Addendum

to the

Double Degree Agreement between

Universidad Politecnica de Madrid (UPM-ETSI Sistemas de Telecomunicación) and Politecnico di Torino (Polito)

Master of Science in ICT for Smart Societies- Polito
Master Internet of Things (Master en Internet de las Cosas)-UPM ETSIST

Duration: Academic Year 20/21 to 24/25

UPM-ETSIST	
Degree programme at UPM:	Master in Internet of Things (Master de Internet de las Cosas)
Degree awarded:	Master of Science in Internet of Things (Master en Internet de las Cosas)
Language of instruction	English
UPM students entrance admission criteria:	To have attended the I year of the Master Internet of Things and have achieved at least 48 ECTS
Incoming Students Application Period	Applications for the Autumn semester must be sent before June.
Selection Results	Selection results are sent usually within 10 days after the closure of the application period (which will be defined every year), in general before March.
Language requirements and special requirements	- Students who will attend a course entirely taught in English language must present a B2 certificate of English. - Students who exceptionally will attend a course entirely taught in Spanish language must present a B1 certificate of Spanish.
POLITO	
Degree programme at Polito:	Master of Science Degree in ICT for Smart Societies
Degree awarded:	Laurea Magistrale/ Master of Science Degree in ICT for Smart Societies
Language of instruction	English
Polito's student entrance admission criteria:	To be enrolled to the II year of the master of science in ICT for Smart Societies at POLITO and have passed at least 54 ECTS of the 62 credits expected for the I year of this MS
Incoming students Polito's language knowledge requirements for admission and graduation:	According to the academic year of first enrolment Incoming students who are going to apply to PoliTO are required to meet English and Italian language knowledge level as stated in: http://international.polito.it/admission/exchange_programmes/language_requirements/language_requirements_for_double_joint_degree

This level has to be proved through a specific and limited list of official certificates available at this link: https://didattica.polito.it/cla/en/certificates/

As an example, by the A.Y. 2020/21:

	Entry requirements	Graduation requirements
Students who will attend a course entirely taught in Italian language	B1 certificate of Italian language + B2 certificate of English language	
Students who will attend a course entirely taught in English language	B2 certificate of English language	A2 certificate of Italian language
Students who will attend a course taught partially in Italian or English language	B1 certificate of Italian language + B2 certificate of English language	

Incoming students Application Period	<u>Autumn Semester</u> Application Period could be from end of April to June
Incoming students Selection Results	Selection results are sent usually within 45 days after the closure of the application period (which will be defined every year).
Special requirements (if any)	
Number of students	Yearly 2 students from each side. The number of exchange students can be yearly modified by mutual consultation.
Credit and Grading systems	<u>Politecnico di Torino:</u> At the Politecnico di Torino and in the Italian University System in general, grades of single exams are expressed as fractions of 30. The maximum grade is 30, the lowest is 18 out of 30. Exceptionally brilliant exams are graded as 30 "con lode" (cum laude), and marked 30-L. The evaluation is based upon a credit system. One credit is equivalent to 25 hours of lectures, practical work, seminars, tutorials, fieldwork, individual study and examinations or other assessment activities (50% should be individual learning or other individual educational and training activities). For further information about the Italian Higher Education System: http://international.polito.it/en/courses/italian_university_system. The ECTS statistical distribution of grades for each degree course is

	processed and updated yearly and made available at: https://didattica.polito.it/outgoing/it/sistema_ects
	Universidad Politécnica de Madrid
	At Universidad Politécnica de Madrid and in the Spanish University System in general, grades of single exams are expressed as fractions of 10. The maximum grade is 10, the lowest is 0 out of 30. Exceptionally brilliant exams are graded as 10 "matricula de honor" (cum laude), and marked MH.
	The evaluation is based upon a credit system. One credit is equivalent to 25 hours of lectures, practical work, seminars, tutorials, fieldwork, individual study and examinations or other assessment activities (a minimum of 50% should be individual learning or other individual educational and training activities).
	The ECTS statistical distribution of grades for each degree course is processed and updated yearly and made available at: https://etsist.upm.es/

At this link you can find more information about the English and Italian certificate that we accept: https://didattica.polito.it/cla/en/certificates

Schematic Study Plan

Students will follow a studying programme consisting of 2 semesters at the home institution and 3 semesters abroad at the host institution for a total period of 18 months.

	I Year		II Year		III Year
	Master		Master		Master
	I Sem	II Sem	I Sem	II Sem	I Sem
	SEP	FEB	SEP	FEB	SEP
UPM Students	UPM 60 ECTS		POLITO 60 ECTS Courses + 18 ECTS thesis		
Polito students	POLITO 62 ECTS		UPM 48 ECTS Courses+ 12 ECTS Internship + 18 ECTS of Master Thesis		

Master Thesis must the supervised by researches in both sides. The development of the Master Thesis can be done in any of the institutions. The dissertation of the Master Thesis should be done in both universities.

Study Program - WHERE APPLICABLE

This Study programme is valid for student exchange AA 2020/21

In case of changes in the syllabus, the Partner will be promptly informed

FIRST YEAR	
IoT-UPM Students at UPM	**ICT for Smart Societies Polito Students at POLITO**
Autumn Semester (Note: UPM is organized in bimesters, courses have been artificially given to semesters)	Autumn Semester
Mandatory courses (30 ECTS):	**Mandatory courses (18 ECTS):**
Embedded Systems and Communications for IoT (4.5 ECTS)	ICT for Health (6 ECTS)
Mobile device Programming (4.5 ECTS)	Programming for IoT applications (6 ECTS)
Distributed Systems (4.5 ECTS)	Statistical Learning and Neural Networks (6 ECTS)
Sensor Networks (4.5 ECTS)	
Architecture and service platforms (4.5 ECTS)	
Cyber Physical Systems (4.5 ECTS)	**Elective courses (6 ECTS) from:**
Information Models (3 ECTS)	Automotive Infosystems (6 ECTS)
	Big Data for Internet Applications (6 ECTS)
	Programmable Electronic Systems (6 ECTS)
Spring Semester	Spring Semester
Mandatory courses (30 ECTS):	**Mandatory courses (32 ECTS):**
Security for IoT Applications (4.5 ECTS)	Management and content delivery for Smart Networks (12 ECTS)
IoT Applications (4.5 ECTS)	ICT for Geomatics: Navigation and Maps (6 ECTS)
Big Data Applications for IoT (4.5 ECTS)	Mobile and Sensor Networks (6 ECTS)
Cloud Computing for IoT (4.5 ECTS)	Operational Research: Theory and Applications (8ECTS)
Master Thesis (12 ECTS)	
	Elective courses (6 ECTS)
	Applied Information Security and Cryptography (6 ECTS)
	Innovative Wireless Platforms for the IoT (6 ECTS)
	Mobile Application Development (6 ECTS)
	Project and Laboratory on Embedded Comm. Systems (6 ECTS)

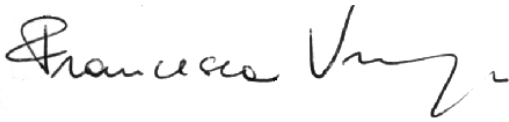| SECOND YEAR	
IoT-UPM Students at POLITO	**ICT for Smart Societies Polito Students at UPM**
<u>Autumn</u> Semester	<u>Autumn</u> Semester
Mandatory courses (22 ECTS):	**Mandatory courses (30 ECTS):**
ICT for Health (6 ECTS)	Embedded Systems and Communications for IoT (4.5 ECTS)
Statistical Learning and Neural Networks (6 ECTS)	Mobile device Programming (4.5 ECTS)
Interdisciplinary Project (10 ECTS)	Distributed Systems (4.5 ECTS)
	Sensor Networks (4.5 ECTS)
Elective courses (6 ECTS) from:	Architecture and service platforms (4.5 ECTS)
Automotive Infosystems (6 ECTS)	Cyber Physical Systems (4.5 ECTS)
Big Data for Internet Applications (6 ECTS)	Information Models (3 ECTS)
Programmable Electronic Systems (6 ECTS)	
<u>Spring</u> Semester	<u>Spring</u> Semester
Mandatory courses (26 ECTS):	**Mandatory courses (18 ECTS):**
Management and content delivery for Smart Networks (12 ECTS)	Security for IoT Applications (4.5 ECTS)
ICT for Geomatics: Navigation and Maps (6 ECTS)	IoT Applications (4.5 ECTS)
Operational Research: Theory and Applications (8 ECTS)	Big Data Applications for IoT (4.5 ECTS)
	Cloud Computing for IoT (4.5 ECTS)
	Thesis/Internship (12 ECTS)
Elective courses (6 ECTS):	
Applied Information Security and Cryptography (6 ECTS)	
Innovative Wireless Platforms for the IoT (6 ECTS)	
Project and Laboratory on Embedded Comm. Systems (6 ECTS)	
Master Thesis (18 ECTS) supervised by both partners	

Note:

1. The graduation thesis (18 ECTS) will be chosen in accordance with the student's Mentor. It will have to be written in English, under the supervision from the university of origin and one from the host university.

2. The thesis will be discussed in both universities.

3. Should changes occur on the above they will be promptly notified.

Contacts

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Signatures

Date: …	Date: 01/June/2020
For Universidad Politécnica de Madrid	For Politecnico di Torino
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Prof. Fernando Pescador Coordinator	Prof. Monica Visintin Coordinator