

EMC and electrical safety in rolling stock

46

Seminar-No. 03.05



Online-Seminar*

DATES & COSTS

22.-23.06.2022

Nuremberg

Length:

2 Days

Fee:

1.400,00 €

incl. lunch and certificate of participation
plus VAT

* On-demand

TARGET GROUP

- Safety Manager
(Rolling stock Manufacturer)
- Employees involved in the
Requirements engineering
- Vehicle engineering staff

LANGUAGES



DESCRIPTION

Rolling stock is a highly complex technical system incorporating many subsystems, including electrical/electronic systems. Due to their characteristics and tasks, these systems represent potential hazards for people and the environment, which must be controlled in accordance with legal requirements.

In Germany, for example, §2 of the Railway Construction and Operation Regulations (EBO) states: "Rolling stock must be designed in such a way that it meets the requirements of safety and regulation" or in §3 of the Product Safety Act (ProdSG): "A product, insofar as it is not subject to paragraph 1, may only be made available on the market if it does not jeopardizing the safety and health of persons when used as intended or in a foreseeable manner".

Furthermore, according to the Implementing Regulation (EU) No. 402/2013, an appropriate risk management with regard to the management of hazards to people and the environment must be carried out and documented for new constructions and (significant) modifications to rolling stock.

In this seminar you will be familiarised with potential electrical hazards due to e.g. excessive contact voltages or insufficient electromagnetic compatibility (EMC) of systems in the rolling stock, learn how to recognise these hazards and how to deal with them in practical situations.

SEMINAR CONTENTS

DAY 1 09.30-17.00

- Physical fundamentals
- Legal basis for electrical safety/EMC
- Description of hazardous electrical influences and their effects on humans
- Overview of electrical & electronic components in rail vehicles
- Description of the environment of rail vehicles relevant for the considerations
- Derivation of electrical hazards in relation to the rail vehicle

DAY 2 09.00-16.00

- Risks related to electrical hazards
- Measures and derivation of safety requirements for hazard control
- Documentation for the safety case
- Safety-related interfaces to other specialist areas
- Reference to vehicle approval/product life cycle/risk management
- Round of discussions