Industrial Automation II

Academic Year: (2020 / 2021) **Review date: 14-09-2020**

Department assigned to the subject: Systems Engineering and Automation Department

Coordinating teacher: MARTINEZ DE LA CASA DIAZ, SANTIAGO

Type: Electives ECTS Credits : 6.0

Year : 4 Semester : 1

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Industrial Automation I

OBJECTIVES

By the end of this subject, students will be able to have:

1. knowledge and understanding of the key aspects and concepts of automation and control methods.
2. the ability to apply their knowledge and understanding to identify, formulate and solve problems of industrial automation using established methods;
3. the ability to apply their knowledge and understanding to develop and realise designs of industrial automation systems to meet defined and specified requirements;
4. the ability to design and conduct appropriate experiments, interpret the data and draw conclusions;
5. Technical and laboratory skills.
6. the ability to select and use appropriate equipment, tools and methods;
7. the ability to combine theory and practice to solve engineering problems of industrial automation
8. 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 (6 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:	0
% of continuous assessment (assigments, laboratory, practicals…):	100