

Siemens Mechatronic Systems Certification Program (SMSCP) Instructor Certification: Systems Approach Paradigm Week (SAPW)

Title: SMSCP_SAPW

Prerequisites:

- § Teaching or industry background in Mechatronics or Electrical or Mechanical Engineering
- § This course is a prerequisite for all SMSCP content courses (Level 1, 2, and 3)

Objective:

The Systems Approach Paradigm Week (SAPW) focuses on the collection of teaching and learning methods we call the Systems Approach, and provides an overview of the SMSCP.

This Instructor Certification is based on a Train-the-Trainer model: during this course you will be taught our didactic teaching methods that you can then use to teach students at your educational institution or employees at a training center.

The Systems Approach has been used with a high degree of effectiveness for the training of employees and engineers for Siemens in Germany. Under the Systems Approach, complexities of a system are learned in a holistic fashion. The end result is a student or employee who is flexible, autonomous and professional in his or her dealings with such complex system.

Course Content:

- § Deeper understanding of Systems Approach
- § Overview of Siemens Mechatronic Systems Certification Program (SMSCP)
- § Hands-on exercises with mechatronic systems, modules, and sub-systems
- § Block diagrams of system modules
- § System function descriptions for energy, mass, and information flow
- § Creation of function charts for simulated systems
- § Troubleshooting strategies for systems, using the Diagnostic Kit or mechatronic system
- § Sample lessons for troubleshooting
- § Creation of sample lessons utilizing the Systems Approach
- § Development of strategies for knowledge transfer from one system to another
- § Role of factory tours in study programs
- § Review hardware requirements for suitable mechatronic systems
- § Implementation workshop for implementation of SMSCP locally
- § Introduction to an online content distribution platform, VCAT

Notes:

This course is the first half of the SMSCP Level 1 or 2 Instructor Certification process; the second half covers the course-specific content.

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