



Education and Community Outreach



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NHERI@UC San Diego ECO Activities

- **ECO Goals**
- **Project Videos**
- **Seismic Outreach Ambassador Program**
- **Professional Development of Graduate Students/Post-Docs**

ECO Goals

- **To support technology transfer to practitioners and future engineers and promote implementation of research results into practice. (WBS 1.5.1)**
- **Highlight innovative research conducted at NHERI@UC San Diego facilities (WBS 1.5.2)**
- **Demonstrate the benefits of research to the public and critical decision makers (WBS 1.5.2)**
- **Engage students and broaden participation of groups typically underrepresented in STEM (WBS 1.5.3)**
- **Professionally develop undergraduate and graduate students (WBS 1.5.3 and 1.5.4)**
- **Provide unique and stimulating experiences for undergraduates in high-quality engineering research (WBS 1.5.4)**

Technology Transfer (WBS 1.5.1)

➤ Webinars

- To highlight and disseminate research findings
- Targeted participants include members from NHERI community, professional chapters of ASCE, ACI, SEAOSD and EERI, and membership from diversity organizations such as SHPE, SWE, and NSBE
- Supported by NHERI CI infrastructure
- Presentations will be recorded and made available to the broader NHERI community.



<http://www.au.planit.com/services/customercare/webinars>

Technology Transfer (WBS 1.5.1)

➤ Project Videos

- Increase awareness of NHERI@UC San Diego capabilities and disseminate project results
- Target different audiences
- Undergraduate students will help film, edit and produce the short videos from footage from experiments
- Project PIs and participating students will be interviewed
- Videos will be shared and disseminated through NHERI website making them broadly available to a wide diverse audience.



Media Relations (WBS 1.5.2)

- **NHERI@UC San Diego will work with the Jacobs School of Engineering communications and media relations to:**
 - Provide On-site advising to PI and their home institution media relations group mentoring them on best practices for publicizing their research.
 - Guide the PI's media relations groups on developing press releases, reaching out to science, technology and mainstream media such as TV networks, magazines, newspapers blogs and social media.
 - Collaborate with the NSF press office and the NHERI publicity liaisons

UC San Diego
Jacobs School of Engineering

Seismic Outreach Ambassador Program (WBS 1.5.3)

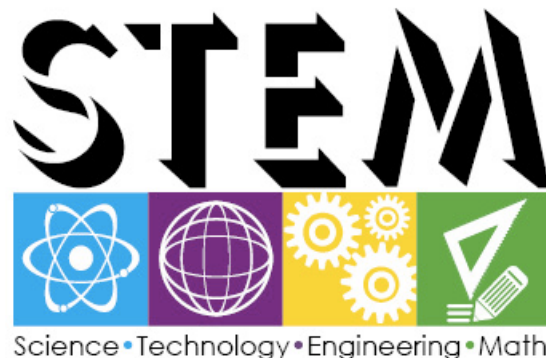
- **Educating 6th grade students on fundamentals of earthquakes and earthquake-safe structural design**
 - Students build and test K'Nex structures in a design competition



Seismic Outreach Ambassador Program (WBS 1.5.3)

➤ Goals of the program

- Providing outreach to younger students to enhance recruitment into STEM fields
- Exposing undergraduates to the larger university community consisting of donors, industry partners, and university alumnae
- Developing a group of high-achieving engineering student leaders with strong soft skills (teamwork, communication, conflict resolution, time management, flexibility and motivation of others)



<http://joanelovesscience.com/women-in-stem/11-ways-women-see-stem-as-a-four-letter-word/>

Seismic Outreach Ambassador Program (WBS 1.5.3)

- **Will extend this program to include professional development of the undergraduate student leaders**
 - Provide retreats and other training opportunities to teach cohort how to deliver the outreach and improve their leadership and soft skills
- **As part of the ambassador program, visiting graduate students and post-docs can participate in the outreach events and provide mentorship of the undergraduate student leaders**

NHERI REU Program (WBS 1.5.4)

➤ Support at least 2 REU students every summer

- 10 week research program
- Undergraduates are immersed in the research teams and participate in construction, instrumentation, testing, and analysis.
- Students work closely with graduate students and PIs to identify appropriate research projects that they can conduct individually but are integrated with the overall project goals
 - ✓ Testing material properties to make material selections
 - ✓ Modeling parts of the structure to predict response.



NEES REU 2014 Cohort; courtesy of www.nees.org

Professional Development of Graduate Students

➤ **Honing Research Skills**

- Facility will provide visiting students training on large-scale testing protocols, instrumentation, safety, data acquisition and reduction.

➤ **Learning Mentoring Skills**

- Participation in the Seismic Outreach Ambassador program or the NHERI REU program will provide opportunities for graduate students to mentor undergraduate students

➤ **Improving Communication Skills**

- Working with the facility to develop project videos, graduate students will learn to communicate their research to different audiences (general public, decision makers, students, researchers)



Questions?



Contact Lelli Van Den Einde
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Workshop Survey

<https://docs.google.com/a/eng.ucsd.edu/forms/d/1fudu-WlaTH8fhXxOIN01-iSovztOlzhRjajaQJdIUVA/viewform>

