



Graduate Program in Information Science and Technology

www.unitn-sssa.org/science

OBJECTIVE

The University of Trento and the Scuola Superiore Sant'Anna offer a two-year (132 ECTS credits) Joint Master's Program, named Graduate Program in Information Science and Technologies.

The objective of the Master's program is to educate high profile professionals and researchers in Information Technology. The ideal candidates for this course are highly motivated young students wishing to pursue a higher educational path that will lead to either industrial or academic research positions. The program aims to train students in emerging research domains with a high potential impact to shape the future of applied computer science disciplines. It prepares students for employment in such multidisciplinary domains and/or for continuing their studies within PhD programs.

The student will achieve knowledge in both theoretical and applied Computer Science and Computer Engineering, which will allow him/her to adapt quickly to the changes in this constantly evolving field, and specific competencies necessary to operate in the chosen area of specialization.

During his/her studies, the student will work within research groups of two leading European universities, and will interact with professors, researchers and scholars working in advanced research in computer science and associated enabling technologies.

The program will form researchers in four specialization areas that are emergent, rapidly evolving, and will have a growing impact on society: *Embedded Systems, Data Media and Knowledge, Systems and Networks and Software Technologies*.

A JOINT INITIATIVE

The program will start in September 2010 with duration equal to two academic years.

Roughly half of the admitted students will spend their first year at University of Trento and their second year at Scuola Superiore Sant'Anna of Pisa.

The other half of the students will spend their first year in Pisa and the second year in Trento.

At the end of the program, the student will be awarded with:

a Master of Science in Computer Science

(Laurea Magistrale in Science dell'Informazione)
issued by University of Trento

and

a Master of Engineering in Computer Engineering

(Diploma di Formazione alla Ricerca in Computer Engineering)
issued by Scuola Superiore Sant'Anna

TEACHING ORGANISATION AND ADVANCED LABORATORIES

To achieve the basic objectives of this joint initiative many teaching courses will be supported by advanced laboratories in architecture, programming and communication.

The organization of teaching courses and laboratories will allow each student to achieve the most suitable and effective working environment.

COURSE STRUCTURE

The two-year Master degree program in Information Science and Technology has a total number of credits (ECTS) equal to 136, where a credit corresponds to 8 hours of lectures/laboratory and 17 hours of personal working activity.

The program is organized around a set of fundamental courses (depending on the specialization area), plus a set of optional courses.

Fundamental courses

- Concurrency Theory and Concurrent Programming
- Signal and Systems
- Formal Methods
- Computability and Computational Complexity
- Real-Time Systems and Real-Time Operating Systems
- Object Oriented Software Design
- Embedded Systems Design
- Optimization Methods for IT
- Web Design and Distributed Systems

Optional Courses

- Security
 - Laboratory of embedded Systems
 - 3D Graphics and Virtual Reality
 - Interactions with Virtual Environments
 - Probability and Statistics in Computer Science
 - Nomadic Computation
 - Performance Evaluation
 - Automatic Control
 - Wireless Sensor Networks
 - Advanced Networking
 - Web Mining
 - Nomadic communications
 - Machine Learning
- And many others.

ADMISSION REQUIREMENTS

Basic requirements:

- Bachelor degree in Computer Science, Computer Engineering, Telecommunications or any other equivalent title in the disciplines relating to the Information and Communication Technologies
- Good knowledge of the English Language

Further requirements for EU applicants and non-EU applicants specified at:

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POSITIONS AVAILABLE

The Master program has 10 positions available, of which:

- **up to 5 positions** reserved to **EU applicants**
- **up to 5 positions** reserved to **non-EU applicants**

TUITION FEES

Depending on family income, maximum fee is 2800 euros per year.

SCHOLARSHIPS

Scholarships, lodging grants, tuition waivers and contributions are available depending on the family income and the results of the selection process.

Further information at www.unitn-sssa.org/science

CONTACTS

Graduate Program Secretariat: info-ist@sssup.it

Scuola Superiore Sant'Anna: <http://www.sssup.it>

RETIS Lab: <http://retis.sssup.it/>

University of Trento: <http://www.unitn.it>

Dept. of Information Engineering and Computer Science:
<http://www.disi.unitn.it>



**Scuola Superiore
Sant'Anna**
di Studi Universitari e di Perfezionamento



Centro di Eccellenza per
l'Ingegneria dell'Informazione,
della Comunicazione e della Percezione



**UNIVERSITÀ DEGLI STUDI
DI TRENTO**

**Dipartimento di Ingegneria
e Scienza dell'Informazione**