FRIEDMAN FAMILY VISITING PROFESIONALS PROGRAM

Visit to The University of Texas at Austin: April 04, 2023

This report summarizes the visit of **Dr. Jorge F. Meneses** from RMA Group that took place at the University of Texas at Austin on April 04, 2023.

ITINERARY OR AGENDA

TIME:	ACTIVITY:
10:00 AM – 10:40 AM	Meeting with Dr. Kenneth Stokoe (faculty)
10:40 AM – 11:30 AM	Informal meeting with Brento Sordo (PhD student)
11:30 AM – 12:45 PM	Informal meeting with department graduate students over Lunch
1:00 PM – 2:00 PM	Guest lecture by Visiting Professional
2:00 PM – 2:30 PM	Meeting with Dr. Ellen Rathje (faculty advisor of EERI Student Chapter)
2:30 PM – 3:00 PM	Meeting with Dr. Krishna Kumar (faculty)
3:00 PM – 4:00 PM	Lab tour and discussion with graduate student researchers

STUDENT CHAPTER VISIT PLANNING COMMITTEE

LEAD ORGANIZER(S):

- Bhushan Raj Selvaraj, President, bhushan@utexas.edu
- Michelle Sabers, Vice-President, msabers@utexas.edu
- Omar E Cabello Charles, Secretary, omar.e.cabelloch@utexas.edu
- Bartik Pandel, Treasurer, bartikpandel@utexas.edu
- Emmanuel Montero Carvajal, Education/Outreach Coordinator, emontero@utexas.edu
- Nazek Naja, President - Geo-Institute Student Chapter, nazekn@utexas.edu
- Dr. Ellen Rathje, Professor and Faculty Advisor of EERI Student Chapter, e.rathje@mail.utexas.edu

VISITING PROFESSIONAL LECTURE OVERVIEW

Dr. Jorge Meneses delivered a lecture on *Developing Scenarios for Earthquake Community Resilience*. The lecture was held in-person in the Civil, Architectural and Environmental Engineering lecture hall. The lecture was attended by around 20 students, primarily graduate students from Structural Engineering and Geotechnical engineering specializations, and 3 faculty. The lecture was organized in collaboration with the Geo-Institute Student Chapter. Students and faculty appreciated the lecture and learned a new way of creating awareness for earthquake resilience.

Lecture Abstract

Scenario planning is a strategic planning methodology that involves imagining and constructing possible future scenarios a community may face. It is an approach that helps communities identify potential challenges and opportunities and develop strategies to navigate and respond to them. It aims to provide communities with a structured and informed way to think about the future, considering a wide range of possible outcomes and uncertainties. The goal is not to predict the future but to create a set of possible futures that can inform strategic planning and decision-making.

When it comes to earthquake scenario planning and resilience, the approach involves imagining and constructing possible scenarios of seismic activity, its impacts, and responses that an organization or community may face. Earthquake scenario planning is critical for areas prone to seismic activity and helps communities identify potential risks and develop strategies for resilience. By imagining and exploring multiple earthquake scenarios, communities can better understand how different factors could impact their operations and environment and develop more robust strategies to manage risks and capitalize on opportunities. Using scenario planning for earthquakes can help communities prepare for and respond to seismic events more strategically and effectively, potentially reducing the impact of such events and creating and developing resilience.

Professional Bio

Dr. Meneses is an expert in geotechnical and earthquake engineering. He has experience with seismic hazard evaluation and ground motion development in different earthquake environments. His areas of expertise include seismic hazard analysis, selection and modification of earthquake time histories, liquefaction and lateral spread evaluation and mitigation, deep and shallow foundations, seismic stability of earthworks, site response and characterization, numerical modeling and advanced geotechnical testing.

Dr. Meneses was the lead member of one of the Geotechnical Extreme Events Reconnaissance missions to evaluate the damage and seismic performance after the M9.0 Great East Japan Earthquake in April 2011. Dr. Meneses has research and working experience in the USA, Japan, Peru, Venezuela, India, and Mexico. He is the Founder of the Earthquake Engineering Research Institute (EERI) San Diego Chapter, Honorary Chair of the ASCE

Geo-Institute San Diego Chapter, and a Fellow of the American Society of Civil Engineers (ASCE). He was also a California Seismic Safety Commission member appointed by the state governor and confirmed by the state senate (2017-2021).

SUPPLEMENTAL ACTIVITES

Individual Meetings with Faculty

Dr. Jorge Meneses met three faculty specializing in Geotechnical Engineering in the Civil, Architectural and Environmental Engineering department. He had discussions with Dr. Kenneth Stokoe, Dr. Ellen Rathje and Dr. Krishna Kumar.

Individual Meeting with Student

Brento Sordo, a PhD candidate in Geotechnical Engineering had an individual meeting with Dr. Jorge Meneses. They had an engaging discussion about Brento's research and Dr. Meneses provided valuable feedback.

Lunch with Students

Dr. Jorge Meneses had an informal meeting with a group of 8 graduate students and had lunch with them. During this lunch meeting, students were able to learn more about Dr. Meneses's journey to becoming an expert in geotechnical and earthquake engineering and his contributions to EERI. He talked about career pathways for graduate students and shared his experience of managing academic and professional careers simultaneously. This informal setting gave opportunities for students to ask questions outside of the topic of the day and advice was shared alongside interesting conversations. The Civil, Architectural, and Environmental Engineering Department of UT Austin funded the lunch.

Tour of Laboratories and Research Facilities

Upon conducting an interesting and informative seminar, Dr. Meneses was invited to tour the geotechnical facilities at UT Austin. The tour included visiting a wide range of sub-specialty facilities that are encompassed within the field of geotechnical engineering used in both teaching and research. The facilities ranged between geo-environmental engineering labs, to high-tech dynamic testing labs that focus on resonant columns, to computer labs that are used for numerical modeling, and labs that use cyclic machinery that test liquifiable soils. Each segment of the labs tour was introduced and elaborated by students that work in these respective labs. As the students had some great knowledge about their work, Dr. Meneses was interacting with these students about the current research ongoing at UT Austin.

RESULTS, FEEDBACK AND LESSONS LEARNED

One of the main challenges that we faced with this visit was coordinating a time that would accommodate the largest number of students. Some students had to leave prior to the end of the seminar due to some course conflict and this is something we would like to work towards preventing in the future by coordinating with professors to perhaps have future seminars be considered part of the lesson for that day.

The feedback from students and faculty was positive and we are very thankful that we were selected to host a visiting professional.

Description of other topics or disciplines the Student Chapter would like to cover in future visits and related goals.

- Post-Earthquake Safety Evaluations and Community Response
- Historic Structures and what is done for preservation.
- Plan to host more lectures each semester at varying times to accommodate a wider range of students

ACKNOWLEDGEMENTS

The University of Texas at Austin EERI Student Chapter gratefully acknowledges the support of the Friedman Family for sponsoring the travel of Dr. Jorge Meneses through their Friedman Family Visiting Professional Program endowment.
The student chapter also thanks Dr. Robert Gilbert, Department Chair & Professor of Civil, Environmental Engineering Department, UT Austin for funding the lunch 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, flier for Friedman Family Visiting Professionals program lecture
- Item 2, flier for social media outreach

Developing Scenarios for Earthquake Community Resilience

Jorge F. Meneses, PhD, PE, GE, D.GE, F.ASCE

Professor, San Diego State University, SDSU

Instructor, University of California San Diego Extension, UCSD

Tuesday, April 4, 2023 – 1:00 p.m to 2:00 p.m, ECJ 1.314

Abstract

Scenario planning is a strategic planning methodology that involves imagining and constructing possible future scenarios a community may face. It is an approach that helps communities identify potential challenges and opportunities and develop strategies to navigate and respond to them. It aims to provide communities with a structured and informed way to think about the future, considering a wide range of possible outcomes and uncertainties. The goal is not to predict the future but to create a set of possible futures that can inform strategic planning and decision-making.

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About the Speaker

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2023 EERI FRIEDMAN FAMILY VISITING PROFESSIONAL PROGRAM

IN COLLABORATION WITH GEO-INSTITUTE

EARTHQUAKE ENGINEERING RESEARCH INSTITUTE

DR. JORGE MENESES

Professor at San Diego State University and the University of California San Diego

Lecture on **DEVELOPING SCENARIOS FOR EARTHQUAKE COMMUNITY RESILIENCE**

tuesday

04TH

april 2023

1:00 - 2:00 pm

ECJ 1.314

Come and join us to learn about earthquake community resilience!