

## Siemens Mechatronic Systems Certification Program (SMSCP) Digital Enterprise (SMSCP-DIGI)

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### Objectives

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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 industry 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.

### Target Group

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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

### Content

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Introduction to Digitalization and Industry 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 at the MPS

Integrate RFID into the existing Control Software

Collecting and Analyzing Production Data

Implementation Workshop with Focus on Teaching and Marketing

### Prerequisites

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

### Note

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

### Type

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Face-to-face training

### Duration

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5 days

### Language

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