**Group 1: Use of new techniques (incl. simulation, machine learning, AI, and others) to model the behavior of civil infrastructure and risk to communities due to loading from natural hazards**

**Point-of-Contact:** Rakesh Salunke

**Regular Meeting Time: Every second Wednesday, 5:30 PM CST/6:30 PM EST.**

**Ti**meline:

* Feb 17, 2023 - Project Ideas and Titles due
* Feb 24th, 2023 - Abstracts due
* Mar 3rd, 2023 - Project Feedback
* Mar 10th, 2023 - Second check-in meeting
* April 14th, 2023 - Third check-in meeting
* May 12th, 2023 - Final check-in meeting
* May 26th, 2023 - Research Challenge Results Presented at the Mini-Conference

Preliminary Collaborative Research challenge abstracts are due by February 24, 2023, and can be submitted through the [Abstract submission form](https://forms.gle/t4M6vqk2njCr3i1fA). All groups will present their research challenge findings on Friday, May 26, 2023, at the inaugural NHERI GSC Mini-conference.

**By Friday, February 17, submit the following:**

* What is the motivation for your project?
  + What are you trying to understand that we don't already? What is the gap that you're trying to fill?
* What are your research question(s)?
* What dataset(s) do you plan to use?
* What method(s) do you plan to use?
* Are there any special considerations for your project?
  + This could include Internal Review Board (IRB) application for a restricted-use dataset, experimental procedures, etc.
  + What is your plan if that falls through?
* How is your project interdisciplinary?

**TO DO:**

* Set up Whatsapp
* Study up on BRAILS
* Choose a project idea and create a project title (collaborate in Whatsapp)

NOTES:  
This tool seems to align well with our group’s expertise:

* <https://nheri-simcenter.github.io/BRAILS-Documentation/>
* BRAILS: AI tool that gathers structural data.
* Building Recognition using AI at a Large Scale
* Has an ensemble of different models that can be used on several applications. We can add more to it if we want.
* The main thing is data.
* SoVI Index to what we do? Social aspect to losses and casualties. Look at how different communities may be helped differently based on social
* Finding social vulnerability wise in the

<https://hazards.fema.gov/nri/map>