Introduction to Functional Safety in Railway Industries according to EN 50126/128/129/159

A practice-oriented introduction of knowledge for end users and system integrators.

This one-day workshop will highlight the requirements of the different standards and will give advice for a standard-conform realization of Functional Safety. Participants will learn how to understand Functional Safety Management and Lifecycle principles as well as how to communicate and use them.

Learn more about the features of Railway requirements according to the selection of equipment via software and data communication up to documentation.

**Duration:** 4 sessions, 2 hours each  
(2 days, 09:00 – 11:00 and 13:00 – 15:00, German time zone)  
**Number of participants:** minimum 4, maximum 10  
**Contact:** training@hima.com

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### Content

#### Introduction
- Standards in Railway Applications

#### Risk Analysis
- Risk definition
- Risk reduction
- Safety levels

#### RAMS
- Specification and demonstration of Reliability, Availability, Maintainability and Safety (RAMS)

#### Life cycle
- Life cycle
- Role definitions

#### Software Design
- Communications, signaling and processing systems
- Software for railway control and protection systems

#### Communication
- Communication, signaling and processing systems
- Safety-related communication in transmission systems

#### Documentation