Course: SSI Scene Segmentation and Interpretation

Lecturers:

Dr. Xavier Lladó (llado@eia.udg.edu)
Dr. Arnau Oliver (aoliver@eia.udg.edu)
Offices located at the building P4 (basement)

Objectives:

ECTS: 6
Contact hours:
30 hours lecture courses (+Invited lecturers to be confirmed)
20 hours practical exercises
Student personal work:
104h (P1&P2 18h; Lecture given by students 16h; Readings related to lectures 10h; Readings related to seminars 6h ; PASCAL Project 54h)

Semester: 2
Lectures: Monday 10:00-12:00 in Classroom III.01, located in Building P3 of the EPS.
Labs are taught in the Computer Vision Lab (P2 Building of the EPS), Thursday (08:00-10:00).

Contents:

Lecture 1A. - Course organization (1 hour)	Xavi	06/02/2017 10:00-11:00
Lecture 1B. - Images and Image processing (1 hour)	Xavi	06/02/2017 11:00-12:00
Lecture 2. - Segmentation 1 (2 hours)	Xavi	13/02/2017 10:00-12:00
Lecture 3. - Segmentation 2 (2 hours)	Xavi	20/02/2017 10:00-12:00
Lecture 4. - Characterization 1 (2 hours)	Xavi	27/02/2017 10:00-12:00
Lecture 5. - Characterization 2 (2 hours)	Xavi	06/03/2017 10:00-12:00
Presentation of activity "class given by students" (2 hours)	Xavi & Arnau	13/03/2017 10:00-12:00
Lecture 6 and 7 – "Classification & Statistical Machine Learning"	Invited professor or Arnau	to be announced
Lecture 8. - Scene description (2 hours)	Xavi	03/04/2017 10:00-12:00
Presentation of activity "Pascal project" (1 hour)	Xavi & Arnau &	3/04/2017 10:00-11:00

Lecture activity - review (2 hours)	Xavi & Arnau	27/03/2017 10:00-12:00
Lectures 8 & 9: Characterization, segmentation and classification techniques (4 hours)	VIBOT students	24/04/2017 10:00-12:00 & 15:00-17:00

Lab sessions:

P1.- (16/02/2017 & 23/02/2017) Segmentation. Comparing region growing and K-means in gray, and color images. (4 hours). Lab assistant: Arnau

P2.- (02/03/2017 & 09/03/2017) Texture characterization. Construct texture images by using co-occurrence matrices and LBP. (4 hours). Lab assistant: Arnau

PASCAL PROJECT (03/04/2017 & 20/04/2017 & 27/04/2017 & 4/05/2017 & 11/05/2017 & 18/05/2017) Lab assistant: Arnau

Evaluation:

The evaluation is based on three different activities: 30% from P1&P2 + 40% from PASCAL PROJECT + 30% by evaluating lectures given by the students.

Evaluation Criteria:

From P1 & P2: 70% strategy and results + 30% document
From PASCAL PROJECT: 70% strategy and results + 30% document
From Lectures given by students: 50% document + 50% presentation and interaction