Universidad Zaragoza

Academic Year/course: 2022/23

30263 - Computer Vision

Syllabus Information

Academic Year: 2022/23
Subject: 30263 - Computer Vision
Faculty / School: 110 - Escuela de Ingeniería y Arquitectura
Degree: 439 - Bachelor's Degree in Informatics Engineering
ECTS: 6.0
Year: 4
Semester: Second semester
Subject Type:
Module:

1. General information

2. Learning goals

3. Assessment (1st and 2nd call)

4. Methodology, learning tasks, syllabus and resources

4.1. Methodological overview

The methodology followed in this course is oriented towards the achievement of the learning objectives. It is based on the following activities:

The learning will be obtained from two types of contributions: the lecture sessions and additional explanations and examples presented by the teachers, and the competences developed from the realization of the practical sessions (labs).

In order to carry out the practical sessions (labs) in a satisfactory way, students must carry out a preliminary work consisting of the study of the contents proposed in the theoretical sessions of the course and a proposed solution to the problem considered in the practical session that will be discussed with the teacher. Once the problem considered in practice has been solved, students must deliver the code designed to solve the problem, along with a report that explains all the work done, and students will make an oral defense of the work done.

4.2. Learning tasks

The program offered to the students to help them achieve the expected results, comprises the following activities.

The activities will be organized based on the sessions of theory (lectures) and problems, the practical sessions (labs), and the activities proposed for evaluation.

4.3. Syllabus

The course will address the following topics:

1. Image formation and acquisition. Imaging representation models.
2. Fundamental methods for image processing.
3. Feature detection (points, contours...).
4. Segmentation. Mathematical morphology.
5. Optical flow.

6. 3D vision.

7. Computer vision applications.

4.4. Course planning and calendar

Calendar of synchronous sessions and presentation of work:

The course calendar will be defined by the center. The schedule of the labs (practical sessions) and of the presentations of the work assignments will be available in the "Anillo Digital Docente" (ADD), and will be presented on the first day of class.

The detailed schedule of the different activities to be carried out will be established once the University has approved the academic calendar for the corresponding course. In any case, important dates and deadlines will be announced well in advance.

4.5. Bibliography and recommended resources

http://psfunizar10.unizar.es/br13/egAsignaturas.php?codigo=30263&Identificador=15427