

Energy & Environment

TAUGHT IN FRENCH



/ AIMS

This major aims at training engineers in electronics and computer science in the fields of energy and environment.

/ ACQUIRED SKILLS

As a student in this major, you will be able to understand and address energy issues, control, monitor and optimise energy consumption, and make digital technologies accessible to the energy sector.

You will acquire a range of scientific, technical and managerial skills based on an industrial approach of production, material and energy conversion, process control and monitoring. You will be aware of the political, economic, geopolitical and regulatory issues in the fields of energy and environment, as well as those in industrial ecology, life cycle assessment, material and energy recovery techniques.

/ CAREER OPPORTUNITIES

The sectors of activity are extremely varied and concern large industrial groups as well as small companies, design offices, local authorities and research centres.

You will access positions such as Renewable Energy Engineer, Energy Efficiency Engineer, Designer of Intelligent Electrical Grids; Design and Development Engineer; Operations Manager; Methods and Industrialisation Engineer or Audit Certification Engineer and many more.

COURSE UNITS

/ SEMESTER 8

- **Real-Time Control System:**
28 hrs – 2.5 ECTS
- **Data Mining and Numerical Simulations:** 28 hrs – 2.5 ECTS
- **Electrical Modelling:**
28 hrs – 2.5 ECTS
- **Thermodynamics:** 28 hrs - 2.5 ECTS
- **Actuators and Power Electronics:**
28 hrs – 2.5 ECTS
- **Modern Control:** 28 hrs – 2.5 ECTS
- **Sustainable Development:**
28 hrs – 2.5 ECTS
- **Energy Challenges:** 28 hrs – 2.5 ECTS
- **Acquisition System and MPPT Control:** 28 hrs – 2.5 ECTS
- **Power Flow in Electrical Multisource System:** 28 hrs – 2.5 ECTS
- **English:** 28 hrs – 2.5 ECTS
- **Transversal Skills:** 28 hrs – 2.5 ECTS

/ SEMESTER 9

- **Final Year Project:** 140 hrs - 12 ECTS
- **Advanced Electrical Engineering Project:** 56 hrs - 4 ECTS
- **Renewable Energy:** 56 hrs - 4 ECTS
- **Measurement, Verification and Optimisation:** 28 hrs - 2 ECTS
- **Energy Management:** 28 hrs - 2 ECTS
- **Advanced Control and Observation:**
28 hrs - 2 ECTS
- **Business and Society:** 28 hrs - 2 ECTS
- **Batteries and Energy Harvesting:**
28 hrs - 2 ECTS

