

Graz University of Technology
Institute of Rock Mechanics and Tunnelling

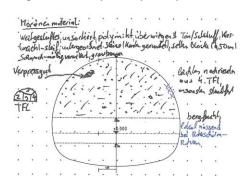


Master Thesis (MT, 30ECTS)

Working Title Structured information extraction from geotechnical images

Description

In geoengineering important information is often stored in archives as images and engineering sketches (ref. images below). Extracting structured information from the images is the key to any analysis based on such data.





This work has three main parts. It shall start with a literature review on available methods for tabular information extraction from images. A list of important features, ranked by importance and number of occurrences, that engineering images and sketches could containing shall be created at the second part of this work. A demonstrated application of selected intelligent methods from the literature review for structured information extraction for 3-5 top features from the ranked list shall be made at the third part of this work.

The output would be a ranked list of features that engineering images contain linked with a list of intelligent methods (including, but not limited to machine learning methods) for fast and accurate information extraction from images.

The assessment of the information extraction methods based on results obtained from method's application would be the main objective of the work.

It is expected that a candidate has a basic knowledge about programming on Python.

Contact Person (s)	Start	Duration	Contact
Alla Sapronova	immediately	6-9 months	alla.sapronova@tugraz.at