

# Signal Processing



Component

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



Semester

Printemps

In brief

> **Code:** N6EE02A

## Presentation

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### Objectives

- Know the different classes of signals and the properties of their representations (autocorrelation function, energy or power spectral densities).
  - Identify or design linear filtering operations.
  - Understand the effects of ideal and real sampling,
  - Know the techniques of restitution.
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### Description

Chapter 1: Correlation and spectra (Fourier transform, signal classes, properties).

Chapter 2: Linear filtering (Wiener-Lee relations, interference formula).

Chapter 3: Sampling (ideal sampling, actual sampling, restitution).

Chapter 4: Nonlinear filtering (quadrator, quantification).