Universidad Carlos III de Madrid

SUBJECT: COMPUTER VISION		
MASTER DEGREE: INFORMATION HEALTH ENGINEERING TEACHER: IVÁN GONZÁLEZ DÍAZ	ECTS: 6	QUARTER: 2º

TIMETABLE FOR THE SUBJECT

WEEK	SESSION	DESCRIPTION OF EACH SESSION	GROUP (X mark)		Indicate if a different lecture room is needed (computer, audiovisual, etc.)	HOMEWORK PER WEEK		
			1	2		DESCRIPTION	ATTENDING HOURS	HOMEWORK Max. 7H/WEEK
1	1	Topic 1: Light, Shading and color Block I: image Formation Session Type: Lecture	X			Study of lecture	1.5	2.5
1	2	Topic 2: Geometric Camera Models and Camera Calibration Block I: Image Formation Session Type: Lecture	X			Study of lecture	1.5	2.5
2	3	Topic 3: Local Invariant Features (I) Block II: Early Vision Session Type: Lecture	X			Study of lecture	1.5	2.5
2	4	Topic 3: Local Invariant Features (II) Block II: Early Vision Session Type: Lecture	X			Study of lecture	1.5	2.5
3	5	Laboratory Topic 3: Local Invariant Features (I) Block II: Early Vision Session Type: Laboratory	X		Computer Room	Development of the lab session and evaluation	1.5	3.5
3	6	Laboratory Topic 3: Local Invariant Features (II) Block II: Early Vision Session Type: Laboratory	X		Computer Room	Development of the lab session and evaluation	1.5	3.5

4	7	Topic 4: Motion Estimation (I) Block II: Early Vision Session Type: Lecture	X			Study of lecture	1.5	2.5
4	8	Topic 4: Motion Estimation (II) Block II: Early Vision Session Type: Lecture	X			Study of lecture	1.5	2.5
5	9	Practice Topic 4: Motion Estimation Block II: Early Vision Session Type: Practical Lesson	X		Computer Room	Practical Lesson and evaluation	1.5	3.5
5	10	Topic 5: Stereopsis and Structure from Motion (I) Block II: Early Vision Session Type: Lecture	X			Study of lecture	1.5	2.5
6	11	Topic 5: Stereopsis and Structure from Motion (II) Block II: Early Vision Session Type: Lecture	X			Study of lecture	1.5	2.5
6	12	Practice Topic 5: Stereopsis Block II: Early Vision Session Type: Practical Lesson	X		Computer Room	Practical Lesson and evaluation	1.5	3.5
7	13	Topic 6: Object Tracking Block III: Mid-level Vision Session Type: Lecture	X			Study of lecture	1.5	2.5
7	14	Practice Topic 6:Object tracking Block III: Mid-level Vision Session Type: Practical Lesson	X		Computer Room	Practical Lesson and evaluation	1.5	3.5
8	15	Topic 7: Image Registration: rigid (I) Block III: Mid-level Vision Session Type: Lecture	X			Study of lecture	1.5	2.5

8	16	Topic 7: Image Registration: deformable (I) Block III: Mid-level Vision Session Type: Lecture	X			Study of lecture	1.5	2.5
9	17	Laboratory Topic 7: Image registration (I) Block III: Mid-level Vision Session Type: Laboratory	X		Computer Room	Development of the lab session and evaluation	1.5	3.5
9	18	Laboratory Topic 7: Image registration (II) Block III: Mid-level Vision Session Type: Laboratory	X		Computer Room	Development of the lab session and evaluation	1.5	3.5
10	19	Topic 8: Surface Estimation Block III: Mid-level Vision Session Type: Lecture	X			Study of lecture	1.5	2.5
10	20	Topic 9: Object Recognition and Image Classification with Convolutional Neural Networks (I) Block IV: High-Level Vision Session Type: Lecture	X			Study of lecture	1.5	2.5
11	21	Topic 9: Object Recognition and Image Classification with Convolutional Neural Networks (II) Block IV: High-Level Vision Session Type: Lecture	X			Study of lecture	1.5	2.5
11	22	Topic 9: Object Recognition and Image Classification with Convolutional Neural Networks (III) Block IV: High-Level Vision Session Type: Lecture-Practical Lesson	X		Computer Room	Study of lecture & Practical Lesson	1.5	3.5
12	23	Laboratory Topic 9: Image Classification with Convolutional Neural Networks (I) Block IV: High-Level Vision Session Type: Laboratory	X		Computer Room	Development of the lab session and evaluation	1.5	3.5
12	24	Laboratory Topic 9: Image Classification with Convolutional Neural Networks (I) Block IV: High-Level Vision Session Type: Laboratory	X		Computer Room	Development of the lab session and evaluation	1.5	3.5

13	25	Topic 10: Other applications of Deep Learning for images: object detection, segmentation, matching, etc. (I) Block IV: High-Level Vision Session Type: Lecture	X			Study of lecture	1.5	2.5
13	26	Topic 10: Other applications of Deep Learning for images: object detection, segmentation, matching, etc. (II) Block IV: High-Level Vision Session Type: Lecture	X			Study of lecture	1.5	2.5
14	27	Laboratory Topic 10: : Other applications of Deep Learning for images (I) Block IV: High-Level Vision Session Type: Laboratory	X		Computer Room	Development of the lab session and evaluation	1.5	3.5
14	28	Laboratory Topic 10: : Other applications of Deep Learning for images (II) Block IV: High-Level Vision Session Type: Laboratory	X		Computer Room	Development of the lab session and evaluation	1.5	3.5
TOTAL HOURS							42	82