

ENSSAT

LANNION



TELECOMS AND EMERGING TECHNOLOGIES

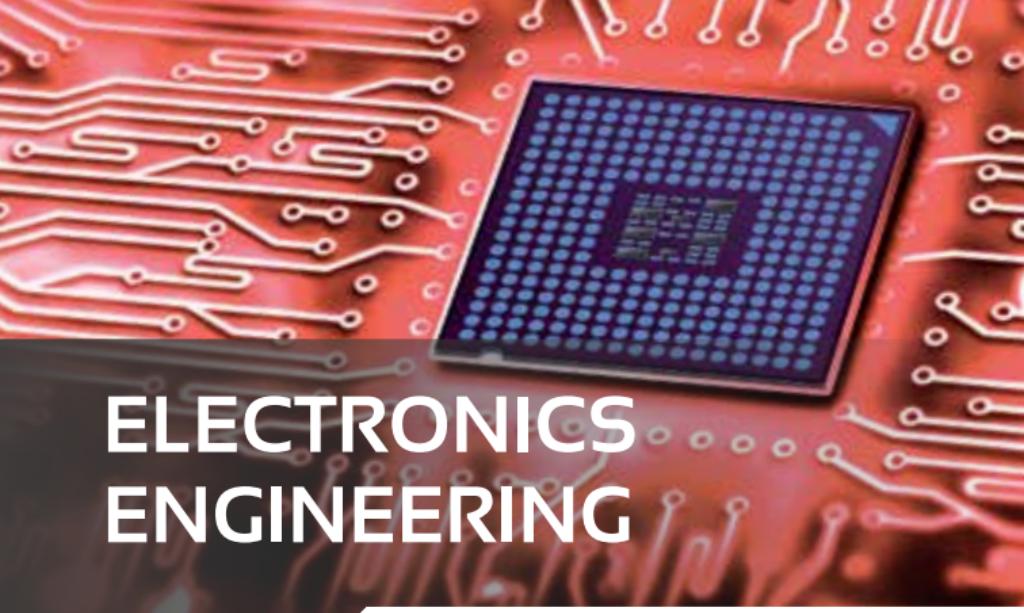
WHY STUDY
AT ENSSAT?

FRENCH GRADUATE
ENGINEERING SCHOOL
SPECIALIZING IN APPLIED
SCIENCE AND TECHNOLOGY

- Master in Engineering
- Master of Science
- PhD



www.enssat.fr



ELECTRONICS ENGINEERING

**"Ingénieur" with a wide range of skills
in electronics, embedded systems, digital
communications and multimedia.**

» **Digital Signal Processing**

- Digital Audio & Image Processing
- Source & Channel Coding
- Digital Communications
- Adaptive Filter Theory

» **Software Engineering**

- Programming
- Data Structures
- Distributed Systems

» **Electronic Devices & Circuits**

- Processor Architecture & Interface
- Low-Power Electronics
- VLSI Integrated Circuits Design
- System-on-Chip

» **Digital Systems**

- Mobile Communication Systems
- Wireless Networks
- Multimedia Communications

FIELDS

- » Design and development of digital electronic systems for multimedia transmission
- » Telecommunications
- » Aeronautics and automotive systems
- » Research

All Enssat students are required to attend huma

COMPUTER SCIENCE

"Ingénieur" specialized in human-machine interaction, information management and cloud computing.

» **Software**

- Fundamental programming concepts
- Data structures
- Software engineering
- Embedded software (android development)

» **Information Processing**

- Databases
- Information systems
- Artificial intelligence
- Human-machine interaction

» **Hardware/Software Interface**

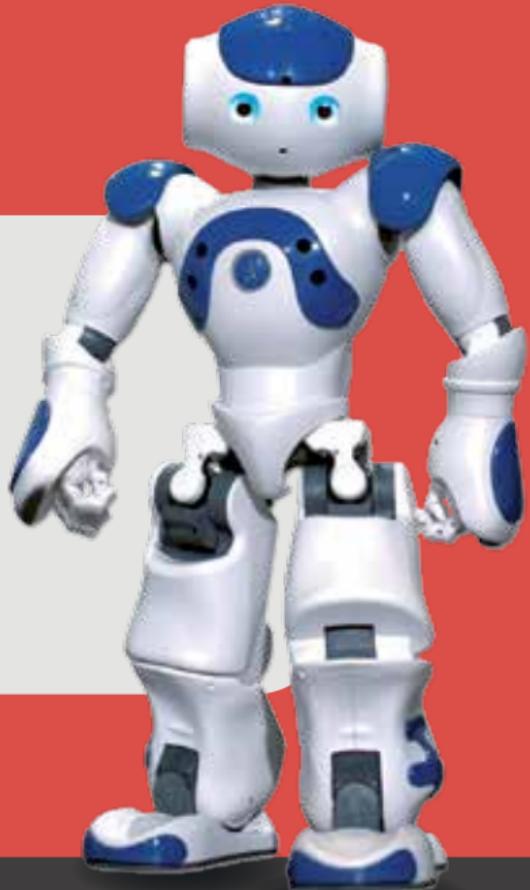
- Digital electronics
- Architectures
- Systems
- Real-time

» **Networks & Communication**

- Networks
- Distributed systems
- Multimedia streaming
- Security

FIELDS

- » Defining, modelling and developing complex systems
- » Distributed environments
- » Implementing internet of things
- » Research





PHOTONICS

"Ingénieur" able to design, develop and integrate photonics and optoelectronics systems.

► Optics

- Properties of light
- Propagation
- Interferences
- Optical components
- Fibers
- Modulation

► Physics

- Light sources
- Lasers
- Detection
- Sensors
- Amplification
- Noise

► Electronics

- Analog electronics
- Digital systems
- Interfacing
- Signal processing
- Electronic feedback control systems

► Photonics Systems

- Telecommunications and networks
- Instrumentation and metrology
- Industrial applications
- Biophotonics

FIELDS

- Telecommunications
- Industrial manufacturing
- Life sciences and health
- Lightening and displays

- Environment and energy
- Aeronautics
- Security, defence
- Research

RESEARCH LABS

④ CAIRN (Inria/CNRS-Irisa)

Energy Efficient Computing Architectures:

- heterogeneous multicore architectures,
- high-level synthesis and optimizing compilers,
- hardware accelerators, security, fault tolerance.

④ GRANIT (CNRS-Irisa)

Energy efficient communication systems

- Adaptive algorithms and architectures;
- IoT, Software Defined Radio, energy harvesting.

④ SHAMAN (CNRS-Irisa)

Symbolic and human-centric data management:

- understanding data,
- flexible and cooperative database querying.

④ EXRESSION (CNRS-Irisa)

Expressiveness in gesture, text and speech
for human-machine communication.

④ Tsi2M (CNRS-IETR)

- Aerial acquisition (spectroradiometric campaigns) and processing of hyperspectral images,
- Image processing, data analysis and decision making using enhanced information.

④ PHOTONICS SYSTEMS (CNRS-FOTON)

Specializing in photonics, a key-enabling technology. Focuses research on optical technologies of information:

- optical telecommunications, sensors, lasers, components using optical or integrated waveguides...



IRISA



STUDENTS' MOBILITY CONTACTS

► PROSPECTIVE EXCHANGE STUDENTS

Please contact your home international office for the process nomination.

► INTERNATIONAL STUDENTS

Contact Enssat international office for admission details:

+ 33 (0) 2 96 46 90 17

international.office@enssat.fr



Conception : La Raffinerie
Droits d'exploitation : Enssat
Photos : Yoann Atlas / club photo Enssat, Lionel Le Saux, Lionel Ballon,
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LANNION A HIGH-TECH PARK

+ 300 companies in Telecommunications offering Internship opportunities.



LANNION A PLACE OF NATURAL WONDERS



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