

FRIEDMAN FAMILY VISITING PROFESIONALS PROGRAM

Visit to Portland State University: May 6, 2022



This report summarizes the visit of Ivan Wong from Lettis Consultants International, Inc. that took place at Portland State University on May 6, 2022.

ITINERARY OR AGENDA

Provide the itinerary of the visit.

TIME:	ACTIVITY:
9:30 – 10:30 AM	Introductions and tour of iStar lab
10:30 – 11:30 AM	Tour of geotechnical lab
11:30 AM – 12:30 PM	Meet and greet with civil engineering students
12:30 – 1:30 PM	Lunch
1:30 – 3:30 PM	Presentation, questions, and wrap up

STUDENT CHAPTER VISIT PLANNING COMMITTEE

LEAD ORGANIZER(S): Stephanie Meister, Chapter Vice President & Outreach Coordinator, shyder@pdx.edu

- Dr. Diane Moug, Faculty Advisor, dmoug@pdx.edu

VISITING PROFESSIONAL LECTURE OVERVIEW

Briefly describe the Visiting Professional's presentation, and attendee response. Include photos if applicable.

Lecture Abstract

KEEPING UP WITH THE SCIENCE FOR SEISMIC DESIGN IN PORTLAND AND THE PACIFIC NORTHWEST

Our understanding of the sources of earthquakes in the U.S., their rupture process, and associated ground motions has been rapidly evolving in the past few decades. This is not surprising given the youthfulness of earthquake sciences in the U.S. and globally and with the emergence of new scientific techniques. Because of this challenge, it is imperative that those performing seismic hazard evaluations for critical and important infrastructure keep pace with the state of the science and that owners and regulators require that evaluators not only look critically at the available information but perform sufficient analyses to ensure that the design of new infrastructure and safety evaluations of existing infrastructure are grounded in the best science. It is equally important to recognize that because the state of our knowledge in earthquake science in the U.S. is rapidly evolving, the quantification of *epistemic* uncertainties needs to be properly incorporated into any probabilistic seismic hazard and risk-informed analysis framework. My presentation will focus on issues that I believe have emerged in the past decade that should be addressed in the site-specific design or safety evaluations of important and critical infrastructure in the Portland area and the Pacific Northwest.

Professional Bio

Ivan Wong is a Senior Principal Seismologist with Lettis Consultants International in Concord, California. He is an internationally recognized expert in seismic hazard evaluations with more than 45 years of experience. A major focus in his career has been earthquake hazard reduction and awareness and public outreach. Ivan has directed the seismic hazard evaluations of more than 700 critical and important facilities worldwide including some of the largest seismic hazard evaluations performed in the U.S. such as the Yucca Mountain Project. For FEMA, Ivan has been involved in the education and implementation of the seismic risk assessment software HAZUS in several regions in the U.S. He has been the recipient of numerous NEHRP external research grants from the U.S. Geological Survey that have supported the development of urban probabilistic and scenario hazard maps and other earthquake hazard-related studies.

In addition to his work, Ivan has been actively involved in the activities of several professional organizations including past member of the Earthquake Engineering Research Institute (EERI) Board of Directors. He has served as an Associate Editor for the Seismological Society of America for more than 20 years. He has been or is a member of numerous scientific and engineering committees, panels, and working groups and has been particularly active in serving the USGS. In 2017, Ivan was appointed by Governor Jerry Brown to serve on the California State Seismic Safety Commission.

SUPPLEMENTAL ACTIVITIES

Tour of PSU's Infrastructure Testing and Applied Research (iStar) Lab

Mr. Wong was given a tour of PSU's structural engineering lab by a structural graduate student.

Tour of PSU's Geotechnical Testing Lab

Mr. Wong was given a tour of PSU's geotechnical lab by a geotechnical undergraduate student.

Lunch with undergraduate and graduate students

Several undergraduate and graduate students joined Mr. Wong for a catered lunch.

RESULTS, FEEDBACK AND LESSONS LEARNED

Brief description of challenges during the process, general reception of the program and Visiting Professional. Also, a description of other topics or disciplines the Student Chapter would like to cover in future visits, and related goals.

- The visiting professional process was a little rough this year. Despite inter-student and community flyers attendance was low this year, for both Mr. Wong's lecture and the supplemental activities.
- Notwithstanding the low student turn-out, several physics students at PSU joined in on the provided lunch with Mr. Wong.
- In the past six years, we have been fortunate to have five guest lecturers as part of the Friedman Family Visiting Professional program. We would like to expand on the topics being presented to include a structural engineering lecture. The EERI chapter at PSU mostly consists of geotechnical students, which makes it difficult to attract students who are structurally focused to group activities.

ACKNOWLEDGEMENTS

The Portland State University EERI Student Chapter gratefully acknowledges the support of the Friedman Family for sponsoring the travel of Ivan Wong through their Friedman Family Visiting Professional Program endowment.

The PSU EERI Student Chapter also gratefully acknowledges the support of the Portland State University Civil Engineering Department in helping to communicate this lecture within the community.

LIST OF ATTACHMENTS

Included at the end of this report is a flyer for Mr. Wong's lecture to supplement the information included above.



PORTLAND STATE

Civil & Environmental Engineering



"KEEPING UP WITH THE SCIENCE FOR SEISMIC DESIGN IN PORTLAND AND THE PACIFIC NORTHWEST"



Guest Speaker: Ivan G. Wong

WHEN?

**FRIDAY, MAY 6TH
FROM: 2:00 - 3:30
UNIVERSITY POINTE 102**

WHERE?