

2018-2019 ANNUAL REPORT



Portland State University Student Chapter of the Earthquake Engineering Research Institute

Report Date: June 20, 2019

This report summarizes the membership and activities conducted by the Portland State University Student Chapter of the Earthquake Engineering Research Institute during the 2018-2019 academic year.

MISSION & GOALS

Our mission at EERI PSU is to reduce earthquake risk by advancing the science and practice of earthquake engineering and awareness, and to provide students with opportunities to develop leadership skills, network with professionals, and to gain experience in the earthquake engineering field. We aim to serve PSU and the greater Portland community with the purpose of sharing knowledge, exchanging experiences, and promoting education through various activities and events.

MEMBERSHIP

The Portland State University Student Chapter had a total of 16 members in 2018-2019.

OFFICERS

The Board consisted of the following members:

Role	Name	EERI Member Number	Email	Student Status
President	Melissa Preciado	19307	prec@pdx.edu	Graduate student
Treasurer	Linsey Daclison	20001	dlinsey@pdx.edu	Undergraduate student
SDC Co-Captain	Joyelaine Sherman-Lewis	19321	jps4@pdx.edu	Undergraduate student
SDC Co-Captain	Evgeny Kozyaev	30124	evgeny@pdx.edu	Undergraduate student
Seminars Coordinator	Andrew Huffman	N/A	Andr4@pdx.edu	Graduate student

Board meetings were held twice per term for all three terms of the 2018-2019 school year.

FACULTY & INDUSTRY ADVISORS

List of advisors with contact information and affiliation.

Role	Name	Email
Faculty Advisor	Arash Khosravifar	karash@pdx.edu
Faculty Advisor	Diane Moug	dmoug@pdx.edu

MEMBERS

A complete list of members is shown below.

Name	EERI Member Number	Email	Student Status
Melissa Preciado	19307	prec@pdx.edu	Graduate student
Andrew Huffman	N/A	Andr4@pdx.edu	Graduate student
Joyelaine Sherman-Lewis	19321	jps4@pdx.edu	Undergraduate student
Linsey Daclison	20001	dlinsey@pdx.edu	Undergraduate student
Kathleen Williams	N/A	klw4@pdx.edu	Undergraduate student
Evgeny Kozyaev	30124	evgeny@pdx.edu	Undergraduate student
Michael Lefcovich	N/A	mlefc02@pdx.edu	Undergraduate student
Sarah Crisp	N/A	scrips@pdx.edu	Undergraduate student
Talbot Ridgway	N/A	tridgway@pdx.edu	Undergraduate student
Max Van Donsel	N/A	mvandon2@pdx.edu	Undergraduate student
Musaed Alqattan	N/A	alqattan@pdx.edu	Undergraduate student
Jacob Rollins	30159	jrollins@pdx.edu	Undergraduate student
Kristen Albertson	N/A	kalbert2@pdx.edu	Undergraduate student
Kayla Sorenson	N/A	sorenson@pdx.edu	Undergraduate student
Milad Sourì	N/A	souri@pdx.edu	Graduate Student
Sepehr Nadal	N/A	snadal2@pdx.edu	Graduate Student

BUDGET & FINANCIALS

The EERI PSU student chapter was primarily funded by PSU's Maseeh College of Engineering & Computer Science: Department of Civil & Environmental Engineering. We also worked with the PSU Foundation, outside companies, and attended professional networking opportunities to promote our student chapter and to ask for support.

List of financial sponsors of our chapter.

Sponsor Name/Organization	Contact Person	Amount
Maseeh College of Engineering & Computer Science: Department of Civil & Environmental Engineering	Ariel Lewis/Megan Falcone	\$12,500.00
ASCE PSU Student Chapter (Earthquake Preparedness Event Co-Host)	John Siler	\$250.00
AEG PSU Student Chapter (Earthquake Preparedness Event Co-Host)	Jessie Moore	\$1,500.00
iTE/STEP PSU Student Chapter (Earthquake Preparedness Event Co-Host)	Darshan Chauhan	\$1,500.00

CHAPTER ACTIVITIES

Over the 2018-19 school year for EERI PSU, we held many meetings for leadership, SDC, special events, and general meetings for all students. The objectives of these meetings were to establish our goals and plan on how

to accomplish those tasks. The highlights of EERI PSU so far this year has been the Disaster Preparation Event that we organized and hosted, participating in the 2019 Seismic Design Competition, and hosting numerous lectures with invited speakers. Details on our meetings and events are given in the following sections.

REGULAR CHAPTER MEETINGS

EERI PSU held leadership meetings once a term for the fall, winter, and spring school terms of the 2018-19 school year. At these meetings, the leadership officers discussed various matters relating to the EERI PSU student chapter, including: SDC, funding, future events, ways to recruit new members, logistics of maintaining our student group status, and general leadership roles and duties.

In addition to the leadership meetings, meetings were also held for our other larger projects and events. Our SDC team held weekly meetings during the school year, to work on the project and to discuss their progress and future tasks. During the three months prior to our large Earthquake Preparedness Event, we held meetings once a week with all individuals and student groups involved, to plan the event. Our Friedman Family Visiting Professional Visit was done in the spring term. Lastly, EERI PSU held general meetings once a term that were welcome to all PSU students. The goals of these meetings were to get new students involved in EERI, and to provide updates on our ambitions and progress.

FRIEDMAN FAMILY VISITING PROFESSIONAL or DISTINGUISHED LECTURE VISIT

We were privileged to have Dr. Faiz Makdisi from SAGE Engineers as our Friedman Family Visiting Professional. This year, we decided to invite local engineers as well as PSU students to attend the lecture so that we could all benefit from Dr. Makdisi's research and knowledge.

Earthquake Preparedness Event- April 1st, 2019

Our goal with the Earthquake Preparedness Event was to raise awareness for the potential dangers of earthquakes and other natural disasters in Portland and the Pacific Northwest. This is the second year EERI PSU has put an event like this together, aiming to educate the public about what to expect in case of the "Megaquake" and how to be ready. The event started with a presentation from Bruce Johnson, the Oregon Department of Transportation's (ODOT) Bridge Engineer, which highlights ODOT's work towards infrastructure resilience in the event of a large natural disaster. It was followed by a discussion and Q&A session with our panel of experts from different government organizations including TriMET, ODOT, Portland Bureau of Transportation, Portland Bureau of Emergency Management, PSU Emergency Management, and PSU Geology. The panelists had an extremely engaging and educational discussion about emergency preparedness. They were able to stem their conversation from questions that we got from the community prior to the event, and had a Q&A session with the audience that attended. Closing out the event was tabling from at least 13 different agencies, companies, and organizations that are heavily involved in disaster preparation and emergency management in the Pacific Northwest. In total we had over 230 members of the community come to the event, to learn about disaster preparation and the local agencies that are here to serve the Pacific Northwest during an emergency. Overall, the event was a huge success, thanks to the large turnout from the public community, and to the support from the many professionals and volunteers that helped with the event.

For more details on our Earthquake Preparedness Event, please visit our events page:

<https://eeripdx.wordpress.com/events/>

Yumei Wang Le Val Lund Lecture

We had the pleasure to host Ms. Wang's distinguished lecture about her continuous work as a local geotechnical engineer working for the Department of Geology and Mineral Industries (DOGAMI). Ms. Wang worked with the many local engineers and public officials and was instrumental in the development of the 2013 Oregon Resilience Plan. We invited local engineers and professionals, as well as PSU engineering students to hear the inspirational presentation by Ms. Wang and be encouraged to go above and beyond in their engineering careers. Ms. Wang's lecture followed by a panel discussion including Mike Harryman, State Resiliency Officer from Governor Brown's Office, Dean Richard Corsi from Maseeh College of Engineering and Computer Science, and Dean Stephen Percy from College of Urban and Public Affairs at PSU. The event was attended by over 120 people.

SEISMIC DESIGN COMPETITION TEAM

For this year's SDC team, we had a total of 11 members. While not all members were there every step of the way, they all contributed to the progress and success of this year's team. As discussed previously, we held weekly SDC meetings for the entire school year to work on the project. Most of the fall term was focused on writing the SDC design proposal and recruiting new members into the group. After being accepted into the competition, we started thinking and working on the design of our building, using mostly AutoCAD and SAP2000 as our structural analysis tool. Towards the end of winter term, we constructed a full scale model. Using data and methods from previous years, we were able to build a balsa wood structure that performed very well during the competition.

SDC Team Members

A complete list of members is shown below.

Name	EERI Member Number	Email	Student Status
Joyelaine Sherman-Lewis	19321	jps4@pdx.edu	Undergraduate student
Linsey Daclison	20001	dlinsey@pdx.edu	Undergraduate student
Kathleen Williams	N/A	klw4@pdx.edu	Undergraduate student
Evgeny Kozyaev	30124	evgeny@pdx.edu	Undergraduate student
Michael Lefcovich	N/A	mlefc2@pdx.edu	Undergraduate student
Sarah Crisp	N/A	srips@pdx.edu	Undergraduate student
Talbot Ridgway	N/A	tridgway@pdx.edu	Undergraduate student
Max Van Donsel	N/A	mvandon2@pdx.edu	Undergraduate student
Musaed Alqattan	N/A	alqattan@pdx.edu	Undergraduate student
Jacob Rollins	30159	jrollins@pdx.edu	Undergraduate student
Kristen Albertson	N/A	kalbert2@pdx.edu	Undergraduate student

SDC Team Financial Sponsors

A list of financial sponsors for our SDC team.

Name	Email	Amount	Note
Maseeh College of Engineering & Computer Science: Department of Civil & Environmental Engineering	Ariel Lewis/Megan Falcone	\$12,000.00	

Team results and lessons learned

This year the team placed 17th at the competition. We realized the basic core design we have used for the last two years increase the stiffness of the structure and we are able to achieve the estimated displacements.

ELECTION & ELECTION RESULTS

Elections for the 2018-2019 academic year will be held later this year. Until that time, the current officers will remain in office.

FEEDBACK FOR EERI

We would like help with fundraising. Raising more funds will better enable us to host events, provide refreshments during events and meetings, and pay for SDC-related expenses, including purchase of a new shake table for SDC and outreach activities. It would really help our fundraising campaigns if EERI can help us reach to the regional EERI members in Oregon.

Fliers for events:

Earthquake Preparation Event

Monday, April 1st, 2019
5:00pm-8:00pm
University Place Hotel & Conference Center
Columbia Falls Ballroom
310 SW Lincoln St, Portland, OR 97201



To Register:



Scan me




Hosted by PSU Student Chapters:






5:00pm- 6:00pm: Keynote Presentation

Bruce Johnson, State Bridge Engineer, ODOT



Liquefaction of soil at the Christchurch NZ earthquake in 2011

6:00pm-7:00pm: Panelist Discussion

- **Laura Hanson** *Regional Disaster Preparedness Organization (RDPO)*
- **Justin E. Ross** *Multnomah County Emergency Management (MCEM)*
- **Emma Stocker** *PSU Emergency Management*
- **Dr. Ashley Streig** *PSU Dept. of Geology*
- **Emily Tritsch** *Portland Bureau of Transportation*
- **Alexander Ubiadas, Jr.** *TriMet*
- **Dr. Haizhong Wang** *OSU Dept. Of Civil Engineering*



2018 Earthquake Preparedness Event at PSU

7:00pm-8:00pm: Tabling

- Portland Bureau of Emergency Management (*PBEM*)
- Portland Bureau of Transportation (*PBOT*)
- Portland Water Bureau (*PWB*)
- Seismic Retrofitting companies
- PSU Graduate Research
- And many more!



Dinner provided with free registration

Childcare available (must register before March 25th)
 Event is worth two Professional Development Hours

For questions please visit:
<http://tinyurl.com/EPEatPSU> →





Faiz Makdisi presentation. Photo Credit: Andrew Huffman



Meriwether-Lewis Elementary school STEM night. Photo Credit: Michael Lefcovich