Course guide
220252 - 220252 - Control of Electrical Machines

Unit in charge: Terrassa School of Industrial, Aerospace and Audiovisual Engineering
Teaching unit: 709 - DEE - Department of Electrical Engineering.
Degree: MASTER'S DEGREE IN INDUSTRIAL ENGINEERING (Syllabus 2013). (Optional subject).
Academic year: 2022  ECTS Credits: 5.0  Languages: Catalan, Spanish, English

LECTURER
Coordinating lecturer: Antoni Garcia Espinosa
Others: Jaume Saura Perisé

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES
Specific:
1. Capability for modeling, analysis, calculation and design of electrical power systems.
3. Ability to project conventional and non-conventionals power facilities.
6. Ability to model and solve problems associated with the operation of electric power systems by integrating information technologies and communication: protection, network operation, and electricity market stability.

TEACHING METHODOLOGY
Lectures and laboratori sessions

LEARNING OBJECTIVES OF THE SUBJECT
To study the vector control schemes as well as Direct Torque Control schemes

STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Hours large group</td>
<td>30,0</td>
<td>24.00</td>
</tr>
<tr>
<td>Hours small group</td>
<td>15,0</td>
<td>12.00</td>
</tr>
<tr>
<td>Self study</td>
<td>80,0</td>
<td>64.00</td>
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</tbody>
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Total learning time: 125 h

CONTENTS

Vector control of Induction Motor and Permanent Magnet Synchronous Machines.

Full-or-part-time: 125h
Theory classes: 30h
Laboratory classes: 15h
Self study : 80h
GRADING SYSTEM

First exam*0.3+Final exam*0.5+laboratori *0.2

EXAMINATION RULES.

In case to fail the first exam, the obtained mark could be improved

BIBLIOGRAPHY

Basic: