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**

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

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
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

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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.