



Course guides

820340 - GEEE - Energy Management with Electronic Equipment

Last modified: 30/06/2021

Unit in charge: Barcelona East School of Engineering
Teaching unit: 710 - EEL - Department of Electronic Engineering.

Degree: BACHELOR'S DEGREE IN ENERGY ENGINEERING (Syllabus 2009). (Optional subject).

Academic year: 2021 **ECTS Credits:** 6.0 **Languages:** Catalan, Spanish

LECTURER

Coordinating lecturer: Casellas Beneyto, Francisco José
Velasco Quesada, Guillermo

Others:

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:

1. Analyse and simulate specific energy systems.
2. Determine the best way to store energy on a case-by-case basis.
3. Explain the operating principles of power conversion systems and their application to transport and distribution systems.
4. Design an energy saving system using different processes and technologies.

Transversal:

5. SELF-DIRECTED LEARNING - Level 3. Applying the knowledge gained in completing a task according to its relevance and importance. Deciding how to carry out a task, the amount of time to be devoted to it and the most suitable information sources.

TEACHING METHODOLOGY

LEARNING OBJECTIVES OF THE SUBJECT

STUDY LOAD

Type	Hours	Percentage
Self study	90,0	60.00
Hours large group	30,0	20.00
Hours small group	30,0	20.00

Total learning time: 150 h



CONTENTS

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Description:

[Redacted content]

Full-or-part-time: 30h

Theory classes: 30h

[Redacted content]

Description:

[Redacted content]

Full-or-part-time: 30h

Theory classes: 30h

[Redacted content]

Description:

[Redacted content]

Full-or-part-time: 16h

Self study : 16h

GRADING SYSTEM

BIBLIOGRAPHY

Basic:

- Lajara Vizcaíno, José Rafael; Pelegrí Sebastiá, José. Labview : entorno grafico de programación [on line]. Barcelona: Marcombo, cop. 2007 [Consultation: 27/05/2020]. Available on:

<https://ebookcentral.proquest.com/lib/csuc-ebooks/detail.action?docID=3175272>. ISBN 9788426714268.

- Curso de experto profesional en energía fotovoltaica. Sevilla: PROGENSA, cop. 2009. ISBN 9788495693495.

- Alonso Abella, Miguel. Sistemas fotovoltaicos: introducción al diseño y dimensionado de instalaciones de energía solar fotovoltaicas. 2ª ed. Madrid: Publicaciones Técnicas, cop. 2005. ISBN 8486913128.

Complementary:

- Sumathi, S. LabVIEW based advanced instrumentation systems [on line]. Berlin, Heidelberg: Springer Distribution Center GmbH, 2007 [Consultation: 27/05/2020]. Available on: <http://dx.doi.org/10.1007/978-3-540-48501-8>. ISBN 9783540485001.

RESOURCES

Audiovisual material:

- Nombre recurso. Resource