

## [FRANCAIS] Systèmes de transmission



ECTS  
5 crédits



Hourly volume  
68h

### Introducing

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#### Objectives

At the end of this module, the student will have understood and be able to explain (main concepts):

- How the properties and limitations of channels influence transmission
- The different perturbation sources
- The properties of most antennas
- Modulation and demodulation techniques
- Coding and error-correction techniques.

The student will be able to:

- Identify the limitations of a channel and how they alter the signal
- Build a model of a transmission channel, so as to conceive an adapted and optimized transmission link
- Dimension an antenna, taking into account the propagation setting
- Use a software-defined radio module to carry out numerical modulations (ASK, FSK, PSK, APSK, QAM).

### Practical info

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#### Location(s)

 Toulouse

### Necessary prerequisites

Electromagnetism, electronics, linear algebra, telecommunications and related hardware (basic notions).