



University of Stuttgart
Germany

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B.Sc. or M.Sc. thesis topic

Testing of low-cost sensors for their applicability in geohydrologic, scientific experiments

**Institute for Modelling
Hydraulic and Environmental
Systems (IWS)**

Research Facility for
Subsurface Remediation
(VEGAS)

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A variety of low-cost sensors exist that wait to be exploited for geohydrological applications

- [soil moisture sensors](#)
- scales [in python](#) or [with arduino](#)
- temperature sensors
- CO₂ sensors

and many more.

The broad goal of this thesis is to evaluate to what extent sensors driven from the maker:space are suitable for geohydrologic investigations such as thermal in-situ remediation systems.

Starting date: as soon as possible

Prospective Tasks

- Establish setups of novel measurements and compare to established measurement techniques
- The specifics will be determined jointly
- Visualization and statistical analysis of results and discussion

Desireable Skills

- some experience in python and electronics (raspberry, microcontrollers) would be ideal
- Interest in practical work
- Motivated and creative thinking



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