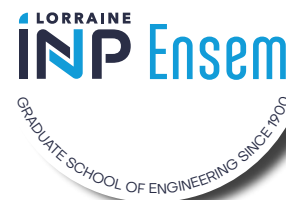


Live an **INTERNATIONAL EXPERIENCE IN FRANCE**



Come to ENSEM !



NANCY, IN THE HEART OF EUROPE

FROM NANCY



Paris
1h30



Germany
1h30



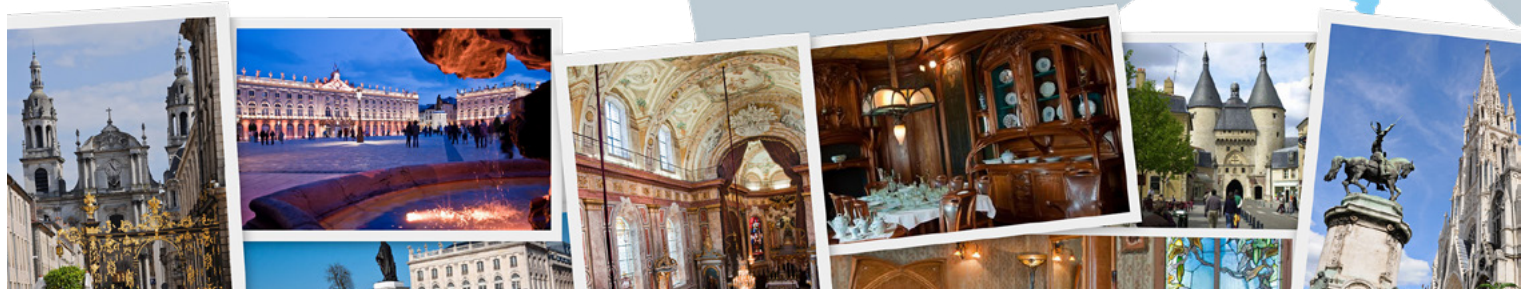
Luxembourg
1h30



Belgium
1h40

A CITY FULL OF CHARM AND HISTORY

Unesco World Heritage site [Place Stanislas](#),
[Art Nouveau](#) buildings,
[Medieval](#) old town,
Numerous [parks and museums](#).



NANCY, ONE OF THE BEST STUDENT CITIES

With more than 52000 students, Nancy is the perfect city to study. Everything is done so that students can live, work and feel at home. Student life is rich and dynamic.

The number of students in the city means many services are dedicated to facilitate their daily life



ACCOMMODATION:

Many student residences with very affordable rents



RESTOS U:

Student cafeterias and restaurants on campus and all around the city



TRANSPORTS:

Buses and tramways right outside ENSEM



SPORTS:

Practice more than 50 sports activities for free



RENEWABLE ENERGY ENGINEERING

Program in English for exchange students • Fall or Spring semester

Wind, solar, hydrogen, hydropower:

By completing the program in renewable energy engineering at ENSEM you will acquire scientific and technical knowledge on various forms of renewable energy.

More specifically, you will have the opportunity to acquire advanced knowledge in :
renewable energies, electrical and mechanical energy storage, control, smart and micro energy grids, optimization of energy systems.



**energy
platform.**

technological platforms



**hydrogen
fuel cells.**

technological platforms



**wind
turbine.**

technological platforms



**smart
grid.**

technological platforms

Your training will be very hands-on and you'll have access to specialized equipment :

Fuel cells, solar panels, wind turbines, hydropower turbines, grid converters for photovoltaic and wind power systems, multiphase electric machines, micro-grid integrated into our campus, IoT simulator and sensor platforms.

COURSES (LECTURES, LABS AND PROJECTS)

SOURCES AND STORAGE 80H - 6 ECTS

- Introduction to hydrogen and fuel cells technologies
- Storage components (electric storage and generation)
- Solar photovoltaic design and installation

POWER TO THE GRID 80H - 6 ECTS

- Hydraulic and Wind Power
- Power generation system connected to the grid

SMART GRIDS - MICRO GRIDS 80H - 6 ECTS

- Electric power quality
- Energy management in microgrids
- Smart grid modeling and co-simulation

OPTIMIZATION 80H - 6 ECTS

- Optimal design of a local energy network
- Optimization of a heat network
- Control and optimization of energy systems

LANGUAGE, COMMUNICATION AND CULTURE 80H - 6 ECTS

- French language and culture
- Cross-cultural communication
- Energy economics: issues related to renewable energies



LORRAINE INP Ensem

GRADUATE SCHOOL OF ENGINEERING SINCE 1900



École Nationale Supérieure
d'Électricité et de Mécanique



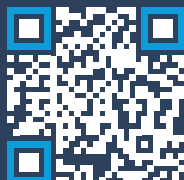
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