230254 - SDR - Radio Systems and Devices

Coordinating unit: 230 - ETSETB - Barcelona School of Telecommunications Engineering
Teaching unit: 739 - TSC - Department of Signal Theory and Communications
Academic year: 2019
Degree:
- BACHELOR'S DEGREE IN TELECOMMUNICATIONS SYSTEMS ENGINEERING (Syllabus 2010). (Teaching unit Optional)
- BACHELOR'S DEGREE IN TELECOMMUNICATIONS SCIENCE AND TECHNOLOGY (Syllabus 2010). (Teaching unit Optional)
- BACHELOR'S DEGREE IN NETWORK ENGINEERING (Syllabus 2010). (Teaching unit Optional)
- BACHELOR'S DEGREE IN TELECOMMUNICATIONS TECHNOLOGIES AND SERVICES ENGINEERING (Syllabus 2015). (Teaching unit Optional)
ECTS credits: 6
Teaching languages: Catalan, Spanish

Teaching staff

Coordinator: JOAN O'CALLAGHAN
Others: JOAN O'CALLAGHAN, SEBASTIÀ BLANCH

Prior skills

Basic previous knowledge in microwaves and antennas.

Teaching methodology

- Lectures
- Lab practise
- Group work
- Individual homework

Learning objectives of the subject

Ability to design, simulate and test radio systems and devices.

Study load

<table>
<thead>
<tr>
<th>Total learning time: 150h</th>
<th>Hours large group: 26h</th>
<th>17.33%</th>
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<tbody>
<tr>
<td></td>
<td>Hours small group: 26h</td>
<td>17.33%</td>
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<tr>
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<td>Self study: 98h</td>
<td>65.33%</td>
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Content

<table>
<thead>
<tr>
<th>(ENG) 1. Introducció</th>
<th>Learning time: 4h</th>
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</thead>
<tbody>
<tr>
<td>Description:</td>
<td>Theory classes: 2h</td>
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<tr>
<td></td>
<td>Self study : 2h</td>
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</tbody>
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Description:
Introduction

<table>
<thead>
<tr>
<th>(ENG) 2. Instrumentació</th>
<th>Learning time: 60h</th>
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<tbody>
<tr>
<td></td>
<td>Laboratory classes: 15h</td>
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<td>Self study : 45h</td>
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Description:
Spectrum, network and noise analysis.

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<tr>
<th>(ENG) 3. Disseny, simulació i prototipatge</th>
<th>Learning time: 86h</th>
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<td>Laboratory classes: 35h</td>
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<td>Self study : 51h</td>
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Planning of activities

(ENG) LABORATORI

(ENG) EXERCICIS

(ENG) CONTROLS DE RESPPOSTA CURTA

Qualification system

Homework: 10%
Lab practises: 90%
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Bibliography

Basic: