

## Bachelor's/Master's thesis in Safe mechatronic systems in intralogistics

Future material handling and production systems will be automated, cooperative, open and adaptive, posing challenges for all layers, from the high-level IT-systems down to the machine control systems. Functional safety of machinery is one of the research focus points at IFL. The focus is on the safety engineering for mechatronic systems utilized in material handling tasks in the industry. We can offer various possible topics related to current research projects.

### Interested in one of the following topics?

- Modeling and simulation of safety-related mechatronic systems
- Safety-related systems engineering in machinery: safety analysis, concept design, development, verification & validation, safety in product lifecycle
- Security-aware safety
- Safety assurance for runtime integration, reconfiguration and adaptation of intelligent machinery

Contact us!

The thesis can be written in either English or German.

### Contact person at IFL:

**Tommi Kivelä**

Building 50.38; Room 2.11

Phone: 0721 608 48645

[Tommi.Kivela@kit.edu](mailto:Tommi.Kivela@kit.edu)