

George E. Brown, Jr. Network for Earthquake Engineering Simulation Publication of Research Data in the NEEShub

Stanislav Pejša,
NEEScomm Data Curator

HUBbub 2013
Indianapolis, IN
2013-09-06



NEES



PURDUE UNIVERSITY
Discovery Park

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Why Publish Data?

- Sharing data can be a source of recognition
- Incentivizing affect on promotion
- A tool for research assessment
- Can increase the citation rate
- Other possible use of resources
- Fosters responsible scholarship
- Strengthening open science
 - Global access
 - Protection against fraud
- Efficiency in use of scientific resources
- Enables new discoveries – multiple perspectives

Costas, R., Meijer, I., Zahedi, Z. and Wouters, P. (2013). The Value of Research Data - Metrics for datasets from a cultural and technical point of view. A Knowledge Exchange Report, available from www.knowledge-exchange.info/datametrics



But Also ...

The White House wants you to do it...

The Administration is committed to ensuring that, ... the direct results of federally funded scientific research are made available to and useful for the public, industry, and the scientific community. Such results include peer-reviewed publications and **digital data**.

OSTP (February 22, 2013): Memorandum for the Heads of the Executive Departments and Agencies.
http://www.whitehouse.gov/sites/default/files/microsites/ostp/ostp_public_access_memo_2013.pdf



Because ...

The White House wants you to do it... Because...

Policies that mobilize these publications and **data for re-use** through preservation and broader public access also maximize the impact and accountability of the Federal research investment. These policies will accelerate scientific breakthroughs and innovation, promote entrepreneurship, and enhance economic growth and job creation.

OSTP (February 22, 2013): Memorandum for the Heads of the Executive Departments and Agencies.
http://www.whitehouse.gov/sites/default/files/microsites/ostp/ostp_public_access_memo_2013.pdf



...And Is Doing It

Executive Order -- Making Open and Machine Readable the New Default for Government Information

To promote continued job growth, Government efficiency, and the social good that can be gained from opening **Government data to the public**, the default state of new and modernized Government information resources shall be open and machine readable. **Government information shall be managed as an asset throughout its life cycle to promote interoperability and openness, and, wherever possible and legally permissible, to ensure that data are released to the public in ways that make the data easy to find, accessible, and usable.**



The White House. Office of the Press Secretary (May 09, 2013). Executive Order -- Making Open and Machine Readable the New Default for Government Information.
http://www.whitehouse.gov/sites/default/files/microsites/ostp/ostp_public_access_memo_2013.pdf



G8 also Wants You to Do It

...

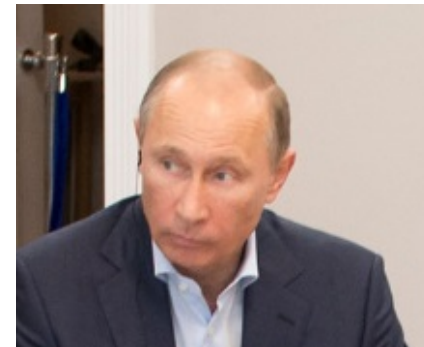
7) We, the G8, agree that open data are an untapped resource with huge potential to encourage the building of stronger, more interconnected societies that better meet the needs of our citizens and allow innovation and prosperity to flourish.

8) We therefore agree to follow a set of principles that will be the foundation for access to, and the release and re-use of, data made available by G8 governments. They are:

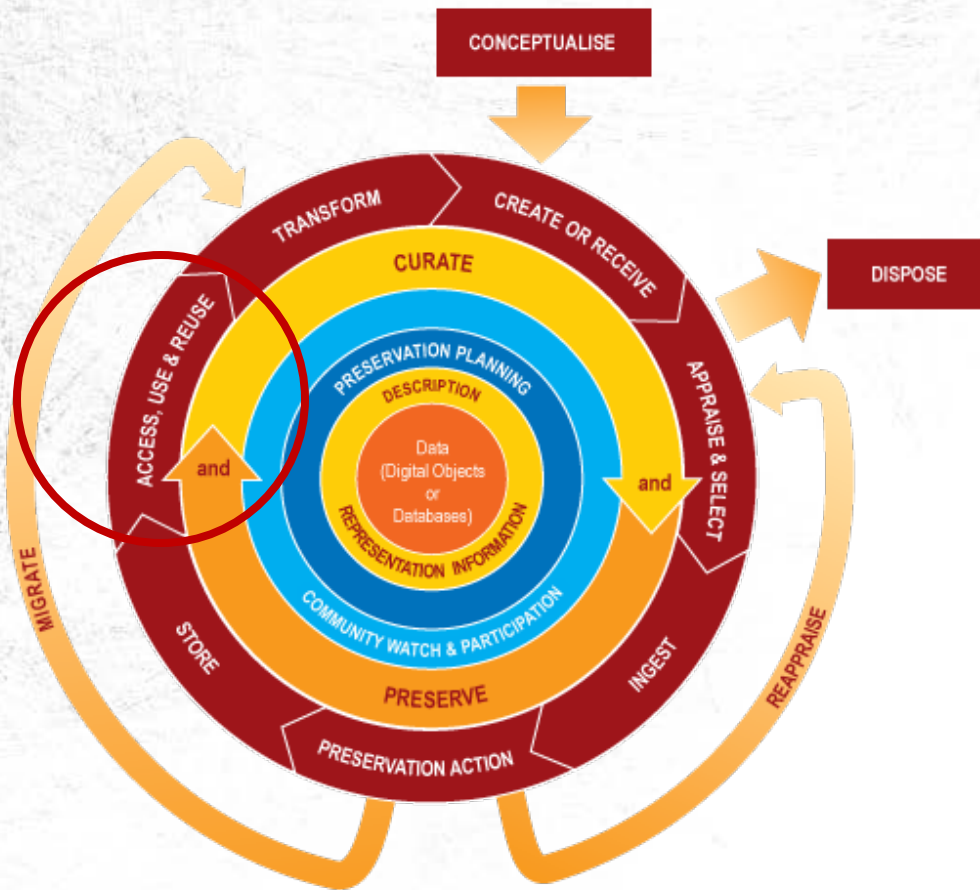
- Open Data by Default
- Quality and Quantity
- Useable by All
- Releasing Data for Improved Governance
- Releasing Data for Innovation

G8 Open Data Charter and Technical Annex (2013, 18 June).

<https://www.gov.uk/government/publications/open-data-charter/g8-open-data-charter-and-technical-annex>



DCC Curation Life-Cycle Model



Data

- Digital objects

Full Lifecycle Actions

- Description and Representation information
- Preservation planning
- Community watch and participation
- Curate and Preserve

Sequential actions

- Conceptualise
- Create or receive
- Appraise and select
- Ingest
- Preservation action
- Store
- **Access, use, re-use**
- Transform

Occasional actions

- Dispose
- Reappraise
- Migrate

<http://www.dcc.ac.uk/resources/curation-lifecycle-model>



What Is NEES?

14 engineering laboratories

Shake Tables

- University at Buffalo
- UC San Diego
- UN, Reno

Tsunami Wave Basin

- OSU

Geotechnical Centrifuges

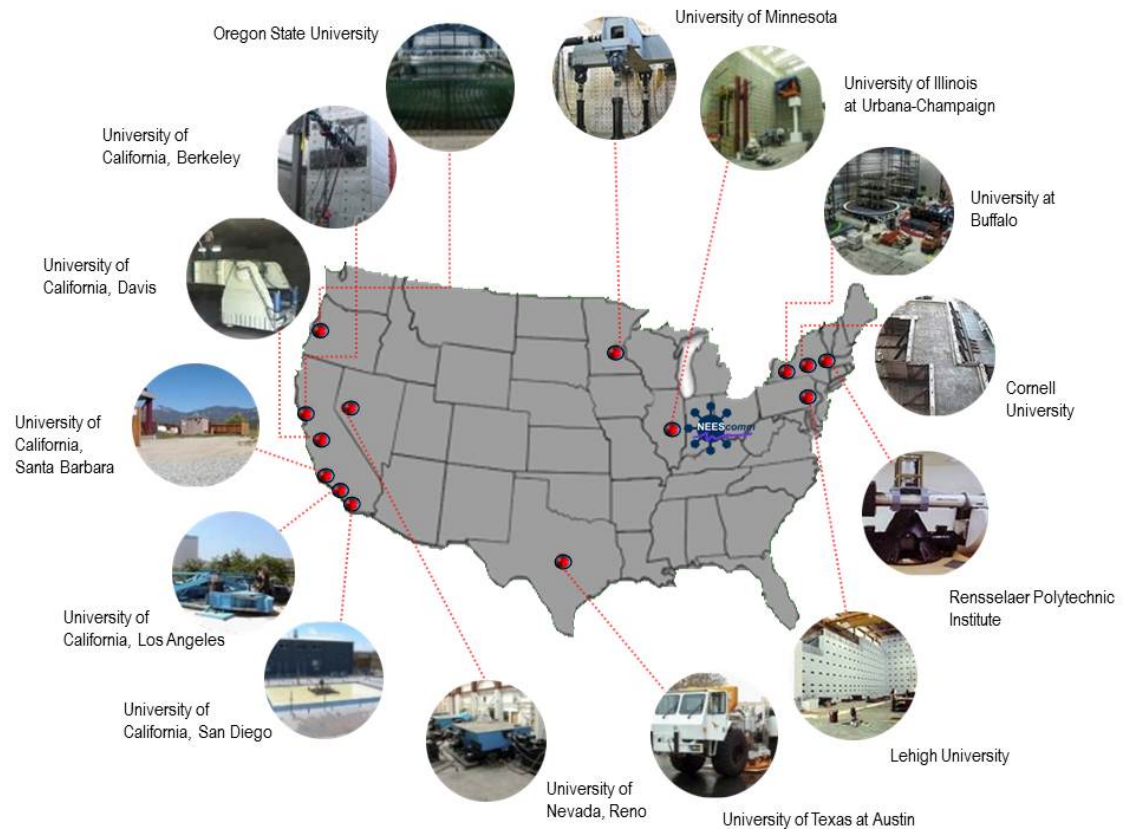
- RPI
- UC Davis

Field Experiments

- UC Los Angeles
- UC Santa Barbara
- UT at Austin

Large Scale Laboratories

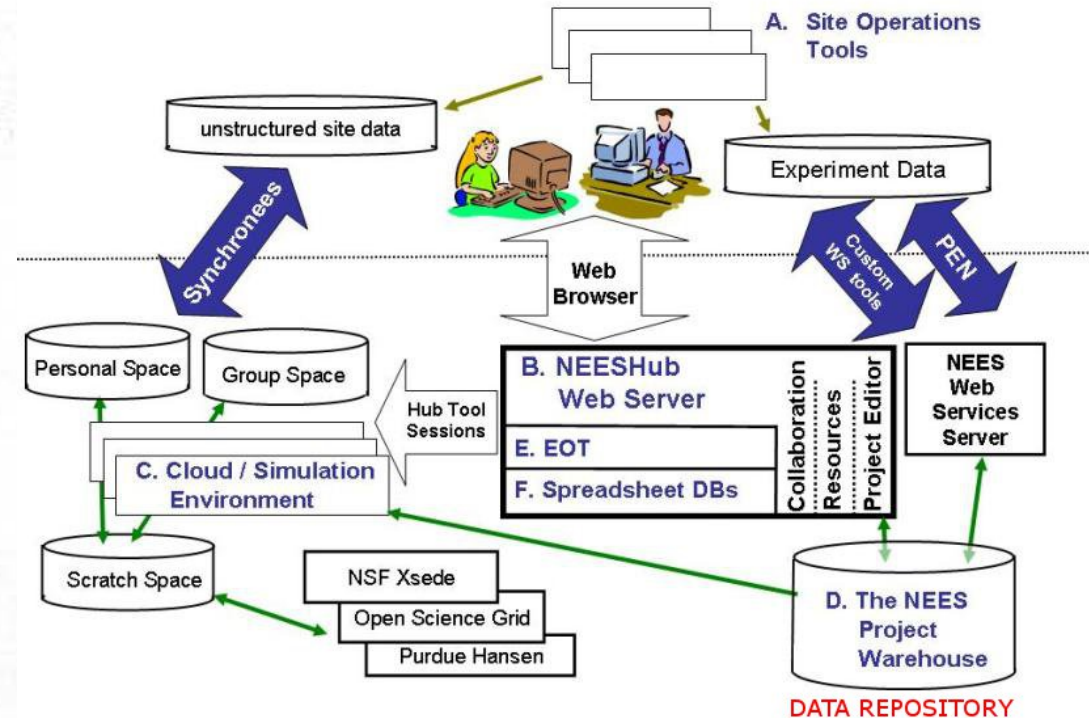
- Cornell University
- Lehigh University
- UC Berkeley
- UIUC
- UM, Twin City



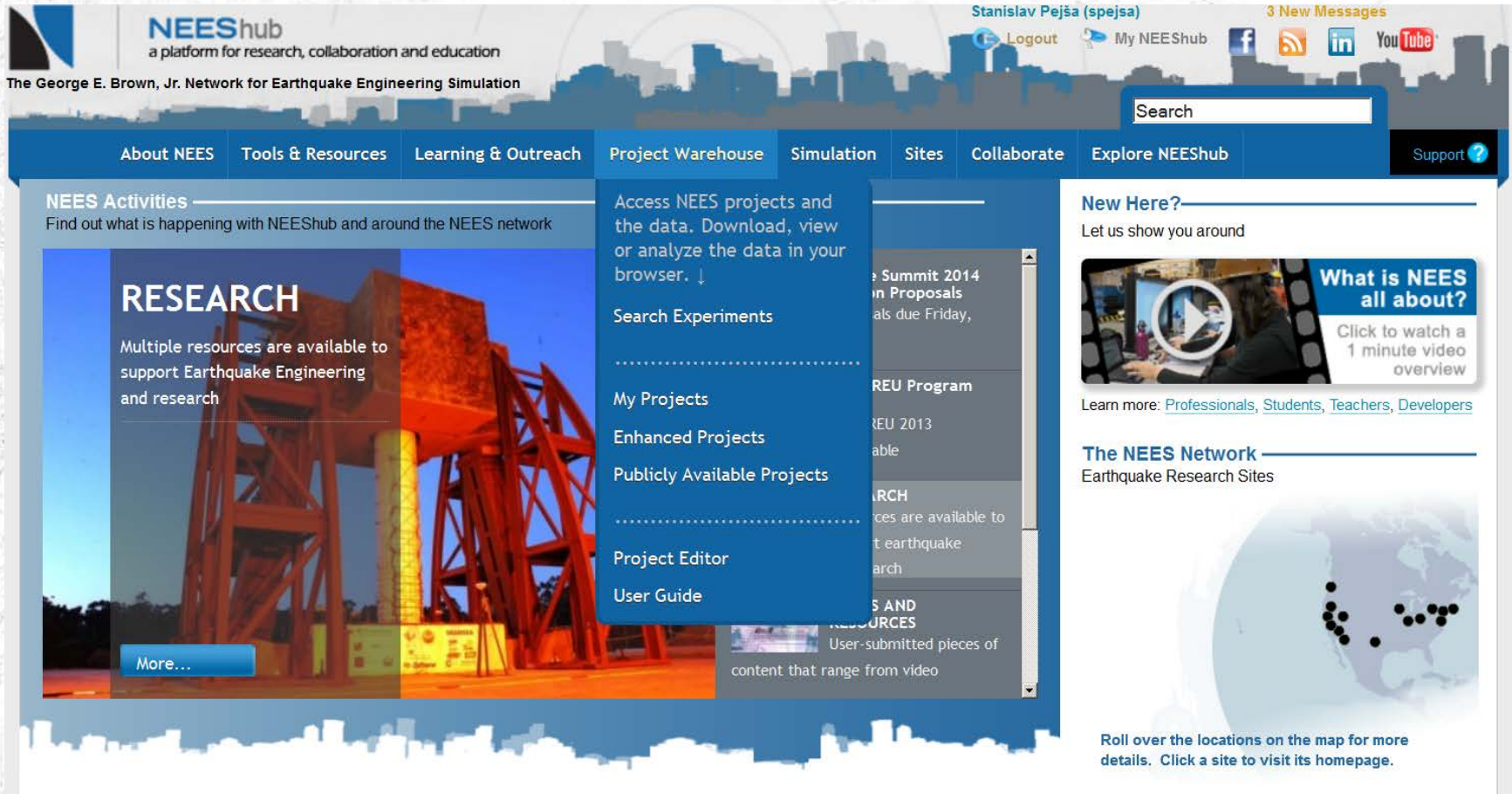
Cyberinfrastructure at NEES

NEES cyberinfrastructure:

- A. Site Operations Tools
- B. The NEEShub Web Server
- C. Cloud / Simulation Environment
- D. The Project Warehouse - NEES Data Repository
- E. Education, Outreach, and Training (EOT)



NEEShub - www.nees.org



The screenshot displays the NEEShub website interface. At the top left, the NEEShub logo is accompanied by the tagline "a platform for research, collaboration and education" and the text "The George E. Brown, Jr. Network for Earthquake Engineering Simulation". The top right corner shows the user "Stanislav Pejša (spejsa)" with options for "Logout" and "My NEEShub", along with social media icons for Facebook, RSS, LinkedIn, and YouTube, and a notification for "3 New Messages". A search bar is positioned in the upper right. The main navigation menu includes "About NEES", "Tools & Resources", "Learning & Outreach", "Project Warehouse", "Simulation", "Sites", "Collaborate", "Explore NEEShub", and "Support".

The "Project Warehouse" menu is expanded, listing the following options:

- Access NEES projects and the data. Download, view or analyze the data in your browser. ↓
- Search Experiments
- My Projects
- Enhanced Projects
- Publicly Available Projects
- Project Editor
- User Guide

The "NEES Activities" section features a "RESEARCH" banner with the text: "Multiple resources are available to support Earthquake Engineering and research" and a "More..." button. To the right, a "New Here?" section includes a video player titled "What is NEES all about?" with a "Click to watch a 1 minute video overview" button. Below this is a link to "Learn more: Professionals, Students, Teachers, Developers".

The "The NEES Network" section is titled "Earthquake Research Sites" and features a map of the United States with several black dots indicating site locations. A note below the map states: "Roll over the locations on the map for more details. Click a site to visit its homepage."

Data Archiving at NEES

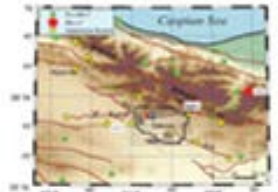
- **Who**
 - research team, site personnel, curator, NEEScomm
- **What**
 - sensor measurements
 - sensor calibrations
 - observations
 - analyses
 - numerical simulations
 - reports (including publications and presentations)
- **When**
 - Dates are stated in the Data Sharing and Archiving Policies (1 month, 6 months, 12 months)
 - For as long as the data are useful ~ indefinitely ~ for 20 years
- **Where**
 - Project Warehouse <http://nees.org/warehouse/welcome>
- **Why**
 - increases researcher's impact
 - saves work, time, money
 - facilitates knowledge transfer
 - maintained authenticity and integrity of data
 - good practice
 - advances research

What kind of data?

- diverse
 - shared facilities, not always practices
 - research domain
 - structural engineering
 - geotechnical engineering
 - geophysical research
 - material engineering
 - tsunami research
 - type of data
 - experimental
 - observational
 - computational
- increasingly complex
 - number of sensors
 - interdisciplinarity
 - experimenting with computational modeling

Data Publication in NEEShub

- All recently curated experiments
 - Have assigned DOI
 - Have improved metadata that facilitate discovery
- Datasets are considered published information products and NSF now allows listing information products in researchers' bio sketches.
"Acceptable products must be citable and accessible including but not limited to publications, data sets, software, patents, and copyright"
http://www.nsf.gov/pubs/policydocs/pappguide/nsf13001/gpg_2.jsp#IIC2fic
- The Earthquake Spectra journal is accepting a new type of manuscript called Data Papers.
 - Peer-reviewed papers that describe datasets of interest to the earthquake community
 - Data must be publically available with a Digit Object Identifier (DOI)
 - Submit soon for the inaugural issue of Data Papers
http://earthquakespectra.org/page/data_papers



Citation and Attribution

- **Recommended citation format**

Researcher 1, Researcher 2, Researcher 3 (YYYY), “Experiment Title”
Network for Earthquake Engineering Simulation (distributor), Dataset,
DOI:10.4231/D3SQ8QH1F

- Users of the data are expected to cite the data sets they used in the recommended format as shown above and also include an acknowledgement to the NEES Data Repository.

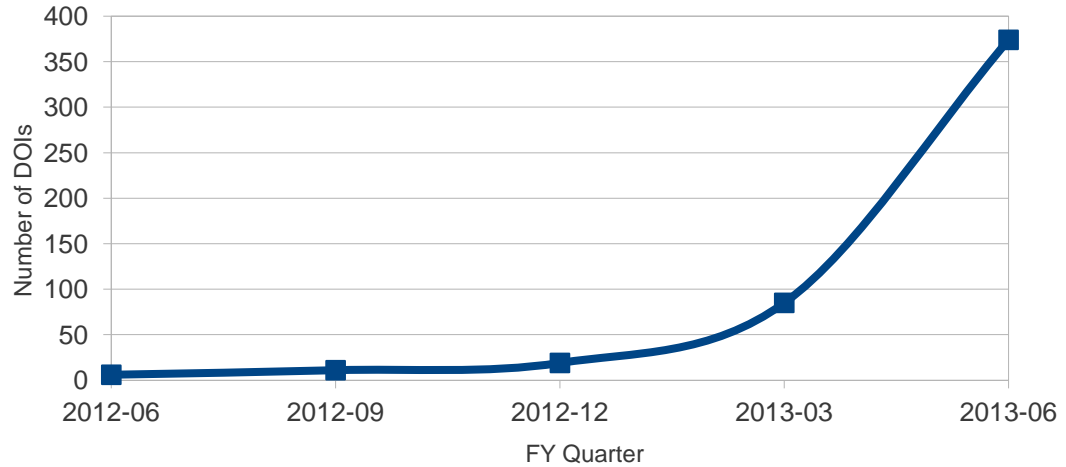
To acknowledge the NEEShub Data Repository:

The facilities of the George E. Brown Network for Earthquake Engineering Simulation (NEES) Data Repository were used for access to data and metadata used in this study (<https://nees.org/warehouse/welcome>). The NEES Data Repository is funded through the National Science Foundation and specifically the CMMI Directorate through the National Science Foundation under Cooperative Agreement Number CMMI-0927178

DOI – Digital Object Identifier

Number of issued DOIs since 2012-06-30

Date	# of issued DOIs
2012-06	6
2012-09	11
2012-12	19
2013-03	85
2013-06	374



NUREG/CR-XXXX
CCEER 13-09

Large Scale Earthquake Simulation of a Hybrid Lead Rubber Isolation System Designed with Consideration of Nuclear Seismicity

Manuscript Completed: October 3, 2012
Date Published: May, 2013

Prepared by
K. L. Ryan, C. B. Coria, N. D. Dao

Center for Civil Engineering Earthquake Research (CCEER)
University of Nevada, Reno/MS 0258
Reno, Nevada 89557-0258

55. Ryan K, Sato E, Sasaki T, Okazaki T, Guzman T, Dao N, Soroushian S, Coria C (2013a). "Full Scale 5-story Building with Triple Pendulum Bearings at E-Defense", Network for Earthquake Engineering Simulation (database), Dataset, [DOI:10.4231/D3X34MR7R](https://doi.org/10.4231/D3X34MR7R)
56. Ryan K, Sato E, Sasaki T, Okazaki T, Guzman T, Dao N, Soroushian S, Coria C (2013b). "Full Scale 5-story Building with LRB/CLB Isolation System at E-Defense", Network for Earthquake Engineering Simulation (database), Dataset, [DOI:10.4231/D3SB3WZ43](https://doi.org/10.4231/D3SB3WZ43)
57. Ryan K, Sato E, Sasaki T, Okazaki T, Guzman T, Dao N, Soroushian S, Coria C (2013c). "Full Scale 5-story Building in Fixed-Base Condition at E-Defense", Network for Earthquake Engineering Simulation (database), Dataset, [DOI:10.4231/D3NP1WJ3P](https://doi.org/10.4231/D3NP1WJ3P)



Exposure of EE Research Data

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- publicationYear
- publisher
- language

0% EPS Geofam Inclusion # 1
 doi:10.4231/D31V5B02J Dataset
 Lamote, Kimberly • Athanasopoulos-Zekkos, Adda • Tessari, Anthony • Sasanakul, Inthuorn
 title: 0% EPS Geofam Inclusion
 description: isolation efficiency of EPS geofam.
 subject: Seismic Isolation

10% EPS Geofam Inclusion # 2
 doi:10.4231/D31V5B03X Dataset
 Lamote, Kimberly • Athanasopoulos-Zekkos, Adda • Tessari, Anthony • Sasanakul, Inthuorn
 title: 10% EPS Geofam Inclusion
 description: isolation efficiency of EPS geofam.
 subject: seismic isolation

Page 1 of 1

Seismic Isolation of Earth Retaining Structures using EPS Geofam - Centrifuge Testing.

From Repository: [Network for Earthquake Engineering Simulation](#).


Author(s): Athanasopoulos-Zekkos, Adda

Source: Network for Earthquake Engineering Simulation Source URL: <https://nees.org/warehouse/project/1004> (Viewed Date: 31 May 21)

Cited References: 0

Associated Data: 2 (from Data Citation Index)

Abstract: Earth retaining structures constitute an important component of civil engineering infrastructure. In earthquake prone areas an earth retaining structure must be designed to withstand the seismic earth pressures in addition to the static ones. The design and dimensioning of such walls is still, and probably will continue to be for some time in the future, based on the existing codes. Recent studies have questioned many of the assumptions made by analytical solutions for earth pressure estimations for retaining walls and results from large scale shake table tests have shown that for high ground accelerations, significant earth pressure thrusts are measured on the retaining structures. Thus, the development, reliability check and implementation of methods for the reduction of the seismic earth pressure (i.e. methods of isolation) acting on earth retaining walls could contribute to the increased safety and reduced construction cost of such structures. The proposed effort aims to enhance the welfare and safety of communities in areas of high seismicity through the development of new design methodologies for the seismic isolation of earth retaining structures. The main objectives of the proposed research project are to 1) investigate the effectiveness of an EPS geofam compressible inclusion in reducing both the seismic displacements and earth pressure increment of yielding and non-yielding earth retaining structures, and to 2) develop a design procedure for the seismic isolation of earth retaining structures. To achieve these objectives, the research project will include centrifuge testing on full (prototype) scale physical models of retaining structures seismically isolated by EPS compressible inclusions, under dynamic excitations of varying amplitude and frequency. The centrifuge data generated at NEES@RPI will be the first of its kind. The effect of parameters such as: retaining structure height, peak ground acceleration, dynamic excitation frequency, foundation soil material type, and inclusion thickness, on the isolation efficiency of the EPS inclusions will be investigated. The results will be compared to results from finite element analyses to help validate the numerical models.

 DataCite Content Service Beta

doi:10.4231/D31V5B03X

This page represents DataCite's metadata for doi:10.4231/D31V5B03X

For a landing page of this dataset please follow <http://dx.doi.org/10.4231/D31V5B03X>

Citation

Lamote, Kimberly, Athanasopoulos-Zekkos, Adda, Tessari, Anthony, Sasanakul, Inthuorn, (2013): 10% EPS Geofam Inclusion, Network for Earthquake Engineering Simulation (NEES). <http://dx.doi.org/10.4231/D31V5B03X> [RIS](#) [BibTeX](#)

Descriptions

Other

This is a dynamic centrifuge test of a set of flexible retaining walls with sandy backfill. The objective of the test is to measure earth pressures and strains on the retaining walls, settlement of the backfill and accelerations throughout the model and then compare these results to another test where a layer of EPS has been added between the walls and the backfill. This will allow us to test the seismic isolation efficiency of EPS geofam.

Resource type

Dataset

Subjects


earth pressures
retaining wall
seismic isolation
EPS geofam

Rights

ODC-BY 1.0

Language

en

 zekkos geofam nees

Web | Images | Maps | Shopping | More | Search tools

About 3,820 results (0.28 seconds)

[Adda Athanasopoulos-Zekkos | Michigan Engineering](#)
www.engin.umich.edu > [About](#) > [People](#) > [Profiles](#) > [A to E](#) >

Athanasopoulos-Zekkos discovered her passion. She grew up in ... Athanasopoulos-Zekkos enjoys life in Ann Arbor and the diversity U-M has to offer. "There's ...

10% EPS Geofam Inclusion - NEE Shub - NEE Shub
nees.org/warehouse/experiment/3057/project/1004

Apr 10, 2013 - Kimberly Lamote, Adda Athanasopoulos-Zekkos, Anthony Tessari, Inthuorn Sasanakul (2013). "10% EPS Geofam Inclusion", Network for ...

Cite this work:

Anthony Tessari, Kimberly Lamote, Adda Athanasopoulos-Zekkos, Inthuorn Sasanakul (2013). "10% EPS Geofam Inclusion". Network for Earthquake Engineering Simulation (distributor), Dataset, DOI:10.4231/D31V5B03X

Repository for EE Data

re3data.org
REGISTRY OF RESEARCH DATA REPOSITORIES

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Repository details

NEEShub



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General information

Name of repository	NEEShub
Additional name	Network for Earthquake Engineering Simulations a platform for research, collaboration and education The George E. Brown, Jr. Network for Earthquake Engineering Simulation
Repository URL	http://nees.org/
Subjects	Geosciences (Including Geography)
Description	NEES network features 14 geographically-distributed, shared-use laboratories that support several types of experimental work: geotechnical centrifuge research, shake table tests, large-scale structural testing, tsunami wave basin experiments, and field site research
Content type(s)	Databases Structured graphics Scientific and statistical data formats Structured text
Keyword(s)	geotechnical centrifuges, field experimentation and monitoring, large-scale laboratory experimentation, shake tables, tsunami wave basin, earthquake, seismology



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Title: Network for Earthquake Engineering Simulation

URL: <http://nees.org/>

Authority: National Science Foundation, Purdue University Discovery Park

Subjects: Geosciences

Earthquake damage Earthquake hazard analysis Earthquakes Seismites Seismology

Tsunami damage Tsunamis

Description:

The George E. Brown, Jr. Network for Earthquake Engineering Simulation (NEES) aims to assist in the development of innovations related to construction and design that minimizes or prevents damage during natural disasters such as earthquakes or tsunamis. The NEES provides access to 14 shared-use laboratories that support experimental work in such areas as geotechnical centrifuge research, shake table tests, large-scale structural testing, tsunami wave basin experiments, and field site research.

Access: Open

Start Date: 2004

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Data Citation Index ⁵⁴⁴

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Network for Earthquake Engineering Simulation.

Group Author(s): Network for Earthquake Engineering Simulation

Source: Network for Earthquake Engineering Simulation

Source URL: <http://nees.org/> (Viewed Date: 22 Nov 2012) Published Year: 2004

Cited References: 0

Associated Data: 12 (from Data Citation Index)

Abstract: The Network for Earthquake Engineering Simulation focuses on accelerating innovations in infrastructure design and construction practices to minimize damage during earthquakes or tsunamis. Their Project Warehouse is the centralized data repository for sharing and publishing earthquake engineering research data from experimental and numerical studies. The data in the Project Warehouse are associated with research projects funded by a variety of agencies, including the National Science Foundation (NSF), and include experiments performed at NEES and non-NEES equipment sites. 2009 NEEShub

Document Type: Repository

Accession Number: DRCIDATA2013064003196872

Language: English

Addresses:

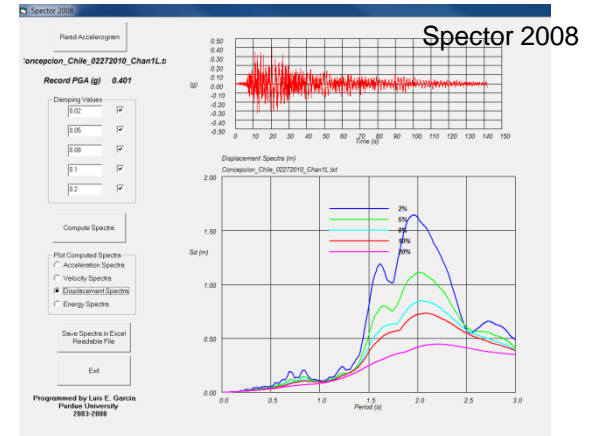
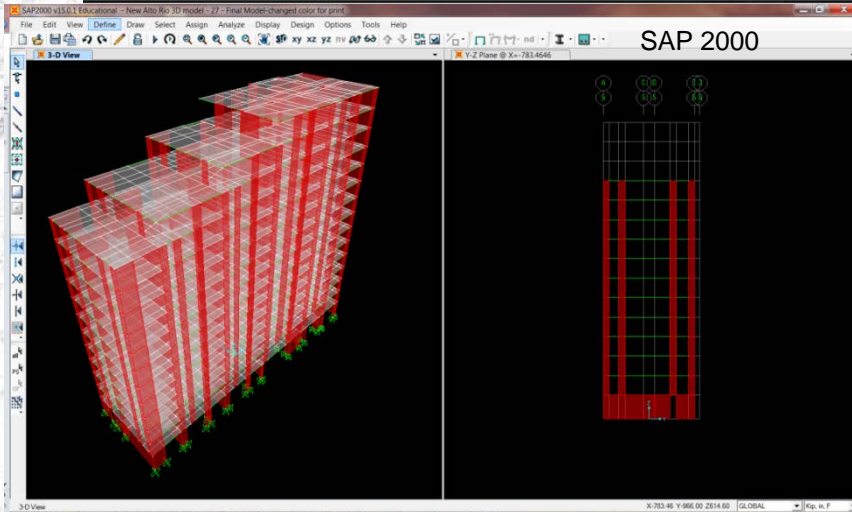
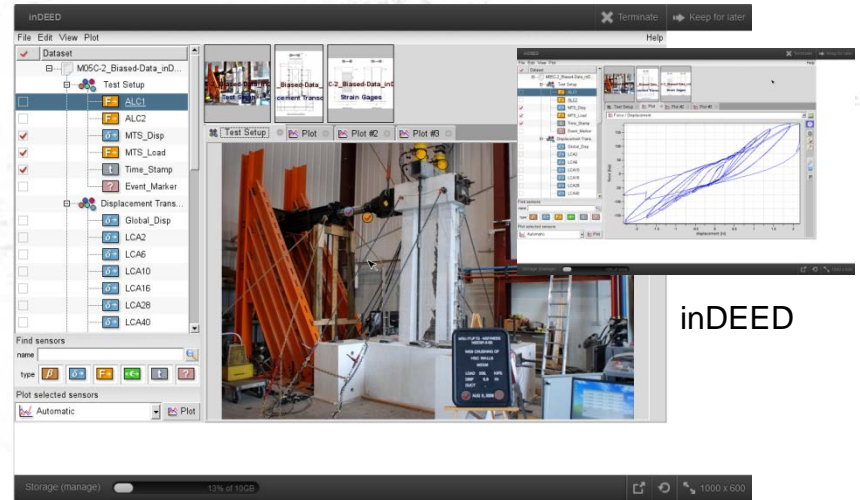
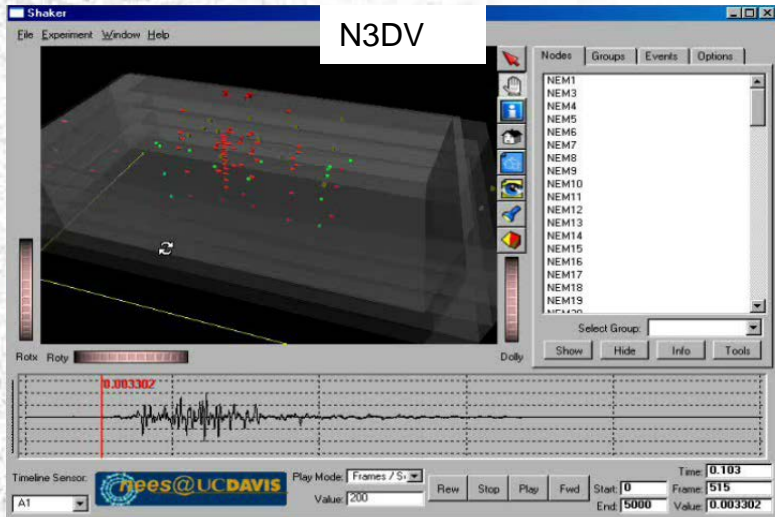
1. Purdue University Discovery Park, 207 S. Martin Jischke Drive, West Lafayette, IN, 47907, USA

E-mail Addresses: neescomm@purdue.edu

Web of Science Category: Construction & Building Technology; Architecture; Engineering; Multidisciplinary

Subject Area: Construction & Building Technology; Architecture; Engineering

Visualisation



Curated Experiment



NEES Project Warehouse

Controlled Rocking of Steel-Frame Buildings

[OPEN DATA](#)

No reviews have been created for this project. [Review This Project](#)

Project Experiments Team Members File Browser Reviews

To access data, please select an experiment in the Experiments tab.

Executive Summary:

[Download Document](#)

PI(s): [Gregory Deierlein, Sarah Billington, Jerome F. Hajjar](#)

Dates: January 01, 2005 - September 30, 2019

Facility: [University of Illinois at Urbana-Champaign, L, United States](#)
[Stanford University, CA, United States](#)
[Hyogo Earthquake Engineering Research Center \(E-Defense\), Miki, Japan](#)

Organization(s): [Stanford University, CA, United States](#)
[University of Illinois at Urbana-Champaign, L, United States](#)

Description: Research and experience from past earthquakes suggest the need for buildings that are less vulnerable to damage and easier to repair after a major earthquake. Of particular concern are certain conventional systems, such as concentrically braced steel. [\(more\)](#)

Sponsor: [NSF - 0530756 \(view\)](#)
[NSF - CMM-0530758](#)

Website(s): [Project Controlled Rocking of Steel-Frame Buildings](#)

Group Space: [View Report](#)

Report on Data Status: [View Details](#)

Tools: mDEED

Publications: [Matthew Easterton, "Large-Scale Cyclic and Hybrid Simulation Testing and Development of a Controlled-Rocking Steel Building System With Replaceable Fuses" \(view\)](#)
[Xiang Ma, Eric Borchers, Alejandro Pena, Helmut Krawinkler, Sarah Billington, Gregory Deierlein, "Design and Behavior of Steel Shear Plates with Openings as Energy Dissipating Fuses" \(view\)](#)
[Xiang Ma, Helmut Krawinkler, Gregory Deierlein, "Seismic Design, Simulation and Shake Table Testing of Self-Centering Braced Frame with Controlled Rocking and Energy Dissipating Fuses" \(view\)](#)

Documentation: [view](#)

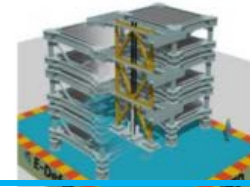
Tags (keywords): [Shear strength](#) [Reinforced Concrete Walls](#) [Hybrid Simulation](#) [Shear Wall](#)

Cite this work:

Catherine Whyte, Clement Barthes, Selim Gunay, Sangjoon Park, Donald Patterson, Shakhzod Takhirov, Bozidar Stojadinovic (2013). "Hybrid Simulation of the Seismic Response of Squat Reinforced Concrete Walls - Wall 1 Test", Network for Earthquake Engineering Simulation (database), Dataset, DOI:10.4231/D3476F32M



This site is supported by George E. Brown, Jr. Network for Earthquake Engineering Simulation (NEES) Program of the National Science Foundation (NSF) under Award Number CMM-0927178



Shake Table Test of Rocking Frame at E-Defense




[OPEN DATA](#)



ODC Attribution Summary

This is a human-readable summary of the ODC-BY 1.0 license. Please see the disclaimer below.

You are free:

-  To Share: To copy, distribute and use the database.
-  To Create: To produce works from the database.
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Ready for Curation?

- Facility
- Equipment
- Materials
- Sensors
- Drawings
- Unprocessed_Data
- Converted_Data
- Corrected_Data
- Derived_Data
- Tags
- Report

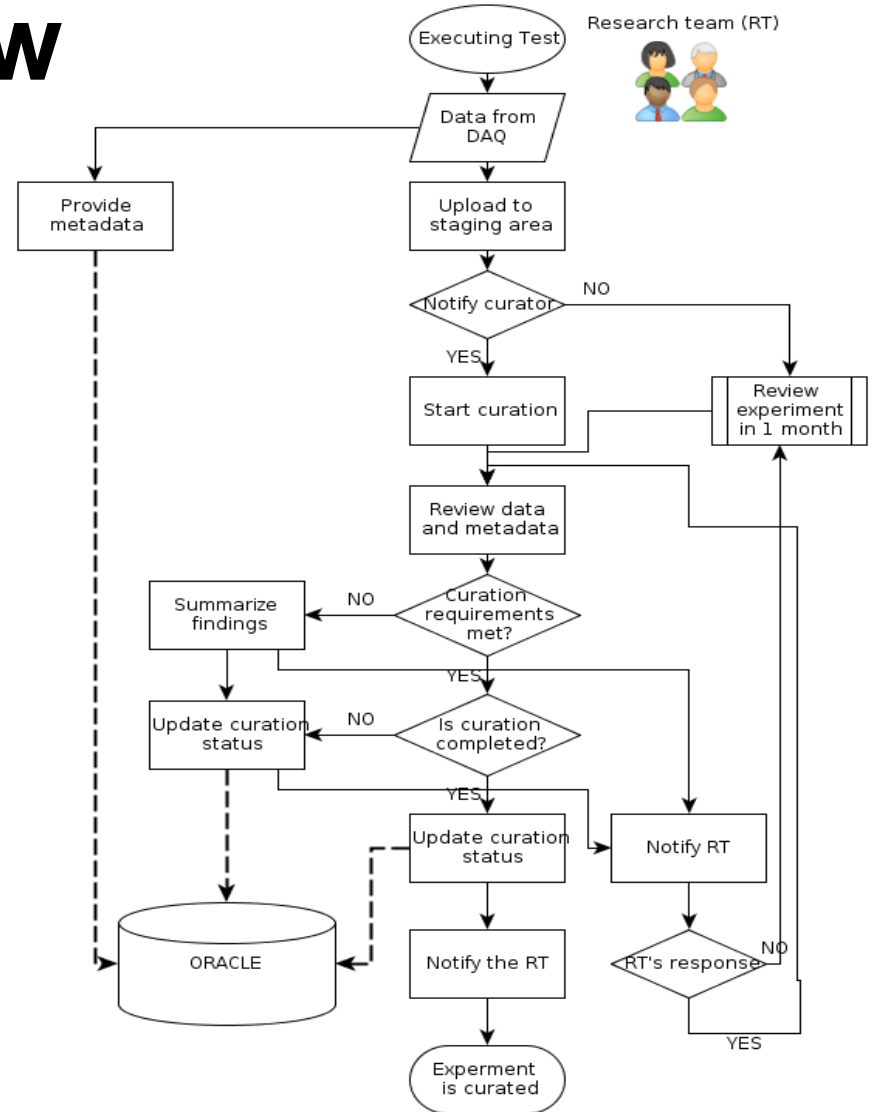
If you see a red check mark, please state why the element is missing.

Create a DOI.

[Start Curation](#)

Curation Workflow

- curation is a process
 - starts early
 - "exit" interview
 - data upload
 - reminders
 - data review
 - experiment review
 - copyright compliance
 - preservation
 - DOI assignment

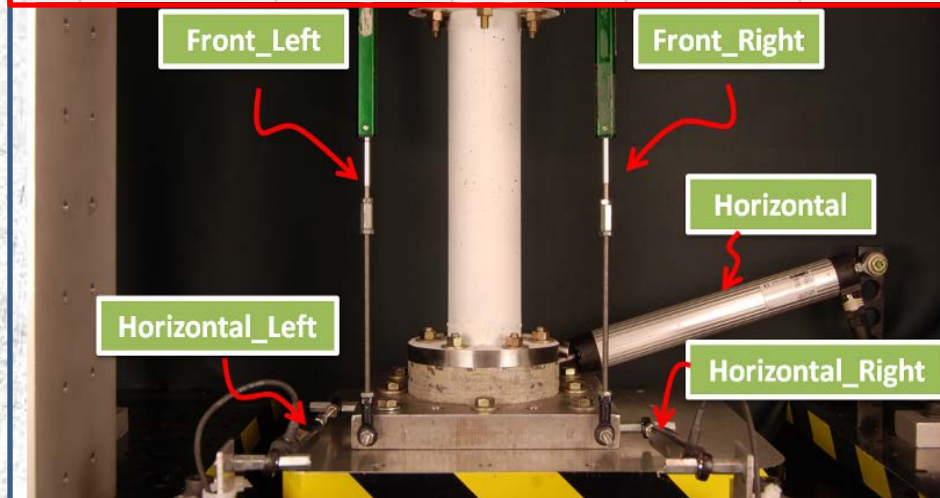


Curation as Quality Assurance

- Content
 - dependent on human monitoring
 - Metadata
 - Completeness
 - Based on standards and requirements
 - » On the level of research hierarchy
 - » Timeline
- Technical
 - machine-actionable
 - Formats
 - Interoperability
 - Accessibility
 - Preservability
 - File integrity

Understandable data

Step	Horizontal Right inch	Horizontal Left inch	Back_Vertical inch	Horizontal inch	Front_Left inch	Front_Right inch
0	+1.2463610e+000	+1.1243380e+000	+7.3573610e-001	+2.4332460e+000	+1.0029440e+000	+8.6135440e-001
1	+1.2462570e+000	+1.1242340e+000	+7.3583960e-001	+2.4332460e+000	+1.0029100e+000	+8.6128560e-001
2	+1.2461880e+000	+1.1242000e+000	+7.3546010e-001	+2.4333470e+000	+1.0029790e+000	+8.6132000e-001
3	+1.2461880e+000	+1.1243030e+000	+7.3528760e-001	+2.4333470e+000	+1.0030130e+000	+8.6121670e-001
4	+1.2461180e+000	+1.1242340e+000	+7.3521860e-001	+2.4333470e+000	+1.0031160e+000	+8.6128560e-001



Hybrid Simulation LVDT Set-up

Channel Name	Label	Sensor Type	Comment	Orientation	XYZ Coordinates
Horizontal_Right	Horizontal_Right	LVDT		0, 1, 0	-7.21 in, 12.112 in, 1.65 in
Horizontal_Left	Horizontal_Left	LVDT		0, 1, 0	6.709 in, 12.014 in, 1.717 in
Back_Vertical	Back_Vertical	LVDT		0, 0, 1	1 in, -4.65 in, 19.875 in
Horizontal	Horizontal	LVDT		1, 0, 0	-14.913 in, -8.579 in, 5.084 in
Front_Left	Front_Left	LVDT		0, 0, 1	4 in, 4.15 in, 19.875 in
Front_Right	Front_Right	LVDT		0, 0, 1	-2 in, 4.15 in, 19.875 in

Metadata need to be:

- meaningful
- purposeful
- consistent
- accurate
- predictable
- "standardized"

Relationship among:

- Instrumentation plan
- Sensor metadata
- Data

Content - Metadata

- Names of researchers
- Affiliated organization
- Description
- Title
- Dates
- Testing facility
- Equipment
- Material properties
- Type of test
- Proper location
- Adequate file format
- Sensors

You are here: [Home](#) » [Project Warehouse](#) » [Project Editor](#) » [NEES-2008-0571](#) » [Experiments](#) » [Stability of Elastomeric Bearings](#) » [About](#)

NEES Project Warehouse

TIPS - Tools to Facilitate Widespread Use of Isolation and Protective Systems, a NEES/E-Defense Collaboration

[Project](#) [Experiments](#) [Team Members](#)

Stability of Elastomeric Bearings

[Cite this work](#) | Edit: [DOI:10.4231/D3S17SS41](#) [?](#)

[About](#) [Specimen](#) [Sensors](#) [Drawings](#) [Data](#) [Videos](#) [Photos](#) [Documentation](#) [Analysis](#) [Security](#)

Title: [?](#)

Type of Test: [?](#)

Description: [?](#)

Start Date: [?](#) [?](#)

End Date: [?](#) [?](#)

Facility: [?](#) [+](#) [-](#)

Equipment: [?](#) Buffalo - Real Time Structural System :: Static Actuator Assemblies (Quantity 2 sets) Buffalo - Real Time Structural System :: Hydraulic Power Supply Subsystem Buffalo - Real Time Structural System :: Reaction Wall Buffalo - Real Time Structural System :: Stress Floor

Tags (keywords): [?](#)

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94

R



NEEShub
George E. Brown, Jr. Network for Earthquake Engineering Simulation

Access and re-use

NEES Project Warehouse

Mitigation of Collapse Risk in Vulnerable Concrete Buildings

Experiment-5: Test Series B - Specimen 4

257 Views
128 Downloads

Experiment Type: Field

Description: RC Column tested under cyclic lateral displacement reversals
Uniaxial displacement protocol, 3 cycles per drift level
1.8 aspect ratio
2.0% longitudinal reinforcement ratio
0.07% transverse reinforcement ratio
0.43 axial load ratio
80 ksi longitudinal steel
60 ksi transverse steel
3600 psi concrete

Dates: February 17, 2009 to Present

Facility: University of Minnesota-Twin Cities, MN, United States

Specimen Type: Full-Scale Reinforced Concrete Specimens

Material: Component 1 (view)

Sensors:

Drawings: Elevation of specimens 3 & 4 showing locations of horizontal LVDTs
Specimens 1-5 strain gage elevations
Elevation of transverse reinforcement layout for specimens 1 & 3 & 4
more...

Data: Specimen 4 Data file (inDEED)
View

Location: /NEES-2008-0637 / Experiment-5 / Trial-1 / Rep-1

Name	Size	Time/Temp	Application
Converted_Data	12 MB	2009-02-23 12:27:52	
Corrected_Data (0 files)		2009-02-23 12:27:52	
Derived_Data (0 files)		2009-02-23 12:27:52	
Unprocessed_Data	16 GB	2009-02-23 12:27:52	

Curation progress:

- Facility:
- Equipment:
- Materials:
- Sensor:
- Drawings:
- Unprocessed_Data:
- Converted_Data:
- Corrected_Data:
- Derived_Data:
- Tags:
- Report:

The experiment contains sensor measurements, but some metadata and documentation are missing. The experiment is missing experimental set-up report.

Incomplete - 03/12/2012
Last curation request: 03/09/2012

What's this?
Once the curator starts working with your submission, monitor the

Testing

project 637

Collected sensor measurements

Visualisation

West (-Y) East (+Y)

HW_CHAN:	SCI1Mod1/ai1	SCI1Mod1/ai1	SCI1Mod1/ai2
CHAN_OFFSETS:	2.4990000000000000e-001	-6.0990000000000000e-001	-7.6250000000000000e-001
CHAN_UNITS:	in	kips	in
CHAN_NAMES:	time	X_Displ	X_Force
			Y_Displ
	2009-03-17	12:13:14.056	1.366342103823637e-003
	2009-03-17	12:13:15.056	-5.872865660678239e-004
	2009-03-17	12:13:16.056	8.779349363507438e-004
	2009-03-17	12:13:17.056	-5.872865660678239e-004
	2009-03-17	12:13:18.056	3.895277688779064e-004
	2009-03-17	12:13:19.056	-9.887939859493100e-005
	2009-03-17	12:13:20.056	-1.075693733540661e-003
	2009-03-17	12:13:21.056	1.854749271296530e-003
	2009-03-17	12:13:24.056	3.895277688779064e-004
	2009-03-17	12:13:25.056	-5.872865660678239e-004

Visualisation

Curation - Path to SWAMP

- Straightforward (relatively)
- Way to
- Authorship
- Merit and
- Publication

Curation progress:

Experiments contain data and required metadata and documentation. The experimental setup reports and the final report were uploaded, as well.

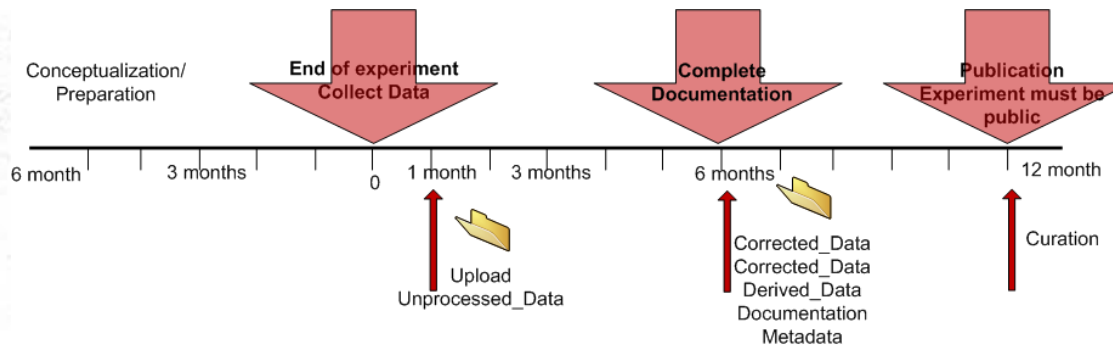
Complete - 08/06/2012

Curation progress:

Facility	✓
Equipment	✓
Materials	✓
Sensors	✓
Drawings	✓
Unprocessed_Data	✓
Converted_Data	✗
Corrected_Data	✓
Derived_Data	✗
Tags	✓
Report	✓

Cite this work:

Clement Barthes, Catherine Whyte, Selim Gunay, Sangjoon Park, Donald Patterson, Shakhzod Takhirov, Bozidar Stojadinovic (2013). "Hybrid Simulation of the Seismic Response of Squat Reinforced Concrete Walls - Wall 2 Test", Network for Earthquake Engineering Simulation (distributor), Dataset, DOI:10.4231/D3125Q89N



Thank you.

Questions?

Comments?

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NEEScomm Data Curator

Network for Earthquake Engineering Simulation

