FRIEDMAN FAMILY VISITING PROFESIONALS PROGRAM

Visit to Cal Poly San Luis Obispo: May 29, 2025

This report summarizes the visit of Ivan Wong from Lettis Consultants, International, Inc. that took place at California Polytechnic State University, San Luis Obispo on May 29, 2025.

ITINERARY OR AGENDA

Wednesday, May 28, 2025	
TIME:	**ACTIVITY:**
6:30 PM – 8:00 PM	Welcome dinner with ARCE faculty and EERI student chapter members.
Thursday, May 29, 2025	
TIME:	**ACTIVITY:**
8:00 AM – 9:00 AM	Breakfast with ARCE department head.
9:00 AM – 9:15 AM	Visiting professional driven to campus.
9:15 AM – 10:25 AM	Tour of CAED lab and shop facilities relevant to EERI disciplines, given by ARCE students and faculty.
10:30 AM – 11:00 PM	Preparations for guest lecture.
11:10 AM – 12:00 PM	Guest lecture by visiting professional to EERI/SEAOC student chapter members.
12:00 PM – 1:00 PM	Lunch with ARCE faculty.
1:10 PM – 2:00 PM	Informal meeting with department undergraduate and graduate students, to discuss ongoing projects and research.
2:10 PM – 3:00 PM	Meeting with ARCE faculty conducting EERI-related research and coursework.
3:00 PM – 4:00 PM	Tour of Outdoor Poly Canyon Architectural Experimental Facility with ARCE students.
4:00 PM – 4:15 PM	Visiting professional driven to hotel.

Notes:
CAED = College of Architecture and Environmental Design
ARCE = Department of Architectural Engineering

STUDENT CHAPTER VISIT PLANNING COMMITTEE

LEAD ORGANIZERS:

Student Organizers
- Jack Evans, Chapter Co-President, jevans41@calpoly.edu
- Molly Rojec, Chapter Co-President, mrojec@calpoly.edu
- Kenzie Brown, Co-Logistics Lead, kbrow127@calpoly.edu
- Vera Nguyen, Co-Logistics Lead, vnguy245@calpoly.edu

Faculty Organizers
- Anahid Behrouzi, Chapter Faculty Advisor, behrouzi@calpoly.edu

VISITING PROFESSIONAL LECTURE OVERVIEW

Ivan Wong presented to a group of about 70 undergraduate and graduate engineering students from the EERI and SEAOC chapters about what notable earthquakes have taught us about fault rupture behavior, strong ground shaking, surface fault rupture, liquefaction, and tsunami inundation as well as how to better predict the impacts of these earthquake hazards. The students were very receptive and excited about his talk. Lunch was provided to attending students which was co-sponsored by the Cal Poly SLO EERI and SEAOC chapters.

Lecture Abstract – "The Latest and Greatest in Earthquake Science and the Implications to Seismic Design and the Building Code in California"

The advancement in our understanding of earthquake hazards has been, in a large sense, a stepwise process with developments following every major earthquake. Over the past three to four decades, significant progress has been driven by advancements in technology; i.e., GPS and LiDAR, as well as observations of the earth's changing surface. Since the 1989 moment magnitude (M_w) 6.9 Loma Prieta earthquake, a series of major seismic events have deepened our understanding of fault rupture behavior, strong ground shaking, surface fault rupture, liquefaction, and tsunami inundation. This allows us to more accurately predict the impacts of these hazards, while scientific research in the U.S. has strengthened the fields of earthquake engineering and seismic design. Additionally, critical infrastructure projects have been instrumental in improving our capacity to design and build earthquake-resistant structures, with the goal of safeguarding human life and remaining fully functional after a major seismic event.

Professional Bio

Ivan Wong is a Senior Principal Seismologist at Lettis Consultants International with 50 years of experience in seismic hazard analysis. He's been an active member of EERI for 47 years and served on the Board of Directors, as President of the Northern California chapter, as a Safety of Schools Safety of Schools Safety Initiative founding member, and on numerous committees. He is also very active in USGS and currently serves on the Steering Committee for the National Seismic Hazard Model. Additionally, he was appointed to the California State Seismic Safety Commission from 2017 to 2021.

Ivan has authored and co-authored over 400 professional publications and directed the evaluation of more than 700 critical facilities worldwide. He has received 20 USGS NEHRP external research grants, supporting the development of urban probabilistic scenario hazard maps, and other hazard-related studies. He is passionate about public outreach for earthquake hazards reduction and has taught at hundreds of events for schools, universities, and professional organizations.

SUPPLEMENTAL ACTIVITES

Dinner with Ivan Wong

Ivan Wong and his wife had dinner with six members of the Cal Poly San Luis Obispo EERI Student Chapter, the Cal Poly EERI Student Chapter faculty advisor, and the ARCE Department Head. This was a great introduction to the ARCE program and culture as well as a valuable opportunity to learn more about Ivan's background and involvement.

Meeting with the Architectural Engineering Department Head

Ivan had breakfast with the ARCE department head and learned about the state of the department and its mission to provide students with the skills and connections needed to thrive in industry.

Tour of CAED Facilities

Cal Poly architectural engineering students showed Ivan around the various CAED facilities including the High Bay Lab, Berridge Lab, Seismic Lab, Concrete Lab, Wood and Metal Shops, and Digital Fabrication Lab. Ivan saw the many opportunities for Cal Poly's "Learn by Doing" philosophy as students were able to discuss their coursework and the types of research performed in each space.

Student Project Presentations

Ivan saw presentations and gave feedback on various undergraduate and graduate student projects. Projects included a seismic health monitoring system for moment frame connections, a canopy structure, the design of composite beams, and two conceptual skyscraper projects as part of an architectural design studio.

Tour of Poly Canyon Architectural/Structural Experimental Facility

3 students showed Ivan around the Poly Canyon Architectural/Structural Experimental Facility. This outdoor space has around 30 student designed and built structures dating back to 1964, demonstrating Cal Poly's "Learn by Doing" philosophy. Ivan learned about the history of the facility, as well as plans for renovations and new projects.

RESULTS, FEEDBACK AND LESSONS LEARNED

- Ivan was very impressed with Cal Poly SLO's faculty, students, and facilities and greatly enjoyed his time on campus. The students and professors of Cal Poly equally enjoyed spending time with Ivan, showcasing their hard work, and learning about seismic hazards in addition to all his unique experiences.
- This process was generally very smooth, but one challenge faced was the scheduling of presentations. The chapter wanted to display as many graduate projects as possible but had a difficult time scheduling them because the visit was during a busy time of the school year.
- In the future, the Cal Poly SLO Student Chapter would love to host another Friedman Family guest. It would be interesting to learn even more about geotechnical engineering and soil/structure interaction as the ARCE curriculum does not focus on it.

ACKNOWLEDGEMENTS

The Cal Poly SLO EERI Student Chapter gratefully acknowledges the support of the Friedman Family Visiting Professionals Program for sponsoring the travel of Ivan Wong through their endowment. The lunch provided during the guest speaker presentation was co-funded by the Cal Poly SLO EERI Chapter through their affiliated Earthquake Engineering Fund, supported via private firms and organizations, as well as the Cal Poly SLO SEAOC student chapter.

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:

- Item 1, Flier for Event
- Item 2, Picture of Ivan Wong's Lecture
- Item 3, Picture of Tour of Tour at Poly Canyon Architectural Experimental Facility

Item 1

SEISMIC HAZARD ANALYSES

WITH GUEST SPEAKER

ABOUT :

What can decades of earthquakes teach us about keeping our communities safe?
Join us as Ivan Wong, Senior Principal Seismologist at Lettis Consultants International, shares insights from his nearly 50-year career advancing earthquake hazard science and risk reduction. From directing seismic evaluations for over 700 critical facilities to shaping national hazard models and seismic design standards, Ivan has been a leading force in understanding and mitigating earthquake risks.

LUNCH INCLUDED!

WHEN :

Thursday, May 29th, 2024
from 11:10pm - 12:00pm

WHERE :

KTGY Gallery (Bldg. 21, Room 105A)

Questions? Please contact Anahid Behrouzi at behrouzi@calpoly.edu

IVAN WONG, PG

Senior Principal Seismologist, Lettis Consultants International

Item 2


FRIEDMAN FAMILY VISITING PROFESSIONALS PROGRAM
supported by a generous endowment from the Friedman Family
The Latest and Greatest in Earthquake Science and the Implications to Seismic Design and the Building Code in California
Ivan G. Wong
Senior Principal Seismologist
Lettis Consultants International
Concord, CA
California Polytechnic State University
29 June 2025


FRIEDMAN FAMILY VISITING PROFESSIONALS PROGRAM
The Latest and Greatest in Earthquake Science and the Implications to Seismic Design and the Building Code in California

Item 3