

ENSSAT

LANNION



École affiliée
IMT

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 human

“Ingénieur Grande École”

Master in Engineering, Master of Science

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



...nities and mathematics courses.



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

- **CAIRN** (Inria/CNRS-Irisa)
Energy Efficient Computing Architectures:
 - heterogeneous multicore architectures,
 - high-level synthesis and optimizing compilers,
 - hardware accelerators, security, fault tolerance.
- **GRANIT** (CNRS-Irisa)
Energy efficient communication systems
 - Adaptive algorithms and architectures;
 - IoT, Software Defined Radio, energy harvesting.
- **SHAMAN** (CNRS-Irisa)
Symbolic and human-centric data management:
 - understanding data,
 - flexible and cooperative database querying.
- **EXRESSION** (CNRS-Irisa)
Expressiveness in gesture, text and speech for human-machine communication.
- **Tsi2M** (CNRS-IETR)
 - Aerial acquisition (spectroradiometric campaigns) and processing of hyperspectral images,
 - Image processing, data analysis and decision making using enhanced information.
- **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...

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 : **GRAFFINERIE** Droits d'exploitation : Enssat
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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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