

**The Communication Systems Engineering Master Degree is an international Master program taught in English and offered jointly by Grenoble Institute of Technology and Politecnico di Torino.**

The primary goal of the Communication Systems Engineering Master degree is to train students for successful careers in telecommunications systems engineering.

Students who successfully complete this training are able to design and supervise communication systems: from point to point communication links to more complex heterogeneous networks.



**Grenoble Institute of Technology**

For more than 100 years, Grenoble Institute of Technology has trained engineers and doctoral students in key technologies. Through excellence in teaching and research as well as close links to industry, the scope and influence of Grenoble Institute of Technology continues to grow. The institution has recently undergone a completed reorganization, with 22 fields of engineering study, organised in 6 scientific and technological areas associated with 26 research laboratories.

[www.grenoble-inp.fr](http://www.grenoble-inp.fr)

**Politecnico di Torino**

Politecnico di Torino is Italy's oldest Technical University. It offers top-ranking educational programs in Engineering and Architecture. Students amount to 26,000, 10% are foreigners. Faculty staff amounts to 900 professors and researchers. Politecnico di Torino interacts with the local social and economic context, as well as with companies and research centers from all over the world. Six Faculties are in charge of education and 18 Departments of research.

[www.polito.it](http://www.polito.it)



## Admissions

To be admitted to the program, candidates must have previously completed their undergraduate studies and been awarded a Bachelor degree either in Science (BSc) or Engineering (BEng), preferably in the fields of electrical engineering, informatics, applied mathematics or electronics.

**Tuition and Fees**

approximately 750 euros per year

**Language requirement**

TOEFL score (or equivalent) required



**Deadline for applications  
April 15**

Notification of results in April

**Application form available on-line <http://cse.ensimag.fr>**

**Communication Systems Engineering Master**



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<http://cse.ensimag.fr>

# Grenoble Institute of Technology Politecnico di Torino

## Master Communication Systems Engineering



Photos: Fotolia / Alexis CHEZIERE / Christian MOREL / James CROWLEY / Patricia RIGAUD - FEVRIER 2009

# Master CSE Academic Program

Two highly reputed  
European Universities

## Technical skills

A successful career in Communication Systems engineering requires skills in both hardware and software. CSE students master devices, systems and techniques used in digital communication systems, including informatics, networks and signal processing. This large range of competencies provides the necessary skills to interact with top-level specialists in networks and equipments.

## Management and soft skill courses allow our graduates to:

- Work in a cross-cultural environment, master one or several foreign languages.
- Manage a project and a team, communicate efficiently.
- Build a business network.

## A variety of jobs

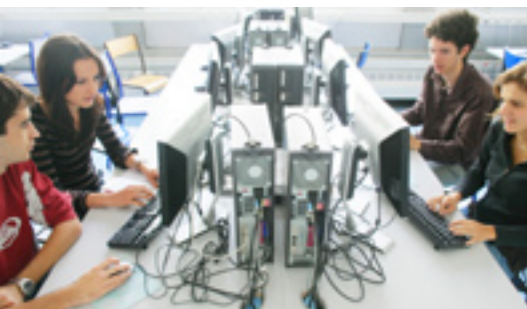
CSE provides a well balanced training program at the intersection of the three main fields of telecommunications: informatics, signal processing and electronics.

Our graduates find jobs as:

- Designer of transmission systems,
- Telecommunications network engineer,
- Supervisor for networks and information systems,
- Telecommunications network architect.

“ This master’s program is highly regarded by recruiters. The program being in two different countries is a real added-value for languages competence. ”

Céline



Zine



“ This Master’s program is really pluri-disciplinary, a well balanced education in informatics, applied mathematics and electronics. The courses are taught by recognized Faculty members who publish research papers frequently and who regularly attend international conferences. ”



## First year: Politecnico di Torino

### Semester 1

Information Theory and Codes  
Telecommunication Electronics  
Operating Systems  
Object-oriented Programming  
Radiofrequency Devices  
Entrepreneurship

### Semester 2

Microwaves  
Computer-aided Design of Wireless Communication Systems  
Microwaves Laboratory  
Statistical Signal Analysis  
Traffic Theory  
Italian or French



## Second year: Ensimag, Grenoble INP

### Semester 3

Optical Fiber Communication Systems  
Architecture of Integrated Radio Systems  
Lab Radiofrequency Project  
Wireless Networks  
Computer Networks  
Networks project  
Numerical Transmission Systems  
Project and Quality management

### Semester 4

End of studies project

## Parallel Curricula

- Master of Science University of Illinois, Chicago
- Master of Science in Signal, Image, Speech, and Telecommunications
- Master of Science in Optoelectronics and Radiofrequency (additional lectures in French)

# The Turin Area and Piedmont

## The North-Italian Industry Triangle and the Alpine Diamond

**Ideally located between France, Switzerland, Italy,** the Alps and the Mediterranean, Turin and its surrounding region, Piedmont, host 7% of the population of Italy and produce 10% of its GNP, accounting for 13,3% of Italy’s export and 27% of Italy’s high-tech export.

**Innovation** in its 300,000 companies (1600 with more than 50 employees) is boosted by its 4 Universities with more than 100,000 students and its Research Laboratories (Italian National Research Council, corporate Research Laboratories (FIAT, Telecom Italia, etc.)).

### Turin

has a population of 900,000 (metropolitan area 1,400,000). It is both rich in museums, art and culture and offers a wide variety of activities, ranging from entertainment to sports. Turin hosted the XX Winter Olympic Games in 2006. Ski resorts and the mediteranian coast are within a 1.5 hour drive.

# The Grenoble Area

## A major scientific center in the fields of physics, computer science and applied mathematics

### Excellence in Research

- 21,000 jobs including 11,000 in public research
- 90 research laboratories

### Major Research Organizations, including:

- CNRS, National Centre for Scientific Research
- INRIA, National Institute for research in Computer Science and Control
- CEA, Atomic Energy Commission
- ESRF, European Synchrotron Radiation Facility
- ILL, Institut Laue-Langevin

**A university city:** a superb campus situated 10 minutes away from downtown with convenient public transportation. On-campus accommodation, with a choice of students residence halls, and university restaurants.

**An exceptional natural setting,** in the heart of the French Alps. The city is surrounded by three mountains ranges, providing easy access to a wide range of mountain activities including skiing, hiking and hang-glider. The area’s many lakes allow the practise of water sports popular in spring and summer.

