

## **Siemens Mechatronic Systems Certification Program (SMSCP) Instructor Certification: Level 1**

**Title:** SMSCP\_L1

### **Prerequisites:**

- § Completion of Systems Approach Paradigm Week (SAPW) Instructor Certification course
- § Teaching or industry background in Mechatronics or Electrical or Mechanical Engineering

### **Objective:**

This course covers the application of Systems Approach to the content topics of the four Level 1 courses: Electrical Components; Mechanical Components and Electrical Drives; Electro-Pneumatic and Hydraulic Control Circuits; Digital Fundamentals and PLCs

This Instructor Certification is based on a Train-the-Trainer model: during this course you will apply the didactic teaching methods from the SAPW course to four courses that you can integrate and teach to students at your educational institution or employees at a training center.

### **Course Content:**

- § System Approach paradigm and course-specific didactic training in Electrical Components; Mechanical Components and Electrical Drives; Electro-Pneumatic and Hydraulic Control Circuits; Digital Fundamentals and PLCs
- § Overview of job profile for Level 1 (Assistant, Intelligent Machine Operator)
- § Review course syllabi
- § Hands-on exercises with mechatronic systems, modules, and sub-systems
- § Hardware fault implementation and troubleshooting
- § Sample question review for Siemens student examination
- § Test question development, using Systems Approach
- § Troubleshooting strategies for systems, using the Diagnostic Kit
- § Exposure to additional simulation tools
- § Hands-on tasks with mechatronic systems
- § Developing model systems for adaptive expertise
- § Role of factory tours in study programs
- § Sample lessons for troubleshooting
- § Creation of sample lessons utilizing the Systems Approach
- § Development of strategies for knowledge transfer from one system to another
- § Implementation workshop for implementation of SMSCP locally

### **Notes:**

In this course you will work with SIMATIC STEP7.

After successfully completing this course, participants will be certified as a Siemens Mechatronic Systems Certified Instructor for Level I.

### **Target Group:**

Teachers  
Engineering or Engineering Technology Faculty or Professors  
Engineers  
Maintenance and Training Managers  
Technical Instructors for non-educational institutions

**Duration:** 5 Days