



SUBJECT: TELEOPERATION AND TELEPRESENCE IN ROBOTICS.

THIS SUBJECT IS DELIVERED IN ENGLISH

POSTGRADE: MASTER IN ROBOTICS AND AUTOMATION

TEACHER: Concepción Alicia Monje Micharet

YEAR: 1

ECTS: 3

TERM: 2

TIMETABLE OF THE SUBJECT (detailed version)

WEEK	SESSION	DESCRIPTION OF THE SESSIONS CONTENTS (Recovery classes, tutorial sessions, works delivery, etc)	GROUP (mark with X)		Room if different from the classroom (lab, audiovisual room, etc..)	STUDENT WORK DURING THE WEEK		
			1	2		DESCRIPTION	CLASS HOURS	HOMEWORK HOURS (Max. 7h week)
1	1	Teleoperation: concepts, definitions and history	X				2	4
2	2	Tecnologies: devices used in teleoperation					2	4
2	3	ABB robot programming and operation: Practical session 1	X		Robotics Laboratory UC3M		2	
3	4	Teleoperation architectures and supervised control	X				2	4
4	5	Guiding in teleoperation					2	4
4	6	Simulators and platforms: Practical session 2	X		Teleoperation laboratory in UPM		2	



5	7	Human factors in teleoperation. Haptic feedback and force-torque control. Compliance control.					2	4
6	8	Virtual reality	X				2	4
6	9	Simulators and platforms: Practical session 3	X		Medical Simulator Center UFV		2	
7	10	Applications: submarine, nuclear, and aerospace, among others. Works presentations	X				2	8
TOTAL HOURS							52h: *20h class hours (14h theory + 6h practical sessions) *32h max. homework hours	