

# ISEN

ALL IS DIGITAL!



yncréa

ENERGY

EMBEDDED SYSTEMS

SOFTWARE DEVELOPMENT

BIG DATA

IoT

CYBERSECURITY

HEALTH TECHNOLOGIES

ROBOTICS

BUSINESS ENGINEERING

ARTIFICIAL INTELLIGENCE

ENVIRONMENT

ELECTRICAL MOBILITIES



Marin, ISEN Student

## ENGINEERING SCHOOL



# #Whoarewe?

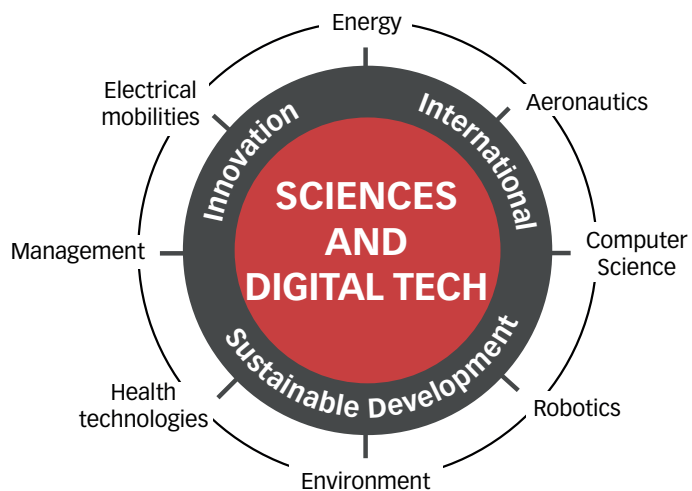
**ISEN Yncréa Ouest is an engineering school with 3 campuses located across Brittany in Brest, Nantes and Rennes. This is one of France's most beautiful regions and is well-known for its dynamism and innovation-friendly ecosystem.**

ISEN Yncréa Ouest is a Private Higher Education Institution of General Interest (EESPIG). Its engineering degree is approved by the French Committee for the Accreditation of Engineers (CTI).

ISEN Yncréa Ouest offers multidisciplinary engineering programs with majors in ten different scientific fields related to digital and energy transitions.

Projects, internships, research, and partnerships with business companies are all emblematic of our philosophy: to train highly value-added engineers who will achieve scientific excellence and be well-adapted to today's demanding job market.

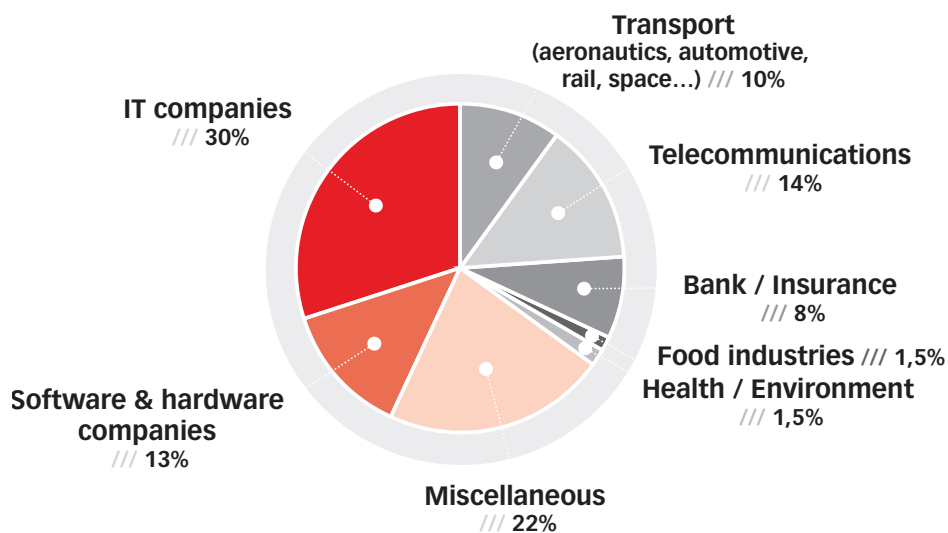
**Because digital technologies are everywhere, ISEN trains engineers to meet the needs of companies in a wide range of sectors.**



# #Employment and partnerships with companies

The partnerships we have with companies result in internships or apprenticeships, projects, research contracts, industrial research Chairs, conferences and the direct recruitment of engineering students.

## Employment



**Employment rate** (5 months after graduation): 98%

**Employment rate before graduation:** 70%

**Over 8,700 ISEN alumni in 60 countries!**

The ISEN alumni network is the link between students, companies and engineers.





# #3yearstochoose



At ISEN Ouest, each student builds their own learning path.

In the first three years after high school, students select one of five scientific programs:

- The "**Generalist Program in Engineering Sciences**" offers a solid grounding in Mathematics and Physics
- The "**Computer and Network Program**" is mostly computer science-oriented
- The "**Biology, Sciences and Technologies Program**" provides scientific training, including Biology
- The "**Digital Economy and Technologies Program**" covers the fields of business administration, management and innovation
- The "**Environment, Sciences and Technologies Program**" focuses on environmental sciences and solutions for sustainable development



# #2yearstospecialize

**10 graduate programs**

**During their Master's course, ISEN students choose one of the ten distinct professional profiles offered at ISEN Ouest**

## **IOT AND CYBERSECURITY**

The Internet of Things (IoT) is regarded as the third Internet revolution. It involves connected objects in a broad spectrum of applications (e-healthcare, home automation, contactless payment...)

*This professional profile trains engineers capable of working on all aspects of IoT.*

## **HEALTH TECHNOLOGIES**

This program combines traditional disciplines (chemistry, physics, biology, health) and fosters the development of greater connections between technologies and health.

*This professional profile trains skilled engineers to play a full part in this scientific and technical revolution.*

## **MOBILE ROBOTICS AND DRONES**

Students interested in robotics will study various subjects including: automatic control, software development, artificial intelligence, mechanics, electronics, energy and embedded IT.

*This professional profile trains engineers able to design all types of robots and drones, which may act and interact with a connected environment or be self-sufficient.*

## **SOFTWARE DEVELOPMENT AND BIG DATA**

Software and applications development encompasses all elements of the design chain of high-tech products in embedded systems, middleware and infrastructures. The quantity of data to be processed is ever larger, and methods of collection, storage and analysis are constantly evolving.

*This professional profile trains engineers specialized in cutting-edge technologies, such as Big Data and Cloud Computing.*

## **EMBEDDED SYSTEMS**

Embedded Systems manage precise tasks in complete autonomy and in real time, providing solutions in a variety of economic sectors: energy, health, transport... This program covers a wide range of skills in the fields of energy consumption, integration, data processing and communications.

*This professional profile trains engineers who will master the material aspects (electronics) and software implications (embedded systems or mobile applications) of high-tech systems that improve our everyday lives.*

## **BUSINESS ENGINEERING**

This professional profile links business and engineering, providing a strong background in social sciences and business administration. Such a combination of skills enables engineering students to act as an essential link between commercial and technical departments.

*This professional profile enables students to complete their engineering degree while acquiring skills in management, finance, accounting, etc.*

## **ARTIFICIAL INTELLIGENCE**

Artificial intelligence (AI) is a key element of the technological revolution. At the crossroads of computer science and applied mathematics, it allows machines to perceive, understand, learn and act in all sectors: transportation, medicine, marketing, defense, logistics...

## **ENERGY**

This professional field allows the students to acquire the technical and technological skills to master energies of the future, from traditional or renewable sources. The training covers all the activities related to energy production: its management, its optimization, as well as issues related to the associated power grids.

## **ENVIRONMENT, SUSTAINABLE DEVELOPMENT AND TECHNOLOGIES**

With this professional field future engineers will learn how to combine the digital revolution and the ecological transition. Professional experts and researchers are here to teach students about the use of technical and methodological tools concerning real-time monitoring of ecosystems, the circular economy and smart cities.

## **ELECTRICAL MOBILITIES**

The whole industry is deeply changing with the integration of digital and electrical energy. Electric means of transport are now widespread, especially in public transport (train, trams, subway, bus...) but also in individual ones (cars, electric bikes...).

# #research

Research at ISEN Ovest is developed in collaboration with other ISEN campuses in France and is composed of 4 departments.

## RESEARCH FIELDS AT ISEN Ovest

### 4 research departments

#### ONBOARD SYSTEMS, ACOUSTICS AND COMMUNICATION

- SEACom - Embedded Acoustic and Communication Systems
- Acoustic modeling
- Underwater acoustic communication
- Marine and underwater robotics
- Marine observatories and submarines

#### MULTIMEDIA AND COMPUTER SECURITY

- SIAM - IT Security Learning and Multimedia
- Digital Campus, E-learning
- Development of software for educational activities (web, virtual reality, game - console, smartphone...)
- Cybersecurity

#### ENERGY

- ESE - Energy and Electromechanical Systems
- Production of electrical energy
- Conversion of electrical energy into mechanical energy (industrial drives, traction and electric propulsion systems...)
- Electrical energy management (hybrid electrical networks: distributed or embedded)

#### VISION & ARTIFICIAL INTELLIGENCE

- VISION: Video, Signal, Image, Optical and Digital Processing
- Automatic shape recognition and motion in images
- Medical imaging
- Information compression and encryption



# #studentlife

## The campuses

With four campuses in Brittany's most vibrant cities, students can choose to study either in Brest, Caen Nantes or Rennes.

## Travelling to ISEN Ouest

International airports and high speed trains connect the three cities nationally and internationally.

## Life at ISEN Ouest

ISEN Ouest enjoys a very dynamic student life with over 30 clubs: "Junior Enterprise", music, robotics, electronics, sports clubs, etc, and has a very active Students' Union organizing different kinds of activities.

## Mobility

Different types of public transport are available: Tramway or subway, airport shuttle, bicycle sharing, car sharing and buses.

## Cultural life

The West of France is culturally rich: Theaters, cinemas, performing arts centers and conservatories, galleries, museums, libraries and festivals all year long.

What's more, the Breton identity is strong and lives through many traditions: "Cuisine", arts, sports, language...

## Sports facilities

Sports complexes: football, tennis, table tennis, handball, rugby, volleyball, basketball...

Living close to the ocean makes it natural for students to go surfing or sailing. Some of them even belong to the "Pole France Voile" which trains athletes at an international level (world championships and Olympic Games).

The three cities host major sports events such as soccer, handball, hockey and basketball games, tennis championships, sailing races, etc.

## ISEN halls of residence

Studio apartments are available on campus or nearby. Each studio has good transport connections to the city center. Incoming students receive help from our international office to find accommodation.


## Restaurants and cafeterias

Really close to ISEN, several university restaurants are open for lunch and dinner: self-service restaurants with different choices of menu. Cafeterias are available on each campus.

### How long does it take to go skiing (by plane) ?

	Brest	Nantes	Rennes
	2 hours	1 hour	1 hour

### How far away is the beach (by car or bus) ?

	Brest	Nantes	Rennes
	15 minutes	1 hour	1 hour

### How long does it take to get to the Eiffel tower (by train) ?

	Brest	Nantes	Rennes
	4 hours	2 hours	2 hours







## 4 campuses

Studying at one of ISEN Yncréa Ouest's campuses means living in a pleasant environment that is connected to the world and oriented towards culture and innovation. The four West campuses host more than 1,400 students and 100 researchers.

The cities of Brest, Rennes, Nantes and Caen, rank among France's most attractive cities for students. The vibrancy of these cities and their low cost of living make them a paradise for students. So, when do we meet?



## #contact

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