

FRIEDMAN FAMILY VISITING PROFESIONALS PROGRAM



Visit to University of Stanford University: February 03, 2022

This report summarizes the visit of **Jim Malley** from Degenkolb Engineers that took place at Stanford University on February 3rd, 2022.

ITINERARY OR AGENDA

TIME:	ACTIVITY:
1:30 PM – 2:30 PM	Student Chapter meets & welcomes Visiting Professional to campus over lunch
2:30 PM – 3:30 PM	Roundtable discussions about the industry, career paths, and other topics, open to all EERI student chapter members.
3:30 PM – 4:00 PM	Break Before Lecture
4:00 PM – 5:00 PM	Friedman Family Visiting Professional Lecture, followed by Q&A session
5:00 PM – 5:30 PM	Post-Presentation Reception following the lecture.

STUDENT CHAPTER VISIT PLANNING COMMITTEE

LEAD ORGANIZER(S): Peter Lee, President: jlee6925@stanford.edu and Shu Xian Nian, Vice-President: snian@stanford.edu

- Nick Slavin, Outgoing President: nrslavin@stanford.edu
- Owen Zukowski, Treasurer: owzu4356@stanford.edu
- Abby Cripps, Secretary: cripps@stanford.edu
- Annalena Bellm, Activities Coordinator: abellm@stanford.edu
- Colleen Sharp, Outreach Coordinator: csharp2@stanford.edu
- Lauren Kercheval, Alumni Coordinator: lkerchev@stanford.edu
- Thomas Little, Seismic Design Competition Advisor: tjlittle@stanford.edu
- Maya Makinde, Media Chair: mmakinde@stanford.edu

VISITING PROFESSIONAL LECTURE OVERVIEW

Photos of the welcome lunch (left) and presentation (right) can be seen below.



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.

Professional Bio

James O. Malley, S.E., is a Senior Principal with Degenkolb Engineers. Mr. Malley has over 35 years of experience in the seismic design, evaluation and rehabilitation of structures and was responsible for the analytical and testing investigations performed as part of the SAC Steel Project in response to Northridge earthquake damage. Mr. Malley is the Chair of the AISC Specifications Committee and the Past-Chair of the AISC Seismic Subcommittee. He was named the 2010 T.R. Higgins Lectureship Award winner for his work on the AISC Seismic Provisions, and in 2012 was given presented with a Lifetime Achievement Award by AISC. Mr. Malley has served as a member of the SEAONC and SEAOC Board of Directors and was President of SEAONC in 2000-2001 and SEAOC in 2003-2004. He was named a SEAOC Fellow in 2007 and an Honorary Member of SEAONC in 2014. He also was a member of the Board of Directors of NCSEA, serving as President in 2010-2011. Mr. Malley also served as a member of the Board of Directors of EERI and is presently past President of the Applied Technology Council. He was also elected to the National Academy of Engineering in 2021 for his contributions to seismic design.

SUPPLEMENTAL ACTIVITIES

Welcome Lunch

The first activity was a welcome lunch, hosted by the student EERI chapter. Mr. Malley was hosted by five members of the student chapter board and the student faculty advisor, Professor Greg Deierlein at a restaurant on campus. Topics of discussion were informal and included past school and work experience and served as a good warmup for the next activity.

Roundtable Discussions

Following the welcome lunch, there was a roundtable discussion where students were encouraged to bring questions regarding professional development and industry trends to discuss with Mr. Malley. Students were encouraged to sign up for a 10-minute time slot, either individually or with colleagues, however, the actual event became more of a group discussion, with students arriving periodically throughout the hour. By the end of the event, there were around 15 total students present. Mr. Malley provided insight on his work with building codes and discussed different ways to apply and interpret them depending on the scenario. He also discussed

some challenges he faced in designing structures and some of the methods he used to overcome constraints placed on projects.

Post-Presentation Reception

After the conclusion of Mr. Malley's presentation, the EERI student chapter invited the attendees to the Engineering Quad terrace for an informal reception. Beer, nonalcoholic beverages, and light snacks were provided as students and faculty mingled. Approximately 40 of the 60 people that attended the lecture came to the reception.

RESULTS, FEEDBACK AND LESSONS LEARNED

The following points summarize a few of the key challenges, future plans, and lessons learned from this year's event.

- The key challenge of this visit was the transition back to in-person events. Due to the high number of cases on campus, Stanford's policy on in-person gatherings was constantly evolving throughout the planning process of this event. However, we are glad to have successfully hosted Jim on campus.
- Students appreciated the casual nature of the roundtable discussion that was not so structured similar to an interview format. This allowed them to ask more direct questions relevant to Jim's past experience, and the group format allowed participants to learn from others' questions.
- The lecture was held in conjunction with the Structural Engineering and Geomechanics seminar (CEE 298), which provided a solid platform in terms of securing a large lecture hall and boosted attendance when compared to previous visits. Our EERI student chapter plans to host future Friedman Family Visiting Seminars as CEE 298 in future years as well.
- Although the post-presentation reception was held outside, it was still a great opportunity for the general student audience to engage with Jim. This would not have been possible in the usual small-group dinner format, and the EERI student chapter aims to host similar receptions for future Friedman Family Visits.

ACKNOWLEDGEMENTS

The Stanford University 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. Additionally, the Stanford University EERI Student Chapter acknowledges support from the John. A Blume Earthquake Engineering Center at Stanford for providing funding for the welcome lunch and post-presentation reception.

LIST OF ATTACHMENTS

The following is an email attachment that was sent to all students and faculty in the Stanford Structural Engineering and Geomechanics program advertising the Friedman Family Visiting Professional Lecture (please note that the email attachment has been split between two pages for legibility). Additionally, this email included a link to sign up for the career roundtable discussions mentioned previously.

EE RI Friedman Family Visiting Professionals Program

Innovation in the Seismic Design of Steel Structures



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

James O. Malley, S.E., is a Senior Principal with Degenkolb Engineers. He received both his Bachelors and Masters Degrees from the University of California at Berkeley. Mr. Malley has over 35 years of experience in the seismic design, evaluation and rehabilitation of building structures. He was responsible for the analytical and testing investigations performed as part of the SAC Steel Project in response to the Northridge earthquake damage. In 2000, AISC presented Mr. Malley its' Special Achievement Award. Mr. Malley is Chair of the AISC Specifications Committee and the Past-Chair of the AISC Seismic Subcommittee. He was named the 2010 T.R. Higgins Lectureship Award winner for his work on the AISC Seismic Provisions, and in 2012 was given presented with a Lifetime Achievement Award by AISC.

**Thursday, February 3, 2022
4:00pm PST (GMT-8)**

Sign up for Career Roundtable

As an EERI-sponsored program, this lecture will be accompanied by a series of events.

Roundtable Discussion (2:30PM-3:30PM)

Join us and have a casual conversation with Mr. Malley about career prospects, what interviewers look for in interviews, and the future of our profession as a whole.

Friedman Family Lecture (4:00PM-5:00PM)

The lecture will be held in Shriram 104 in conjunction with CEE 298.

Post-Seminar Reception (5:00PM-5:30PM)

Come to Y2E2 3rd floor terrace after the lecture to mingle with Mr. Malley and SEG faculty and students.

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:

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