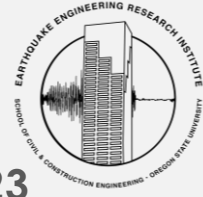


# FRIEDMAN FAMILY VISITING PROFESSIONALS PROGRAM

## Visit to Oregon State University: April 24-25, 2023



This report summarizes the visit of **Jim Malley** from Degenkolb Engineers that took place at Oregon State University on April 24-25, 2023.

### ITINERARY OR AGENDA

#### MONDAY, APRIL 24<sup>th</sup>, 2023

TIME:	ACTIVITY:
6:00 PM – 7:00 PM	Student chapter officers meet Visiting Professional for dinner at local restaurant (Sky High Brewing)

#### TUESDAY, APRIL 25<sup>th</sup>, 2023

TIME:	ACTIVITY:
8:45 AM – 9:00 AM	Student chapter officers welcome Visiting Professional to campus
9:00 AM – 10:00 AM	Meeting with Dr. Erica Fischer
10:00 AM – 11:00 AM	Informal coffee hour on campus with department graduate students
11:00 AM – 11:30 AM	Meeting with Dr. Judy Liu
11:30 AM – 12:00 PM	Catered lunch on campus
12:00 PM – 1:00 PM	Guest lecture by Visiting Professional
1:15 PM – 1:45 PM	Meeting with Dr. Chris Higgins & tour of O.H. Hinsdale Wave Research Laboratory
2:15 PM – 3:00 PM	Meeting with Dr. Andre Barbosa & tour of Emerson Advanced Wood Products Laboratory
3:00 PM – 4:00 PM	Happy Hour with student chapter officers at local restaurant (Downward Dog)

### STUDENT CHAPTER VISIT PLANNING COMMITTEE

#### LEAD ORGANIZER(S):

- Alex Saccente, Event Coordinator & Industry Outreach Chair, [saccenta@oregonstate.edu](mailto:saccenta@oregonstate.edu)
- Amy Metz, Treasurer & Event Coordinator, [metzamy@oregonstate.edu](mailto:metzamy@oregonstate.edu)
- Tanner Field, President, [fieldt@oregonstate.edu](mailto:fieldt@oregonstate.edu)
- Erica Fischer, Faculty Advisor, [erica.fischer@oregonstate.edu](mailto:erica.fischer@oregonstate.edu)

### VISITING PROFESSIONAL LECTURE OVERVIEW

Jim Malley's presentation focused on innovation in the seismic design of steel structures. The presentation addressed numerous innovative concepts and techniques for engineers to consider in future designs, including: architectural design/configuration; system selection and development; high-performance materials and products; structural analysis modeling; and connection design. Jim also presented on EERI and the organization's activities. The presentation had about 15 attendees present (a combination of undergraduate, graduate students, and faculty) with catered lunch provided.

## Lecture Abstract

*Earthquake ground motions create some of the greatest challenges to the performance of buildings and other structures. The size and character of future earthquakes are largely unknown and designing for the largest earthquakes requires creative designs that rely on ductile response of the structures to resist the shaking without collapse or for very large and/or important buildings with limited damage. Many innovative approaches to seismic design of steel and composite structures are available to engineers to achieve this goal. This presentation will address numerous innovative concepts and techniques for engineers to consider in future designs, including:*

- *Architectural Design/Configuration*
- *System Selection and Development*
- *High-Performance Materials and Products*
- *Structural Analysis Modeling*
- *Connection Design*

*Examples will be provided that identify some of the creative and exciting ways structural engineers can tackle the challenges presented by major earthquakes.*

*As this presentation is a part of the EERI Friedman Family Visiting Professionals Program, the lecture will also include a short presentation on EERI and its' activities.*

## Professional Bio

Jim Malley, S.E., is a Senior Principal and COO with Degenkolb Engineers. He received both his B.S. and M.Eng. degrees from the University of California at Berkeley. Mr. Malley has 40 years of experience in the seismic design, evaluation, and rehabilitation of building structures, and is involved in the peer review of numerous innovative tall building projects. He was responsible for the analytical and testing investigations performed as part of the SAC Steel Project in response to the Northridge earthquake damage. Mr. Malley is Chair of the AISC Specifications Committee and the Past-Chair of the AISC Seismic Subcommittee. Jim has served as a member of the Board of Directors and as President of SEAONC (2000-2001), SEAOC (2003-2004), and NCSEA, (2010-2011). Mr. Malley was also a member of the Board of Directors and Vice President of EERI, and was co-Chair of the 11NCEE in 2018. In 2020, he served President of the Board of Directors of the Applied Technology Council. Mr. Malley was elected to the National Academy of Engineering in 2021 for his contributions to the advancement of seismic design.

## SUPPLEMENTAL ACTIVITIES

### Informal Coffee Hour on Campus with Department Graduate Students

This event was an opportunity for our Visiting Professional to meet graduate students within the department. Students were able to discuss their research, career interests, and student club involvement with Jim Malley. Jim talked about a range of experiences he has had throughout his career, and students asked a variety of questions to learn more about the life of a structural engineer. About 10 students were in attendance and coffee and muffins were provided.

### Guest Lecture by Visiting Professional

This event was the main lecture from our Visiting Professional. Jim gave his talk to a variety of students and faculty in attendance (about 15), and lots of questions were asked at the end of his presentation. Catered lunch was provided. A flyer that was distributed within the department for Jim's presentation is attached to the end of this report.

### Various Meetings with Faculty

Our Visiting Professional had the opportunity to meet with 4 faculty members (individually) within the department to discuss ongoing research and industry-related topics. In addition, Jim had the opportunity to attend tours of 2 OSU top-of-the-line research facilities led by faculty and learn about current research and lab experiments.

## RESULTS, FEEDBACK AND LESSONS LEARNED

Our main challenge faced was promoting the main Visiting Professional presentation, and finding a time in the day that would maximize attendance and not interfere with many department classes. We had a good turnout, but next year, we will work to promote the event earlier to gain more attendance (especially undergraduate student attendance). In addition, for next year, we would like to include a formal session during the day focused on career guidance for graduating students. Overall, the visit was well organized, and our Visiting Professional was impressed by OSU's research activities and enjoyed meeting a variety of students within the department. The student chapter officers enjoyed getting to know Jim and making a great EERI connection. We are very appreciative to have had Jim visit OSU!

## ACKNOWLEDGEMENTS

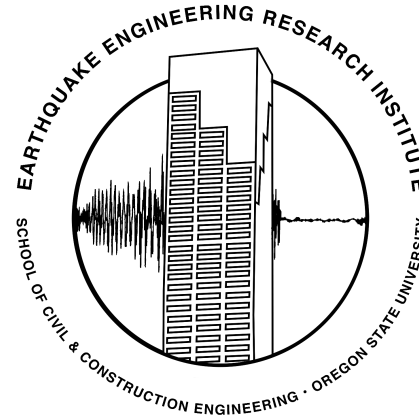
The Oregon State EERI Student Chapter gratefully acknowledges the support of the Friedman Family for sponsoring the travel of Jim Malley through their Friedman Family Visiting Professional Program endowment.

## LIST OF ATTACHMENTS

Included at the end of this report is the flyer used to promote the Visiting Professional lecture within the department.



**Oregon State University**  
**College of Engineering**



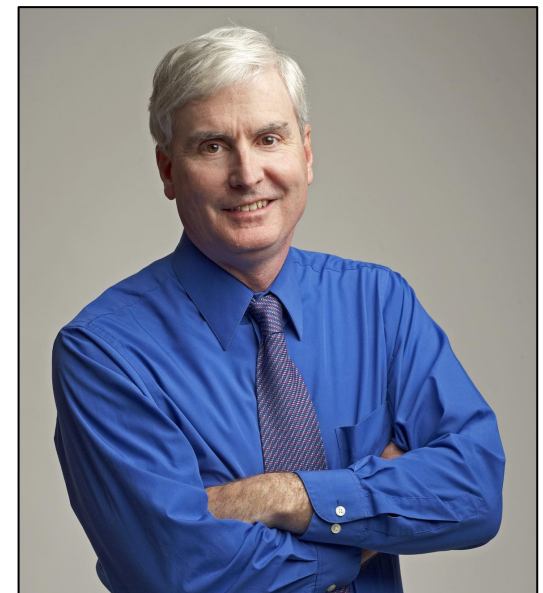
# **Innovation in the Seismic Design of Steel Structures**

## **EERI Friedman Family Visiting Professional Presentation**

### **Abstract:**

Earthquake ground motions create some of the greatest challenges to the performance of buildings and other structures. The size and character of future earthquakes are largely unknown and designing for the largest earthquakes requires creative designs that rely on ductile response of the structures to resist the shaking without collapse or for very large and/or important buildings with limited damage. Many innovative approaches to seismic design of steel and composite structures are available to engineers to achieve this goal. This presentation will address numerous innovative concepts and techniques for engineers to consider in future designs. Examples will be provided that identify some of the creative and exciting ways structural engineers can tackle the challenges presented by major earthquakes.

**James O. Malley, S.E.**  
**Senior Principal, Degenkolb Engineers**  
**San Francisco, CA, USA**



**Tuesday, April 25th, 12PM in Kearney 311**