

# Sapienza PhD in ICT

Doctoral program in Information and Communications Technologies at Sapienza Università di Roma, Rome, Italy

## First Year Doctoral Program Form

<b>LAST NAME</b>	<b>Mohammadi</b>
<b>NAME</b>	<b>Zeinab</b>
<b>CURRICULUM</b>	<b>Information &amp; communication engineering</b>
<b>DOCTORAL CYCLE</b>	<b>XXXI</b>

The Doctoral Program Form contains, year by year, the description of the PhD program of each Doctoral student. This form must be submitted to the PhD coordinator with roughly the following timing:

- by the end of February of the first year for first year students
- before the admission to the second year by perspective second year students
- before the admission to the third year by perspective third year students

The Doctoral Program Proposal is approved by the PhD board shortly after submission. The Doctoral Program requirements place formalized emphasis on methodology and mastery of fundamental and applied engineering systems concepts. A Doctoral Program Proposal should be constructed in agreement with the Faculty mentor, that is the supervisor or tutor, by complying to the requirements, described in the Tables below.

### ADVANCED COURSES: 12 CREDIT FORMATION UNITS (CFU)<sup>1</sup>

Only courses/schools providing a final verification test with pass/fail outcome certified by instructor can be included here.

Title	Type	Duration / period	CFU <sup>2</sup>	Motivation for selection
Distributed Optimization over complex networks	Master Degree course,	II semester	6	Need for backgrounds in the field of optimization
Networking Infrastructures	Master Degree course,	I semester	6	Basing on background a course on networking is important also for research in the field of 5G
	Other (specify)			
<b>Total CFU</b>			<b>12</b>	

### SEMINARS AND LABORATORY ACTIVITIES: 6 CFU<sup>3</sup>

Activity	Type	Duration / period	CFU <sup>4</sup>	Motivation for selection
Prospective seminars (i.e. EAT @ DIET)	seminars	First and second semester	4	Increase the knowledge of research activities in the Dept and also exploring for cooperation.
Possible seminars to be attended outside EAT @ DIET series			2	
<b>Total CFU</b>			<b>6</b>	

<sup>1</sup> Please insert lines as required/appropriate, and for each line complete each column of the Table.

<sup>2</sup> Indicate here the CFUs that can be accounted for as a result of the successful completion of the activity; for Master Degree courses, assume 1 CFU = 8 teaching hours + 12 homework/study hours, for a total of 20 hours. This rule can be slightly adjusted for other types of courses/activities (e.g., PhD courses may require slightly less hours per CFU)

<sup>3</sup> Please insert lines as required/appropriate, and for each line complete each column of the Table.

<sup>4</sup> Indicate here the CFUs that can be accounted for as a result of the successful completion of the activity; as a rule of thumb, assume 1 CFU = 20 working hours.

**ADDITIONAL INDEPENDENT FORMATION AND RESEARCH ACTIVITIES: 6 CFU<sup>5</sup>**


Indicate activities that extend and complement the mandatory activities listed above

Activity	Type	Duration / period	CFU <sup>6</sup>	Motivation for selection
Insert the title of the activity and a description of goals and expected results.	course	1 semester	6	This course can increase my knowledge in the field of clustering that is becoming an important tool in several fields including communication.
	Summer/winter school			
	Seminar			
	Laboratory			
	Tutorial			
<b>Total CFU</b>			<b>6</b>	


**RESEARCH ACTIVITY: 36 CFU**

<b>Research area</b>	wireless communications
<b>Research topic</b>	5G networks including MIMO architectures for outdoor communications and/or indoor with a special focus on visible light communications. Positioning.
<b>Framework of the proposed research topic</b>	Studies in the filed of visible light communications and positioning.
<b>Research environment</b>	Northumbria University Boston university

**FACULTY MENTOR (TUTOR OR SUPERVISOR)**

<b>Prof. Dr.</b>	Mauro Biagi
Supervisor signature for approval	

Signature of Doctoral student

  
 Zeinab Mohammadi
Date February 26<sup>th</sup> 2016<sup>5</sup> Please insert lines as required/appropriate, and for each line complete each column of the Table.<sup>6</sup> Indicate here the CFUs that can be accounted for as a result of the successful completion of the activity; as a rule of thumb, assume 1 CFU = 20 working hours.