UE Signal and image processing

Level
Baccalaureate +4

ECTS
6 credits

Component
UFR IM2AG (informatique, mathématiques et mathématiques appliquées)

Semester
Automne

- **Teaching language(s):** English
- **Teaching method:** In person
- **Teaching type:** Tutorials
- **Open to exchange students:** Yes
- **Code d'export Apogée:** GBX7AM06

Presentation

Description

Contents:

- Image definition
- Fourier transform, FFT, applications
- Image digitalisation, sampling
- Image processing: convolution, filtering. Applications
- Image decomposition, multiresolution. Application to compression

This course includes practical sessions.

Objectives

The aim of this course is to provide the basics mathematical tools and methods of image processing and applications.

Course parts

CM/TD	Lectures (CM) & Teaching Unit (UE)	33h
TP	Practical work (TP)	16,5h

Recommended prerequisites

Geometry and analysis from L3 mathematics/applied mathematics

Period : Semester 7

Évaluation initiale / Session principale - Épreuves

Libellé	Nature de l'enseignement	Type d'évaluation	Nature de l'épreuve	Durée (en minutes)	Nombre d'épreuves	Coefficient de l'épreuve	Remarques
	Teaching Unit (UE)	CC				100/100	Ecrit et/ou TP
	Teaching Unit (UE)	CT	Written - supervised work	120		100/100	

Seconde chance / Session de rattrapage - Épreuves

Libellé	Nature de l'enseignement	Type d'évaluation	Nature de l'épreuve	Durée (en minutes)	Nombre d'épreuves	Coefficient de l'épreuve	Remarques
	Teaching Unit (UE)	CC	Calculation report			100/100	
	Teaching Unit (UE)	CT	Written or Oral			100/100	

Skills

Tools for image processing (see objectives above)

Useful info

Contacts

Program director

Sylvain Meignen

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Place

Grenoble

Campus

Grenoble - University campus