

April 2019



Meeting Announcement

Joint EERI and GI

Date: Thursday, April 18, 2019

Location: Santa Clara Hall
Room 1217
California State University, Sacramento
6000 J Street
Sacramento, CA 95819

Speaker: Maryia Markhvida & Certis Solutions

Topic: “Assessing disaster resilience: from regional losses to household well-being”, & “Lunch Discussion with Certis Solutions”

Time: 11:30am to 1:30pm

Meeting Cost: \$35/Members,
\$40/Non-members
\$10/Students (first 30 students are free)

*Please RSVP to the email address below and bring cash or a check (payable to Sacramento Geo-Institute) to the door

send questions and RSVP to Kartik Atyam: Kartik. Atym@aecom.com

“Assessing disaster resilience: from regional losses to household well-being” & “Lunch Discussion with Certis Solutions”

April 18, 2019

**presented by: Maryia Markhvida, &
Certis Solutions**

Maryia Markhvida is a PhD candidate at Stanford University and is one of the first members of the Stanford Urban Resilience Initiative. Her research and professional interests center around computational techniques for regional seismic risk modeling, post-disaster economic impact analysis, household disaster resilience, infrastructure resilience, business interruption assessment, and application of machine learning techniques in risk quantification. Over the last five years, Maryia has worked as a consultant in Disaster Risk Management at the World Bank, conducting risk assessments in Europe and Central Asia and integrating risk information into strategic decision-making. Maryia had also worked on model development and catastrophe risk modeling in the insurance sector.

In this talk, a framework for modeling direct and indirect economic losses considering uncertainty will be presented. Furthermore, an extension of traditional seismic risk analysis that models the effect of disaster on the well-being of individual households will be shown. The model considers post-disaster changes in consumption as a metric to better capture the impact of earthquakes on individuals. It allows to make fair comparisons between different socio-economic groups, considering their ‘experience’ over the recovery period. Such a metric can also be used in design and assessment of equitable risk mitigation policies. A case study of the San Francisco Bay Area following a hypothetical magnitude 7.2 earthquake on the Hayward fault will be presented.



Certis Solutions plans on talking to the young graduating civil engineers about the day in the life of an engineer working at a public sector entity(government) vs a private sector firm. Then, closing the conversation explaining whom Certis Solutions is and how our firm works with both of the aforementioned and how this route can allow the engineer to have more control of where they work and what projects they are working on, etc. Along the way, we'll talk about what it takes to grow within these firms to get to the next “level”, and the importance/opportunities that getting your EIT and ultimately your P.E will afford you. We'd also like to discuss the salary guide a bit further within the *link below*. We'll dig in on SIA and Career Builder to cross reference this info and have a baseline of what salary expectation may look like holistically. Ultimately, we'd like to give a view to the attendees what the differences on a day to day at a private firm vs public firm look like, and how the salary expectations will follow, and again tell them about an alternative approach, which is Certis.