

Electrical Installations

Academic Year: (2019 / 2020)

Review date: 11-05-2020

Department assigned to the subject: Electrical Engineering Department

Coordinating teacher: BURGOS DIAZ, JUAN CARLOS

Type: Electives ECTS Credits : 6.0

Year : Semester :

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Electrical Power Engineering Fundamentals

Transformers and Magnetic Circuits

Transmission Lines and Switchgear

OBJECTIVES

This subject enables the student to acquire the following competences and skills.

- Designing a L.V. installations and select its components properly.
- Analyzing electromagnetic transients in electrical systems.
- Knowing the origin of the main overvoltages in an electrical system (classified according their duration) and how to protect equipment against those overvoltages.
- Selecting properly the switchgear of a medium and high voltage substations.

DESCRIPTION OF CONTENTS: PROGRAMME

First order transients. Second order transients.

H.V. and M.V. Installations. Circuit breaker selection. Overvoltages (temporary, switching transients, lightning overvoltages). Surge arresters.

L.V. Installations. Conductor selection. Fuse selection. Breaker selection.

ASSESSMENT SYSTEM

Theory exams

Problem exams

Laboratory sessions.

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