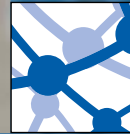


- Fast-growing digital sector
- Relevant skills for industry
 - International mobility
 - Research perspectives



École d'ingénieurs

Télécom Physique Strasbourg

Computer Science and Networks Engineering degree

PURPOSES / SKILLS

The Computer Science and Networks Engineering degree offered at *Télécom Physique Strasbourg* aims at training creative R&D Engineers whose mission is to meet the considerable challenges of a connected world, together with big data and artificial intelligence.

The Network and Internet of Things course covers a large panoply of disciplines such as networks, digital infrastructures, telecommunications, computer science, electronics, Internet of Things, security.

The Data Science and Artificial Intelligence course covers subjects in relation with data warehousing; knowledge modeling and management; data processing, security, learning and mining; artificial vision; automatic information retrieval

CAREER PROSPECTS

- First employment average gross salary: 36 k€ annually*
- Average job search time after graduation: less than 2 months for 86% of graduates

* 2018 year group as of February 2019
(Conférence des Grandes Ecoles "Young Graduates" survey in 2019)

Department of Computer Science and Networks

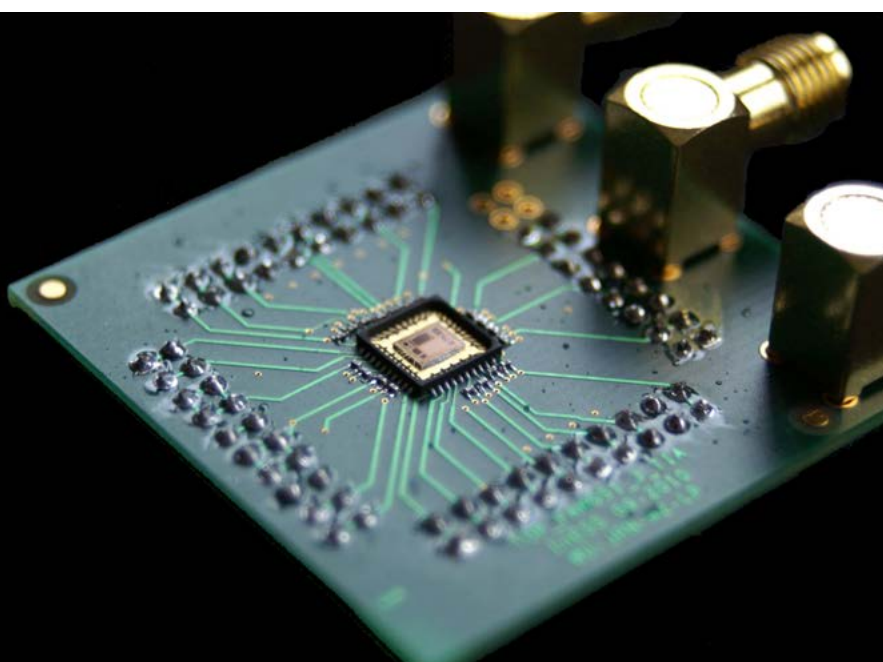
JOBS

Engineer :

- Internet of Things and Systems
- Network Infrastructures
- Big Data Science/Analysis
- Consulting Services
- Artificial Intelligence
- Research and Development
- Commercial
- Communication Infrastructures and Architecture

INDUSTRIES

- **Industry, Transport, Energy, Telecommunications:** decision prediction and aid, smart grids development, smart factory, operating networks
- **Finance and Insurance:** risk limitation and fight against fraud, data protection, aid to analysis and handling of complex situations
- **Healthcare:** development of a preventive, predictable, personalized and participative medicine; Internet of Things for e-healthcare
- **People care:** assistance through the development of concepts for smart cities, smart vehicles, etc.



ADMISSIONS

First year pre-requisites

- A successful highly competitive national exam *Concours Mines-Télécom*
- Based on application, French or foreign diploma and successful interview, for applicants holding a technology degree / a scientific preparatory diploma / having completed second and third years of either a Science, Computer Science or Networks and Telecommunications Bachelor's degree / holding a degree equivalent to 120 European Credit Transfer System

Second year pre-requisites

- Based on application, French or foreign diploma and successful interview, for applicants holding a Bachelor's degree (or completed a first-year Master's course) in Computer Science / Networks and Telecommunications / or a degree equivalent to 240 European Credit Transfer System

COURSES

	Core curriculum	
1 st year	↗ Mathematics for Computer Science ↗ Computer Science ↗ Programming ↗ Architecture ↗ Systems ↗ Networks ↗ Signal Processing ↗ Digital tools ↗ Basics of Electronics ↗ Microcontroller ↗ Optimization ↗ Matrix Analysis ↗ Projects ↗ Human Sciences ↗ 4-weeks internship (job shadowing)	
	Networks and Internet of Things	Data Science and Artificial Intelligence
2 nd year	↗ Compilation ↗ Engineering projects ↗ Human Sciences ↗ 12-weeks practical internship	
	↗ Networks and Systems ↗ Network Computing ↗ Services and usage of global Internet ↗ Cybersecurity ↗ Cloud ↗ Network Robotics ↗ Signal Processing	↗ Artificial Intelligence ↗ Metadata ↗ Warehousing ↗ Models and Statistics ↗ Advanced Algorithmics ↗ Learning and Mining ↗ Knowledge Extraction ↗ Complex Systems
3 rd year	↗ Engineering projects Economic Intelligence ↗ Entrepreneurship ↗ Quality ↗ Intellectual Property ↗ Languages ↗ 5-6 months of internship (final year project)	
	↗ Internet of Things ↗ Programmable Networks ↗ Administration ↗ Radio Networks ↗ Advanced Information Systems Security	↗ Artificial Intelligence and Applied Data Science ↗ Bioinformatics ↗ Distributed Processing ↗ Data Protection
Dual Master's degree	↗ Networks, Internet and Systems Science and Engineering	↗ Data and Complex Systems Sciences

PARTNERS

- **Industry:** Alcatel-Lucent Enterprise, Altran Research, Bürkert, Digora, Electricité de Strasbourg, IBM, Orange, Siemens, Socomec
- **Academic:** University of Strasbourg, Mathematics and Computer Science Faculty, Robert Schuman Technology University, CNRS (National Center for Scientific Research), ICube research institute
- Degree designed with the support of the *Institut Mines-Télécom* group

MOBILITY

- Minimum of 12 weeks in a foreign country and 2 mandatory foreign languages (B2 level required in English)

FURTHER STUDIES

- PhD, Masters in Economics and Management (the related MBA course is offered by the Business School of Strasbourg), MBA, etc.

ADDITIONAL INFORMATION

- Innovative project labs
- Future Internet of Things (FIT) excellence platform

Contacts

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