

# 2015-2016 ANNUAL REPORT

## University of Massachusetts Amherst Student Chapter

### of the Earthquake Engineering Research Institute

Report Date: May 06, 2016



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

#### MISSION & GOALS

The EERI chapter at the University of Massachusetts Amherst seeks multiple objectives and goals by its members in order to continue to strive for excellence and a role model for a chapter. We actively seek out membership within the university, mostly the civil engineering department, in order to shape individuals and prepare them for the future; whether it is for future officer positions or for post-graduation. In addition, a main objective of ours is to bring in professionals from industry or academics to give lectures or roundtable talks to students that are interested in earthquake engineering. Having someone that has done work or is currently doing work in this field is valuable to all of the members in the chapter because of the first-hand learning and the network possibilities.

#### MEMBERSHIP

The University of Massachusetts Amherst Student Chapter had a total of 21 members in 2015-2016.

#### OFFICERS

The Board consisted of the following members:

Role	Name	EERI Member Number	Email	Student Status
President	Stephanie Castine		stephaniecastine@gmail.com	Graduate student
Vice-President	Mirna Mendoza		mmendoza15@gmail.com	Graduate student
Treasurer/Secretary	Ignacio Cetrangolo		icetrang@umass.edu	Graduate student
Seismic design captain	Michael Morano		mgmorano@umass.edu	Undergraduate student
Seismic design captain	Tracy Donoghue		tdonoghue@umass.edu	Undergraduate student

Board meetings were held at least once a month.

#### FACULTY & INDUSTRY ADVISORS

Dr. Scott Civjan (civjan@ecs.umass.edu)

#### MEMBERS

A complete list of members is shown below.

<b>Name</b>	<b>EERI Member Number</b>	<b>Email</b>	<b>Student Status</b>
Stephanie Castine		stephaniecastine@gmail.com	Graduate student
Mirna Mendoza		mmendoza15@gmail.com	Graduate student
Ignacio Cetrangolo		icetrang@umass.edu	Graduate student
Michael Morano		mgmorano@umass.edu	Undergraduate student
Tracy Donoghue		tdonoghue@umass.edu	Undergraduate student
Zachary Bartula		zbartula@umass.edu	Undergraduate student
Elisha Bettencourt		ebettenc@umass.edu	Undergraduate student
Jeffrey Gray		jagray@umass.edu	Undergraduate student
Frederick Hanna		fhanna@umass.edu	Undergraduate student
Jacob Kravits		kravitsjacob@gmail.com	Undergraduate student
Thomas Hill		tnhill@umass.edu	Undergraduate student
Ziying Lin		iyinglin@umass.edu	Undergraduate student
Daniel McLoughney		dmcloughney@umass.edu	Undergraduate student
Wyatt Ronan		wronan@umass.edu	Undergraduate student
Jack Rushe		jruse@umass.edu	Undergraduate student
Michael Szczerepa		mszczere@umass.edu	Undergraduate student
Peter White		peterwhite@umass.edu	Undergraduate student
Changling Zhang		changlingzha@umass.edu	Undergraduate student
Christopher Lyman		crlyman@umass.edu	Undergraduate student
Michael Mascio		mmascio@umass.edu	Undergraduate student
Danny Chen		dannychen@umass.edu	Undergraduate student
Alex Rice		atrice@umass.edu	Undergraduate student

## BUDGET & FINANCIALS

When I (Ignacio Cetrangolo) assumed office I was given \$90.00 to handle and use as needed. To date there has not been a change to that amount.

List any financial sponsors of your chapter.

<b>Sponsor Name/Organization</b>	<b>Contact Person</b>	<b>Amount</b>

## CHAPTER ACTIVITIES

### REGULAR CHAPTER MEETINGS

Chapter meetings generally begin with an outline of what will be discussed at the meeting and we go into each item individually. Every item is assigned to someone as a task to complete for the next time we meet or on as an “as need” basis. We discuss scheduling for meetings with faculty, planning of speakers that are coming, seismic design team updates, outreaching to potential or definitive speakers, other student chapters in regional universities, among others. Attendance is all of the officers for the chapter and sometimes students that are either in the chapter as members or are interested in becoming members in the future.

#### FRIEDMAN FAMILY VISITING PROFESSIONAL or DISTINGUISHED LECTURE VISIT

The presentation that Jim Malley gave had two parts. The first part began with Jim giving an overview of what the AISC Seismic Design Provisions were like sequentially before and after the Northridge earthquake of 1994. He presented multiple design examples with photos and descriptions that were at the center of focus during this earthquake. Furthermore, the speaker went into the details of how these examples were altered in the code and how it is still changing today. After this section of the presentation, Jim gave a short presentation on EERI and his involvement in it. During this part of the presentation, Jim also discussed his professional experience and provided career advice. At the end, questions were posed by the audience which included all structural engineering graduate students, faculty, and several graduate students that were interested in the lecture.

The objective of this activity was for both undergraduate and graduate students to stop in and chat with Jim Malley to network and get professional advice from someone who has been in the industry for years. There was a great turnout with multiple people from different disciplines. This session had a roundtable setting where students talked about classes, internship and work opportunities, tips for graduate school, and many more topics. See Item 1 for the flier.

#### SEISMIC DESIGN COMPETITION TEAM

Brief description of SDC effort at your university.

#### SDC Team Members

A complete list of members is shown below.

<b>Name</b>	<b>EERI Member Number</b>	<b>Email</b>	<b>Role</b>
Tracy Donoghue		mgmorano@umass.edu	Co-captain
Michael Morano		tdonoghue@umass.edu	Co-captain
Zachary Bartula		zbartula@umass.edu	Undergraduate student
Elisha Bettencourt		ebettenc@umass.edu	Undergraduate student
Jeffrey Gray		jagray@umass.edu	Undergraduate student
Frederick Hanna		fhanna@umass.edu	Undergraduate student
Jacob Kravits		kravitsjacob@gmail.com	Undergraduate student
Thomas Hill		tnhill@umass.edu	Undergraduate student
Ziying Lin		iyinglin@umass.edu	Undergraduate student
Daniel McLoughney		dmcloughney@umass.edu	Undergraduate student
Wyatt Ronan		wronan@umass.edu	Undergraduate student
Jack Rushe		jrushe@umass.edu	Undergraduate student
Michael Szczerepa		mszczere@umass.edu	Undergraduate student
Peter White		peterwhite@umass.edu	Undergraduate student

Changling Zhang		changlingzha@umass.edu	Undergraduate student
Christopher Lyman		crylyman@umass.edu	Undergraduate student
Michael Mascio		mmascio@umass.edu	Undergraduate student
Danny Chen		dannychen@umass.edu	Undergraduate student
Alex Rice		atrice@umass.edu	Undergraduate student
Nathan Yu		nvyu@umass.edu	Undergraduate student
Dan Clasby		dclasby@umass.edu	Undergraduate student
Kate Ackerson		kackerson@umass.edu	Undergraduate student
Gercelino Ramos		gdramos@umass.edu	Undergraduate student

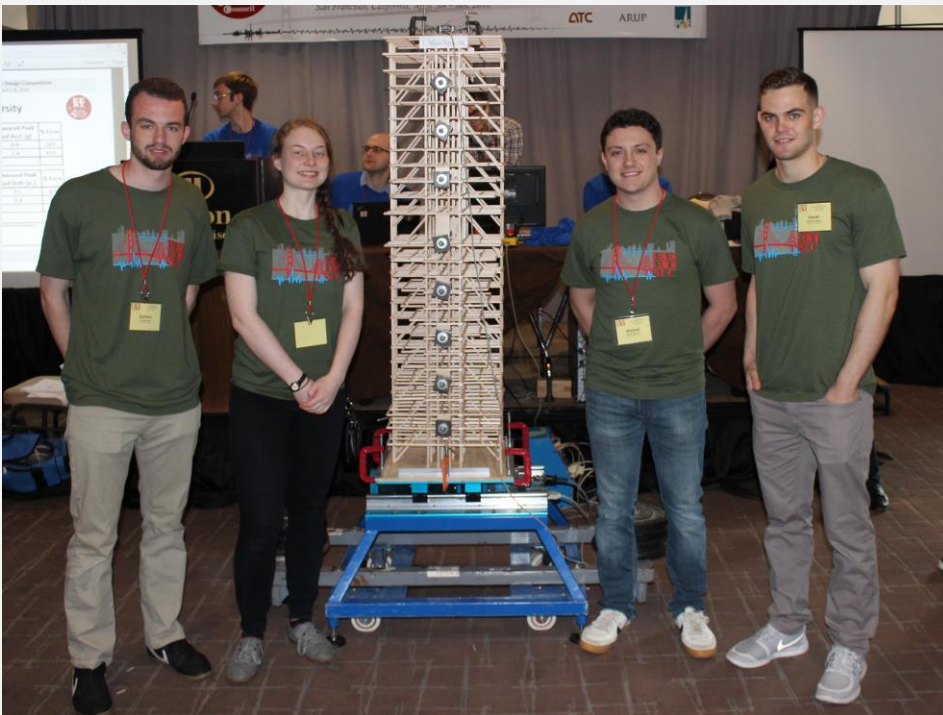
### SDC Team Financial Sponsors

A list of financial sponsors for the SDC team.

Name	Email	Amount	Note

### Team results and lessons learned

The result of our seismic design team was of 6<sup>th</sup> place which is a major improvement from the year before which was 17<sup>th</sup> place. The objective is to continue working in a similar fashion and order materials for fabrication sooner in order to get more time in fabricating. In addition, the results will greatly improve the ability for advertising and the motivation to continue to work harder and get an even better result!



## ELECTION & ELECTION RESULTS

The officers, Michael Morano and Tracy Donoghue, will remain co-captains for next year.

## FEEDBACK FOR EERI

This section is for questions, requests, and/or feedback directed toward EERI or EERI staff.

## 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 Meet & Greet

# Jim Malley, SE

## Civil Engineering

Stop by and chat with Jim about his experience in the structural engineering industry and what life is like in the shoes of a civil engineer. Learn about the unique career path that made him the successful engineer he is today. All questions welcome!



James O. Malley, S.E., is a Senior Principal with Degenkolb Engineers. He received both his Bachelors and Masters Degrees from the University of California at Berkeley. Mr. Malley has over 30 years of experience in the seismic design, evaluation and rehabilitation of building structures. He was responsible for the analytical and testing investigations performed in response to the Northridge, California earthquake damage that occurred in 1994.

**WHERE?** Experiential Learning Center, Marston 114  
**WHEN?** Friday, March 4<sup>th</sup> 10 AM – 12 PM

Sponsored by:   
Earthquake Engineering Research  
Institute UMass Student Chapter



- Item 2: Flier for Technical Presentation



Department of Civil and Environmental Engineering  
 EERI Student Chapter  
 University of Massachusetts Amherst



**20 Years After the Northridge Earthquake:  
 Reflecting on the Changes to Seismic Design of Steel Structures**

James O. Malley, SE

Senior Principal, Degenkolb Engineers  
 San Francisco, California

Friday, March 4

Time: 2:30 pm - 3:45 pm

Location: Guinness Student Center, Marcus Hall

**Abstract:** On January 14, 1994, a M6.7 earthquake hit Southern California causing over \$10 Billion of damage. One of the most unexpected types of structural damage from the Northridge earthquake occurred in steel moment resisting frames, which prior to the earthquake had been considered one of the best seismic systems by many practicing structural engineers. Reports of damage to approximately 200 such buildings created great concern in the structural engineering community, leading to a six year, \$10 Million dollar FEMA funded research and development effort known as the SAC Steel Project. SAC was a joint venture of the Structural Engineers Association of California, the Applied Technology Council and the Consortium of Universities for Research in Earthquake Engineering. Through an unprecedented level of coordinated and collaborative effort by the research and structural engineering community, the SAC project performed widespread experimental and analytical investigations throughout the United States that led to the development of a series of guidelines documents for use by practicing structural engineers. Many of the recommendations were incorporated into future editions of the AISC Seismic Provisions, and are now widely used on projects in the U.S. and many other countries. This presentation will focus on the damage caused by the Northridge, the response by the SAC Steel Project and the changes to practice that have resulted.



**Biography:** James O. Malley, S.E., is a Senior Principal with Degenkolb Engineers. He received both his Bachelors and Masters Degrees from the University of California at Berkeley. Mr. Malley has over 30 years of experience in the seismic design, evaluation and rehabilitation of building structures. He was responsible for the analytical and testing investigations performed as part of the SAC Steel Project in response to the Northridge earthquake damage. In 2000, AISC presented Mr. Malley its' Special Achievement Award. Mr. Malley is a member of the AISC Specifications Committee and the Chair of the AISC Seismic Subcommittee. He was named the 2010 T.R. Higgins Lectureship Award winner for his work on the AISC Seismic Provisions, and in 2012 was given presented with a Lifetime Achievement Award by AISC. Mr. Malley is also a member of the AWS Subcommittee on Seismic Welding Issues. Mr. Malley was also one of the authors of the PEER Tall Buildings Institute "Guidelines for the Performance-Based Seismic Design of Tall Buildings" and is involved in the peer review of numerous tall building projects in areas of high seismic risk. Jim has served as a member of the SEAONC and SEAOC Board of Directors, and was President of SEAONC in 2000-2001 and SEAOC in 2003-2004. He was named a SEAOC Fellow in 2007 and an Honorary Member of SEAONC in 2014. He also was a member of the Board of Directors of NCSEA, serving as President in 2010-2011. Mr. Malley is also presently a member of the Board of Directors of EERI and the Applied Technology Council.