



**Berkeley**  
 CENTER FOR  
 Smart Infrastructure

# DESIGNSAFE: PROVIDING DATA AND COMPUTATIONAL RESOURCES TO ADVANCE RESEARCH IN NATURAL HAZARDS ENGINEERING

Part of "The future of Infrastructure today!"  
 UC Berkeley CSI  
 Webinar Series

NSF NHERI **DESIGNSAFE**

Data Depot      High Performance Computing      Cloud-Based Tools



MAIN  
 SPEAKER

**Ellen M.  
 Rathje**

Janet S. Cockrell  
 Centennial Chair in  
 Engineering,  
 University of Texas at  
 Austin



**Friday June 21, 2024**  
**9:00-10:00am Pacific Standard Time**

[Register now](#)

Sponsored by





## Webinar Description

Today, many of the most transformative research discoveries occur at the nexus of data and computation. Yet, significant challenges exist in accessing relevant data, integrating it with computational tools, and gaining access to the required computing resources. The DesignSafe cyberinfrastructure ([www.designsafe-ci.org](http://www.designsafe-ci.org)) has been developed to solve these problems and support research in natural hazards engineering. Since 2015, DesignSafe has been a part of the NSF-funded Natural Hazards Engineering Research Infrastructure (NHERI) and it is available to all researchers in natural hazards. DesignSafe allows researchers to more effectively share, publish, and find data; perform numerical simulations using high performance computing; utilize artificial intelligence, machine learning, and visualization, and integrate diverse datasets. This presentation will describe the DesignSafe components that are available to researchers, including the Data Depot data repository and the Tools and Applications that enable a wide-range of research activities, and will provide specific examples of how DesignSafe is being used today to enhance research in natural hazards engineering.

## Speaker Bio



**Ellen M. Rathje, PhD, PE**  
**Janet S. Cockrell Centennial Chair in Engineering**  
**University of Texas at Austin**

Dr. Ellen M. Rathje is the Janet S. Cockrell Centennial Chair in Engineering in the Fariborz Maseeh Department of Civil, Architectural, and Environmental Engineering at the University of Texas at Austin (UT). She has expertise in the areas of seismic site response analysis, seismic slope stability, engineering seismology, and liquefaction. Dr. Rathje is a founding member and previous Co-Chair of the Geotechnical Extreme Events Reconnaissance (GEER) Association, and currently the Principal

Investigator for the DesignSafe-ci.org cyberinfrastructure for the NSF-funded Natural Hazards Engineering Research Infrastructure (NHERI). She has been honored with the 2022 Peck Lecture Award from the ASCE Geo-Institute, the 2018 William B. Joyner Lecture Award from the Seismological Society of America and the Earthquake Engineering Research Institute and the 2010 Huber Research Prize from the ASCE. She was elected Fellow of the American Society of Civil Engineers in 2016.