

Certification of fault tolerant systems

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The certification of logic solvers and field devices for machinery and process industry according to Functional Safety standards became significantly important in the recent years. Due to the increasing complexity of electronic, software and communication the general approach of such certifications has completely changed.

Functional Safety standards, as i.e. IEC 61508, allow certain flexibility in respect to application and interpretation. Together with upcoming new technologies, as i.e. multi-channel IC's, the concept of modular certification has become more and more important.

Nethertheless all safety relevant aspects from the evaluation of the development process to the implementation of the safety functions up to the final approval, has to be covered by certification.

The presentation gives an overview of a generic certification process, including all relevant documents and test steps to demonstrate the conformity with relevant Functional Safety standards.