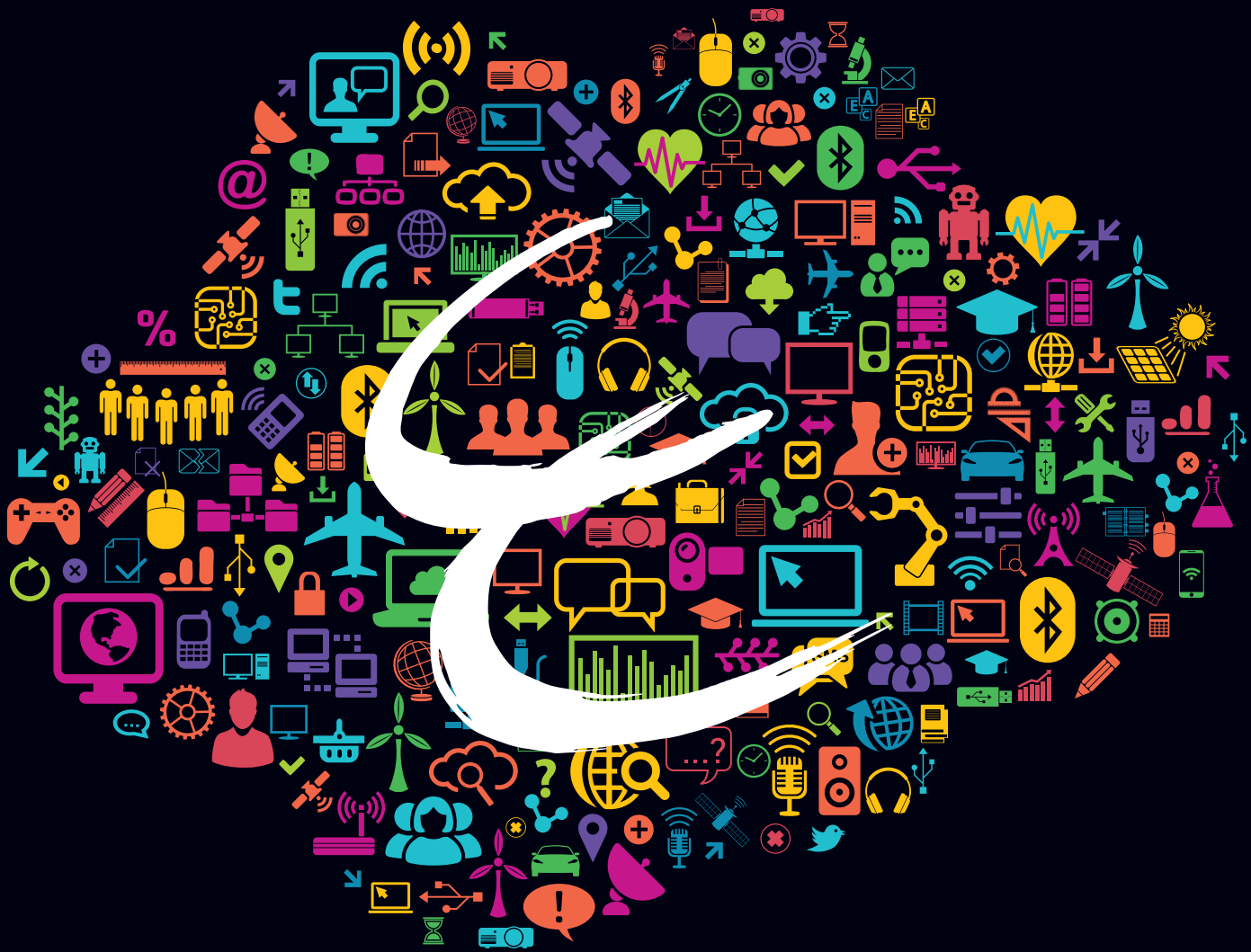
ENSEA

Beyond Engineering

Electrical & Computer Engineering,
Computer Science and Telecommunications



Graduate School since 1952

Public institution under the Ministry of Higher Education, Research and Innovation

ENSEA

Liberté • Égalité • Fraternité
RÉPUBLIQUE FRANÇAISE

Cti
Commission
des Titres d'Ingénieur

European Accreditation of Engineering Programmes
EUR-ACE®

BIENVENUE EN FRANCE

ENSEA, the gateway to your future

ENSEA is a **French public Graduate School founded in 1952**, and located in Cergy, west of Paris. Studying at ENSEA means choosing a high-quality institution that trains students in cutting-edge technologies recognized by international companies.

ENSEA's academic offer covers all the main fields of **Electronics, Electrical Engineering, Bioengineering, Computer Science and Communication Networks**.

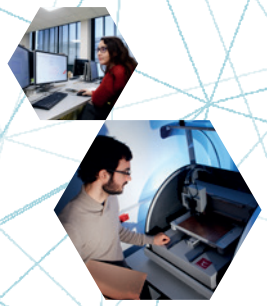
ENSEA has been granted three major accreditations: CTI's (National Accreditation for Official Engineering Degrees), « Bienvenue en France » rewarding the quality of the international relations services and the Eur-Ace.

It is also part of the Global E3 network and of the national consortium AMPERE composed of seven major Engineering Schools in the IT field.

ENSEA in a glance

- 1000 Students
- 7600 Trained Engineers
- 90 Teachers
- 2 Research Labs & 70 PhD Students
- 145 International Partners
- 180 External training experts
- more than 250 industrial partners
- 30 Student Associations

ENSEA English Curricula from September 2020



Master Y1 (ENSEA 2nd Academic Year)

Semester 1 (S7)	
Control and Power Engineering	4 ECTS
Signal Processing & Mathematics	6 ECTS
Electronic Systems	4 ECTS
Computer Engineering	6 ECTS
Management & Project	6 ECTS
French & English	4 ECTS

Semester 2 (S8)	
Electronic Systems	4 ECTS
Signal Processing & Mathematics	6 ECTS
Management & Project	6 ECTS
French & English	4 ECTS
Elective subject (see on right part)	6 ECTS
3-to-4-month internship	4 ECTS

Elective subject to choose

- Artificial Intelligence and Big Data
- Drones
- Internet of Things
- Image and Virtual Reality
- Microelectronics

- Defense & Security
- Electrical Vehicles
- Electronics/signal for music applications
- Innovation & Entrepreneurship
- Security of Information Systems & Data

For more information on the syllabus, please visit our website: www.ensea.fr

Master Y2 (ENSEA 3rd academic year) – Semester 3 (S9)

Biomedical Engineering		Networks and Telecommunications	
Management, English & French (5 ECTS)			
Data acquisition	6 ECTS	Digital Communication	6 ECTS
Medical instrumentation	5 ECTS	Wireless Communication	4 ECTS
Medical Imaging	3 ECTS	Networks	5 ECTS
Signal & Image processing	6 ECTS	Network architecture and Security	5 ECTS
Project	5 ECTS	Project	5 ECTS

Master Y2 (ENSEA 3rd academic year) – Semester 3 (S9)

Power & Control Engineering		Mechatronics		Embedded Systems	
		Management, English & French (5 ECTS)			
Electrical Power	5	System Control	6	Microcontrollers	4
Automation & Diagnosis	5	Embedded Systems	6	Sensors & Actuators	5
Identification & Control	4	Mechanical Engineering	4	Real-time embedded systems	5
Actuators	5	System Modelling	4	Systems fundamentals	5
Project	6	Project	5	Project	6

Communication Systems		Computer Science & Systems		Signal & Artificial Intelligence	
		Management, English & French (5 ECTS)			
RF Systems	6	Digital Circuits	5	Advanced signal processing	6
Broadband & Optical telecommunications	5	Microchips	5	Hardware for signal processing	3
Devices & RF design	5	Systems & Networks	5	Digital image processing	6
RF Project	4	Algorithms	5	Artificial Intelligence	5
Data acquisition project	5	Software Engineering	5	Project	5

Modules in the different tracks cannot be mixed.

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Master Y2 (ENSEA 3rd academic year) – Semester 4 (S10)

All tracks	6-month Master thesis	30 ECTS

English track *French track*

Beyond Engineering

Research at ENSEA

Research fields

Internet of Things (IoT), Information, Communication, Imagery, Multimedia Indexing and Data Integration, Artificial Intelligence and Robotics, Electronics, Reconfigurable Computing and Image Processing, Smart Embedded Systems.

Research fields

Nonlinear Automatic Control and Renewable energy, High speed electronics, Microwave chaos, complex physical and digital systems, Sustainable systems, Mechatronics, Behavior of mechanical systems and material, Tribology, Acoustic and vibration of structures, Informatics.

Immersing in excellence: plural perspectives, plural paths

Research Double-degree opportunities

Joint program with:

SIC (Intelligent and Communication Systems) Master double-degree agreement

4 specialization tracks

- **DSML Track :** Data Science & Machine Learning
- **SIT Track :** Signal processing and Telecommunication
- **IAR Track :** AI & Robotics
- **ESI Track :** Intelligent system electronics

Management and Business Double-degree opportunities

Student Entrepreneur

International mobility 30 double-degree partners

More than a school, a community

More than 30 associations, created and managed by the students in an ever-growing cultural and social network covering every single need and aspiration (art, sports, games, cultural exchange...).

An active network of over 7600 alumni who mentor students and graduates through their career path. https://www.ingenieurs-ensea.fr/

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