COURSE: AUDIO AND VIDEO PROCESSING AND COMPUTER VISION			
DEGREE: DATA SCIENCE AND ENGINEERING	YEAR: 4TH	TERM: 1	

WEEKLY PLANNING							
WEEK	**SESSION**	**DESCRIPTION**	**TEACHING (mark X)**		**SPECIAL ROOM FOR SESSION (Computer class room, audio-visual class room)**	**WEEKLY PROGRAMMING FOR STUDENT**	
			LECTURES	SEMINARS		**DESCRIPTION**	**CLASS HOURS** (1,66=50+50 min)	**HOMEWORK HOURS** (Max. Estim. 6,5h)
1	1	Presentation of the Course. Overview of Applications of Speech, Audio, Image and Video Processing					1,66	6,5
	2	Digital Signal Representation. The Visual System					1,66	
2	3	An Overview of Image and Video Processing Tecnhiques (1)					1,66	6,5
	4	Lab Session: Image and video processsing techniques (1)			Computer room		1,66	
3	5	An Overview of Image and Video Processing Tecnhiques (2)					1,66	6,5
	6	Lab Session: Image and video processsing techniques (2)			Computer room		1,66	
4	7	A first approach to Image Classification					1,66	6,5
	8	Lab Session: image classification			Computer room		1,66	
5	9	Review of Neural Networks (NNs) and Deep Neural Networks (DNNs)					1,66	6,5
	10	Convolutional Neural Networks (CNNs)					1,66	
6	11	Lab Session: image classification revisited			Computer room		1,66	6,5
	12	CNNs in Computer Vision (1)					1,66	
7	13	CNNs in Computer Vision (2)					1,66	6,5
	14	Lab Session: CNNs in Computer Vision (1)			Computer room		1,66	
8	15	Lab Session: CNNs in Computer Vision (2)			Computer room		1,66	6,5
	16	Recurrent Neural Networks (RNNs)					1,66	
9	17	RNNs in Computer Vision					1,66	6,5
	18	Speech Production and the Auditory System. The Speech and Audio Signals					1,66	
10	19	An Overview of Speech and Audio Processing Tecnhiques (1)					1,66	6,5
	20	Lab Session: Speech and audio processing techniques (1)			Computer room		1,66	

WEEK	SESSION	DESCRIPTION	LECTURES	SEMINARS	SPECIAL ROOM FOR SESSION (Computer class room, audio-visual class room)	DESCRIPTION	CLASS HOURS (1,66=50+50 min)	HOMEWORK HOURS (Max. Estim. 6,5h)
	WEEKLY PLANNING							
11	21	An Overview of Speech and Audio Processing Tecnhiques (2)					1,66	6,5
	22	Lab Session: Speech and audio processing techniques (2)			Computer room		1,66	
12	23	Deep Learning-based Speech and Audio Technologies (1)					1,66	6,5
	24	Lab Session: deep Learning-based Speech and Audio Technologies (1)			Computer room		1,66	
13	25	Lab Session: deep Learning-based Speech and Audio Technologies (2)			Computer room		1,66	6,5
	26	Lab Session: Final Project (1)			Computer room		1,66	
14	27	Lab Session: Final Project (2)			Computer room		1,66	6,5
	28	Lab Session: Final Project (3)			Computer room		1,66	
	29	Additional session. Lab Session: Final Project (4)			Computer room		1,66	3,25
		Subtotal 1					48	94
		Total 1 *(Hours of class plus student homework)*					142	
15		Tutorials, handing in, etc				Presentation in class of selected final projects	3,6	-
16								
17		Assessment					4	10
18								
		Subtotal 2					8	10
		Total 2 *(Hours of class plus student homework)*					18	
		TOTAL (*Maximun 160 horas*)					160	