Formation RN4

Duration 2 days

EN 5012X standards in the railway industry

Railway Safety

Objectives

The objectives of this training are to provide to the participants an overview of the current content of the CENELEC EN50126, EN50128 and EN50129 standards. This overview allows the participants to understand their implementations. This view features the difficult points and the significant impacts of the realization process., and more precisely the use of the applicable methods / techniques for the development of safe operating systems in the railway field.

Program

The commissioning of a system in the railway field (urban or rail) is linked to the implementation of a safety related to CENELEC standard. The EN50129 and EN50128 standards, although originally applicable to the signaling subsystem, are considered as applicable by the major industrials and operators in the absence of other reference. These EN5012X standards apply to all levels (system, hardware and to a lesser extent software), all new systems, all important modifications on the expected activities of a safety related project.

Introduction

- Presentation of the original standard: IEC61508
  - Concept of « prescription »
  - Analysis of the security of an E/E/EP system
  - Impact on the realization process
  - Functional analysis reminder

Presentation of the 3 current standards

- Architecture of the CENELEC EN50126, EN50128 and EN50129
- Their relation with the EN50159-1/-2 and EN50155
- Key points :
  - Analyze the concept of SIL and its application to software (SSIL);
  - Introduction to the concept of requirement
  - Presentation of the « Safety Case »
  - Presentation of the « GAME » theory

Implementation

- Generic RAMS process
- Systematic approach to safety
- Implement hardware and software recommendations
- Description of the safety record(s)
  - Content, Realization, Analysis, Proof of validation
- Presentation of the legislative framework
- Evaluation, Certification and Cross-acceptance: Evaluation of a development and certification process

Discussion on the actual implementation and presentation of examples

Teaching methods

Presentations with illustrated practical case
Lunch meeting with the speaker

Prerequisites

Equivalent profile as engineer, in technical or in scientific education

For who

Project Managers, Design Offices, Methods, R & D, Quality

Lecturer/Trainer

Expert and / or specialist

Assessment methods

Assessment sheet and self-assessment given at the end of training

Sites

PARIS / LYON / MONTREAL

Intra-company sessions on request

Contact us

For more information
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