

DE0305 Functional Safety for Systems Incorporating AI

Have you ever asked yourself how to develop a system incorporating machine learning approaches *AND* complying with functional safety standards efficiently?

Have you ever wondered why data engineering is crucial for safe systems?

Have you ever thought about acceptance criteria for your artificial intelligence?

Have you ever asked yourself which standards to apply for safety-related Machine Learning?

Join our training and learn more about Functional Safety for Systems incorporating Al

dexida excellence in Dependable Automation



Agenda and Content

Al Basics and Key Safety Techniques

- Basics
 - Introduction to Functional Safety
 - Introduction to Al and Machine Learning
- Standards related to Al
 - Key aspects
 - Requirements for claiming Compliance to Safety Standards
- Machine Learning Concepts and Algorithms
 - Overview of Machine Learning Algorithms
 - Learning Processes
 - Segmentation and Classification
 - Specialities of Neural Networks and Deep Learning
 - Performance Metrics
- Key Techniques to handle Functional Safety and Al
 - Machine Learning Development Lifecycle
 - Data Engineering Techniques
 - Architectural Design Aspects
 - Explainability and Interpretable Decisions
 - Mathematical Modelling Approaches
 - Derivation and Definition of Acceptance Criteria
 - Safety Analyses
 - o Failure Modes and Safety Mechanisms

Hands-On Workshop

- Introduction to Development and Test Tools
- Guided and interactive workshop on selected examples incorporating the safety basics presented during the training



Who should attend?

- Machine Learning Engineers
- Data Scientists and Engineers

Algorithm Developers

Prerequisites: • Basic Programming Skills

 Pre-Installed Development Environment (will be coordinated by our trainers upfront)

 Basic knowledge of Functional Safety is beneficial but not required

Duration: 2 days 50 % focus on Al Basics and Key Safety

Techniques

50 % hands-on Workshop

Language: Can be chosen between German or English, training

material will be in English

Location: exida.com GmbH on-site online

Prof.-Messerschmitt-Str. 1 D-85579 Neubiberg /

Germany

Certificate: Each participant gets a letter of attendance.

For more information, please contact:

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