Description:
The design of a classification algorithm for automatic prism classification for HILTI robotic total stations (TS) using supervised machine learning will be your main contribution to the project.

Robotic total stations are used in surveying for high precision and high accuracy single point measurements. The most common scenario is the measurement of distance and angle between robotic total station and a reflective prism. For accurate distance measurement, the prism constants must be taken into account. Automatic prism classification will assist users in selecting correct prism constants.

You get the opportunity to record and prepare image databases, to apply image preprocessing and image feature extraction for machine learning and to evaluate classification results.

Objective:
- record prism images using a HILTI robotic TS
- create training and validation database
- implement training and test algorithms
- opportunity to present a demo to HILTI

Qualifications:
- experience in Matlab, C++ or Python
- interest in Machine Learning

Contact
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