

Student project

„State-of-the-art of edge computing in manufacturing industry“

Der Forschungsbereich Innovative Fabrikssysteme (IFS) am Deutschen Forschungszentrum für Künstliche Intelligenz (DFKI) GmbH ist einer der weltweit führenden Forschungsbereiche zur nachhaltigen Gestaltung IKT-basierter Automatisierungslösungen für die Fabrik der Zukunft (Industrie 4.0) und deren Transfer in die industrielle Anwendung.

Motivation:

Internet of Things and Cloud computing were the big trends of Industries 4.0 era. Factory system have also been enhanced with the new capabilities of collecting and processing the raw data into the cloud. Due to the needs of data filtering and enterprise security, however, the bridge between IoT of production components and cloud services is required for the application into practical environment. For this reason, it is necessary for the survey on the trends of edge computing and the requirement analysis of manufacturing industry.

What the student will do in the project:

- Literature review of journal and conference proceedings of edge computing
- Comparison on technical specifications of commercial industrial IoT gateways
- Requirement analysis on edge computing of production facility
- Report on the state-of-the-art of edge computing for IIoT

Required from the student:

- Understanding on IoT and Cloud computing in the level of coding and implementation (Prefer to the background of Computer science)
- Understanding on domain knowledge on manufacturing industry
- Experience on the survey and analysis of difference publications in journals and conference proceedings
- Programming skills in embedded domain

Other aspects:

Biweekly report meeting required

If you want to know more detail, please contact via following address:

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