Siemens Certified Mechatronic Systems Associate
(High-level technician)

A Siemens Certified Mechatronic Systems Associate will function as a highly skilled technician who can work with modules and components in complex mechatronic systems as well as being able to assess and analyze the system as a whole. A Certified Associate can manage, investigate, repair, and troubleshoot mechatronic systems, with the aim of operational efficiency and cost and process control. They will usually carry out their work at production facilities, workshops, or in service sites that use complex mechatronic systems.
He or she will be able to:

- understand and analyze the technical specification of mechatronic systems, subsystems, modules, and components
- derive and determine parameters for mechatronic systems and system elements
- measure, interpret, and analyze electrical, PLC/microcontroller, and mechanical values
- assemble and install tools and hardware systems
- perform scheduled and preventive maintenance
- install, implement, and modify software tools used in mechatronic systems
- use troubleshooting skills to identify, foresee, and prevent possible problems, conflicts, and failures, and to systematically and intelligently make repairs
- program mechatronic modules and systems, especially PLCs
- implement PLC networks, including configuration and data transfer using bus systems
- analyze system logs
- incorporate relevant technical literature into understanding of system operation and use this information to propose procedural and operational changes
- observe and incorporate safety standards
- apply knowledge of process control technology, including all regulator types
- observe, follow, and influence cost control and process efficiency procedures
- execute all of the above as an effective member of a team