

2015-2016 ANNUAL REPORT

University of Illinois at Urbana-Champaign Student Chapter

of the Earthquake Engineering Research Institute

Report Date: May 6, 2016



This report summarizes the membership and activities conducted by the University of Illinois at Urbana-Champaign Student Chapter of the Earthquake Engineering Research Institute during the 2015-2016 academic year.

MISSION & GOALS

The University of Illinois EERI student chapter aims to uphold the mission of the EERI and to provide opportunities for students to learn about earthquake engineering, meet colleagues, and interact with professionals with similar interests through organizing events and activities.

MEMBERSHIP

The University of Illinois Student Chapter had a total of 14 registered EERI National members in 2015-2016.

OFFICERS

The Board consisted of the following members:

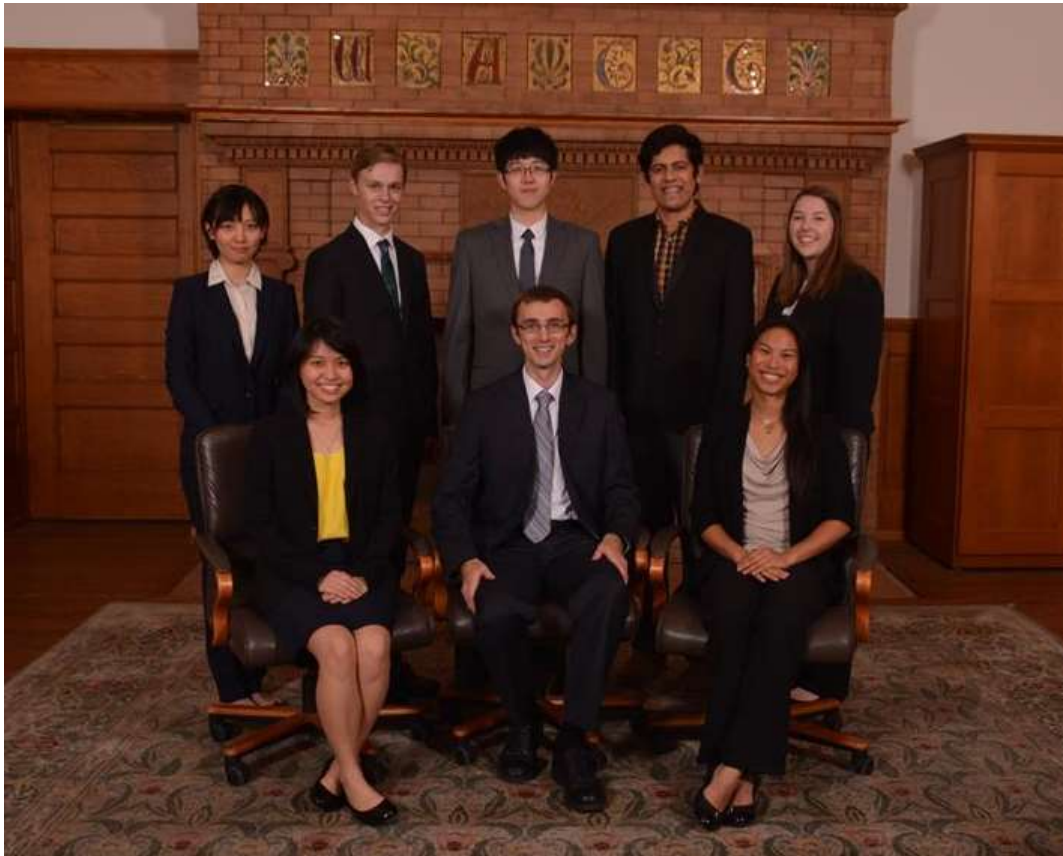
Role	Name	EERI Member ID#	Email	Student Status
President	Mitchell R Knapp	17730	mrknapp2@illinois.edu	Graduate student
Vice President	Zhengboyang Gao	-	zgao9@illinois.edu	Graduate student
Treasurer	Siddhant Chawla	-	schawla3@illinois.edu	Undergraduate student
Secretary	Cynthia Suminto	18822	suminto2@illinois.edu	Graduate student
Corporate Chair	Wanzhou Ma	17894	wma7@illinois.edu	Undergraduate student
SDC Captain	Christina Marelli	18699	marelli2@illinois.edu	Undergraduate student
SDC Vice-Captain	Alexander Tong	18703	ahrtong2@illinois.edu	Undergraduate student
Social Chair	Peter Heintz	18821	pheintz2@illinois.edu	Undergraduate student
Graduate Advisor	Martha Cuenca	17337	mcuenca2@illinois.edu	Graduate student

Board meetings were held on the following dates:

September 8, 2015
September 22, 2015
October 2, 2015
November 9, 2015

January 22, 2016
January 27, 2016
February 24, 2016
March 9, 2016

April 27, 2016
May 4, 2016



Back row (left to right): Wanzhou Ma, Peter Heintz, Zhengboyang Gao, Siddhant Chawla, Christina Marelli
Front row (left to right): Cynthia Suminto, Mitchell R Knapp, Martha Cuenca
Missing: Alexander Tong

FACULTY & INDUSTRY ADVISORS

Faculty Advisors

Youssef Hashash

Professor
University of Illinois at Urbana-Champaign
Department of Civil and Environmental Engineering
2230C Newmark Civil Engineering Laboratory
205 N Mathews Ave
Urbana, IL 61801
Tel: (217) 333-6986
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Bassem Andrawes

Associate Professor
University of Illinois at Urbana-Champaign
Department of Civil and Environmental Engineering
3122 Newmark Civil Engineering Laboratory
205 N Mathews Ave
Urbana, IL 61801
Tel: (217) 244-4178
E-mail: andrawes@illinois.edu

Industry Advisor

Thomas Frankie

Associate III

Wiss, Janney, Elstner Associates, Inc.

330 Pfingsten Road, Northbrook, IL 60002

Tel: (847) 272-7400

E-mail: tfrankie@wje.com

MEMBERS

A complete list of nationally registered EERI student members is shown below.

Name	EERI Member ID#	Email	Student Status
Anahid Behrouzi	16564	behrouz2@illinois.edu	Graduate student
Martha Cuenca	17337	mcuenca2@illinois.edu	Graduate student
Evgueni Filipov	13428	filipov1@illinois.edu	Graduate student
Joseph Harmon	16363	harmon4@illinois.edu	Graduate student
Peter Heintz	18821	pheintz2@illinois.edu	Undergraduate student
Mitchell Knapp	17730	mrknapp2@illinois.edu	Graduate student
Wanzhou Ma	17894	wma7@illinois.edu	Undergraduate student
Christina Marelli	18699	marelli2@illinois.edu	Undergraduate student
Yasutaka Narazaki	18792	narazak2@illinois.edu	Graduate student
Cynthia Suminto	18822	suminto2@illinois.edu	Graduate student
Alex Tong	18703	ahong2@illinois.edu	Undergraduate student
Jeff Wallace	15547	jwallacebruins@gmail.com	Graduate student
Antonio Zaldivar de Alba	18720	zldvrdl2@illinois.edu	Graduate student
Siang Zhou	18610	szhou53@illinois.edu	Graduate student

BUDGET & FINANCIALS

This year the EERI student chapter at UIUC received funds from both the Department of Civil and Environmental Engineering at the University of Illinois and the Student Organization Resources Fee (SORF). General expenses included food for those attending guest lectures and material costs for SDC materials and tools. Additionally, the student chapter covered the registration and travel costs associated with sending two of its board members – Christina Marelli and Alexander Tong – to the EERI Annual Meeting in San Francisco.

The following is an expense report for the school year beginning August 2015 and ending May 2016.

Starting Balance & Funds Received	Amount
Starting Balance (August 2015)	\$3683.94
CEE Department Funding	\$1100.00
SORF Funding	\$172.44
<i>Total Funds</i>	<i>\$4956.38</i>
Expenses	
Lunch w/ Visiting Freidman Family Visiting Professional, Richard Eisner	\$20.44
Dinner w/ Visiting Freidman Family Visiting Professional, Richard Eisner	\$97.47
SDC Material Costs	\$66.72
Food & Drink for Guest Lecture Attendees (2 Lectures)	\$215.33
Annual Meeting Registration Costs (2 Attendees)	\$465.00
Annual Meeting Travel Expenses (2 Attendees)	
Airfare	\$582.40
Bus Fare	\$110.00
Poster Printing	\$120.00
Additional Ground Travel & Other Miscellaneous Items	\$50.00
<i>Total Expenses</i>	<i>\$1727.36</i>
Account Balance (May 2016)	\$3229.02

CHAPTER ACTIVITIES

REGULAR CHAPTER MEETINGS

Chapter meetings were all held in conjunction with either lectures or tutorials. These meetings typically took place once per month. In general, each meeting opened with an EERI Student Chapter Board member updating the members in attendance on chapter activities. Then the EERI Chapter officer would introduce the guest lecturer, followed by the lecturer speaking on a subject related to earthquake engineering.

FRIEDMAN FAMILY VISITING PROFESSIONAL VISIT

February 29, 2016



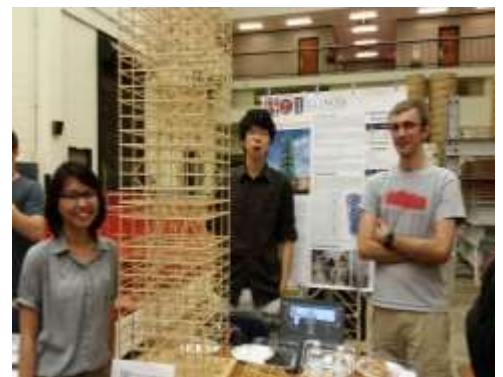
Richard Eisner's lecture was titled "Preparing for the Worst Case... Because It Just Might Happen" and focused on Japan's Tohoku Earthquake, which exceeded expectations, and the community response that followed. Approximately 125 students and a handful of faculty members attended Mr. Eisner's lecture. It was well-received by those in attendance, and Mr. Eisner was able to take questions following his presentation. These questions allowed Mr. Eisner to clearly distinguish between the need for providing engineering solutions to combat probable risks and the need to be mindful of and plan for possible worst-case scenarios. A small group of lecture attendees was then able to hold a short discussion with Mr. Eisner.

Prior to giving his lecture, Mr. Eisner was guided on a campus tour, followed by a tour of the Newmark Civil Engineering Laboratory facilities including the Smart Structures Technology Lab and NEES Lab. In the evening, Mr. Eisner was treated to dinner at a restaurant in downtown Champaign. Student chapter board members – Mitch Knapp, Martha Cuenca, and Cynthia Suminto were in attendance. Discussion included career-related advice, general life lessons, and memorable life experiences.

CEE Fall Kick Off

September 9, 2016 at 5 pm

CEE Fall Kick Off is the first EERI UIUC event held at the beginning of the fall semester to promote the student chapter and gather students interested in earthquake engineering together. The balsa wood structure from a previous year's SDC team was displayed. EERI UIUC members discussed the activities and events that the chapter hosts every semester in an effort to engage students in the earthquake engineering field.



Information Session and Lab Tour

September 10, 2016 at 5 pm

This meeting served as the first general meeting to introduce potential new members to the EERI UIUC Student Chapter and to welcome back returning members. In this event, the chapter president, Mitch Knapp, talked about the benefits of joining EERI, the seismic design competition, and other activities that EERI UIUC would host throughout the year. The graduate advisor, Martha Cuenca, also gave a tour of the large-scale structural testing facility in the Newmark Civil Engineering Laboratory and operated a small-scale shake table demonstration in the Smart Structures Technology Laboratory.



EERI BBQ Cookout

September 18, 2015 at 4 pm

At the beginning of the semester, EERI UIUC and SEA UIUC co-hosted a fun barbecue cookout event at Scott Park, Champaign, IL. The objective of this event was to welcome new student members and provide them with a chance to meet fellow members and to talk with fellow engineering students.

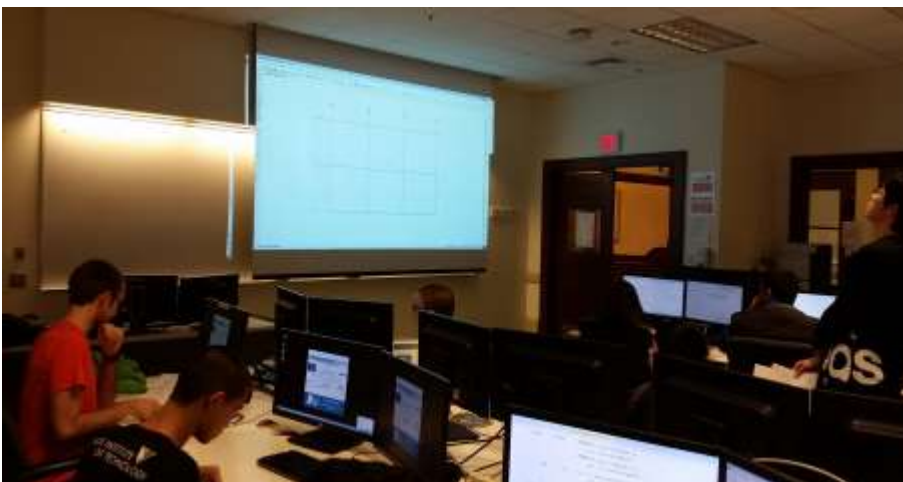
Seismic Design Lecture by Evgueni Filipov

October 1, 2015 at 5:30 pm

Evgueni Filipov, a PhD candidate in Civil Engineering at the University of Illinois presented on the fundamentals of seismic design to the EERI UIUC Chapter. The topics covered introductory structural dynamics and seismic analysis concepts, which were essential to the undergraduate team's preparation for the Seismic Design Competition. This lecture was primarily intended for underclassmen on the SDC team so that they could gain a general understanding of seismic design. It was also beneficial for attendees who had a general interest in earthquake engineering design.

SAP2000 Workshops

November 3&10, 2015 at 6:30 pm



EERI UIUC held two one-hour SAP2000 tutorial workshops, given by the chapter graduate advisor, Martha Cuenca, and the chapter president, Mitch Knapp. The purpose of these workshops was to educate both SDC team members and structural engineering students with limited or no SAP2000 software background. In the first tutorial session, Martha reviewed the fundamentals of structural analysis, taught the basic steps for developing a structural model, and demonstrated how to run a static analysis in SAP2000. In the second tutorial, Mitch taught how to use SAP2000 to execute modal and time history analyses of a structure. This was particularly useful for the SDC team and students that were interested in taking the graduate-level earthquake engineering course offered that academic year.

EERI Distinguished Lecture: "Cities, Earthquakes, and Time"

November 12, 2015 at 5 pm

Dr. Robert Olshansky, Professor and Head of the Department of Urbana and Regional Planning at University of Illinois, gave a lecture about the characteristics of the relationship between earthquake and time. He also explained how time acts as a variable and its effect on policy decisions.



EERI Game Night and Potluck

November 19, 2015 at 6 pm

The chapter held a social event in an effort for new and old EERI members to spend time together outside of the academic setting and to get to know each other better. The event started out with the potluck, where attendees shared food they had prepared or bought. Then attendees proceeded to play card games and continued socializing.

EERI Earthquake Clearinghouse Involvement

In response to the February 2016 Taiwan earthquake, the EERI UIUC Student Chapter solicited five interested UIUC students to participate in virtual reconnaissance efforts. They provided reconnaissance teams with critical background information by detailing pre- and post-earthquake site conditions. Moreover, eight UIUC students were involved in helping post-process data from Taiwan earthquake reconnaissance teams.

In response to the April 2016 Japan earthquake, member Yasutaka Narazaki is helping gather important pre- and post-earthquake information for reconnaissance teams and contributing to the 2016 Japan Earthquake Clearinghouse.

SEISMIC DESIGN COMPETITION TEAM

The Design Proposal submitted by the EERI UIUC SDC team did not qualify the team to participate in the 2016 Undergraduate Seismic Design Competition.

SDC Team Members

A complete list of members is shown below.

Name	EERI Member ID#	Email	Role
Christina Marelli	18699	marelli2@illinois.edu	Captain
Alexander Tong	18703	ahtong2@illinois.edu	Vice-Captain
Belinda Chum	-	bchum2@illinois.edu	Member
Brian Chung	-	bcchung2@illinois.edu	Member
John Del Ciello	-	delciel2@illinois.edu	Member
Anshuman Dogra	-	dogra4@illinois.edu	Member
Alan Farca	-	farcacz2@illinois.edu	Member
Cody Hansen	-	cmhanse2@illinois.edu	Member
Peter Heintz	18821	pheintz2@illinois.edu	Member
Dominic Lim	-	dlim17@illinois.edu	Member
Muhammad Tayyab	-	tayyab2@illinois.edu	Member

Team results and lessons learned

This year the EERI UIUC SDC team consisted entirely of new undergraduate members. Although this posed some difficulties, such as member retention and unfamiliarity with the competition, the team was able to learn from these challenges and right away begin preparing for next year's competition. The Chapter Board decided to send Christina Marelli (SDC Captain) and Alexander Tong (SDC Vice-Captain) to the EERI 2016 Annual Meeting in San Francisco, CA. Both Christina and Alexander were able to attend the SDC events and learn from their peers. While at the Annual Meeting, they also presented a poster on the Chapter's best practices and activities.

To keep SDC team members interested and invested at the beginning of the next school year, construction and testing of a preliminary structure will take place earlier than in year's past. A computer model reflecting the newly updated SDC rules will also be simultaneously developed.



ELECTION & ELECTION RESULTS

An election for officers for the 2016-2017 academic year was held on May 4, 2016. The table below shows the new officers appointed to the Chapter board who will take office in June 2016.

Role	Name	EERI Member ID#	Email	Student Status
President	Alexander Tong	18703	ahtong2@illinois.edu	Undergraduate student
Vice President	Christina Marelli	18699	marelli2@illinois.edu	Undergraduate student
Treasurer	Siddhant Chawla	-	schawla3@illinois.edu	Undergraduate student
Secretary	TBD	-	-	-
SDC Captain	Christina Marelli	18699	marelli2@illinois.edu	Undergraduate student
SDC Vice-Captain	Peter Heintz	18821	pheintz2@illinois.edu	Undergraduate student
Corporate Chair	Tanmay Ramani	-	tramani2@illinois.edu	Graduate student
Graduate Advisors	Pratik Deogekar	-	deogeka2@illinois.edu	Graduate student
	Yuguang Fu	-	yfu15@illinois.edu	Graduate student
	Setare Hajarolasvadi	-	hajarol2@illinois.edu	Graduate student

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:

Appendix 1. Fliers

1. First general meeting
2. Seismic design lecture by Evgueni Filipov
3. Lecture by Dr. Robert Olshansky
4. Lecture by Richard Eisner, Friedman Family Visiting Professional



**Earthquake Engineering
Research Institute**



1st General Meeting

**When: Thursday, September 10th,
5:00pm**

**Where: 2312 Newmark Civil
Engineering Lab**


**What: Discover the benefits of
EERI membership!**

**Learn how to get involved
with the Seismic Design
Competition!**

**Take a tour of the Smart
Structures Technology Lab
and the large-scale
structural testing facility in
the Crane Bay!**



FREE FOOD!

 **EERI UIUC Chapter**

http://sites.google.com/a/illinois.edu/eeri_uiuc



Earthquake Engineering
Research Institute



Seismic Design Lecture

By Evgueni Filipov, PhD Candidate

Thursday, October 1st, 2015

5:30pm, 2312 NCEL

Highly recommended for prospective Seismic Design Competition team members!

Free Food!!!
(Jimmy John's)

Please **RSVP** at
<http://tinyurl.com/op3mwla>

EERI UIUC Chapter

http://sites.google.com/a/illinois.edu/eeri_uiuc



Earthquake Engineering
Research Institute



Dr. Robert Olshansky

Cities, Earthquakes, and Time

Thursday, November 12th, 2015

5:00pm, 3310 NCEL



Earthquakes occur suddenly, in a brief instant of time. But their effects—and the actions we take to reduce their effects—stretch over many years.

In this talk, Dr. Olshansky will explore some of the characteristics of the relationship between earthquakes and time. More importantly, he will explain how these various time characteristics affect policy decisions.

Dr. Robert Olshansky is both a Professor and Head of the Department of Urban and Regional Planning at University of Illinois. His teaching and research cover land use and environmental planning, with an emphasis on planning for natural hazards. He has been selected as EERI's 2015 Distinguished Lecturer.

EERI UIUC Chapter

http://sites.google.com/a/illinois.edu/eeri_uiuc

Free Food!!!
(Jimmy John's)

Please **RSVP** at
<http://tinyurl.com/op3mwla>





Earthquake Engineering Research Institute

Friedman Family Professional Visit



**Preparing for the Worst Case...
Because It Just Might Happen**

By Richard Eisner, FAIA

Monday, February 29th, 2016

4:00pm, 1310 Yeh Center



In 2011, Japan's world class engineering design and construction practices, research facilities, real time seismic networks and warning systems, and community education programs were challenged by a complex, compound disaster that "exceeded expectations."

In this seminar, Richard Eisner, FAIA, will utilize the consequences of the 2011 Great Northeast Japan Earthquake and Tsunami (Tohoku Earthquake) to illustrate why earthquake risk reduction does not rely only on probabilistic assessments of the hazard but has to be broadly conceived and multidisciplinary in implementation.



EERI UIUC Chapter

http://sites.google.com/a/illinois.edu/eeri_uiuc