

Centre	University College of Engineering of Vitoria-Gasteiz
Name of subject	26039 – Electrical Systems Design
Qualification	Degree in Computer Management and Information Systems Engineering
Type	Elective
Credits	6 ECTS
Year	4
Term(s)	1st
Department	Electrical Engineering
Language	Spanish

Outcomes / Objectives

Learn to design electrical systems and identify the most common state variables in this type of systems.

Syllabus

The electrical project. Study of modelling and simulation programmes. Design of basic concepts. Simple circuit analysis. Fundamental DC circuit theorems. Design of advanced concepts. AC circuit analysis.

Methodology

Teaching Method

Face-to-Face Teaching Hours

Lectures	Seminars	Classroom practice	Lab. practice	Computer sessions	Clinical practice	Workshops	Industrial workshops	Field practice
21				39				

Student Hours of Non Face-To-Face Activities

Lectures	Seminars	Classroom practice	Lab. practice	Computer sessions	Clinical practice	Workshops	Industrial workshops	Field practice
27				63				

Compulsory materials

Notes on laboratory practice through the reprographic service.

Bibliography

Basic Bibliography

- Teoría de Circuitos con OrCAD PSpice. Blas Ogayar Fernández. Ed. RA-MA.
- OrCAD PSpice para Windows. Roy W. Goody. Ed. Prentice Hall.
- Edición y Simulación de circuitos con OrCAD. José Luís Calvo. Ed. RA-MA
- Introducción al Simulink.. Modelado y simulación de sistemas dinámicos. Teodoro Alamo. Universidad de Sevilla.
- Introduction to Simulink with Engineering Applications. Steven T. Karris. Ed. Orchard Publications

In-depth Bibliography

- Circuit Análisis I y II with MATLAB Applications. Steven T. Karris. Ed. Orchard.Publications.
- Signals and Systems with MATLAB Computing and Simulink Modeling. Steven T. Karris. Ed. Orchard Publications.
- Sistemas Eléctricos de Potencia. Problemas y ejercicios resueltos. A. Gómez Expósito et al.: Prentice-Hall, 2004.
- Power systems analysis. BERGEN, A. R. Prentice-Hall, 1986.Sistemas de energía eléctrica F. BARRERO:.. Thomsom, 2004