FRIEDMAN FAMILY VISITING PROFESIONALS PROGRAM

Visit to University of Notre Dame: March 24th, 2023

This report summarizes the visit of **Mr. Jay Wilson** from Clackamas County Resilience Coordinator, Oregon that took place at the University of Notre Dame on March 24th 2022.

ITINERARY OR AGENDA

TIME:	ACTIVITY:
8:00 AM – 9:25 AM	Student Chapter President and Vice President meet & welcome the Visiting Professional over Breakfast at Rohr's in Morris Inn hotel on campus
9:25 AM – 10:15 AM	Attending Dr. Walsh's class "Resiliency of Engineering Systems" that has project presentations of students regarding to resilient portfolio management and community activities
10:30 AM – 11:00 AM	Meeting with faculty in the professional master's program (Dr. Fargier Gabaldon)
11:00 AM – 11:30 AM	Meeting with EERI faculty advisor (Dr. Taflanidis)
11:30 AM – 12:00 PM	Meeting with faculty (Dr. Brewick)
12:00 PM – 1:15 PM	Lunch with EERI graduate student members – informal discussion on career paths, challenges and other professional matters
1:30 PM – 3:00 PM	Guest lecture by Mr. Jay on "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"
3:00 PM – 4:15 PM	Personal schedule (Virtual meeting back in Oregon)
4:15 PM – 6:00 PM	Tour of Campus
6:00 PM – 8:00 PM	Dinner with student chapter members at local restaurant

STUDENT CHAPTER VISIT PLANNING COMMITTEE

LEAD ORGANIZER(S): WoongHee Jung, President of the student chapter, wjung2@nd.edu

- Christopher Irwin, Vice President of the student chapter, cirwin3@nd.edu
- Rachel Hamburger, Treasurer of the student chapter, rhambur2@nd.edu
- Alexandros Taflanidis, EERI faculty advisor, ataflani@nd.edu

External help from EERI community:

- Silvana Cobos, Friedman Family Visiting Professional Program coordinator, silvana@eeri.org

VISITING PROFESSIONAL LECTURE OVERVIEW

Mr. Jay's presentation 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" attracted a lot of attention in our university from both faculty and students. The lecture attracted at least 15 participants, with some of them coming even from different disciplines. Mr. Jay, as a resilience coordinator, was able to provide his valuable field experience, especially, regarding the Oregon's critical energy infrastructure hub. He showed vividly how vulnerable the hub is to not only earthquakes and other natural disasters, and how catastrophic it will be if it is failed. He also discussed issues and challenges in seismic mitigation for the hub with different perspectives such as engineering, climate adaptation, and even policy. Numerous questions were asked by the audience regarding the current policy for protecting the potential damage the hub could have and his personal opinion to get through those challenges. Mr. Jay was more than happy to discuss and elaborate on such questions offering his vision and problems he has already identified down the road.

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. Because nearly all of these hundreds of storage tanks holding hundreds of millions of gallons were built prior to seismic design codes, they are expected to have cascading failures during our expected M9.0 earthquake – 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 actually compete for political attention and funding. 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

Lunch with EERI graduate student members

Mr. Jay had lunch with members of the EERI Graduate Student Chapter and was able to describe his career path and the challenges he encountered during his work. He was excited to discuss current and past projects along with any problems he has encountered stressing the importance of building trust with people. Especially, he shared his experience during post-earthquake reconnaissance trip to Japan and Italy supported by the EERI that was regarding to how devastating an earthquake can be to a society and how important resilience planning is to people's safety. He also provided some valuable advice to students who want to get a job in industry. Overall, lunch time proved to be a relaxing time that both Mr. Jay and the members took advantage to ask questions and engage in fruitful conversations on how research in civil engineering and the civil engineering profession can collaborate and provide significant advancements.

Tour of Notre Dame Campus

Mr. Jay towards the end of his visit took a private guide tour accompanied also by the president and vice president of the EERI Student Chapter around Notre Dame Campus. Although the weather was cloudy and windy for the season, he was able to see the most iconic campus structures, including the Basilica, the grotto, the Main Building with the Golden Dome, Hesburgh Library and the Notre Dame Stadium with some interesting information for those icons. Mr. Jay had some time to relax and to stop by the bookstore on campus to get some souvenir.

RESULTS, FEEDBACK AND LESSONS LEARNED

The EERI@ND Graduate Student Chapter is thankful that was selected for a third consecutive year to host a professional. The easy application process and the variety of professionals EERI is offering are two of the main advantages and reasons we are more than excited every year to participate in this program. We had been interested in hosting professionals who are structural engineers but, this year, we tried to be matched with a professional who has a different background. We were grateful that Mr. Jay who has a multidisciplinary expertise visited our campus. For the event, the participation was lower than expected (regarding undergraduate students), though we advertised his lecture to all students in the university. This was due to the fact that Mr. Jay's visit coincided with a midterm examination for undergraduate students that prevented them from attending. However, Mr. Jay received a warm welcome from the faculty in the department, since many of them expressed interest in meeting with him once his visit was announced. Summing up, from the chapter's perspective, Mr. Jay's visit is considered a highly successful event that showcased the interest the department has on earthquake engineering and resilience management to natural hazards, and the work that the chapter on its own is doing in serving the department's needs. Mr. Jay was a valuable source of information regarding industry and the challenges it entails, when it came to talking to graduate and master students, who he happily offered his contact information and further sources of information.

Description of other topics or disciplines the Student Chapter would like to cover in future visits, and related goals.

- Professionals that look into sustainability and connection to earthquake induced damages
- Professionals that are working on pre-disaster planning or earthquake risk assessment.

- Hold one lecture virtually every year that all members from all universities can attend (complementary to the in person FFVP program)

ACKNOWLEDGEMENTS

The EERI@ND 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.

The EERI@ND Student Chapter, would also like to thank the Faculty Advisor Dr. Taflanidis and the graduate student government for sponsoring part of Mr. Jay's activities while on campus and in South Bend.

LIST OF ATTACHMENTS

Included at the end of this report are various attachments to supplement the information included above. A list of the attachments is included below:

- Lecture's flyer that the EERI@ND team prepared for sharing with the university via email and creating posters across the department to advertise the event.
- Posters that the EERI@ND team prepared for sharing with the university via electric board in student centers to advertise the event.