# Bachelor • Porto ENERGY SYSTEMS ELECTROTECHNICA ENGINEERING

# Direction

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# Exams

Have the following set:

• 07 Física e Química and 16 Matemática

# Secretariat

Carla Silva carla.moreira.silva@ulusofona.pt

# Duration Credits

180 ects

3 Years

# Presentation

The degree of Electrical Engineering of Power Systems aims training highly skilled electrical power engineers who have expertise ranging from electrical systems design to management and control of power systems, including the fields of power generation, transmission, distribution and utilization, as well as the energy conversion systems based on power electronic converter technologies. Throughout the programme, the students will gain the fundamental understanding in electrical energy and power systems. In addition, they will develop other skills concerning the development, operation, maintenance, commissioning and technical assistance of sales departments for electrical energy and power systems. Thus, this graduation lays the groundwork for the pursuit of an advanced degree or provides the opportunity for career advancement. After graduation the students are able to perform a set of activities, within the framework of electrical engineering and power systems domain, as follows: ¿ Provision of technical support for sales and innovative management approaches; ¿ Maintenance of electrical facilities, systems and devices; ¿ Design of low veltage electrical patients of alectrical devices and





Fcnet Faculdade de Ciências Naturais, Engenharias e Tecnologias Electrical Engineering of Power System graduation is included in the FEANI INDEX. Also it is registered in the Portuguese Order of Technical Engineers, enabling also the admission to other professional orders.

## **STUDY PLAN**

### 1st Year / Comon Core

ects	2º Semestre	ects
6	Computer Science and Programming	4
5	Electrical Circuits II	5
5	Engineering Laboratories II	4
4	Mathematical Analysis II	6
6	Statistics	6
5	Technical Drawing and CAD	4
	ects 6 5 4 6 5	ects2° Semestre6Computer Science and Programming5Electrical Circuits II5Engineering Laboratories II4Mathematical Analysis II6Statistics5Technical Drawing and CAD

### 2nd Year / Comon Core

1º Semestre	ects	2° Semestre	ects
Automation and Control	5	Electrical Installations	5
Electrical Facilities Laboratory	4	Electrical Machines I	5
Electromagnetism	5	Electronics	5
Energy Electric Systems I	5	Energy Electric Systems II	5
Mathematical Analysis III	6	Numerical Methods	5
Signals and Systems	5	Power Electronics	5

#### **3rd Year / Comon Core**

Semestral	ects		1º Semestre	ects	2° Semestre	ects
Optional II		5	Electrical Facilities Project	5	End of Course Project	10
			Electrical Machines II	5	Energy Markets	5
			Energy and Energy Efficiency		Fundamentals of Economics	
			Management	5	and Management	4
			Optional I	5	Smart Grids and Electric	
			Renewable Energies	5	Mobility	5
			Transport and Distribution			
			Networks	6		