

Appendix B:**Dual Degree Agreement between****Instituto Superior Técnico (IST) and Universitat Politècnica de Catalunya (UPC)****Duration: Academic Year 08/09 to 10/11**

Degree programme at IST:	Electrical and Computer Engineering (MEEC) Major: Telecommunications (120 ECTS)
Degree awarded:	M.Sc.
Language of instruction	English
Entrance admission criteria:	Bachelor of Science in Electrical and Computer Engineering Sciences
Degree programme at UPC:	Information and Communication Technologies (MERIT) (120 ECTS)
Degree awarded:	Master of Research in Information and Communication Technologies
Language of instruction	English
Entrance admission criteria:	Bachelor of Science in Electrical and Computer Engineering Sciences
Number of students	2

Schematic Study Plan

Option 1			
Year	Institution	Studies	Remarks
1	UPC	Compulsory and elective courses	60 ECTS
2	IST	Courses + Master Thesis (co-supervised)	30+30 ECTS
Option 2			
Year	Institution	Studies	Remarks
1	IST	Compulsory and elective courses	60 ECTS
2	UPC	Courses + Master Thesis (co-supervised)	30+30 ECTS
The schematic study plan is applicable to students originated from UPC or IST indifferently. The detailed study plan must be defined by the academic coordinators for each student.			

Contacts:

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Signatures:

Date: November 30 th , 2007	Date: November 30 th , 2007
For IST	For UPC
 Prof. Carlos Matos Ferreira President, Instituto Superior Técnico	 Prof. Javier R. Fonollosa Dean, Universitat Politècnica of Catalunya (UPC)

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FIRST YEAR STUDIES	
IST	UPC
Autumn Semester (minimum of 30 ECTS)	
Radio Wave Propagation (6 ECTS)	Between 24 and 30 ECTS among the following Core courses
Wireless Telecommunications Systems (6 ECTS)	29426, Communication Theory (6 ECTS)
Digital Transmission (6 ECTS)	29431, Information Theory (6 ECTS)
Data Coding and Compression (6 ECTS)	29401, IP Networks and Protocols (6 ECTS)
Optional Courses	29427, Signal Processing (6 ECTS)
Students must take 6 ECTS among these courses	29403, Matrix Algebra (3 ECTS)
Telecommunications Systems (6 ECTS)	29405, Stochastic Processes (3 ECTS)
Telecommunication Electronics (6 ECTS)	29400, Electromagnetics Engineering (6 ECTS)
Microwaves (6 ECTS)	Between 0 and 3 ECTS in the following Transversal Course
Integrated Services Networks (6 ECTS)	29428, Start-Up Initiation: Theory And Strategy (3 ECTS)
Entrepreneurship, Innovation and Technology Transfer (6 ECTS)	Between 0 and 3 ECTS in Concentration Courses
Spring Semester (minimum of 30 ECTS)	
Telecommunications Systems and Networks (6 ECTS)	Between 0 and 6 ECTS in the following Core course
Computer Networks (6 ECTS)	29402, Waves and Systems (6 ECTS)
Signal Processing Electronic Systems (6 ECTS)	
Mobile Communication Systems (6 ECTS)	Between 15 and 18 ECTS in Concentration Courses
Optional Courses	Between 9 and 12 ECTS among the following Transversal Courses
Students must take 6 ECTS among these courses	
Antennas (6 ECTS)	29424, Critical Thinking (3 ECTS)
High Frequency Electronics (6 ECTS)	29423, Earth and Cosmos (6 ECTS)
Audio and Video Communications (6 ECTS)	29429, MATLAB. Fundamentals And/Or Applications (3 ECTS)
Communication Theory (6 ECTS)	
Wireless Mobile Networks (6 ECTS)	
Photonics (6 ECTS)	
Engineering Management Projects (6 ECTS)	

SECOND YEAR STUDIES	
IST	UPC
Autumn Semester (minimum of 30 ECTS)	
Entrepreneurship, Innovation and Technology Transfer (6 ECTS)	24 ECTS Concentration Courses
Engineering Management Projects (6 ECTS)	6 ECTS Transversal Courses
Energy Systems for Telecommunications (6 ECTS)	
Radio Wave Propagation (6 ECTS)	
Wireless Telecommunications Systems (6 ECTS)	
Digital Transmission (6 ECTS)	
Autonomous Systems (6 ECTS)	
Telecommunication Electronics (6 ECTS)	
Radio Wave Propagation (6 ECTS)	
Telecommunications Systems (6 ECTS)	
Data Coding and Compression (6 ECTS)	
Microwaves (6 ECTS)	
Telecommunications Management and Public Policies (6 ECTS)	
Mechanisms for Quality of Service Support in the Internet (6 ECTS)	
Integrated Services Networks (6 ECTS)	
Elective course (6 ECTS) ECTS	
The courses are chosen in accordance with student's mentor	
Spring Semester (minimum of 30 ECTS)	
Thesis related activities 30 ECTS supervised by both partners	