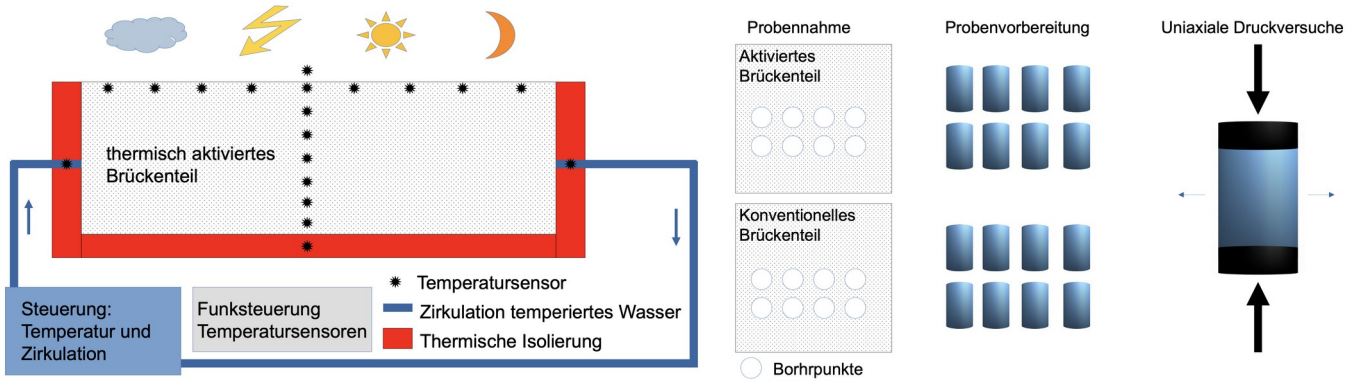
Call for BSc/MSc Theses

Applied Geology
University of Halle-Wittenberg

Mechanics and Heat Transport During Geothermal Bridge Heating/Cooling

About

In the scope of a shared project called Thermo-Insall, the Applied Geology Group is developing methods to evaluate the thermal efficacy and mechanical stability of geothermally activated bridges. In this regard, the Group is offering several topics for BSC and MSC theses. This includes laboratory experiments on flow and heat transport, stress and strain measurements. Furthermore, numerical invers-models will be performed to quantify thermal and mechanical characteristics of bridge materials. The BSC and MSC topics offer the chance to become part in a fascinating applied science project, where measurement, characterization and modeling techniques are fused for smart geothermal solutions in road and bridge constructions.



Optional Tasks

- Thermal and Mechanical Laboratory Experiments
- Inverse-Modeling
- Development of Laboratory Scale Thermal Monitoring Systems

Requirements

- good knowledge in hydrogeology
- basic mathematical skills
- enthusiasm for scientific work

Contact us and become part of applied science already as a student

Supervisors

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