Bachelor’s Degree in Industrial Electronics and Automation Engineering

School of Design Engineering
Building 7B
Campus of Vera (València)

4 courses
240 credits
Spanish, valencian and english
Credit 19.27€ (2020/2021)
It will make you eligible for scholarships
150 places

info@etsid.upv.es
+34 963 877 180
www.upv.es/titulaciones/GIEIA/

It will make you eligible for scholarships
Cut-off marks
2018 10,372
2019 9,954
2020 10,338

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.

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.

Continuation of studies

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

- MD in Industrial Engineering
- MD in Automation and Industrial Informatics
- MD in Integrated Computer-Aided Design and Manufacturing
- MD in Electronic Systems Engineering
- MD in Maintenance Engineering
- MD in Mechatronics Engineering
- MD in Energy Technologies for Sustainable Development

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

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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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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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
- Computational Mathematics Laboratory
- Computer Network Uses and Management
- Computer Vision
- Control Engineering
- Control of Mechatronic Systems
- Dispositivos Lógicos Programables
- Electric Drives
- Electronics Laboratory
- Electro-Pneumatic Installations
- Embedded Systems
- European Project Semester (EPS)
- Exchange I - II - III - IV - V - VI
- Film Music
- History of Electronic Engineering and Automation
- Industrial Applications of Electrical Technology
- Industrial Computing Systems
- Industrial Control Installations
- Industrial Electronic Systems
- Introduction to Industry

**Laboratory courses**
- Laboratory of Circuits
- Maintenance of Electrical Installations
- Mobile Robotics
- Multimedia Production
- Organic Electronics and Electronic Design Processes
- 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 Biosensors
- Sensors and Virtual Instrumentation
- Sustainable Development and Environmental Ethics
- Technical English
- Technical Valencian C1 - C2
- University Cooperation for Development
- Water Engineering

Internationally accredited bachelor’s degree (EUR-ACE)