multisoft
Systems

ETAS Automative Training

COURSE CONTENT

GET IN TOUCH

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About Multisoft

Train yourself with the best and develop valuable in-demand skills with Multisoft Systems. A leading certification training provider, Multisoft collaborates with top technologies to bring world-class one-on-one and certification trainings. With the goal to empower professionals and business across the globe, we offer more than 1500 training courses, which are delivered by Multisoft's global subject matter experts. We offer tailored corporate training; project Based Training, comprehensive learning solution with lifetime e-learning access, after training support and globally recognized training certificates.

About Course

ETAS Automotive Training by Multisoft Systems is a comprehensive program designed for professionals and engineers aiming to excel in the automotive embedded systems domain. ETAS, a subsidiary of the Bosch Group, offers world-class tools and solutions for the development, testing, and calibration of automotive ECU (Electronic Control Unit) software. This training provides hands-on experience with industry-leading ETAS tools such as INCA, ASCET, and EHANDBOOK, which are widely used for model-based development, measurement, and calibration in real-time environments.

Module 1: Introduction to ETAS and Automotive ECU Development

- ✓ Overview of ETAS and its role in automotive development
- ✓ Understanding ECU development, calibration, and validation
- ✓ Introduction to ETAS software and hardware solutions

Module 2: ETAS INCA – ECU Calibration and Measurement

- ✓ Introduction to INCA software and user interface
- ✓ Setting up measurement and calibration projects
- ✓ Working with measurement variables and signals
- ✓ Data acquisition and logging techniques
- ✓ Real-time visualization and analysis of ECU parameters
- ✓ Creating and managing calibration datasets
- ✓ Automating tests and reports

Module 3: ETAS ASCET – Model-Based Development

- ✓ Overview of ASCET and its applications
- ✓ Developing ECU software using ASCET modeling tools
- ✓ Implementing control algorithms and state machines
- ✓ Generating and integrating C-code for ECU applications
- ✓ Model validation and simulation techniques

Module 4: ETAS LABCAR – Hardware-in-the-Loop (HiL) Testing

- ✓ Introduction to LABCAR architecture
- ✓ Setting up HiL simulations for ECU validation
- ✓ Configuring test scenarios and fault injection
- ✓ Automating test execution and result analysis

Module 5: ETAS ES820, ES891, and Other Hardware Tools

- ✓ Understanding ETAS hardware interfaces and applications
- ✓ Configuring measurement and calibration hardware
- ✓ Using ES820 for high-performance data logging
- ✓ Connecting ETAS hardware with INCA and third-party tools

Module 6: ETAS EHOOKS – ECU Software Bypass and Testing

- ✓ Introduction to EHOOKS and its benefits
- ✓ Implementing software bypass solutions
- ✓ Using EHOOKS for rapid prototyping and validation

Module 7: ETAS BOA and COSYM – Virtual Validation and Simulation

- ✓ Introduction to ETAS BOA framework
- ✓ Virtual ECU validation using COSYM
- ✓ Integrating ETAS tools with MATLAB/Simulink

Module 8: Automation and Scripting with ETAS Tools

- ✓ Automating ETAS INCA processes using scripting
- ✓ Using Python, MATLAB, and other scripting languages
- ✓ Developing custom automation workflows

Module 9: Best Practices and Troubleshooting

- ✓ Common issues in ECU development and ETAS tools
- ✓ Debugging and optimizing calibration processes
- ✓ Data analysis and reporting

Module 10: Hands-on Lab Sessions and Real-world Applications

- ✓ Practical exercises using ETAS INCA and ASCET
- ✓ Case studies from automotive industry projects
- ✓ Implementing best practices in ECU development