Noninvasive 3D Imaging and Characterization of Permafrost

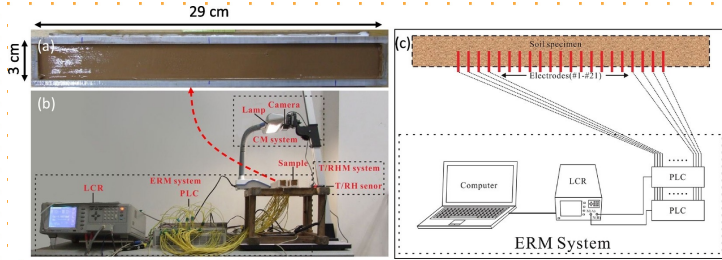Dr. Cheng Zhu (zhuc@rowan.edu)

Need 3 CEE students
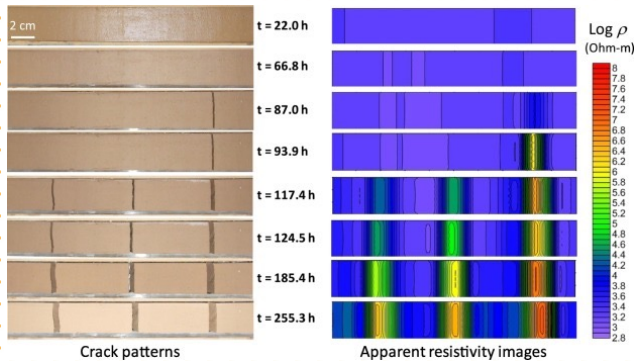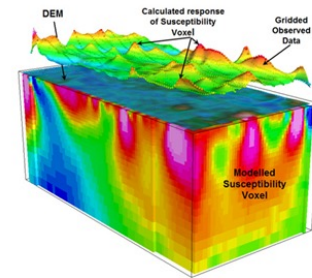Potential internship/publication opportunity

PPR (Physical Presence Required): Students need to conduct experiments in the field/lab.

- The characterization of permafrost is critical to infrastructure construction in cold regions.

- Project goal is to develop a rapid, noninvasive, three-dimensional Permafrost Assessment and Mapping System (PAMS) that provides soil profiles and characterization of soil properties.

Project is supported by DoD-ERDC

- Design experimental setups for electrical resistivity measurement

- Measure the electrical resistivity of soils under cold temperature

- Test the newly developed device for frozen soil characterization

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