SOFTWARE ENGINEERING CHALLENGES TO ENABLE INDUSTRY 4.0

Prof. Birgit Vogel-Heuser
Technische Universität München, Germany

ABSTRACT

Industry 4.0 compliant production systems have lifetimes of up to 30–50 years, throughout which the desired products change ever more frequently. This requires flexible, reusable control software that can be easily maintained and evolved. Challenges to assure long time evolvability as well as selected research results based on verification, code analyses, architectures, metrics as well as agent based approaches are presented using lab demonstrators as well as industrial examples.