The Teachers

Mr. Paolo Panaroni has more than 30 years' experience in software engineering. Since late 90's he participated in the definition of SPICE and of its trial phase. He also contributed to the definition of SPICE for Space (S4S), as sponsored by the European Space Agency. He is founder and member of the board of Automotive SPIN Italia. of the board of Automotive SPIN Italia. He got the certificate for Automotive SPICE® assessor, according to the iNTACS scheme, from the German Association of Automotive Industry (VDA).

Mr. Andrea MUSONE has more than 30 years' experience in system and software engineering and safety, now acting as senior consultant in industrial and R&D projects. He is teacher and co-author of ECSS, A-Spice®, ISO 26262, DO-178C, EN 50128, MISRA C standards, and FTA/FMEA techniques: multiple courses held in favor of various Customers (Europe and Worldwide. He has also technical experience in GIS, Earth Observation, and Avionics. Several years consultant to ENAV (the Italian Air Navigation Service Provider) in the frame of a European Project.

Company

Since 1974, INTECS has been operating at the forefront of the software market, where safety, reliability, innovation, and quality are essential for success. INTECS provides leading-edge software technologies to support the major European and Italian organisations in the design and implementation of advanced electronic systems for Defence, Space, and Civilian markets.

Intecs is ISO-9000 certified since 1994. Currently it holds ISO 9001:2008 quality certification for software development in Defence, Space, and Civilian domains. Moreover, Intecs Defence, ATC, and Railways Divisions have been positively appraised at CMMI® Maturity Level 3. On 2015, it has been equally qualified at Level 3 according to Automotive Spice®.

CMMI® Level 3 Rated
Appraised by BUSINESS STRATEGY

General Information

Location

The course may be arranged at customer site, upon request.

Contact

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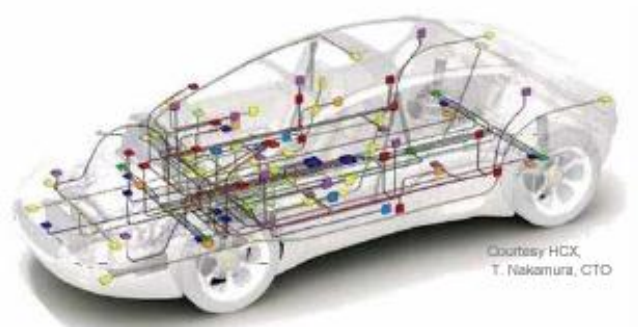
intecs Solutions
the Brainware company



AUTOMOTIVE SPICE®

A three-day intensive course

Automotive SPICE® is a registered trademark of the Verband der Automobilindustrie e.V. (VDA). For further information about Automotive SPICE® visit www.automotivespice.com.

The Automotive SPICE® Standard

In 2005 the industry-specific standard Automotive SPICE® was published by the Automotive Special Interest Group. The standard was derived from the more generic ISO/IEC 15504 International Standard for software process improvement, also known as SPICE (Software Process Improvement and Capability dEtermination). The standard then evolved onto Automotive SPICE® 2.5 (May 2010), then to Automotive SPICE® 3.0 (July 2015), and lastly to **Automotive SPICE® 3.1 (Nov 2017)**, subject of this course.

Automotive SPICE® is nowadays utilized to perform assessments of the software process capability of automotive suppliers, in order to identify their areas of improvement. Several OEM's utilize the assessment results as criterion for suppliers' selection.

The Course

This comprehensive three-day course provides participants with all the major features of the standard, together with an overview of suitable implementation approaches aimed at successfully passing an Automotive SPICE® assessment, and putting in place the right rigor in system/software development, but with no detriment to efficiency. The course is based on the Automotive SPICE® unified Process Assessment / Reference Model v.3.1, dated 01 Nov 2017. The course covers all Automotive SPICE® process areas, with focus on former HIS ("Hersteller Initiative Software") subset, now replaced **by the equivalent VDA subset**. Moreover, some related and exemplary views are provided over the sibling automotive safety standard ISO 26262, with its suggested methods & techniques, or MISRA-related standards.

Intended audience

Project Managers, Software Process Improvement Managers and Engineers, Software Engineers (Development and V&V), Quality Engineers, Configuration Managers, and other stakeholders of both system and software engineering processes.

Course Outline

Day 1

Introduction

- Historical background: from Software Crisis to the advent of Software Engineering and its Standards.
- From ISO/IEC 12207 to domain Standards (e.g. ISO 26262), ISO/IEC 15504 (SPICE), and Automotive SPICE® 2.5 (2010) and its **HIS subset**.
- Software Safety: standards grading according to software criticality.
- ISO/IEC 15504 replacement by ISO/IEC 33000 series → Automotive SPICE® 3.0 (2015) and 3.1 (2017), their **VDA subset** (highlighted in **bold**), and with sample excerpts of VDA Guideline.
- Automotive SPICE® Processes, Capability Levels, Performance Attributes, and Performance/Capability Indicators and assessment rating mechanisms.

The Acquisition (ACQ), Management (MAN), and Supply (SPL) process groups

The Acquisition (ACQ) process group

- ACQ.3: Contract agreement
- **ACQ.4: Supplier monitoring**
- ACQ.11: Technical requirements
- ACQ.12: Legal and administrative requirements
- ACQ.13: Project requirements
- ACQ.14: Request for proposals
- ACQ.15: Supplier qualification

The Management (MAN) process group

- **MAN.3: Project management**
- MAN.5: Risk management
- MAN.6: Measurement

The Supply (SPL) process group

- SPL.1: Supplier tendering
- SPL.2: Product release

Course Outline

Day 2

The so called "technical" process groups: SYS and SWE

The System Engineering (SYS) process group

- SYS.1: Requirements Elicitation
- **SYS.2: System Requirements Analysis**
- **SYS.3: System Architectural Design**
- **SYS.4: System Integration and Integration Test**
- **SYS.5: System Qualification Test**

The Software Engineering (SWE) process group

- **SWE.1: Software Requirements Analysis**
- **SWE.2: Software Architectural Design**
- **SWE.3: Software Detailed Design and Unit Construction**
- **SWE.4: Software Unit Verification**
- **SWE.5: Software Integration and Integration Test**
- **SWE.6: Software Qualification Test**

Day 3

The Support (SUP), Process Improvement (PIM), and Reuse (REU) process groups:

- **SUP.1: Quality Assurance**
- SUP.2: Verification
- SUP.4: Joint review
- SUP.7: Documentation
- **SUP.8: Configuration Management**
- **SUP.9: Problem Resolution Management**
- **SUP.10: Change Request Management**
- REU.2: Reuse program management
- PIM.3: Process Improvement