Abstract:
Machine and plant automation is becoming more and more complex, especially as additional functionality is realized by a rising amount of software. In order to meet high requirements regarding the quality of these machines and plants, sophisticated methods for quality assurance are necessary. Interaction diagrams have been established throughout different domains for specifying use cases, requirements and test cases and therefore are an essential part of quality assurance. In this paper two approaches aiming at supporting quality assurance in machine and plant automation, namely Message Sequence Charts in Model-based Integrated Requirements Analysis (MIRA) and Unified Modeling Language Sequence Diagrams for Programmable Logic Controller testing (UMLSD4PLC), are compared and analyzed regarding their benefit to quality assurance.