

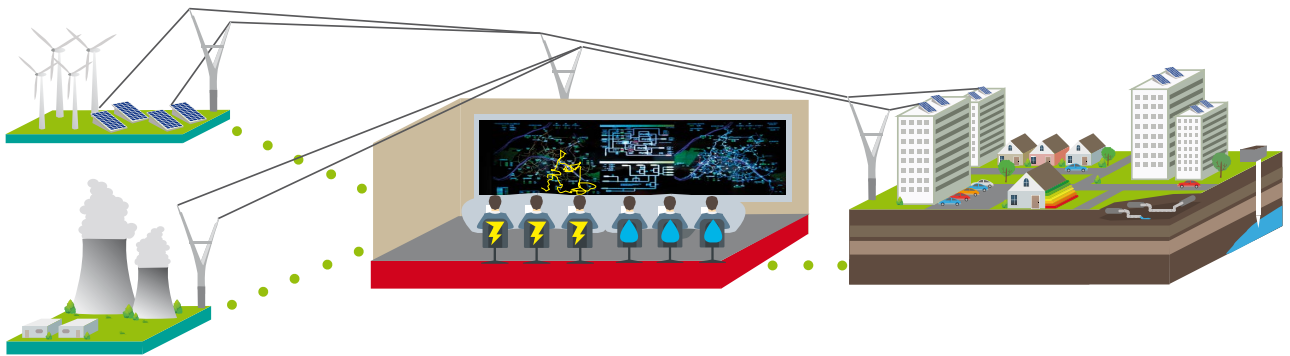
INTERNATIONAL MASTER IN ELECTRICAL ENGINEERING FOR SMART GRIDS AND BUILDINGS



BOOSTING YOUR SKILLS

Graduating from this master you will gain expertise in managing the full current and future energy chain taking into account the environmental and societal aspects. You will be able to take up the challenges associated with the new energy paradigm. You will receive a solid engineering know-how with economics, sociology, regulation and convergence between ICT and energy (Cyber Physical Systems).

master-smartgrid-energy.grenoble-inp.fr



WHY CHOOSE THE PROGRAM



- More than a century tradition in Industrial Power Systems Research and innovation
- Smart Grids and Buildings are corner stones of Smart Cities in digital societies
- Quality of the training, amazing level of practical works, availability of the professors and supporting staff
- Strong connection with industry, most of Master Thesis within companies, job opportunities in France and abroad
- Cutting edge research environment providing numerous PhD positions
- Perfect international atmosphere, intercultural experience, fast integration among local students

TRAINING METHOD

The teaching method is a gradual approach towards autonomy and knowledge appropriation: traditional lectures, tutorials, applying knowledge in technological platforms shared with research or software packages, multidisciplinary practical projects, visits.

Our engineering training actively involves our industrial partners who often give lectures, labs and visit. Close relations between education, research and industry are a long Grenoble tradition. The education programme is oriented to develop the innovation and entrepreneurial spirit.

PROGRAM CONTENT



This international master is a 20 month full-time Master's program (120 ECTS).

PERIOD	PROGRAM SUMMARY	ECTS
Semester 1 September – January	Design and Control of Smart Power Systems Energy economics Innovative Components for SmartGrids Numerical methods and tools Modelling and control of electrical component-to-grid French language, culture and Sport	30
Semester 2 February- May	Conversion of energy SmartHomes and Ecodistricts Heat and mass transfers Internship (Master) Engineering project in Energy, Water or Environnemental Sciences Production and storage of energy	30
Semester 3 September - January	Distributed Generation Economy and financial markets French Language, Culture and Sports ICT and Smartgrids Choose one option <ul style="list-style-type: none"> • Smart Building Option (Project, Urban Energetic, Building Management Systems) • Smart Grid Option (Micro grids, Smart grids plus Supergrids & Modeling and Deregulation) • Storage energy Option (Sustainable new technologies for Energy) 	30
Semester 4 February – June	<ul style="list-style-type: none"> • Master Thesis (intern in either laboratory or industry) 	30

ADMISSION REQUIREMENTS

Bachelor degree in either Science (BSc) or Engineering (BEng) including courses in electrical Engineering. Selection on the basis of prior academic and/or scientific achievement as documented by academic transcripts, a cover letter, references, and standardized test scores. Students from countries where English language is not the primary language are required to provide English test scores.

Application deadline and form

Explore our website.

Tuition fees : Please visit our website :

<http://master-smartgrid-energy.grenoble-inp.fr>

Grants are available. Training period in companies are paid.

MASTER THESIS

During the last semester, you will perform your Master thesis by working in a company or a research laboratory, in France or abroad. In a professional environment, you will discover and consolidate working methods and learn how to manage real projects that challenge your autonomy as well as your capacity for entrepreneurial leadership. At the end of the period, you have to write Master thesis and defend your work in front of a jury.

Research Laboratories : G2Elab, Gipsa Lab, G-SCOP, SIMAP, Institut Néel, ...

Companies : ALSTOM, AREVA, ATOS Worldgrid, CEGELEC, EDF, ERDF, FORCLUM, Gaz de France, GEG, INEO, MGE/UPS, PSA, RENAUULT, RTE, SCHNEIDER ELECTRIC, SUEZ, VINCI, ...

ÉCOLE NATIONALE SUPÉRIEURE DE L'ÉNERGIE, L'EAU, L'ENVIRONNEMENT

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