

## 29643 - Smart Electrical Grids

### Información del Plan Docente

Academic Year	2016/17
Academic center	110 - Escuela de Ingeniería y Arquitectura
Degree	430 - Bachelor's Degree in Electrical Engineering
ECTS	6.0
Course	4
Period	Second semester
Subject Type	Optional
Module	---

### 1.Basic info

#### 1.1.Recommendations to take this course

#### 1.2.Activities and key dates for the course

### 2.Initiation

#### 2.1.Learning outcomes that define the subject

#### 2.2.Introduction

### 3.Context and competences

#### 3.1.Goals

#### 3.2.Context and meaning of the subject in the degree

#### 3.3.Competences

#### 3.4.Importance of learning outcomes

### 4.Evaluation

### 5.Activities and resources

#### 5.1.General methodological presentation

#### 5.2.Learning activities

#### 5.3.Program

1. Introduction to Smart Grids (SG): definition, objectives and benefits.
2. Technologies applied in SG: Distributed Generation (DG), Demand Side Management (DSM), Energy Storage and Vehicle to Grid (V2G) Operation of Smart Grids: System Protection, Control and Automation.

**5.4.Planning and scheduling****5.5.Bibliography and recommended resources**

*Bibliography* can be found in <http://psfunizar7.unizar.es/br13/eGrados.php?id=220>