

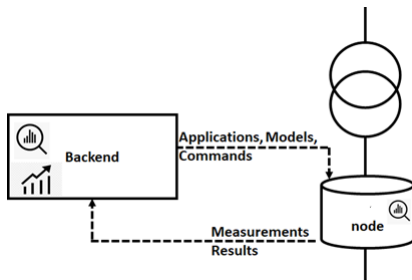
Open Thesis / Project

Framework for IoT-enabled industrial monitoring

Motivation

There is no denying the trend for digitalization that can be observed in all industrial environments, from buildings to production systems. One foundation of digitalization is information transparency, which denotes the necessity of making additional system information available for operators and automation devices alike in order for them to come to optimal decisions and optimize the production process.

Within this project an onsite IoT middleware and backend will be designed in the context of an adaptive monitoring framework for remote industrial monitoring. The middleware will allow to host and manage monitoring applications on the onsite instance of the system, as well as host and manage the backend applications required for specific monitoring scenarios. This thesis aims for developing such a framework by using and extending existing IoT framework.



Target Group

Students in ICE/Telematics and Comp. Science.

Thesis Type

Master Project / Student Assistant.

Goals and Tasks

- Design and develop monitoring framework
- Implement and test concept in a real world demonstrator

Required Prior Knowledge

- Programming skills in C++, Python, Golang
- Interest in IoT
- Interested in middleware design
- Experience with IoT device integration

Used Tools & Equipment

- IoT Frameworks (e.g., Hawkbit, Mainflux).

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