

## Introduction to Cyber Security (IT-30)

An *Attendance Certificate* shall be issued to each participant

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Duration	1 day
Prerequisites	None
Language	Italian or English
Training material	English

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### Programme

Part 1 - Introduction and Purpose

Part 2 - General Approach

- 2.1 SAE J3061 Process Overview
  - 2.1.1 Functional Safety VS Cybersecurity
  - 2.1.2 Key principles
  - 2.1.3 Cybersecurity Management
  - 2.1.4 Process Implementation
- 2.2 Other standards

Part 3 - AUTOSAR Security Support

- 3.1 AUTOSAR overview
- 3.2 AUTOSAR security modules overview

Part 4 - Basic Security Requirements

- 4.1 Overview about the adopted approach
- 4.2 Basic Security Requirements
  - 4.2.1 Secure ECU Modes  
*The secure ECU Modes represent stages in the ECU lifetime from production to field to disposal*
  - 4.2.2 Secure Diagnostics  
*They ensure the safe behavior in terms of liability and legal duties*
  - 4.2.3 Privacy Protection  
*The applicable protection to Identifiable Data, Personal Data and Secret Data*
  - 4.2.4 ECU Unique Identifier (ECU-UID)  
*Rules for ECU identification*
  - 4.2.5 Handling and Management of Security Artifacts  
*Cryptographic methods and base practices for data that requires special protection*
  - 4.2.6 Software Robustness  
*SW reuse concept and secure SW development: boot mechanism and data storage*
  - 4.2.7 Hardware Robustness

## Introduction to Cyber Security (IT-30)

*What it means to design and build a safe and protected HW*

4.2.8 Secure Date and Time

*Secure vehicle time used by the Secure Onboard Communication*

4.2.9 Secure Onboard Communication

*Diagnostics services for key management and secured messages transport*

4.2.10 Manipulation Detection

*Monitoring of basic and extended protection and of unprotected behaviors*

4.2.11 Secure Feature Activation

*Secure Tokens and activation / deactivation of the SW features*

4.3 Project-Specific Security Measures

*Functional/Technical Cybersecurity Concept*

Part 5 - SAE J3061 Threat Analysis and Risk Assessment (TARA)

5.1 Threat Identification, Risk Assessment / Threat Classification, Risk Analysis

5.2 Methods and techniques (EVITA, ETSI TVRA, OCTAVE, HEAVENS ...)

5.3 Confidentiality, Integrity, and Availability (CIA) analysis

5.4 Examples