



Sciences, Technologies, Health

# Telecommunications and Networks

International Master's program — MR14602A

The Master's program in Sciences, Technologies, Health, majoring Telecommunications and Networks of Cnam's department Electronics, Electrical Engineering and Applied Physics (EEAP) is a two-year full-time program. Created in 2014, it trains students to become managers or project leaders in international telecommunications companies or in all sectors having a specific telecommunications department.

## Skills

- ◆ Analyze and compare technical offers of telecommunication networks.
- ◆ Control and manage telecommunication, network projects.
- ◆ Be conscious of safety and economical intelligence issues.
- ◆ Develop protocols and architectures of professional networks.
- ◆ Organize network development and network exploitation.
- ◆ Organize maintenance, traffics follow-up and networks evolution preparation.
- ◆ Implement digital processing algorithms.

## Future career opportunities

Graduated students are trained to take responsibilities as managers or chiefs in bi-cultural projects at international enterprise.

The concerned enterprises might include those in telecommunications section (manufacturers, operators) or other areas having a specified department in telecommunications.

- ◆ Analyst
- ◆ Consultant
- ◆ Manager/ Chief of project
- ◆ Researcher
- ◆ Telecommunications/ Network expert
- ◆ Telecommunications/ Network engineer

## Requirement

The Master "Telecommunications and Networks" is open for students from foreign universities applying through Campus France or university partners of Cnam. Candidate must hold a four-year Bachelor's degree (or equivalent qualification) in telecommunications and networks.

## Admission procedure

CV, letter of motivation, bachelor's degree, transcripts of bachelor's degree, two recommendations letters, English certificate equivalent to B1 for Master 1 and B2 for Master 2.

**Application must be submitted online via our website: [eeap.cnam.fr](http://eeap.cnam.fr).**

[eeam.cnam.fr](http://eeam.cnam.fr)

## Contact

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## 4 excellent reasons to choose our Master's degree in Telecommunications & Networks

With a deep understanding of the economic and social needs throughout all areas where it exists, Cnam programs are designed to facilitate access to qualifications and employment.

Following Cnam's Master programs, students will:

### ◆ Get a teaching quality

Professors and associate professors are not only giving lectures but also keep doing research at laboratories to update advanced technologies. Our programs are accredited HCERES, all engineering degrees are awarded Cti and EUR-ACE labels. Le Cnam just got also the Qualiopi certification, the highest commitment to administrative management quality.

### ◆ Acquire strong anchorage with leading industrial or hi-tech companies

The EEAP department encourage our students to do their internships or research with Alstom, SNCF, GE, Thales, Renault etc. to which we collaborate and establish solid contacts with their experts to teach and organize joint conferences.

### ◆ Be part of a strong international network

China, Korea, Lebanon, Morocco, Russia, Tunisia, Vietnam are among some countries we are developing our training courses as well as exchange programs.

### ◆ Benefit from Research and practical activities

The EEAP are managing 4 well-equipped laboratories: Cedric (Telecommunications and automatics), Esycom (Electronics, Communication system and Microsystem), LCM (Metrology) and Satie (Electrical systems). A new teaching studio is under construction with drones, electrical trains, autonomous vehicles, tracking cameras, high performed PC etc. This new studio is reserved specially for courses related to future transportation, and smart city including telecommunications and networks.

## M1 Program

Code	Course	ECTS
USEEJ1	Mathematics of Random Signal	6
USEEJ2	Digital Signal Processing	4
USEEJ3	Introduction of signal processing	4
USEEJ4	Digital Communications (1)	4
USEEJ5	Digital Communications (2)	4
USEEJ6	Network Architecture	6
USMC87	Basics of scientific programming – Python/ Matlab	3
USEEJ7	Networks – Complements and Applications	6
USEEJ8	Wireless Mobile Networks	6
USEEJ9	French as foreign language	6
USEEK1	English	6
USMC84	Scientific Communication I – Disseminating	2
USEEK3	Contemporary Economic Issues I – Economic growth and public policies	3

## M2 Program

USEEN4	Network Virtualization and Automation	6
USEEN7	Network security	6
USEEK4	Antennas and diversity	3
USEEK9	Internet of things	2
USEEK5	Radiocommunications (1)	6
USEEK6	Radiocommunications (2)	4
USMC88	Basics on Artificial Intelligence and Machine Learning for sciences	3
USMC7D	English	6
USMC85	Scientific Communication II – Dialoguing	2
USMC86	Contemporary Economic issues II – Innovation and firms	2
UAEE1S	Internship at Company	20

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■ RÉPUBLIQUE FRANÇAISE

La certification qualité a été délivrée au titre des catégories d'actions suivantes :

ACTIONS DE FORMATION  
BILANS DE COMPETENCES  
ACTIONS DE VALIDATION DES ACQUIS DE L'EXPERIENCE  
ACTIONS DE FORMATION PAR APPRENTISSAGE

