

Telecommunication systems

Introducing

Description

Telecommunications systems: data rates, eye diagrams, transmission lines, baseband coding, analog and digital modulation, constellation diagrams, frames, multiplexing, channel access (FDMA, TDMA, CDMA), spread spectrum. The tutorials will go into greater depth on the concepts seen in class, and will focus on well-known applications of telecommunications systems (e.g. USB, Bluetooth, FM radio, etc.). Lab classes will address the design of analog and digital modulations

Objectives

At the end of this module, the student should have understood and be able to explain (main concepts) the operating principles of telecommunication systems. The student will be able to design the architecture of a telecommunication system: choice of the modulation, choice of the media access type, etc.

Necessary prerequisites

Signal Processing courses
Analog and digital electronics courses

Évaluation

L'évaluation des acquis d'apprentissage est réalisée en continu tout le long du semestre. En fonction des enseignements, elle peut prendre différentes formes : examen écrit, oral, compte-rendu, rapport écrit, évaluation par les pairs...

Practical info

Location(s)

 Toulouse