

MASTER DEGREE

ENERGY

ENERGY Master Degree Presentation **Electrical Energy Track (EE)**

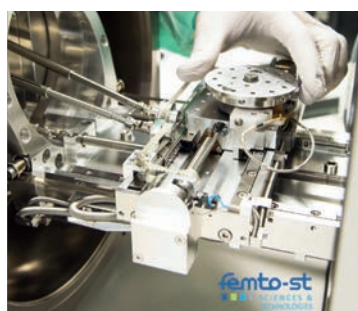
ENERGY EE is an EIPHI graduate School Master focusing on Research & Innovation in the field of Energy production and storage and management. Electrical energy is the main concern of this degree with a focus on hydrogen energy systems.

Like all the Master Degree of EIPHI Graduate school, this master is designed for R&D engineer positions in big international companies or smaller High-Tech industries but can also be the springboard for a career as Researcher or Professor.

Energy Master Students can pursue their studies with a Ph.D. in the Energy Department of Femto-St Research Lab or Belfort's Fuel Cell Laboratory FC Lab presented thereafter.

PROGRAM (Belfort Campus)

Y E A R 1	Core Courses with Research Project 24 ECTS		Crossdisciplinary Courses 6 ECTS
	Core Courses with Research Project 18 ECTS	Soft Skills Courses 6 ECTS	Crossdisciplinary Courses 6 ECTS
Y E A R 2	Specialized Courses with Research Project 24 ECTS		Soft Skills Courses 6 ECTS
	Research Internship 30 ECTS		



FC LAB
Research

Core Course List: 42 ECTS

ENERGY SYSTEM OPTIMIZATION & MANAGEMENT
INDUSTRIAL PROGRAMMING
HYDROGEN & ENERGY STORAGE
ENERGY SYSTEM MODELLING & CONTROL

ELECTRIC ACTUATORS
POWER ELECTRONICS
AUTOMATIC
ADVANCED MODELLING OF MAGNETIC SYSTEM
RESEARCH PROJECT

Cross-disciplinary Course List: 12 ECTS

COMPUTATIONAL TOOLS
MATHEMATICAL TOOLS FOR ENGINEERS ...

Specialized Course List: 24 ECTS

HYDROGEN ENERGY & ENERGETICAL EFFICIENCY H3E :
- ELEMENTARY H3E
- FUNDAMENTAL H3E
- ADVANCED H3E
ADVANCED RESEARCH PROJECTS

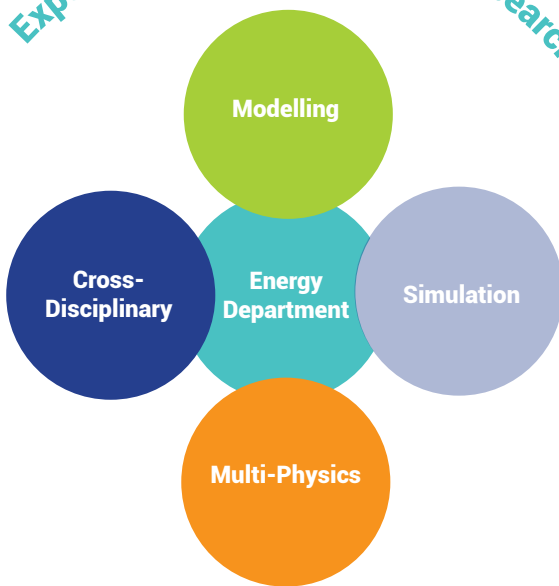
Soft Skills Course List: 12 ECTS

ENGLISH,
ENTREPRENEURSHIP,
INNOVATION MGT,
RISK MGT...

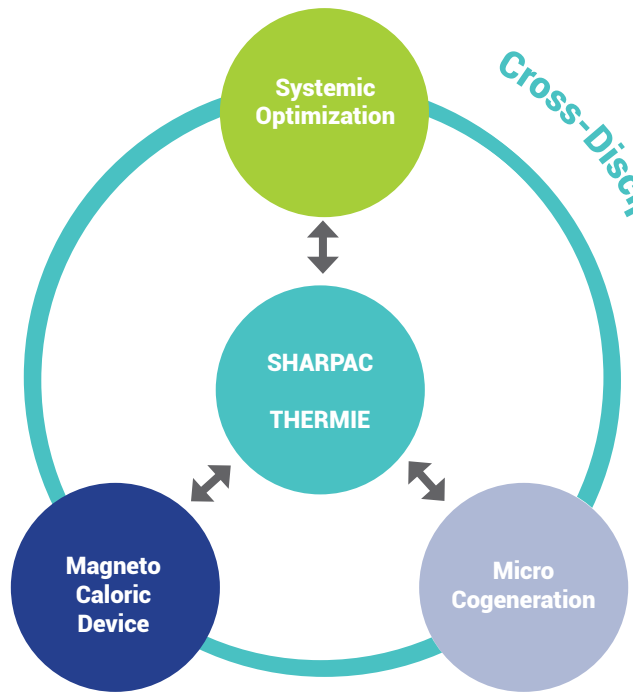
RESEARCH

ENERGY DEPARTMENT

Experimental & Theoretical Research



Cross-Disciplinary Research



2 Research Fields

THERMIE :

Thermal Science

- Metrology and Instrumentation in Fluidics and Thermal Science
- Thermal Science in energy systems
- Heat engines
- Complex flows

SHARPAC :

Hybrid electric systems, Electric Actuators, Fuel cell systems

- Static converters
- Fuel cell systems
- PHIL: Power Hardware in the Loop
- Control and Management of Energy
- Electric actuators
- Micro-grids

