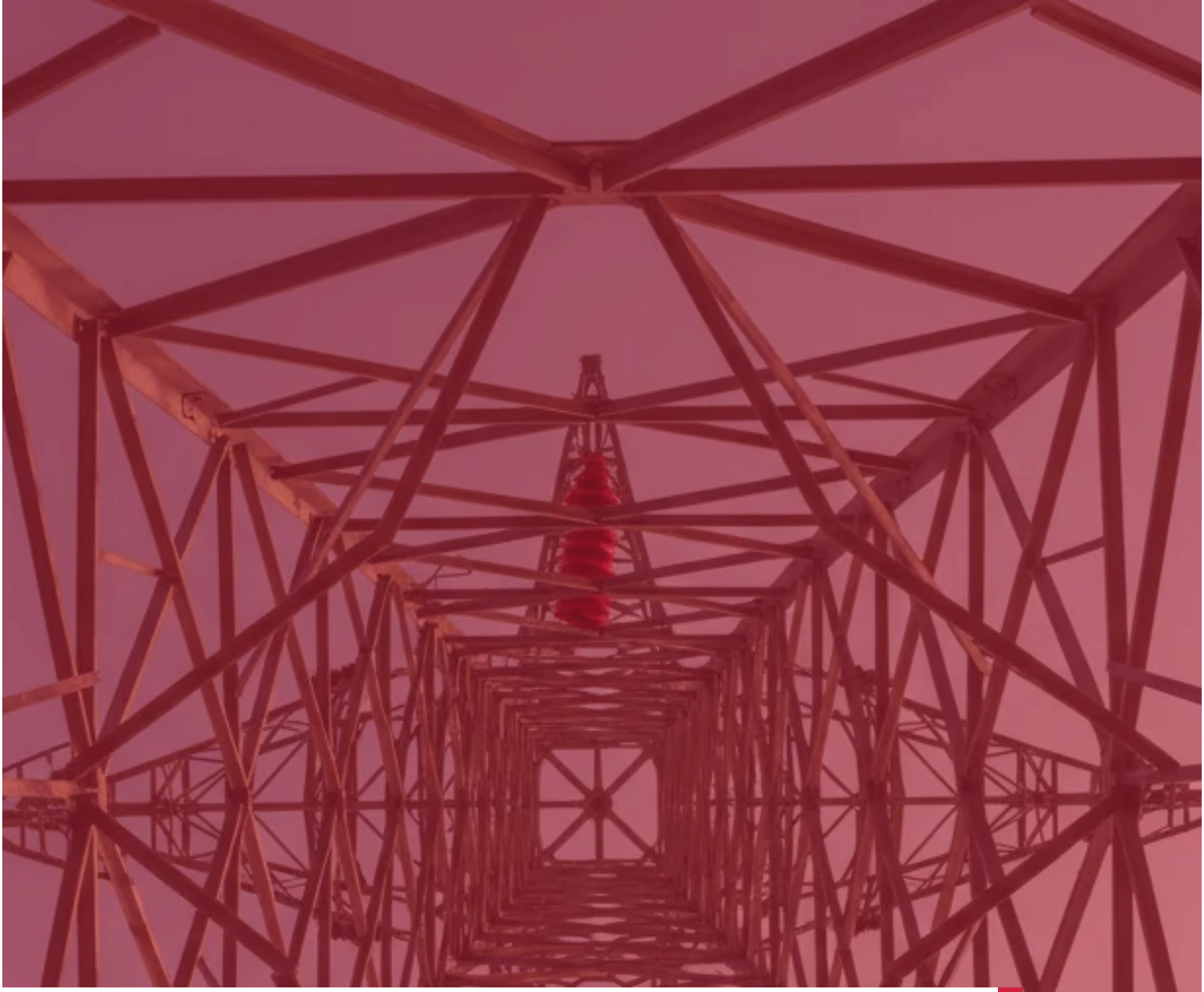


Máster online 100%

Master in Design and Construction of High Voltage Electrical Infrastructures + 60 ECTS Credits

Structuralia

Máster online 100%

Master in Design and Construction of High Voltage Electrical Infrastructures + 60 ECTS Credits

Modality
Online

Languages
Español

Duration
1500 hours (60 ECTS)

No Limit
AI Assistant

Does it include practices?
NO

Educational Institutions

Structuralia Engineering eLearning

UNIVERSIDAD NEBRIJA

Summary

The Master in Design and Construction of High Voltage Electrical Infrastructures is an advanced specialization designed for professionals in the electrical sector who seek to update and deepen their knowledge in the management and execution of highly complex projects. You will delve into the intricate network that forms the basis of any energy system, where the robustness and efficiency of electrical transportation are crucial for continuous supply and minimization of losses. This program equips you to master the strategic and technical management of high-voltage initiatives, from initial planning to execution. You will understand how these extensive networks are critical to system stability and efficiency, addressing challenges such as financing, resource management, and the implementation of advanced technologies. You will develop a comprehensive vision to optimize each phase of the life cycle of these critical infrastructures, ensuring their technical, economic and environmental viability. Quality management, occupational health and safety, along with bidding and

contracting processes, are essential elements that you will master to ensure the success of each initiative in the development of these infrastructures.

Agenda

MODULE 1. PROJECT MANAGEMENT AND CONSTRUCTION OF HIGH VOLTAGE ELECTRICAL INFRASTRUCTURES

1. DIDACTIC UNIT 1. PROJECT MANAGEMENT

2. DIDACTIC UNIT 2. INFRASTRUCTURE FINANCING AND COST ANALYSIS

3. DIDACTIC UNIT 3. HR MANAGEMENT

4. DIDACTIC UNIT 4. ENVIRONMENTAL MANAGEMENT

5. DIDACTIC UNIT 5. OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT

6. DIDACTIC UNIT 6. QUALITY MANAGEMENT

7. DIDACTIC UNIT 7. TENDERING, CONTRACTING AND AWARDING

MODULE 2. HIGH VOLTAGE ELECTRICAL INFRASTRUCTURE PROJECTS

1. DIDACTIC UNIT 1. HIGH VOLTAGE ELECTRICAL INFRASTRUCTURE POLICY

2. DIDACTIC UNIT 2. LEGAL FRAMEWORK

3. DIDACTIC UNIT 3. ENVIRONMENTAL REGULATIONS

4. DIDACTIC UNIT 4. DESIGN PARAMETERS IN HIGH VOLTAGE INSTALLATIONS

5. DIDACTIC UNIT 5. ANALYSIS OF THE SPANISH ELECTRICAL SYSTEM

6. DIDACTIC UNIT 6. OPERATION OF THE SPANISH ELECTRICAL SYSTEM

7. DIDACTIC UNIT 7. PROCESSING OF ADMINISTRATIVE PROCEDURES

MODULE 3. ELECTRICAL ENERGY TRANSPORT LINES

1. DIDACTIC UNIT 1. VISION OF A ONE LINE PROJECT

2. DIDACTIC UNIT 2. AIRLINE TECHNOLOGY

3. DIDACTIC UNIT 3. INSULATED CABLE LINES TECHNOLOGY

4. DIDACTIC UNIT 4. AIRLINE ELECTRICAL CALCULATIONS

5. DIDACTIC UNIT 5. AIRLINE MECHANICAL CALCULATIONS

6. DIDACTIC UNIT 6. CONSTRUCTION OF AIRLINES

7. DIDACTIC UNIT 7. CONSTRUCTION OF INSULATED CABLE LINES

8. DIDACTIC UNIT 8. UNIQUE PROJECTS

MODULE 4. HIGH VOLTAGE SUBSTATIONS

1. DIDACTIC UNIT 1. FUNCTIONS AND CHARACTERISTICS OF HIGH VOLTAGE SUBSTATIONS

2. DIDACTIC UNIT 2. HIGH VOLTAGE EQUIPMENT

3. DIDACTIC UNIT 3. INSULATION TECHNOLOGIES

4. DIDACTIC UNIT 4. HIGH VOLTAGE DIRECT CURRENT LINKS

5. DIDACTIC UNIT 5. DESIGN AND CONSTRUCTION OF HIGH VOLTAGE ELECTRICAL SUBSTATIONS

MODULE 5. AUXILIARY SYSTEMS TO ELECTRICAL INFRASTRUCTURES

1. DIDACTIC UNIT 1. CONSTRUCTION PROJECT AND PROTECTION SYSTEMS

2. DIDACTIC UNIT 2. CONTROL SYSTEMS PROJECT

3. DIDACTIC UNIT 3. TELECOMMUNICATIONS SYSTEMS

4. DIDACTIC UNIT 4. DESIGN AND CONSTRUCTION OF AUXILIARY SERVICES SYSTEMS

5. DIDACTIC UNIT 5. PROJECT AND CONSTRUCTION OF SECURITY SYSTEMS

MODULE 6. TFM. MASTER DESIGN AND CONSTRUCTION OF HIGH VOLTAGE ELECTRICAL INFRASTRUCTURES

Qualification

University Degree in Master of Lifelong Training in Design and Construction of High Voltage Electrical Infrastructures issued by the Antonio de Nebrija University with 60 ECTS University Credits. Teachings not leading to obtaining an official qualification

Objectives

- • Lead the comprehensive management of projects for the development of energy transportation infrastructure. • Establish financing strategies and economic analysis for the sustainability of large initiatives. • Optimize the management of equipment and resources in the field of construction of electrical networks. • Incorporate environmental, safety and health management in all stages of energy infrastructure. • Interpret and apply the regulatory and regulatory framework in the design and execution of high voltage systems. • Evaluate and integrate technological innovations in electricity transportation and distribution systems. • Formulate strategic decisions in bidding and contracting processes for electrical infrastructure projects. • Master the essential methodologies and phases in the execution and operation of high voltage infrastructures. • Develop a strategic perspective on the global evolution of electrical infrastructures.

What does it prepare you for?

This program prepares you to lead transformation and innovation in the field of high voltage infrastructure. You will develop a comprehensive strategic vision that will allow you to direct complex projects, ranging from the bidding and contracting phase to execution and post-construction management. The Master in Design and Construction of High Voltage Electrical Infrastructure trains professionals in the strategic management of projects, focusing on the optimization of the energy transportation network. You will learn to design robust financing strategies and accurately evaluate the economic impact of investments. You will manage multidisciplinary teams, integrating environmental management, occupational health and safety, and the most demanding quality standards. You will implement advanced techniques in the construction and maintenance of these infrastructures, ensuring their operational efficiency and long-term sustainability.

Who is it addressed to?

Aimed at professionals in the electrical sector who work in companies that own high-voltage energy transport infrastructures, engineering companies or auxiliary companies. Those who work in technical roles and seek high-level specialization to update their knowledge in the management and construction of electrical infrastructures will find the necessary depth in this master's degree. It is aimed at those who wish to advance in project financing, environmental and occupational safety management, as well as the legal framework and advanced technologies that govern the development of the high voltage network, seeking a strategic vision to lead complex initiatives.

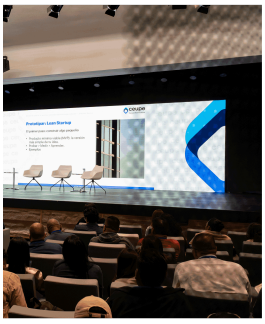
Official Character

This training is not included within the scope of official regulated training (Early Childhood Education, Primary Education, Secondary Education, Official Vocational Training FP, Baccalaureate, University Degree, Master University Officer and Doctorate). It is therefore a complementary and/or specialization training, aimed at the acquisition of certain competencies, skills or aptitudes of a professional nature, which can be assessed as merit in job boards and/or competitive examinations, always within the section of Complementary Training and/or Continuous Training. It is always essential to review the specific grading requirements of the specific public job boards to which we wish to apply.

Professional Outings

- Specialization in the high voltage electrical infrastructure sector positions you to assume highly responsible roles. You will be able to lead teams as Electrical Infrastructure Project Director, supervising from conception to commissioning, ensuring technical and economic viability. It will allow you to work as a High Voltage Network Construction Manager, managing human resources, environmental aspects and occupational safety in complex works. You will be a Consultant Specialized in Financing and Tendering of Energy Projects, advising on the financial and contractual structuring of large initiatives. Your profile will be key in companies that own networks, specialized engineering and consulting companies in the sector, where your strategic vision in quality management and occupational safety will be highly valued, contributing to the development and optimization of the energy transportation network.







Live Madrid

Live the International Week

As an additional complement to your training, you can be part of the SIM: Week International in Madrid. A unique meeting that brings together students from all over the world. For seven days you can live an academic and cultural experience in the heart of Europe, culminating with the graduation ceremony in Madrid.

- Conferences and workshops with international experts
- Visits to companies and reference organizations
- Networking with students from different countries
- Cultural activities and discovery of Madrid
- graduation ceremony

Structural

Structuralia is a leading educational institution in postgraduate and highly specialized online training, focused on the fields of engineering, architecture, construction, energy, technology and digital transformation.

Founded in 2001 with a strong industrial DNA, the result of collaboration between large companies in the sector and the Universitat Politècnica de Catalunya (UPC), for more than 25 years we have accompanied technical professionals in their academic and professional development through practical, flexible training aligned with the reality of the labor market.

Our training proposal connects advanced technical knowledge, real employability and international projection, acting as key support in the professional evolution of those seeking to specialize, grow professionally and generate impact in their sector, with a firm commitment to the democratization of access to technical excellence.



+350.000

Students have gone through our virtual classrooms



+20 years

Experience in the training sector



5 stars

QS ranking in online education

EDUCA EDTECH
Group

Educa Edtech GROUP

When you enroll in a course or master's degree, you will get a free subscription to MyLXP while your training lasts. You will have access to more than 400 key courses (soft skills, languages, digital skills, etc.) and other surprises. Sign up and see how MyLXP improves your learning.

EDUCA LXP Methodology

The comprehensive tailored online education experience

EDUCA LXP is more than a methodology, it is a completely educational experience personalized thanks to all the possibilities offered by artificial intelligence. Now the content adapts to you, your needs and preferences, while offering you access to updated and practical content that really makes a difference in the labor market.

Flexibility

100% online learning adapted to your schedule: study from any device wherever, whenever and however you want.

Personalization

Contents and training itineraries adapted to your needs, thanks to AI.

Innovation

Constantly evolving technological developments driven by AI through the Learning Experience Platform.

Artificial intelligence

Discover PHIA, your learning assistant that will help you every step of the way.

Teaching support

Human empathy and academic guidance from a specialized teaching team.

Educational Experience

Didactic approach oriented to work by competencies, which favors practical and meaningful learning.

MY LXP

When you enroll in a course or master's degree, you will get a free subscription to MyLXP while your training lasts

You will have access to more than 400 key courses (soft skills, languages, competencies digital, etc.) and other surprises. Sign up and see how MyLXP improves your learning.

Meet PHIA, your personalized learning assistant

Use all the possibilities of artificial intelligence to get the most out of it match to your training

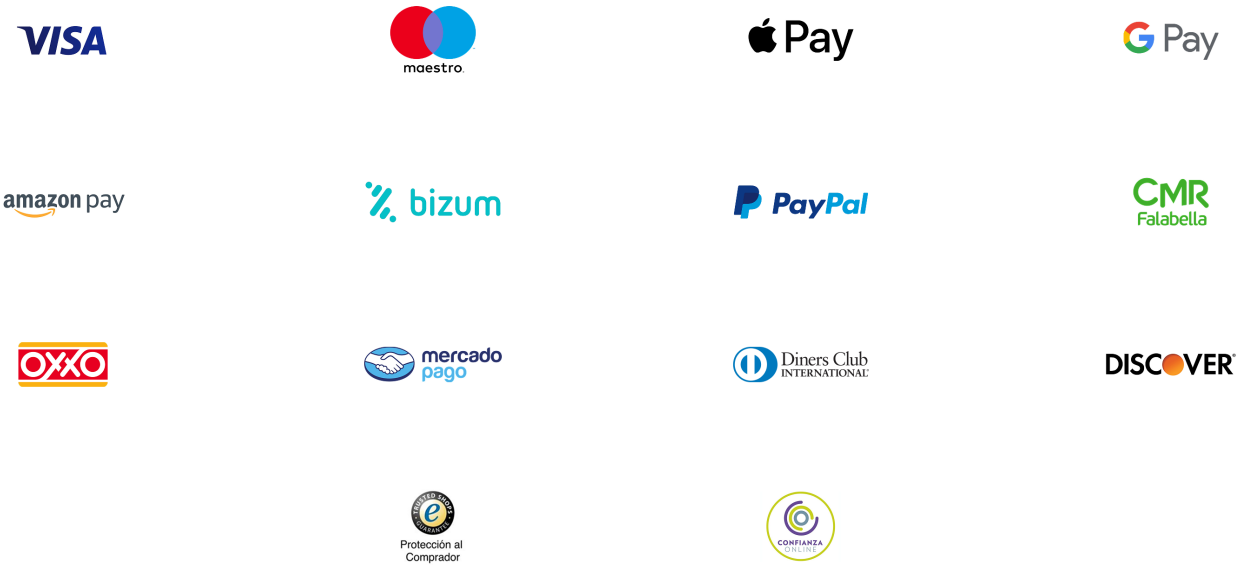
EDUCA EDTECH Group leads the digital revolution in education, promoting the continuous learning and technological transformation. The group is made up of recognized training institutions and its mission is to democratize access to education, promote the transfer of knowledge, technological development and research.

With the experience accumulated over more than 20 years, we have perfected our learning platform EDUCA LXP (Learning Experience Platform), the basis of our educational methodology, which provides students with online training practical and meaningful.



Discover all the payment facilities

We adapt to all international payment methods.



Funding and scholarships

Finance your course or master's degree and enjoy the available scholarships. Contact our expert team to know which one best suits your profile.

25%
Alumni Scholarship

15%
Scholarship recommended

20%
Functional Diversity Scholarship

20%
Unemployment scholarship

15%
GROUP Scholarship

20%
Scholarship for Professionals, Healthcare, members

15%
Entrepreneurship Scholarship

20%
Large Family Scholarship