Innovating in a digital world

Télécom Paris

The leading French graduate engineering school in Information and Communication Technologies (ICT)

Master of Science in Engineering – Master of Science – PhD – Advanced Master
 Télécom Paris: The French leading graduate school in Digital

- Founded in 1878 - The word Telecommunications invented here (1904)

- Is the 1st innovative graduate engineering school in ICT under the aegis of the minister for Industry – a public school

- Telecom Paris deals with all sciences & technologies for ICT: Applied Maths, Computer Science, Networks, Communications, Electronics, Signal, data and Image Processing, as well as the study of the economic and social aspects associated with modern technology

- Provides Engineering training at the highest standards: Master of Sc. In Engineering – Master of Science – Post-master degrees – PhD

- Research and teaching at the highest international level in ICT, Closely connected to industry & economy: Research contracts with industry

- Highly international: 48% international students, 160 partner universities abroad

- High faculty Ratio : 1/10 (>160 full-time professors / 1,600 students)

- Holds the 1st ICT Incubator in France: Highly Innovative: >430 sustainable companies & 3,000 jobs created in 20 years – 3 start-up per month – 20 patents/year – Research of International excellence (A+)

- Situated in Paris-Saclay campus, next to Paris, France with an English speaking campus in Nice in the 1st European Technopole; it also shares a campus in China (Shanghai)

- a distinctive ambition: Innovating in a Digital World!

  Aim to educate leaders and entrepreneurs in all fields of digital science and technology, in France and beyond.

ICT: Information and Communication Technologies
Engineers are recruited by companies of all sizes and sectors.

97% of 2019 graduates are employed within 3 months of graduation.

Our graduates have high-paid starting salaries and excellent growth potential.

51 400€
Average annual gross salary

First 2019 Job Survey
3 major profiles of engineers

Thanks to Excellence in Scientific Teaching:

**INVENTORS**

- Serge ABITEBOUL (77)  
  Sciences ‘Académicien’

- Vincent DUREAU (84)  
  TV technology for Google

- Luc JULIA (95)  
  SIRI technology for Apple

Thanks to an Innovative, Interactive and Project-based Pedagogy:

**ENTREPRENEURS**

- Céline LAZORTHES (08)  
  Leetchi Founder

- Oscar SALAZAR (06)  
  UBER co-founder

- Jean-Luc VAILLANT (90)  
  LinkedIn co-founder

Thanks to Economics & Digital Social Sciences Teaching:

**TRANSFORMERS**

- Jean-Christophe LALANNE (83)  
  CIO, Air France-KLM

- Yves TYRODE (91)  
  Digital Officer, BPCE

- Elodie PERTHUISOT-ZIEGLER (01)  
  Executive Director E-commerce & marketing, Carrefour
A founding member of Institut Polytechnique de Paris

- **7,500 students in 2019**
  - 95% of students find a job in less than 4 months after graduation
  - 900 PhD students
  - 230 post-doctoral students
- **950 permanent research professors**
- **30 laboratories**
- **2 interdisciplinary centers**
  - E4C - Center of Energy for Climate
  - Hi Paris! - Center of Artificial Intelligence & Data Analysis

www.ip-paris.fr
An international campus near Paris

- Atmospheric observatory
- Airports Highways
- New research institutes
- Total R&D center
- Mechanical engineering Institute
- EDF Lab
- Danone Research Institute
- Thales Research
- Conveniences stores
- Housing
- Student housing
- Regional Express Railway
- Sport & nature
- Area under development
- Pedestrians (towards Palaiseau, Camille Claudel district, ONERA)
- 1.5 km
A new building on the Paris-Saclay campus from November 2019

Architects:
Yvonne Farrell
Shelley McNamara
Pritzker Architecture Price 2020
Paris-Saclay
A strategic area of Greater Paris

GRAND PARIS
40%  
DE LA RECHERCHE FRANÇAISE

PARIS-SACLAY
15%  
DE LA RECHERCHE FRANÇAISE

PARIS-CENTRE
20%  
DE LA RECHERCHE FRANÇAISE
Rankings

- **International**
  - 188th in THE world university ranking (2020)
  - 224th in QS world university ranking (2020)
    - 101-150th in QS Computer Sc. & Information Systems ranking
    - 201-250th in QS Electrical & Electronic Eng. ranking Digital
  - 2nd (France) & 112th (world) for graduate employment rate – QS 2020
  - 6th THE World’s Best Small Universities 2020
  - In Paris, the 5th best student city (QS ranking – 2020)

- **National**
  - 1st academic public incubator in ICT in France
  - At the top of the national rankings of engineering schools:
    - 2nd French engineering school (L’Etudiant 2021)
    - 1st in international openness (L’Etudiant 2021)
    - 1st in proximity with companies (L’Etudiant 2021)
    - 1st for start-up creation (Industrie & technologies)
Our strong partnerships with industry

- Governance
  - Representatives from industry in boards, working groups, etc.

- Teaching
  - > 500 part-time lecturers from companies
  - Internships and study projects in companies

- Research
  - 20 Teaching and research chairs or Joint Laboratories
  - Member of Competitive Clusters
  - Joint projects

- Entrepreneurship

- Continuing education
How to integrate Télécom Paris Education programme?

After 2 or 3 years in “Classes préparatoires” or 3 years in French University

After 4 years in University

Year 1

Competitive examination and qualification

Year 2

Year 3

Ingénieur

After 2 or 3 years in “Classes préparatoires” or 3 years in French University

Year 1

Competitive examination and qualification

Year 2

Year 3

Master

Entrance on qualification

Year 1

Year 2

Bachelor level

Year 1

Year 2

Master level

Year 1

Year 2

Year 3

Doctorate

PhD Level

Doctorate

> 1,600 students

74 in Masters

211 in Doctorate

506 in Advanced Master

79 Others

816 in Master of Sc. in Engineering "Diplôme d'Ingénieur"

> 1,600 students

 "Baccalauréat” level (French Universities entrance exam)
Education strategy towards the “engineer innovator”

- Active learning all along the cursus learning by project, joint teams engineers/marketing/designers…

- Regular encounters with industry and their young graduates: 100 encounters/year, speed-dating, forums, challenges, …

- Incubator: catalyst for innovation
1st year at Telecom Paris
A pluridisciplinary common core

2 big transversal projects
To develop creativity and autonomy

Openness
2 à 3 languages
Human formation
MOOC

1 to 2 months internship
In France or abroad

The basics of engineering sciences

- Mathematics
- Physics / Electronics
- Informatics / Algorithmics
- Economy / Management / Sociology
- Languages
- Projects

180h
150h
160h
132h
151h
114h
In 2nd and 3rd years, a tailor-made training

Choice of a curriculum in English, or French, or both

Choice of 2 tracks among 14

Social sciences & human formation

Innovation and research projects

2 or 3 languages

6-month engineer internship - at least 3 months abroad

Options, dual expertise, dual degrees in France or abroad

All the professors are researchers.
Their research labs are classified of international excellence (A+)

in modeling, artificial intelligence, big data, multimedia, smart objects, very large networks and systems, digital trust and security, digital innovation, innovation strategies…
GREAT PROJECTS ALL ALONG THE COURSE

A VARIETY OF PROJECTS ALL ALONG THE COURSE

TOPIC OF YOUR CHOICE IN CONNECTION WITH COMPANIES FOCUSED ON INNOVATION

THE OPTION ENTREPRENEURSHIP

INNOVATION PLACES

FABLAB, E-LAB, DESIGN STUDIO, INCUBATORS, …

TO IMAGINE, CREATE, DARE, MISTAKE, TEST… BREAKING WITH PREVIOUS STUDIES!
THE TÉLÉCOM PARIS CURRICULUM INCLUDES BRIDGES WITH THE BEST

Masters, other specializations, research

Dual degrees

Dual expertises

In several ecosystems
Which graduation at Telecom ParisTech?

Diplôme d’ingénieur

14 tracks:
- 3D & Interactive systems
- Image
- Applied Algebra: Cryptography, Quantum information, Coding theory
- Mathematics, Theoretical Computer Science and Operation Research
- Stochastic processes and scientific computing
- Data science
- Signal processing for Artificial Intelligence
- Large Digital Infrastructure
- Wireless networks and IoT
- Infrastructures and Networks Security
- Distributed software systems
- Telecommunications: data to systems
- Embedded systems
- Markets, Organizations, Data, Strategies

Paris

M1
M2

E1
E2
E3

D1
D2
D3

Doctorat

Sophia Antipolis

4 tracks (*)
- Data science and engineering
- Smart objects
- Communication systems
- Communication system security

* Only for students from Polito or TUM in double degree

And also:
foreign languages and cultures
the personal skills and human relations
Research oriented programmes
Master, PhD, PhD-tracks

- **Masters of IP Paris**
  - *a new offer from Fall 2020*
  - Information and communication engineering
  - Computer Science
  - Applied maths. and statistics
  - Innovation, enterprises and society
  - And also:
    - Transport, Mobility, networks
    - Design
    - Sociology

- **PhD**
  - 3 years
    - cross-disciplinary scientific courses, professional training, etc.
  - 4 specializations
    - Electronics and Communications
    - Computing and Networks
    - Signal and Image Processing
    - Information System Economics
  - 70 theses awarded each year
  - Strong links with industry
  - Doctorate School from IP Paris

- **Other Masters with**
  - Université Paris-Saclay
  - Université Pierre et Marie Curie - Paris 6
  - Université Panthéon Sorbonne - Paris 1
  - Université Paris Descartes - Paris 5
  - Université Paris Diderot - Paris 7

- **PhD-track**
  - Combination of a tailor-made master and a PhD
Laboratoire Traitement et Communication de l’Information (LTCI)

- A broad coverage of the field of information and communication science and technology
  - Computer science & engineering, networks, data, signal and image processing, digital communications, electronics, complex systems, applied mathematics

- 300 people
  - 130 academic staff
  - 25 engineers and administrative staff
  - More than 150 PhD students or post-doctorates

- 14 research teams

- 650 publications per year in international journals or conference
Institut Interdisciplinaire de l’Innovation (i3)

- Telecom Paris with Mines ParisTech and Ecole polytechnique
- A CNRS joint research unit (UMR9217)
- Major challenges addressed:
  - the circulation of information, health, innovation, energy and sustainable development technologies
  - 4 main topics
    - Transformations of innovative firms
    - Theory and models for design
    - Regulation of innovation
    - Uses, participation, democratisation of innovation
- 200 people
  - 75 academic staff
  - 23 engineers or administrative staff
  - More than 110 PhD students
Reference Center in Europe for Pluridisciplinary Research in the Digital Field

5 Strategic Axes

Data Science and Artificial Intelligence
Very Large Networks & Systems
Digital Trust : Safety, Reliability & Risks
Design-Interaction-Perception
Mathematical Modeling

Institute of Interdisciplinary Innovation

Social & Economical Sciences
I3 (with Polytechnique et Mines ParisTech)
Details on the Double Degree Programme:

**Duration of the DD "Diplôme d'ingénieur de Télécom Paris"**: 24 months (120 ECTS credits)

**TUM students**:  
- may enter our second year (M1) of "diplôme d'ingénieur" and choose "2 filières" out of 14  
- and may opt to do one of the selective Master of Science programs (M2) proposed elsewhere within the Institut Polytechnique de Paris or in other Parisian universities which we have a double degree with, and of course, an internship/master thesis. Doing so, students will get the "Diplôme d'ingénieur" from Telecom Paris **AND** the M2 degree from Institut Polytechnique de Paris. (2 in 1!)

- **Contact**: incoming@telecom-paris.fr

**TUM students willing to enter directly in the M2 from IP Paris**

- **Contact**: master-admission@ip-paris.fr
- **More info on**: www.ip-paris.fr/
How to apply?

- Consult: [https://www.telecom-paris.fr](https://www.telecom-paris.fr)
- And write to: [incoming@telecom-paris.fr](mailto:incoming@telecom-paris.fr)

**Application file:**

- Engineering degree application form
- Learning agreement (for Erasmus students)
- Motivation letter
- Curriculum vitae
- Official transcript from at least the last 3 years
- A passport or identity card copy
- At least 2 recommendation letters
- Copies of French language and/or English language
More information?

- **Websites**
  - [www.telecom-paris.fr/](http://www.telecom-paris.fr/)
  - Facebook, twitter, youtube
  - Newsletters

- **Contact us**
  - Information: [international@telecom-paris.fr](mailto:international@telecom-paris.fr)
  - Enrolments: [incoming@telecom-paris.fr](mailto:incoming@telecom-paris.fr)
  - PhD: [phd@telecom-paris.fr](mailto:phd@telecom-paris.fr)
  - Post-master’s degree: [masteres@telecom-paris.fr](mailto:masteres@telecom-paris.fr)
  - Research: [research@telecom-paris.fr](mailto:research@telecom-paris.fr)