Erasmus Mundus master's degree in Dynamics of Renewables-based Power Systems

BARCELONA SCHOOL OF INDUSTRIAL ENGINEERING (ETSEIB)

The **Erasmus Mundus master's degree in Dynamics of Renewables-based Power Systems (master's degree website)** (DREAM) is a two-year master's programme that offers multidisciplinary education in the modern power systems field.
DREAM trains students to tackle the current and future challenges of smart power systems in a new way. Core knowledge from the fields of Power Systems, Smart Grids, Renewable Generation, Automatic Control and Power Electronics is combined to give students the opportunity to acquire a general system view of the dynamics of next-generation power systems. DREAM aims to promote a more integrated way of thinking in order to prepare multidisciplinary specialists trained for the new jobs and challenges of future power systems.

The language of instruction throughout the programme, which is coordinated by Centrale Nantes, is English.

GENERAL DETAILS

Duration and start date
2 academic years, 120 ECTS credits. Starting September

Timetable and delivery
Face-to-face

Language of instruction
English

Information on language use in the classroom and students' language rights.

Location
Barcelona School of Industrial Engineering

Official degree
Recorded in the Ministry of Science, Innovation and Universities

ADMISSION

General requirements
Academic requirements for admission to master's degrees

New intake places
10

Pre-enrolment
To enrol for an interuniversity master's degree coordinated by a university other than the UPC, you must enrol through the coordinating university:
École Central de Nantes (France)

CURRICULUM

PROFESSIONAL OPPORTUNITIES

Professional opportunities

It is expected that, by 2030, 30% of jobs in industry will be in the renewable energy field. The career prospects for DREAM graduates are therefore excellent and their education will be relevant for a range of industrial and economic sectors.

Students who complete the DREAM master's programme will have combined knowledge to tackle issues in companies acting for the energy transition:

- transmission and distribution system operators
- energy producers (renewable or classic)
- manufacturers (power electronics, electric drives, turbines, solar panels)
- electricity regulatory commissions

Students with more theoretical skills will have a strong background to move into the research field, i.e. to start a PhD in these challenging fields related to future low inertia power systems.

Competencies

Generic competencies

Generic competencies are the skills that graduates acquire regardless of the degree or field of study. The generic competencies established by the UPC are capacity for innovation and entrepreneurship, sustainability and social commitment, teamwork, proper use of information resources, knowledge of a foreign language (preferably English) and gender perspective.

QUALITY ACCREDITATION

Check the degree's main quality indicators in the University Studies in Catalonia portal of the Catalan University Quality Assurance Agency. Find information on topics such as degree evaluation results, student satisfaction and graduate employment data.
Further information

ACADEMIC ORGANISATION

European programme

Erasmus Mundus

UPC school

Barcelona School of Industrial Engineering (ETSEIB)

Participating institutions

Universitat Politècnica de Catalunya (UPC)
Hochschule für Technik und Wirtschaft Berlin (HTW)
École Central de Nantes (France) - **coordinating** university
Universitatea Politehnica din Bucuresti (Romania)

Academic coordinator

Marc Cheah

MASTER'S DEGREE WEBSITE