DADES GENERALS

Curs acadèmic	
Tipus de curs	Màster de Formació Permanent
Nombre de crèdits	60,00 Crèdits ECTS
Matrícula	3.000 euros (import preu públic)
Requisits d'accés	
Modalitat	On-line
Lloc d'impartició	Online
Horari	

Direcció

Organitzador	Escola Tècnica Superior d'Enginyeria (ETSE-UV)
Direcció	José Gabriel Torres País Profesor/a Titular de Universidad. Departament d'Enginyeria Electrònica. Universitat de València María Teresa Gil Agustí Responsable del área de Química Aplicada, Biotecnología y Nuevos Materiales. Instituto Tecnológico de la Energía Consuelo Gómez-Zarzuela Quel Technical training team leader. Power Electronics S.L.

Terminis

Preinscripció al curs	Fins a 01/11/2024
Data inici	Novembre 2024
Data fi	Juliol 2025

Més informació

Telèfon	961 603 000
E-mail	informacio@adeituv.es

PROGRAMA

1.1 The energy system: present and future.
1.2 Importance of energy storage - flexibility needs and the role of battery storage.
1.3 Introduction to batteries.
1.4 Battery storage: potential and applications and challenges.
1.5 Battery Energy Storage: Grid-Scale.
1.6 Battery Energy Storage: Behind the meter.
1.7 Battery Energy Storage: Electrical Mobility.
1.8 Battery Energy Storage: Industrial Applications.

2.1 Electrochemical concepts behind batteries.

3.1 Current Battery Technologies.
3.2 Emerging battery Technologies.
3.3 Raw materials.

4.1 Production and manufacturing.

5.1 Introduction to Power Electronic Converters.
5.2 Power conversion and efficiency in battery system.

6.1 Power electronics and grid connection.
6.2 Battery management systems.

7.1 Battery testing.
7.2 Modeling, control and simulation of batteries.

8.1 Batteries end of life: Reuse and recycling.

9.1 Business Modeling.
9.2 Investment scenarios and business models for battery energy storage systems.
9.3 European Legislation and Policy.
9.4 Cost assessment of battery-based storage solutions.
9.5 Business Models and Business examples.

The contents of the Master's Thesis will be different depending on the specific objectives of the project to be carried out.
The subject of the Master's thesis can be all those that are specific to the Master's studies. In particular, all kinds of systems and devices may be designed, using any procedure as current engineering allows.
The Master's Thesis may also include research and development work, as well as and the theoretical or numerical modeling of systems and their components.
It may also be considered as subjects of the Master's Thesis may also include studies related to the contents of the Degree and related to equipment, factories, installations, services, planning, management or operation.
Therefore, the contents of the the subject will be different depending on the specific Master's thesis selected by the student.

PROFESSORAT

Rocío Cano Jiménez

Battery Technician

Ramon Manuel Fernández Domene

Ayudante/a Doctor/a. Departament d'Enginyeria Química. Universitat de València

María Teresa Gil Agustí

Responsable del área de Química Aplicada, Biotecnología y Nuevos Materiales. Instituto Tecnológico de la Energía

Juan Gilabert Marzal

Ingeniero Industrial área de Alta Tensión y Materiales. Instituto Tecnológico de la Energía

Consuelo Gómez-Zarzuela Quel

Technical training team leader. Power Electronics S.L.

Lorena Jiménez Chillarron

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Rita Sánchez Tovar

Profesor/a Titular de Universidad. Departament d'Enginyeria Química. Universitat de València

Benjamin Eduardo Solsona Espriu

Catedrático/a de Universidad. Departament d'Enginyeria Química. Universitat de València

Javier Tomás Catalá

Director Universidad Corporativa. Power Electronics España, S.L.

José Gabriel Torres País

Profesor/a Titular de Universidad. Departament d'Enginyeria Electrònica. Universitat de València

Daniel Valero Beltrá

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Leire Zubizarreta Saenz De Zaitegui

Doctora en Química. Área de Química Aplicada, Biotecnología y Nuevos Materiales del Instituto Tecnológico de la Energía (ITE)