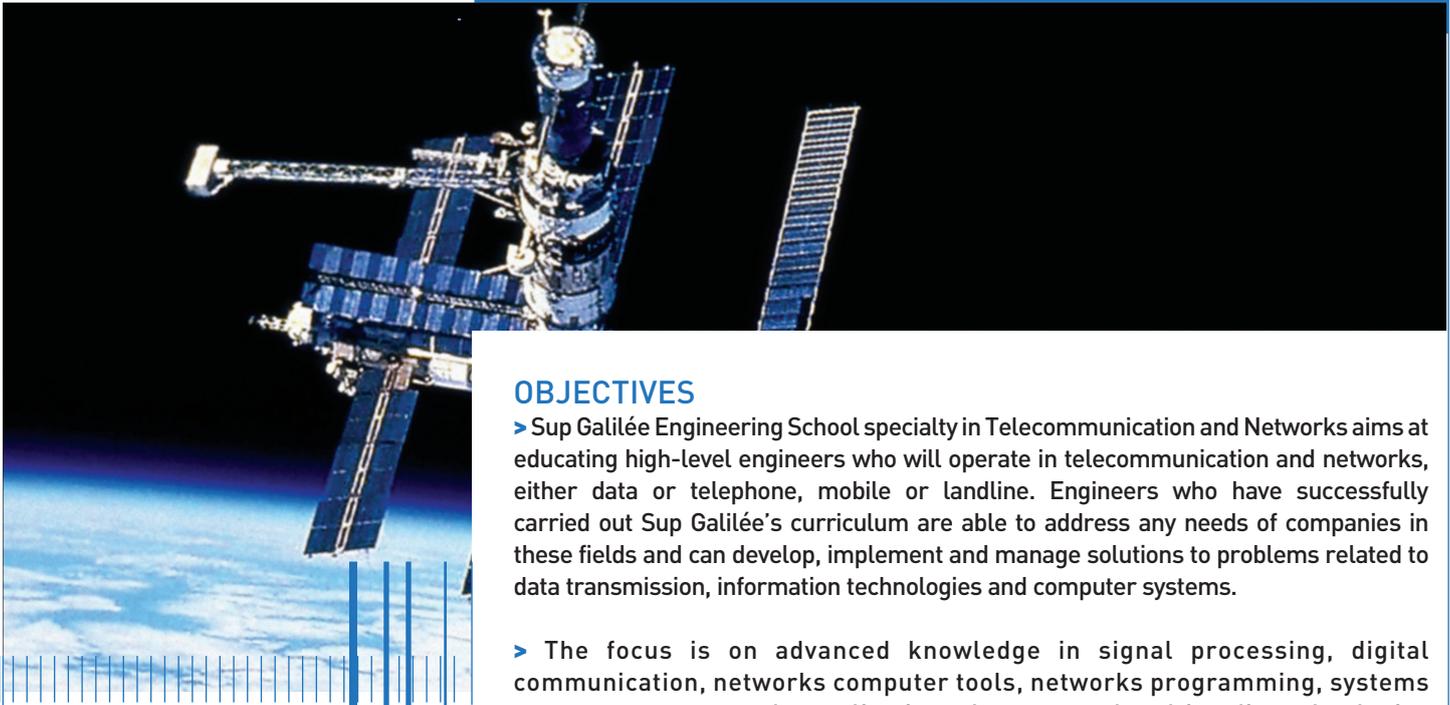


Sciences, Technology and Health

Ingénieur diplômé (Engineering Master Degree)

Major in Telecommunication and Networks



OBJECTIVES

> Sup Galilée Engineering School specialty in Telecommunication and Networks aims at educating high-level engineers who will operate in telecommunication and networks, either data or telephone, mobile or landline. Engineers who have successfully carried out Sup Galilée’s curriculum are able to address any needs of companies in these fields and can develop, implement and manage solutions to problems related to data transmission, information technologies and computer systems.

> The focus is on advanced knowledge in signal processing, digital communication, networks computer tools, networks programming, systems management, networks applications, Internet and multimedia technologies and radio communication.

CAREER PROSPECTS

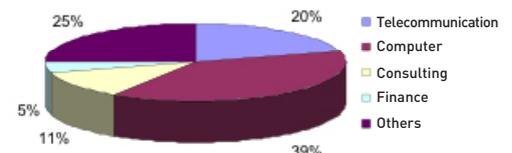
> Engineers trained in Telecommunication and Networks operate in all sectors concerned by data transport: data transmission networks, radio communication, design and management of Internet / Intranet systems, multimedia...

- Organization, administration and monitoring of networks and information systems
- Mobile phone and information systems project development
- Design and management of Web services and multimedia applications

WHY CHOOSE SUP GALILEE?

> We train high-level “ingénieurs”, who are recognized for their efficiency and their autonomy and who have excellent career prospects.

Different activities



ADMISSION REQUIREMENTS

Admission in first year is subject to a selection based on qualifications and interviews. The process is opened to:

- > Undergraduate (bachelor or equivalent to French DUT, (two years after secondary school) in electronics or physics, telecommunication, Physical Measurement Technologies, etc. Approval to continue studies (French “avis favorable à la poursuite d’étude”) is required.
- > Students in Science, through the Polytech (previously Archimède) competitive entrance examination process.

> Students who have successfully completed an accredited Engineering school integration program.

Admission in second year is subject to a selection based on qualifications and interviews. It is opened to graduates in electronics or engineering sciences.

In case you are not sure your situation meets these requirements, please contact the School office for further information (phone and e-mail below).

POLYTECH COMPETITIVE ENTRANCE EXAMINATION

> Application should be filed before mid-January: www.scei-concours.fr
www.demain-ingenieur.fr

APPLICATION

> Application forms and procedures are available on: www.sup-galilee.univ-paris13.fr (beginning of March).

Program Organization

1 FIRST YEAR

AN EDUCATION FOCUSED ON THEORY AND PRACTICE

The first courses of this year have a double scope: develop a broad knowledge base and approach professional dimensions of engineering. Lectures focus on mathematics, probability and statistics, computer science (C programming language and numerical methods) and signal processing. To consolidate these courses, an in depth teaching is provided in propagation and radiation, digital and analogical electronics, while acquisition of computer tools are developed through courses in microcontrollers and computer architecture; Students also receive a general education in English, Economics and presentation skills. An industrial survey undertaken under the supervision of an engineer will allow the student to get familiar to his future career.

The year ends on an internship in a company (one month).



2 SECOND YEAR

TOWARDS SPECIALIZATION

Courses are focused on in-depth knowledge in telecommunication and networks: digital communication, optical telecommunication, radio networks, satellite connection, data transfer networks and information theory. Theoretical and practical dimensions of signal processing are also taught. Computer tools are developed: they include object oriented programming (C++, Java) and data base and web techniques.

Other courses complete the education on systems and networks: multitasking system programming, communication networks and TCP/IP, error corrector codes.

Professionals will provide general education focused on management and entrepreneurship, business start-ups, industrial property rights and project methodologies.

Students are strongly recommended to undertake, at the end of their second year, a two-months internship in a company specialized in telecommunication or computing.

> INTERNATIONAL

Engineer students are encouraged to carry out their third year abroad, through different organizations and academic exchange schemes such as Erasmus, Socrates, Micefa, or to achieve their end-of-studies internship abroad.

3 THIRD YEAR

CONSOLIDATING KNOWLEDGE

During the first term, high level courses aim at completing and deepening the knowledge base: digital image processing, signal processing, computer systems and network management, Unix system programming, Net architecture and programming, cryptography, object modeling with UML.

During the second term, the engineer-students choose between two professional options:

- Networks and distributed applications (Web services programming, XML, network services and routing)
- Radio communication and mobility (communication with mobiles, cellular networks, network configuration and sizing, third generation systems, wireless systems, satellites, UMTS, etc.

A third option is offered towards research in multimedia networks and systems, in partnership with SIM specialty Master Image and Network of Sup Galilée, with the possibility of earning a double-degree. General education is focused on English, presentation and interview skills. An end-of-studies project is also completed during this period, in partnership with industrial companies.

> INTERNSHIP

- First Year: 4 weeks of internship
 - Second Year: 8 weeks
 - Third Year: 4 to 6 months.
- Third Year: exploration, monitoring or prototyping, for an industrial client

Director of Institut Galilée Frédéric Roupin • Associate Director, responsible for Education Nadjib Achir

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