motion maps, performance-based design, post-disaster response and recovery, approaches to earthquake prediction and early warning, and building design issues. Of great interest to all were the briefings by reconnaissance team members on the Niigata-

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In a festive mood, Annual Meeting participants form a post-banquet conga line.

Annual Meeting

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Ken Chuetsu, Japan, earthquake in October 2004, and the Sumatra, Indonesia, earthquake and tsunami of December 26th.

During the awards ceremony on Friday, Robert Hanson presented the Shah Family Innovation Prize to Gustavo Parra-Montesinos (see page 8). Craig Comartin recognized this year's new honorary members, Clarence Allen and Roland Sharpe, for their life-long contributions to earthquake engineering. He bestowed the George Housner Medal on Luis Esteva (see page 12). It was particularly fitting on the occasion of the first Annual Meeting outside the United States for Esteva to be the first international recipient of this award. Jack Moehle of the Pacific Earthquake Engineering Research Center delivered the 2005 Distinguished Lecture, "Performance-Based Earthquake Engineering: Developments and Applications." The second annual SSA/EERI William B. Joyner Memorial lecture on "Quantifying the Seismology-Engineering Interface" was presented by Allin Cornell from Stanford University (see page 3 of the November *Newsletter*). EERI Secretary/Treasurer

Ron Mayes made the annual presentation on EERI's financial condition (see page 4). Awards were given for two outstanding 2003 *Earthquake Spectra* papers (see below). The April *Newsletter* will have more information on the new honorary members and the Distinguished Lecture.

The banquet was held on a lighted patio overlooking the Pacific Ocean. Guests enjoyed a delicious buffet of Mexican cuisine. A folkloric dance group provided entertainment and soon had the audience fully participating in the festivities. This year's schedule was very popular, providing free time to relax and enjoy snorkeling, golfing, swimming, lying in a hammock, or shopping in Zihuatanejo each afternoon.

EERI extends thanks to organizing committee co-chairs Arturo Tena-Colunga and Sergio Alcocer from Mexico and James Jirsa and Richard Klingner from the United States, as well as to committee members Anna Lang, Kim Shoaf, Ron Mayes, Paul Flores, and Carlos Ventura for their hard work in putting together an excellent and informative program. EERI expresses great appreciation to Kinemetrics for their financial sponsorship of the Annual Meeting, to FEMA for funding that

enabled ten students from the United States to take part, and to the many members who made contributions to help enable students and younger members to attend.

Learning from Earthquakes

Tsunami Briefings

Special EERI LFE briefings have been scheduled on the great Sumatra (M9.3) earthquake and Indian Ocean tsunami of December 26, 2004, that caused widespread devastation and tragic loss of life throughout the Indian Basin. Following are the dates, times, and cities:

Wednesday, March 16, 4:00-6:00 pm, Pasadena, California

Tuesday, March 22, 4:00-6:30 pm, Seattle, Washington

Monday, April 4, 4:00-6:30 pm, Vancouver B.C, Canada

Monday, April 18, 4:00-6:00 pm, Portland, Oregon

Visit the EERI web site, www.eeri.org, where more information on speakers, directions, and additional briefing locations will be posted as available. EERI's LFE Program is funded by the National Science Foundation.

News of the Institute

2003 *Spectra* Outstanding Papers

During their deliberations, the *Earthquake Spectra* Editorial Board and the EERI Honors Committee made the unusual determination that two papers deserved the 2003 *Earthquake Spectra* Outstanding Paper Award.

"Legislative Politics and Seismic Safety: California's Early Years and the 'Field Act,' 1925-1933," by Robert A. Olson, was published in the February 2003 issue. This paper

was cited as a fascinating and well-told account of seismic safety policy development in California. It provides a history that is known to only a few. The politics of the Field Act are of more than historical significance because the events framed subsequent debates over seismic safety policy. One reviewer commented that the role played by technical experts in the passage of the Field Act shows how experts can seize windows of opportunity to create change; the article deserves to be recognized in its own right and should encourage more high-quality articles on earthquake public policy development.

"Translating Research to Practice: FEMA/SAC Performance-Based Design Procedures," by Ronald O. Hamburger, Douglas A. Foutch, and C. Allin Cornell, was published in the May 2003 issue. It was cited for the clarity and brevity with which it relates how the method of seismic design of steel moment-frame structures was conceived and executed by the SAC program. It represents a major contribution to the field in showing how a multipartner, multi-stage research program was guided into a series of provisions for code changes. One reviewer noted, "This paper will be read by engineers for many years to come."

Annual Meeting Photos

Photographers: Anna Lang, Marshall Lew, Juliane Lane



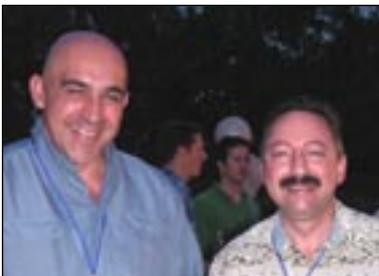
◀ Co-chair Sergio Alcocer and President Craig Comartin.

Co-chair Arturo Tena-Colunga greets Comartin. ▼



◀ Luis Fargier-Gabaldon (Univ. of Michigan), EERI Finance Manager Sonya Hollenbeck, and Chelsea Hollenbeck.

The most informal Meet the Mentors Icebreaker in EERI history. ▼



◀ Organizing Committee member Carlos Ventura and Board member Farzad Naeim.



Michael Astrella (SUNY Buff.), Marlon Hill (Florida A&M), Lauren Stewart (UCSD), Brad Weldon (Notre Dame), and Michael Pollino (SUNY Buff.).



◀ Marshall Lew and Christine Goulet (UCLA) at the poster session.



A folkloric dance company entertains after the banquet.



Dominic Dowling, Josh Marrow, and Organizing Committee member Anna Lang.



Bill Petak and Dan Alesch help with decorations.

News of the Institute

Treasurer's Report: Fiscal Year 2004

The data to the right, taken from the audited financial statement of the Institute, summarize the financial status of EERI on December 31, 2004. Disappointingly, with the exception of the Institutional and Young Professional membership categories, the decline in the overall membership numbers continued during the past year. On a hopeful note, 43 new and enthusiastic Young Professional members joined in 2004. The Board is committed to reversing the decrease in membership and has established a subcommittee to examine this issue thoroughly. Several innovative recommendations have already been generated, including a renewed emphasis on conducting technical seminars of interest to practitioners. Three subscribing members have generously upgraded their membership to the gold level and several others to the bronze level, which improved the Institute's financial position.

The 2004 budget broke even with revenues equaling expenditures; the 2005 budget is projected to do the same. The dues for 2005 will remain unchanged. Membership and *Spectra* dues pay only a portion of the Institute's expenses and this highlights the vital role that FEMA and NSF continue to play in funding EERI.

The continuing recovery of the stock market has spurred a rebound in the value of the Institute's investments. Members donated more than \$50,200 to the Endowment Fund in 2004. The direct and indirect benefits members receive from their membership increased to \$679, over three times the amount of the annual dues. I am pleased to report that EERI remains in sound financial condition.

Ronald L. Mayes
EERI Secretary/Treasurer

2004 Summary of Revenues and Expenses

Association Revenues (\$1,000s)

Meetings	\$ 60
Publications	26
Membership and Spectra Dues	502
Grants for G & A Programs	113
Interest and Other Income (G & A)	8
Subtotal Association Revenues	\$709
Grant Revenues	1,127
TOTAL REVENUES	\$1,836

Association Expenses (\$1,000s)

Meetings	\$150
Publications	149
Journal	243
Membership	89
Support Programs	33
Association Expenses	45
Subtotal Association Expenses	\$709
Grant Expenses	\$1,127
TOTAL EXPENSES	\$1,836

TOTAL REVENUES OVER EXPENSES **\$ 0**

Summary of Endowment Fund Balance from Inception to 12/31/04

	(\$1,000s)	
Net Revenues		\$2,184
Net Expenses		\$1,105
TOTAL REVENUES OVER EXPENSES		\$1,079

2004 Direct Benefits of Membership

	2004 Expenses (\$1,000s)	Per Member
General Administration	\$ 39	\$ 17
Member Services	89	39
Newsletter	49	21
Journal (2527 subscribers)	243	96
Support Programs	79	35
TOTAL	\$499	\$208

2004 Indirect Benefits of Membership

	2004 Expenses (\$1,000s)	Per Member
FEMA	\$ 245	\$108
Learning from EQs (NSF)	723	320
Endowment Fund	98	43
TOTAL	\$1,066	\$471

TOTAL DIRECT & INDIRECT BENEFITS **\$1,565** **\$679**

2004 Membership Report

<u>Individual Members</u>	2004	2003
Regular Members	1,594	1,668
Student Members	309	396
Retired Members	69	67
Honorary Members	23	21
Affiliate Members	53	50
SSA	118	110
Young Professional	148	105
SUBTOTAL	2,314	2,417
<u>Institutional Members</u>		
Gold Subscribing Members	3	
Subscribing Members	29	30
Institutional Members	34	34
SUBTOTAL	66	64
TOTAL MEMBERSHIP	2,380	2,481

2005 Budget for Revenues and Expenses**Revenues (\$1,000s)**

Meetings	\$127
Publications	25
Membership and Spectra Dues	486
Endowment Programs	46
Grants	1,188
Contributions	17
Interest and Other Income	11
TOTAL REVENUES	\$1,900

Expenses (\$1,000s)

Meetings	\$204
Publications	124
Journal	261
Membership	93
Endowment Programs	94
Support Programs	99
Grants	975
Association	50
TOTAL EXPENSES	\$1,900

REVENUES OVER EXPENSES **\$0**

News of the Institute**Young Professionals Can Vote!**

In addition to determining that Richard K. Eisner and Polat Gülkan were elected to the EERI Board of Directors, results of the 2005 election affirmed that voting privileges would be extended to Young Professional members. This decision required members to amend five articles in the Institute's bylaws that related to this recommendation. In doing so, the majority of voters agreed with the Board that Young Professional members should be encouraged to participate fully in all EERI activities. Young Professional membership in EERI is appropriate for up to five years after a member has begun working in the earthquake risk reduction field.

Publication***Wind and Earthquake Resistant Buildings***

CRC Press and the International Code Council have announced a new joint publication, *Wind and Earthquake Resistant Buildings: Structural Analysis and Design*, by EERI member Bungale Taranath of John A. Martin & Associates, Inc. This publication explains the latest concepts, techniques, and design data to structural engineers involved in the design of wind-resistant and seismic-resistant buildings. It covers a broad range of topics, including wind effects, advances in seismic design, traditional and newer types of bracing systems, and the restoration of damaged or seismically vulnerable buildings. It provides critical insight into the behavior of steel, concrete, and composite building structures for both practicing and aspiring engineers. The price is \$149.95. To purchase a copy, visit www.crcpress.com.

News of the Profession

Congress Holds Hearings on Tsunami Warning Plan

This article is edited from FYI: The American Institute of Physics Bulletin of Science Policy News, Numbers 13 and 14, by Richard M. Jones, Media and Government Relations Division, <http://www.aip.org/gov/>.

On February 2, a two-hour hearing of the Senate Committee on Commerce, Science, and Transportation on a tsunami warning bill made it clear that Congress and the Bush Administration are going to strengthen the nation's warning system against this natural disaster. Committee Chairman Ted Stevens (R-AK) and Co-Chairman Daniel Inouye (D-HI) are sponsors of S. 50, the Tsunami Preparedness Act of 2005, introduced by Inouye. They are likely to put it on a fast track. The Bush Administration has already announced its proposal to spend \$37.5 million on a warning system over two years, which was generally favorably reviewed at a House Science Committee hearing on January 26 (<http://www.aip.org/fyi/2005/013.html>).

The 20-page Senate bill authorizes (but does not appropriate) \$35 million annually for the National Oceanic and Atmospheric Administration (NOAA) between FY 2006 and 2012, an amount considerably higher than the Administration's proposal. Section 3 of S. 50 stipulates that NOAA shall operate regional tsunami detection and warning systems for the Pacific Ocean, the Atlantic Ocean, the Caribbean, and the Gulf of Mexico that will provide maximum detection capability for U.S. coastal tsunamis. The U.S. Geological Survey (USGS) is to provide seismic information to NOAA. Another section requires deep ocean detection buoy upgrades to be completed by 2007.

Also important in S. 50 are the provisions of section 4 for a Tsunami Hazard Mitigation Program authorizing NOAA "to improve tsunami preparedness of at-risk areas." A coordinating committee with representatives from NOAA, the USGS, the Federal Emergency Management Agency, the National Science Foundation, and affected coastal states and territories will assist in conducting this effort. Activities are to include inundation mapping, community outreach and education networks and programs, coordination and training programs, and long-term mitigation measures.

Section 5, Tsunami Research Programs, authorizes NOAA in coordination with other unspecified agencies and academic institutions "to develop detection, prediction, communication, and mitigation science and technology that supports tsunami forecasts and warnings, including advanced sensing techniques, information and communication technology, data collection, analysis, and assessment for tsunami tracking and numerical forecast modeling..."

Also included in S. 50 are provisions calling for the United States to act with international entities to "develop a fully functional global tsunami warning system comprised of regional tsunami warning networks..."

S. 50 has broad support in the Senate, with 17 bipartisan cosponsors across a broad political spectrum from states as diverse as Hawaii, Alaska, and Oregon where the tsunami threat is high, to Minnesota and Montana. Indicative of the visibility of this issue was the lead testimony that was given by Senate Majority Leader Bill Frist (R-TN) and Senator Mary Landrieu (D-LA) who just returned from last December's

tsunami ravaged area. Also testifying was OSTP Director John Marburger, who visited the area. He indicated that the Administration's proposal is consistent with the bill and explained, "By 2025, nearly 75 percent of all Americans are expected to live in coastal counties, where many will be in tsunami risk areas."

The House Science Committee hearing reviewed the Administration's two-year \$37.5 million proposal to deploy 32 new deep ocean buoys, improve the seismic network, and expand community tsunami education preparedness programs. NOAA's current budget for tsunami programs is \$10.3 million. The USGS would also receive funding under this initiative.

The lead witness at this hearing was Rep. Jay Inslee (D-WA) who compared tsunami risk to the risk of a terrorist act, and said that an expanded tsunami warning system would be a wise investment. Other witnesses included John Orcutt, President of the American Geophysical Union; USGS Director Charles "Chip" Groat; Arthur Lerner-Lam, director of the Columbia University Center for Hazards and Risk Research; and Jay Wilson, coordinator of Earthquake and Tsunami Programs of Oregon Energy Management.

Groat testified that there is between a 10% and a 14% chance that Oregon could be hit by a tsunami comparable to that in the Indian Ocean within the next fifty years. Wilson discussed some of the steps Oregon has taken to make several communities "tsunami-ready." Oregon is at risk from tsunami that could strike with very little warning — perhaps as little as ten minutes.

PLEASE POST IMMEDIATELY



EARTHQUAKE ENGINEERING RESEARCH INSTITUTE

**2005-2006 EERI/FEMA
GRADUATE FELLOWSHIP IN
EARTHQUAKE HAZARD REDUCTION**

EERI is pleased to announce the availability of a Graduate Fellowship for the 2005-2006 academic year to support one full-time student in a discipline contributing to the science and practice of earthquake hazard mitigation.

The one-year fellowship, underwritten with funds provided by the Federal Emergency Management Agency, is designed to foster the participation of capable individuals in working toward goals and activities of the National Earthquake Hazards Reduction Program.

AWARD

The EERI/FEMA fellowship provides a nine-month stipend of \$12,000 with an additional \$8,000 for tuition, fees, and research expenses.

CRITERIA

Applicants must be enrolled in a graduate degree program at an accredited U.S. college or university and must hold U.S. citizenship or permanent resident status. All applications must include an academic transcript and a statement of educational and career goals.

Applications, together with a letter of nomination, shall be submitted to EERI by a faculty sponsor at the host institution. Two additional reference letters should be submitted directly to EERI. They should evaluate the applicant's recent academic performance and the candidate's potential to contribute to the field.

TO APPLY

Candidates may download application forms from from EERI's web site (http://www.eeri.org/home/Grad_Fell_application.pdf), or obtain them upon request from:

Earthquake Engineering Research Institute
499 14th Street, Suite 320
Oakland, California 94612-1934
(510) 451-0905 fax: (510) 451-5411 e-mail: eeeri@eeeri.org

**Deadline for receipt of all application materials at EERI is MAY 16, 2005.
Announcement of the award will be made on JUNE 20, 2005.**

News of the Institute

Recipient of the 2004 Shah Family Innovation Prize



Gustavo Parra-Montesinos

The Shah Family Innovation Prize Selection Committee awarded the 2004 prize to Professor Gustavo Parra-Montesinos of the University of Michigan (UM), in recognition of his outstanding research and innovative application of high-performance fiber-reinforced cement composites (HPFRCC) in earthquake-resistant structural systems. Parra has also become a leader in seismic behavior and design of hybrid steel-concrete structures.

Parra's work on HPFRCCs has been primarily aimed at enhancing the structural performance of reinforced concrete (RC) members subjected to large shear reversals, for which current design codes require substantial and complex reinforcement detailing. His research projects include application of HPFRCC materials in structural walls, coupling beams, beam-column connections, and plastic hinging regions of flexural members. His results have shown that these applications can delay shear strength decay while allowing for significant reductions or even elimination of conventional transverse reinforcement.

His research on strain-hardening fiber cementitious materials has the potential to impact significantly the seismic design of structures in the

next few years, especially within the context of performance-based design. He has shown that squat walls constructed with HPFRCCs have approximately twice the drift capacity and superior damage tolerance than traditional RC walls. Tests on HPFRCC coupling beams have shown superior performance at moderate and high drift levels when compared to diagonally reinforced coupling beams.

He is leading a project for one of the NEES research projects awarded during the first round of NSF funding. It is aimed at developing a new slab-column connection with self-performance monitoring capabilities.

Parra received his B.S. in Civil Engineering in 1994 from the Universidad Metropolitana in Venezuela and his M.S. (1997) and Ph.D. (2000) from UM. He became an assistant professor in UM's Civil and Environmental Engineering Department in 2000. While a student, he served as president of the UM EERI Student Chapter and is currently serving as the faculty advisor to that group.

Parra currently serves as a member of the EERI Task Force on the Data Collection and Management Action Plan. He has also been active in outreach activities involving high school and minority students in his research projects, as well as in the organization of laboratory demonstrations for high school and college students.

Endowed by a generous gift from the Haresh Shah family, the \$10,000 Shah Family Innovation Prize is awarded annually to younger professionals and academics for creativity, innovation, and entrepreneurial spirit in the field of earthquake risk mitigation and management.

For information about the prize, the names of past recipients, and members of the Selection Committee, visit www.eeri.org/home/honors_shah_innovation.html.

Small Grants Program

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The Board hopes that members and others may also wish to contribute directly to help those who have suffered so much. There are many good organizations providing assistance immediately. We have been getting questions about programs that reduce future consequences. Many developing countries lack mechanisms for seismic code implementation. The best intervention is through support of local efforts and by building leadership capacity in communities. EERI has found that even small projects at a very local level can have an impact in reducing the potential for future losses due to inevitable natural hazards. For example, a group in Istanbul is conducting training programs in earthquake preparedness for *muhtars*, traditional neighborhood leaders. A group in India is conducting a two-day workshop on earthquake-resistant construction practices for local builders. These and other initiatives receive grants of \$1,000 to \$3,000 from the Small Grants Program.

EERI encourages those who wish to contribute to such efforts to support the Small Grants Program. The program's steering committee is composed of members of the editorial board of the World Housing Encyclopedia (www.world-housing.net), which is primarily supported by donations from EERI members. The editor of the WHE, Svetlana Brzev, explains, "We have a global network of seismic expertise to help us solicit and evaluate effective grant proposals across the complete range of cultures, geography, and disciplines."

We are hoping to stimulate additional funding from members and others who, like Jack Martin, want to be sure their dollars are directed to effective efforts to reduce future consequences. We don't want to deter you from supporting the many efforts that are relieving the immediate

continued on next page

consequences of the tsunami. If we are to meet the challenge implicit in John Filson's important observation, we must also look to the future. As a member of EERI, you probably agree, I am sure. If you do, and have the financial capability, I hope you will contribute directly to the EERI Small Grants Program. Any donation to this program will be spent entirely on the grants, unlike donations to EERI's regular Endowment Fund, of which only interest is spent. You also may know others outside EERI that might be interested. If you have any other related suggestions, I want to hear from you. If your philanthropic resources already are tapped out to EERI or other worthy causes, you can still help by getting involved as a volunteer with the WHE and the Small Grants Program. Our membership

has been very generous in the past and I thank you all. To find out more about the Small Grants Program for Developing Countries, visit the web site, www.eeri.org/small_grants_annnc.pdf. To make a contribution, contact the EERI office or visit www.eeri.org/home/committees_endowment.html.

Announcements

Steel Seminars

The Steel Structures Technology Center, in cooperation with the International Code Council, is offering a one-day **Steel Connections: Seismic Applications 2005** seminar in several cities. The seminar focuses on the details and construction of welded and bolted connections incorporating the new American Institute

of Steel Construction (AISC) *Seismic Provisions* for 2005, the new AISC standard entitled *Prequalified Connections for Special and Intermediate Steel Moment Frames for Seismic Applications*, and the draft American Welding Society standard *D1.8* for seismic applications, with references to FEMA 350 *Recommended Seismic Design Criteria for New Steel Moment-Frame Buildings*, and FEMA 353 *Recommended Specifications and Quality Assurance Guidelines for Steel Moment-Frame Construction for Seismic Applications*. Seminars have been scheduled for Los Angeles (Buena Park) and South San Francisco, CA; Portland, OR; Las Vegas, NV; Chicago (Elk Grove Village), IL; and the New York area (Hasbrouck Heights, NJ). For more information on the seminars, visit www.steelstructures.com.

News of the Profession

Largest Shake Table Opens in Japan

In conjunction with activities commemorating the tenth anniversary of the Hyogoken Nanbu (Kobe) Earthquake, the Japanese National Research Institute for Earth Science and Disaster Prevention (NIED) opened the world's largest shaking table facility, known as E-Defense. The table, located in Miki just north of Kobe, has plan dimensions of 20 meters by 15 meters and can shake specimens weighing up to 1,200 tons in three dimensions

with motions larger than those experienced in the most strongly shaken areas in the Kobe event. The director of E-Defense is EERI member Dr. Masayoshi Nakashima, also a professor at Kyoto University. Nakashima says that E-Defense is the ultimate tool for verification of research and development on earthquake engineering and earthquake disaster mitigation.

An inauguration ceremony and a symposium for the facility were held on January 15 and 16. Over 250 world visitors were treated to a demonstration test featuring a full-size two-story wooden house shaken in three dimensions with the unscaled JMA Kobe ground motions. Speakers at the symposium comprised a global who's who of earthquake engineering. Housner Medalist and IAEE President Luis Esteva of Mexico set the tone by emphasizing the need for international collaboration to meet the global earthquake challenge. EERI Board member Polat Gülkan of Turkey summarized the history of shaking table testing. Chinese research using shaking tables was reviewed by Zifa Wang, director of the Institute of Engineering Mechanics. Joy Paushe of NSF and Ian Buckle, president of NEESinc, spoke about ongoing negotiations for joint efforts between Japan and the United States. To strengthen a long history of U.S.-Japan joint research on earthquake engineering, NSF and

the Japanese Ministry of Construction, Sports, Culture, Science, and Technologies are reaching an overall agreement on research collaboration between the two countries. The NEES Consortium and NIED have launched a new U.S.-Japan program jointly using NEES and E-Defense facilities. For more information on E-Defense, visit www.bosai.go.jp/hyogo/ehyogo/index.html.

The closing remarks on the importance of collapse testing were offered by Dr. Tsuneo Katayama, emeritus professor at the University of Tokyo. Katayama is president of NIED and a long time EERI member.



Obituary

Clifford J. Astill

Clifford J. Astill, who retired in 2003 with a long record of service as a program director in the Division of Civil and Mechanical Systems at the National Science Foundation (NSF), died on December 23, 2004. Astill was single-handedly responsible for creating the geotechnical and tsunami research programs in the Engineering Directorate of NSF. He was highly respected in the research community.

Before his employment at NSF, Astill worked for a number of years in the aircraft and aerospace industry: first in Australia, then in the United Kingdom and Canada, and finally in the United States. His first position at NSF, in the early seventies, was as an associate program director in the Engineering Mechanics Program, when engineering was a division in

the Research Directorate. According to his former colleague, George Lea, multidisciplinary and cross-disciplinary projects were unheard of in those days. When Astill was the program director for solid mechanics in the late seventies and early eighties, he pursued the development of a nontraditional manufacturing and design sub-activity that included material science, solid mechanics, and applied mathematics. He had the vision to be unwavering when facing boisterous criticism from supporters of the status quo.

Astill was an early participant in high performance computing and communications and grand challenges. He encouraged attendance at a 1983 workshop at the National Center for Atmospheric Research where the concept of NSF-supported "supercomputing" was introduced. This workshop left a lasting impression on engineering users of NSF Centers. Astill's sup-

port of a team of researchers from Carnegie Mellon, the University of Pennsylvania, and the Pittsburgh Supercomputing Center resulted in their receiving one of high performance computing's most prestigious awards, the 2003 Gordon Bell Prize for Special Accomplishment Based on Innovation, for their work on Los Angeles Basin earthquake simulations using terascale computers.

Astill served on the National Tsunami Hazard Mitigation Program Steering Committee. Before he retired, he was building a group focusing on tsunami runup leading to strategies for hazard mitigation. This includes the integration of laboratory experiments, field data, and large-scale simulation. Lea noted, "I shall miss in Cliff a colleague who explored beyond the horizon, a friend who enjoyed Bach as much as blue grass, but most of all — a person who never quit."

News of the Membership

Tom O'Rourke Receives Peck Award

EERI Past President Tom O'Rourke received the 2005 Ralph B. Peck Award from the American Society of Civil Engineers GeoInstitute. The Peck Award is presented for outstanding contributions to the geotechnical engineering profession through the publication of thoughtful, carefully researched case histories, or the publication of recommended practices or design methodologies based on the evaluation of case histories. He was selected by the GeoInstitute for his work in "elucidating the effects of construction activities on ground movements associated with braced excavations." As part of the award, O'Rourke was invited to deliver a lecture entitled "Lessons Learned on Ground Movement and Soil Stabilization on the Boston Central Artery" at the Geo-Frontiers Conference in January 2005.

Announcement

Scholarships for Masters Students

A new Masters program has been approved in Earthquake Engineering and Engineering Seismology (MEEES), financially supported by the European Commission under the framework of the Erasmus Mundus program.

The Masters program is coordinated by the ROSE School (Italy) (www.roseschool.it), with the participation of the University of Patras (Greece), the University of Grenoble Joseph Fourier (France), and Imperial College (UK). It is offering many scholarships (each worth 21,000 Euro) that can be awarded only to non-European students.

Full details on the program can be found on the www.mees.org web site. The deadline for applying is March 15, 2005.

Subscribing Member Posting

RMS Position

The Newark, California, office of **Risk Management Solutions, Inc.**, an EERI Subscribing Member, is looking for a catastrophe modeler to model various hazards in collaboration with the Man-Made Cat Team, whose members have backgrounds in statistics, mathematics, and engineering. Required: an M.S. degree in civil or structural engineering or a related field; a minimum of two to three years of general engineering experience and model development; good programming skills; a high level of proficiency in data analysis and data manipulation software tools; and a working knowledge of GIS software applications. Familiarity with probability and statistics is desirable. Submit resumes to recruiting@rms.com and visit www.rsm.com.

For information on becoming a Subscribing Member, visit www.eeri.org.

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**.

MARCH

3. New Knowledge of EQ Hazard in Central US & Implications for Bldg. Seismic Design Practice, Memphis, TN. Info: www.atccouncil.org (1/05)

16. Sumatra EQ & Indian Ocean Tsunami Briefing, 4:00-6:00 pm, Pasadena, CA.

22. Same as above, 4:00-6:30 pm, Seattle, WA. Info: www.eeri.org. See page 2. (3/05)

APRIL

4. Sumatra EQ & Indian Ocean Tsunami Briefing, 4:00-6:30 pm, Vancouver B.C, Canada.

18. Same as above, 4:00-6:00 pm, Portland, OR. Info: www.eeri.org. See page 2. (3/05)

6-9. North American Steel Construction Conference, Montreal, Canada. Info: www.aisc.org/nascc (8/04)

7. EQ Hazard in Oregon, Portland, OR. See page 11. (3/05)

8-9. Evaluation & Mitigation of Seismic Hazards 2-Day Course, San Diego. Info: <http://www.sandiegogeologists.org/SeisHaz2005.pdf> (3/05)

24-29. EGU 2005 — European Geosciences Union General Assembly, Vienna, Austria. Info: www.copernicus.org/EGU/ga/egu05/index.htm (1/05)

MAY

1-4. UCLA Conf. on Public Health & Disasters, Woodland Hills, CA. Info: www.cphd.ucla.edu/ (11/04)

10. SMIP05 Seminar for Utilization of Strong-Motion Data, Los Angeles, CA. Info: www.conservation.ca.gov/cgs/smip/seminar.htm (1/05)

15-18. Disaster Resistant CA Conf., Sacramento, CA. Info: www.sjsu.edu/cdm/drc05 (11/04)

16-19. SismoAdobe 2005, Lima,

Peru. Info: www.pucp.edu.pe/eventos/SismoAdobe2005 (2/05)

2-6. 26th Ann. Short Course on Grouting Fundamentals & Current Practice, Golden, CO. Info: www.mines.edu/outreach/cont_ed (3/05)
30-June 1. ERES 2005, Skiathos, Greece. Info: www.wessex.ac.uk/conferences/2005/eres05 (7/04)

JUNE

7-9. SEM Annual Conf. on Experimental & Applied Mechanics & Concurrent Symposia, Portland, OR. Info: www.sem.org (10/04)

20-22. 12th Int'l Conf. on Comp. Methods & Experimental Measurements (CMEM 2005), Malta. Info: www.wessex.ac.uk/conferences/2005/cmем05/ (10/04)

JULY

10-13. 15th World Conf. on Disaster Management, Toronto, Canada. Info: www.wcdm.org (11/04)

24-30 INCEED 2005, Charlotte, NC. Info: www.iseg.giees.uncc.edu (2/05)

AUGUST

21-24. Pipelines 2005, Houston, TX. Info: www.asce.org/conferences/pipelines2005/ (8/04)

22-24. ConMat'05, Vancouver, BC, Canada. Info: www.civil.ubc.ca/conmat05/ (7/04)

26-27. 4th European Wkshp on Seis. Behavior of Irregular & Complex Structs., Thessaloniki, Greece. Info: taz.civil.auth.gr/4ewics/ (2/05)

SEPTEMBER

7-11. XV Mexican Nat. Conf. on EQ Eng., Mexico City, Mexico. Info: www.smis.org.mx (see page 12). (12/04, 3/05)

14-16. IABSE Structures & Extreme Events, Lisbon, Portugal. Info: www.iabse.org/lisbon (7/04)

20-23. 3rd Int'l Struct. Eng. & Const. Conf., Shunan, Japan. Info: www.tokuyama.ac.jp/tcss1/ISEC_03/ (4/04)

25-29. Dam Safety 2005, New Orleans, LA. Info: info@damsafety.org (3/05)

OCTOBER

16-19. Council on Tall Bldgs. & Ur-

ban Habitat, New York, NY. Info: www.ctbuh.org (9/04)

2006

APRIL

18-21. 8th U.S. Nat'l Conf. on EQ Eng. (8NCEE), EERI Annual Meeting, SSA Annual Meeting, Disaster Resistant California, San Francisco, CA. Info: www.eeri.org (5/04)

AUGUST

14-17. 5th Int'l Conf. on Behavior of Steel Structs. in Seismic Areas (STESSA), Tokyo, Japan. Info: www.serc.titech.ac.jp/stessa2006 (2/05)

SEPTEMBER

3-6. 1st European Conf. on EQ Eng. & Seismology, Geneva, Switzerland. Info: www.symporg.com/2006.html (1/05)

Announcement

ATC Oregon EQ Hazard Seminar

On April 7, 2005, the Applied Technology Council (ATC), the USGS, and the Oregon Department of Geology and Mineral Industries will conduct a seminar in Portland, Oregon, on *New Knowledge of Earthquake Hazard in Oregon and Implications for Building Seismic Design Practice*. EERI is a co-sponsor of this seminar, which has been designed for practicing structural engineers, geotechnical engineers, and earth scientists, and is being conducted as part of the ongoing ATC-35 Project to "Transfer U.S. Geological Survey Research Results into Engineering Design Practice."

The seminar will emphasize earthquake potential, ground motion, and building and bridge design implications for earthquakes occurring in the Oregon region. Speakers include geologists, seismologists, practicing structural engineers, and geotechnical engineers. The pre-registration fee is \$120 (\$100 for ATC subscribers). For registration information, visit www.atccouncil.org.

News of the Institute

Luis Esteva Receives Housner Medal



Luis Esteva

Luis Esteva, professor emeritus at the Institute of Engineering, National Autonomous University of Mexico (UNAM), is this year's recipient of EERI's highest honor, the George W. Housner Medal. The medal was awarded for a multitude of reasons. He has had a distinguished career as an academic and as an advocate for earthquake hazard mitigation. He has been a leader in the International Association for Earthquake Engineering (IAEE) and a dedicated international ambassador for the field.

The author of many publications, Esteva has been active in research at UNAM since 1959 and has made numerous academic contributions to the development of seismic design methodologies, probabilistic approaches for the definition of earthquake hazards, and reliability analy-

sis of structures. His research and advice have been influential in shaping reform of building codes and the formulation of seismic design regulations for Mexico and other countries. He has been motivated by his interest in providing practical tools to help solve problems faced by both individual structural engineers and government agencies charged with writing building codes. His interest in the development of rational approaches to establishing structural design requirements and safety margins led to his involvement in the probabilistic analysis of structural reliability and seismic hazard and risk. His professional practice includes structural design and consulting work in special projects, both in Mexico and abroad.

Over the years he has served as associate director and director of the Institute of Engineering, and as a Dean of Science at UNAM. He has been president of Mexico's Advisory Council on Science and has served on many national and international committees and boards, including UNESCO committees, technical committees of ACI, ASCE-IABSE, and IASPEI, and missions to earthquake-struck regions. He is also an active participant in many Mexican, Latin American, and international associations as well as academic and technical groups.

He has been the recipient of many

national and international awards and has been appointed as foreign correspondent of the academies of engineering of several Latin American countries. In 2000 he became a Foreign Associate of the National Academy of Engineering of the United States. He is an Honorary Member of the IAEE and currently serves as its president. A native of Mexico City, Esteva earned a B.S. in civil engineering (1958) and a Ph.D. in engineering (1968), both from UNAM. He also earned an M.S. in civil engineering (1959) from the Massachusetts Institute of Technology.

Announcement

XV CNIS Rescheduled

The 15th Mexican National Conference on Earthquake Engineering (XV Congreso Nacional de Ingeniería Sísmica — XV CNIS) will take place in Mexico City **September 7-11, 2005**, to commemorate the 20th anniversary of the September 19, 1985 earthquake. The original dates were changed because of logistics associated with Mexican National Independence day. As a part of the program, there will be a special theme session discussing the US-Mexican collaboration under the umbrella of the EERI-SMIS cooperation agreement. For more information, visit www.smis.org.mx.



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