

Label	EUR-ACE®
Higher Education Institution	UNIVERSIDAD CARLOS III DE MADRID
Country	SPAIN
State/Province	MADRID
Name of the Programme	BACHELOR'S DEGREE IN ELECTRICAL POWER ENGINEERING
Degree Awarded	BACHELOR'S DEGREE IN ENGINEERING
Qualification Level	First Cycle
Programme Objectives;	<p><i>The aim of the degree is to train students to become experts in the field of electric power engineering, which means having verified abilities in several fields of industrial engineering (Mechanics, Structures, Industrial Organization, Thermal Engineering, Fluid Mechanics, Manufacturing and use of new materials and components ...), but specially in those that will allow them to manage and design electrical facilities in low and high voltage (LV, HV), power transmission lines, electrical machinery, electromechanical drives, electric power generation plants, industrial control and power electronics systems. This bachelor's degree qualifies to practice the regulated profession of an Industrial Technical Engineer according to Spanish laws.</i></p>
Profile	<p><i>The profile of this graduate is set with the learning outcomes achieved, including, first, knowledge and understanding of the general fundamentals of engineering and, in particular, those related to electric power engineering. Graduates will be able to carry out a process of analysis to solve problems in the field of electric power engineering with initiative, decision making capability, creativity and critical thinking. They will face the design of industrial products, electrical machinery, electrical facilities in low, medium and high voltage (LV, MV and HV), electric power generation plants, and power transmission lines that should meet the required specifications, and will also have abilities to collaborate with other professionals in related technologies within multidisciplinary teams.</i></p>

	<p>Moreover, graduates will be able to investigate and carry out innovative contributions in the field of electric power engineering. In addition, graduates will be competent to apply their knowledge and understanding to solve problems and design devices or processes in the field of electric power engineering, according to cost, quality, safety, efficiency and environmental constraints criteria. Finally, this degree provides to the graduates the generic skills required for the practice of engineering in today's society: communication of knowledge (oral and written) to both specialist and non-specialist audience, working in multidisciplinary and international teams, continuous learning that enables them to adapt to new situations, etc.</p>
<p>Programme Duration</p>	<p>8 Semester</p>
<p>Total Number of ECTS Credits Awarded</p>	<p>240 ECTS</p>
<p>Brief Description of the Programme</p>	<p>The contents of this degree include basic training in mathematics, physics, chemistry, drawing, programming, business management and statistics (60 ECTS representing 25% from the total).</p> <p>In addition, contents related to transversal skills such as oral and written expression (both in Spanish and English), information search and humanities are included (18 ECTS representing 7.5% from the total).</p> <p>Also there are contents related to the fundamentals of the different areas of industrial engineering such as industrial organization, environmental technology, mechanical engineering, fluid mechanics, materials engineering, thermal engineering, structural mechanics, manufacturing technologies, electronic engineering, industrial automation and electrical engineering (60 ECTS representing 25% from the total).</p> <p>Finally, the student must acquire the specific skills in the field of electric power engineering, which includes contents such as: electric machines and drives, electrical facilities, electric power systems, electric power generation plants, control engineering and power electronics (90 ECTS, 37.5% from the total).</p> <p>The Bachelor thesis is the final activity that allows the practical application of several of these</p>

	<i>previous contents (12 ECTS, 5% from the total).</i>
Examples of Very Good Practice	
Accredited without / with Adjustment Requirements	<i>Accredited with Adjustment Requirements</i>
Adjustment Requirements	<p><i>In subjects directly related to electric power engineering, it should be included more compulsory training activities to improve the ability to apply the knowledge to outline and develop projects meeting some required specifications.</i></p> <p><i>In subjects directly related to electric power engineering, it should be included more compulsory training activities to improve the ability to design and make experiments, analyze data and extract conclusions.</i></p>
Accredited by	ANECA-IIE
Accredited	<i>From the 16th of February 2017 to the 16th of February 2020</i>