

Master project (5 ECTS)

Working title	Improving the quality of synthetic measurement while drilling (MWD) data generated from SMOTE technique.
Project objectives	The project aims to use feature engineering and data pre-processing techniques to improve the quality of synthetic (fake) MWD data that generated from SMOTE algorithm and it's extensions. E.g., borderline SMOTE. So that, the synthetic data will be more following the real data e.g., in terms of the cummulative distribution.
Student has enthusiasm for	Machine learning , Data oversampling using Synthetic Minority Oversampling Technique (SMOTE), feature engineering.
Requirements on student	Basic knowledge of machine learning.
Start (earliest / latest)	December 2024
Project term (min. / max.)	2 / 4 weeks full-time Can be extended to a master thesis topic.
Coop. with external institution	no
Contact person	Abdallah Soliman Abdallah.soliman@tugraz.at,