

FRIEDMAN FAMILY VISITING PROFESIONALS PROGRAM



Visit to the Johns Hopkins University: May 03, 2018

This report summarizes the visit of **Dr. Ronald L. Mayes** from Simpson Gumpertz & Heger that took place at the Johns Hopkins University on May 03, 2018,

ITINERARY

TIME:	ACTIVITY:
7:30 PM – 9:00 PM (May 02)	Student Chapter President (Fardad Haghpanah) met and welcomed Dr. Mayes at the hotel + dinner.
8:00 AM – 9:00 AM	Student Chapter Faculty Advisor (Dr. Benjamin W. Schafer) met and welcomed Dr. Mayes + breakfast.
9:00 AM – 9:30 AM	Meeting with the student chapter leadership from this year
9:30 AM – 10:00 AM	Meeting with Prof. Igusa (Faculty member)
10:00 AM – 10:30 AM	Meeting with Prof. Gernay (Faculty member)
10:30 AM – 11:00 AM	Meeting with Prof. Sangree (Faculty member)
11:00 AM – 12:00 PM	Informal meeting with a group of undergraduate and graduate students
12:00 PM – 1:15 PM	Seminar on US Resiliency Council and the Building Rating System
1:15 PM – 2:30 PM	Lunch
2:30 PM – 3:30 PM	Tour of the department's Structural Testing Lab

STUDENT CHAPTER VISIT PLANNING COMMITTEE

LEAD ORGANIZER(S):

- Fardad Haghpanah, President, haghpanah@jhu.edu
- Dr. Benjamin W. Schafer, Faculty Advisor, schafer@jhu.edu

VISITING PROFESSIONAL LECTURE OVERVIEW

At the beginning of the seminar, Dr. Mayes was introduced by Dr. Schafer (Faculty Advisor) followed by a brief overview of his contributions to the field of Earthquake Engineering by the President of the Student Chapter. Dr. Mayes' lecture was mainly focused on the activities within the US Resiliency Council, specifically the building rating system, in improving the resilience of the built environment and promoting the concept among professionals. A group of 30 people, including undergraduate, master's, and PhD students, postdoc fellows, and faculty members attended the lecture. At the end of the lecture, Dr. Mayes answered several questions from the audience, for example the economic aspects of different retrofitting measures and building rating system for specific hazards such as fires.



Lecture Abstract

The notion that there is a disconnect between the anticipated performance of buildings in a major earthquake, and what the public understands or expects, is not new. Bridging this communication gap has been discussed in a number of different forums. The thought was that if the public could be made more aware of their potential seismic risk, they could be expected to make better-informed decisions on owning and leasing properties, and market forces would eventually drive the building design, management, and procurement process into more resilient seismic design.

The US Resiliency Council (USRC) offers the structural engineering profession a unique opportunity to transform the way it communicates with both clients and the public about the performance of buildings we design and retrofit. The USRC is modeled after the U.S. Green Buildings Council (USGBC®). Like the USGBC, the USRC will certify practitioners and best practices, and technically review ratings shared with the public so that USRC ratings are credible and consistent. The USRC was officially launched in late-2015 and this presentation will describe the goals and objectives and organization of the USRC, the need for a building rating system, the potential users, the information it provides, and the measures that will be used to maintain the long term credibility of the system.

Professional Bio

Ron received his Ph.D. in Structural Engineering from the University of Auckland, New Zealand, in 1972 and was awarded a Fulbright scholarship to perform post-doctoral research at the Earthquake Engineering Research Center at Berkeley. Ron has 46 years of management and technical expertise in earthquake and structural engineering. He has served as Secretary/Treasurer of the Earthquake Engineering Research Institute, Structural Engineers Association of Northern California (SEAONC) and is a past Vice- President of The Masonry Society (TMS). He was selected "Structural Engineer of the Year" by the Wiley Journal "Design of Tall and Other Buildings" in 2006 and is a Fellow of both the Structural Engineers Association of California (SEAOC) and SEAONC.

SUPPLEMENTAL ACTIVITIES

Meeting with the student chapter leadership

Dr. Mayes met with Fardad and discussed the current and former activities of the Chapter. In addition, Fardad shared his research on community resilience with Dr. Mayes and received some suggestions for his future research path.

Meeting with Faculty members

Dr. Mayes met with three of our Faculty members, Dr. Igusa, Dr. Gernay, and Dr. Sangree. In these individual meetings they discussed topics such as research interests and future collaborations.

Informal meeting with a group of undergraduate and graduate students

A group of 10 undergraduate and graduate students met with Dr. Mayes, and asked questions about their future careers as engineers or scholars, challenges that they may face in their careers, Challenges that he faced in his career, and how he approached them.

Tour of the department's Structural Testing Lab

Three of our PhD students, Fardad, Astrid Winther Fischer, and Zhidong Zhang, gave Dr. Mayes a tour of our testing lab, including different machines, testing samples, and testing techniques that students perform in the lab.

RESULTS, FEEDBACK AND LESSONS LEARNED

Dr. Mayes's visit was a successful event; our students benefited from his professional perspective on seismic resilience and his suggestions about their future careers. Specifically, undergraduate students learned more about the concept of building resilience, and the graduate students acquired some new insights.

ACKNOWLEDGEMENTS

The Johns Hopkins University EERI Student Chapter gratefully acknowledges the support of the Friedman Family for sponsoring the travel of Dr. Ronald Mayes through their Friedman Family Visiting Professional Program endowment. The Student Chapter also would like to thank the Department of Civil Engineering for financial and administrative supports.

LIST OF ATTACHMENTS

- flier for the event

SPECIAL SEMINAR

US Resiliency Council and the Building Rating System



The US Resiliency Council (USRC) offers the structural engineering profession a unique opportunity to transform the way it communicates with both clients and the public about the performance of buildings we design and retrofit. The USRC was officially launched in November 2015.

The notion that there is a disconnect between the anticipated performance of buildings in a major earthquake, and what the public understands or expects, is not new. Bridging this communication gap has been discussed in a number of different forums. The thought was that if the public could be made more aware of their potential seismic risk, they could be expected to make better-informed decisions on owning and leasing properties, and market forces would eventually drive the building design, management, and procurement process into more resilient seismic design.

Building on the work of the Structural Engineers Association of Northern California (SEAONC) Existing Buildings Ratings Committee over the past eight years, and the recommendations of an Applied Technology Council (ATC) User's workshop, in 2011, the U.S. Resiliency Council® (USRC) was formed as a 501(c)3 nonprofit organization to establish a rating system for certifying the resiliency of buildings to natural and man-made hazards. Efforts to develop a building rating system have included many technical and philosophical challenges, and the USRC has formed a diverse coalition of technical organizations, engineering firms, individuals, industry supporters, and government agencies to develop a consensus-based approach to solving these challenges.

The USRC is modeled after the U.S. Green Buildings Council (USGBC®). Like the USGBC, the USRC will certify practitioners and best practices, and technically review ratings shared with the public so that USRC ratings are credible and consistent. The USRC was officially launched in late-2015 and this presentation will describe the goals and objectives and organization of the USRC. The need for a building rating system, the potential users, the information it provides and the measures that will be used to maintain the long term credibility of the system.

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Ronald L. Mayes,
Ph.D.
Staff Consultant
Simpson Gumpertz &
Heger

May 3, 2018 12-1 PM

JHU Homewood Campus, Hackerman Hall B-17

Seminar is **FREE and open to the public**. Attendance is required for all enrolled Civil Engineering graduate students. For parking please see link for visitors at www.jhu.edu and select information on Homewood Campus.