

Antenna processing



Component

École Nationale
Supérieure
d'Électrotechnique
d'Électronique
d'Informatique
d'Hydraulique
et des
Télécommunications

In brief

- **Ametys Code:** M34HOIVT
- **Open to exchange students:** Yes

Presentation

Objectives

This course aims to present adaptive multi-sensor processing methods that enable the best possible recovery of a signal of interest from noise. The course is illustrated through the application of an antenna array and beamforming.

Description

The course includes a theoretical part presenting the main application, formalising the signal model and the different beamforming methods (conventional and adaptive). In a second stage, in groups of 2-3, learners study certain methods using a syllabus and codes provided. Each group must present a brief summary of these methods, including a critical analysis.

Pre-requisites

Applied mathematics (linear algebra, optimisation), statistics.