## Embedded Software Development and Testing of Smart Telematic Units for IoT applications

### IDP students wanted

### General
The manufacturing industry is already discussing for a couple of years how the communication of entities for (self) control can be implemented. This new approach is ubiquitous in manufacturing and applied sciences regarding keywords like the Internet of Things respectively Industrie 4.0. The BauFlott research project has already developed a web application for monitoring and controlling machines with M2M use cases. The next step is to develop a smart telematics unit for the collection, preprocessing and transmission of telematics data to fleetum for further evaluation.

### IDP objectives
Based on a Linux hardware module there is need to develop functionalities for gathering, preprocessing and transmission raw data from the connected machines to a database. In addition to the acquisition, preprocessing and transmission of performance and status data, the telematics unit has also to be ready for M2M use cases and for communication with external sensors. Within the scope of the evaluation, field tests need to be carried out with an industrial partner. The further processing and visualization of the machine data is carried out in our developed web application fleetum. Preliminary work and experiences with embedded software development are already present. The IDP is proposed in cooperation with Vemcon - an automation Start-Up with focus on heavy equipment machines. The presence at the company's headquarter (München Haar) can be arranged flexibly.

### Your skills:
- Knowledge in embedded software development
- The job can be done as IDP by a single person or in a team

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