

## Call for Papers

### SS04 - SEnSEI - Skill Based Systems Engineering Organized and Co-Chaired by (sorted by last name)

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❖ **FOCUS.** Large product catalogues, a wide variety of configurations and an almost infinite number of possible combinations make the selection and dimensioning of automation components and their combination into systems and plants a very time-consuming and difficult task. Today, the engineering process is a trial-and error approach. Based on experience the sales engineer gives the customer a first solution which then in turns influences the customers' requirements. In several loops a possible solution is found. This process is neither efficient nor optimal as it changes the initial problem and leaves a solution-neutral description very early. However, a solution- and technology-neutral problem analysis is needed to avoid biased, suboptimal solutions and rather find optimal, albeit unconventional solutions.

#### ❖ TOPICS

- ❖ Modelling of the automation application: Data modelling, modelling languages, knowledge graphs, rule engines, knowledge-based systems
- ❖ Finding possible components: Planning, Artificial intelligence, Skill-task-matching, Knowledge Discovery
- ❖ Simulation of a proposed plan: Optimization, simulation techniques
- ❖ Derivation of PLC code: Automated code generation, model-based programming



SEnSEI  
Skill Based Systems Engineering

❖ **CONFERENCE FORMAT.** The conference will comprise multitrack sessions for regular papers, to present significant and novel research results with a prospect for a tangible impact on the research area and potential implementations, as well as work-in-progress (WIP) and industry practice sessions.

#### ❖ AUTHOR'S SCHEDULE (2020)

##### ❖ Regular and special sessions papers

Submission deadline ..... April 1  
Acceptance notification ..... May 6  
Deadline for final manuscripts ..... June 17

##### ❖ Work-in-progress/ Industry practice papers

Submission deadline ..... May 13  
Acceptance notification ..... June 10  
Deadline for final manuscripts ..... June 17