

Máster online 100%

Master in Maintenance of High Voltage Electrical Infrastructures + 60 ECTS Credits

Structuralia



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Master in Maintenance 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

This program allows you to delve deeper into the operation and exploitation of high voltage infrastructure, mastering advanced conservation models and plans. Electricity, an essential resource for modern society, is distributed through an extensive network that connects production to points of consumption. This critical infrastructure has the purpose of ensuring the constant availability of energy and minimizing losses along its path. You will address environmental administration, occupational health and safety, and quality in conservation operations, crucial elements for the sustainability and efficiency of the sector. In addition, you will specialize in specific techniques for the conservation of overhead lines and high voltage cables, understanding their components and systems. With this training, you will perfect your skills to face the challenges inherent to the electric transmission network, guaranteeing its reliability and performance, and contributing to the optimization of global energy networks. You will develop a strategic vision on the resilience and operational efficiency of electrical systems, integrating the latest technological innovations and

international regulations for proactive and predictive management of assets, essential for the continuity of service and the competitiveness of the sector.

Agenda

MODULE 1. MAINTENANCE MANAGEMENT OF HIGH VOLTAGE ELECTRICAL INFRASTRUCTURES

1. DIDACTIC UNIT 1. OPERATION AND EXPLOITATION OF HIGH VOLTAGE INFRASTRUCTURE

2. DIDACTIC UNIT 2. MAINTENANCE MODELS AND PLANS

3. DIDACTIC UNIT 3. ENVIRONMENTAL MANAGEMENT IN MAINTENANCE OPERATIONS

4. DIDACTIC UNIT 4. MANAGEMENT OF WORKPLACE SAFETY AND HEALTH IN MAINTENANCE OPERATIONS

5. DIDACTIC UNIT 5. QUALITY MANAGEMENT IN MAINTENANCE OPERATIONS

MODULE 2. HIGH VOLTAGE OVERHEAD LINES MAINTENANCE TECHNIQUES

1. DIDACTIC UNIT 1. REGULATORY FRAMEWORK

2. DIDACTIC UNIT 2. SUPPORTS AND FOUNDATIONS

3. DIDACTIC UNIT 3. EARTHING

4. DIDACTIC UNIT 4. CONDUCTORS, GROUND CABLES AND HARDWARE

5. DIDACTIC UNIT 5. INSULATORS

6. DIDACTIC UNIT 6. STREET TREATMENT

7. DIDACTIC UNIT 7. WORK IN TENSION (TET)

8. DIDACTIC UNIT 8. PERIODIC REVIEWS OF LINES AND THERMOGRAPHY

MODULE 3. HIGH VOLTAGE CABLE MAINTENANCE TECHNIQUES

1. DIDACTIC UNIT 1. NEED FOR MAINTENANCE ON ISOLATED LINES

2. DIDACTIC UNIT 2. DIAGNOSTIC TECHNIQUES

3. DIDACTIC UNIT 3. FAULT ANALYSIS. CABLES

4. DIDACTIC UNIT 4. FAILURE LOCATION IN CABLES

5. DIDACTIC UNIT 5. FAULT ANALYSIS. ACCESSORIES

6. DIDACTIC UNIT 6. MAINTENANCE RANGE

MODULE 4. MAINTENANCE TECHNIQUES IN PRIMARY SYSTEMS AND PROTECTION SYSTEMS (AT)

1. DIDACTIC UNIT 1. MAINTENANCE OF POWER TRANSFORMERS. REACTANCES

2. DIDACTIC UNIT 2. SWITCH MAINTENANCE

3. DIDACTIC UNIT 3. MAINTENANCE OF AIR INSULATED SWITCHGEAR

4. DIDACTIC UNIT 4. MAINTENANCE OF GIS TYPE SUBSTATIONS

5. DIDACTIC UNIT 5. MAINTENANCE OF PROTECTION AND MEASUREMENT SYSTEMS IN HIGH AND VERY HIGH VOLTAGE POWER SYSTEMS

MODULE 5. MAINTENANCE OF TELECOMMUNICATIONS, CONTROL AND OTHER SYSTEMS (HIGH VOLTAGE)

1. DIDACTIC UNIT 1. TELECOMMUNICATIONS SERVICES

2. DIDACTIC UNIT 2. THE TELEPROTECTION SERVICE

3. DIDACTIC UNIT 3. THE REMOTE CONTROL SERVICE

4. DIDACTIC UNIT 4. THE MANAGEMENT OF TELECOMMUNICATIONS SERVICES

5. DIDACTIC UNIT 5. TELECOMMUNICATIONS TECHNOLOGIES FOR DIFFERENT SERVICES

6. DIDACTIC UNIT 6. REMOTE CONTROL SYSTEMS IN ELECTRICAL SUBSTATIONS

7. DIDACTIC UNIT 7. AUXILIARY SERVICES IN ELECTRICAL SUBSTATIONS

8. DIDACTIC UNIT 8. INFORMATION SECURITY IN ELECTRICAL SYSTEMS

MODULE 6. TFM. MASTER IN MAINTENANCE OF HIGH VOLTAGE ELECTRICAL INFRASTRUCTURES

Qualification

University Degree in Master of Lifelong Training in Maintenance 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

- • Direct the comprehensive administration of conservation in high voltage facilities, optimizing operating models and plans. • Implement advanced environmental management strategies in electrical system preservation operations. • Lead the application of occupational health and safety protocols, ensuring optimal work environments in the conservation of energy networks. • Design and integrate quality management systems for conservation operations, raising service standards in the electricity sector. • Evaluate and apply specialized techniques for the preventive and corrective conservation of high voltage overhead lines, considering their critical components. • Manage the conservation of high voltage cables, including the identification of types, terminals and grounding systems. • Interpret and apply the current regulatory framework that governs the operation and conservation of high voltage electrical infrastructure. • Make strategic decisions to optimize the operation and exploitation of high voltage infrastructure, minimizing losses and guaranteeing supply. • Integrate a global vision of administration and conservation techniques, projecting the resilience and efficiency of distribution and transportation networks.

What does it prepare you for?

This specialization prepares you to lead the administration of the conservation of high-voltage electrical infrastructure, transforming your management and strategic decision-making capacity. You will acquire the skills to design and implement advanced conservation models and plans, optimizing the operation and exploitation of the transportation network. You will successfully manage the environmental, occupational health and safety, and quality aspects inherent to these operations. You will develop a global vision that will allow you to integrate the conservation techniques of overhead lines and high voltage cables, from the regulatory framework to the specific components. You will make informed decisions that ensure the reliability and continuity of the electrical supply, raising the standards of your organization in the management of critical assets.

Who is it addressed to?

Aimed at professionals in the electrical sector, including technical personnel and engineers from companies that own infrastructure, engineering firms or auxiliary companies, who seek high-level specialization in the administration and conservation techniques of high-voltage electrical infrastructure. This master's degree is ideal for those who want to optimize the operation and exploitation of the transportation network, or delve deeper into advanced conservation models and plans. If you are interested in safety, environmental management and quality in the maintenance operations of complex electrical systems, this training offers you the necessary strategic and technical vision. The qualification of the Pontifical University of Comillas • ICAI guarantees its academic rigor.

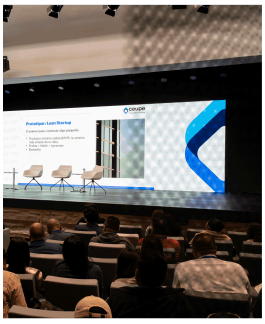
Official Character

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 management and maintenance techniques of high-voltage electrical infrastructure positions you in the energy sector to assume highly responsible roles. You will be able to serve as Director of Electrical Network Maintenance, leading teams and operational strategies for supply reliability. It will also open doors for you as a High Voltage Operations Manager, directing the operation and maintenance of complex systems. You will become a Senior Electrical Infrastructure Engineer, providing your expertise in the design and implementation of advanced maintenance plans. In addition, you will be able to develop as a Specialized Consultant in Electrical Asset Management, advising large corporations on the optimization of network operations, or as a Substation Maintenance Project Manager, coordinating critical interventions. This training prepares you to directly influence the safety and performance of the electric 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

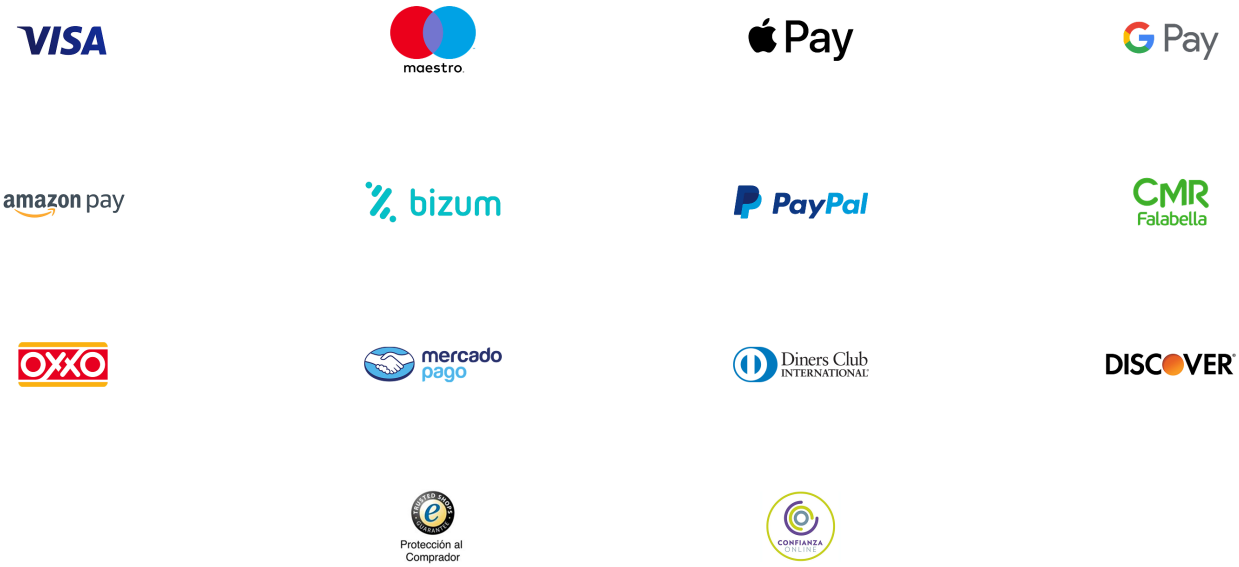
EDUCA EDTECH Group leads the digital revolution in education, promoting the continuous learning and technological transformation. The group is made up of recognized training institutions and its mission is to democratize access to education, promote the transfer of knowledge, technological development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