

UE Computer vision



Niveau d'étude
Bac +5



ECTS
6 crédits



Crédits ECTS
Echange
6.0



Composante
UFR
Informatique,
mathématiques
et
mathématiques
appliquées
(IM2AG)



Période de
l'année
Automne (sept.
à dec./janv.)

Diplômes intégrant cet élément

- Master Informatique

- › **Langue(s) d'enseignement:** Anglais
- › **Méthodes d'enseignement:** En présence
- › **Forme d'enseignement :** Cours magistral
- › **Ouvert aux étudiants en échange:** Oui
- › **Crédits ECTS Echange:** 6.0
- › **Code d'export Apogée:** GBX9MO34
- › **Temps de travail personnel pour l'étudiant:** 36

Présentation

Description

Cameras are everywhere: phones, driving cars, hospitals, cinema, ... even cleaning robots have one! But how do you go from raw pixel values into meaningful information? Where is the face in the image? Is there a pedestrian ahead? What is the 3D shape of the tumor in this lung? How do you add a virtual character into a real 3D scene?

This course provides a travel accross the field of Computer Vision: it starts at the basic concepts of light, color and camera devices and ends with cutting edge approaches recently published in the main scientific conferences of the domain. The course combines general technological basic concepts, theoretical mathematical fundations as well as practical sessions. In addition,

as the Computer Vision field is in constant and rapid evolution, the course provides an emphasis on reading and understanding scientific papers.

Objectifs

- Acquire knowledge on the basic concepts of vision and computer vision
- Acquire knowledge on the different strategies used for different tasks
- Acquire knowledge in the study of scientific papers

Heures d'enseignement

CM	CM	36h
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Pré-requis recommandés

Basic linear algebra, probability and statistics

Période : Semestre 9

Infos pratiques

Lieu(x) ville

➤ Grenoble

Campus

➤ Grenoble - Domaine universitaire