

Academic Year: (2019 / 2020)

Review date: 17-12-2019

Department assigned to the subject: Electronic Technology Department

Coordinating teacher: FERNANDEZ HERRERO, CRISTINA

Type: Electives ECTS Credits : 6.0

Year : 4 Semester :

OBJECTIVES

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

1. The ability to apply their knowledge and understanding of electronic equipment and systems to identify, formulate and solve engineering problems related to the industrial communication using established methods.
2. The ability to apply their knowledge and understanding to develop and realise designs of electronic systems for industrial communications to meet defined and specified requirements.
3. An understanding of design methodologies of electronic systems for industrial communications, and an ability to use them.
4. Workshop and laboratory skills.
5. An understanding of applicable techniques and methods in the design of electronic systems for industrial communications, and of their limitations.

DESCRIPTION OF CONTENTS: PROGRAMME

Analog and digital communications networks.
 OSI model of industrial networks.
 Field buses. Protocols as CAN, RS-485 and Ethernet
 Wireless communication.

LEARNING ACTIVITIES AND METHODOLOGY

The teaching methodology will include:

Magisterial Classes, where the students will be presented with the basic knowledge they must acquire. Students will be supplied with lecture notes and key reference texts which will enable them to complete and acquire a more in depth knowledge of the subject.

Problems Classes, these are aimed at the solving of exercises and examples within the context of real case studies. These classes will be complimented with the resolution of practical exercises on behalf of the student.

Laboratory Practical Sessions

Group tutorials

ASSESSMENT SYSTEM

FINAL EXAM. Global assessment of knowledge, skills and capacities acquired throughout the course.

CONTINUOUS EVALUATION. Assesses papers, projects, class presentations, debates, exercises, internships and workshops throughout the course.

% end-of-term-examination:	60
% of continuous assessment (assignments, laboratory, practicals...):	40