Integration

Component
École Nationale Supérieure d'Électrotechnique d'Électronique

In brief

Code ELP: N5EM01A

Presentation

Objectives

The purpose of the course is to become acquainted with the Lebesgue integral and the use of the theory of integration, as it is involved in the tools for signal processing regarding integral transforms. The concept of distribution is also introduced as it is essential fo the generalization of basic operations as derivation, convolution or Fourier transform.

Description

Measure theory.
Measurable function, simple function integration.
Convergence theorems, Leibniz integral rule.
Lp spaces.
Distribution, derivation and convolution.
Fourier and Laplace transforms.

Non-contractual information.
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