



University of California- San Diego Student Chapter 2010-2011 ANNUAL REPORT

General Chapter Information

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Student Chapter Members

1. Tan Cao
2. Richard Wood
3. Steve Mintz
4. Amber Shoals
5. Jennifer Ciofalo
6. Wayne Tsang
7. Juan Murcia-Delso
8. Britney Rochelle
9. David Duck
10. Rose Moreno

Seminars and Guest Lecturers

1. **Baja California 7.2 Earthquake: Three Perspectives on Ground Motions, Geotechnical and Structural Responses**



Guest Speakers:

Dr. Jorge Meneses, Ph.D, P.E.; *Kleinfelder*

Mr. James Gingery, P.E.; *Kleinfelder*

Dr. P. Benson Shing, Ph.D.; *Structural Engineering Department, UCSD*

Our first EERI seminar, on April 8, 2011, was presented by Professor Jorge Meneses, Mr. James Gingery, and Professor P. Benson Shing on the aftermath of the Baja Earthquake. The 2010, Mw 7.2 Baja California (El Mayor-Cucapah) earthquake occurred on Sunday, April 4, 2010 in northern Baja California at a depth of about 10 km (6.2 miles), approximately 47 km (29 miles) SSE from Mexicali, BC, 51 km (32 miles) SSE from Calexico, California, and 180 km (120 miles) SE from San Diego, California. This was the largest event in the area since 1892, even larger than the M 6.9 earthquake in 1940. The earthquake was felt throughout Southern California, Arizona, Nevada, and Baja California, Mexico. Effects of the earthquake were felt on buildings, transportation infrastructure, water and water waste treatment systems, and nonstructural aspects. In this seminar the three speakers will focused on the ground motions, and the geotechnical and structural responses from this event.

The topic on the Baja Earthquake has attracted many students and professors to attend our seminar. The seminar was a successful event that provided great information about the Baja California Earthquake. The seminar was attended by a variety of people including undergraduate and graduate students as well as UCSD professors.

2. Natural Phenomena Hazards in Nuclear Facilities

Guest Speaker:

Dr. Matthew Tolbolski Ph.D, P.E; *President & CEO of Tolbolski Watkins Engineering, Inc*

On April 18, 2001, UCSD EERI Chapter hosted a seminar presented by Dr. Matthew Tolbolski on “Natural Phenomena Hazards in Nuclear Facilities”.

This presentation provided a discussion of a variety of hazard that are traditionally considered when performing work related to nuclear facilities. The main focus related to seismic considerations. Specific topics that were be covered included: code-based performance objectives, soil-structure interaction, in-structure response spectra, distribution systems and seismic qualification of nonstructural components. Overall, this presentation provided a positive learning experience for UCSD structural engineering students and was hosted in conjunction with the graduate student seminars.

3. Building Disaster Resilient Communities



Guest Speaker:

Mr. Chris Poland, S.E.; *Chairman and Sr. Principal Degenkolb Engineers*

On April 16, 2011, Dr. Poland visited the UCSD campus to speak to UCSD students and tour the structural engineering department. UCSD EERI chapter was honored to coordinate Mr. Poland visit and host a seminar along the graduate students.

Chris Poland has been actively involved in the work of the San Francisco Planning and Urban Research Association (SPUR) Resilient Cities Initiative that is working to define what San Francisco needs from its seismic mitigation policies so it can move in this direction. Mr. Poland described to UCSD students: the Resilient City Initiative, its current status, and discuss the role of design professionals in achieving the needed outcomes. Mr. Poland visit was success for UCSD EERI chapter as well as Dr. Poland. Events of Mr. Poland's visiting includes: a one half hour Coffee Hour with graduate students, a one hour seminar presented by Dr. Poland, lunch with 3 faculty members and 3 UCSD graduate students, provide insight on a research project of UCSD PHD students, and a tour of UCSD laboratory's and outdoor shake table.

4. Future Seminar – October 11th 2011.

Guest Speaker:

David Mar, SE; *Owner and Principal Tipping Mar*

Community Involvement/Outreach

1. **BE WISE Event**



On Saturday, April 2, 2011, UCSD EERI Student chapter represented the Structural Engineering Department at a Women in Science and Engineering Event that host High school girls with an interest in science and engineering. EERI student members answered a variety of questions from high school girls and their parents regarding structural engineering and the UCSD structural engineering program. Students were provided with examples of projects completed in structural engineering courses as well as an overview the structural engineering discipline. Overall, the event was successful and UCSD EERI enjoyed speaking with prospective students and their families.

2. EERI San Diego Chapter Dinner

Topic: The Great East Japan Earthquake: Lessons for California and San Diego

Speakers:

Dr. Jorge Meneses; *Kleinfelder*
Dr. Mitsuo Nozu; *Fudo-Tetra, Japan*
Prof. Atsushi Tago; *Kobe University, Japan*
Dr. Matthew Tobolski; *Tobolski Watkins Engineering*
Kathy Yhip; *San Onofre Nuclear Generation Station*

On May 25, 2011, the San Diego Regional Chapter of EERI had a dinner meeting at The Tom Ham's Lighthouse Restaurant. Five speakers presented on various topics surrounding the Earthquake in Japan. Jorge Meneses provided an overview of the mega-earthquake and tsunami, and presented his findings and observations from his GEER (Geotechnical Extreme Events Reconnaissance) mission; Mitsuo Nozu presented in detail the damage caused by liquefaction and lateral spreading in Urayasu City, Tokyo Bay; Atsushi Tago described the impact of the mega earthquake and tsunami to the people of the most affected Sendai region; Matthew Tobolski provided a discussion of a variety of hazards that are traditionally considered when performing design of nuclear facilities; and Kathy Yhip described the twin reactor units at Southern California Edison's San Onofre Nuclear Generating Station and a status of current safety conditions.

This was a wonderful opportunity for the student members to meet with local professionals and expand our social network. It also gave us the opportunity to become involved with EERI on a regional level.

3. EERI Annual Conference- San Diego Convention Center



One of the most exciting events at this year's EERI Annual Conference was the Seismic Design Competition. While implementing a wide range of analysis and design programs, undergraduate teams from the entire world used balsa wood as their building blocks to construct some beautiful towers and test them on the shake table. Many innovative design ideas were explored, but only one team reigned supreme. UCSD EERI chapter was impressed with all the students who participated and all the seminars attended.

4. First Meeting of the Academic Year/ Restarting UCSD EERI Chapter



Our first general interest meeting was met with tons of support from the local graduate students. We staged everything at the Round Table Pizza on campus, ordered some lunch and introduced the attendees to some of the aspects of the student organization. Our next meeting focused on electing new officers and working with the faculty to bring in some guests for the seminar series.