

SIEMENS

Siemens Mechatronic Systems Certification Program (SMSCP) Digital Enterprise

Title: SMSCP-DIGI (SMSCP 4.0: Digital Twins and smart production)

Prerequisites:

- Completion of Systems Approach Paradigm Week (SAPW), Level 1 and Level 2 Instructor Certification course are recommended, but not required

Objective:

The Siemens Mechatronic Systems Certification Program (SMSCP) 4.0 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 to compare it with the level at the industries served.

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 a mechatronic systems and their utilization in different phases of the product lifecycle. The participants will deepen their understanding with two projects:

1. Verifying design changes using the digital twin and
2. Control and track the production using RFID

After an in depth of technology, 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 Industries)
- 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/Optimizations of Mechatronic Systems
- Implement Production Tracking and Control with RFID
- Installation of RFID Read/Write-Modules in a system
- Integrate RFID into the existing Control Software
- Collecting and Analyzing Production Data (Smart 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

Administrative Faculty

College and University Deans

Duration: 5 Days