FRIEDMAN FAMILY VISITING PROFESIONALS PROGRAM

{Include Student Chapter University Logo Here}



Visit to The University of Memphis: Feb 24, 2021

This report summarizes the visit of **Mr. Brent A. Maxfield** from Structural Engineer with The Church of Jesus Christ of Latter-day Saints that took place at the University of Memphis on Feb 24, 2021.

ITINERARY OR AGENDA

Provide the itinerary of the visit. For example:

Feb 23, 2021

12:00 PM - 1:00 PM	Informal meeting with Student Chapter President for set up the application and
	schedule the meeting.

Feb 24, 2021

TIME:	ACTIVITY:
11:00 AM - 11:30 PM	Student Chapter officers meets & welcomes Visiting Professional to the meeting.
11:00 AM – 11:30 PM	Meeting with Faculty Advisor and student chapter leadership. We presented a report about EERI student chapter activities in the University of Memphis during the past 3 years.
11:00 PM - 11:30 PM	Informal meeting with department graduate students (soon to be graduating) for career guidance.
11:30 PM – 12:30 PM	formal meeting with graduate students where they present, share and discuss research projects to get insight and feedback from visiting professional.
12:30 PM - 1:00 PM	Question and Answer section.

STUDENT CHAPTER VISIT PLANNING COMMITTEE

LEAD ORGANIZER(S):

- Zoya Farajpour, President, <u>zfripour@memphis.edu</u>.
- Dr. Shahram Pezeshk, Advisor, spezeshk@memphis.edu.
- Mohsen Akhani, Vice-President and SLC Representative, mkhnsnjn@memphis.edu.
- Christine Maurice Moore, SDC Representative and officer, cmmore11@memphis.edu
- Melish Kayastha, SDC Representative and officer, melish.kayastha@memphis.edu.
- Ali Kashani, Treasurer, Akashani@memphis.edu.

visiting professional lecture overview

Briefly describe the Visiting Professional's presentation, and attendee response. Include photos if applicable.

Lecture Abstract

Include an abstract of the topic(s) covered during lecture/seminar.

Abstract

Seismic engineering concepts can be difficult to grasp. This lecture will present many different seismic concepts in a simple manner, with the goal of helping the attendees understand and retain the concepts. The lecture will benefit both the undergraduate student who has not had any seismic classes as well as the graduate student who has taken many seismic classes. A significant portion of the lecture will focus on earthquake ground motions, laying the groundwork for the remaining concepts. This lecture will discuss topics such as: The difference between magnitude and levels of shaking, why it is important to understand and discuss shaking rather than magnitude, the uncertainty and range of earthquake shaking, the difference between probabilistic and deterministic ground motions, how the code sets shaking levels, ductility and ductility demand, "R" values, expected building performance for different levels of shaking, and "It's all about the shake in the quake."

Professional Bio

Include a brief speaker bio.

Brent A. Maxfield, S.E. has 35 years of experience in the field of structural and seismic engineering. He has spent many years trying to build a bridge between structural engineering and earthquake ground motions. He has written several articles on this topic, including articles in Structure Magazine (Are You Communicating Seismic Concepts Correctly? March 2016) and Modern Steel Construction (Let's Talk Seismic, March 2018). He has also presented at the NASCC Steel Conference. Brent graduated Magna Cum Laude with a degree in Civil Engineering from Brigham Young University and received a Master of Engineering Management from the same university. Brent has been employed for 27 years as a structural engineer for The Church of Jesus Christ of Latterday Saints where he has worked on projects across the United States and around the world. He has reviewed projects and worked with structural engineers in Canada, Mexico, Europe, Africa, Asia, South America, and other areas of the world. He is currently reviewing the engineering for the base isolation and seismic upgrade of the historic Salt Lake Temple. Brent is an active member of the EERI Utah Chapter and the Structural Engineers Association of Utah (SEAU) and expends considerable effort to help promote earthquake awareness and preparedness to engineers and the Utah community. He was instrumental in getting the Building Occupancy Resumption Program (BORP) adopted in several cities in Utah. He was the EERI Chapter President and assisted the chapter in the publishing of Scenario for a Magnitude 7.0 Earthquake on the Wasatch Fault – Salt Lake City Segment, Hazards and Loss Estimates in 2015. In 2012, Brent was awarded the Utah Engineer of the Year by the Utah Engineers Council. Brent has written three books on the use and application of PTC Mathcad.

SUPPLEMENTAL ACTIVITES

Students had this opportunity to discuss some of their activities at the University of Memphis. The graduate students who are attendant from U.S and Europe discussed their research.

This section should describe the details of one of the items included in the agenda/itinerary table above. Briefly describe the activity goals, who attended, and what was discussed. Consider including photos in this section, and consider adding any fliers, documents or other supporting information in the list of attachments then appending them to the back of this report.

{enter name of Activity Two}

This section should describe the details of one of the items included in the agenda/itinerary table above. Briefly describe the activity goals, who attended, and what was discussed. Consider including photos in this section,

and consider adding any fliers, documents or other supporting information in the list of attachments then appending them to the back of this report.

{enter name of Activity Three}

This section should describe the details of one of the items included in the agenda/itinerary table above. Briefly describe the activity goals, who attended, and what was discussed. Consider including photos in this section, and consider adding any fliers, documents or other supporting information in the list of attachments then appending them to the back of this report.

RESULTS, FEEDBACK AND LESSONS LEARNED

This meeting was a very professional talk. This was very satisfying even more than we expected at Covid-19. This was a great opportunity for graduate and undergraduate to talk with **Mr. Maxfield**. Mr. Maxfield had prepared his talk material meticulously. Students and faculty enjoyed the meeting and appreciated the meeting. We received very good feedback from engineers and students about the main talk. Everything went smoothly and according to plan. Students and faculty enjoyed the meeting.

ACKNOWLEDGEMENTS |

EERI Student Chapter at the University of Memphis gratefully acknowledges the support of the Friedman Family for sponsoring the meeting with Brent A. Maxfield through their Friedman Family Visiting Professional Program endowment. Special thanks to the Herff College of Engineering of The University of Memphis for announcing the meeting properly. Also, thanks to the Department of Civil Engineering and faculty advisor Dr. Shahram Pezeshk for supporting the event.

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, i.e. flier for event
- Item 2, professional slide show or other handouts (The pdf of presentation is attached)
- Item 3, other items

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supported by a generous endowment from the Friedman Family

Brent Maxfield

The Church of Jesus Christ of Latter-day Saints

Important Seismic Concepts









