# uc3m | Universidad Carlos III de Madrid

## Industrial Automation II

Academic Year: (2023 / 2024) Review date: 26-04-2023

Department assigned to the subject: Systems Engineering and Automation Department

Coordinating teacher: CASTRO GONZALEZ, ALVARO

Type: Compulsory ECTS Credits: 3.0

Year: 4 Semester: 1

## REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Industrial Automation I

#### **OBJECTIVES**

- Extend the knowledge on automation of industrial systems.
- Integration of the different types of equipment that are included in an automated industrial system.
- Capacity of collaborative teamwork.

## **DESCRIPTION OF CONTENTS: PROGRAMME**

This course has a practical character. The students automatize a real flexible manufacturing system that includes:

- Storage and transport automated systems
- CNC machine tools
- Industrial robots
- Test systems

To do that they must:

- Program the controllers
- Program the communication systems
- Coordinate the cells of the flexible manufacturing system
- Design and program a supervision system and a human-machine interface

## LEARNING ACTIVITIES AND METHODOLOGY

- Practical work in the workshop (3 credits ECTS)

## ASSESSMENT SYSTEM

Continuous assessment of the work in the workshop Assessment of the systems developed by the student Report of the system developed by the student.

% end-of-term-examination:

% of continuous assessment (assigments, laboratory, practicals...):