

Bachelor's degree in Industrial Electronics and Automatic Control Engineering Manresa School of Engineering (EPSEM)

On the **bachelor's degree in Industrial Electronics and Automatic Control Engineering**, you will acquire the knowledge needed to supervise and manage engineering projects in the fields of industrial electronics and automatic control: design and development of analogue, digital and power electronic systems and industrial control and automation systems. You will receive multidisciplinary training in the fields of analogue, digital and power electronics, systems modelling and simulation, automatic regulation and control techniques and their application in industrial automation, and the principles and applications of robotic systems, industrial informatics and communications.

GENERAL DETAILS

Duration

4 years

Study load

240 ECTS credits (including the bachelor's thesis). One credit is equivalent to a study load of 25-30 hours.

Delivery

Face-to-face

Fees and grants

Approximate fees per academic year: €1,660 (€2,490 for non-EU residents). Consult the public fees system based on income (grants and payment options).

Location

Manresa School of Engineering (EPSEM)

Official degree

Recorded in the Ministry of Education's degree register

ADMISSION

Places

180

Registration and enrolment

What are the requirements to enrol in a bachelor's degree course?

Legalisation of foreign documents

All documents issued in non-EU countries must be legalised and bear the corresponding apostille.

PROFESSIONAL OPPORTUNITIES

Professional opportunities

- Drafting and supervision of projects involving automation and control installations and electronic drive regulation.
- Design, installation and maintenance of electronic control, power and instrumentation systems.
- Design and development of industrial informatics and process monitoring systems.
- Design, management and maintenance of industrial equipment and installations.

- Drafting of technical, advisory and feasibility reports.
- Management, organisation, planning and quality control.
- Teaching and research.

ORGANISATION: ACADEMIC CALENDAR AND REGULATIONS

Academic calendar

General academic calendar for bachelor's, master's and doctoral degrees courses

Academic regulations

Academic regulations for bachelor's degree courses at the UPC

Language certification and credit recognition

Queries about language courses and certification

Manresa School of Engineering (EPSEM)

This bachelor's degree is also taught at

- Barcelona · EEBE · Show degree
- Terrassa · ESEIAAT · Show degree
- Vilanova i la Geltrú · EPSEVG · Show degree

CURRICULUM			
Subjects	ECTS credits	Туре	
FIRST SEMESTER			
Chemistry	6	Compulsory	
Environmental Technologies and Sustainability	6	Compulsory	
Introduction to Computing	6	Compulsory	
Mathematics I	6	Compulsory	
Physics I	6	Compulsory	
SECOND SEMESTER			
Graphic Expression	6	Compulsory	
Materials Science and Technology	6	Compulsory	
Mathematics II	6	Compulsory	
Physics II	6	Compulsory	
Statistics	6	Compulsory	
THIRD SEMESTER			
Business	6	Compulsory	
Electrical Systems	6	Compulsory	
Mathematics III	6	Compulsory	
Mechanical Systems	6	Compulsory	
Thermodynamics and Fluid Mechanics	6	Compulsory	
FOURTH SEMESTER			
Chemical Systems	6	Compulsory	
Electronic Systems	6	Compulsory	

Engineering Skills 6 Optional Industrial Control and Automation 6 Compulsory Operations Management 6 Compulsory Strength of Materials 6 Compulsory FIFTH SEMESTER Compulsory Automatic Regulation 6 Optional Analogue Electronics 6 Compulsory Automatic Regulation 6 Optional Circuit Analysis 6 Optional Circuit Analysis 6 Optional Construction Material Factories 6 Optional Construction Materials Factories 6 Optional Construction Materials 6 Optional Data Management and Storage 6 Optional Detail Management and Storage 6 Optional Detail Electronics optimisation and Theory 6 Optional Digital Electronics propering 6 Optional Electronic Design Analog-Digital 6 Optional Electronic Design Power Systems 6 Optional	Subjects	ECTS credits	Туре
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	Advanced Automation	6	Compulsory
Electronic Instrumentation 6 Compulsory	Digital Systems	6	Compulsory
	Electronic Instrumentation	6	Compulsory

Subjects	ECTS credits	Туре
Microcomputers	6	Compulsory
Power Electronics	6	Compulsory
SEVENTH SEMESTER		
Industrial Informatics	6	Compulsory
Project Methodology, Management and Orientation	6	Compulsory
EIGHTH SEMESTER		
Bachelor's Thesis	24	Project

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