220611 - Emc and Power Quality

Coordinating unit: 205 - ESEIAAT - Terrassa School of Industrial, Aerospace and Audiovisual Engineering
Teaching unit: 710 - EEL - Department of Electronic Engineering
Academic year: 2018
Degree: MASTER'S DEGREE IN AUTOMATIC SYSTEMS AND INDUSTRIAL ELECTRONICS (Syllabus 2012).
ECTS credits: 5
Teaching languages: Spanish

Teaching staff
Coordinator: JAVIER GAGO BARRIO
Others: Juan Mon Gonzalez

Degree competences to which the subject contributes

Specific:
1. Improve self-learning capacity
3. Research and evaluation the energy efficiency of different equipment from domestic appliances till industrial processes.

Transversal:
2. ENTREPRENEURSHIP AND INNOVATION: Knowing about and understanding how businesses are run and the sciences that govern their activity. Having the ability to understand labor laws and how planning, industrial and marketing strategies, quality and profits relate to each other.
4. THIRD LANGUAGE. Learning a third language, preferably English, to a degree of oral and written fluency that fits in with the future needs of the graduates of each course.
5. EFFECTIVE USE OF INFORMATION RESOURCES. Managing the acquisition, structure, analysis and display of information from the own field of specialization. Taking a critical stance with regard to the results obtained.

Teaching methodology

Learning objectives of the subject

Study load

<table>
<thead>
<tr>
<th>Total learning time: 125h</th>
<th>Hours large group: 31h</th>
<th>24.80%</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Hours small group: 14h</td>
<td>11.20%</td>
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<tr>
<td></td>
<td>Self study: 80h</td>
<td>64.00%</td>
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## Content

| EMC practices | Learning time: 22h 30m  
Theory classes: 22h 30m |
|---------------|--------------------------|
| **Description:**  
1. EMC introduction  
2. Crosstalking  
3. Conducted EMI's  
4. Reflections |

| EMC Project | Learning time: 22h 30m  
Theory classes: 22h 30m |
|-------------|--------------------------|
| **Description:**  
EMC Project |

## Planning of activities

| (ENG) ACTIVITAT 1. CLASSES DE TEORIA | Hours: 15h  
Theory classes: 7h 30m  
Self study: 7h 30m |
|-------------------------------------|-----------------------------|

| (ENG) ACTIVITAT 2. CLASSES DE LABORATORI | Hours: 30h  
Laboratory classes: 15h  
Self study: 15h |
|----------------------------------------|--------------------------------|

| (ENG) ACTIVITAT 3. AVALUACIÓ PARCIAL | Hours: 15h 30m  
Theory classes: 1h 30m  
Self study: 14h |
|--------------------------------------|-----------------------------|

| (ENG) ACTIVITAT 5. TREBALL | Hours: 45h  
Self study: 22h 30m  
Theory classes: 22h 30m |
|---------------------------|-----------------------------|

| Description:  
This activity corresponds to the development of a job or project related to the thematic |
Qualification system

\[ N_f = 0.3 \times N_{ex} + 0.3 \times N_T + 0.4 \times N_P \]

\(N_f\): Final
\(N_{ex}\): Partial exam
\(N_T\): Project
\(N_L\): Laboratory practices

For those students who meet the requirements and submit to the reevaluation examination, the grade of the reevaluation exam will replace the grades of all the on-site written evaluation acts (tests, midterm and final exams) and the grades obtained during the course for lab practices, works, projects and presentations will be kept.

If the final grade after reevaluation is lower than 5.0, it will replace the initial one only if it is higher. If the final grade after reevaluation is greater or equal to 5.0, the final grade of the subject will be pass 5.0.

Regulations for carrying out activities

Bibliography