

# **Double Master's Degree Cooperation Agreement**

between

**Fakultät für Informatik und Elektrotechnik  
of the  
Universität Rostock, Germany**

and

**E.T.S. de Ingeniería y Sistemas de Telecomunicación  
of the  
Universidad Politécnica de Madrid  
Madrid, Spain**

regarding

**DOUBLE MASTER's DEGREE**

## ARTICLE I - INTRODUCTION

The Universidad Politécnica de Madrid (hereafter UPM) established in Madrid, Calle de Ramiro de Maeztu No. 7; 28040 Madrid, Spain, represented by Carlos Conde Lázaro, Rector of the University, and Universität Rostock (hereafter UR) located at Universitätsplatz 1, 18055 Rostock, Germany, represented by its Rector, Prof. Dr. Wolfgang Schareck, express both their intention to strengthen their institutional cooperation in the field of higher education and to develop student exchanges in keeping with the spirit of the European Union.

UPM and UR have decided to undertake student exchanges leading to a double Master's degree, one from each institution including the diplomas described below in Article II.

The following articles aim to identify the terms of implementing the agreement, the rights and responsibilities of both parties and define the conditions in which students of the two institutions can obtain the double diploma.

## ARTICLE II – DIPLOMAS

E.T.S. de Ingeniería y Sistemas de Telecomunicación (ETSIST) of the UPM is habilitated by the Spanish Ministerio de Educación, Cultura y Deporte (Ministry of Education, Culture and Sport) to deliver the diploma *Máster Universitario en Ingeniería de Sistemas y Servicios para la Sociedad de la Información (MSc. in Systems and Services Engineering for the Information Society)* after fulfilling 60 ECTS including the Master Thesis according to the programme.

UR is enabled by State Higher Education Act of Mecklenburg-Western Pomerania (Landeshochschulgesetz Mecklenburg-Vorpommern) and internal rules and regulations to award the Master's Degree diploma in *Master's program in Electrical Engineering* to the students that fulfil all the requirements specified by institutional graduate programme which comprises 90 ECTS including the Master Thesis.

## ARTICLE III – APPLICATIONS, ADMISSION AND REQUIREMENTS

Both UPM and UR will determine an exchange agreement coordinator for this double degree programme. Applications should be presented in English language at the exchange agreement coordinator of the home university in the period established for each teaching term. The home university will pre-select the candidates to participate in the programme. Applications need to be approved by the hosting university. Students will be admitted to both master programmes, according to each university's prevailing admission criteria and the corresponding regulations. Both institutions agree that only students having sufficient scientific, personal, and language skills will be selected.

Students will be admitted on a full-time basis to the double degree programme.

## ARTICLE IV – TUTORING STUDENTS

The host institution will name a member of the teaching staff to tutor each student. The teacher will act as intermediary with the home institution during the entire study period. The visiting students will have access to all the study resources available to students of both institutions.

## ARTICLE V – TEACHING LANGUAGE

UPM and UR offer their study programmes in English. Candidates must provide evidence of proficiency (B1 level) in the respective medium of tuition of the host institution.

In order to promote cultural integration, host universities will offer elective foreign language courses, Spanish at UPM and German at UR, for exchange students.

## ARTICLE VI – ADMINISTRATIVE AND ACADEMIC REGULATIONS

Throughout the study period in the host establishment, the visiting student is subject to the administrative and academic regulations of the host institution. The home institution will accept these regulations.

If a visiting student fails an examination at the host university, the following conditions hold:

- A timely re-examination shall be arranged. The date needs not to be restricted to regular examination periods.
- Re-examinations have to be performed under identical rules as the first examination regardless of the current student's location.
- If a student decides not to extend his stay at the host university for repeating the examination, individual regulations for the re-examination have to be found. Preferably, the re-examination will be repeated at the home university whereat the host institution determines the examination's content. Remote re-examination (e.g. video conference) maybe used.

An equivalent regulation holds if a student fails an examination at the home university.

Students participating in this double degree programme have to pass all mandatory modules of their home university. Equivalent modules of the host university according to Annex 3 can be chosen alternatively. In all other cases, an individual decision about the replacement of a mandatory module has to be drawn by responsible authorities.

## ARTICLE VII – TUITION AND FINANCIAL MATTERS

Students participating in an exchange programme continue to pay tuition or registration fees in their home institution. No tuition fees are paid to the host institution. Registration fees will be paid at both the home and the host institution when required by the institution regulations. At UR, international students will, like all German students, pay the registration fee (not equivalent to a tuition fee!), which includes a contribution to the student parliament and a semester ticket for public transportation in Rostock.

Visiting students are responsible for obtaining sufficient health insurance, including medical evacuation and repatriation. Furthermore students should take out a personal accident and liability insurance. The host institution may require the visiting student to present insurance papers covering individual responsibility and medical insurance.

## ARTICLE VIII: VALIDATION OF STUDIES BY THE HOST INSTITUTION

At the end of the course of study undertaken by the visiting student, the host institution will send to the home institution details of the grades obtained by the student and will indicate if the student has satisfactorily completed all of the requirements.



## **ARTICLE IX - GRADUATION AND AWARD OF DEGREE**

A student who fulfils the following conditions for the double Master degree described in this agreement will receive a diploma from each of the two institutions (see Article II).

In order to obtain the double Master degree from ETSIST/UPM and UR, students have to successfully complete three semesters (90 ECTS). Students from UPM must achieve 60 ECTS at their home institution and 30 ECTS at the host institution. Students from UR have to complete at least 30 ECTS at their home institution and 30 ECTS at the host institution. The remainder of the workload can be completed (partially) at each institution. For students from UR, modules of UPM are credited with 6 ECTS in order to match the course structure of UR. The workload to complete at the host institutions will be defined in advance to get the full recognition from the corresponding home institutions.

Due to the slightly different study periods, the following exchange schedule is recommended. Students of UR shall stay at UPM during the autumn term. They can attend their exams of the preceding summer semester at UR until end of August and study at UPM from September to January. With this schedule, they will be back at UR in February and can repeat missed or failed examinations. Students of UPM shall stay at UR during the summer semester. If they pass all exams not later than end of August, they can continue the programme at UPM in the following autumn term.

The master thesis can be supervised jointly by lecturers of both institutions.

## **ARTICLE X - CONTINUATION, WITHDRAWAL, TERMINATION OF CANDIDATURE**

Students of a master programme are required to follow the rules and regulations of both UPM and UR master candidates, including the conditions for continuation, withdrawal and termination of master studies. If a student wishes to leave the master double degree programme he/she will be free to pursue a regular degree at either university, provided that existing regulations permit it.

## **ARTICLE XI – GOVERNING LAW**

This Cooperation Agreement shall be governed by and construed in accordance with the laws of Germany and Spain.

## **ARTICLE XII - EFFECTIVE DATE AND TERMINATION**

This Cooperation Agreement will become effective upon signing and shall remain in effect for a period of five years from the date of the last signature. Both partner universities may at any time review this Cooperation Agreement and the actions taken under it. Modifications to this Cooperation Agreement may be made by mutual agreement and confirmed through an exchange of letters. The Cooperation Agreement may be extended by mutual consent by the two parties.

Both parties agree that in the event of any party wishing to terminate the Cooperation Agreement, the student enrolled under the double programme will be allowed to proceed and graduate under the programme.

The termination notice period is one year.

*For University of Rostock*

Rector of

*University of Rostock*

Name **Prof. Dr. Wolfgang Schareck**

Date *26.11.2015*

Signature

Dean

*Faculty of Computer Science and Electrical Engineering*

Name: Prof. Volker Kühn

Signature

*For Universidad Politécnica de Madrid*

Rector of the

*Universidad Politécnica de Madrid*

Name **Carlos Conde Lázaro**

Date.....

Signature

Dean

*E.T.S. de Ingeniería y Sistemas de Telecomunicación*

Name: César Sanz Álvaro

Signature

## ANNEX 1: CONDITIONS TO OBTAIN THE MASTER DEGREE DIPLOMA FROM ETSIST OF UPM

The MSc. Programme in Systems and Services Engineering for the Information Society at UPM is organized in two semesters, the first (Autumn term) starts in September while the second (Spring term) starts in February. The corresponding examination periods are in January and June, respectively. In July, re-examinations can be attended. Regular students obtain the Master degree diploma if at least 45 ECTS in courses in accordance to the established itineraries plus the Master Thesis with a workload of 15 ECTS are fulfilled.

## ANNEX 2: CONDITIONS TO OBTAIN THE MASTER DEGREE DIPLOMA FROM UR

The MSc. programme in Electrical Engineering is organized in three semesters and can be started in the winter as well as the summer term. The winter semester starts in October, the examination period covers February and March. The summer semester begins in April, the corresponding examination periods lasts from July to September. In the first two semesters, 60 credits have to be achieved in modules having a workload of 6 ECTS each. The third semester just contains the master thesis with a workload of 30 ECTS. In order to obtain the Master degree, regular students have to achieve 90 ECTS.

## ANNEX 3: Catalogue of Modules

The following catalogue defines the sets of modules visiting students can choose from. UPM and UR guarantee to accept ECTS points achieved for modules from these lists. The catalogue is split into two parts: The first part contains pairs of modules from UR and UPM with equivalent content. Only one module of a pair can be selected. The second part contains modules being offered exclusively from UR or UPM and can be selected independent of remaining choices.

### Catalogue of equivalent modules

University of Rostock	Term	Universidad Politécnica de Madrid	term
Image / Video Processing and Coding	winter	Advanced Audio/Video Coding	spring
Digital Signal Processing	winter	Audio and video signal processing	autumn
Mobile Radio Communications	winter	Digital Signal Processing for Communications	spring
Advanced VLSI Design	summer	Advanced digital architectures	autumn
Embedded Multi-Processor Systems	summer	Embedded Systems	spring

### Catalogue of individual modules from UPM

Module	Term
Advanced Virtual Instrumentation Systems	Spring
Protocols and Services Engineering*	Spring
Telematic Services for the Information Society*	Spring
Signal Recognition	Spring
Advanced Research Seminars II	Spring



Wireless communications	Autumn
Advanced Research Seminars I	Autumn
Data modeling and analysis in engineering	Autumn
Ubiquitous and secure networks and services*	Spring
ICT and the information society*	Autumn
ICT management in organizations*	Autumn
RF Design	Spring

\*intended

### Catalogue of individual modules from UR

University of Rostock	Term
Selected Topics in Audio Signal Processing	winter
Selected Topics in Embedded Systems Design	winter
Error Control Coding	winter
Project Seminar Embedded Systems	both <sup>1</sup>
Selected Topics in VLSI Design	winter
Programmable Integrated Circuits	winter + summer <sup>2</sup>
Interface-Electronics and Integrated Circuit Design	winter + summer <small>Error! Marcador no definido.</small>
Advanced Topics in Digital Communications	summer
Nature-Inspired Computing	summer
Project Seminar Radio Communication	summer
Project Seminar Virtual Acoustics	summer
Network Embedded Systems	summer
Radio Navigation and Radar	summer

### ANNEX 4: Grade Exchange Table

The following table translates the grading systems of UR and UPM for single modules.

UR	1.0	1.3	1.7	2.0	2.3	2.7	3.0	3.3	3.7	4.0	5
UPM	10/9.5	9.0	8.5	8.0	7.5	7.0	6.5	6.0	5.5	5.0	< 5

<sup>1</sup> Module lasts 1 semester and is offered in each semester.

<sup>2</sup> Module lasts 2 semesters.