



Der Forschungsbereich Innovative Fabriksysteme (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.

Student project „Augmented Reality for SmartFactory through Hololens“

Motivation:

Since the production system become intelligent and complex, human operators need to equip the capability of handling composite data for the short time. Augmented reality is the remarkable methodology to enable operators to control all information and device without long training time. Industrie 4.0 plant of SmartFactoryKL consists of multi-vendor controllers of production modules and huge amount of machine data generated by each module. For this reason, AR-based user interface is required and advanced device, which is MS Hololens, will be used for the development.

What the student will do in the project:

- Modelling smart factory production line into Unity environment
- Implementing of event scripts to react messages of production modules
- Reading QR code attached in the plant and calibrating 3D models of Hololens screen
- Transforming video and voice streaming into edge server computing

Required from the student:

- 3D graphics tool
- C# or Unity programming
- Programming on Message Queue (MQTT, AMPQ, etc)

Other aspects:

- Weekly meeting for reporting the progress
- Code-level handover procedure in the end of the project

If you have any question about this project, please contact via following address:

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