

# NATURAL HAZARDS ENGINEERING RESEARCH INFRASTRUCTURE

# SUMMER INSTITUTE

June 20-22, 2022



San Antonio, Texas,  
UTSA Downtown Campus,  
Durango Building

**NHERI Summer Institute Day 1**  
**Monday, June 20, 2022**

<b>Time</b>	<b>Session</b>	<b>Location</b>
7:30am-8:30am	Registration & breakfast	Riverwalk Room
8:00am-9:15am	<p>Welcome &amp; NHERI Overview  <b>Presenter:</b> JoAnn Browning  <i>Co-Principal Investigator of the NHERI NCO, Lead of NHERI NCO-ECO Dean, Klesse College of Engineering &amp; Integrated Design The University of Texas at San Antonio</i></p> <p><i>Following a welcome by the NCO-ECO lead, attendees will learn about the NHERI network, the Summer Institute objectives, and the UTSA Downtown Campus.</i></p>	La Villita Room
9:15am-9:30am	<b>Networking Break</b>	La Villita & Riverwalk Room
9:30am-10:45am	<p><b>NHERI Site Presentations, Part I</b></p> <p><i>After a short introduction, representatives from all 11 NHERI sites will share site information with participants.</i></p>	La Villita Room
9:35am-9:45am	<p><b>Wall of Wind</b>  <b>Presenter:</b> Amal Elawady  <i>Co-Principal Investigator, The Wall of Wind Assistant Professor, Civil &amp; Environmental Engineering Florida International University</i></p>	
9:47am-9:57am	<p><b>O.H. Hinsdale Wave Research Laboratory</b>  <b>Presenter:</b> Pedro Lomónaco  <i>Co-Principal Investigator &amp; Director, O.H. Hinsdale Wave Research Laboratory Oregon State University</i></p>	
9:59am-10:09am	<p><b>Boundary Layer Wind Tunnel Experimental Facility</b>  <b>Presenter:</b> Jennifer Bridge  <i>Principal Investigator &amp; Director, Boundary Layer Wind Tunnel Associate Professor, Department of Civil &amp; Coastal Engineering University of Florida</i></p>	
10:11am-10:21am	<p><b>Center for Geotechnical Modeling</b>  <b>Presenter:</b> Ross Boulanger  <i>Principal Investigator &amp; Director, Center for Geotechnical Modeling Professor, Civil &amp; Environmental Engineering University of California, Davis</i></p>	
10:23am-10:33am	<p><b>Large High Performance Outdoor Shake Table</b>  <b>Presenter:</b> Joel Conte  <i>Principal Investigator, Large High Performance Outdoor Shake Table Professor, Civil Engineering University of California, San Diego</i></p> <p><i>Koorosh Lotfizadeh  Director of NHERI Operations &amp; Project Scientist, Large High Performance Outdoor Shake Table  University of California, San Diego</i></p>	
10:35am-10:45am	<b>Large-Scale Mobile Shakers</b>	

**Presenter:** *Tricia Clayton*  
*Co-Principal Investigator, Large-Scale Mobile Shakers*  
*The University of Texas at Austin*  
*Associate Professor, Civil Engineer at Wake Forest University*

10:45am-11:00am	<b>Networking Break</b>	La Villita & Riverwalk Room
11:00am-12:00pm	<b>NHERI Site Presentation, Part II</b>	La Villita Room
11:03am-11:13am	<b>Computational Modeling and Simulation Center (SimCenter)</b> <b>Presenter:</b> <i>Laura Lowes</i> <i>Leadership Team, SimCenter</i> <i>University of California, Berkeley</i>	
11:14am-11:24am	<b>RAPID Natural Hazards Reconnaissance</b> <b>Presenter:</b> <i>Laura Lowes</i> <i>ECO Director, RAPID Facility</i> <i>Department Chair &amp; Professor, Civil &amp; Environmental Engineering</i> <i>University of Washington</i>	
11:26am-11:36am	<b>Real-Time Multi-Directional (RTMD) Experimental Facility</b> <b>Presenters:</b> <i>James Ricles</i> <i>Principal Investigator &amp; Director, Real-Time Multi-Directional Experimental Facility</i> <i>Lehigh University</i>  <i>Liang Cao, Research Scientist</i> <i>Real-Time Multi-Directional Experimental Facility</i> <i>Lehigh University</i>	
11:38am-11:48am	<b>DesignSafe-Cyberinfrastructure</b> <b>Presenter:</b> <i>Tim Cockerill</i> <i>Director of User Services at Texas Advance Computing Center</i> <i>The University of Texas at Austin</i>	
11:50am-12:00pm	<b>CONVERGE &amp; Natural Hazards Center</b> <b>Presenter:</b> <i>Melissa Villarreal</i> <i>Graduate Research Assistant, CONVERGE &amp; Natural Hazards Center</i> <i>PhD Student, Department of Sociology</i> <i>University of Colorado, Boulder</i>	
12:00pm-12:30pm	<b>Lunch</b>	Riverwalk Room
12:30pm-1:00pm	<b>Networking with NHERI Site Representatives</b>  <i>Attendees will have the opportunity to speak with NHERI representatives from each site, collect flyers, scan QR codes, and network.</i>	Riverwalk Room
1:00pm-2:00pm	<b>NHERI Researcher Panel</b> <b>Moderated by:</b> <i>Laura Lowes</i> <i>Leadership Team, SimCenter, University of California, Berkeley</i> <i>ECO Director, RAPID Facility &amp; Department Chair, Professor of Civil &amp; Environmental Engineering, University of Washington</i>  <i>Attendees will hear panelist's perspective on what it means to conduct research from ideation to implementing research into practice. The panel will share their experiences conducting research at one of the NSF-funded NHERI facilitates and answer attendee questions.</i>	La Villita Room

2:00pm-2:15pm	<b>Networking Break</b>	La Villita & Riverwalk Room
2:15pm-3:15pm	<p><b>Interdisciplinary NSF CAREER Award Panel</b>  <b>Moderated by:</b> <i>Karina Vielma</i>  <i>NHERI NCO-ECO Assistant Lead</i>  <i>Assistant Professor, Engineering Education</i>  <i>The University of Texas at San Antonio</i></p> <p><i>Attendees will learn about the NSF CAREER proposal from an interdisciplinary panel of successful awardees. Panelist will answer attendees' questions and share their experiences as they prepared submission for the NSF CAREER proposal.</i></p>	La Villita Room
3:15pm-3:30pm	<b>Networking Break</b>	La Villita & Riverwalk Room
3:30pm-4:30pm	<p><b>NHERI Science Plan</b>  <b>Presenter:</b> <i>Ian Robertson</i>  <i>Chair &amp; Professor of Civil &amp; Environmental Engineering</i>  <i>Arthur N.L. Chiu Distinguished Professor</i>  <i>University of Hawaii at Mānoa</i></p> <p><b>Presenter:</b> <i>Billy Edge</i>  <i>NHERI NCO Co-PI and NHERI Science Plan Task Group, Professor, Civil,</i>  <i>Construction &amp; Environmental Engineering</i>  <i>North Carolina State University</i></p> <p><i>Attendees will participate in an introduction, overview, and discussion of the third iteration of the NHERI Science Plan to address pressing research needs for the natural hazards' engineering community.</i></p>	La Villita & Riverwalk Room
4:30pm-5:30pm	<p><b>Collaborative Proposal Writing Workshop: Science Plan</b></p> <p><i>Attendees will be introduced to the mock proposal and collaborative groups. In their collaborative groups, they will begin work on the mock proposal with guidance from the NHERI Science Plan Task Group and the NHERI site representatives.</i></p>	La Villita & Riverwalk
6:00pm-8:00pm	<p><b>User Forum Meet &amp; Greet with Appetizers at Mi Tierra</b></p> <p><b>Hosted by:</b>  <i>Mohammad Khosravi</i>  <i>NHERI User Forum Chair &amp; Assistant Professor of Geotechnical Earthquake Engineering &amp; Ground</i>  <i>Montana State University</i></p> <p><i>Stephanie Pilkington</i>  <i>NHERI User Forum Vice-Chair &amp; Assistant Professor, Civil Engineering Technology &amp; Construction Management</i>  <i>University of North Carolina at Charlotte</i></p> <p><i>Wei Song</i>  <i>NHERI User Forum Secretary &amp; Associate Professor Center for Sustainable Infrastructure, Civil, Construction, &amp; Environmental</i>  <i>University of Alabama</i></p> <p><i>Yazen Khasawneh</i>  <i>NHERI User Forum Member &amp; Associate Teaching Professor, Civil &amp; Environmental Engineering &amp; Earth Sciences</i>  <i>University of Notre Dame</i></p>	Mi Tierra (Meet in the La Villita Room at 5:55pm to walk to the restaurant as a group.)

*Stephanie Paal*  
 NHERI User Forum Member & Assistant Professor, Civil & Environmental Engineering  
 Texas A&M University (whoop!)

*Cláudia Reis*  
 NHERI User Forum Member & Graduate Researcher at the Civil Engineering Research  
 & Innovation for Sustainability Civil Engineering,  
 PhD Student, Department of Civil & Architectural Engineering  
 Instituto Superior Técnico, Universidade de Lisboa

*Antonio Bobet*  
 NHERI NCO Co-Principal Investigator, User Forum NCO Representative, Edgar B. and  
 Hedwig M. Olson Professor in Civil Engineering  
 Purdue University

*David Johnson*  
 NHERI NCO Member, User Forum NCO Representative, & Assistant Professor of  
 Industrial Engineering with joint appointment in Political Science  
 Purdue University

*Enjoy the ambiance of Mi Tierra as you mingle, snack on appetizers, savor a drink from  
 the cash bar, and meet the User Forum. Attendees will learn about the User Forum, its  
 purpose, and upcoming leadership opportunities.*

**NHERI Summer Institute Day 2**  
**Tuesday, June 21, 2022**

<b>Time</b>	<b>Session</b>	<b>Location</b>
8:00am-8:30am	Registration and breakfast	Riverwalk Room
8:30am-9:45am	<b>NSF Grant Writing Workshop Research 101</b> <i>Presenter: Joy Pauschke</i> <i>Program Director, National Science Foundation</i> <i>Division of Civil, Mechanical, and Manufacturing Innovation (CMMI)</i>  <i>Attendees will meet with CMMI NSF Program Director to discuss the research merit, overview of research activities and resources, as well as broader impacts.</i>	La Villita Room
8:30am-9:30am	<b>K-12 Educator Orientation</b> <i>Presenter: Karina Vielma</i> <i>NHERI NCO-ECO Assistant Lead</i> <i>Assistant Professor, Engineering Education</i> <i>The University of Texas at San Antonio</i>  <i>K-12 educators will meet with the NHERI NCO-ECO Assistant Director to learn about the NHERI network, the Summer Institute objectives, and implications for K-12 broader impacts within National Science Foundation proposals</i>	Alamo Board Room
9:45am-10:00am	<b>Networking Break</b>	La Villita & Riverwalk Room
10:00am-12:00pm	<b>Collaborative Proposal Writing Workshop: NHERI Resources</b>  <i>After introducing K-12 educators to their group, attendees will begin crafting their mock research proposal PowerPoint with guidance from NSF Program Director, Joy Pauschke.</i>	La Villita & Riverwalk Room

12:00pm-12:30pm	<b>Lunch</b>	Riverwalk Room
12:30pm-1:00pm	<b>Networking with NHERI NCO, TTC, Science Plan, User Forum, NCO Communications, &amp; ECO</b>	Riverwalk Room
1:00pm-3:00pm	<p><b>Diversity, Equity, and Inclusion Workshop</b>  <i>Facilitated by: Karina Vielma</i>  <i>NHERI NCO-ECO Assistant Lead</i>  <i>Assistant Professor, Engineering Education</i>  <i>The University of Texas at San Antonio</i></p> <p><i>The workshop will give attendees opportunities to dialogue about topics of diversity, equity, and inclusion with other early career faculty members and education researchers.</i></p>	La Villita Room
3:00pm-3:15pm	<b>Networking Break</b>	La Villita & Riverwalk Room
3:15pm-3:45pm	<p><b>Broader Impacts</b>  <i>Presenter: Robin Nelson</i>  <i>NHERI NCO-ECO Education Specialist</i>  <i>Post-Doctoral Research Fellow</i>  <i>University of Texas at San Antonio</i></p> <p><i>Attendees will work within their groups to create a broader impacts educational plan in collaboration with K-12 educators and NHERI educational specialists.</i></p>	La Villita Room
3:45pm-4:00pm	<b>Networking Break</b>	La Villita & Riverwalk Room
4:00pm-5:30pm	<p><b>Collaborative Proposal Writing Workshop: Broader Impacts</b></p> <p><i>Attendees will work within their collaborative groups to create a broader impacts educational plan with the help of K-12 Educators and NHERI Educational Specialists.</i></p>	La Villita & Riverwalk Room
6:30pm-7:30pm	<p><b>Go RIO, River Cruise sponsored by the Klesse College of Engineering &amp; Integrated Design at UTSA</b></p> <p><i>Participants will float down the San Antonio River on a colorful barge learning about the historic Riverwalk.</i></p>	La Villita Room

**NHERI Summer Institute Day 3**  
**Wednesday, June 22, 2022**

<b>Time</b>	<b>Session</b>	<b>Location</b>
8:00am-8:30am	Registration and breakfast	Riverwalk Room
8:30am-9:00am	<p><b>NHERI Technology Transfer Committee (TTC)</b>  <i>Presenter: Kelly Cobeen</i>  <i>Principal at Wiss, Janney, Elstner, Associates, Inc.</i>  <i>Presenter: Graham Brasic</i>  <i>Associate at Jezerinac Group</i>  <i>Presenter: Joseph Cibor</i>  <i>President, Cibor, Inc.</i>  <i>Presenter: Michael Valley</i>  <i>Principal with Magnusson Lemencic Associates</i></p>	La Villita Room

*Attendees will participate in an introduction, overview, and discussion of ways to transfer technology from research into practice from the NHERI TTC members.*

9:00am-9:45am	<b>Collaborative Proposal Writing Workshop: Technology Transfer</b>  <i>Attendees will work within their collaborative groups to create a plan for research to practice for their mock proposal with guidance from the Technology Transfer Committee members.</i>	La Villita & Riverwalk Room
9:45am-10:00am	<b>Networking Break</b>	La Villita & Riverwalk Room
10:00am-12:00pm	<b>Collaborative Proposal Writing Workshop: Presentation</b>  <i>Attendees will continue to work within their collaborative groups to finalize their mock proposal PowerPoint and submit to Dropbox for the final presentation.</i>	La Villita & Riverwalk Room
12:00pm-1:00pm	<b>Lunch &amp; Sign-up: NHERI Site Networking</b>  <i>Attendees will sign-up for times to network with NHERI Site Representatives (sign-up at the registration desk beginning Monday).</i>	Riverwalk Room
12:00pm-1:00pm	<b>User Forum Meeting</b>  <i>User Forum members will meet for their June meeting.</i>	Alamo Board Room
1:15pm-3:15pm	<b>Group Mock Proposal Presentations</b>  <i>Attendees will present their collaborative group's mock proposal to the panel of distinguished NHERI judges (Julio Ramirez, Billy Edge, David Johnson, Cheryl Ann Blain, and Tim Cockerill).</i>	La Villita Room
3:15pm-3:30pm	<b>Networking Break</b>	La Villita & Riverwalk Room
3:30pm-4:00pm	<b>Awards Presentation &amp; Concluding Remarks</b> <b>Presenter:</b> Julio Ramirez <i>Karl H. Kettelhut Professor in Civil Engineering &amp; NHERI NCO Principal Investigator &amp; Center Director Purdue University</i>  <i>Award for the best mock proposal will be presented before concluding remarks close out the 2022 NHERI Summer Institute.</i>	La Villita Room
4:15pm-5:00pm	<b>ECO Committee Meeting</b>  <i>The ECO Committee will meet briefly for their June meeting (hybrid format).</i>	Alamo Board Room