



Natural Hazards Engineering Research Infrastructure

Research Experiences for Undergraduates Summer Program Research Presentations

The University of Texas at Austin
Texas Advanced Computing Center, Room ROC 1.900
10100 Burnet Road
Austin, TX 78758

August 1, 2019 – Central Time Zone

Join from PC, Mac, Linux, iOS or Android: <https://DesignSafe-ci.zoom.us/j/649229409>

Welcome & Icebreakers		
8:00-8:40am	Breakfast	TACC Lobby
8:40-9:00am	Icebreakers and Introductions	ROC 1.900
REU Research Presentations - ROC 1.900		
9:00-9:20am	Mitchell Stiles <i>Fabrication of a Semi-Active Friction Damper</i> Lehigh University	
9:20-9:40am	Cecelia Maginot <i>Advancing Knowledge on the Performance of Seismic Collectors in Steel Building Structures: Top Flange Weld Investigation</i> Lehigh University	
9:40-10:00am	Anthony Clay <i>Seismic Tests of Self-Centering CLT Wall with Floor Diaphragm and Gravity Load System</i> Lehigh University	
10:00-10:20am	Allison Stevens <i>Survey and Investigation of Homes Damaged by Hurricane Michael</i> University of Florida	
10:20-10:40am	D'Angelo Portis <i>Calibration of Dwyer Sensors for a Future Project</i> University of Florida	
10:40-11:00am	Eduardo Vilanova <i>Monitoring the Behavior of Wave Impacts</i> University of Florida	



11:00-11:20am **Karen Vazquez**
Experimental and Analytical Assessment of Wind Loads on Roof to Wall Connections
Florida International University

11:20-11:40am **Morgan Wetz**
Evaluation of Wind Induced Loads on Irregular Shaped One-Story Houses
Florida International University

11:40am- **Muhammad Jamal**
12:00pm *Large Scale Testing to Investigate the Aerodynamics of Elevated Houses*
Florida International University

Networking Lunch

12:00-12:45pm Networking Lunch TACC Lobby

NHERI Site Tour

12:45-1:30pm DesignSafe-ci: Texas Advanced Commuting Center Tour

Research Poster Presentations – REU 2

1:30-2:30pm REU 2 Research Poster Presentations

REU Student Presentations - ROC 1.900

2:30-3:00pm **Natasha Mejias Ramirez & Kathryn Popp**
Effects of Cyclic Loading on Jacket Foundations of Offshore Wind Turbines in Sandy Soils
The University of Texas at Austin

3:00-3:20pm **Jethro Ssengonzi**
Limitations of Multi-Channel Analysis of Surface Waves (MASW) Method on Subsurface Anomaly Detection
The University of Texas at Austin

3:20-3:40pm **Fernanda Lago**
Using Social Media for Post-Disaster Infrastructure Assessment
The University of Texas at Austin

3:40-4:00pm **Fernanda Breña**
Assessing the Impacts of Traffic Network Damage from Earthquakes
University of California, Berkeley

4:00-4:20pm **Paola Vargas**
Integration of Damage and Loss Data with Social Vulnerability Measures
University of California, Berkeley

4:20-4:40pm **Haley Hostetter**
A Stochastic Ground Motion Simulation Model Developed for Shallow Crustal Earthquakes Evaluated in a Subduction Zone Setting
University of California, Berkeley

4:40-5:00pm **Ellie Month**
Post-Earthquake Damage and Loss Assessments of a Clean Water Network
University of California, Berkeley



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August 2, 2019 – Central Time Zone

Join from PC, Mac, Linux, iOS or Android: <https://DesignSafe-ci.zoom.us/j/649229409>

NHERI Site Tour		
8:00-9:00am	NHERI @ UT Austin Mobile Shaker Trucks	UT Austin – Pickle Research Campus (PRC), Building 46 TACC Lobby
9:00-9:40am	Breakfast	
REU Student Presentations - ROC 1.900		
9:40-10:00am	Rebeca Molina <i>Data Processing for the Advancement of Hurricane Debris Modeling</i> Rice University	
10:00-10:20am	Brandon Dukes <i>Hurricane Debris Modeling: A Data Driven Approach</i> Rice University	
10:20-10:40am	Emily Mongold <i>Analyzing Structural Damage During Hurricane Michael of Low-rise Large-volume Steel Structures using Structure-from-Motion and LiDAR</i> University of Washington	
10:40-11:00am	Dominic Grasso <i>Assessing Building Uplift Due to Hurricane Michael Storm Surge using Structure-from-Motion and LiDAR Point Clouds</i> University of Washington	
11:00-11:20am	Harriet Wright <i>Developing Structure-from-Motion Models from Applied Streetview and UAV Images</i> University of Washington	
11:00-11:20am	Micah Tang <i>CPT Behavior of Well-Graded Granular Soils</i> University of California, Davis	



11:20-11:40am	Jasmin Lugo <i>Measuring the Geotechnical Properties and Behavior of Fly Ash</i> University of California, Davis
11:40am-12:00pm	Caileen Yu <i>Progressive Damage Assessment on On-slab and Elevated Structures from Storm Surge and Waves using LiDAR</i> Oregon State University
12:00-12:20pm	Ephraim Bryski <i>Analysis of Impact on Model Wood-frame Residential Houses</i> Oregon State University

Networking Lunch

12:20am-12:45pm	Networking Lunch	TACC Lobby
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NHERI Site Tour

12:45-1:30pm	DesignSafe-ci: Texas Advanced Commuting Center Tour
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Research Poster Presentations – REU 1

1:30-2:30pm	REU 1 Research Poster Presentations
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REU Research Presentations - ROC 1.900

2:30-2:50pm	Priscilla Araujo <i>Configuring a Dynamic Data Acquisition System to Collect Ambient and Forced Vibration Response Data from a Steel Frame Building</i> University of California, San Diego
2:50-3:10pm	Alvin Zhou <i>Collection of Ambient Vibration Response Data from a Steel Frame Building and Post-processing of the Recorded Data</i> University of California, San Diego
3:10-3:30pm	Peter Davis <i>Seismic Performance and Modeling of a Steel-framed Composite Diaphragm Structure</i> University of California, San Diego
3:30-3:50pm	Grace Mauberret <i>Seismic Performance of a Steel Structure using SAP 2000</i> University of California, San Diego
3:50-4:10pm	Alissa Gonzalez <i>The Effects of Modern Residual Stress Patterns on Inelastic Buckling of Hot-rolled Steel Sections</i> University of California, San Diego

Day's Closing

4:10-5:00pm	REU Day 2 Debrief	ROC 1.900
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