

2016-2017 ANNUAL REPORT

Oregon State University Student Chapter of the Earthquake Engineering Research Institute



Report Date: April 25, 2017

This report summarizes the membership and activities conducted by Oregon State University Student Chapter of the Earthquake Engineering Research Institute during the 2016-2017 academic year.

MISSION & GOALS

EERI-OSU's mission and goals align with those of EERI national with a particular emphasis on advancing the sciences and practice of earthquake engineering and the solution of earthquake engineering problems, and to improve understanding of the impact of earthquakes on the physical, social, economic, political and cultural environment.

MEMBERSHIP

The Oregon State University Student Chapter had a total of 5 members in 2016-2017.

OFFICERS

The Board consisted of the following members:

Role	Name	EERI Member Number	Email	Student Status
President	Maggie Exton	18815	extonm@oregonstate.edu	Graduate student
Treasurer	Sharoo Shrestha	18816	shrestsh@oregonstate.edu	Graduate student
Secretary	Mohammad Shafiqul Alam	18819	alammo@oregonstate.edu	Graduate student

FACULTY ADVISORS

Andre Barbosa, PhD, Assistant Professor, Civil and Construction Engineering, Oregon State University

Ben Mason, PhD, Assistant Professor, Civil and Construction Engineering, Oregon State University

Below is a photograph of the officers with faculty advisors, a graduate student and a guest speaker.



*From left to right: Madhav Parikh, Dr. Andre Barbosa, Mohammad Shafiqul Alam, Maggie Exton, Ivan Wong (guest speaker), Sharoo Shrestha, Dr. Ben Mason

MEMBERS

A complete list of members is shown below.

Role	Name	EERI Member Number	Email	Student Status
President	Maggie Exton	18815	extonm@oregonstate.edu	Graduate student
Treasurer	Sharoo Shrestha	18816	shrestsh@oregonstate.edu	Graduate student
Secretary	Mohammad Shafiqul Alam	18819	alammo@oregonstate.edu	Graduate student
Member	Rajendra Soti	19459	sotir@oregonstate.edu	Graduate student
Member	Kengo Kato	16128	katoke@oregonstate.edu	Graduate student

BUDGET & FINANCIALS

Budget of OSU EERI student chapter is still being developed.

CHAPTER ACTIVITIES

CHAPTER MEETINGS

Board meetings were held once per quarter since the reactivation of the EERI-OSU student chapter in the Spring 2016. Meetings were held more frequently while organizing the Friedman Family Visiting Professional event.

Below is the summary of the chapter meetings.

2016-2017 Annual Report, April 25, 2017

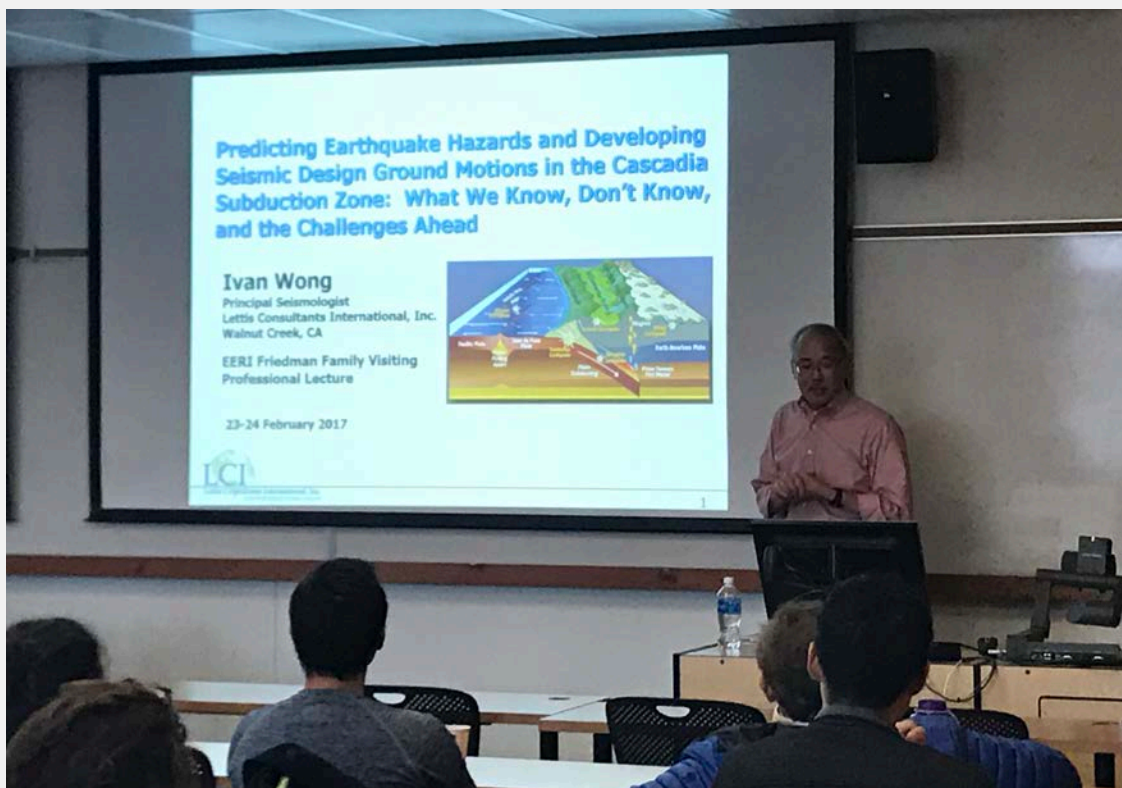
Oregon State University Student Chapter of the Earthquake Engineering Research Institute

Date	Agenda/Activities	Attendees
6/3/16	Brainstorming ideas to increase membership and recruit for the SDC	Maggie Exton, Mohammad Shafiquel Alam, Sharoo Shrestha
10/25/16	Requesting a Friedman Family Visiting Professional: Selecting potential candidates	Maggie Exton, Mohammad Shafiquel Alam, Sharoo Shrestha
12/6/16	Meeting after Friedman Family Visiting Professional Match: Planning for the event	Maggie Exton, Mohammad Shafiquel Alam, Sharoo Shrestha
2/6/17	Final discussion on the itinerary for Friedman Family Professional visit	Maggie Exton, Mohammad Shafiquel Alam, Sharoo Shrestha, Dr. Andre Barbosa, Dr. Ben Mason
2/22/17	Final meeting before the event	Maggie Exton, Mohammad Shafiquel Alam, Sharoo Shrestha

FRIEDMAN FAMILY VISITING PROFESSIONAL LECTURE

Oregon State University EERI student chapter was selected to participate in the EERI Friedman Family Visiting Professionals Program this academic year. Ivan G. Wong, principal seismologist from Lettis Consultants International, California visited OSU on February 24, 2017 to present his lecture on "Predicting Earthquake Hazards and Developing Seismic Design Ground Motions in the Cascadia Subduction Zone". The lecture attracted audience from different discipline such as practicing engineers, students, homeowners, emergency planners and city planners. In total, 40 people attended the event.

Besides the presentation, faculty members at OSU had an opportunity to interact with Ivan in meetings with faculty. Graduate students, on the other hand, got to share their research and get invaluable advice from a professional with decades of experience on engineering seismology.



Ivan Wong presenting his Lecture



Lecture Attendees

SEISMIC DESIGN COMPETITION TEAM

A team for the Seismic Design Competition will be developed for the 2018 competition.

ELECTION & ELECTION RESULTS

An election for officers for the 2017-2018 academic year has not been held yet. The current officers and their positions are listed above.

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 Friedman Family Visiting Professional Visit.

Predicting Earthquake Hazards and Developing Seismic Design Ground Motions in the Cascadia Subduction Zone: What We Know, Don't Know, and the Challenges Ahead

Friedman Family Visiting Professional Lecture

Ivan G. Wong

Principal Seismologist

Lettis Consultants International

Walnut Creek, CA

In only the past two to three decades has it become accepted that the Cascadia subduction zone is capable of generating giant earthquakes (moment magnitude [Mw] 8.5 and larger). Hence in this relatively short timeframe, the earthquake scientific and engineering communities have been playing catchup in terms of characterizing the hazards from such megaquakes and developing adequate seismic design criteria for ground shaking and tsunamis. The next Cascadia subduction zone megaquake will be the most severe natural hazard threat that the Pacific Northwest has ever seen. The Pacific Coast will be subjected to a devastating tsunami with wave heights in excess of 30 m in some locales and the areas from the coast inland up to 200 km will be hit by strong and sustained ground shaking. Two to three decades is a very short period of time to prepare the region for such formidable hazards and although significant progress has been made, there are significant holes in our knowledge and challenges in filling those holes. In this presentation, I will describe what we know and don't know in terms of the earthquake potential of the CSZ megathrust and its impacts, and how the available information is being used by the engineering community to not only develop seismic design criteria for new buildings, facilities, and structures but probably most challenging, assessing the seismic stability of our existing inventory.



FRIDAY
FEB. 24
3 P.M.

Kearney 312
FREE

Food and drinks will be provided.

Ivan G. Wong is the principal seismologist with Lettis Consultants International in Walnut Creek, California. Ivan has more than 40 years of experience in the fields of engineering seismology and seismic geology. Ivan is a past member of the EERI Board of Directors, past President of the EERI Northern California Chapter, past member of the Editorial Board for EERI's Earthquake Spectra, and currently serves as an Associate Editor for the Bulletin of the Seismological Society of America. He is a member of numerous scientific and engineering committees, panels, and working groups including Chair of the Working Group on Utah Earthquake Probabilities and a member of the CISON Advisory Panel, ANSS National Steering Committee, and the American Nuclear Society Working Groups on Probabilistic Seismic Hazard Analysis and Surface Fault Rupture and Deformation.

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