

# Data Processing & Visualization in Ground Station Networks (Bachelor/Master/Internship)

Satellite constellations and formations rely heavily on ground station networks. For such applications, a ground station network is being developed in Würzburg with international collaboration. A web-based platform has been developed for providing operational services for different ground stations and satellites. In this work, further extensions to the concept shall be developed focusing on data collection, distribution, processing, and visualization.

### Tasks

- Data storage & aggregation (Telemetry and Payload data)
- Data Decoding & Visualization (Visualizing satellite and ground station health)
- Data processing (Geographic data processing, CTH-Measurements)
- Data classification (segregating information-less data, marking for deletion etc.)

## Required Previous Knowledge

Backend: Python, Flask, SQL, AX25; frontend: JavaScript

## Language

German or English

#### Contact via Mail or Video Chat

Mohd Bilal: mohd.bilal@uni-wuerzburg.de

Alexander Kleinschrodt: alexander.kleinschrodt@telematik-zentrum.de