



ENGLISH TAUGHT COURSES AVAILABLE FOR EXCHANGE STUDENTS 2022

POWER CONVERSION MANAGEMENT

Power conversion is at the crossroads of the transitions of our era, as companies need to migrate to renewable energies and improve their energy efficiency.

With over a century of experience in the field of energy, ESME has developed specific skills to train engineers in energy production and distribution control, energy conversion for sectors such as civil engineering, transportation including electric and hybrid motor solutions.

The school's expertise and the excellence of its training in the field of energy transition are recognized by major companies in the industrial world.

Learn to design a power converter, size an electrical conversion chain, choose and implement a motor control system, deploy the electrical installation of a building, or manage large-scale power conversion projects for companies and organizations.

ESME's Power Conversion Management major trains engineers capable of designing energy optimization systems and managing their implementation in very diverse and high-demand sectors: space, aeronautics, automotive, data, robotics, etc.

PRE-REQUISITES

- A bachelor's degree or equivalent in related fields
- Proven knowledge in the following fields:
 - ✓ Fundamentals of electric circuits
 - ✓ Fundamentals of electronic
 - ✓ Basic knowledge of MATLAB/Simulink
 - ✓ Fundamentals of control systems

COURSES OUTLINE – KEY FEATURES

2 years, including 3 semesters of coursework and 1 semester of internship

YEAR 1

Course title
Renewable Energy Technologies
Control – Instrumentation
Implementation Project
Practical Training
Soft Skills

YEAR 2

Course title
Power Electronics Conception
Power conversion Chain Sizing
Energy Production
End of the year Project
Senior Year Internship
Battery management system (BMS)