

NHERI Council Monthly Meeting No. 8, Y-8
February 8, 2024 2:00 – 3:00 PM, Eastern (11:00 to Noon, Pacific)

NHERI Council Meetings

Title: NHERI Council - Spring 2024

Location: <https://DesignSafe-ci.zoom.us/j/99852745577>

When: February 8, 2:00 to 3:00 PM Eastern

Attending:

- Oregon State University: Dan Cox (EF Dir.) and Pedro Lomonaco (Fac. Dir.) Hinsdale
- University of California, Berkeley: Matt DeJong (Co-Dir.), and Matt Schoettler (Assoc. Dir. – Ops), Stanford University: Greg Deierlein (Co-Dir), SimCenter
- University of California, Davis: Jason DeJong (EF Dir) and Dan Wilson (Assoc. Dir.) CGM
- University of California, San Diego: Joel Conte (EF Dir.,) LHPOST
- University of Colorado Boulder: Lori Peek (Dir., CONVERGE)
- University of Florida: Jennifer Bridge (EF Dir. and Council Chair) Powell Lab
- University of Texas at Austin: Ellen Rathje (CI Dir.) and Tim Cockerill (Dep. Proj. Dir.) DesignSafe-CI
- University of Texas at Austin: Ken Stokoe (EF Dir.), Tricia Clayton (CoPi), and Sungmoon Hwang (syongmoon@utexas.edu) (Operations Manager) Texas Mobile Equipment Facility
- University of Washington: Joe Wartman (EF Dir. and Council Vice-Chair) and Jeff Berman (CoPI and Fac. Manager) RAPID
- National Science Foundation: Joy Pauschke (Prog. Dir, NHERI)
- Purdue University: Julio Ramirez (NCO Dir., Council Secretary), JoAnn Browning (NCO ECO Leader), and Dan Zehner (NCO Sch./Ops. Coord.)
- Florida International University: Arindam Chowdhury (EF Dir.), Ioannis Sizis (CoPI) and Steve Diaz (Site Operations Manager) WOW
- Lehigh University: Jim Ricles (EF Dir.), Liang Cao (lic418@lehigh.edu), Joe Saunders, (Facility Manager)
- Guests:

Minutes

1. (5 min) Attendance and introductions (All)



2. (3 min) Review and Approval of Minutes of 1/11/24 Meeting No. 7 in Y-8 (Joe Wartman.)

Minutes of 1/11/24 were approved as distributed. Lori moved and Jennifer seconded the motion.

Joe asked Joy if it would be acceptable to invite Jared to join the Council Meeting on March 7 to present on the Decadal Study Report. Joy agreed with the invitation but suggested to offer Jared April 4 as an alternate date. Joy also asked Julio for at least an estimate of the amount in the Supplement request to support the Summit 2024 by next week. Julio indicated that after the meeting of the ad-hoc task group this coming Tuesday he will convey the estimated amount.

Action Item: Joe will extend the invitation on behalf of the Council.

Approved Minutes posted at: <https://www.designsafe-ci.org/facilities/nco/governance/nheri-council/>

3. (40 min) Old Business –

a. Summit 2024 Activities (10 minutes)

i. Update Summit 2024 May 14-15, 2024 College Park, MD (Dan Cox, Jennifer Bridge, and Julio Ramirez, 5 min)

Dan and Jennifer updated the Council on the developments of the program for Day 1. Currently working on the details of keynote speaker, and one more panel. Lightning talks nominations from the Council continue to come. Please keep suggesting. Julio updated the Council on the travel awards for early career and the deadline of February 9. To date 133 applications from early career researchers include senior graduate students, post-docs, faculty and professionals. He encouraged the Council members to make decisions on possible travel support for their staff and users in particular in case there is possible overlap with the travel award applications to leverage those and support more participants. He noted that the NCO will be supporting NIAC and User Forum representatives, representation from the TTC and GSC to attend.

- ii. Suggestions for possible Lightning Talks and suggestions for Day 1 booths, etc. (Dan Cox, 5 min)

Please continue to nominate.

- b. User Satisfaction Survey Results (2023) (Maggie Corwin, 10 minutes)

Maggie presented the highlights for the report (slides are attached to these Minutes). The full report can be found in the User Forum page in DesignSafe-CI:

<https://www.designsafe-ci.org/community/user-forum/>

The highlights include an increase in the number of responses from previous years. The survey was deployed in two forms. The full survey and the module of 4 questions appended to the exit survey from the facilities. The full survey had 74 responses and the module 203.

- c. Topics for discussion in 2024 (25 minutes)

- i. Update on NHERI Educational Programs (Robin Nelson, 12 minutes)

Robin updated the Council on the status of three NHERI-wide Education programs led by the NCO and the ECO Committee. These are the REU program, Summer Institute and Graduate Student Council. The update slides are attached to these Minutes.

- ii. Next phase of the NIED-EDefense/NHERI research collaboration- update (Julio Ramirez, 3 minutes)

Julio provided an update on the planning meeting held at UCSD where the framework for the research collaboration and next steps were discussed. The agenda and list of participants is attached to these Minutes. The report and pdfs of the presentations will be made available to the public as a project in the Data Depot. A follow up workshop with broader community participation is planned to discuss possible research collaborations. Tokyo and December of 2024, were identified as venue and possible timeframe for the workshop.

- iii. Additional topics (Joe Wartman- 10 minutes)

Possible topic for the next Council meeting is a briefing on the report of the decadal study by Jared Kosters or one of his collaborators in the project. Joe will confirm this later this month.

4. New Business

Matt DeJong gave a brief report on the Computational Simulation Symposium at UCLA. More than 200 attendees participated in lightning talk sessions, training sessions and worked in groups in key areas of data and simulation. Matt Schoettler followed up via e-mail with the summary of the Symposium activities and observations below in response to a question from Joe Wartman about additional details.

“Hi Dan, Jennifer, Julio, and Joe,

With Joe's question to Matt D today during the NHERI Council Meeting, I wanted to share some of the things that we did differently and share my observations about the NHERI Computational Symposium held last week:

- We had 215 confirmed registrations
 - we had 8 cancellations within a week
 - we had about as many no-shows, which was a surprise
 - The inclement weather and health were likely reasons for these drop offs
- We held a team dinner the night before, which allowed us to catch up and discuss before the event. This allowed us to focus more time with attendees rather than each other. (this was an unanticipated budget

expense, so maybe think of including it as an item in your supplement if there is a group who you would convene for dinner)

- Encouraging participation from underrepresented groups
 - We see that those institutions or groups who are in-the-know repeatedly request travel funds.
 - We reached out to a few select organizations for nominations of students or postdocs whose work aligns with the theme of the event.
 - This allowed us to reach people who had not heard of us or the event, and I think this worked very well as an outreach effort.
 - A few travel grants were reserved for this purpose to ensure broader participation.
- Seating Assignments
 - We assigned seating, following what was done at the last Summit.
 - This was done to facilitate discussion. We strategically placed personnel at each table and tasked them with encouraging discussion.
 - Early feedback on this is positive, with a few people saying that without a presenter at their table they didn't have a discussion topic; Posting discussion questions on the screen could have improved this. We also heard that people felt torn between going and talking to a presenter at another table and feeling obligated to engage with their assigned table, but I feel this is a good thing: we created compelling community at the tables and also had compelling speakers/content.
- We had a casual pizza lunch (for 125!) at the end of the event and before the optional training workshops, which was a hit. People liked the opportunity to mingle, I think.
- We hired a photographer for Day 1, and I think this was a worthwhile investment
 - See the attachment below for a sample of the photos.
 - After registering, we had poster presenters temporarily set up their poster on a nearby easel and had the photographer take their photo with the poster.
 - We had the photographer drop his photos in a publicly viewable cloud folder so attendees could grab photos of themselves and share them on social media or for other publicity opportunities. Roughly 20 attendees posted over that week, which helps bring attention to the event.
 - Ensure you repeatedly broadcast the hashtags (we used #NHERICCompSym) you want people to use when posting. We could have done more of this.
- Feedback mechanisms
 - Standard exit survey.
 - Someone from our independent evaluation team was on-site. She was introduced at the beginning of the symposium and interacted with attendees on breaks and during lunch about their experiences with the SimCenter and our tools. We're looking forward to hearing about the insight this unique feedback mechanism provides.
 - I was encouraged by the exit survey comment "I can see a few proposals materializing from this". We do not hold a user workshop that emphasizes proposal preparation. The Symposium is a our attempt to foster and facilitate proposals, along with recruit new users, build community, educate and inform on our tools, and foster collaborations. It is a lot to do in 1.5 days!
- Poster template
 - Our poster template (and slide template) was drafted by DesignSafe's graphical artist, Matt S. (no relation).
 - We provided space in the header for a headshot of the presenter and a QR code for their LinkedIn page.
 - We provided space for a QR code to a link to a full paper, if applicable
 - DesignSafe's Matt put in a banner for a punchline, which was a nice way to succinctly summarize the work.
 - People appreciated that we categorized the posters into topics and had headings above the posters so you could see the context (e.g. hazard) as you approached.
- Optional Workshop training sessions

- Registration for these was optional so the headcount was uncertain. During onsite registration we asked if attendees were planning to attend, and also asked if they were planning to join the informal lunch beforehand. This enabled us to get an approximate headcount the day before the training sessions.
- 6 sessions were offered in 2 tracks so attendees could attend more than one session. Approximately 65 people participated.
- Joy hosted Office hours with NSF during

- On-site personnel - we recruited 4 student volunteers to assist during the event, particularly during registration, poster setup, poster strike-down, and note taking during breakout sessions.
- Favorable feedback (from the 2022 Computational Symposium) about lightning talks was incorporated: of 90 presentations in 1.5 days, nearly 60 were lightning talks. However, there needs to be a break between talks (or after several talks in a row) or it is information overload.”

5. Adjourn

Julio moved and Steve Diaz seconded the motion to adjourn. Council meeting adjourned at 3:00 PM Eastern.

NHERI /E-Defense Framework for Collaboration Joint Meeting

Dates and Times: from 8:30 AM on Monday January 29 to 1:30 PM Tuesday, January 30, 2024

Location: NHERI Facility and UCSD Campus SME Building

Program (All times are PT USA)

DAY 1 (Monday, January 29, 2024)

8:30 – 9:00 Transport to the UCSD NHERI Facility (Depart in groups by bus stopping at the Embassy Suites and Marriott Hotels to UCSD NHERI Shake Table Facility)

9:00 – 11:30 Tour of the UCSD NHERI Shake Table Facility (Conte, PI UCSD NHERI and Barbosa, OSU PI of NSF project NSF CMMI #2120683, 2120692, 2120684 Collaborative Research: Converging Design Methodology: Multi-objective Optimization of Resilient Structural Spines on the shake table)

11:30 – 13:25 Travel (via Uber/Taxi) to UCSD Campus for Lunch (Multiple options available on Campus)

13:30 – 13:50 Greetings from Japan (Shohei Matsuura, Deputy Director-General of Strategic Planning Department, NIED) and USA (Daniel Linzell, Division Director, NSF Division of Civil, Mechanical and Manufacturing Innovation)

13:50 – 14:05 Introductions and Meeting Goals (Ramirez, Purdue University & Tabata, NIED)

14:05 – 15:30 Opportunities for Collaboration - Japan Side (Moderator Tabata, NIED)

- 2024 Noto Peninsula Earthquake Report / Large-Scale Testing for Functional Recovery Enhancement, V&V Benchmarks, and Regional-Scale Simulations (10' + 10', Kurata, Kyoto University, External supervisor of the E-Defense research project - remote participant)
- Overview of the ongoing E-Defense project, and prospects for networking research infrastructures based on sharing themes and datasets (10', Tabata, NIED)
- Global framework for evidence-based research projects on disaster risk reduction during multiple earthquakes (10', Kawamata, NIED)
- Evaluation of the damage of buildings with large space (10', Fujiwara, NIED)
- Function Maintenance in Indoor Space (10', Sato, NIED - remote participant)
- Numerical earthquake damage prediction for urban blocks using 'E-Simulator' (10', Yamashita, NIED)
- Data science using E-Simulator for the Development of Structural Health Monitoring Systems (15', Kohiyama, Keio University, External supervisor of numerical analysis - remote participant)

15:30 – 15:50 Q/A and General Discussion

15:50 – 16:00 Break

16:00 – 17:20 Opportunities for Collaboration - USA Side (Moderator Ramirez, Purdue

University)	
Natural Hazards (Simpson, Stanford University and Fisher, Oregon State University) (17')	
Next Generation Sustainable Structures (Wong, San Francisco State University) (12')	
International Data Sets (Rathje, University of Texas, Austin) (17')	
Extreme Events Reconnaissance (Wartman, University of Washington) (17')	
Computational Simulation (Deierlein, Stanford University, and DeJong, University California Berkeley) (17')	
17:20 – 17:45	Q/A and General Discussion
17:45 – 18:00	Instructions for Day 2 and Adjournment
18:30 – 20:30	Dinner/Reception

DAY 2 (Tuesday, January 30, 2024)

9:00 – 10:40	Discussions of the Framework for US-Japan Collaboration and Preparation of Resolutions (Co-Moderators Tabata, NIED, and Ramirez; Purdue University, and Co-Secretaries Matsuura, NIED, and Tsampras, University of California, San Diego)
10:40 – 10:50	Break
10:50 – 11:40	Presentations of Resolution Drafts and Adoption of Resolutions
11:40 – 12:00	Closing Session (NIED, NSF, E-Defense, NEHRI)

Participant List

<Japan>

In person:

- Shohei Matsuura (Deputy Director-General, Strategic Planning Department of NIED, smatsuura@bosai.go.jp)
- Kentaro Tabata (Deputy Director-General, Earthquake Disaster Mitigation Research Division, E-Defense, NIED, tabata@bosai.go.jp)
- Takuzo Yamashita (Chief Researcher, Earthquake Disaster Mitigation Research Division, NIED, tyamashi@bosai.go.jp)
- Jun Fujiwara (Researcher, Earthquake Disaster Mitigation Research Division, E-Defense, NIED, j.fujiwara@bosai.go.jp)
- Yohsuke Kawamata (Chief Researcher, Earthquake Disaster Mitigation Research Division, E-Defense, NIED, kawamata@bosai.go.jp)

Remote:

- Masahiro Kurata (Associate Professor, Disaster Prevention Research Institute, Kyoto University, External supervisor of the E-Defense research project)
- Masayuki Kohiyama (Professor, Department of System Design Engineering, Keio University, External supervisor of numerical analysis)
- Eiji Sato (Chief Researcher, Earthquake Disaster Mitigation Research Division, E-Defense, NIED, eiji@bosai.go.jp)

<USA>

Name	Institution	e-mail	Role
Joel Conte	UCSD	jpconte@ucsd.edu	PI UCSD NHERI
Joe Wartman	U Washington	wartman@uw.edu	PI RAPID NHERI
Greg Deierlein	Stanford	ggd@stanford.edu	Co-PI SimCenter NHERI
Matt DeJong	UC Berkeley	dejong@berkeley.edu	Co-PI SimCenter NHERI
Barb Simpson	Stanford	bsimpson@stanford.edu	Researcher NHERI
Ellen Rathje	UT Austin	e.rathje@mail.utexas.edu	PI DesignSafe-CI
Joy Pauschke	NSF	jpauschk@nsf.gov	NHERI Program Director
Dan Linzell	NSF	dlinzell@nsf.gov	CMMI Division Director
Julio Ramirez	Purdue University	ramirez@purdue.edu	NCO PI
Jenna Wong	San Francisco State U.	jewong@sfsu.edu	Researcher NHERI
Andre Barbosa	Oregon State U.	Andre.Barbosa@oregonstate.edu	Researcher NHERI
Giorgios Tsampras	UC San Diego	gtsampras@ucsd.edu	Researcher NHERI
Erica Fischer (remote participant)	Oregon State U.	erica.fischer@oregonstate.edu	Researcher NHERI

Information for remote participants:

Day 1:

Meeting link:

<https://purdue.webex.com/purdue/j.php?MTID=med7fd6c1d21962cc00ad7c66548a1c42>

Meeting number: 2630 233 4173

Password: ydAhixBu836

Day 2:

Meeting Link

<https://purdue.webex.com/purdue/j.php?MTID=m86f180645f189baaf921316aaac56503>

Meeting number: 2632 600 5874

Password: CVeZEQJa773



User Forum Annual User Satisfaction Survey Overview

2023 User Satisfaction Survey Overview



Natural Hazards Engineering Research Infrastructure

‘Full’ survey (28 questions, designed to collect qualitative and quantitative data--includes the ‘big 4’ and updated demographic questions)

Survey Launch June 12th, 2023

Survey Closed September 15th, 2023

n=74



Natural Hazards Engineering Research Infrastructure

Recruiting Strategy:

- Diverse recruitment strategy (Mass E-Mail invitation, Social Media, Slack, In-Person Promotion)
- Set Interval Follow up Emails
- Engage NHERI components in recruiting (GSC, ECO, Summer Institute)
- *Direct appeals to site PIs for recruitment*



Natural Hazards Engineering Research Infrastructure

Survey responses by year:

2018 n=69

2019 n=29 (known) & n=47 (general)

2020 n=57

2021 n=66

2022 n=56 AND n=206 for the survey module

2023 n=74 AND n=203 for the survey module

General NHERI Information

Most rated information about NHERI Facilities and Resources as readily accessible (32.65% Strongly Agree and 40.82% Agree) and comprehensive (48.94% Agree or Strongly Agree 25.53%).



Proposal Writing & Prepared Proposals

A majority of respondents were either (1) working on their first proposal (50.00%) or (2) had completed experiments (16.67%). Remaining respondents were at various stages in the proposal writing process, including currently performing experiments or using the SimCenter (14.81%), had completed an experiment(s) and were working on the next proposal (12.96%), or that their proposal had been accepted, but they had not begun utilizing facilities (5.56%)

Most respondents indicated they prepared either zero* or five proposal(s) that used NHERI facilities and resources

*corresponds with those who indicated they were working on their first proposal



Proposal Writing Assistance

Just over half of respondents (55.10%) reported they had participated in proposal writing workshops, and/or seminars, or utilized NHERI support resources.

All respondents who requested feedback from NHERI as they write their proposals (14.58%) indicated feedback on proposals from NHERI experimental staff was helpful.



Facility Use

Reported facility use ranged from 0 facilities (ie, online resources/tools) to 5, with most respondents reporting using one facility.

Substantive respondent feedback on experience using facility in 2023 on those questions was slightly more positive than it was in 2022, in line with years prior (2017 to 2019).



NHERI Data

In line with previous years, most respondents report intending to produce and upload original data or produce and upload original data and access/use existing data (82.35%). Only 17.65% intended to exclusively utilize pre-existing data.

Findings regarding six dimensions of satisfaction with NHERI data are generally positive and consistent with previous year responses to questions on NHERI data. These dimensions include:

- Data download format
- Metadata comprehensiveness
- Metadata quality for archived data
- Required format for archived data
- Ease of locating data from their own previous tests
- Ease of locating data from previous tests of others



NHERI Resources and Tools

Most respondents **favorably rated the training available**, indicating existing training for online resources and tools meets their needs (31.11% Agreed and 33.33% Strongly Agreed).

Most respondents indicate **technical support for online resources and tools are sufficient** at meeting their needs (28.89% Agreed and 31.11% Strongly Agreed) to the statement that the technical support for online resources and tools met [their] needs.

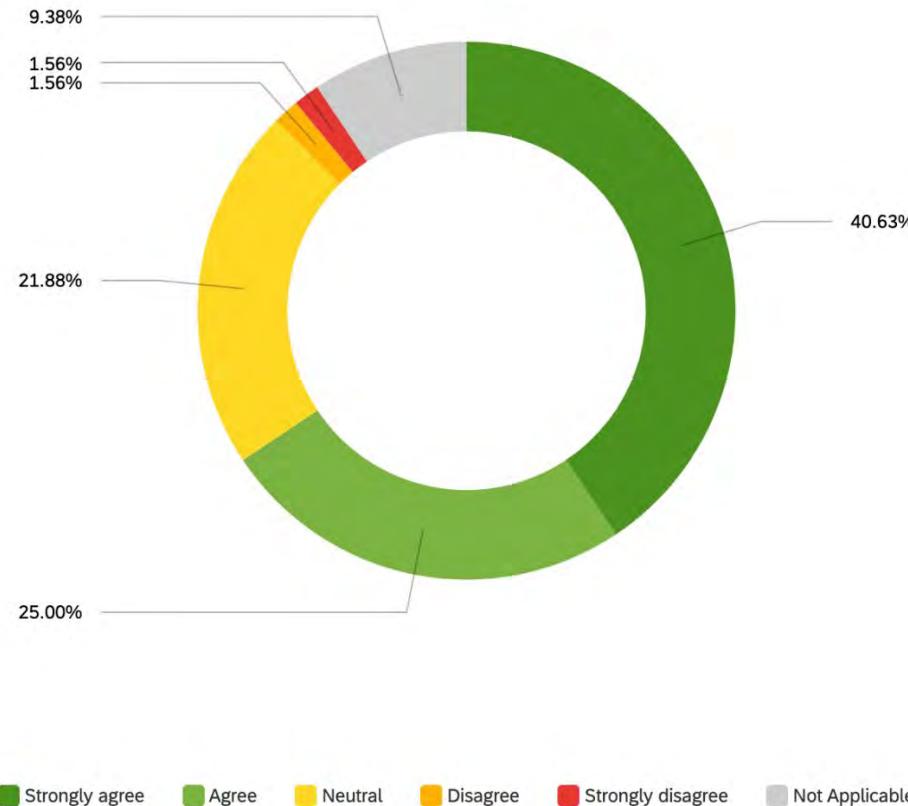




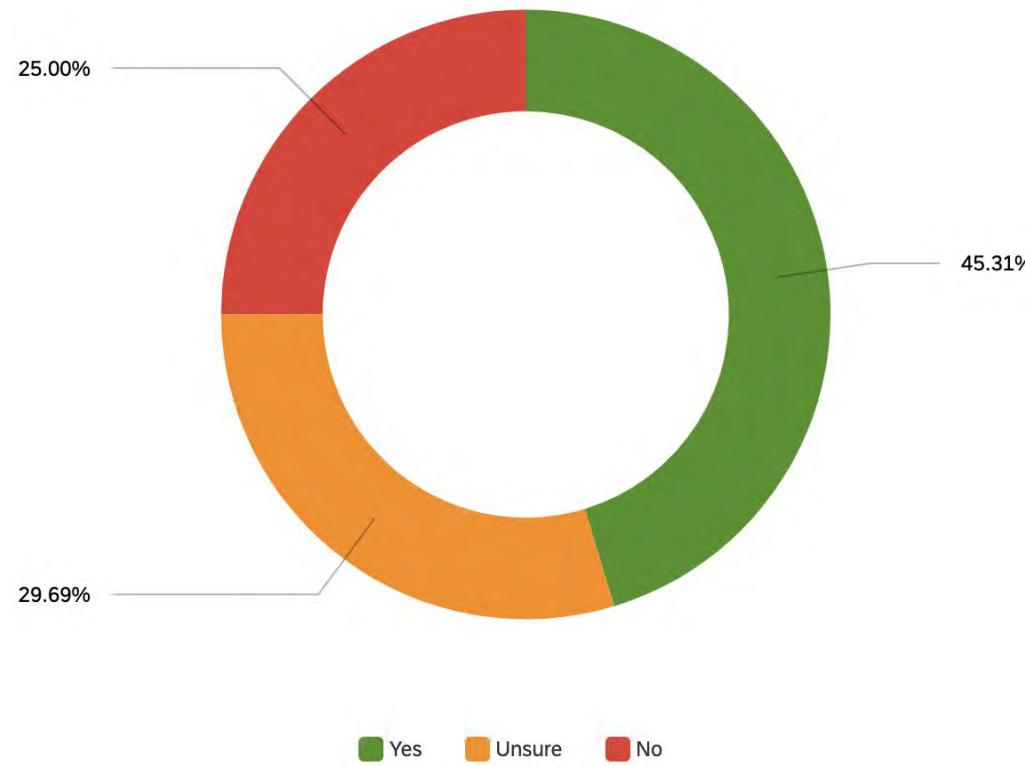
Natural Hazards Engineering Research Infrastructure

User Forum Annual User Satisfaction ‘Big Four’ Overview

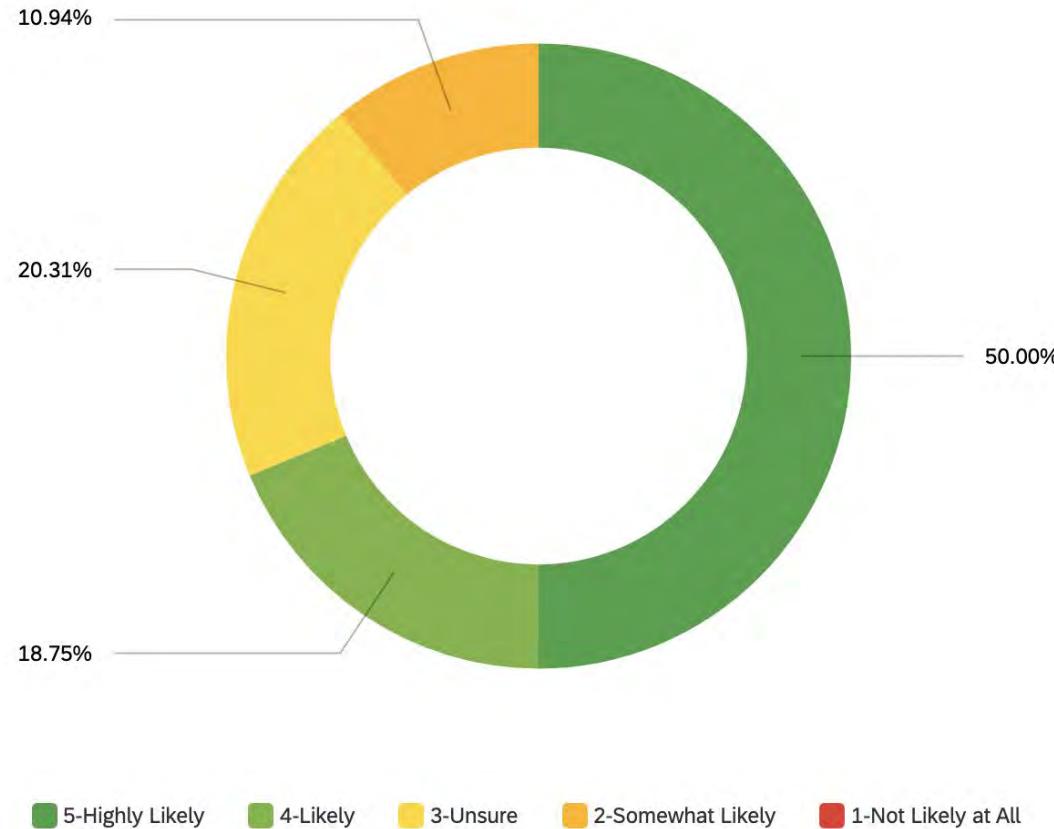
My own research has been enhanced through my use of NHERI resources and/or my connection to the NHERI components.



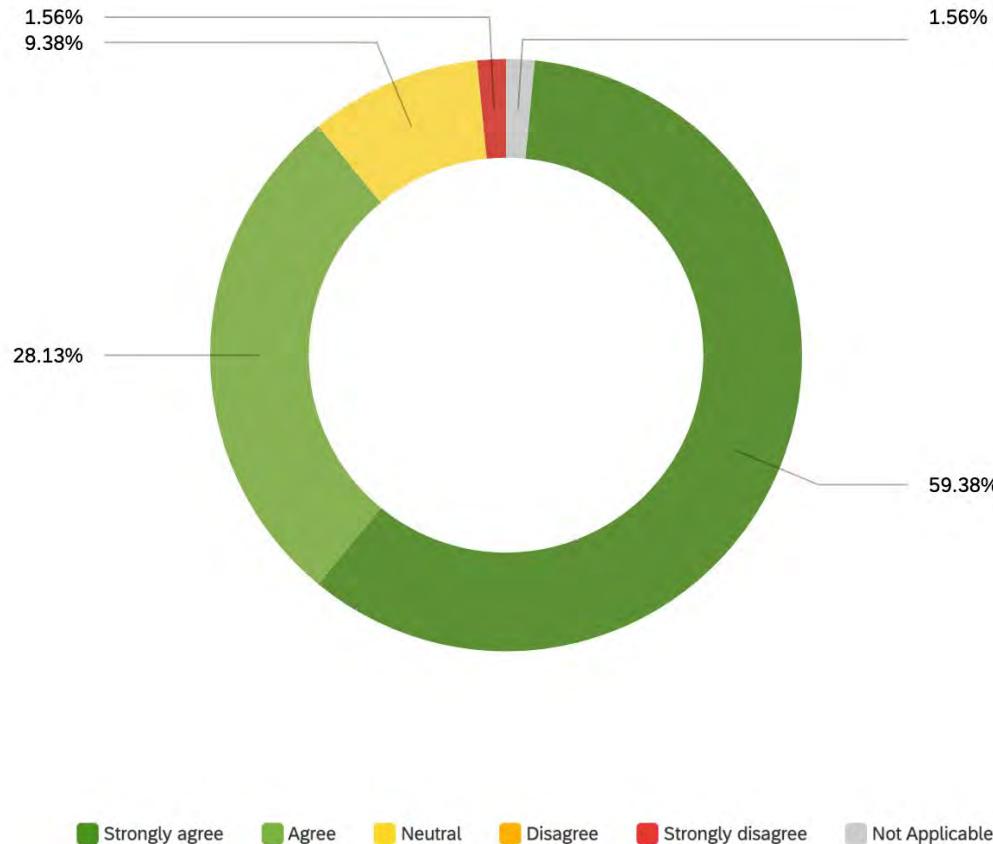
I have reviewed the NHERI Science Plan - Version 1.0 and/or Version 2.0



On a scale of 1 to 5, how likely are you to write future grant proposals that will involve the use of NHERI resources?



The creation of NHERI has helped to advance research collaborations in the natural hazards research community.





Natural Hazards Engineering Research Infrastructure

Overview of Qualitative Feedback

Do you have any additional comments regarding NHERI data?

Do you have any additional comments regarding NHERI data?

- Improved Search Tools
 - “Searching tools could be improved and **should go across NHERI and NEES datasets**. I have been flummoxed multiple times, not finding a data set that I know is there. But then I remember I am searching "Published", but not "Published (NEES)". Also searching should work by **looking for the name of the researchers, not just the PI's**”
- Download speed and multi-selection downloads
 - “**Bulk downloads** would be nice, rather than going through menus up and down.”
 - “**DesignSafe is very slow**, limiting its acceptance/usefulness.”
- DesignSafe is integral for our community.

Do you have any additional comments regarding information about NHERI Facilities and Resources?

Do you have any additional comments regarding information about NHERI Facilities and Resources?

- Comprehensive Guide to NHERI
 - “To my knowledge, there isn't a **webpage that comprehensively explains the facilities and resources**, or if there is, it isn't heavily advertised to early career scholars.”
 - “It would be great if there was a “**quick facts**” **sheet of all the institutes** that also included a short list of the variety of past research they've conducted, especially interdisciplinary examples.”
- Increasing Accessibility of Information
 - “Readily accessible' IF you have a funded nsf project. Still **very competitive** to get funding”
 - “It is **sometimes hard to find some information** but **overall well done.**”

What is the most important change to NHERI's services, tools, and resources that would improve your experience with them?

What is the most important change to NHERI's services, tools, and resources that would improve your experience with them?

- Increased Trainings
 - “Offering more **data trainings** such as those by CONVERGE and DesignSafe.”
 - “**More examples for** using SimCenter Tools”
 - “**Webinars and office hours** from facilities”
- Changes to Data Products
 - “**Improved search engine** for past research projects and their data”
 - “**Improve the indexing and search tools for datasets.** Searching should not have to be repeated in NHERI and NEES datasets. Search should cover both. Search should cover things deeper than the abstract and PI.”
 - “More inclusion of **social science data”**
 - “**Standardize data** and their description/ format”
- Increase Accessibility:
 - “One main page that has links to each facility and their contact persons”
 - “It is technically **difficult to get an account on DesignSafe and on Slack.** The user interface for requesting accounts and logging in is circular and confusing. If you get an error, you don't know what the error is, and you are prompted to "try again." You have to email someone to get the account squared away. People are helpful, but the interface is terrible.”

What service, tool, or resource not currently in NHERI should be added? Please specify what need your suggestion is going to meet.

What service, tool, or resource not currently in NHERI should be added? Please specify what need your suggestion is going to meet.

- Data Products and Resources
 - “The ability to **add restrictions to sensitive, human subjects data**. This is going to help increase participation of social scientists. If this is something that is already available via DesignSafe, it needs to be better advertised”
 - “Databases” and “Data Sorting”
- Discussion Forums/Ways to Connect Researchers
 - “**A researcher discussion forum** would help connect researchers. It can be focused on early career faculty (x2)”
 - “**posting/discussion board** for identifying potential collaborators”

Do you have any additional comments or suggestions regarding the availability, accessibility, and quality of available information regarding the various NHERI components?

Do you have any additional comments or suggestions regarding the availability, accessibility, and quality of available information regarding the various NHERI components?

- **Keep facility schedule up to date** as much as possible as 2025 approaches
- I believe that if **NHERI resources should somehow be incorporated to graduate classroom work**. Later on, during research phase of their phd, students will be more open to use NHERI resources because they are [already] acclimated.
- Should continue in the future and more funding for proposals

Do you have any additional comments about NHERI Facilities' and Resources' staff?

Do you have any additional comments about NHERI Facilities' and Resources' staff?

- Facility Specific
 - “Lehigh's NHERI facility staff has supported us 100% of time with 100% useful information”
- Staff Specific
 - “The staff has been highly supportive all the time along the road.”
- Generally “All excellent!”



Natural Hazards Engineering Research Infrastructure

NHERI Council

ECO Update

February 8, 2024



REU Update

Important Dates

- **Application Deadline:** extended until Feb. 25.
- **Meet & Greet:** April 23, 2024
- **Mentor Training:** May 31, 2024
- **Block I:** June 3 - August 9, 2024
- **Block II:** June 17 - August 23, 2024
- **Research Symposium at UCSD:** August 8-9, 2024

Report

- 66 REU completed applications (56 Qualtrics & 10 NSF ETAP);
- 276 incomplete (109 recorded & 167 in progress)
- **Four Info Sessions:** 32 attended; 41 signed up; 159 views
- **Advertised:** Social Media, NHERI email announcements, NSF ETAP, Pathways to Science, MSI Universities with Civil Engineering Department, Identified 684 individual faculty members in MSI list, 90+ NHERI contacts

Next Steps

- Continue reaching out to incomplete and in progress applicants





Summer Institute Update

Important Dates

- **Institute:** June 12 - 14
- **Info Sessions:** February 13
- **Application Deadline:** February 25
- **Participant Prep Meeting:** TBD
- **Presenter Registration:** May 15

Report

- 47 completed applications, 17 recorded, 28 in progress
- **Three Info Sessions:** 23 attendees, 30 sign-ups, 148 views
- Final Info Session February 13 at 5:00 pm CT:
<https://bit.ly/2024nheriSIIInfoSessionSign-up>

- Presenter registration emailed to each representative, due May 15:
https://bit.ly/2024NHERI_SIPresenter
- **Advertised:** Social Media, Pathways to Science, MSI University CE & CS Departments, NHERI email announcement
- Identified 141 individual Assistant Professors from MSI list





NHERI GSC Update

Important Dates

- **Executive Committee Meeting:** March 1
- **General Meeting:** February 16 (Katerina Kyprioti)
- **Mini-Conference Submission Deadline:** March 1
(<https://bit.ly/2024GSCSubmission>)
- **Mini-Conference:** May 31, 2024

Report

- Thank you to Lori Peek & Julio Ramirez who will support attendance of 5 members at Natural Hazards Workshop
- Thank you to Ian Robertson for presenting 3rd ed. Science Plan at the NHERI GSC January General Meeting
youtube.com/watch?v=kliRvnT3bw

- NHERI GSC Research Challenge kickoff Meeting, February 9
- Second Annual NHERI GSC Mini-Conference, May 31
(<https://bit.ly/2024NHERIGSCMiniConference>)
- Exit survey being developed for graduating members - Spring 2024
- NHERI GSC programming to introduce NHERI and its resources- please contact [Emmaleah Jones](#) or [Richard Campos](#)
- Leadership is hosting a session, booth, and collaboration with UMD's graduate students during Natural Hazards Research Summit 2024





National Science Foundation

The NHERI Network Coordination Office is supported by the National Science Foundation award [CMMI 2129782](https://www.nsf.gov/awardsearch/showAward?AWD_ID=2129782). Any statements in this material are those of the presenter(s) and do not necessarily reflect the views of the National Science Foundation.



Research Experiences for Undergraduates



2023 NHERI REU UT Mobile Shakers participants conducting research in Hawaii.

The NSF-funded Natural Hazards Engineering Research Infrastructure offers a Research Experiences for Undergraduates (REU) program. Apply for a paid research opportunity at one of 11 multi-hazard engineering or interdisciplinary sites during a 10-week summer research program. Study natural hazards through earthquake, wind, tsunami, coastal engineering, data management, cyberinfrastructure, post-disaster reconnaissance, simulation, or social science research at a NHERI facility.

- **WORK** with faculty and graduate students
- **WRITE** a professional, publishable research paper
- **NETWORK** with peers in research group meetings
- **LEARN** about grad school and career development
- **BUILD** relationships through mentoring
- **GAIN** hands-on research experience

REU Block 1: June 3 - Aug. 9, 2024

- Florida International University
- Lehigh University
- University of California, Berkeley
- University of Colorado Boulder
- University of Florida
- University of Texas, Austin
 - Mobile Shakers program
 - Cyberinfrastructure @ TACC

REU Block 2: June 17 - Aug. 23, 2024

- Oregon State University
- University of California, Davis
- University of California, San Diego
- University of Washington

Learn more: designsafe-ci.org/learning-center/reu/

NHERI encourages members of racial and ethnic underrepresented groups, females, and veterans to apply for this research experience.

APPLY TODAY
EXTENDED DEADLINE:
Feb. 25, 2024





Apply or Register Today

NHERI Summer Institute

June 12-14, 2024



The annual NHERI Summer Institute will be held at the University of Texas at San Antonio's (UTSA) Downtown campus. Early career faculty, engineers, social scientists, and researchers interested in learning more about the Natural Hazards Engineering Research Infrastructure (NHERI) community and NSF proposal writing may apply or register. Join previous alumni who earned over \$37 million in NSF funding and 6 NSF CAREER Awards. NHERI encourages members of racial and ethnic underrepresented groups, females, and veterans to apply for this research experience.

The three-day event will explore the NHERI program's mission, NHERI network facility capabilities, NHERI Science Plan, 3rd edition, NSF Grant proposal writing, broader impacts focused on diversity, equity, and inclusion, and a research network.

You may apply for an NSF travel award by February 25, 2024, and attend in person, or register to attend the event online by May 15, 2024. Apply or register online at designsafe-ci.org/learning-center/summer-institute/.

NHERI /E-Defense Framework for Collaboration Joint Meeting

Dates and Times: from 8:30 AM on Monday January 29 to 1:30 PM Tuesday, January 30, 2024

Location: NHERI Facility and UCSD Campus SME Building

Program (All times are PT USA)

DAY 1 (Monday, January 29, 2024)

8:30 – 9:00 Transport to the UCSD NHERI Facility (Depart in groups by bus stopping at the Embassy Suites and Marriott Hotels to UCSD NHERI Shake Table Facility)

9:00 – 11:30 Tour of the UCSD NHERI Shake Table Facility (Conte, PI UCSD NHERI and Barbosa, OSU PI of NSF project NSF CMMI #2120683, 2120692, 2120684 Collaborative Research: Converging Design Methodology: Multi-objective Optimization of Resilient Structural Spines on the shake table)

11:30 – 13:25 Travel (via Uber/Taxi) to UCSD Campus for Lunch (Multiple options available on Campus)

13:30 – 13:50 Greetings from Japan (Shohei Matsuura, Deputy Director-General of Strategic Planning Department, NIED) and USA (Daniel Linzell, Division Director, NSF Division of Civil, Mechanical and Manufacturing Innovation)

13:50 – 14:05 Introductions and Meeting Goals (Ramirez, Purdue University & Tabata, NIED)

14:05 – 15:30 Opportunities for Collaboration - Japan Side (Moderator Tabata, NIED)

- 2024 Noto Peninsula Earthquake Report / Large-Scale Testing for Functional Recovery Enhancement, V&V Benchmarks, and Regional-Scale Simulations (10' + 10', Kurata, Kyoto University, External supervisor of the E-Defense research project - remote participant)
- Overview of the ongoing E-Defense project, and prospects for networking research infrastructures based on sharing themes and datasets (10', Tabata, NIED)
- Global framework for evidence-based research projects on disaster risk reduction during multiple earthquakes (10', Kawamata, NIED)
- Evaluation of the damage of buildings with large space (10', Fujiwara, NIED)
- Function Maintenance in Indoor Space (10', Sato, NIED - remote participant)
- Numerical earthquake damage prediction for urban blocks using 'E-Simulator' (10', Yamashita, NIED)
- Data science using E-Simulator for the Development of Structural Health Monitoring Systems (15', Kohiyama, Keio University, External supervisor of numerical analysis - remote participant)

15:30 – 15:50 Q/A and General Discussion

15:50 – 16:00 Break

16:00 – 17:20 Opportunities for Collaboration - USA Side (Moderator Ramirez, Purdue

University)	
Natural Hazards (Simpson, Stanford University and Fisher, Oregon State University) (17')	
Next Generation Sustainable Structures (Wong, San Francisco State University) (12')	
International Data Sets (Rathje, University of Texas, Austin) (17')	
Extreme Events Reconnaissance (Wartman, University of Washington) (17')	
Computational Simulation (Deierlein, Stanford University, and DeJong, University California Berkeley) (17')	
17:20 – 17:45	Q/A and General Discussion
17:45 – 18:00	Instructions for Day 2 and Adjournment
18:30 – 20:30	Dinner/Reception

DAY 2 (Tuesday, January 30, 2024)

9:00 – 10:40	Discussions of the Framework for US-Japan Collaboration and Preparation of Resolutions (Co-Moderators Tabata, NIED, and Ramirez; Purdue University, and Co-Secretaries Matsuura, NIED, and Tsampras, University of California, San Diego)
10:40 – 10:50	Break
10:50 – 11:40	Presentations of Resolution Drafts and Adoption of Resolutions
11:40 – 12:00	Closing Session (NIED, NSF, E-Defense, NEHRI)

Participant List

<Japan>

In person:

- Shohei Matsuura (Deputy Director-General, Strategic Planning Department of NIED, smatsuura@bosai.go.jp)
- Kentaro Tabata (Deputy Director-General, Earthquake Disaster Mitigation Research Division, E-Defense, NIED, tabata@bosai.go.jp)
- Takuzo Yamashita (Chief Researcher, Earthquake Disaster Mitigation Research Division, NIED, tyamashi@bosai.go.jp)
- Jun Fujiwara (Researcher, Earthquake Disaster Mitigation Research Division, E-Defense, NIED, j.fujiwara@bosai.go.jp)
- Yohsuke Kawamata (Chief Researcher, Earthquake Disaster Mitigation Research Division, E-Defense, NIED, kawamata@bosai.go.jp)

Remote:

- Masahiro Kurata (Associate Professor, Disaster Prevention Research Institute, Kyoto University, External supervisor of the E-Defense research project)
- Masayuki Kohiyama (Professor, Department of System Design Engineering, Keio University, External supervisor of numerical analysis)
- Eiji Sato (Chief Researcher, Earthquake Disaster Mitigation Research Division, E-Defense, NIED, eiji@bosai.go.jp)

<USA>

Name	Institution	e-mail	Role
Joel Conte	UCSD	jpconte@ucsd.edu	PI UCSD NHERI
Joe Wartman	U Washington	wartman@uw.edu	PI RAPID NHERI
Greg Deierlein	Stanford	ggd@stanford.edu	Co-PI SimCenter NHERI
Matt DeJong	UC Berkeley	dejong@berkeley.edu	Co-PI SimCenter NHERI
Barb Simpson	Stanford	bsimpson@stanford.edu	Researcher NHERI
Ellen Rathje	UT Austin	e.rathje@mail.utexas.edu	PI DesignSafe-CI
Joy Pauschke	NSF	jpauschk@nsf.gov	NHERI Program Director
Dan Linzell	NSF	dlinzell@nsf.gov	CMMI Division Director
Julio Ramirez	Purdue University	ramirez@purdue.edu	NCO PI
Jenna Wong	San Francisco State U.	jewong@sfsu.edu	Researcher NHERI
Andre Barbosa	Oregon State U.	Andre.Barbosa@oregonstate.edu	Researcher NHERI
Giorgios Tsampras	UC San Diego	gtsampras@ucsd.edu	Researcher NHERI
Erica Fischer (remote participant)	Oregon State U.	erica.fischer@oregonstate.edu	Researcher NHERI

Information for remote participants:

Day 1:

Meeting link:

<https://purdue.webex.com/purdue/j.php?MTID=med7fd6c1d21962cc00ad7c66548a1c42>

Meeting number: 2630 233 4173

Password: ydAhixBu836

Day 2:

Meeting Link

<https://purdue.webex.com/purdue/j.php?MTID=m86f180645f189baaf921316aaac56503>

Meeting number: 2632 600 5874

Password: CVeZEQJa773