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ISO 26262 (Functional Safety) Course Outline

- History and Purpose of ISO 26262
 - IEC 61508
 - Human Error vs. Machine Error
- Systems Engineering Approach and Purpose
- Automotive Safety Integrity Level (ASIL)
- Ten Parts of ISO 26262
 1. Vocabulary
 2. Functional Safety Management
 3. Concept Phase
 4. Product Development System
 5. PD Hardware
 6. PD Software
 7. Production and Operation
 8. Supporting Processes
 9. ASIL and Safety Oriented Analysis
 10. Guidelines on ISO 26262
- Workshop – Preparing for ISO 26262
- Item Definition
- Risk Analysis
 - Interface Analysis
 - Hazard Analysis
 - Failure Mode and Effects Analysis (FMEA) – Inductive Approach
 - Fault Tree Analysis (FTA) – Deductive Approach
- Function Safety Concept
- Systems Design Part 1
 - Initiation
 - Specify Technical Safety Requirements
 - Systems Design



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- Workshop: Systems V Model
- Hardware Design
 - Specify Hardware Safety Requirements
 - Hardware Architecture
 - Safety Evaluation
 - Hardware Integration and Testing
- Software Design
 - Specification of Software
 - Software Architecture
 - Unit Testing
 - Integration and Testing
- Systems Design Part 2
 - Systems Integration and testing
 - Validation of Safety
 - Functional Safety Assessment
 - Release to Production
 - Workshop: Systems Part 2
- Production and Operation
- Supporting Process
- ASIL Safety and Functional Safety Analysis
 - ASIL Decomposition