

FRIEDMAN FAMILY VISITING PROFESIONALS PROGRAM

UC DAVIS



Visit to University of California, Davis: April 04, 2019

This report summarizes the visit of **Dr. Jorge Meneses** from RMA Group that took place at the University of California, Davis on April 04, 2019.

ITINERARY OR AGENDA

TIME:	ACTIVITY:
8:15 AM – 09:00 AM	Welcome and Meeting with EERI Student Chapter Board
9:00 AM – 09:45 AM	Short Research Presentation #1: Renmin Pretell, PhD Student "Numerical Modeling of Ground Deformations at Balboa Blvd. in the 1994 Northridge Earthquake"
9:45 AM – 10:30 AM	Informal meetings for career guidance with graduate students
10:30 AM – 11:15 AM	Short Research Presentation #2: Nicholas Paull, PhD Candidate "Seismic Deformations of Different Size Embankments on a Spatially Variable Liquefiable deposit"
11:15 AM – 11:40 AM	Meeting with Geotechnical Graduate Student Society (GGSS) representatives
11:40 AM – 12:00 PM	Coffee Break
12:00 PM – 13:30 PM	Lecture by Dr. Jorge Meneses "Seismic Ground Motions for Evaluation of Liquefaction Triggering"
13:30 PM – 14:30 PM	Lunch with Graduate Students
14:30 PM – 16:30 PM	Tour of research facilities: Center for Geotechnical Modeling and Soil Interactions Laboratory

STUDENT CHAPTER VISIT PLANNING COMMITTEE

LEAD ORGANIZER: Francisco Humire, Co-President, fahumire@ucdavis.edu

- Maya El Kortbawi, member, melkortbawi@ucdavis.edu
- Sumeet Sinha, member, skssinha@ucdavis.edu
- Pouria Kourehpaz, Co-President, kourehpaz@ucdavis.edu

VISITING PROFESSIONAL LECTURE OVERVIEW

Around 30 people (between faculty and students) from the Geotechnical and Structural Engineering groups attended the lecture of Dr. Jorge Meneses. The lecture was hosted in the Conference Room of Ghausi Hall and photos of the event are included below:



Lecture Abstract: "Seismic Ground Motions for Evaluation of Liquefaction Triggering"

Simplified liquefaction triggering evaluation procedures typically use the peak ground acceleration (PGA) and magnitude (M) as parameters representing the seismic demand at a site. The values of PGA and M at a site can vary depending upon the return period in a probabilistic approach or associated expected level of performance. Evaluation of liquefaction triggering may significantly change depending upon the level of the ground motions selected. This paper will present and discuss different current approaches and guidelines dealing with the level of ground motions, and liquefaction triggering evaluation. These guidelines include ASCE 7-16, the 2016 National Academies of Sciences, Engineering, and Medicine report, Naval Facilities Engineering Command (NAVFAC), California Department of Transportation (Caltrans), Port of Los Angeles (POLA), California High Speed Train, California Geological Survey Note 48, and Los Angeles City. International guidelines such as Eurocode, Japanese codes and New Zealand are also incorporated in the discussion. Additionally, new ground motions related parameters for the evaluation of liquefaction such as duration, cumulative absolute velocity (CAV) and others will be discussed. Discussion of various levels of ground motions and parameters will be oriented toward performance-based design approaches in the evaluation of liquefaction. Finally, some clarifying conclusions will be proposed.

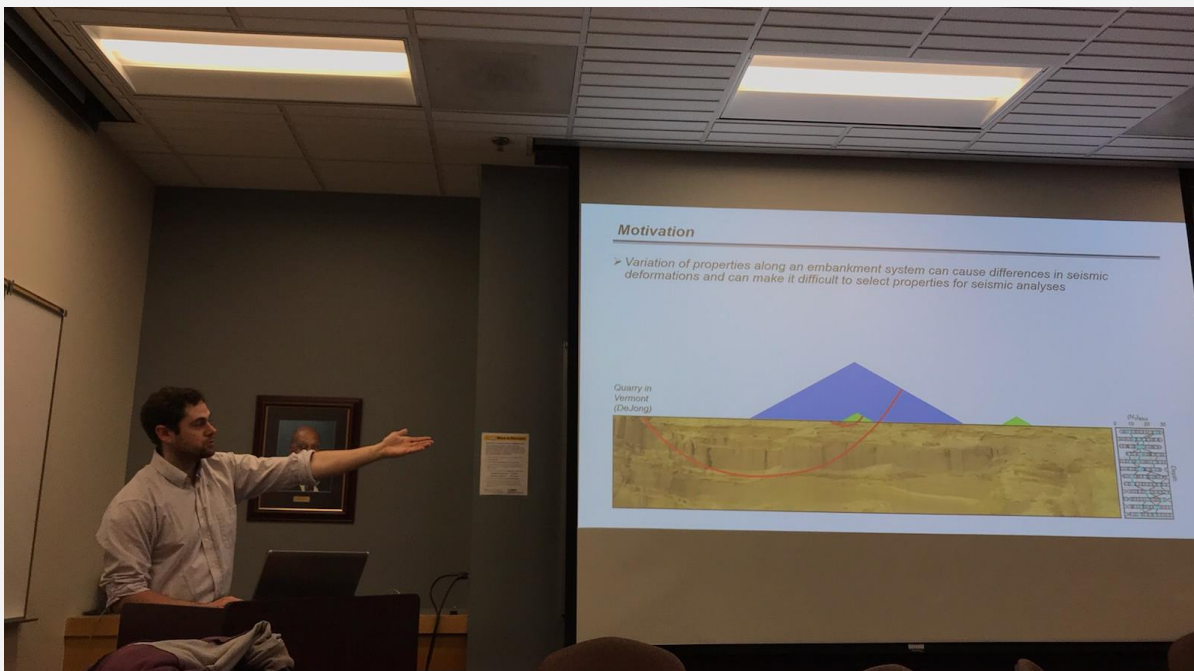
Professional Bio

Jorge F. Meneses, Ph.D., P.E., G.E., D.GE, F.ASCE, Principal Geotechnical Engineer, RMA Group, Inc., has more than 30 years of consultancy, project management, research, and teaching experience, in both private industry and research institutions in the field of geotechnical and earthquake engineering. He has been involved in numerous projects serving as a technical lead in geotechnical earthquake engineering and foundation engineering across the country and various markets including water, nuclear, transportation, high rise buildings, energy, schools, hospitals, commercial and industrial. Dr. Meneses frequently acts as a peer reviewer for technical conferences and technical journal publications, is a guest speaker for domestic and international conferences, and has published more than 60 technical publications. He is currently a part-time faculty member in the graduate school of San Diego State University. He is the President and Founder of the Earthquake Engineering Research Institute (EERI) San Diego Chapter, California Seismic Safety Commissioner, Honorary Chair of the ASCE Geo-Institute San Diego Chapter, Member of the ASCE 7-16 (Minimum Design Loads for Buildings and Other Structures) and ASCE 1 (Geotechnical Analysis, Design, Construction, Inspection and Monitoring of Nuclear Safety-Related Structures) Committees, member of the Industry Advisory Board, Department of Structural Engineering (University of California San Diego), member of the Academy of Geo-Professionals, and a Fellow of the American Society of Civil Engineers (ASCE).

SUPPLEMENTAL ACTIVITIES

Short Research Presentations

Two PhD students present their researches to Dr. Meneses to get an industry perspective of their work. Dr. Meneses spent several minutes in questions and recommendations. Both students greatly appreciated all the feedback provided by him.



Facilities Tour

Dr. Meneses visited the Center of Geotechnical Modeling, which houses the world's largest centrifuge with shaking table. Students currently working in this facility gave an overview of their work, the history of the facility, and talked about the capabilities of the centrifuge. Dr. Meneses visited also the Soil Interactions Laboratory where he met students working in experimental and bio-inspired geotechnics.



Lunch with Graduate Students

Dr. Meneses went to lunch with graduate students of the geotechnical engineering group at the UC Davis Gunrock Pub. They had informal conversations about their research work and career goals.



RESULTS, FEEDBACK AND LESSONS LEARNED

- The reception from the audience was excellent, which was reflected in the questions and talks after the lecture.
- The lecture gathered students from both disciplines (geotechnical and structural), which was one of the main goals of the chapter. The chapter thinks that the topic selected for this lecture helped in having this massive concurrence of people from both disciplines.
- The chapter deeply appreciates the initial minutes dedicated to promote EERI. The event helped in promoting the EERI Student Chapter to several non-members that attended the lecture.

ACKNOWLEDGEMENTS

The EERI Student Chapter at UC Davis gratefully acknowledges the support of the Friedman Family for sponsoring the travel of Dr. Jorge Meneses through their Friedman Family Visiting Professional Program endowment. Furthermore, the chapter would like to thank the Geotechnical Graduate Student Society at UC Davis, which supported the EERI chapter in organizing some of the events.