

# FRIEDMAN FAMILY VISITING PROFESIONALS PROGRAM

## Visit to University of Connecticut: April 27, 2016



This report summarizes the visit of **Nathan Gould** from ABS Consulting that took place at the University of Connecticut on April 27, 2016),

### ITINERARY OR AGENDA

Provide the itinerary of the visit. For example:

TIME:	ACTIVITY:
9:45 AM	Student Chapter Vice President meets & welcomes Visiting Professional to campus
9:50 AM	Brief Q&A with graduating students for career guidance
10:00 AM – 11:00 AM	Meeting with Dr. Richard Christenson to discuss the Civil and Environmental Engineering (CEE) department and receive a tour of the structures laboratory
11:00 AM – 12:00 AM	Meeting with EERI officers and CEE Graduate students
12:00 PM – 1:00 PM	Guest Lecture by Visiting Professional
1:00 PM – 2:00 PM	Lunch with Dr. Richard Christenson at a local restaurant

### STUDENT CHAPTER VISITPLANNING COMMITTEE

**LEAD ORGANIZER(S):** {enter name of student members who lead the visit, chapter role, email}

- Michael Harris, President, Michael.harris@uconn.edu
- Amanda McBride, Vice President, Amanda.mcbride@uconn.edu}
- Professor Arash Zaghi, Faculty Advisor, aze11001@enr.uconn.edu}
- Professor Richard Christenson, Faculty Advisor, rchriste@enr.uconn.edu}

Also include names of any faculty, industry advisors or others who helped.

### VISITING PROFESSIONAL LECTURE OVERVIEW

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

#### Lecture Abstract

Multi-Hazard design, which incorporates both natural and manmade hazards, has become a popular design requirement for critical structures. While many Owners and various project team members anticipate a relatively easy integration of the respective hazards based on their understanding of the loads generated by the hazards, numerous complexities arise during the actual integration of a multi-hazard design approach into construction documents. A case study of recently designed emergency communications facility will be reviewed to understand the development of the design criteria and integration of the different conventional and extreme load criteria into a cohesive multi-hazard strategy to provide a higher level of protection for both structural and non-structural elements that are deemed to be critical to the post-event operations of the facility. Specific design features such as enhanced vertical and lateral load

paths, and attachments of critical non-structural elements will be examined to illustrate the implementation of a multi-hazard strategy in the actual structure.

## Professional Bio

Dr. Nathan Gould, Chief of Technology for the ABS Consulting Advanced Engineering Division, also serves as the General Manager of the St. Louis office of ABS Consulting. He is a practicing structural engineer with over 25 years of experience in the design, construction and rehabilitation of major structures in all regions of the United States. Dr. Gould is active in the utilization of performance based seismic design criteria and methodology for the design of new buildings and the retrofit of existing structures. Dr. Gould is the author of numerous technical papers including recent articles on Performance Based Seismic Design, Progressive Collapse of Structures, Managing Extreme Wind Losses, and Terrorism Risk. He currently serves on several technical committees and organizations related to seismic analysis and design, including the NEHRP Advisory Committee on Earthquake Hazards reduction. He has been a member of several post-earthquake reconnaissance groups, including teams that investigated damage following the 2010 Haitian and 2011 Christchurch events. Dr. Gould is a licensed Professional and Structural Engineer in several states.

## SUPPLEMENTAL ACTIVITIES

### Chapter Vice President Welcomes Dr. Gould to campus

The Vice President of the UConn Chapter of EERI picked up Nathan Gould from the Nathan Hale Inn here on campus and escorted him to Dr. Zaghi's Steel Design class.

### Q&A with graduating students for career advice

Dr. Gould provided some very useful insight into the value of pursuing higher education degrees including whether or not it is better continue straight for a masters/PhD, or to work and then go back for more advanced degrees.

### Meeting with Dr. Christenson

Dr. Christenson, one of our faculty advisors, met Dr. Gould and showed him around the structures lab. In this lab, there is a lot of equipment for shake table testing, material testing, and bridge monitoring and repair. He then took Dr. Gould to the location where he would have an informal meeting with the CEE Graduate Students.

### Meeting with Graduate Students

Dr. Gould met with current CEE graduate students to discuss their research and hear about what they plan to do after graduating.

### Lecture by Visiting Professional

Dr. Gould gave his lecture on "Enhanced Seismic Design Integrated Into a Multi-Hazard Design Approach." This included information regarding many forces that a structure might face such as blast, tornado, and hurricane. He provided a lot of information on how to learn more about these dangers as well as what the standard is for protection against them.

## RESULTS, FEEDBACK AND LESSONS LEARNED

Brief description of challenges during the process, general reception of the program and Visiting Professional. Also a description of other topics or disciplines the Student Chapter would like to cover in future visits, and related goals.

- No Challenges, it was a pleasure to host Dr. Gould as a visiting professional.

## ACKNOWLEDGEMENTS

The University of Connecticut EERI Student Chapter gratefully acknowledges the support of the Friedman Family for sponsoring the travel of {name of professional} through their Friedman Family Visiting Professional Program endowment.

It was a fantastic opportunity for the students here at UConn to hear practical career advice from Dr. Gould. He works on very interesting and challenging projects and has a wealth of insight as to the process of designing against earthquakes, blast, and winds from hurricanes and tornadoes.

## 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 Event