

330420 - ESC - Electricity and Control Engineering

Coordinating unit: 330 - EPSEM - Manresa School of Engineering
 Teaching unit: 709 - EE - Department of Electrical Engineering
 Academic year: 2019
 Degree: BACHELOR'S DEGREE IN MINING ENGINEERING (Syllabus 2016). (Teaching unit Compulsory)
 ECTS credits: 6 Teaching languages: Catalan

Teaching staff

Coordinator: Freijo Alvarez, Modesto
 Others: Freijo Alvarez, Modesto

Degree competences to which the subject contributes

Specific:

- (ENG) Coneixements fonamentals sobre el sistema elèctric de potència: generació d'energia, xarxa de transport, repartiment i distribució, així com sobre tipus de línies i conductors. Coneixement de la normativa sobre baixa i alta tensió. Coneixement d'electrònica bàsica i sistemes de control.

Transversal:

- EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 3. Communicating clearly and efficiently in oral and written presentations. Adapting to audiences and communication aims by using suitable strategies and means.
- TEAMWORK - Level 3. Managing and making work groups effective. Resolving possible conflicts, valuing working with others, assessing the effectiveness of a team and presenting the final results.
- 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.

Learning objectives of the subject

Study load

Total learning time: 150h	Hours large group:	0h	0.00%
	Hours medium group:	60h	40.00%
	Hours small group:	0h	0.00%
	Guided activities:	0h	0.00%
	Self study:	90h	60.00%

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Content

title english	Learning time: 45h Theory classes: 12h Self study : 33h
Description: content english	
title english	Learning time: 30h Theory classes: 8h Self study : 22h
Description: content english	
title english	Learning time: 23h Theory classes: 6h Self study : 17h
Description: content english	
title english	Learning time: 36h Theory classes: 12h Self study : 24h
Description: content english	
title english	Learning time: 16h Theory classes: 7h Self study : 9h
Description: content english	



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title english	Learning time: 9h Theory classes: 3h Self study : 6h
Description: content english	

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Planning of activities

name english	Hours: 4h Laboratory classes: 2h Self study: 2h
name english	Hours: 6h Laboratory classes: 2h Self study: 4h
name english	Hours: 6h Laboratory classes: 2h Self study: 4h
name english	Hours: 6h Laboratory classes: 2h Self study: 4h
name english	Hours: 6h Laboratory classes: 2h Self study: 4h
name english	Hours: 6h Laboratory classes: 2h Self study: 4h
name english	Hours: 6h Laboratory classes: 2h Self study: 4h
name english	Hours: 7h Laboratory classes: 3h Self study: 4h
name english	Hours: 22h Theory classes: 2h Self study: 20h

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name english	Hours: 22h Theory classes: 2h Self study: 20h
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Bibliography

Basic:

Fraile Mora, Jesús. Máquinas eléctricas. 8ª ed. Madrid: Ibergaceta, 2016. ISBN 9788416228669.

Complementary:

Chapman, Stephen J. Máquinas eléctricas. 5ª ed. México: McGraw-Hill, 2012. ISBN 9786071507242.

Moreno, Narciso. Problemas resueltos de tecnología eléctrica. Madrid: International Thomson, 2003. ISBN 8497321944.

Freijo, Modesto. Problemas de electrotecnia aplicada. Manresa: EPSEM, 2014.

Sanjurjo Navarro, Rafael. Máquinas eléctricas. Ed. estudiante (EEES). Madrid: García-Maroto, 2011. ISBN 9788415214144.

Alcalde San Miguel, Pablo. Electrotecnia: instalaciones eléctricas y automáticas. 6ª ed. Madrid: Paraninfo, 2014. ISBN 9788428398770.

Others resources: