FRIEDMAN FAMILY VISITING PROFESIONALS PROGRAM

Visit to San Jose State University: March 10, 2015

This report summarizes the visit of **Janiele Maffei** from California Earthquake Authority that took place at San Jose State University on March 10, 2015.

ITINERARY

TIME	ACTIVITY
11:30 AM – 11:45 AM	Student Chapter officers meet and welcome Visiting Professional to campus; set up of Lunch and Learn presentation.
12:00 PM – 1:00 PM	Lunch and Learn Presentation: lecture given by Visiting Professional to Student Chapter members.
1:00 PM – 1:15 PM	Question and answer session.
1:30 PM – 2:30 PM	Lunch with Student Chapter officers
2:45 PM – 3:10 PM	Set up for Evening Lecture.
3:15 PM – 4:00 PM	Evening Lecture: lecture given be Visiting Professional to students in Steel Design course.
4:00 PM – 4:30 PM	Question and answer session.
4:30 PM – 5:00 PM	Set up for informal meeting.
5:00 PM – 6:00 PM	Informal meeting with Civil Engineering students where they discuss topics chosen by students (e.g. requested insight on student projects, engineering profession, EERI membership)

STUDENT CHAPTER VISIT PLANNING COMMITTEE

LEAD ORGANIZER: Mary Nguyen, Event Coordinator, nguyen.mary93@gmail.com

- Mary Tong Nguyen, President, mnguyent93@gmail.com
- Daniel Boyett, Vice President, daniel.b.boyett@gmail.com
- Angelica Cabal, Treasurer, angelicadcc87@gmail.com
- Kelvin Munar, Member, kelvin.munar@sjsu.edu

Professors Kurt McMullin and Thalia Anagnos, faculty advisors to the student chapter, also assisted in the organization of this event.

VISITING PROFESSIONAL LECTURE OVERVIEW

Janiele Maffei's visit was separated into two lectures, each approximately one hour long. The first lecture was presented as a "Lunch and Learn," a presentation format popular among students in the department. This presentation was intended for EERI student members and Civil Engineering students interested in EERI or seismic design. The second lecture was presented to students in Professor McMullin's undergraduate Steel Design class, although all engineering students were invited to attend.

Lunch and Learn Presentation

Ms. Maffei's Lunch and Learn presentation was preceded by a brief overview of EERI, its resources, and Ms. Maffei's involvement with the organization. The main topic of the lecture was the August 2014 South Napa earthquake. Ms. Maffei presented findings from her reconnaissance work last year, which included photographs of structural and non-structural damage and a prelude to the evening presentation on seismic retrofitting and damage mitigation.

Figure 1: EERI-SJSU members and Civil Engineering students attend Ms. Maffei's noon presentation on the Napa Earthquake.

Twenty-five students, predominantly members of the Student Chapter, attended the lecture. Attendees participated in a lively discussion of the hazards caused by the earthquake, making full use of the time allotted for questions. Structural engineering students responded particularly well to Ms. Maffei's discussion of seismic retrofitting for various buildings and structures.

Evening Lecture

The topic of the evening lecture was the Earthquake Brace + Bolt Program, a mitigation program for single family homes which Ms. Maffei designed and manages for the California Earthquake Authority. This presentation included more technical content, as it was tailored to structural engineering students. Ms. Maffei's evening presentation also introduced various agencies and entities involved with mitigation projects such as Brace + Bolt, and the current challenges such initiatives faced.

Figure 2: Ms. Maffei gives an overview of the Brace + Bolt Program to senior students in Steel Design.

Roughly 40 students from Professor McMullin's class and 4 Student Chapter members attended the lecture. Attendees were as equally attentive as during the Lunch and Learn presentation, and a deeper discussion on seismic design and research followed the presentation. Having focused mainly on large structures or commercial buildings, many students gained new insights on the scope of problems structural engineers could face; the focus on family dwellings clearly hit close to home for many students.

Lecture Abstract

The two lectures focused on the 2014 South Napa Earthquake reconnaissance and initiatives undertaken by the California Earthquake Authority to mitigate damage from future earthquake. The first presentation served as a "primer lecture" for students unfamiliar with seismic design or with EERI. An overview of the seismicity in Napa was presented, and led into the findings from reconnaissance work completed during 2014. The findings showcased the structural and non-structural damage sustained by structures in Napa and the community's response. The presentation also briefly discussed methods of seismic retrofitting, including cripple wall bracing for residential buildings.

The second lecture expanded on the retrofitting measures previously discussed and highlighted the mission of the Earthquake Brace + Bolt (EBB) Program, a mitigation program run by the California Earthquake Authority. The EBB Program seeks to encourage prescriptive guidelines for retrofitting single family dwellings, incentivize mitigation efforts through funding opportunities for qualified homes, and educate homeowners about earthquake mitigation.

Professional Bio

Janiele Maffei is Chief Mitigation Officer of the California Earthquake Authority in Sacramento, California. She is a graduate of UC Berkeley, where she obtained her AB degree in architecture and an MS in civil engineering. Maffei is a registered structural engineer who has worked in the earthquake engineering industry for over 30 years. Her experience includes the design of new building structures and seismic strengthening of existing structures. She designed, launched and is now operating the Earthquake Brace + Bolt Program for the CEA, which provides resources and knowledge to homeowners trying to retrofit their wood-frame homes.

SUPPLEMENTAL ACTIVITES

Lunch with Student Chapter Officers

A lunch break at a nearby café followed Ms. Maffei's Lunch and Learn presentation. Ms. Maffei was joined by three Student Chapter officers and Professor Anagnos. Student Chapter officers took the opportunity to informally speak with Ms. Maffei about the earthquake engineering industry and shared their progress on their competition entry to the EERI Undergraduate Seismic Design Competition, in addition to discussing setbacks and difficulties faced.

Informal Meeting with Civil Engineering Students

The final hour of Ms. Maffei's visit was allotted for an informal meeting with Civil Engineering students. The intended goal was to provide students with an opportunity to speak with an industry professional in a casual setting on any topic of the students' choosing and to gain a professional's insights on student design projects. Unfortunately, not as many students attended as was hoped for. Two Student Chapter officers and one alumnus of the department attended the meeting. Attendees discussed a variety of topics, including finding work after graduation, Ms. Maffei's educational background in Architecture and Civil Engineering, and benefits of being an EERI member after graduation.

RESULTS, FEEDBACK AND LESSONS LEARNED

The main challenge of the visit was garnering more interest from students in the department. On the day of the visit, another, more well-established student organization held its own afternoon professional lecture. As a result, the attendance of Ms. Maffei's Lunch and Learn lecture was not as high as it could have been, despite having been planned and advertised much sooner.

Another challenge was effectively advertising the visit. Flyers (see item 1, attached) were printed and distributed around the department and event coordinators used social media (Facebook) to publicize the event; however, due to some confusion among the coordinators, not all sessions were advertised until a couple of days before the event. As a result, most students were aware of the lectures, but few knew about the informal meeting until the day of the visit. In the future, in order to reach out to as many students as possible, the Student Chapter will communicated more actively with all student organizations in the department. The Student Chapter will also reach out to the College of Engineering to help publicize the

event to students in other engineering department. Finally, the Student Chapter will ensure that announcements about the event, whether in the form of physical flyers or social media, are consistent, comprehensive, and distributed in a timely manner.

Despite these challenges, the reception of the program was strong. Students who attended responded well to the learning opportunities provided at both lectures, and thought Ms. Maffei's lectures were easy to follow, interesting, and extremely informative. Students who attended both lectures appreciated the variety of topics Ms. Maffei presented, and the fact that her second lecture delved further into topics briefly mentioned in her first lecture. Students also appreciated the opportunity to speak to Ms. Maffei immediately after the lectures.

The overall success of Ms. Maffei's visit has provided the Student Chapter with a springboard for planning and hosting future professional visits. Future topics the Student Chapter would be interested in covering include seismic design in steel and concrete structures, geotechnical topics related to earthquakes, and projects or studies related to earthquake engineering that involve disciplines outside of engineering. Such topics would aid the Student Chapter in working toward its mission to educate engineering students about earthquake engineering and seismic design.

ACKNOWLEDGEMENTS

The San Jose State University EERI Student Chapter gratefully acknowledges the support of the Friedman Family for sponsoring the travel of Janiele Maffei through their Friedman Family Visiting Professional Program endowment. The Student Chapter would also like to thank Ms. Maffei for her invaluable knowledge and expertise, and for agreeing to visit the university and speak to students.

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: Event Flier

EARTHQUAKE ENGINEERING RESEARCH INSTITUTE

San Jose State University

Student Chapter

FRIEDMAN FAMILY PROFESSIONAL VISIT

MARCH 10

Join us for a special visit from EERI board member and Chief Mitigation Officer of the CEA, Janiele Maffei.

For more information about the sessions and to RSVP, please visit: http://on.fb.me/1KyoZ7o

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https://www.facebook.com/EERIatSJSU