

Conference website: <http://mae.cee.illinois.edu/icmae>



©istockphoto.com/Songquan Deng

# International Conference on Multi-hazard Approaches to Civil Infrastructure Engineering (ICMAE)

*Millennium Knickerbocker Hotel Chicago, Chicago IL*

June 26-27, 2014



**MAECENTER**   
Creating a Multi-hazard Approach to Engineering

# ICMAE Conference Program

## Day 1 June 26, 2014

### Session 1: Probabilistic Methods for Risk Analysis

- Keynote Speaker **Armen Der Kiureghian** *University of California, Berkeley*  
“Bayesian network modeling of infrastructure systems”
- Speakers **Alex Taflanidis** *University of Notre Dame*  
“Natural hazard probabilistic risk assessment through surrogate modeling”
- Jamie Padgett** *Rice University*  
“Supporting life-cycle management of bridges through multi-hazard reliability and risk assessment”
- Paolo Bocchini** *Lehigh University*  
“Correlated maps for regional multi-hazard analysis: ideas for a novel approach”
- Industry Panelist **Petros Keshishian** *Risk Management Solutions (RMS)*

### Session 2: Earthquake Engineering

- Keynote Speaker **Michele Calvi** *IUSS Pavia, Italy*  
“Energy efficiency and disaster resilience: a common approach”
- Speakers **Khalid Mosalam** *University of California, Berkeley*  
“Progressive collapse simulation of vulnerable reinforced concrete buildings”
- Paolo Pinto** *University of Rome "La Sapienza", Italy*  
“Existing buildings: the new Italian provisions for probabilistic seismic assessment”
- Andre Barbosa** *Oregon State University*  
“Robustness assessment of steel moment resisting frame structures under mainshock-aftershock cascading events”
- Industry Panelist **Rose Grant** *State Farm Insurance Companies*

### Session 3: Geo-Hazards

- Keynote Speaker **Ahmed Elgamal** *University of California, San Diego*  
“Hazard mitigation: the role of geotechnical engineering”
- Speakers **Robert Gilbert** *The University of Texas at Austin*  
“Accounting for unknown unknowns in managing multi-hazard risks”
- Kenichi Soga** *University of Cambridge, UK*  
“Innovation in instrumentation, monitoring and condition assessment of infrastructure”
- Zenon Medina-Cetina** *Texas A&M University, College Station*  
“Bayesian risk assessment of a tsunamigenic rockslide at Åknes Norway”
- Industry Panelist **Emad Mousavi** *Aker Solutions Inc.*

## Day 2 June 27, 2014

### Session 4: Societal Impact of Extreme Events

- Keynote Speaker **Louise Comfort** *University of Pittsburgh*  
“Digital technologies, complex systems, and extreme events: measuring change in policy networks”
- Speakers **Arden Rowell** *University of Illinois at Urbana-Champaign*  
“Theories of risk management and multiple hazards”
- Lori Peek** *Colorado State University*  
“Disaster risk reduction strategies in earthquake-prone cities”
- Therese McAllister** *NIST*  
“Disaster resilience of communities: the role of the built environment”
- Panelist **Colleen Murphy** *University of Illinois at Urbana-Champaign*

### Session 5: Wind Hazards

- Keynote Speaker **David Rosowsky** *University of Vermont*  
“Event-based models for hurricane hazard characterization: what can we do and where can we go?”
- Speakers **David Prevatt** *University of Florida*  
“An engineering-based catastrophe model to predict tornado damage”
- Michele Barbato** *Louisiana State University*  
“Performance-based hurricane engineering: a multi-hazard approach”
- Arindam Chowdhury** *Florida International University*  
“Wall of wind research and testing to enhance resilience of civil infrastructure to hurricane multi-hazards”
- Industry Panelist **Eric Haefli** *State Farm Insurance Companies*

### Session 6: Fire, Blast, Shock and Impact

- Keynote Speaker **Shalva Marjanishvili** *Hinman Consulting Engineers, Inc.*  
“Mitigating disasters in the 21st century”
- Speakers **Maria Garlock** *Princeton University*  
“Fire following earthquake: historical events and evaluation framework”
- Kapil Khandelwal** *University of Notre Dame*  
“Modeling of high temperature creep in ASTM A992 structural steels”
- Venkatesh Kodur** *Michigan State University*  
“Innovative strategies for enhancing fire performance of FRP-strengthened concrete structures”
- Industry Panelist **Gary English** *City of Seattle Fire Department*

Conference website and registration: <http://mae.cce.illinois.edu/icmae>

The conference provides up to twelve (12) Professional Development Hours (PDHs)