

UE Image and signal processing



Level
Baccalaureate
+4



ECTS
3 credits



Component
UFR PhITEM
(physique,
ingénierie, terre,
environnement,
mécanique)



Semester
Automne

- > **Teaching language(s):** English
- > **Open to exchange students:** Yes
- > **Code d'export Apogée:** PAX7MEAF

Presentation

Description

This course gives a general overview of some of the most common techniques used in image and signal processing, with a special focus in Fluid Mechanics. It starts with a review of the basic concepts of both signals and image processing (systems, block diagrams, Fourier series, 1 and 2D Fourier Transforms, basic image manipulation, filters...). In a second stage, the course focalises in more complex statistical techniques like, for the case of signals, spectral analysis, correlation and structure functions. For the case of images, it covers the reconstruction of particle trajectories and the basics of PIV (Particle Image Velocimetry) analysis.

Course parts

UE Image and signal processing - CMTD

Lectures (CM) & Teaching Unit (UE)

24h

Period : Semester 7

Useful info



Place

› Grenoble

Campus

› Grenoble - University campus