Soil Climate Interaction

Project Background

🌡️ **Rising climate variability** (heatwaves, extreme cold, flooding) directly alters soil behavior.

❄️ **Freeze–thaw cycles** weaken infrastructure foundations, causing cracking and instability.

🌱 **Soil health and carbon storage** are critical to agriculture and climate resilience.

Project Objectives

- Study soil responses to various extreme climate conditions
- Apply imaging and sensors techniques to capture soil cracking & subsurface evolution
- Perform qualitative and quantitative analyses on soil properties

Advisor: Dr. Cheng Zhu and Dr. Melissa Lomboy

Hands on clinic
Potential internship/publication opportunity

2 CEE Students needed

More information available in:
https://chengzhu.wixsite.com/geomechanics-lab/courses