

60920 - Advanced communications

Información del Plan Docente

Academic Year	2016/17
Academic center	110 - Escuela de Ingeniería y Arquitectura
Degree	533 - Master's Degree in Telecommunications Engineering
ECTS	5.0
Course	1
Period	First semester
Subject Type	Compulsory
Module	---

1.Basic info

1.1.Recommendations to take this course

1.2.Activities and key dates for the course

2.Initiation

2.1.Learning outcomes that define the subject

2.2.Introduction

3.Context and competences

3.1.Goals

3.2.Context and meaning of the subject in the degree

3.3.Competences

3.4.Importance of learning outcomes

4.Evaluation

5.Activities and resources

5.1.General methodological presentation

Learning process is based on :

M1. Master classes .

M8: Problems and questions.

M9: Lab activity.

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M4: Supervised works.

M10: Tutorials.

M11: Evaluation.

5.2.Learning activities

M1. Master classes (38 hours).

M8: Problems and questions (8 hours)

M9: Lab activity (4 hours).

M4: Supervised works (22 hours).

5.3.Program

The course program consists of five lessons:

1. Selective channels.
2. TCM (Trellis Coded Modulation).
3. Advanced Channel Coding.
4. Multicarrier systems. OFDM.
5. Adaptive Modulation & Coding (AMC)

LAB activities and seminars.

Supervised work based on different parts of a communications system.

5.4.Planning and scheduling

Planning and scheduling will be defined by EINA.

5.5.Bibliography and recommended resources

- Proakis, John G.. Digital Communications / John G. Proakis . - 4th ed., International ed. Boston [etc.] : McGraw-Hill, 2001

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- Proakis, John G.. Communication systems engineering / John G. Proakis, Masoud Salehi Englewood Cliffs, New Jersey : Prentice Hall, cop. 1994
- Sklar, Bernard. Digital communications : fundamentals and applications / Bernard Sklar . - 2nd ed., repr. with corr. Upper Saddle River, New Jersey : Prentice-Hall PTR, 200
- Tse, D.. Fundamentals of wireless communication / Tse, D.; Viswanath, P Cambridge: Cambridge University Press, 2005
- Artés Rodríguez, Antonio. Comunicaciones digitales / Antonio Artés Rodríguez, Fernando Pérez González Madrid : Pearson Educación, D. L. 2007