

SIEMENS

Siemens Mechatronic Systems Certification Program (SMSCP): Digital Enterprise

Title: SMSCP-DIGI

Prerequisites:

- Completion of Systems Approach Paradigm Week (SAPW), Level 1 and Level 2 Instructor Certification courses

Objective:

The Siemens Mechatronic Systems Certification Program (SMSCP) Digital Enterprise course focuses on changes as well as opportunities and challenges connected to the increasing level of digitalization. Understanding the concept of Industrie 4.0, this course will enable participants to assess the level of digitalization at their institution and to compare it with the level in industry.

This Instructor Certification is based on a Train-the-Trainer model: during this course you will be taught different ways of how to realize digital twins of mechatronic systems and their utilization in different phases of the product lifecycle. Participants will deepen their understanding with two projects:

1. Verifying design changes using the digital twin and
2. Controlling and tracking production using RFID

After in-depth technical know-how transfer, the class will discuss and create ideas how to integrate the new concepts into their classroom and market them to students as well as industry partners.

Course content:

- Introduction to Digitalization and Industrie 4.0
- Overview of digitalization scenarios
- Assessing the level of digitalization (at schools and in industry)
- Planning and implementation of a Virtual Commissioning
- Utilization of digital twins in the product lifecycle
- Creating a functional model with Siemens NX MCD
- Control and programming with TIA Portal and PLCSIM Advanced
- Verifying changes/optimization of mechatronic systems
- Implement production tracking and control with RFID
- Installation of RFID read/write-Modules in mechatronic systems
- Integrate RFID into existing control software
- Collecting and analyzing production data
- Implementation workshop with focus on teaching and marketing

Notes:

This course is designed for instructors and administrators at SMSCP Partner Institutions.

Target group:

Teachers

Engineering or Engineering Technology Faculty or Professors

Engineers

Maintenance and training managers

Technical Instructors for non-educational institutions

Duration: 5 days