



FRIEDMAN FAMILY VISITING PROFESSIONALS PROGRAM

Visit to University of Colorado-Boulder: April 9-10, 2018

This report summarizes the visit of Dr. Ramin Golesorkhi from Langan, that took place at the University of Colorado-Boulder on April 9-10th, 2019.

ITINERARY

TIME:	ACTIVITY:
Tuesday, April 9th	
4:45 PM - 5:00 PM	Seminar Preparations
5:00 PM - 6:00 PM	Evening Seminar
6:00 PM - 7:00 PM	Q & A Session
Wednesday, April 10th	
10:00 AM - 10:45 AM	Center for Infrastructure, Energy, and Space Testing (CIEST) Tour w/ Dr. Brad Wham
11:00 AM - 11:30 AM	Break
12:00 PM - 2:00 PM	Lunch at Dushanbe Teahouse in Boulder
7:00 PM - 9:00 PM	Dinner at The Med in Boulder

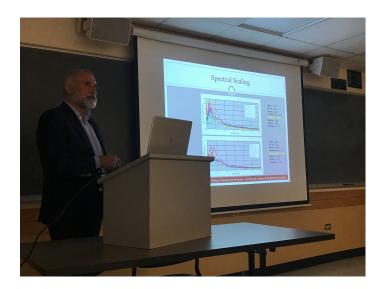
STUDENT CHAPTER VISIT PLANNING COMMITTEE

LEAD ORGANIZERS:

- Sally Gerster, Chapter President, sally.gerster@colorado.edu
- Christopher Frishcosy, Chapter Vice President, chfr4510@colorado.edu
- Sonny Moraga, Chapter Treasurer, <u>somo0758@colorado.edu</u>
- Dr. Brad Wham, Faculty Advisor for Chapter, brad.wham@colorado.edu

VISITING PROFESSIONAL LECTURE OVERVIEW

Dr. Ramin Golesorkhi gave a seminar during his visit here, on the topic of Development of Site-Specific Time Series for Performance Based Design – Art or Science? Right after the seminar, there was an open Q & A session where students could ask Ramin questions not only about his seminar topic, but also about career paths, consulting, or other more general topics. About 20 people attended the event, each with interesting questions and excitement about topics discussed. Pictured below is the seminar (left), and Q & A (right).





Lecture Abstract

Performance-Based Seismic Design (PBSD) is the approach that is in new seismic standards. PBSD is a methodology that allows for design flexibility and provides opportunities to enhance structural performance and innovation. With PBSD the designer has the ability to demonstrate higher performance levels for different levels of earthquake shaking. Nonlinear time series evaluation and analysis is an integral part of PBSD. Therefore, the selection of the suite of ground motions and the site-specific development of them are critically important. The talk will present the selection process, the development of spectrally compatible time series and some of the details that are important in the development. The talk will discuss spectral matching, scaling, and hybrid approach (mean spectral matching) and also touch on the development of fling step time series for use in the near-field.

Professional Bio

Ramin Golesorkhi, Principal/Vice President and Director, Langan, San Francisco, CA

He is a registered civil (California and New York) and geotechnical engineer (California) and a Fellow of ASCE. He is a principal/vice president and director of earthquake engineering services at Langan, an over 1,050-person geotechnical, environmental, and civil design engineering firm, with more than 30 years of experience in seismic analysis and foundation engineering. He received his Bachelor of Science and Master of Science degrees from Tufts University and his PhD from the University of California, Berkeley. Dr. Golesorkhi directs the development of seismic and geotechnical design criteria appropriate for industrial, residential, private and government office buildings, hospitals and healthcare facilities, bridges, elevated freeways and viaducts, base isolated structures, tunnels, and seismic strengthening of existing structures. He has developed seismic design criteria for performance-based design of structures since early 2,000's and has been active in the development of seismic design criteria in building codes. He is one of the primary authors of Council of Tall Buildings and Urban Habitat (CTBUH) Technical Guide on Performance-Based Seismic Design for Tall Buildings (2017). Some of his projects include: the new Asian Art Museum, numerous high-rise towers, a major refinery in Peru, AT&T Park, Levi's Stadium, and the State office building in San Francisco. His experience stretches throughout the United States, Central and South America, Southeast Asia, India and the Middle East.

SUPPLEMENTAL ACTIVITES

Center for Infrastructure, Energy, and Space Testing (CIEST) Tour w/ Dr. Brad Wham

Dr. Golesorkhi met with Dr. Brad Wham (head of the CIEST lab) to discuss CU's research and current testing related to his fields of interest. CIEST is located inside CU's Engineering Center and houses our large centrifuge. Dr. Golesorkhi was especially excited to see the centrifuge and to hear about the related research going on in the lab.

Lunch at Dushanbe Teahouse with Student Chapter

After touring the lab, Ramin and members of the student chapter enjoyed tea and lunch out in Boulder. We talked about the transition from academia to industry and how we can best prepare ourselves for post-graduation plans. We also talked about the field of engineering now compared to a couple decades ago, and how the industry has changed. It was very valuable to hear Ramin's insights on all of these topics.

Dinner at The Med with Student Chapter

Ramin was originally going to fly out after lunch, however, due to a storm, his flight got cancelled until the next morning. We had the opportunity to have dinner with him as well, which allowed for even more conversation and networking. It was the perfect way to conclude such a wonderful visit. Below is a photo of the group.



RESULTS, FEEDBACK AND LESSONS LEARNED

Dr. Golesorkhi was very easy to work with and provided incredibly valuable insights throughout his visit. Things went very smoothly during the entire two days. Even when his flight got cancelled, we were able to change plans accordingly and the impromptu dinner was one of the best events. Aside from the flight change, we had no other major challenges. One thing we would do differently next year is to make sure to book the seminar room earlier to avoid an oddly located room. We also could plan future speaker's visits on dates that don't conflict as much with graduate students' defenses. CU and the CEAE department (Civil, Architectural, and Environmental Engineering) received Dr. Golesorkhi very well and many students and staff were excited for the visit and enjoyed it. We try to have a variety of topics covered between the Friedman Family Speakers over the years. We appreciate that EERI provides such a diverse group of professionals to choose from and hope this continues to be the case. One of our chapter's goals is to gain membership from other disciplines outside the CEAE department. In future visits we'd like to more effectively advertise to students in other departments and colleges outside of CEAE.

ACKNOWLEDGEMENTS

The University of Colorado-Boulder EERI Student Chapter gratefully acknowledges the support of the Friedman Family for sponsoring the travel of Dr. Ramin Golesorkhi through their Friedman Family Visiting Professional Program endowment.

LIST OF ATTACHMENTS

None.