

FRIEDMAN FAMILY VISITING PROFESSIONALS PROGRAM



Visit to University of Nevada, Reno: April 21, 2023

This report provides an overview of the visit of **Charles Scawthorn**, who is currently a Visiting Researcher at the University of California, Berkeley, that took place at the University of Nevada, Reno on April 21, 2023.

ITINERARY OR AGENDA

TIME:	ACTIVITY:
10:30 AM – 11:30 AM	Meeting with Dr. David McCallen/Labs tour
11:30 AM – 12:00 PM	Lunch
12:00 PM – 1:30 PM	Guest lecture entitled “Engineering Critical Infrastructure: Conversation with a Practitioner and Researcher”
1:30 PM – 2:00 PM	Open discussion with both undergraduate and graduate students
2:00 PM – 2:30 PM	Meeting with Dr. Hamed Ebrahimian
2:30 PM – 3:00 PM	Meeting with Dr. Floriana Petrone
3:00 PM – 5:00 PM	Career advising meeting with CEE graduate students

STUDENT CHAPTER VISIT PLANNING COMMITTEE

LEAD ORGANIZER(S):

- Arsam Taslimi, President, rsamtaslimi@nevada.unr.edu
- Dr. Floriana Petrone, Faculty Advisor of the student chapter, florianapetrone@unr.edu
- Allen Rivas, Co-president, allenjohnrivas@nevada.unr.edu
- Noah Neiman, student chapter member, noah.nieman@nevada.unr.edu
- Pezhman Matinrad, student chapter member, pezhmanmatinrad@nevada.unr.edu
- Seyed Mahdi Kashizadeh, student chapter member, sm.kashizadeh@nevada.unr.edu

VISITING PROFESSIONAL LECTURE OVERVIEW

Prof. Scawthorn delivered an outstanding presentation summarizing the challenges and lessons-learned from some of the projects he was involved in during his multi-faceted career as a structural engineer and a researcher. The students were actively involved in the discussions and asked questions. Overall the presentation was filled with knowledge and practical experience.

Lecture Abstract

Water, energy, transportation and communications – infrastructure – is critical to modern life and indeed survival. Recent events, from storms to Covid to hacking and ransomware attacks, have shown how vulnerable our infrastructure and supply chains are. On Friday April 21 the Earthquake Engineering Research Institute's Friedman Visiting Fellow Program will sponsor a visit by Dr. Charles Scawthorn to the University of Nevada Reno's campus, where he will visit with students and faculty and give a talk drawing on lessons from infrastructure projects he's been involved with over the last five decades. These projects have ranged from design and analysis of EHV

electric transmission lines, nuclear facilities, offshore platforms to large urban water supply networks and the development of national disaster reduction programs, from North American to Asia and Africa, and from large utilities and national/international agencies to teaching, research and individual consulting. Today more than ever before, infrastructure is rapidly evolving to face challenges of clean water and protecting the environment, changing energy sources, ICT and transportation modes, climate change and the need for resilience to disruption. The fundamental purpose of his talk will be to share with students the wealth and variety of opportunities awaiting them, and some of the decisions they will need to make.

Professional Bio

Charles Scawthorn is recognized as an authority for the analysis and mitigation of natural and technological hazards. He has authored over 200 technical papers and is editor of the Earthquake Engineering Handbook, the Critical Infrastructure Handbook and several other books. He retired in 2008 as Professor and head of the Earthquake Disaster Prevention Systems Laboratory, Kyoto University (Japan), has been Visiting Professor at Stanford, Beijing Normal and Waseda (Tokyo) Universities and is now Visiting Researcher, Univ. California at Berkeley. He has taught courses on Disaster Risk Assessment, Mitigation and Financing at the World Bank and on California earthquake risk for Lloyds of London. As President of SPA Risk LLC, he consults to the global insurance industry, the World Bank, local/state/federal agencies and Global 1000 corporations. Dr. Scawthorn is a graduate of the Cooper Union, holds an M.S.C.E. degree from Lehigh University and received his D.Eng. from Kyoto University.

SUPPLEMENTAL ACTIVITIES

Career advising meeting with CEE graduate students

During the career advising meeting a group of graduate students, including both MSc and Ph.D. students and Postdoctoral scholars, joined Dr. Scawthorn to discuss future opportunities and career paths. Each student had an opportunity to share their ideas or concerns about their post-graduation plans as either a researcher or practitioner. Dr. Scawthorn was extremely generous in spending time with students and sharing his thoughts and providing his advice.

RESULTS, FEEDBACK AND LESSONS LEARNED

The event went really well. We leveraged the experience gained from the past visits organized within the Friedman Family Visiting Professionals Program to provide the guest speaker and attendees with a detailed plan of all the activities for the day and were able to fully follow it. However, for the future events we will make an effort to involve more undergrad students in both the main presentation and the career advising meeting.

ACKNOWLEDGEMENTS

The University of Nevada, Reno EERI Student Chapter gratefully acknowledges the support of the Friedman Family for sponsoring the travel of Dr. Charles Scawthorn through their Friedman Family Visiting Professional Program endowment.

We want to thank Dr. Floriana Petrone for her support and help. In addition, we thank the Department of Civil and Environmental Engineering at University of Nevada Reno and donors for their support.

LIST OF ATTACHMENTS

A list of the attachments is included below:

- Item 1, flyer of the event
- Item 2, photos of Prof. Scawthorn's presentation
- Item 3, photos of the career advising meeting with the CEE graduate students



Earthquake Engineering Research Institute



EERI@UNR Student Chapter Special Presentation

Engineering Critical Infrastructure: conversation with a practitioner and researcher

Prof. Charles Scawthorn, University of California, Berkeley

Friday, April 21, 2023 12:00 – 1:00 p.m. Pacific Time

**Presentation location – EEL Auditorium
Simulcast on Zoom Meeting ID: 607 602 5937**



Engineering Critical Infrastructure: conversation with a practitioner and researcher

Prof. Charles Scawthorn, University of California, Berkeley

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About the keynote speaker:

Charles Scawthorn is recognized as an authority for the analysis and mitigation of natural and technological hazards. He has authored over 200 technical papers and is editor of the Earthquake Engineering Handbook, the Critical Infrastructure Handbook and several other books. He retired in 2008 as Professor and head of the Earthquake Disaster Prevention Systems Laboratory, Kyoto University (Japan), has been Visiting Professor at Stanford, Beijing Normal and Waseda (Tokyo) Universities and is now Visiting Researcher, Univ. California at Berkeley. He has taught courses on Disaster Risk Assessment, Mitigation and Financing at the World Bank and on California earthquake risk for Lloyds of London. As President of SPA Risk LLC, he consults to the global insurance industry, the World Bank, local/state/federal agencies and Global 1000 corporations. Dr. Scawthorn is a graduate of the Cooper Union, holds an M.S.C.E. degree from Lehigh University and received his D.Eng. from Kyoto University.





