

# Postgraduate Diploma Passive Energy Optimization Measures in Buildings



## Postgraduate Diploma Passive Energy Optimization Measures in Buildings

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 24 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/engineering/postgraduate-diploma/postgraduate-diploma-passive-energy-optimization-measures-buildings](http://www.techtute.com/us/engineering/postgraduate-diploma/postgraduate-diploma-passive-energy-optimization-measures-buildings)

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# 01

# Introduction

This module develops the content related to intervention measures with respect to the possibilities of envelope optimization, by means of thermal insulation and the correct arrangement of materials, both in Refurbishment and New Construction.

A high intensity educational program that will take you to the highest levels of competence in this essential area of work.

This module develops the content related to the different types of carpentry offered by the market and the intervention measures with respect to the possibilities of optimizing carpentry and glazing, both in rehabilitation and in new construction.





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*Acquire the most advanced and up-to-date knowledge in the field of Building Rehabilitation and Energy Saving with a highly qualified expert and training impact”*

The key concepts of analysis such as transmittances and conductivities of materials and construction details will be presented, as well as how to calculate them in order to compare parameters of different intervention options.

We will analyze different types of insulating materials for foundations, facades, roofs, slabs in contact with the outside air either in floor or roof layout, as well as singular encounters such as the insulation of retaining walls in contact with the building and encounters with skirts of installations and chimneys of buildings.

We will describe various ways to optimize other more unique types of constructions such as prefabricated buildings, with wood construction solutions either with light frame or with CLT panels, Steel-Frame or modular industrialized metal and concrete construction as future experiences with various innovative solutions.

We will complete the analysis of the different constructive details of the different envelope types by means of an in-depth thermographic study that will allow us to have a practical knowledge of the energetic reality of the proposed solutions.

The key concepts of analysis will be presented, such as the technical data of the composition of carpentry and glazing, transmittances, air permeability, water tightness, wind resistance, as well as how to calculate them in order to compare parameters of different intervention options.

In addition, the types of existing glazing, their composition and the optimization of each composition according to the technical requirements of the work will be analyzed.

We will describe the importance of solar protection, analyzing the different types depending on the layout and the optimization and uniqueness of each opening based on the technical requirements of the site.

We will describe the latest high energy performance carpentries offered by the market and the trends of the sector, as well as singular cases of technical value.

This **Postgraduate Diploma in Passive Energy Optimization Measures in Buildings** contains the most complete and up-to-date program on the market. The most important features include:

- ◆ Latest technology in online teaching software
- ◆ Highly visual teaching system, supported by graphic and schematic contents that are easy to assimilate and understand
- ◆ Practical cases presented by practising experts
- ◆ State-of-the-art interactive video systems
- ◆ Teaching supported by telepractice
- ◆ Continuous updating and recycling systems
- ◆ Self-regulating learning: full compatibility with other occupations
- ◆ Practical exercises for self-evaluation and learning verification
- ◆ Support groups and educational synergies: questions to the expert, debate and knowledge forums
- ◆ Communication with the teacher and individual reflection work
- ◆ Content that is accessible from any fixed or portable device with an Internet connection
- ◆ Internet connection
- ◆ Supplementary documentation databases that are permanently available, even after the course has concluded



*Join the elite, with this highly effective training training and open new paths to help you advance in your professional progress"*

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*With the experience of active professionals and the analysis of real cases of success in the application and use of energy saving systems in buildings"*

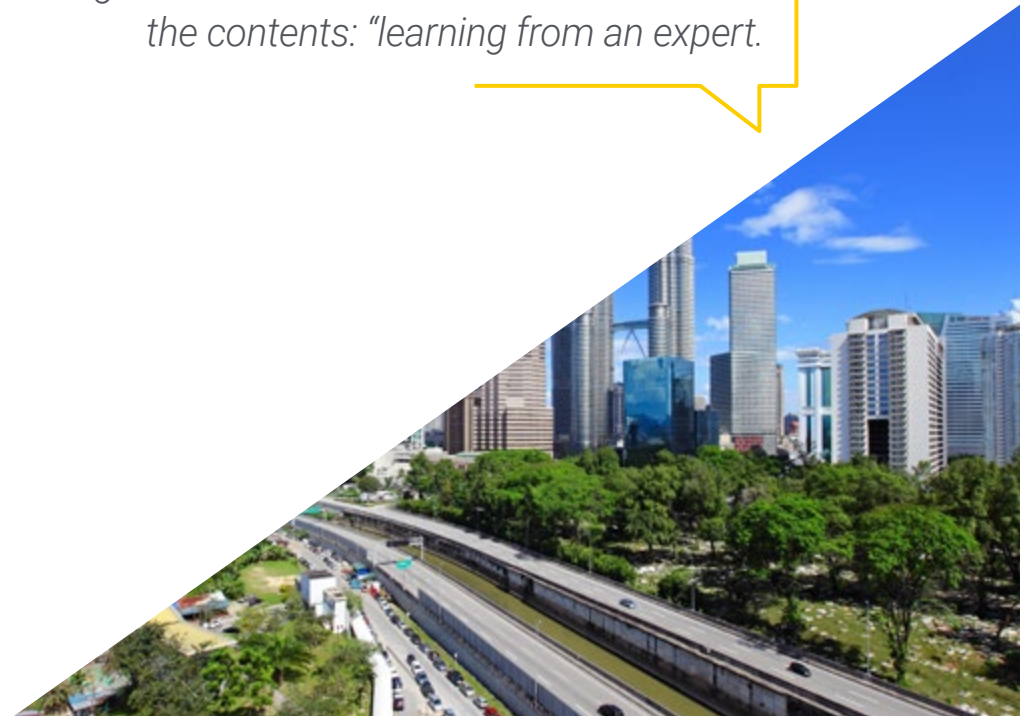
Our teaching staff is made up of professionals from different fields related to this specialty. In this way, we ensure that we provide you with the educational update we are aiming for. A multidisciplinary team of professionals trained and experienced in different environments, who will develop the theoretical knowledge in an efficient way, but above all, they will bring their practical knowledge from their own experience to the course: one of the differential qualities of this training.

This mastery of the subject matter is complemented by the effectiveness of the methodological design. Developed by a multidisciplinary team of e-learning experts, it integrates the latest advances in educational technology. This way, you will be able to study with a range of comfortable and versatile multimedia tools that will give you the operability you need in your education.

The design of this program is based on Problem-Based Learning: an approach that conceives learning as a highly practical process. To achieve this remotely, we will use telepractice: with the help of an innovative interactive video system, and learning from an expert, you will be able to acquire the knowledge as if you were actually dealing with the scenario you are learning about. A concept that will allow you to integrate and fix learning in a more realistic and permanent way.

*With a methodological design based on proven teaching techniques, this innovative course will take you through different teaching approaches to allow you to learn in a dynamic and effective way.*

*Our innovative telepractice concept will give you the opportunity to learn through an immersive experience, which will provide you with a faster integration and a much more realistic view of the contents: "learning from an expert."*



# 02

# Objectives

Our objective is to train highly qualified professionals for work experience. An objective that is complemented, moreover, in a global manner, by promoting human development that lays the foundations for a better society. This objective is materialized in helping professionals to reach a much higher level of competence and control. A goal that, in just a few months, you will be able to achieve with high intensity and effective educational program.





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*If your objective is to broaden your skills set to include new paths of success and development, this is your Professional Master's Degree: a training that aspires to excellence"*



## General Objectives

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- ◆ Undertake the particularities to correctly manage the design, project, construction and execution of Energy Rehabilitation Works (Existing Buildings) and Energy Saving (New Buildings)
- ◆ Interpret the current regulatory framework based on current regulations and the possible criteria to be implemented for energy efficiency in buildings
- ◆ Discover the potential business opportunities offered by the knowledge of the various energy efficiency measures, from studying tenders and technical tenders for construction contracts, projecting buildings, analyzing and directing the works, managing, coordinating and planning the development of Energy Saving and Rehabilitation Projects
- ◆ Ability to analyze building maintenance programs developing the study of appropriate energy saving measures to be implemented according to technical requirements
- ◆ Delve into the latest trends, technologies and techniques in the field of Energy Efficiency in the Construction of Buildings



## Specific Objectives

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- ◆ Acquire knowledge of the different types of sun protection based on their layout and technical justifications, as well as unique solutions
- ◆ Deepen the scope of the envelope study, such as parameters related to materials, thicknesses, conductivity, transmittance and as basic technical conditions to analyze the energy performance of a building
- ◆ Interpret the possible energy improvements based on the study of the energy optimization of foundations, roofs, facades and exterior slabs (floors and ceilings), as well as basement walls in contact with the building, developing the study from data collection, analysis and assessment, study of the different proposals for improvement and conclusions, study of technical regulations of application
- ◆ Approach singular encounters of the thermal envelope such as installation skids and chimneys
- ◆ Acquire the knowledge of the study of the envelope in singular prefabricated constructions
- ◆ Plan and control the correct execution by means of a thermographic study according to the materials, their layout, development of the thermographic analysis, and study of the solutions to be implemented.
- ◆ Master the fundamental concepts of the scope of the study of window and door frames, such as parameters relating to materials (single or mixed material solutions), technical justifications and various innovative solutions depending on the nature of the building
- ◆ Interpret possible energy improvements based on the study of the technical characteristics of the windows and doors, such as transmittance, air permeability, water tightness and wind resistance

- ◆ Cover in detail the scope of the study of glazing types and the composition of composite glazing, such as parameters related to their properties, technical justifications and various innovation solutions depending on the nature of the building
- ◆ Acquire knowledge of the different types of sun protection based on their layout and technical justifications, as well as unique solutions
- ◆ Discover the new proposals for high-energy performance windows and glazing energy performance
- ◆ Delve into the fundamental concepts of the scope of the study of possible thermal bridges, such as parameters related to the definition, application regulations, technical justifications and various innovation solutions depending on the nature of the building
- ◆ Approach the analysis of each thermal bridge based on the nature of the type, so we will develop the constructive thermal bridges, the geometric ones, the ones due to material change
- ◆ Analyze the possible singular thermal bridges of the building: the window, the arched roof, the column and the slab
- ◆ Plan and control the correct execution based on the study of possible thermal bridges through thermography, specifying the thermographic equipment, the working conditions, the detection of encounters to be corrected and subsequent analysis of solutions
- ◆ Analyze the different thermal bridge calculation tools: Therm, Cypetherm HE Plus and Flixo
- ◆ Delve into the scope of the airtightness study, such as parameters related to the definition, application regulations, technical justifications and various innovation solutions depending on the nature of the building
- ◆ Interpret the possible energy improvements based on the study of the energy optimization of airtightness based on the intervention in the envelope and in the installations
- ◆ Interpret the development of the various pathologies that can occur when building airtightness is not taken into account: condensation, humidity, efflorescence, high energy consumption, poor comfort, etc
- ◆ Address the technical requirements based on different technical solutions in order to optimize comfort, indoor air quality and noise protection
- ◆ Plan and control the correct execution based on the required thermography tests, smoke tests and Blower-Door test



*A path to achieve education and professional growth that will propel you towards a greater level of competitiveness in the employment market"*

03

# Course Management

For our course to be of the highest quality, we are proud to work with a teaching staff of the highest level, chosen for their proven track record. Professionals from different areas and fields of expertise that make up a complete, multidisciplinary team. A unique opportunity to learn from the best.





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*Our university employs the best professionals in all areas who share their knowledge to help you"*

## Management



### Ms. Peña Serrano, Ana Belén

- Content writer on renewable energies and energy efficiency for leading technical magazines and websites
- Technical Engineering in Topography by the Polytechnic University of Madrid
- Master's Degree in Renewable Energies from San Pablo CEU University
- Qualifying training in Wind Energy Installations by LevelCOM Formación
- Energy Certification of Buildings by Fundación Laboral de la Construcción
- Geological Cartography by the Universidad Nacional de Educación a Distancia (National University of Distance Education)
- Collaborates in different scientific communication projects, directing the dissemination of engineering and energy in different media
- Director of renewable energy projects of the Master in Environmental and Energy Management in Organizations of the UNIR
- Teacher of the Professional Master's Degree in Energy Saving and Sustainability in Buildings and several other programs at TECH-Technological University

## Professors

### Ms. Martínez Cerro, María del Mar

- ◆ Research Support Technician at the UCLM
- ◆ Building Engineering from the Polytechnic University of Cuenca
- ◆ Postgraduate degree in Energy Simulation of Buildings from the University of Barcelona
- ◆ Specialist Technician in Delineation, Buildings and Works. San Juan de Albacete Vocational Training Institute
- ◆ Professional certificate 1712CPBIM01 BIM MODELER, specializing in MEP facility modeling
- ◆ His professional career has been developed in the field of building energy analysis, performing simulations and energy comparisons oriented to sustainable solutions in buildings
- ◆ He has collaborated in several technological and educational projects at the Universidad of Castilla– La Mancha
- ◆ She is editor of technical and educational contents on energy certification of buildings

### Ms. Rodríguez Jordán, Daniela

- ◆ Architect in the Support Program for the National Early Childhood Plan
- ◆ Specialist in Eco-efficient Building Rehabilitation and use of BIM. EMVISESA
- ◆ Developer of high-rise housing developments. One on One
- ◆ Management of municipal procedures and urban code consultancy
- ◆ Design studio dedicated to interior design. Maso Studio
- ◆ Architecture FADU, UBA
- ◆ Si Fadu Project. Research topic: Sustainability in existing buildings in CABA FADU, UBA
- ◆ Eco-efficient Rehabilitation of Buildings and Neighborhoods. Master-University of Seville



*An impressive teaching staff, made up of professionals from different areas of expertise, will be your teachers during your training: a unique opportunity not to be missed"*

04

# Structure and Content

The contents of this program have been developed by the different experts on this course, with a clear purpose: to ensure that our students acquire each and every one of the necessary skills to become true experts in this field.

A complete and well-structured program that will take you to the highest standards of quality and success.





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*A comprehensive teaching program, structured in well-developed teaching units, oriented towards learning that is compatible with your personal and professional life"*

## Module 1. Energy Efficiency in the Envelope

- 1.1. Main Concepts
  - 1.1.1 Materials
  - 1.1.2 Thicknesses
  - 1.1.3 Conductivity
  - 1.1.4 Transmittance
- 1.2. Foundation Insulation
  - 1.2.1 Materials
  - 1.2.2 Layout
  - 1.2.3 Technical Justifications
  - 1.2.4 Innovation Solutions
- 1.3. Facade Insulation
  - 1.3.1 Materials
  - 1.3.2 Layout
  - 1.3.3 Technical Justifications
  - 1.3.4 Innovation Solutions
- 1.4. Roof Insulation
  - 1.4.1 Materials
  - 1.4.2 Layout
  - 1.4.3 Technical Justifications
  - 1.4.4 Innovation Solutions
- 1.5. Floor Slab Insulation: Floors
  - 1.5.1 Materials
  - 1.5.2 Layout
  - 1.5.3 Technical Justifications
  - 1.5.4 Innovation Solutions
- 1.6. Floor Slab Insulation: Ceilings
  - 1.6.1 Materials
  - 1.6.2 Layout
  - 1.6.3 Technical Justifications
  - 1.6.4 Innovation Solutions
- 1.7. Basement Wall Insulation
  - 1.7.1 Materials
  - 1.7.2 Layout
  - 1.7.3 Technical Justifications
  - 1.7.4 Innovation Solutions
- 1.8. Installation Skids Vs. Chimneys
  - 1.8.1 Materials
  - 1.8.2 Layout
  - 1.8.3 Technical Justifications
  - 1.8.4 Innovation Solutions
- 1.9. Envelope in Prefabricated Buildings
  - 1.9.1 Materials
  - 1.9.2 Layout
  - 1.9.3 Technical Justifications
  - 1.9.4 Innovation Solutions
- 1.10. Innovation Solutions
  - 1.10.1 Thermography Analysis
  - 1.10.2 Thermography According to Layout
  - 1.10.3 Development of Thermographic Analysis
  - 1.10.4 Solutions to be Implemented



## Module 2. Energy Savings in Windows and Glazing

- 2.1. Types of Joinery
  - 2.1.1 Single Material Solutions
  - 2.1.2 Mixed Solutions
  - 2.1.3 Technical Justifications
  - 2.1.4 Innovation Solutions
- 2.2. Transmittance
  - 2.2.1 Definition
  - 2.2.2 Regulations
  - 2.2.3 Technical Justifications
  - 2.2.4 Innovation Solutions
- 2.3. Air Permeability
  - 2.3.1 Definition
  - 2.3.2 Regulations
  - 2.3.3 Technical Justifications
  - 2.3.4 Innovation Solutions
- 2.4. Water Tightness
  - 2.4.1 Definition
  - 2.4.2 Regulations
  - 2.4.3 Technical Justifications
  - 2.4.4 Innovation Solutions
- 2.5. Wind Resistance
  - 2.5.1 Definition
  - 2.5.2 Regulations
  - 2.5.3 Technical Justifications
  - 2.5.4 Innovation Solutions

- 2.6. Types of Glasses
  - 2.6.1 Definition
  - 2.6.2 Regulations
  - 2.6.3 Technical Justifications
  - 2.6.4 Innovation Solutions
- 2.7. Glass Composition
  - 2.7.1 Definition
  - 2.7.2 Regulations
  - 2.7.3 Technical Justifications
  - 2.7.4 Innovation Solutions
- 2.8. Solar Shading
  - 2.8.1 Definition
  - 2.8.2 Regulations
  - 2.8.3 Technical Justifications
  - 2.8.4 Innovation Solutions
- 2.9. High Energy Performance Joinery
  - 2.9.1 Definition
  - 2.9.2 Regulations
  - 2.9.3 Technical Justifications
  - 2.9.4 Innovation Solutions
- 2.10. High Energy Performance Glasses
  - 2.10.1 Definition
  - 2.10.2 Regulations
  - 2.10.3 Technical Justifications
  - 2.10.4 Innovation Solutions



### Module 3. Energy Savings in Thermal Bridges

- 3.1. Main Concepts
  - 3.1.1 Definition
  - 3.1.2 Regulations
  - 3.1.3 Technical Justifications
  - 3.1.4 Innovation Solutions
- 3.2. Constructive Thermal Bridges
  - 3.2.1 Definition
  - 3.2.2 Regulations
  - 3.2.3 Technical Justifications
  - 3.2.4 Innovation Solutions
- 3.3. Geometric Thermal Bridges
  - 3.3.1 Definition
  - 3.3.2 Regulations
  - 3.3.3 Technical Justifications
  - 3.3.4 Innovation Solutions
- 3.4. Thermal Bridges due to Material Change
  - 3.4.1 Definition
  - 3.4.2 Regulations
  - 3.4.3 Technical Justifications
  - 3.4.4 Innovation Solutions
- 3.5. Analysis of Singular Thermal Bridges: The Window
  - 3.5.1 Definition
  - 3.5.2 Regulations
  - 3.5.3 Technical Justifications
  - 3.5.4 Innovation Solutions
- 3.6. Analysis of Singular Thermal Bridges: The Splayed
  - 3.6.1 Definition
  - 3.6.2 Regulations
  - 3.6.3 Technical Justifications
  - 3.6.4 Innovation Solutions

- 3.7. Analysis of Singular Thermal Bridges: The Pillar
  - 3.7.1 Definition
  - 3.7.2 Regulations
  - 3.7.3 Technical Justifications
  - 3.7.4 Innovation Solutions
- 3.8. Analysis of Singular Thermal Bridges: The Forging
  - 3.8.1 Definition
  - 3.8.2 Regulations
  - 3.8.3 Technical Justifications
  - 3.8.4 Innovation Solutions
- 3.9. Thermal Bridge Analysis with Thermography
  - 3.9.1 Thermographic Equipment
  - 3.9.2 Work Conditions
  - 3.9.3 Detection of Encounters to be Corrected
  - 3.9.4 Thermography in the Solution
- 3.10. Thermal Bridge Calculation Tools
  - 3.10.1 Therm
  - 3.10.2 Cypetherm He Plus
  - 3.10.3 Flixo
  - 3.10.4 Case Study 1

### Module 4. Energy Savings in Airtightness

- 4.1. Main Concepts
  - 4.1.1 Definition of airtightness vs. watertightness
  - 4.1.2 Regulations
  - 4.1.3 Technical Justifications
  - 4.1.4 Innovation Solutions
- 4.2. Control of Airtightness in the Enclosure
  - 4.2.1 Location
  - 4.2.2 Regulations
  - 4.2.3 Technical Justifications
  - 4.2.4 Innovation Solutions

- 4.3. Tightness Control in Installations
  - 4.3.1 Location
  - 4.3.2 Regulations
  - 4.3.3 Technical Justifications
  - 4.3.4 Innovation Solutions
- 4.4. Pathologies
  - 4.4.1 Condensations
  - 4.4.2 Moisture
  - 4.4.3 Energy Consumption
  - 4.4.4 Low Comfort
- 4.5. Comfort
  - 4.5.1 Definition
  - 4.5.2 Regulations
  - 4.5.3 Technical Justifications
  - 4.5.4 Innovation Solutions
- 4.6. Indoor Air Quality
  - 4.6.1 Definition
  - 4.6.2 Regulations
  - 4.6.3 Technical Justifications
  - 4.6.4 Innovation Solutions
- 4.7. Noise Protection
  - 4.7.1 Definition
  - 4.7.2 Regulations
  - 4.7.3 Technical Justifications
  - 4.7.4 Innovation Solutions
- 4.8. Tightness Test: Thermography
  - 4.8.1 Thermographic Equipment
  - 4.8.2 Work Conditions
  - 4.8.3 Detection of Encounters to be Corrected
  - 4.8.4 Thermography in the Solution



- 4.9. Smoke Testing
  - 4.9.1 Smoke Test Equipment
  - 4.9.2 Work Conditions
  - 4.9.3 Detection of Encounters to be Corrected
  - 4.9.4 Smoke Test in the Solution
- 4.10. Blower Door Test
  - 4.10.1 Blower Door Test Equipment
  - 4.10.2 Work Conditions
  - 4.10.3 Detection of Encounters to be Corrected
  - 4.10.4 Blower-Door Test in the Solution

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*This program will allow you to advance in your career comfortably”*



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.







“

*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"*

## Case Study to contextualize all content

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

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*At TECH, you will experience a learning methodology that is shaking the foundations of traditional universities around the world”*



*You will have access to a learning system based on repetition, with natural and progressive teaching throughout the entire syllabus.*



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

### A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch, which presents the most demanding challenges and decisions in this field, both nationally and internationally. This methodology promotes personal and professional growth, representing a significant step towards success. The case method, a technique that lays the foundation for this content, ensures that the most current economic, social and professional reality is taken into account.

“

*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 in 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.

## Relearning Methodology

TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

We enhance the Case Study 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 one 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 training, 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 skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.



### 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**

Students will complete a selection of the best case studies chosen specifically for this program. Cases that are presented, analyzed, and supervised by the best 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 Diploma in Passive Energy Optimization Measures in Buildings guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Global University.







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*Include in your education a Postgraduate Diploma in Passive Measures for Energy Optimization in Buildings: a highly qualified added value for any professional in this area".*

This program will allow you to obtain your **Postgraduate Diploma in Passive Energy Optimization Measures in Buildings** 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.

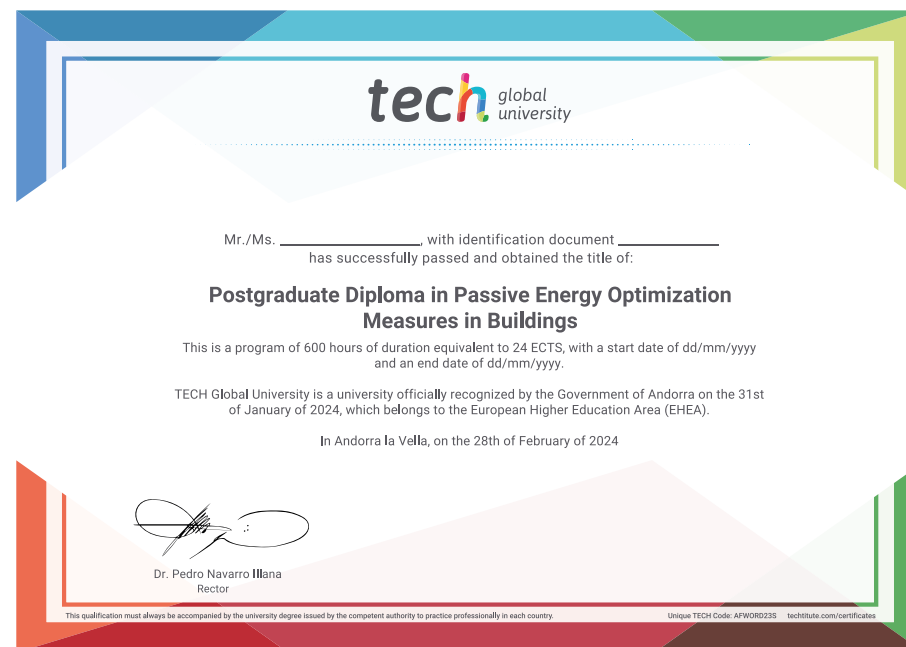
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Diploma in Passive Energy Optimization Measures in Buildings**

Modality: **online**

Duration: **6 months**

Accreditation: **24 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



**Postgraduate Diploma**  
Passive Energy  
Optimization Measures  
in Buildings

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