

FRIEDMAN FAMILY VISITING PROFESIONALS PROGRAM



Visit to University of California, Berkeley: April 3, 2024

This report summarizes the visit of **Jay Wilson** from Clackamas County Disaster Management, resilience coordinator, that took place at the University of California, Berkeley on April 3rd, 2024,

ITINERARY OR AGENDA

Agenda

TIME:	ACTIVITY:
9:30 AM – 10:30 AM	welcomes Visiting Professional to campus & Enjoy Coffee
10:30 AM – 11:30 AM	Discussion panel with students from SEMM and ENV programs
11:30 AM – 1:00 PM	Lunch with students and faculty member (Prof. Luis Ceferino)
1:00 AM – 2:00 AM	Guest lecture by Visiting Professional
2:00 PM – 4:00 PM	Campus tour and structural lab tour
4:00 PM – 5:00 PM	Discussion panel with students from SEMM and GEO programs

STUDENT CHAPTER VISIT PLANNING COMMITTEE

LEAD ORGANIZER(S):

- Eduardo Montalto, President of student chapter, eduardo_montalto@berkeley.edu
- Ya-Heng Yang, Seminar Director of student chapter, yaheng_yang@berkeley.edu
- Chrystal Chern, Treasurer of student chapter, cchern@berkeley.edu
- Dimitrios Konstantinidis, EERI faculty advisor, konstantinidis@berkeley.edu

External help from EERI community

- Silvana Cobos, Friedman Family Visiting Professional Program coordinator, silvana@eeri.org
- Huy Pham, member of student chapter, hgp@berkeley.edu
- Miguel Angel Gomez, miguel.gomez.f@berkeley.edu
- Goktug Tufekci, goktug_tufekci@berkeley.edu

VISITING PROFESSIONAL LECTURE OVERVIEW

Mr. Jay's presentation is titled "Aligning Seismic Mitigation Policies with Climate Adaptation to Avoid an Environmental Catastrophe and Leverage the Transition from Fossil Fuels to Green Energy: Oregon's Critical Energy Infrastructure Hub – A Case Study." Over 30 participants with backgrounds in structural, geotechnical, and environmental engineering attended this lecture. Mr. Jay used the example of oil tanks to illustrate the challenges of negotiating between oil companies and environmental advocates to achieve risk mitigation goals. He drew from his own experiences in the project to encourage engineering students to expand their thinking beyond technical skills and consider the social impact they can have on their community.



Lecture Abstract

In Oregon, there is a six-mile stretch of the lower Willamette River in Portland where over 90% of the state's petroleum products, like gasoline, diesel, and asphalt, are stored in large old tanks on extremely poor soils. It's called the Critical Energy Infrastructure (CEI) Hub. Counting in at over 400 storage tanks holding approximately 360 million gallons of petroleum products, only twelve were constructed with "adequate" seismic design codes. During a Cascadia Subduction Zone earthquake, these facilities will have cascading failures due to long-duration and long-period amplified shaking that will produce liquefaction, differential settlement, and lateral spreading – likely creating the worst oil spill in U.S. history.

Oregon has a Climate Protection Program with goals to reduce emissions 50% by 2035 and 90% by 2050, but as of now, it does not include the CEI Hub as a factor in its goals or strategies. Can we leverage the need to reduce fuel use with the need to reduce seismic risk? Unfortunately, our seismic, climate, environmental, and social equity policies are not in alignment and compete for political attention and funding. Fortunately, there are multiple wins in this situation if policy makers, private industry, community members and environmental activists can find common ground. We need to define this as a resilience imperative and create a unified 2050 vision to align these policies and capitalize on the shared benefits.

Professional Bio



Jay Wilson is the Clackamas County Resilience Coordinator with the Department of Disaster Management and spearheads the County's efforts to reduce risks and assess hazards including flood, earthquake, wildfire, volcano, and climate change impacts. Mr. Wilson is the past-Chair (2014-17) of the Oregon Seismic Safety Policy Advisory Commission (OSSPAC) and previously worked for Oregon Emergency Management as the Earthquake, Tsunami, and Volcano Programs Coordinator and for five years as a Mitigation Reservist with FEMA Regions IX and X.

Jay is a former Resilience Fellow with the National Institute of Standards and Technology during the development of the 2015 Community Resilience Planning Guide. He is a member of the Earthquake Engineering Research Institute and has completed post-earthquake reconnaissance trips to Japan (2011) and Central-Italy (2017). Jay holds an M.A. in geography and a B.A. in film and lives in Portland, Oregon.

SUPPLEMENTAL ACTIVITES

Discussion Panel with Graduate Students

Two discussion panels in a group of around 10 participants are hosted to make students have an opportunity to talk with visiting professional in the topics ranging from the big picture of seismic risk mitigation to the experience in working for the government.



Lunch with Students and Faculty Members

Before the guest lecture, Mr. Jay had lunch with members of the EERI Graduate Student Chapter and Professor Luis Ceferino at The Faculty Club at UC Berkeley. We discussed Mr. Jay's recent and past projects, focusing on the challenges he faced and the importance of building trust in relationships. The lunch break was relaxing, filled with joy and laughter. The lunch provided an opportunity for everyone to discuss potential collaborations between research in civil engineering and practical applications in the field, aiming for significant progress.

Campus Tour & Laboratory Tour

After his lecture, Mr. Jay took a little break and then, accompanied by the president and Seminar Director of the EERI Student Chapter, visited Sather Tower to enjoy the view of the San Francisco Bay Area. Afterwards, we walked to Sather Gate and Sproul Plaza, where there were plenty of student activities and club booths, experiencing the vibrant energy of the UC Berkeley campus. Back at the Civil Engineering building, Mr. Jay visited the Structures Lab and checked out the ongoing RC wall tests.



RESULTS, FEEDBACK AND LESSONS LEARNED

We were glad to have Mr. Wilson visit, and it was awesome that all the events were so engaging. Setting up informal sessions made it easy for students to ask Mr. Wilson anything on their minds. Plus, his presentation gave us a lot of insight into how social and community values play a big role in shaping policies for better resilience.

ACKNOWLEDGEMENTS

The UC Berkeley EERI Student Chapter gratefully acknowledges the support of the Friedman Family for sponsoring the travel of Mr. Jay Wilson through their Friedman Family Visiting Professional Program endowment.

LIST OF ATTACHMENTS

- flier for event