Bachelor's Degree in
Industrial Electronics and Automation Engineering

Introduction to the degree

The aim of the Bachelor’s Degree in Industrial Electronics and Automation Engineering is to provide future professionals with scientific and technical training, so that they can meet the needs of the industry and the Government in this field. These studies, which qualify students for practising the profession of industrial engineering, consist of a basic training module, for acquiring a sound scientific basis adapted to the field of industrial electronics and automation engineering; a training module which is common with the industrial branch, for developing general skills in industrial engineering; a specific training module in industrial electronics and automation, for developing specific skills related to the various fields of this branch of engineering; and a final module, for developing different skills chosen by the student.

Internships

Students of the Bachelor’s Degree in Industrial Electronics and Automation Engineering can do internships in companies belonging to various sectors, especially the electronics and automation sector, which will help them get acquainted with professional reality, under the tutelage of a company technician and a professor of the degree.

The internship tasks will include collaborating in the control and automation of industrial processes; designing, programming and installing equipment and robotic systems; treating industrial communications information; processing electric power data; and giving advice for the purchase and use of electronic equipment.

Continuation of studies

With this degree, you will be able to access to:

- MD in Automation and Industrial Informatics
- MD in Industrial Constructions and Installations
- MD in Project Managements
- MD in Integrated Computer-Aided Design and Manufacturing
- MD in Business, Product and Service Management
- MD in Computer Engineering
- MD in Electronic Systems Engineering
- MD in Design Engineering
- MD in Maintenance Engineering
- MD in Occupational Risk Prevention
- MD in Energy Technologies for Sustainable Development

and be part of Spain’s best technological university according to the Shanghai ranking

Enjoy our huge campuses with spaces designed for you such as the Student Recreation House.

You can do up to 70 sports in our facilities.

You will find many services at your disposal: language classes, discounts in public transport, counselling, employability support…

International mobility

Students will be able to complete their training in universities in the European Union, the United States, Latin America, Japan, Australia and in several African countries. To access exchange scholarships, knowledge of the target country language, curiosity about other cultures and an interest to know about engineering elsewhere are needed.

Professional opportunities

With this degree, you will be able to take up numerous professional activities, such as developing industrial control and automation systems, robotic systems, and analog, digital and power electronic instruments. You will be able to design and program equipment used in (electrical, HVAC, fluid, security…) facilities; to model and simulate systems, and to maintain industrial processes and installations.

You will be able to be in charge of and develop projects aimed at the design, maintenance, installation or operation of industrial plants and facilities; do certifications, inspections and surveys; manage industrial enterprises in the field of electronics and automation; or pursue a career in teaching and research.

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Study at the
Bachelor’s Degree in Industrial Electronics and Automation Engineering

Credits for obtaining the degree

<table>
<thead>
<tr>
<th>Basic courses</th>
<th>Compulsory</th>
<th>Elective</th>
<th>Internship</th>
<th>TFG</th>
<th>Total</th>
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<tbody>
<tr>
<td>60.00</td>
<td>120.00</td>
<td>48.00</td>
<td>0.00</td>
<td>12.00</td>
<td>240.00</td>
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</table>

The subjects that you will be able to take

**Basic courses**
- Business I
- Chemistry
- Computer Science
- Electricity
- Mathematics I - II
- Physics
- Statistics
- Technical Drawing

**Compulsory courses**
- Analog Electronics
- Basic Automation
- Business Studies II
- Control Techniques
- Digital Electronics
- Electrical Technology
- Electronic Instrumentation
- Electronic Technology
- Environmental Technology
- Industrial Automation
- Industrial Computing I - II
- Manufacturing Systems
- Mechanical Systems and Strength of Materials
- Power Electronics
- Project Development and Execution
- Robotic Systems
- Thermodynamics and Fluid Mechanics

**Elective courses**
- Academic and Professional German A1 - A2 - B1 - B2
- Academic and Professional Italian A1 - A2
- Academic Writing Skills for Final Degree Projects
- Advanced Computer Control
- Applied Computer Science
- Applied Digital Systems
- Bioelectronics
- B2 Level English
- Circuits Laboratory
- Computational Mathematics Laboratory
- Computer Network Uses and Management
- Computer Vision
- Control Engineering
- Control of Mechatronic Systems
- Dispositivos Lógicos Programables
- Electric Drives
- Electrónica Orgánica y Procesos en el Diseño Electrónico
- Electro-Pneumatic Installations
- Embedded Systems
- European Project Semester (EPS)
- Exchange Programme
- Film Music
- History of Electronic Engineering and Automation
- Industrial Applications of Electrical Technology
- Industrial Computing Systems
- Industrial Control Installations
- Industrial Electronic Systems
- Intercambio I - II - III - IV - V - VI
- Introduction to Industry
- Laboratory of Electronics
- Maintenance of Electrical Installations
- Mobile Robotics
- Multimedia Production
- Photovoltaic Solar Energy Installations
- Prevention and Safety in the Industrial Electronics and Automation Industry
- Prevention Methodology in the Industrial Electronics and Automation Industry
- Prevention Technology in the Industrial Electronics and Automation Industry
- Quality and Sustainability Management in Enterprises
- Real-Time Computer Systems
- Reliability, Guarantee, and Preventive Maintenance
- Science and Colour Vision
- Scientific and Technical French B1
- Sensors and Virtual Instrumentation
- Sustainable Development and Environmental Ethics
- Technical English
- University Cooperation for the Development
- Valencia Tècnic C1 - C2
- Water Engineering

Internationally accredited bachelor’s degree (EUR-ACE)