



GENERAL INFORMATION

Data of the subject	
Subject name	Communication Systems
Subject code	DEA-GITT-225
Main program	Bachelor's Degree in Engineering in Telecommunication Technologies
Credits	6,0 ECTS
Type	Obligatoria (Grado)
Department	Department of Electronics, Control and Communications

Teacher Information	
Teacher	
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DESCRIPTION OF THE SUBJECT

Contextualization of the subject
Prerequisites
Los prerrequisitos necesarios que el alumno debe tener para el seguimiento eficiente y fluido de la asignatura son: conocimientos de variable compleja, cálculo diferencial e integral y teoría de señal, análisis de circuitos y respuesta en frecuencia, conocimientos básicos de



electromagnetismo, capacidad de lectura de textos en inglés técnico. Los conocimientos básicos de implementación de sistemas no son estrictamente necesarios, pero facilitarán la comprensión de los diferentes sistemas de comunicación que se desarrollarán a lo largo del curso.

Course contents

Contents

Block 1: Fundamentals

1.1 Introduction

1.2 Review of elements of signal theory

1.3 Analog communication systems (linear - AM, DSB-SC, SSB - and angular - FM and PM)

Block 2: Digital communication systems

2.1. Overview of digital communication systems

2.2 Baseband digital communication systems

2.3 Passband digital communication systems

Block 3: Labs

3.1 Analog communication systems

3.2 Digital communication systems

EVALUATION AND CRITERIA

Grading

Exams:

- Mid-term exam: 20%
- Final exam: 40% (minimum of 5 out of 10 required)

Labs:

- 20% (minimum of 5 out of 10 required)

Continuous assessment:

- 20%

BIBLIOGRAPHY AND RESOURCES

Basic References



COMILLAS

UNIVERSIDAD PONTIFICIA

ICAI

ICADE

CIHS

Syllabus
2024 - 2025

- Course slides.
- Teoría de la Comunicación. M. Lázaro. OCW, 2014.
- Comunicaciones Digitales. A. Artés et al. 2012

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