EERI – NYNE & NGA – EAST 9/19/2019 Mini-Symposium

The EERI NYNE Chapter presents:

Site Amplification Models for NGA-East

THU. SEPT. 19, 2019 (3:00–7:30 pm), 1 Penn Plaza, WSP

4 PDHs (pending)

The NGA-East research project was jointly sponsored by the US Nuclear Regulatory Commission (NRC) and Department of Energy (DOE), the Electric Power Research Institute (EPRI), the US Geological Survey (USGS), and coordinated by the Pacific Earthquake Engineering Research (PEER) center to develop Next Generation Attenuation (NGA) ground motion models for seismic hazard analyses in Central and Eastern-North America. The results will affect regional practice both in terms of hard rock hazard and site factors for code-based design using ASCE7/USGS maps, and site-specific studies. The event will present main findings of the NGA-East's Geotechnical Working Group (GWG) that was additionally funded by the Univ. of Illinois, the USGS, and the Turkish Ministry of Education. Presentations from leaders of the GWG on regional developments for site amplification and their impact on local – especially in NYC – seismic design will be given.

NGA–EAST SPEAKERS

Christine Goulet
USC & SCEC

Youssef Hashash
Univ. of Illinois

Sissy Nikolaou
WSP

Jonathan P. Stewart
UCLA

Event Registration	**3:00–3:30 pm**
Part 1: Overview and Introduction of NGA-East Project	**3:30–5:00 pm**
1. Opening Remarks (SN)	3:30–3:40
2. NGA-East Project Overview (CG)	3:45–4:00
3. Current State of Practice in Site Amplification (SN)	4:05–4:20
4. NGA-East GWG Approach to Site Amplification (YH/JPS)	4:25–4:50
Break / Pizza / Networking	**4:50–5:20 pm**
Part 2: NGA-East Site Amplification and Applications to Region	**5:20–7:30 pm**
5. NGA-East GWG Site Amplification Models (JPS/YH)	5:20–6:20
6. Application to USGS mapping, ASCE7, NYC practice (All)	6:25–7:25
Adjourn	**7:30 pm**

Date:	**Thursday, Sept. 19th, 2019**
Time:	Registration 3-3:30 pm **Lecture 3:30-7:30 pm**
Place:	WSP, 1 Penn Plaza, 4th Fl, NY 10119
Cont. Ed.:	**4.0 PDHs** ($0 for NYNE / $25 for non-members)
Registration:	FREE (RSVP nyne@eeri.org), limited space

SPONSORS

NGA–EAST SPEAKERS

Christine Goulet, PhD, NGA-East co-leader at PEER

Executive Director for Applied Science. Southern California Earthquake Center

Dr. Christine Goulet is the Executive Director for Applied Science at the Southern California Earthquake Center (SCEC). In that role, she acts as the science lead and technical integrator for large-scale collaborative projects involving diverse disciplines related to earthquake hazard and risk. Her research interests are in geotechnical earthquake engineering and applied seismology in the context of performance-based design, with a focus on ground-motion modeling, structural response and seismic hazard analysis. Dr. Goulet studied Geological Engineering in Canada and obtained her MS. and Ph.D. degrees in Civil Engineering from UCLA where she developed a graduate course on ground-motion characterization for engineers. Before joining SCEC, she co-led the NGA-East program at the Pacific Earthquake Engineering Research (PEER) Center and also consulted for engineering and seismology projects.

Youssef Hashash, PhD, PE, F.ASCE, NGA-East GWG leader

W.J. & E.F. Hall Professor; J.B. Webb Faculty Scholar, U. Illinois, Urbana-Champaign

Professor Youssef Hashash joined the Civil & Environmental Engineering at the Univ. of Illinois at Urbana-Champaign in 1998 where he teaches courses in geotechnical and earthquake engineering, numerical modeling in geomechanics, tunneling in soil/rock, and excavation support systems. Prior to that, he obtained BS, MS, and PhD degrees from MIT and became a practicing engineer with Parsons Brinckerhoff working, among others, on the Superconducting Super Collider and the Boston Central Artery/Tunnel projects. He has published over 250 articles, led the development of DEEPSOIL, a seismic site response analysis platform that is used worldwide in practice and research, and is co-inventor on 4 patents. He has been leading the Geotechnical Working Group (GWG) research of NGA-East since 2013. His research and consulting focus on deep excavations in urban areas, earthquake engineering, SSI numerical modeling, and applications of visualization, augmented reality, imaging and drone technologies. He is an ASCE Fellow and Past-President of its Geo-Institute (GI), with many recognitions including the Presidential CAREER Award and the ASCE Peck medal.

Sissy Nikolaou, PhD, PE, D.GE, F.ASCE, NGA-East GWG researcher

Asst. Vice President; Principal Geotechnical & Multihazards Engineering, WSP USA

Dr. Sissy Nikolaou is Assistant Vice President of WSP with 25 years of global engineering experience. As a Principal, she oversees the firm's geotechnical earthquake engineering practice and leads its multihazard resilience initiative. With a Diploma from NTUA, Greece and MS and PhD degrees from the Univ. at Buffalo, her consulting focus is on performance-based design and SSI. Her experience involves numerous critical infrastructure and transportation projects and high-rise structures in Mexico and NYC. Driven by a desire to protect populations and help them emerge stronger from natural disasters, Sissy has been part of reconnaissance field studies and chairs the NYC seismic code committee. She is a member of NGA-East's GWG since its inception. In 2016, Dr. Nikolaou was invited to the White House for the Earthquake Resilience Summit by President Obama and was named Fellow of ASCE and WSP Fellow in 2017. Her recognitions include the Prakash Prize for Excellence in Practice, the ACECNY Principal of Year, and Board positions in EERI, ATC, ASCE-GI.

Jonathan P. Stewart, PhD, PE , F.ASCE, NGA-East GWG researcher

Professor, University of California, Los Angeles (UCLA)

Dr. Jonathan Stewart is a Professor of Civil & Environmental Engineering at UCLA, where he has been a faculty member since 1996. His degrees are from UC Berkeley. His technical expertise is in geotechnical earthquake engineering and engineering seismology with emphases on soil-structure interaction, ground motion characterization, seismic performance of levees/embankments, and ground failure. His work has impacted seismic guidelines and policy nationally and globally. Examples include the US National Seismic Hazard Maps and recommended procedures for seismic assessments of structures. He has been a member of NGA-East GWG since its inception in 2013. Dr. Stewart is an ASCE Fellow and has received the organization's Huber and Casagrande Awards. He has also been recognized with the Bolt Medal and Joyner Lectureship from EERI and the Seismological Society of America. He is a former Chief Editor of the ASCE Journal of Geotechnical and Geoenvironmental Engineering (2007-09) and former Editor of Earthquake Spectra (2013-18).

UPCOMING SEMINAR: **NGA-EAST HAZARD FOR VERY HARD ROCK**

Date : Thursday, October 10th, 2019
Time : 9 am - 5 pm
Place: NIST, 100 Bureau Drive, Gaithersburg, MD
Link: https://www.eeri-members.org/pulse