

CYCLE MAJORS Renault

Electrical Engineering (NG)

For the "Grandes Ecoles de ParisTech", the cycle "Majors" offers two types of formation:

- A **graduate cursus (G)** (Master of Science)
- An **international non-graduate cursus (NG)** corresponding to 60 European credits (ECTS).

In both cases, the duration of the academic cursus in France is limited to ten months (from the 1st September of the n year to the 30th June of the n+1 year).

- For the graduate cursus, the Master of Science diploma will be delivered as a function of the former cursus of the candidate; either the equivalent of the 1st year of the Master can be accounted for and the Master of Science diploma will be delivered at the end of his cursus in ParisTech, or the candidate does not have a sufficient prerequisite and only the equivalence of the first year of the Master will be delivered at the end of the cursus in France.
- In the case of international non-graduate cursus, the programme followed by the candidate will be a function of his former cursus in the chosen scientific domain. What so ever, this cursus will give rise to 60 european credits corresponding to a whole university year. These credits ought to be recognized by the Japanese university of origin.

Keywords

Digital Communications / Optical Communications / Radiofrequency / IP/WDM / Integrated Circuits / Design / Systems

Program

Nationally accredited Masters. The program includes courses over 3 quarters and internship (1 semester) with industry or in a research laboratory.

September - December:

The courses are run in English and include core courses:

- Architectures and Methods for Digital Design
- Signal Processing for Digital Communications
- Fundamentals of Optical and Radiofrequency Systems

January -June:

The courses are run in French. The students choose one option and one area of concentration with required courses:

- Digital Communication option (3 areas of concentration)
- Optics
- Optical Communications and WDM
- All-optical networks for IP and ATM
- HighSpeed Networks and IP New Technologies
- New optical functions or Broadband Local Loops
- Projects
- Radiofrequency

- Advanced digital communications
- Radiofrequency and Microwaves
- Wireless Communications Systems
- Smart cards and applications
 - Transmission and networks
- Advanced digital communications
- Mobile Radio Networks
- Advanced Communications Systems
- Broadband Local Loops
 - Option Electronics for Communication Systems (3 areas of concentration)
 - Electronics for radiocommunication systems
- Electronics System Design for Radio communications
- Radio Frequency & Microwaves or Mobile Radio Networks
- Simulation tools for wireless networks
- Signal Processing: Labworks using Matlab
 - System on chip design
- Electronics System Design for Radio communications
- Microelectronics
- Algorithm Architecture Adequation
- Application Specific Integrated Circuits
 - Electronics for embedded computing
- Architecture, System and Compilation
- Real time: from algorithms to middleware
- Algorithm Architecture Adequation
- Robotics and embedded systems

Courses in humanities, French language, Economics & International

Objectives

Recognizing the demand that exists for well trained telecommunications professionals, Télécom Paris in Paris proposes an innovative program that allows students to obtain a Master of Science in Electrical Engineering. This program is designed to give students state-of-the-art knowledge in telecommunications core technology and problem solving experience in analyzing, designing and implementing telecommunications systems.

The program emphasizes the system aspect of telecommunications technologies to enable students to integrate developments in Digital Communications and Electronic Telecommunication Systems. It provides the opportunity for students from different backgrounds and with different career goals to pursue advanced studies in Telecommunications.

Entry requirements

Entry requirements include a four year degree in the engineering fields covered by the Master program of Télécom Paris.

Good background in mathematics, signal and image processing and telecommunications is needed.

Environment

With today's rapidly advancing technologies, telecommunications has become a multi-faceted field, demanding knowledge of numerous areas such as system networking, telecommunication protocols, transmission systems, electronic processing systems for information, economics, and regulatory policies. As a result, organizations increasingly need individuals who can readily apply current information and technologies from several disciplines in order to seek innovative solutions to the full range of telecommunication needs. This is essential to remain competitive.

Télécom Paris

Founded in 1878, Télécom Paris has developed its education and research in close cooperation with industry and has provided chief executives and pre-eminent researchers in the field of Information and Communication Technologies.

From the highest technologies to management, Télécom Paris offers "à la carte" education allowing a personalised academic program and reflecting needs and preferences for professional goals.

Relations with enterprise is at the heart of the Télécom Paris Educational programs.

Professional persons provide teaching and research input throughout the year. Télécom Paris also benefits from an extensive network of over 10 000 past students spread throughout the world and in all sectors of the economy.

Location

In addition to the opportunity to study at one of France's leading graduate engineering schools, the Grandes Écoles, Paris itself has much to offer.

Télécom Paris is located in the heart of Paris, home to headquarters of major companies near a very picturesque area called the "Butte aux Cailles".

Web site

<http://www.enst.fr>

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