

Postgraduate Certificate Energy Management Systems in Organizations



Postgraduate Certificate Energy Management Systems in Organizations

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Credits: 6 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/us/engineering/postgraduate-certificate/energy-management-systems-organizations

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01

Introduction

This program proposes a complete immersion in the energy management system presented in the latest version of the ISO 50001: 2018 standard, by which the high-level structure is incorporated into this framework. A learning process in which the specific points of organizational context, stakeholder identification and risk and opportunity analysis are discussed in depth, always with reference to energy management and how they affect energy performance.





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A high-level program that will allow you to learn about and analyze ISO 5001: 2018 in the context of its integration in organizations”

The planning section focuses on the new standard of specifications and the constraints involved in establishing the energy performance of each Significant Energy Use. It will also consider how to determine a measurement plan for all the necessary parameters.

Another critical point that is discussed in depth is the determination of the energy baseline, modeling the consumption itself with the variables that affect it and taking into account the effect of static factors. There is special focus on how not having a good baseline can condition the lack of evidence of continuous improvement of energy performance, with the important repercussions that this can have on the certification process of the system.

Finally, concrete examples of innovative communication methodologies and energy consideration, integrated within the system, are presented.

By completing and passing the evaluations of this program, the student will obtain sound knowledge of the rules and regulations to be applied in relation to environmental and energy management in organizations. A complete and highly-intensive program, which will allow you to incorporate the most up-to-date knowledge in this field of work into your practice. A highly interesting subject due to its current relevance and because the standards that will be studied in this Postgraduate Certificate must be integrated in all organizations.

With an approach focused on efficiency, this Postgraduate Certificate has been created to allow students to optimize their efforts and achieve the best learning results in the shortest possible time. Additionally, as it is a 100% online program, the student is not constrained by fixed timetables or the need to move to another physical location, but can access the contents at any time of the day, balancing their professional or personal life with their academic life.

This **Postgraduate Certificate in Energy Management Systems in Organizations** contains the most complete and up-to-date educational program on the market. The most important features of the specialization are:

- ◆ Practical cases presented by experts in the field
- ◆ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- ◆ Practical exercises where the self-assessment process can be carried out to improve learning
- ◆ Special emphasis on innovative methodologies
- ◆ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ◆ Content that is accessible from any fixed or portable device with an Internet connection



An intensive and highly effective course that will allow the professional to make a qualitative leap in their professional practice"

“*Learn how the requirements of current environmental management standards affect organizations in any project*”

Supported by excellent multimedia content, developed with the latest educational technology, this Postgraduate Certificate will provide the professional with situated and contextual learning, i.e., the opportunity to study in a simulated environment that will provide immersive learning programmed to train in real situations.

The design of this program focuses on Problem-Based Learning, which means the student must try to solve the different real-life situations that arise throughout the academic program. For this purpose, the professional will be assisted by an innovative interactive video system, developed by renowned and experienced experts in Energy Management Systems in Organizations

With comprehensive and up-to-date teaching material and the best audiovisual systems on the educational market, to provide you with an immersive learning experience

A 100% online Postgraduate Certificate that will allow you to combine your studies with your professional work in a completely flexible way



02

Objectives

The general objective of this Postgraduate Certificate is to promote the professional's capacity to act in this field so that they can incorporate the main advances in this field of work and the latest intervention techniques into their daily practice.



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Gain the most extensive and up-to-date knowledge of all aspects involved in energy management in organizations in just a few weeks”



General Objectives

- ◆ Gain an in-depth understanding of the applicable legislation and regulatory framework for each of the program's topics
- ◆ Carry out the calculation of the carbon and water footprint of different facilities
- ◆ Carry out product life cycle analysis

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Professional growth that will give you the upgrade boost you've been looking for”





Specific Objectives

- ◆ Implement and develop energy management systems according to ISO 50001
- ◆ Master energy review development
- ◆ Apply tools for baseline calculation
- ◆ Tackle energy efficiency awareness campaigns

03

Course Management

A multidisciplinary teaching faculty will offer the most up-to-date and comprehensive knowledge in this field, accompanying students during the learning process and sharing their experience and real vision of the profession. A unique opportunity to learn directly from experts in this field of work.



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You will learn from experts in this sector, who will provide you with a specific and direct vision of the reality of this field of work"

International Guest Director

With an exceptional professional career, Sarah Carson has focused her research on **environmental compliance and sustainability in higher education**. For more than 3 decades, she has been part of Cornell University's research team charged with implementing and analyzing the **impact of policies** for the **care of natural resources**. Thanks to her experience in this area of expertise, she has been chosen to lead the **Office of Campus Sustainability** at Cornell University.

In this way, this expert directs the **electricity supply projects**, aimed at **reducing the carbon footprint** of the higher education center. As such, she has implemented innovative technologies that help, for example, to maintain high temperatures during the winter in the educational facilities. Specifically, her team has opted to implement a **renewable geothermal heat source** called "ground-source heat", the beneficial results of which have already been reported in **several global impact reports**.

At the same time, she has actively participated in the **energy policy of New York**, related to the generation of renewable energy. To this end, she has collaborated in the volunteer program for the **Regional Greenhouse Gas Initiative** in this US state. The latter is based on the **Cap and Trade model**, which allows the university, the local government and other participants to **claim renewable energy credits**.

As for her academic life, Carson holds a degree in **Natural Resources Management and Policy** from North Carolina State University. She also holds a degree in **Environmental Science and Policy** from the School of Environmental Science and Forestry at the State University of New York.



Ms. Carson, Sarah

- Director, Office of Sustainability, Cornell University, New York, United States
- Head of Campus Climate Action, Cornell University, New York, USA
- Environmental Management Specialist, Cornell University
- Environmental Information Officer, Cornell University
- B.S. in Natural Resource Management and Policy from North Carolina State University
- B.S. in Environmental Science and Policy from the State University of New York

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Thanks to TECH, you will be able to learn with the best professionals in the world”

Management



Ms. Cubillo Sagües, María Ignacia

- ♦ Senior Mining Engineer, Polytechnic University of Madrid
- ♦ Executive MBA Academic discipline: Executive MBA from IE (Business Institute)
- ♦ Master's Degree in "The Economics of Energy Management of Buildings", Agustín Betancourt Foundation, ETSI Roads, Polytechnic University of Madrid
- ♦ CMVP (Certificate in Measurement and Verification of Energy Savings), Academic discipline IPMVP (International Measurement and Verification Protocol) from the Association of Energy Engineers (AEE)
- ♦ Chief Energy Auditor in Industry and Building, Academic discipline Energy Efficiency. Certified by the AEC (Spanish Quality Association)
- ♦ Technical Auditor for ENAC in ISO 50001 National Accreditation Entity
- ♦ Technical Auditor in ISO 17020, ISO 17021 and ISO 17024, for ENAC, in Energy Efficiency
- ♦ General Director of SinCe02 Energy Consulting

Professors

Mr. Ortega Abad, Alberto

- ◆ Chief Energy Auditor in Buildings for the Spanish Quality Association (AEC)
- ◆ Degree in Chemical Sciences from the National Distance Education University (UNED)
- ◆ Master's Degree in Food Technology and Control from the Centro de Estudios Superiores de la Industria Farmacéutica de Madrid (Center for Higher Studies of the Pharmaceutical Industry of Madrid)
- ◆ European Energy Manager from the Eurem Program
- ◆ Technical Expert Diploma in ISO 17024 Inspection Entities, by the National Accreditation Entity (ENAC)



Comprehensive, up-to-date and highly efficient education, this program is your chance to jump-start your professional skills and compete among the best in the industry"

04

Structure and Content

The syllabus of this Postgraduate Certificate includes all the contents required to develop extensive and up-to-date knowledge of all the aspects involved in the adequate management of energy systems, with the consideration and analysis of all the existing possibilities in this field. A program specifically created to provide our students with continuous improvement that will boost their professional skills in the field of intervention.





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A stimulating and flexible learning process that will lead you, without you realizing it, to excellence in energy management in any organization"

Module 1. Energy Management Systems

- 1.1. Management Systems: ISO 50001
 - 1.1.1. Reference Standard and Other Associated Standards
 - 1.1.2. Approach to Energy Performance
 - 1.1.3. Correspondence between ISO 50001: 2018 and ISO 50001: 2011
- 1.2. Organizational Context and Leadership
 - 1.2.1. Scope
 - 1.2.2. Energy Policy
 - 1.2.3. Stakeholder Identification and Risk/Opportunity Assessment
- 1.3. Energy Review
 - 1.3.1. Identification of Energy Sources
 - 1.3.2. Determination of Significant Energy Uses
 - 1.3.3. Identification of Variables and Static Factors
 - 1.3.4. Calculation of Energy Performance
 - 1.3.5. Estimation of Future Consumption
 - 1.3.6. Identification of Improvement Opportunities
- 1.4. Baseline and Energy Performance Indicators
 - 1.4.1. Establishment of the Reference Period
 - 1.4.2. Establishment of Energy Performance Indicators
 - 1.4.3. Monitoring of Consumption, Baselines and Indicators
- 1.5. Support
 - 1.5.1. Training Needs within the SGen
 - 1.5.2. Communications within the SGen
 - 1.5.3. Documentation Control
- 1.6. Operation: Maintenance and Operations
 - 1.6.1. Establishing the Most Efficient Operating Criteria
 - 1.6.2. Establishing the Most Efficient Maintenance Ranges
 - 1.6.3. Energy Savings from Predictive Maintenance
- 1.7. Operation: Design of Efficient Facilities
 - 1.7.1. Purchases of Energy Consuming Equipment
 - 1.7.2. Design of New Thermal Installations
 - 1.7.3. Design of New Lighting Installations





1.8. Performance Evaluation

- 1.8.1. Evaluation of Compliance with Legal Requirements
- 1.8.2. Internal Audit as a Fundamental Tool
- 1.8.3. Management Review Objectives and Points to Be Addressed

1.9. Improvement

- 1.9.1. Non-Conformities and Corrective Actions
- 1.9.2. Continuous Improvement of the SGen
- 1.9.3. Continuous Improvement of Energy Performance

1.10. Energy Efficiency Awareness

- 1.10.1. Facility Users as Key SGen Personnel
- 1.10.2. Awareness Campaign Models
- 1.10.3. Case Study

“ Advance your skills with
the most interesting study
systems on the online
teaching scene”

05

Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.





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Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

At TECH we use the Case Method

Our program offers a revolutionary method of skills and knowledge development. Our goal is to strengthen skills in a changing, competitive, and highly demanding environment.

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At TECH, you will experience a way of learning that is shaking the foundations of traditional universities around the world"



We are the first online university to combine Harvard Business School case studies with a 100% online learning system based on repetition



A learning method that is different and innovative

This intensive Engineering program at TECH Global University prepares you to face all the challenges in this field, both nationally and internationally. We are committed to promoting your personal and professional growth, the best way to strive for success, that is why at TECH Global University you will use Harvard *case studies*, with which we have a strategic agreement that allows us, to offer you material from the best university in the world.

“*Our program prepares you to face new challenges in uncertain environments and achieve success in your career*”

The case method is the most widely used learning system by the best faculties in the world. The case method was developed in 1912 so that law students would not only learn the law based on theoretical content. It consisted of presenting students with real-life, complex situations for them to make informed decisions and value judgments on how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

What should a professional do in a given situation? This is the question that you are presented with in the case method, an action-oriented learning method. Throughout the program, the studies will be presented with multiple real cases. They will have to combine all their knowledge and research, and argue and defend their ideas and decisions.

The student will learn, through collaborative activities and real cases, how to solve complex situations in real business environments

Relearning Methodology

TECH is the first university in the world to combine Harvard University case studies with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

We enhance Harvard case studies with the best 100% online teaching method: Relearning.

In 2019, we obtained the best learning results of all online universities in the world

At TECH, you will learn using a cutting-edge methodology designed to train the executives of the future. This method, at the forefront of international teaching, is called Relearning.

Our university is the only university in the world authorized to employ this successful method. In 2019, we managed to improve our students' overall satisfaction levels (teaching quality, quality of materials, course structure, objectives...) based on the best online university indicators.



In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

This methodology has trained more than 650,000 university graduates with unprecedented success in fields as diverse as biochemistry, genetics, surgery, international law, management skills, sports science, philosophy, law, engineering, journalism, history, and financial markets and instruments. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

Relearning will allow you to learn with less effort and better performance, involving you more in your learning, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for success

From the latest scientific evidence in the field of neuroscience, not only do we know how to organize information, ideas, images and memories, but we know that the place and context where we have learned something is fundamental for us to be able to remember it and store it in the hippocampus, to retain it in our long-term memory.

In this way, and in what is called neurocognitive context-dependent e-learning, the different elements in our program are connected to the context where the individual carries out their professional activity.



This program offers the best educational material, prepared with professionals in mind:



Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



Classes

There is scientific evidence suggesting that observing third-party experts can be useful. Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



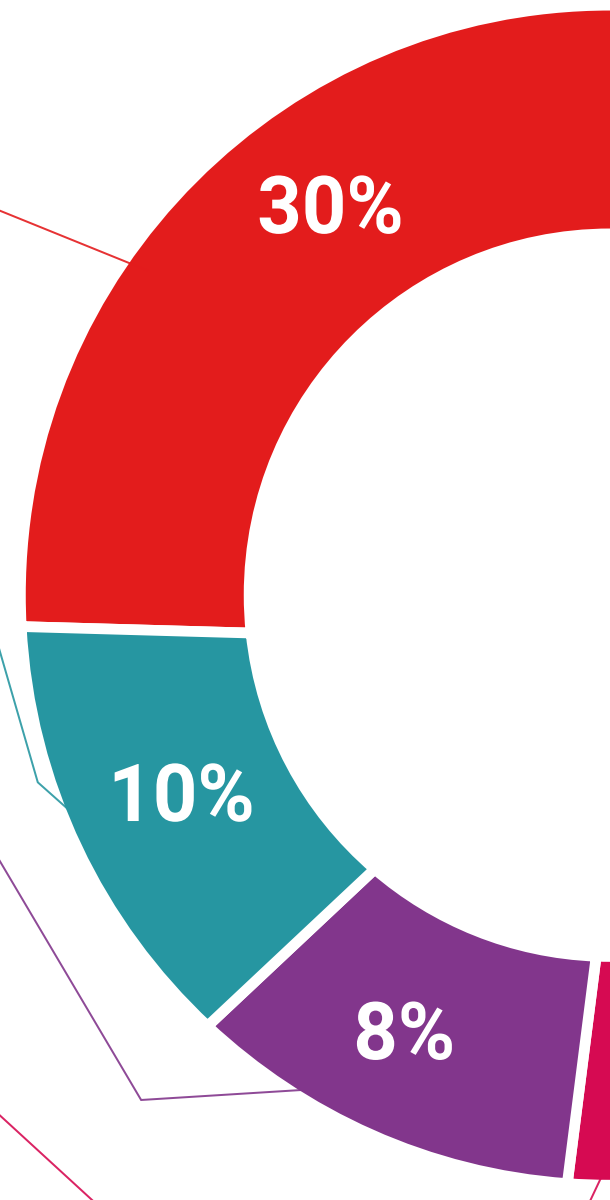
Practising Skills and Abilities

They will carry out activities to develop specific competencies and skills in each thematic area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization we live in.



Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





Case Studies

They will complete a selection of the best case studies in the field used at Harvard. Cases that are presented, analyzed, and supervised by the best senior management specialists in the world.



Interactive Summaries

The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises: so that they can see how they are achieving their goals.



06

Certificate

The Postgraduate Certificate in Energy Management Systems in Organizations guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.



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Successfully complete this program and receive your university qualification without travel or laborious paperwork”

This program will allow you to obtain your **Postgraduate Certificate in Energy Management Systems in Organizations** endorsed by **TECH Global University**, the world's largest online university.

TECH Global University is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Energy Management Systems in Organizations**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH Global University will make the necessary arrangements to obtain it, at an additional cost.

future
health confidence people
education information tutors
guarantee accreditation teaching
institutions technology learning
community commitment
personalized service innovation
knowledge present
development language
virtual classroom

tech global
university

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