

FRIEDMAN FAMILY VISITING PROFESSIONALS PROGRAM

NC STATE
UNIVERSITY



Visit to North Carolina State University: March 22, 2023

This report summarizes the visit of **Lindsey Maclise** from Forell | Elsesser Engineers that took place at North Carolina State University on March 22, 2023.

AGENDA

TIME:	ACTIVITY:
8:30 AM – 10:00 AM	Breakfast with Faculty members at a local restaurant
10:00 AM – 11:00 AM	Informal meeting with department Ph.D. students for career guidance
11:00 AM – 11:30 AM	Tour of the Constructed Facilities Laboratory with graduate students
11:30 AM – 12:45 AM	Lunch with student chapter leadership at a local restaurant
1:00 PM – 2:30 PM	Mock presentation of the EERI Seismic Design Competition team
2:30 PM – 3:45 PM	Guest lecture
3:45 PM – 4:00 PM	Informal meeting with department masters students for career guidance
4:00 PM – 4:15 PM	Tour of Hunt Library at Centennial Campus

STUDENT CHAPTER VISIT PLANNING COMMITTEE

LEAD ORGANIZERS:

- Julio Samayoa (President), jsamayo@ncsu.edu
- Ana Paula Bona (Vice President), abonaba@ncsu.edu
- Dr. Mervyn Kowalsky (Faculty Advisor), kowalsky@ncsu.edu

VISITING PROFESSIONAL LECTURE OVERVIEW

The lecture was hosted in person with a total of 14 attendees, including undergraduate research students, graduate students from structural backgrounds, as well as faculty members. It was an interactive presentation where we could ask our questions and make our comments during her lecture. It allowed everyone to participate and bring exciting ideas to the talk!



Figure 1: Guest lecture given by Lindsey Maclise

Lecture Abstract

In this seminar, Lindsey Maclise shared more about her work on EERI, her personal work with EERI in Ghana regarding school seismic safety, the impacts of the built environment on climate change, and how we, as engineers, quantify this through the life cycle analysis. She also discussed how earthquakes and other natural disasters disproportionately impact our most vulnerable populations and the lead role that engineers can have in creating change.

Professional Bio

Lindsey is a Principal at Forell Elsesser with over 15 years of experience in the structural engineering field, during which she has led the engineering effort for many large and complex projects. Lindsey received both a Bachelor's and Master's degree from UC Berkeley, where she is currently serving as a member of the Civil and Environmental Engineering (CEE) Advisory Board. Lindsey is also an active member of the Earthquake Engineering Research Institute and has been named a Housner Fellow of the EERI.

Lindsey is passionate about sustainability for the built environment and leads many efforts that promote the design, construction, and operation of buildings that are environmentally responsible and healthy places to live and work. Lindsey currently leads Forell Elsesser's Carbon Neutral Initiative, which takes progressive action to help reduce, educate, and implement carbon reduction design strategies in structural systems. Lindsey also served as past chair of the Structural Engineers Association of Northern California (SEAONC) Sustainable Design Committee and has given many presentations on sustainable design and the vital role that structural engineers can play to design more sustainable and resilient structural systems. In addition, she has lectured nationally and has written many reports and papers that focus on sustainable design strategies for the built environment.

SUPPLEMENTAL ACTIVITIES

Informal meetings with students

Throughout the day, Lindsey met with six graduate students in pairs to talk about her path to becoming a well-established professional in the earthquake engineering field, and career guidance, including tips on how to take more advantage of our years in graduate school, how to approach the job market, what is the routine of a structural engineer in California, how to have a work-life balance, and so much more. It was great to hear all the valuable advice Lindsey had to share with all!



Figure 2: Group picture following Lindsey Maclise's lecture

Laboratory tour

Two graduate students welcomed Lindsey Maclise to tour the Constructed Facilities Laboratory (CFL) in Centennial Campus. They showed her a variety of research projects that are constructed and tested by graduate students and funded by different DOTs. She was really impressed to see her first #2 rebar!

Mock presentation of the EERI SDC team

During the afternoon, we organized a mock presentation of the EERI SDC team that is participating in the competition in the following weeks. The undergraduate students had 10 minutes to present in front of three faculty members ("judges") and some graduate students. Then, each judge had free time to make comments and feedback regarding the topic, presentation skills, slides, etc. They also asked potential questions the real judges would make during the actual presentation. Since she was a judge in previous years of the competition, this insight was incredibly useful.

Six undergraduate students presented, three faculty members participated in the committee, and four other graduate students watched the presentation. The undergraduate students concluded by reaching out to the organizers to thank them for organizing the mock presentation. They were confident they were more prepared after all of Lindsey's feedback.



Figure 3: Undergraduates from the SDC Team during the mock presentation

RESULTS, FEEDBACK, AND LESSONS LEARNED

Our student chapter had a successful visit by Lindsey Maclise. We were able to work with Lindsey to coordinate the visit easily. She was open with us about career advice and inspired the undergraduate members of the SDC team with interesting questions and suggestions for the presentation. The feedback from students that attended the lecture, the mock presentation, and the informal meetings was highly positive, and the main comment was that all the students were inspired by her.

- We announced to undergraduates and graduate students through the department about her lecture; however, we believe that for the future FFVP visit, we will also aim to contact the EERI Regional Chapter and other practitioners in the field in the area that would be willing to attend these meaningful and inspiring lectures.
- Other topics that the Student Chapter would like to cover in future visits would be learning from earthquakes; reconnaissance activities after earthquakes; how is real life as a practicing structural engineer; the next steps of earthquake engineering, and more.

ACKNOWLEDGMENTS

The North Carolina State University EERI Student Chapter gratefully acknowledges the support of the Friedman Family for sponsoring the travel of Lindsey Maclise through their Friedman Family Visiting Professional Program endowment.

LIST OF ATTACHMENTS

Included at the end of this report is the Flier for Lindsey Maclise's Lecture to supplement the information included above.

Appendix A: Flier for FFVP lecture.

APPENDIX A: EVENT FLIER