

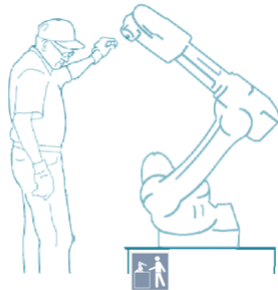
Open Thesis / Project

Strategies for cognitive manufacturing systems

Motivation

As complexity in manufacturing systems increases, the human factor has to be taken into account, to cater the needs of the operator. The integration of industrial IoT and data analytics in manufacturing environments allows to assess an operator's needs and adapt the work-environment accordingly.

As part of a COMET research project at Pro2Future GmbH, a flexible, collaborative workstation for full riveting processes is to be conceptualized, evaluated and implemented. By wearing wearable sensors of the working worker, the cycle time of this workstation will be optimally and individually tailored to the worker. As part of preliminary work, a concept has already been developed and partially tested.



Target Group

Students in ICE/Telematics and Comp. Science.

Thesis Type

Master Project / Student Assistant.

Goals and Tasks

- Completion of the automation concept planning of the workplace
- Construction, implementation and testing of the workstation
- Integration and test of the concept in a real world demonstrator
- Evaluation and documentation

Required Prior Knowledge

- Mechatronic knowledge
- Strong interest in robotics & automation
- Good programming skills

Used Tools & Equipment

- Cobot Fa. UR (UR5e)
- Hydraulic press
- Automation equipment
- IoT sensors

Contact Person

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