



Post-Earthquake Reconnaissance Workshop

Hosted by the EERI Student Leadership Council

Thursday, June 30, 2022

9:00 AM to 12:00 PM (Salt Palace Convention Center Room 155 E&F)

Workshop Theme: M5.7, Magna (Utah) Earthquake, 2020

Agenda

S.N.	Time	Topic	Speakers
1	9:00 AM to 9:05 AM	Welcome & Introduction to SLC	Moderators: Pratiksha/Ahmed
2	9:05 AM to 9:20 AM	Geologic Perspective of the 2020 Magna, Utah Earthquake Sequence	Emily Kleber
3	9:20 AM to 9:35 AM	The 2020 Magna, Utah Earthquake: Building Structure Impacts and the Effects of Building Code Adoption and Enforcement	Jessica S. Chappell
4	9:35 AM to 9:55 AM	Update of USGS Circular 1242, The Plan to Coordinate NEHRP Post-Earthquake Investigations	Justin Moresco & Chris Poland
5	9:55 AM to 10:05 AM	Break* + Networking	
6	10:05 AM to 10:35 AM	Rapid Damage Assessment After Earthquakes using the ATC-20 Procedure	Troy Morgan
7	10:35 AM to 11:05 AM	Activity	
8	11:05 AM to 11:20 AM	Discussion	
9	11:20 AM to 11:35 AM	The (not-too-distant) Future of Earthquake Risk Assessment	Vitor Silva
10	11:35 AM to 11:50 AM	Getting Involved with EERI in Reconnaissance (VERT) & Closure	Erica Fischer

**Light refreshments will be provided during the break. Attendees will receive a certificate of participation.*

Geologic Perspective of the 2020 Magna, Utah Earthquake Sequence



Emily Kleber is a geoscientist at the Utah Geological Survey specializing in earthquake geology. She has a B.S. in geology from University of California, Davis, and a M.S. in geology from Arizona State University. She investigates how earthquakes and geologic hazards have changed the surface over geologic timescales. Her toolkit includes expertise in application of high-resolution topographic data (lidar) to geologic hazard mapping, paleoseismology, field geology, and geochronology. Emily is passionate about communicating and connecting with the public, earthquake scientists and engineers, emergency managers, and officials about earthquake geology and hazards in Utah.

The 2020 Magna, Utah Earthquake: Building Structure Impacts and the Effects of Building Code Adoption and Enforcement



Jessica Chappell is the Vice-chair of the Utah Seismic Safety Commission and a member of the Envision Utah Disaster Resilience Steering Committee. A licensed professional structural engineer with 19 years of experience in consulting, she now works as an engineering manager for the Religious and Cultural Division of Haskell. Jessica has had the privilege of working on many great local projects including, the new Primary Children's Hospital in Lehi, The Museum of Curiosity, The Cedar City Temple, and the Utah K-12 Public School Inventory Report.

Update of USGS Circular 1242, The Plan to Coordinate NEHRP Post-Earthquake Investigations



Chris Poland is a licensed Structural Engineer, an internationally recognized authority on earthquake engineering, a champion of disaster resilience, and member of the National Academy of Engineering. His structural engineering career spans over 45 years and includes hundreds of projects related to the design of new buildings, seismic analysis and strengthening of existing buildings, structural failure analysis, historic preservation, as well as the development of guidelines and standards that are used worldwide. He served as the Chair of the American Society of Civil Engineers Seismic Rehabilitation of Existing Buildings Standards Committee completing multiple editions both ASCE 31 and ASCE 41, standards for the evaluation and rehabilitation of existing buildings that are used worldwide. He was a Senior Principal, Chairman and CEO of Degenkolb Engineers during his 40 years with the firm from 1974 through 2014. He is a past President, Treasurer, and Director of the Earthquake Engineering Research Instituted and was the 2018-2021 co-chair of the EERI Public Policy Committee. Chris served as a Community Resilience Fellow at the National Institute of Standards and Technology (NIST) from 2014 to 2019 and member of the team of authors that developed a Community Resilience Planning Guide. His passion for vibrant, sustainable, and healthy communities drives his current focus on community resilience and the buildings and systems that contribute to it.



Justin Moresco is a Director of Projects for the Applied Technology Council in Redwood City, California. He has more than 15 years of experience in structural engineering, seismic risk analysis, and natural hazard risk mitigation, and he worked for seven years as a professional journalist, with a focus on urban development. Justin has participated in post-earthquake damage investigations in California, Ecuador, Mexico, and New Zealand. He has led many ATC projects, including those leading to the publication of FEMA P-2139, *Short-Period Building Collapse Performance and Recommendations for Improving Seismic Design*, and FEMA P-1026, *Seismic Design of Rigid Wall-Flexible Diaphragm Buildings*. Justin is a licensed civil engineer in California and holds a B.S. in structural engineering from the

Rapid Damage Assessment After Earthquakes using the ATC-20 Procedure



Dr. Troy Morgan is Principal Engineer and Director of Exponent's Buildings & Structures practice worldwide. He is a recognized expert in the field of seismic isolation and passive energy dissipation systems, and specializes in performance of structures under extreme loading such as earthquakes, wind, flood, and explosions. Dr. Morgan has performed extensive research on the numerical simulation and experimental behavior of innovative seismic protective systems and optimization of their use within performance-based engineering frameworks. He has also been a member of post-earthquake reconnaissance investigations in Japan and New Zealand. Prior to joining Exponent, Dr. Morgan was Assistant Professor at the Center for Urban Earthquake Engineering at the Tokyo Institute of Technology in Japan. He is currently Adjunct Professor at New York, and has held positions as a post-doctoral researcher at the Pacific Earthquake Engineering Research Center, and as a design engineer at Forell/Elsesser Engineers Inc. Dr. Morgan received his B.S., M.Eng., and Ph.D. degrees from the University of California, Berkeley.

The (not-too-distant) Future of Earthquake Risk Assessment



Vitor Silva is the Seismic Risk Coordinator at the Global Earthquake Model (GEM) Foundation, an Associate Professor at the University Fernando Pessoa, and a Senior Researcher at the RISCO Research Unit at the University of Aveiro. He leads studies in structural vulnerability and probabilistic seismic risk assessment in dozens of countries and participates in a multitude of International, European and regional projects. He has authored more than 150 publications in international peer-reviewed journals and conference proceedings and is an Associate Editor for Earthquake Spectra and Frontier Built Environment. Vitor was the recipient of the Shah Family Innovation Award by the Earthquake Engineering Research Institute in 2018, the Natural Hazards Division Outstanding Early Career Scientist Award by the European Geosciences Union in 2020 and the Earthquake Spectra Outstanding Paper Award in 2021.

Getting Involved with EERI in Reconnaissance (VERT)



Erica Fischer, PhD, PE is an Assistant Professor of Civil and Construction Engineering at Oregon State University and a member of the EERI Board of Directors. Dr. Fischer's research interests revolve around innovative approaches to improve the resilience and robustness of structural systems affected by natural and man-made hazards. She has participated in post-earthquake reconnaissance team missions in diverse regions including Haiti, Napa, California, Italy, and Mexico City; and post-wildfire reconnaissance in Paradise, CA. Dr. Fischer performs research on a variety of different structural systems including steel, timber, and composites subjected to hazards such as earthquakes and fires. Dr. Fischer has experience as a practicing structural engineer and holds a Professional Engineering license in the states of Washington, California, and Oregon.