

# COGNITIVE INDUSTRIAL SYSTEMS

## WorkIT/Guide/SeeIT

### Workflow Recognition and Guiding



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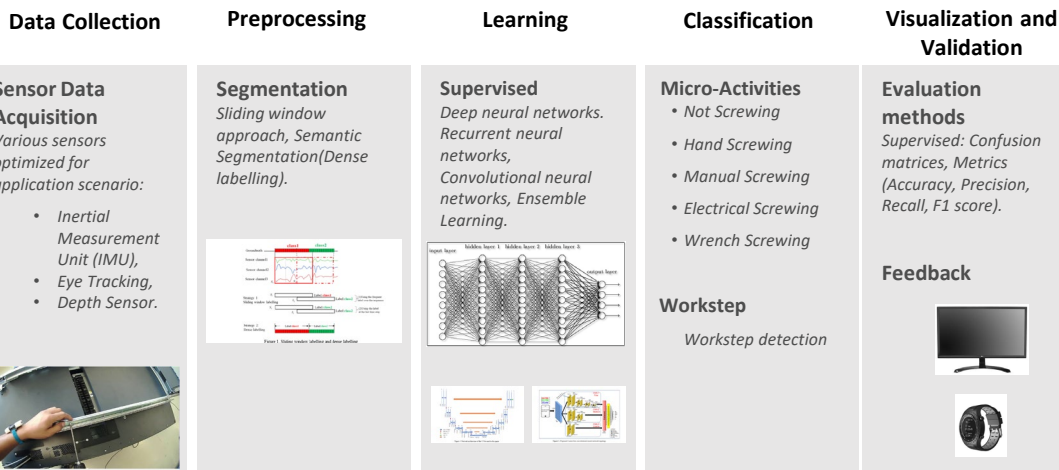
## MOTIVATION & GOALS

- Recognition of micro activities e.g. Screwing detection in industrial processes.
- Collaboratively behaviour of human and machine.
- Capturing Workflow - Human Activity Recognition using: (Wearable- & Biometric-Sensors, Eye- & Hand-Tracker)
- Identification of bottlenecks within the assembly procedure.
- Quality Control of the manufacturing operation by providing guidance and support to novice workers in distracting or vague situations.
- Confirmation for the successful completion of a task.

### Project FactBox

**Project Name** WorkIT  
**Project ID** MFP1.1/DP1.1  
**Duration** 39 Months  
**Area 1**  
 Perception and Aware Systems  
**Project Lead**  
 Prof. Dr. Alois Ferscha

## APPROACH



## CONTRIBUTION

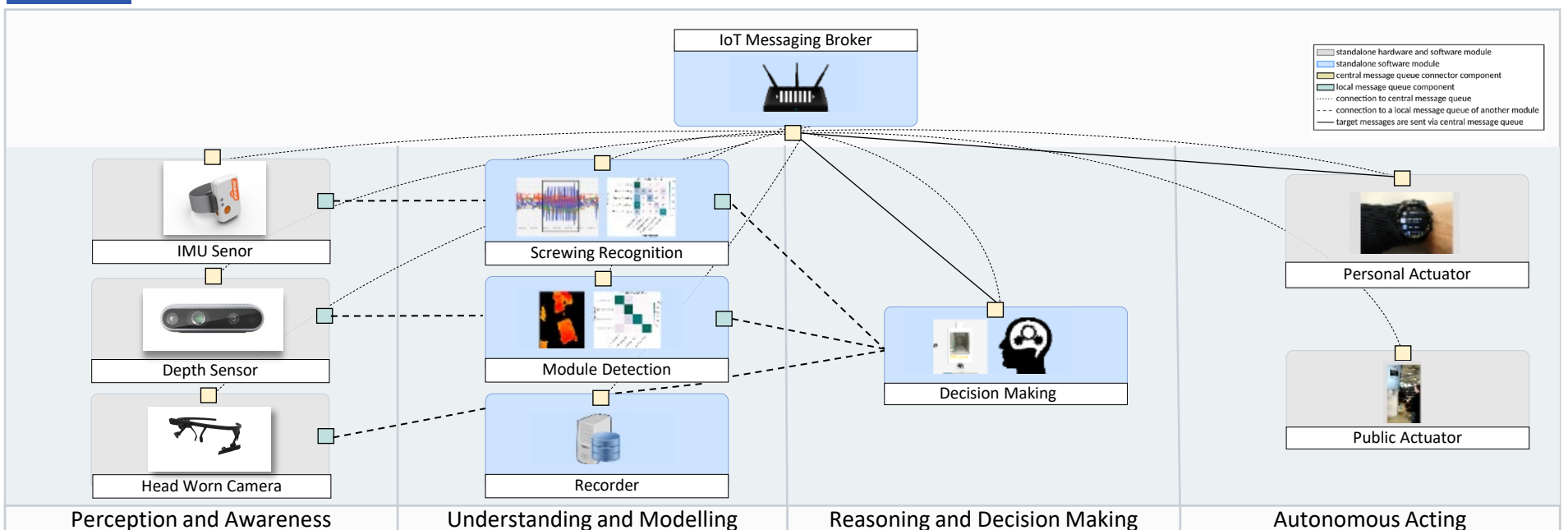
### Scientific contribution

Detection of micro-activities (small movements with hands) in the field of human activity recognition using mainly IMUs. Furthermore detecting the stage of the assembly process, based on depth sensors.

### Economic contribution

Reduce training time for novice workers  
 Reduce the cost of rework for the companies

## SYSTEM ARCHITECTURE



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