Appendix D:

Dual Degree Agreement between

Instituto Superior Técnico (IST) and Universitat Politècnica de Catalunya (UPC)

Duration: Academic Year 09/10 to 11/12

Degree programme at IST:	**Information Systems and Computer Engineering (MEIC)** **Major: Intelligent Systems** (120 ECTS)
Degree awarded:	M.Sc.
Language of instruction	English
Entrance admission criteria:	Bachelor of Science in Information Systems and Computer Engineering Sciences
Degree programme at UPC:	**Artificial Intelligence[1] (MIA)** (120 ECTS)
Degree awarded:	Master of Science in Artificial Intelligence
Language of instruction	English
Entrance admission criteria:	Bachelor of Science in Computer Science or related field
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:

Academic responsible for the programme (MEIC): Prof. Paulo Ferreira	*Academic responsible for the programme (MIA):* Prof. Ulises Cortés
Contact person: Sílvia Santos, International Office (silvia.santos@ist.utl.pt)	*Contact person* Mercè Juan, MIA Secretary (merce@lsi.upc.edu)

Signatures:

Date: October 8th, 2009	Date: October 8th, 2009
For IST	For UPC
Prof. António Cruz Serra President, Instituto Superior Técnico	Prof. Josep Diaz Cort Head of Department, Software Department. Technical University of Catalonia (UPC)

[1] The Master of Artificial Intelligence is an Inter-Universitary programme by the Universitat de Barcelona, Universitat Politècnica de Catalunya and Universitat Rovira I Virgili

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DETAILED SYLLABUS

FIRST YEAR STUDIES	
MIA (UPC)	**MEIC (IST)**
Autumn Semester (minimum of 30 ECTS)	
Artificial Intelligence (7.2 ECTS)	Natural Language (7.5 ECTS)
Software Engineering I (6 ECTS)	Software Architectures (7.5 ECTS)
Computer Vision (6 ECTS)	Image Processing and Artificial Vision (6 ECTS)
Logic in Computer Science (6 ECTS)	Algorithms and Optimization (7.5 ECTS)
Programming Project (4.8 ECTS)	Portfolio I (1.5 ECTS)
Spring Semester (minimum of 30 ECTS)	
Software Engineering II (6 ECTS)	IT Project Management (7.5 ECTS)
Data Mining (6 ECTS)	Decision Support Systems (7.5 ECTS)
Artificial Intelligence Applications (6 ECTS)	Autonomous Agents and Multi-Agent Systems (7.5 ECTS)
Machine Learning (6 ECTS)	Portfolio II (1.5 ECTS)
And one of the following courses	**And one of the following courses**
Information Recovery (6 ECTS)	Knowledge Engineering and Management (6 ECTS)
Natural Language Processing (6 ECTS)	Natural Language Processing Systems (6 ECTS)

SECOND YEAR STUDIES	
MIA (UPC)	**MEIC (IST)**
Autumn semester (minimum of 30 ECTS)	
	Master Project in Information and Software Engineering (12 ECTS)
At least 30 credits of the following courses	**At least 18 credits of the following courses**
Multicriteria Decision Aid Systems (6 ECTS)	Multicriterion Models for Decision Support (6 ECTS)
Problem Solving and Constraint Programming (6 ECTS)	Search and Planning (7.5 ECTS)
Natural Language Processing for Human-Machine Communication (6 ECTS)	Spoken Language Processing (6 ECTS)
Computational Logics for Artificial Intelligence (6 ECTS)	Foundations of Logic and Theory of Computation (7.5 ECTS)
Advanced Techniques in Machine Learning (6 ECTS)	Machine Learning (6 ECTS)
Data Mining II (6 ECTS)	Information Recovery and Management (6 ECTS)
Artificial Intelligence Seminars (9 ECTS)	
Spring Semester	
Thesis 30 ECTS supervised by both partners	