Development of NCSbench

Networked Control Systems, i.e. the interconnection of a control system over a communication network, are a fundamental building block of future industrial automation systems. To study NCS, the NCSbench platform [1,2] was developed allowing performance measurements of a real NCS. The platform is built using Lego, is developed in python, communicates over standard IP network interfaces and is fully open-source.

In order to further develop the platform, a working position is available.


Prerequisites

This work will consist of a significant amount of programming and also of processing the measurement data.

Requirements:

- Good knowledge of wireless systems and protocols (WLAN, WSN).
- Basic knowledge of LTI control systems.
- Strong C and Python programming skills.
- Experience with Linux systems is recommended.
- Experience with python data processing tools is beneficial.

Advisors

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