Universidad Carlos III de Madrid
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	SUBJECT: Advanced Management of Smart Grids		
	BACHELOR'S DEGREE IN ENERGY ENGINEERING	**Course: 4º**	**SEMESTER: 2**

Weekly planning

WEEK	SESSION	DESCRIPTION	GROUPS (mark X)		SPECIAL ROOM FOR SESSION (Computer class room, audio-visual class room)	Indicate YES/NO If the session needs 2 teachers	WEEKLY PROGRAMMING FOR STUDENT		
			LECTURES	SEMINARS			DESCRIPTION	CLASS HOURS	HOMEWORK HOURS (Max. 7h week)
1	1	Smart Grids Introduction: What are Smart grids? Why are they needed? functionalities and benefits of the smart grids	X			**NO**		1,66	
1	2	New technological developments in smart grids.		X		**NO**		1,66	2
2	3	Load demand management	X			**NO**		1,66	
2	4	Case study		x		**NO**		1,66	6
3	5	Energy storage management and integration of renewable energies.	x			**NO**		1,66	
3	6	Distributed Energy Resources		x		**NO**		1,66	6

4	7	Energy storage technologies	x			**NO**		1,66	
4	8	Case study		x		**NO**		1,66	6
5	9	CONTINUOUS EVALUATION TEST	x			**NO**		1,66	
5	10	Management of electric mobility in smart grids.		x		**NO**		1,66	7
6	11	Smart grids control architectures: centralized, distributed	x			**NO**		1,66	
6	12	Case study		x		**NO**		1,66	6
7	13	Smart grids projects (National and International), Regulation and practical examples	x			**NO**		1,66	
7	14	CONTINUOUS EVALUATION TEST		x		**NO**		1,66	6
8	15	Elements of Data Communications Networks	x			**NO**		1,66	
8	16	Data Networking Technologies		x		**NO**		1,66	6
9	17	Conventional Applications in Utility Operations: SCADA	x			**NO**		1,66	
9	18	Case Study		x		**NO**		1,66	7
10	19	Advance Metering Applications (AMI)	x			**NO**		1,66	
10	20	Distribution Automation, Generation and Storage		x		**NO**		1,66	6
11	21	Electric Vehicles (EV)	x			**NO**		1,66	
11	22	CONTINUOUS EVALUATION TEST		x		**NO**		1,66	6
12	23	Communications Network Architectures for the Smart Grid	x			**NO**		1,66	
12	24	Last Mille communications Technologies: PLC vs Mobile Access		x		**NO**		1,66	5
13	25	PLC Technologies: PRIME, Meters & More, G3-PLC	x			**NO**		1,66	
13	26	PLC Technologies: PRIME, Meters & More, G3-PLC		X		**NO**		1,66	5
14	27	**Case Study**	X			**NO**		1,66	
14	28	CONTINUOUS EVALUATION TEST		X		**NO**		1,66	5
	29								
							Subtotal 1	**48,33**	**79**

							Total 1 (Hours of class plus student homework hours between weeks 1-14)	127,33	
15		Tutorials, handing in, etc							
16									
17		Preparation for the final assessment exercise						3	26,66
18									
							Subtotal 2	**3**	**26,66**
							Total 2 (Hours of class plus student homework hours between weeks 15-18)	29	
	TOTAL *(Total 1 + Total 2. Máximo 180 horas)*							**157**	

1. New technological developments in smart grids .

3. Management of electric mobility in smart grids .