Earthenquake Engineering Research Institute

Founded in 1948, EERI's mission is to reduce earthquake risk by (1) advancing the science and practice of earthquake engineering, (2) improving understanding of the impact of earthquakes on the physical, social, economic, political, and cultural environment, and (3) advocating comprehensive and realistic measures for reducing the harmful effects of earthquakes.

News of the Institute

Guillermo Diaz-Fanas and Erica Fischer to receive EERI Younger Member Award

We're pleased to announce Guillermo Diaz-Fanas (M.EERI, 2015) and Erica Fischer (M.EERI, 2010) as the recipients of the 2020 EERI Younger Member Award! The award is given to early-career members who have made outstanding contributions to the Institute and the pursuit of its objectives — especially contributions that have improved opportunities for and increased the impact of younger members. Due to the nature of this award and its focus on encouraging young member participation in the Institute, the honor's committee felt it was reasonable to select two winners for the 2020 award since the candidates were both so exceptional.

Guillermo Diaz-Fanas
Senior Technical Principal in Multi-Hazard Resilience, WSP USA

Guillermo Diaz-Fanas is a Senior Technical Principal in Multi-Hazard Resilience with the GT-TEC of WSP USA. Diaz-Fanas received his bachelor's degree in civil engineering from the Pontificia Universidad Católica Madre y Maestra (PUCMM) and a master's degree in structural from the University of Illinois at Urbana-Champaign as a Fulbright Fellow. Guillermo has held several positions of leadership locally and nationally with EERI, the American Society of Civil Engineers, the Geo-Institute, the Deep Foundations Institute, and other professional societies. He is also the founding President of the first non-profit organization for LGBTQIA+ students and professionals to pursue careers in the built environment.

The selection committee has recognized Guillermo as follows:
Guillermo’s ability to advocate for EERI involvement to his peers and colleagues is unique and impactful. The honor’s committee was especially impressed by his service on the Board of the EERI New York - Northeast Regional Chapter (EERI-NYNE). Through his role on the EERI-NYNE, as their Academic Liaison and now Board member, he has helped to promote EERI and encourage the establishment of four new university student chapters in New York City (EERI-NYU), in Dominican Republic (EERI-PUCMM), in Ecuador (EERI-ESPE) and in Peru. He has also organized technical programs for the benefit of local New York members. In addition to these major pursuits, he also participates in EERI's SESI, PPA, and Seismic Design Competition as a judge, mentor, and regular Master of Ceremonies.

Erica Fischer
Assistant Professor of Civil & Construction Engineering, Oregon State University

Erica Fischer is an assistant professor of structural engineering at Oregon State University. She received a B.S. from Cornell University and a Ph.D. from Purdue University. Prior to Oregon State, she worked as a structural engineer in New York and Seattle where she focused on renovations and retrofits of existing buildings. Erica has served in a number of leadership positions in EERI, from co-chair of the Student Leadership Council to now a member of the EERI Board of Directors. She is also one of the founding members of the EERI Younger Members Committee and Virtual Earthquake Reconnaissance Team.

The selection committee has recognized Erica as follows:

"Erica has shown extensive leadership in EERI from the early stages of her career by using her enthusiasm to revitalize EERI activities and develop innovative new ways to engage Younger Members in Institute activities. Since her time as Chair of the YMC, she has continued to expand and refine VERT as a co-Chair in its new location as an official LFE subcommittee. VERT has changed the way that EERI and other reconnaissance organizations approach post-disaster assessment, and provides specific opportunities for younger members to participate in reconnaissance. Erica continues to advocate for younger members on her role on the EERI Board of Directors, since her appointment for a four-year term in 2019."

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Don't miss out on the must-attend National Earthquake Conference (NEC) and EERI Annual Meeting! Held March 4-6 in San Diego, the NEC is the place where professionals in our field gather to connect, network, and learn.

The dynamic program features the exclusive release of a new earthquake scenario and risk study for the San Diego region. Developed by experts and community stakeholders over the last five years, the scenario will showcase the impacts and consequences of a potential M6.9 earthquake on the Rose Canyon Fault. The sessions below will highlight findings from the study and possibilities to achieve a seismically resilient San Diego by 2050. Please note that more speakers are being confirmed.

**Designing the Earthquake & Geologic Hazards for the San Diego Earthquake Scenario:** This session will showcase the technical work of the San Diego Earthquake Scenario’s “Earth Science” Working Group. The session will describe the San Diego seismic fault zone, the selection of the scenario earthquake, the associated shaking, ground failure, and secondary hazards. Speakers include:

- **Jim Gingery,** Chief Engineer, Keller (M.EERI, 2002)
- **Ken Hudnut,** Research Geophysicist, United States Geological Survey (M.EERI, 2000)
- **Mark Legg,** President, Legg Geophysical, Inc. (M.EERI, 1999)
- **Tom Rockwell,** Professor of Geological Sciences, San Diego State University

**Infrastructure and Building Vulnerabilities in San Diego and Tijuana:** This session will examine the impacts on buildings and lifeline infrastructure as a result of the geologic hazards in the San Diego and Tijuana areas. Using an engineering perspective, the session will describe the studies that helped identify expected impacts, including ones that took place in Tijuana, and discuss opportunities for mitigation. Speakers include:

- **Janna Bonfiglio,** Project Geotechnical Engineer, Kleinfelder (M.EERI, 2013)
Unveiling of the San Diego Earthquake Scenario and its Vision for a Seismically Resilient San Diego by 2050: This session will unveil major findings from the San Diego Earthquake Scenario. The experts and stakeholders who have worked on the scenario will also present their vision for a seismically resilient San Diego. They will also discuss the possibilities and opportunities for action, particularly by local leaders who will be critical to seismic planning and mitigation success.

- Jorge Meneses, Principal Geotechnical Engineer, RMA Group, and California Seismic Safety Commissioner (M.EERI,2006)
- Tony Court, President, A. B. Court & Associates
- Mona Freels, Emergency Operations Services Manager, San Diego Gas & Electric

Achieving a Seismically Resilient San Diego by 2050: A Collaborative Workshop: Bring your ideas and passion for seismic resilience policy! This interactive session will discuss how earthquake scenarios have resulted in policy or mitigation actions. You will hear examples of success and engage in interactive exercises and discussions to brainstorm policy options and other possibilities to achieve a seismically resilient San Diego by 2050. Speakers include:

- Laurie Johnson, Principal and Founder, Laurie Johnson Consulting, and President, EERI (M.EERI,1990)

San Diego Scenario Stakeholder Insight Panel: Diverse stakeholders will discuss impacts from the scenario on their own infrastructure or systems, describe their organization's seismic mitigation and planning accomplishments, and compare them to their other hazard planning efforts. Panelists will also explore challenges and opportunities in mitigating their seismic risk. Speakers include:

- David Harrison, Emergency Preparedness Manager, City of Carlsbad
- James Hackett, Principal Structural Engineer, Division of the State Architect

Seismic Design Competition seeks judges

The 17th Annual EERI Undergraduate Seismic Design Competition will showcase more than 50 teams from 8 different countries! These teams have spent many months and countless hours designing and constructing their models. The Student Leadership Council is now seeking judges to evaluate team presentations, posters, and design architecture. Judging will take place throughout the day on Tuesday, March 3 and requires a 1-1.5 hour time commitment. If you would like to volunteer your time to better the next generation of earthquake engineers, please complete this interest form by Thursday, February 20.

EERI extends a warm welcome to the following teams invited to compete this March:
Ain Shams University; Brigham Young University; Cal Poly San Luis Obispo; Cal Poly Pomona; CSU Chico; CSU, Fullerton; CSU, Long Beach; CSU, Los Angeles; CSU, Northridge; CSU, Sacramento; Cornell University; Helwan University; Lehigh University; McMaster University; New York University Tandon School of Engineering; North Carolina State University; Oregon State University; Ozyegin University; Pontificia Universidad Católica Madre Y Maestra; Portland State University; Purdue University; San Fransisco State University; Stanford University; Technical University of Civil Engineering Bucharest; Technical University of Cluj-Napoca; Universidad de las Fuerzas Armadas; Universidad Iberoamericana; Universidad Politecnica Salesiana; University at Buffalo; University of British Columbia; UC Berkeley; UC Davis; UC Irvine; UCLA; UC San Diego; University of Colorado Boulder; University of Connecticut; University of Illinois Urbana-Champaign; University of Massachusetts Amherst; University of Memphis; University of Michigan; University of Nebraska- Lincoln; University of Nevada Reno; University of Notre Dame; University of Puerto Rico at Mayagüez; University of Southern California; University of Texas Austin; University of Toronto; University of Victoria; University Teknologi Malaysia; and Virginia Tech.
You will leave the webinar with a greater understanding of how USGS web tools can be used to perform site-specific ground motion hazard analysis. The new 2019 California Building Code adopts the ASCE/SEI 7-16 Standard ("Minimum Design Loads and Associated Criteria for Buildings and Other Structures") which requires site-specific ground motion analysis for many more structures than prior editions. For example, now site-specific analysis shall be performed for structures on Site Class D and E sites with S1 greater than or equal to 0.2g, with some exceptions. The webinar will also provide an opportunity for feedback on the USGS web tools from earthquake engineering users.

The webinar will include an introduction from Jorge Meneses (M.EERI,2006), RMA Group, Inc., Nicolas Luco, USGS, will demonstrate the USGS web tools. Following the demonstration, Nicolas Luco and Peter Powers (M.EERI,2018), also of USGS, will be available to answer questions from participants.

MEMBER SPOTLIGHT

EERI members elected to the National Academy of Engineering

Three EERI members were recently elected to the National Academy of Engineering, which is among the highest professional distinctions accorded to an engineer.

Reginald DesRoches (M.EERI,1995), William and Stephanie Sick Dean of Engineering, George R. Brown School of Engineering, Rice University, Houston, for research and design of resilient infrastructure systems to mitigate damage from natural disasters and other extreme conditions.

Steven Kramer (M.EERI,1990), professor, civil and environmental engineering, University of Washington, Seattle, for contributions to geotechnical earthquake engineering, including liquefaction, seismic stability, and seismic site response.

Lelio Mejia (M.EERI,1985), senior principal engineer, Geosyntec Consultants, Oakland, Calif., for the evaluation, design, and construction of embankment dams and foundation systems and contributions to geotechnical earthquake engineering.
Subscribing Member Spotlight

Computer and Structures, Inc.

Computer and Structures, Inc. is EERI’s inaugural Visionary-Level Subscribing Member and a generous sponsor of this year’s National Earthquake Conference and the 17th Annual Undergraduate Seismic Design Competition! CSI has been a longtime supporter of the Institute and our student activities, including the Student Leadership Council.

Founded in 1975 by company president and CEO Ashraf Habibullah (M.EERI, 1999), CSI is recognized globally as the pioneering leader in software tools for structural and earthquake engineering. Software from CSI is used by thousands of engineering firms in over 160 countries for the design of major projects, including the Taipei 101 Tower in Taiwan, One World Trade Center in New York, the 2008 Olympics Birds Nest Stadium in Beijing and the cable-stayed Centenario Bridge over the Panama Canal. Learn more about CSI.
YOUNGER MEMBERS COMMITTEE

YC Blog Alert - What Might Have Been: Counterfactual Thinking in Risk Analysis

The Younger Members Committee is pleased to share its latest blog post: What might have been: counterfactual thinking in risk analysis by Yolanda C. Lin (M.EERI,2013). Yolanda is a Research Fellow in the Disaster Analytics for Society Lab at Nanyang Technological University in Singapore. Yolanda holds a Ph.D. in Civil Engineering from Cornell University, an M.S. from the University of Colorado, Boulder, and an A.B./B.E. from Dartmouth College.

“After an earthquake, earthquake engineers and scientists work tirelessly to understand exactly the mechanisms of what happened, what was damaged, who was affected, how we can best move forward. In the process, we typically strive to identify what valuable lessons-learned can be harnessed from the event, so that a future, similar event may be safer and less impactful the next time around. But, why restrict ourselves to learning from our past disasters only exactly as they unfolded? To address this, we are formalizing a framework to incorporate the use of counterfactual thinking to take a second look at past disasters and uncover additional lessons-learned that we may have missed before.”

PUBLICATIONS

Recent most read articles on Earthquake Spectra

The new Earthquake Spectra website offers exciting features like lists of most read and most cited articles. There you’ll also see the counts of reads and downloads, as well as the Altmetric score which shows how much online attention each article has received. We’re pleased to highlight the top three most read articles in the past several months:

1. The 2018 update of the US National Seismic Hazard Model: Overview of model and implications
2. Uncertainty and correlation in seismic vulnerability functions of building classes
3. Development of a global seismic risk model
ANNOUNCEMENTS

- **RFP: Seismic Safety Engineering and Consulting Services**
  The City and County of San Francisco’s Office of Resilience and Capital Planning (ORCP) / Earthquake Safety Implementation Program (ESIP) seeks a contractor to provide seismic safety engineering and consulting services. A pre-proposal conference will be held on Thursday, February 20 at 10am. Learn more about the pre-proposal conference and the Request for Proposal.

- **Save the date: 2020 Los Angeles Tall Buildings Conference**
  Save the date, May 15, for the 2020 Los Angeles Tall Buildings Conference! The conference will cover a variety of topics related to recent advances in structural design of tall and special buildings. Unique case studies of recent projects will be presented, followed by unveiling of the new Los Angeles Tall Buildings Structural Design Council Guidelines for analysis and design of tall buildings, and sessions on experimental earthquake engineering, resilient design, and ground motion issues as they relate to structural design of tall buildings. Learn more

- **Call for Abstracts: San Fernando Earthquake Conference (Lifelines2021)**
  The UCLA/ASCE Lifelines Conference 2021, February 7-10, 2021 — commemorating the 50th anniversary of the San Fernando Earthquake — is seeking session, paper, and presentation abstracts. The deadline is March 24. Learn more and submit here.

NEWS OF THE PROFESSION

- Links to recent news and views
  - Earthquake preparedness – where do we start? (Corvallis Gazette-Times) co-authored by Erica Fisher (M.EERI,2010)
  - Fluid pressure changes grease Cascadia’s slow aseismic earthquakes (AGU Earth & Space Science News)
  - California’s new early warning earthquake app features a shaking countdown (Los Angeles Times)
Oregon wrestles with building facilities in tsunami zones (Associated Press)
Over 1 billion euros pledged for Albania quake rebuilding (Associated Press)
How businesses can brace for catastrophe (Harvard Business Review)
Earthquakes are the latest distraction to Puerto Rico's schools (NPR)
Opinion: The problem and politics of death tolls (Eureka Times-Standard) by Lori Dengler (M.EERI,1998)
Opinion: Seismic communication – tricky connections across plate boundaries by Lori Dengler (M.EERI,1998)
Greek island of Karpathos hit by 4.8-magnitude quake (Associated Press)

Follow these steps to add EERI Calendar to your own Google calendar.
1. Open Google Calendar
2. On the left, above "My Calendars," click Add + and then From URL.
3. Enter the EERI calendar's address in the field provided. EERI Calendar ics link
https://calendar.google.com/calendar/ical/eeri.org_s9151tit0ab26dnf2epn25d7rg%40group.calendar.google.com/public/basic.ics
4. Click Add Calendar. The calendar will appear on the left side under "Other calendars."

Monday, April 27, 2020 - April 30
SSA 2020 Annual Meeting
SSA 2020 Annual Meeting
27-30 April 2020 — Albuquerque, New Mexico
The 2020 Annual Meeting will be held in Albuquerque, New Mexico.
Check back later for more information.

Friday, May 15 2020 5:00 PM - May 16 2:00 AM
2020 Los Angeles Tall Buildings Conference
The 2020 Los Angeles Tall Buildings Structural Design Council conference will cover a variety of topics related to recent advances in structural design of tall and special buildings. Learn more: www.latallbuildings.org

Monday, September 14, 2020 - September 18
17th WCEE
The 17th WCEE will be hosted in Sendai, Japan, from September 14th to 18th 2020. Check http://www.iaee.or.jp/ for more information.

Sunday, February 07, 2021 - February 10
ASCE/UCLA San Fernando Earthquake Conference
For more information: http://lifelines2021.ucla.edu/

Wednesday, March 17, 2021 - March 19
EERI Annual Meeting