

DTC-GITT-415 Multimedia Telecommunication Services

SEMESTER: Fall

CREDITS: 6 ECTS (4 hrs. per week: 3 Theory + 1 Lab, on average)

LANGUAGE: Spanish

DEGREES: GITT

Course overview

This course is an introduction to the use of multimedia information by telecommunication networks. It is focused on compression methods of information coming from audio, image and video. The objective of this compression is to reduce the amount of data to flow through a communication network. The course finishes with an overview of the real-time protocols typically used to transport multimedia information.

Prerequisites

No prior knowledge is required for attending this course, but it is recommended some knowledge in signal processing and MATLAB.

Course contents

Theory:

1. Multimedia information coding
2. Voice coding and compression
3. Coding and image compression
4. Coding and video compression
5. Information through multimedia networks.

Laboratory:

Units 1, 2, 3 and 4 described previously have at least two associated lab practices of 2 hour sessions.

Textbook

- J. Hwang. “Multimedia Networking from Theory to Practice”. Cambridge Press, 2009. (Reference book)
- D. Salomon, “Data Compression. The Complete Reference”, 4th edition, Springer, 2007.

Grading

- Final exam accounts for 50% of the final grade.
- Continuous evaluation and mid-term exam account for 15%. Of the grade
- Lab reports account for 35% of the grade.