

Electrical Installations

Academic Year: (2022 / 2023)

Review date: 11-05-2023

Department assigned to the subject: Electrical Engineering Department

Coordinating teacher: BURGOS DIAZ, JUAN CARLOS

Type: Electives ECTS Credits : 6.0

Year : 4 Semester :

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Electrical Power Engineering Fundamentals
Electrical Technology

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 to their duration) and how to protect equipment against those overvoltages.
- Selecting properly the switchgear of a medium and high voltage substations.
- Acquiring skills in the use of software for electrical system analysis.
- Modelling and simulating a power plant to obtain both, the steady state and the transient.

DESCRIPTION OF CONTENTS: PROGRAMME

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
% of continuous assessment (assignments, laboratory, practicals...):	40

BASIC BIBLIOGRAPHY

- Jorge Moreno Mohino y otros Sistemas de Puesta a Tierra en Instalaciones de Alta Tensión, Garceta, 2015