INTERNATIONAL RELATIONS

REVEALING ENGINEERS SINCE 1961

ELECTRONICS
COMPUTER SCIENCE
MECHATRONICS

FRENCH GRADUATE SCHOOL OF ENGINEERING · RESEARCH INSTITUTE
A member of the French national Engineering Schools (Enis), ENIB delivers professional training for generalist engineers in the fields of ICTS (electronics and computer sciences) and mechatronics.

4,700 professional engineers trained at ENIB
770 students (14% international)
120 staff members
80 lecturer-researchers
16,000 m² campus with 4 buildings

**ENIB AT A GLANCE**

**EDUCATIONAL PROGRAM**

**ENIB ENGINEERING DEGREE**

**BACHELOR DEGREE LEVEL**

**MASTER DEGREE LEVEL**

**HOW TEACHING IS ORGANIZED OVER THE 5-YEAR PROGRAM**

(10 SEMESTERS)

8% ENGINEERING SCIENCES

- Electronics
- Computer sciences
- Mechatronics

27% INTERNSHIPS

20% ECONOMIC & SOCIAL SCIENCES

15% MATHS-PHYSICS

30% ENGINEERING SCIENCES

- Electronics
- Computer sciences
- Mechatronics

**CORE MODULES**

**OPTIONS**

**KEY SUBJECTS OF THE ENGINEERING EDUCATIONAL PROGRAM**

- Digital Communications and Optical Transmissions
- System-On-Chip Design
- Radio Frequency Communication Systems
- Signal and Image Processing
- Interactive Application Design
- Artificial Intelligence and Simulation
- Information Systems Development Methodology
- Virtual Reality and Virtual Environments
- Robotics Modelling and Autonomous Robotics
- Control Systems
- Vibration Mechanics and Finite Elements
- Advanced Materials and Design
**PROFESSIONAL EXPERIENCE PROGRAM**

- 15 months of internships spread over 5 years, during inter-semester 2 and semesters 7, 8 and 10
  - initial internship
  - technician internship
  - assistant engineer internship
  - engineer internship

- 1300 industrial partners VSBs, SMEs, major groups etc. in France, Europe and worldwide

- The final year (semesters S9 and S10) may be carried out as a training contract (a work-study program involving an employment contract with a company)

**INTERNATIONAL STUDENTS**

*(EXAMPLE OF A FLEXIBLE COURSE PATH - DUAL DEGREE)*

- Admission requirements
  - Selection by home university for this program
  - B2 level in French

All courses are taught in French / Projects may be supervised in English

<table>
<thead>
<tr>
<th>SEMESTER 10</th>
<th>32 ECTS</th>
<th>Total 120 ECTS</th>
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<tbody>
<tr>
<td>Industrial work placement (20 à 25 weeks)</td>
<td>32 ECTS*</td>
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<table>
<thead>
<tr>
<th>SEMESTER 9</th>
<th>28 ECTS</th>
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</thead>
<tbody>
<tr>
<td>3 technical modules to choose (out of 15)</td>
<td>18 ECTS*</td>
</tr>
<tr>
<td>Product Design</td>
<td>2 ECTS*</td>
</tr>
<tr>
<td>French as a foreign language</td>
<td>2 ECTS*</td>
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<tr>
<td>Project (electronics, computer sciences or mechatronics)</td>
<td>6 ECTS*</td>
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<tr>
<th>SEMESTER 7</th>
<th>30 ECTS</th>
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<tbody>
<tr>
<td>English (compulsory)</td>
<td>2 ECTS*</td>
</tr>
<tr>
<td>3 technical modules</td>
<td>18 ECTS*</td>
</tr>
<tr>
<td>1 technical module to choose (out of 6)</td>
<td>6 ECTS*</td>
</tr>
<tr>
<td>French as a Foreign Language</td>
<td>2 ECTS*</td>
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<tr>
<td>Management</td>
<td>2 ECTS*</td>
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<thead>
<tr>
<th>SEMESTER 8</th>
<th>30 ECTS</th>
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<tbody>
<tr>
<td>Assistant Engineer-Level project</td>
<td>12 ECTS*</td>
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<tr>
<td>French as a Foreign Language</td>
<td>2 ECTS*</td>
</tr>
<tr>
<td>2 modules : Object-oriented programming &amp; Microprocessors</td>
<td>4 ECTS*</td>
</tr>
<tr>
<td>Economic and Social Sciences</td>
<td>12 ECTS*</td>
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**RESEARCH AS A DRIVING FORCE**

- 2 Research labs (CNRS Mixed Research Units)
  - Lab-STICC (Laboratory of Science and Technology of Information, Communication and knowledge)
    - Research themes
      - Optical communications, Microwave photonics, and Power over Fiber for sensors
      - Signal and image analysis for biology applications
      - Artificial Intelligence, Virtual Reality
  - IRDL (Mechanics and Systems Laboratory)
    - Research themes
      - Materials and structures durability in different domains specifically in marine applications
      - Control and diagnostic in help of marine renewable energy
      - Sub-marine robotics

- CERV (European Center for Virtual Reality)
  - Scientific research platform belonging to ENIB
  - Virtual reality, Autonomous behaviours, Intelligent environments, Human-machine interface

- 4 Masters of Sciences
  - Computer Science: Interactive Intelligent and Autonomous Systems
  - Design Engineering: Mechanics, Materials and Civil Engineering
  - Physics: Photonics
  - Telecommunications: - Signal and Telecommunications - Electronics, Wireless communication and Telecommunications

**INTERNATIONAL**

- +70 academic partners
- Flexible curriculums (projects, French as a foreign language) are available to international students in semesters S7 to S10
- +15 dual-degrees