Automation Fundamentals

Course Description

This course covers the main technological fundamentals of automation, automation components, architectures and standards, industry 4.0 concepts and computer integrated manufacturing approach. It also focuses on industrial communication with study cases of the OPC standard.

Course Objectives

By the end of this training, students will:

- ❖ **Recognize:**
    - ✓ The automation concepts,
    - ✓ The different systems, networks and architectures,
    - ✓ The computer integrated manufacturing approach,
    - ✓ Safety approach in control layer,
    - ✓ The Industry 4.0 concepts and applications,
    - ✓ The OT/IT and IoT concepts,
    - ✓ The Eco-System for automation projects.
- ❖ **Understand:**
    - ✓ Control and Supervision layers' components,
    - ✓ OPC standard concept and benefits,
    - ✓ The differences between OPC modes.

Course Duration

The training will take place in 4 different equal sessions with a total of 12 hours (including a 1-hour evaluation quiz).

Evaluation

The final evaluation will take place in the last session, a duration of 1-hour will be accorded to the multiple-choice questions type exam.

The exam contains 40 questions, a half-point is accorded to each completely correct answer.