



Sapienza PhD in ICT

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

First Year Doctoral Program Form

LAST NAME	NALAWADE
NAME	TRUPTI ANIL
CURRICULUM	Information and Communication Engineering
DOCTORAL CYCLE	XXXI

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:

- o by the end of February of the first year for first year students
- o before the admission to the second year by perspective second year students
- o 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)¹

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

Title	Type	Duration / period	CFU ²	Motivation for selection
Distributed Optimization Over Complex Networks	Master Degree Course	II Semester	6	The goal of the course is to learn basic elements of graph theory and distributed optimization and to show potential applications to communication and sensor networks. The course covers both methodological and application-oriented aspects. The methodologies include fundamental theoretical tools, such as algebraic graph theory, convex optimization and game theory.
Network Traffic Engineering	Master Degree Course	II Semester	6	To learn performance evaluation models and tools for networked elements and protocols. Applications to packet and circuit networks for analysis and dimensioning problems
Total CFU			12	

SEMINARS AND LABORATORY ACTIVITIES: 6 CFU³

Activity	Type	Duration / period	CFU ⁴	Motivation for selection
OPENDIET	Laboratory	In April	2	To participate in Lab activities.
Attend Seminars	Seminars	From Feb to May	4	To get families with different topics of research and activities
Total CFU			6	

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

² 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)

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

⁴ 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 CFU⁵

Indicate activities that extend and complement the mandatory activities listed above

Activity	Type	Duration / period	CFU ⁶	Motivation for selection
Laboratorio di applicazioni telematiche	Laboratory	Semester II	6	This laboratory helps to learn Routing and Switching. Also helps to learn ability to install, configure and troubleshoot networks
Total CFU			6	

RESEARCH ACTIVITY: 36 CFU

Research area	Networking
Research topic	Network Monitoring
Framework of the proposed research topic	The research aims to exploit new technique such as segment routing, SDN. It is possible to have more precise on network monitoring to deal with routing stability, traffic matrix estimation or device failure. So student will try to find different solution and try to understand which can be new network monitoring technique.
Research environment	The student will have opportunity to experience some practical solutions in ONOS: Segment Routing use-case.

FACULTY MENTOR (TUTOR OR SUPERVISOR)

Prof. Dr.	Antonio Cianfrani
Supervisor signature for approval	



Signature of Doctoral student

Date 26/02/2016

⁵ Please insert lines as required/appropriate, and for each line complete each column of the Table.⁶ 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.