



Presented By:

Sean Ahdi

Ph.D. Candidate

Civil & Environmental Engineering
University of California, Los Angeles (UCLA)

Civil Engineering Seminar Series

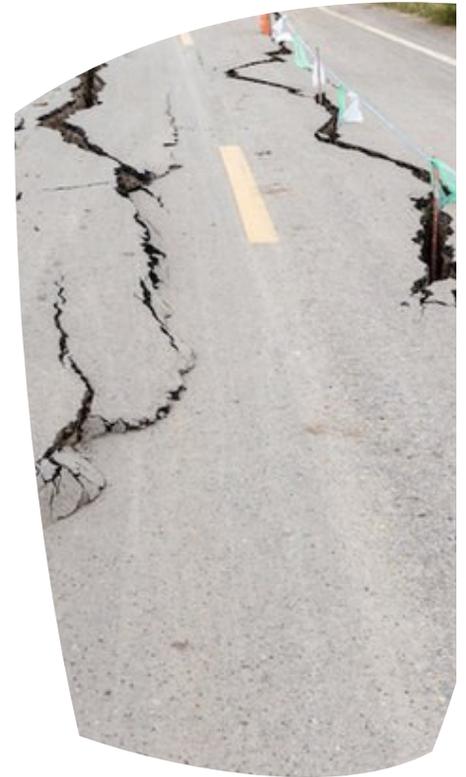
Thursday, November 2nd, 2017

MDEA

1:00PM - 2:00PM

Seismic Site Characterization & Its Implementation in Ground Motion Modeling

Infrastructure projects routinely require analyses that provide estimates of expected ground motions at a given site of interest. Geotechnical engineers and engineering seismologists commonly use ground motion models (GMMs), which incorporate information regarding the earthquake source, wave propagation path, and local site conditions, to compute shaking intensities. This talk will outline the Next-Generation Attenuation-Subduction project, a major multi-national effort to develop GMMs for subduction zones around the world. A focus will be placed on the determination of seismic site parameters used in GMMs, particularly the time-averaged shear-wave velocity in the upper 30 meters of the Earth's crust (V_{s30}), and its inclusion as a site parameter in a database of earthquake recording stations for use in GMM development.



Sean Ahdi is a Ph.D. candidate in the Department of Civil & Environmental Engineering at UCLA, working under the supervision of Professors Jonathan Stewart and Scott Brandenberg. He earned B.S. degrees in Civil Engineering and in Geology/Engineering Geology in 2013, and an M.S. degree in Geotechnical Engineering in 2014, all at UCLA. He is the past Chair of the Student Leadership Council of the Geo-Institute of ASCE at the national level, and is the Secretary of the Joint International Strong Motion Committee between the International Association of Earthquake Engineering (IAEE) and Consortium of Strong Motion Observation Stations (COSMOS). He has co-authored a guidelines document for Caltrans engineers for the use of geophysical methods in application to geotechnical engineering projects, and is a member of a multi-national working group headed by COSMOS to write a guidelines document for the application of noninvasive geophysical methods for seismic site characterization. Sean's main research interests lie in an intersection of disciplines, including geotechnical earthquake engineering, seismology, geology, and geophysics. His Ph.D. dissertation work focuses on seismic site characterization methods at various spatial scales and the quantification of uncertainty among different methods.