Hybrid Simulation Workshop: Welcome to nees@berkeley

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Welcome to nees@berkeley!

- We specialize in hybrid simulation
- We also do conventional structural tests using:
  - A reconfigurable reaction wall
  - A reconfigurable test frame (REPEAT)
  - An array of actuators
  - A high-channel-count data acquisition system
  - Multiple digital cameras
  - A laser-based geometry scanner
  - Tools for processing and visualizing test data
Purpose of this Workshop

- Learn the basics of the hybrid simulation method.
- Learn about OpenSees, OpenFresco and Navigator, our basis tools.
- Conduct a hybrid simulation at the nees@berkeley NEES Equipment Site using MTS hardware.
- Be able to use hybrid simulation in their NEES and non-NEES projects.
- Prepare to develop new hybrid simulation tests and algorithms.
Agenda (Day 1)

9-noon: Hybrid Simulation Basics

12:30-1:15 Lunch

1:15-5:30: Hybrid Simulation and OpenSees: Implementation at nees@berkeley

5:30-6:30: Lab tour

7:00-...: Dinner at the Durant Hotel
Agenda (Day 2)

9:00-11:30 Hybrid simulation hands-on: part 1

11:30-12:30 Structural modeling and simulation in OpenSees

12:30-1:15 pm Lunch

1:15-2:15 OpenSees solution algorithms

2:15-4:15 Hybrid simulation hands-on: part 2

4:15-5 pm Workshop review and conclusion
Thank you!

Development and operation of the nees@berkeley equipment site is sponsored by NSF.

http://nees.berkeley.edu

This workshop would not be possible without help from Ms. Nancy Nelson and Ms. Ninh Trinh: thank you!