Postgraduate Diploma
Solar Energy

tech global university

tech global university

Postgraduate Diploma
Solar Energy

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

Website: **www.techtitute.com/us/engineering/postgraduate-diploma/postgraduate-diploma-solar-energy**

Index

01

Introduction

Renewable Energies are undoubtedly on the rise and this market increasingly requires specialized professionals who know how to manage them and choose those that are best in each case. Aware of this, TECH professionals have designed this very complete program whose main objective is to provide engineers with the knowledge and trends in the latest technologies available in the field of Solar Energy. Likewise, this training aims to specialize students in this field and in its implementation, since photovoltaic solar energy is one of the main renewable energies with the greatest expansion forecast for the coming decades. This knowledge will enable the engineer to take part in projects of high importance, thus enhancing his professional profile.

Wind energy is on the rise and increasingly requires educated professionals who can enhance its use and achieve more efficient results."

The renewable energy sector is in full international expansion and is increasingly demanding engineers specialized in this field. Therefore, the best professionals in the sector have designed for TECH this complete Postgraduate Diploma that aims to prepare professionals with high knowledge in everything that encompasses the renewable energy sector, specifically in solar energy, to increase their working position in today's energy market.

Specifically, this Postgraduate Diploma is dedicated to Solar Thermal Systems, in their different temperature ranges: Low, Medium and High. Thus, during the program, we will analyze what these systems have in common and the use they make of solar energy, transforming solar radiation into thermal energy (heat), which is then harnessed for various uses depending on its temperature range.

It also addresses the thermal applications of solar radiation, including both non-concentrated and concentrated solar systems, which have been gaining strength in the market in recent years.

During the specialization, special attention will also be devoted to solar thermal power plants, which are currently the most commercially deployed application of concentrated solar thermal systems.

All these contents will help the professional to understand in depth the functioning of solar energy, which is called to play an important role in any sustainable energy market scheme, so the study of all its applications is crucial for engineers. In addition, we will study in depth its environmental impact and how to mitigate it through a good project design that allows obtaining an optimal performance with a low impact.

For all these reasons, this Postgraduate Diploma in Solar Energy integrates the most complete and innovative educational program in the current market in terms of knowledge and latest available technologies, as well as encompassing all the sectors or parties involved in this field. Likewise, the Postgraduate Diploma is made up of exercises based on real cases of situations currently managed or previously faced by the teaching team.

This **Postgraduate Diploma in Wind Energy** contains the most complete and up-to-date educational program on the market. The most important features of the program include:

- The development of case studies presented by experts in Renewable Energies
- 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 self-assessment can be used to improve learning
- Its 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

Solar energy is the future. Learn all the ins and outs with this comprehensive Postgraduate Diploma".

TECH puts in your hands the most competitive and complete didactic material in the sector. That way, you'll be sure to learn with the best information."

A 100% online program that will allow you to combine your studies with the rest of your daily activities.

You will have innovative didactic materials and resources that will facilitate the learning process and the retention of the contents learned for a longer period of time.

The program's teaching staff includes professionals from sector who contribute their work experience to this training program, as well as renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive training that is programmed to train students in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the academic year. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced engineering experts.

02

Objectives

TECH has designed this comprehensive Postgraduate Diploma with the aim of preparing engineering professionals to be able to design, implement and work on Wind Energy projects, knowing in depth everything related to this industry and the aspects of sustainability and climate change in the international arena that directly affect it. To this end, specific aspects of energy systems will be addressed, which are of enormous importance in today's business landscape, and for which large corporations are increasingly demanding competent engineers with a solid specialized education.

TECH's goal is clear: to help you grow in your profession and become a prestigious engineer"

General Objectives

- Conduct a thorough analysis of the current legislation and the energy system, from electricity generation to consumption, as well as its role as a fundamental production factor in the economic system and the operation of different energy markets
- Identify the various stages necessary for the viability and implementation of a renewable energy project, including its commissioning
- Perform an in-depth analysis of the different technologies and manufacturers available for creating renewable energy exploitation systems, and critically distinguish and select the best options based on costs and real-world application
- Identify the operational and maintenance tasks required to ensure the proper functioning of renewable energy installations
- Perform the sizing of installations for lesser-implemented energy sources, such as mini-hydraulic, geothermal, tidal, and clean energy vectors
- Handle and analyze relevant literature on topics related to renewable energy fields, published globally
- Appropriately interpret societal expectations regarding the environment and climate change, and engage in technical discussions and critical opinions on energy aspects of sustainable development as competencies that renewable energy professionals must possess
- Integrate knowledge and face the complexity of making reasoned judgments in the applicable field of renewable energy companies
- Master the various solutions or methodologies available to address the same issue or phenomenon related to renewable energies and develop a critical mindset by understanding practical limitations

Specific Objectives

Module 1. Renewable Energy and Its Current Landscape

- Deepen the understanding of the global energy and environmental situation, as well as the situation in other countries
- Gain detailed knowledge of the current energy and electricity context from different perspectives: the structure of the electricity system, the functioning of the electricity market, the regulatory environment, and the analysis and evolution of the electricity generation system in the short, medium, and long term
- Master the technical-economic criteria of generation systems based on the use of conventional energy sources: nuclear energy, large hydroelectric plants, conventional thermal power plants, combined cycle, and the current regulatory framework of both conventional and renewable generation systems, as well as their dynamic evolution
- Apply acquired knowledge to understand, conceptualize, and model systems and processes in the field of energy technology, particularly within the area of renewable energy sources
- Effectively address and solve practical problems by identifying and defining the key elements that constitute them
- Critically analyze data and draw conclusions in the field of energy technology
- Use the knowledge gained to conceptualize models, systems, and processes within the energy technology field
- Analyze the potential of renewable energy and energy efficiency from multiple perspectives: technical, regulatory, economic, and market-related
- Be able to search for information on public websites related to the electricity system and compile this information effectively

Module 2. Solar Thermal Energy Systems

- Select the necessary equipment for various thermal solar applications
- Be able to design and dimension basic low and medium-temperature thermal solar installations
- Estimate solar radiation in a specific geographic location
- Recognize the constraints and limitations of applying thermal solar energy

Module 3. Grid-Connected and Off-Grid Photovoltaic Solar Energy Systems

- Master the specific knowledge required to meet the needs of specialized companies and become part of a highly qualified workforce in the design, construction, assembly, operation, and maintenance of photovoltaic solar energy equipment and installations
- Apply the acquired knowledge for the understanding, conceptualization, and modeling of photovoltaic solar installations
- Synthesize knowledge and research methodologies appropriate for integration into innovation and project development departments in any company within the field of photovoltaic solar energy
- Effectively identify and solve practical problems by recognizing and defining the key elements that constitute them
- Apply innovative methods in solving problems related to photovoltaic solar energy.
- Identify, find, and gather relevant data on the internet concerning photovoltaic solar energy
- Design and conduct research based on analysis, modeling, and experimentation in the field of photovoltaic solar energy
- Gain detailed knowledge and be able to manage the specific regulations for photovoltaic solar installations
- Gain an in-depth understanding and select the necessary equipment for different photovoltaic solar energy applications
- Design, dimension, implement, operate and maintain solar photovoltaic installations

Module 4. Development, Financing, and Feasibility of Renewable Energy Projects

- Gain in-depth knowledge and analyze the technical documentation of renewable energy projects necessary for their feasibility, financing, and processing
- Manage the technical documentation up to the “Ready to Build” stage
- Establish the types of financing available for renewable energy projects
- Understand and conduct an economic and financial study of a renewable energy project
- Utilize all management and planning tools for project execution
- Master the insurance aspects involved in the financing and feasibility of renewable energy projects, both during the construction phase and in operation
- Deepen knowledge in the processes of asset valuation and damage assessment for renewable energy projects

03

Course Management

TECH applies a criterion based on high quality in all its courses. This guarantees students that by studying here they will find the best didactic content taught by the best professionals in the sector In this sense, this University Postgraduate Diploma in Solar Energy has highly prestigious professionals in this area, who pour into the education the experience of their years of work, as well as the knowledge acquired from research in the field. All to provide the engineer with a high-level program, which will enable them to practice in national and international environments with greater guarantees of success.

TECH provides you with the expertise of the most reputable professionals in the industry so that you can be sure to learn from the best"

International Guest Director

Varun Sivaram, Ph.D. is a **physicist, bestselling author** and leading **clean energy technology** expert with a career spanning the corporate, public and academic sectors. In fact, he has served as **Director of Strategy and Innovation at Orsted**, one of the world's leading renewable energy companies with the largest offshore wind power portfolio.

In addition, Dr. Sivaram has served in the U.S. Biden-Harris administration, as Director General for Clean Energy and Innovation, as well as Senior Advisor to Secretary John Kerry, the Special Presidential Climate Envoy to the White House. In this capacity, he was the creator of the First Movers Coalition, a key initiative to foster clean energy innovation globally.

In the academic field, he has directed the Energy and Climate Program at the Council on Foreign Relations. And his influence in the formulation of government policies to support innovation has been remarkable, having advised leaders such as the mayor of Los Angeles and the governor of New York. He has also been recognized as a Young Global Leader by the World Economic Forum.

In addition, Dr. Varun Sivaram has published several influential books, including "Taming the Sun: Innovations to Harness Solar Energy and Power the Planet" and "Energizing America: A Roadmap to Launch a National Energy Innovation Mission", both of which have received accolades from prominent leaders such as Bill Gates. In fact, his contribution to the clean energy field has been recognized internationally, being included in the TIME 100 Next list and incorporated by Forbes in its Forbes 30 Under 30 list in Law and Policy, among other major accolades.

Dr. Sivaram, Varun

- Director of Strategy and Innovation at Ørsted, United States
- Managing Director, Clean Energy and Innovation // Senior Advisor to Secretary John Kerry, U.S. Special Presidential Climate Envoy at The White House
- Chief Technology Officer at ReNew Power
- Strategic Advisor for Energy and Finance on Reforming the Energy Vision at the New York Governor's Office
- Ph.D. in Condensed Matter Physics from Oxford University
- B.S. in Engineering Physics and International Relations from Stanford University.
- Awards: Forbes 30 Under 30, awarded by Forbes magazine
  Grist Top 50 Leaders in Sustainability, awarded by Grist magazine
  MIT TR Top 35 Innovators, awarded by MIT Tech Review Magazine
  TIME 100 Next Most Influential People in the World, awarded by TIME Magazine
- Young Global Leader, awarded by the World Economic Forum
- Member of: Atlantic Council ,Breakthrough Institute , Aventurine Partners

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

Guest Director

Mr. De la Cruz Torres, José

- Degree in Physics and Industrial Electronics Engineering, University of Seville
- Master's Degree in Operations Management by EADA Business School Barcelona
- Master's Degree in Industrial Maintenance Engineering, University of Huelva, Spain
- Railway Engineering, UNED
- South head of the appraisal, assessment and valuation of technologies and processes of Renewable Energy generation facilities at RTS International Loss Adjusters

Co-Direction

Lillo Moreno, Javier

- Telecommunications Engineer, University of Seville
- Master's Degree in Project Management and Master's Degree in Big Data & Business Analytics, School of Industrial Organization (EOI)
- With an extensive professional career in the Renewable Energy sector of more than 15 years
- Has managed the O&M areas of several companies with high visibility in the sector

Professors

Mr. Silvan Zafra, Álvaro

- Energy Engineer, University of Seville
- Master in Thermal Energy Systems and Business Administration
- Senior Consultant focused on the execution of international E2E projects in the energy sector
- Responsible for the market management of more than 15 GW of installed capacity for clients such as Endesa, Naturgy, Iberdrola, Acciona and Engie

Mr. Serrano, Ricardo

- Director of Andalusia, Willis Towers Watson
- Law Degree from the University of Seville
- Participation in the design and placement of insurance programs for renewable energy companies and other industrial activities

Díaz Martin, Jonay Andrés

- Higher industrial engineer specialized in Electricity, University of Las Palmas de Gran Canaria
- Master's Degree in International Logistics and Supply Chain Management, EUDE Business School
- Master's Degree in Integrated Management of Prevention, Quality and Environment, Camilo José Cela University

Pérez García, Fernando

- Industrial Technical Engineer, specializing in Electricity, from the University of Zaragoza.
- Insurance appraiser specialized in the adjustment and appraisal of industrial risks, technical and energy claims, especially in the Renewable Energy sector (wind, hydro, photovoltaic, solar thermal and biomass)

Granja Pacheco, Manuel

- Civil Engineer, Alfonso X el Sabio University.
- Master's Degree in Renewable Energy Installation Management and Project Internationalization by ITE (Instituto Tecnológico de la Energía)
- Manages the operations of a company specialized in the development of Renewable Energy projects, with a track record of more than 3,000 MW of projects at national and international level

Caballero López, Jaime

- Industrial Technical Engineer Specialized in Mechanics, University of Seville
- Master's Degree in Industrial Engineering and Maintenance Management, University of Seville
- Production and personnel management at the Helioenergy I and II Thermosolar Platform, Abengoa Solar
- Plant control room operations expert with METSO program
- Helioenergy I and II Solar Thermal Platform Control Room Operator, Bester Generación, 2012
- Responsible for supervision and control in the construction and start-up of the Soleval I Thermosolar Plant (50 MW) Lebrija. ATISAE Online University, 2011

A unique, key, and decisive training experience to boost your professional development"

04

Structure and Content

The syllabus of the Postgraduate Diploma is configured as a complete tour through each and every one of the contents necessary to understand and assume the ways of working in this field. Thus, through an innovative didactic approach, based on the practical application of the contents, the engineer will learn and understand the functioning of wind energy, knowing how to design and implement projects in this sense, providing high levels of safety and services to companies. This, in addition to adding value to your professional profile, will make you a much better prepared professional to work in a variety of environments.

The TECH contents have been designed based on the most effective and innovative teaching methodology in the sector"

Module 1. Renewable Energy and Its Current Landscape

1.1. Renewable Energy
- 1.1.1. Fundamental Principles
- 1.1.2. Conventional Energy Forms vs. Renewable Energy
- 1.1.3. Advantages and Disadvantages of Renewable Energy

1.2. International Context of Renewable Energies
- 1.2.1. Fundamentals of Climate Change and Energy Sustainability. Renewable Energies vs. Non-Renewable Energies
- 1.2.2. Decarbonization of the Global Economy. From the Kyoto Protocol to the Paris Agreement in 2015 and the 2019 Climate Summit in Madrid
- 1.2.3. Renewable Energy in the Global Energy Context

1.3. Energy and International Sustainable Development
- 1.3.1. Carbon Markets
- 1.3.2. Clean Energy Certificates
- 1.3.3. Energy vs. Sustainability

1.4. General Regulatory Framework
- 1.4.1. International Energy Regulation and Directives
- 1.4.2. Auctions in the Renewable Electricity Sector

1.5. Electricity Markets
- 1.5.1. Operation of the System with Renewable Energy
- 1.5.2. Renewable Energy Regulation
- 1.5.3. Participation of Renewable Energy in Electricity Markets
- 1.5.4. Operators in the Electricity Market

1.6. Electricity System Structure
- 1.6.1. Electricity Generation
- 1.6.2. Electricity Transmission
- 1.6.3. Market Distribution and Operation
- 1.6.4. Commercialization

1.7. Distributed Generation
- 1.7.1. Concentrated Generation vs. Distributed Generation
- 1.7.2. Self-Consumption
- 1.7.3. Generation Contracts

1.8. Emissions
- 1.8.1. Energy Measurement
- 1.8.2. Greenhouse Gases in Energy Generation and Use
- 1.8.3. Emission Evaluation by Type of Energy Generation

1.9. Energy Storage
- 1.9.1. Types of Batteries
- 1.9.2. Advantages and Disadvantages of Batteries
- 1.9.3. Other Energy Storage Technologies

1.10. Main Technologies
- 1.10.1. Energies of the Future
- 1.10.2. New Applications
- 1.10.3. Future Energy Scenarios and Models

Module 2. Solar Thermal Energy Systems

2.1. Solar Radiation and Solar Thermal Systems
- 2.1.1. Fundamental Principles of Solar Radiation
- 2.1.2. Components of Radiation
- 2.1.3. Market Evolution in Solar Thermal Systems

2.2. Static Solar Collectors: Description and Efficiency Measurement
- 2.2.1. Classification and Components of the Collector
- 2.2.2. Losses and Energy Conversion
- 2.2.3. Characteristic Values and Efficiency of the Collector

2.3. Applications of Low-Temperature Solar Collectors
- 2.3.1. Technology Development
- 2.3.2. Types of Solar Heating and DHW Installations
- 2.3.3. Sizing of Installations

2.4. DHW or Climate Control Systems
- 2.4.1. Main Elements of the Installation
- 2.4.2. Assembly and Maintenance
- 2.4.3. Calculation and Control Methods for Installations

2.5. Medium-Temperature Solar Thermal Systems
- 2.5.1. Types of Concentrators
- 2.5.2. Parabolic Trough Collectors
- 2.5.3. Solar Tracking System

2.6. Designing a Solar System with Parabolic Trough Collectors
- 2.6.1. Solar Field. Main Components of the Parabolic Trough Collector
- 2.6.2. Sizing the Solar Field
- 2.6.3. HTF System

2.7. Operation and Maintenance of Solar Systems with Parabolic Trough Collectors
- 2.7.1. Electricity Generation Process through CSP
- 2.7.2. Solar Field Conservation and Cleaning
- 2.7.3. Preventive and Corrective Maintenance

2.8. High-Temperature Solar Thermal Systems. Tower Plants
- 2.8.1. Design of a Tower Plant
- 2.8.2. Sizing of the Heliostat Field
- 2.8.3. Molten Salt System

2.9. Thermoelectric Generation
- 2.9.1. Rankine Cycle
- 2.9.2. Theoretical Fundamentals of Turbine-Generator
- 2.9.3. Characterization of a Solar Thermal Power Plant

2.10. Other High-Concentration Systems: Parabolic Discs and Solar Furnaces
- 2.10.1. Types of Concentrators
- 2.10.2. Tracking Systems and Main Elements
- 2.10.3. Applications and Differences Compared to Other Technologies

Module 3. Grid-Connected and Off-Grid Solar PV Systems

3.1. Photovoltaic Solar Energy. Equipment and Environment
- 3.1.1. Fundamental Principles of Photovoltaic Solar Energy
- 3.1.2. Current Situation in the Global Energy Sector
- 3.1.3. Main Components in Solar Installations

3.2. Photovoltaic Generators. Principles of Operation and Characterization
- 3.2.1. Operation of the Solar Cell
- 3.2.2. Design Standards. Module Characterization: Parameters
- 3.2.3. I-V Curve
- 3.2.4. Technologies of Current Market Modules

3.3. Grouping of Photovoltaic Modules
- 3.3.1. Design of Photovoltaic Generators: Orientation and Tilt
- 3.3.2. Installation Structures for Photovoltaic Generators
- 3.3.3. Solar Tracking Systems. Communication Environment

3.4. Energy Conversion. The Inverter
- 3.4.1. Types of Inverters
- 3.4.2. Characterization
- 3.4.3. Maximum Power Point Tracking (MPPT) Systems and Inverter Performance

3.5. Transformation Center
- 3.5.1. Function and Parts of a Transformation Center
- 3.5.2. Sizing and Design Considerations
- 3.5.3. Market and Equipment Selection

3.6. Other Systems in a Photovoltaic Solar Plant
- 3.6.1. Monitoring and Control
- 3.6.2. Safety and Surveillance
- 3.6.3. Substation and High Voltage

3.7. Grid-Connected Photovoltaic Systems
- 3.7.1. Design of Large-Scale Solar Parks. Preliminary Studies
- 3.7.2. Self-Consumption
- 3.7.3. Simulation Tools

3.8. Off-Grid Photovoltaic Systems
- 3.8.1. Components of an Off-Grid Installation: Regulators and Solar Batteries
- 3.8.2. Uses: Pumping, Lighting, etc.
- 3.8.3. Solar Democratization

3.9. Operation and Maintenance of Photovoltaic Installations
- 3.9.1. Maintenance Plans
- 3.9.2. Personnel and Equipment
- 3.9.3. Maintenance Management Software

3.10. New Improvement Lines in Photovoltaic Parks
- 3.10.1. Distributed Generation
- 3.10.2. New Technologies and Trends
- 3.10.3. Automation

Module 4. Development, Financing and Feasibility of Renewable Energy Projects

4.1. Identifying Stakeholders
- 4.1.1. Developers, Engineering Firms, and Consultants
- 4.1.2. Investment Funds, Banks, and Other Stakeholders

4.2. Renewable Energy Project Development
- 4.2.1. Main Stages of Development
- 4.2.2. Key Technical Documentation
- 4.2.3. Sales Process. RTB

4.3. Evaluation of Renewable Energy Projects
- 4.3.1. Technical Feasibility
- 4.3.2. Commercial Feasibility
- 4.3.3. Environmental and Social Feasibility
- 4.3.4. Legal Feasibility and Associated Risks

4.4. Financial Bases
- 4.4.1. Financial Knowledge
- 4.4.2. Analysis of Financial Statements
- 4.4.3. Financial Modeling

4.5. Economic Valuation of Renewable Energy Projects and Companies
- 4.5.1. Fundamentals of Valuation
- 4.5.2. Valuation Methods
- 4.5.3. Calculation of Profitability and Financing Potential of Projects

4.6. Financing of Renewable Energies
- 4.6.1. Project Finance Characteristics
- 4.6.2. Financing Structuring
- 4.6.3. Risks in Financing

4.7. Renewable Asset Management: *Asset Management*
- 4.7.1. Technical Supervision
- 4.7.2. Financial Supervision
- 4.7.3. Claims, Permits Supervision, and Contract Management

4.8. Insurance in Renewable Energy Projects. Construction Phase
- 4.8.1. Developer and Constructor. Specialized Insurance
- 4.8.2. Construction Insurance (CAR)
- 4.8.3. Professional Liability Insurance
- 4.8.4. Advance Loss of Profit (ALOP) Clause

4.9. Insurance in Renewable Energy Projects. Operation and Exploitation Phase
- 4.9.1. Property Insurance. Multi-risk (OAR)
- 4.9.2. Contractor's O&M Insurance (Liability or Professional Liability)
- 4.9.3. Appropriate Coverage. Consequential and Environmental Losses

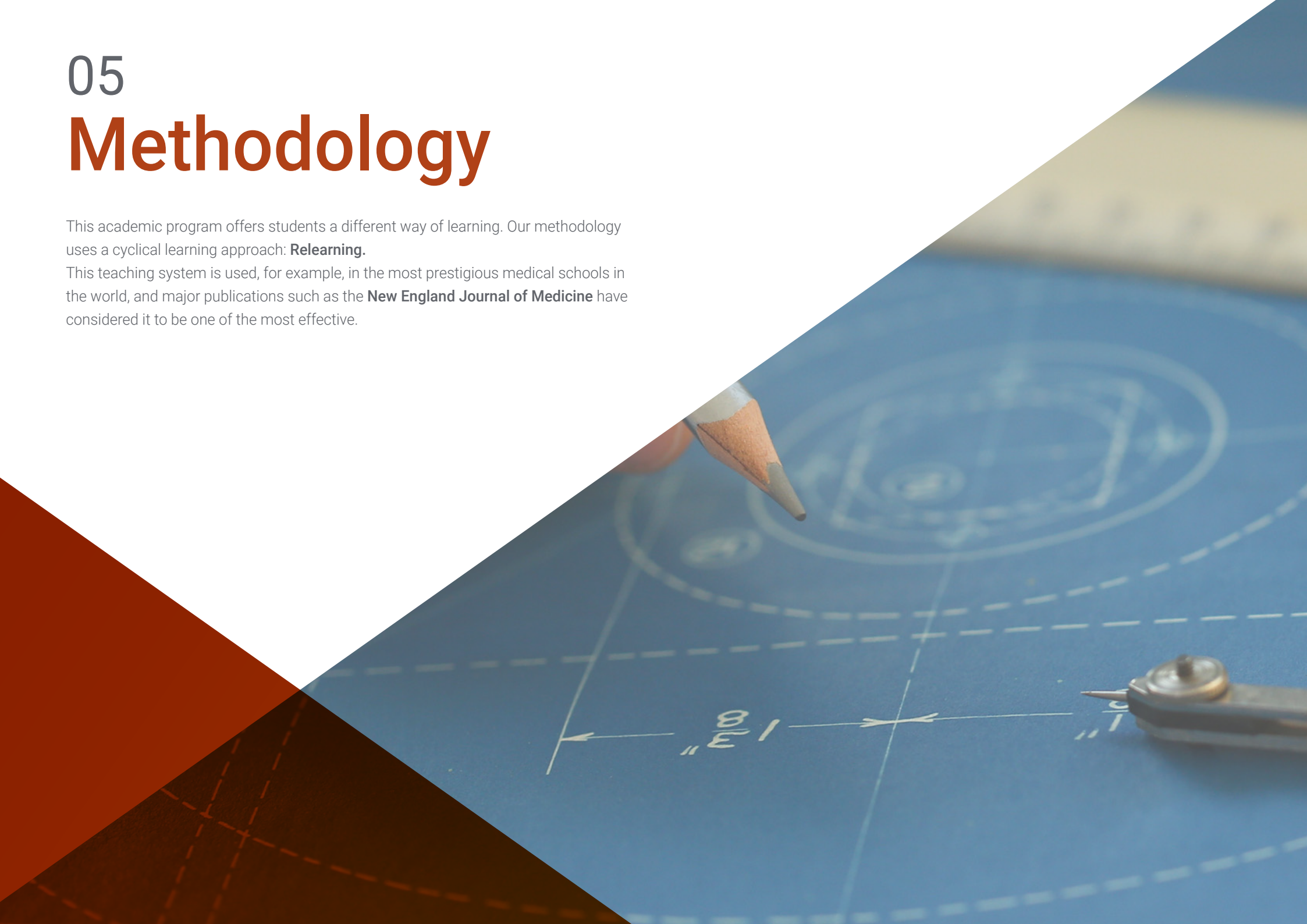
4.10. Valuation and Assessment of Damage in Renewable Energy Assets
- 4.10.1. Industrial Valuation and Appraisal Services: Renewable Energy Facilities
- 4.10.2. Intervention and Policy
- 4.10.3. Material Damage and Consequential Loss
- 4.10.4. Types of Claims: Photovoltaic, Solar Thermal, Hydroelectric, and Wind

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.

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

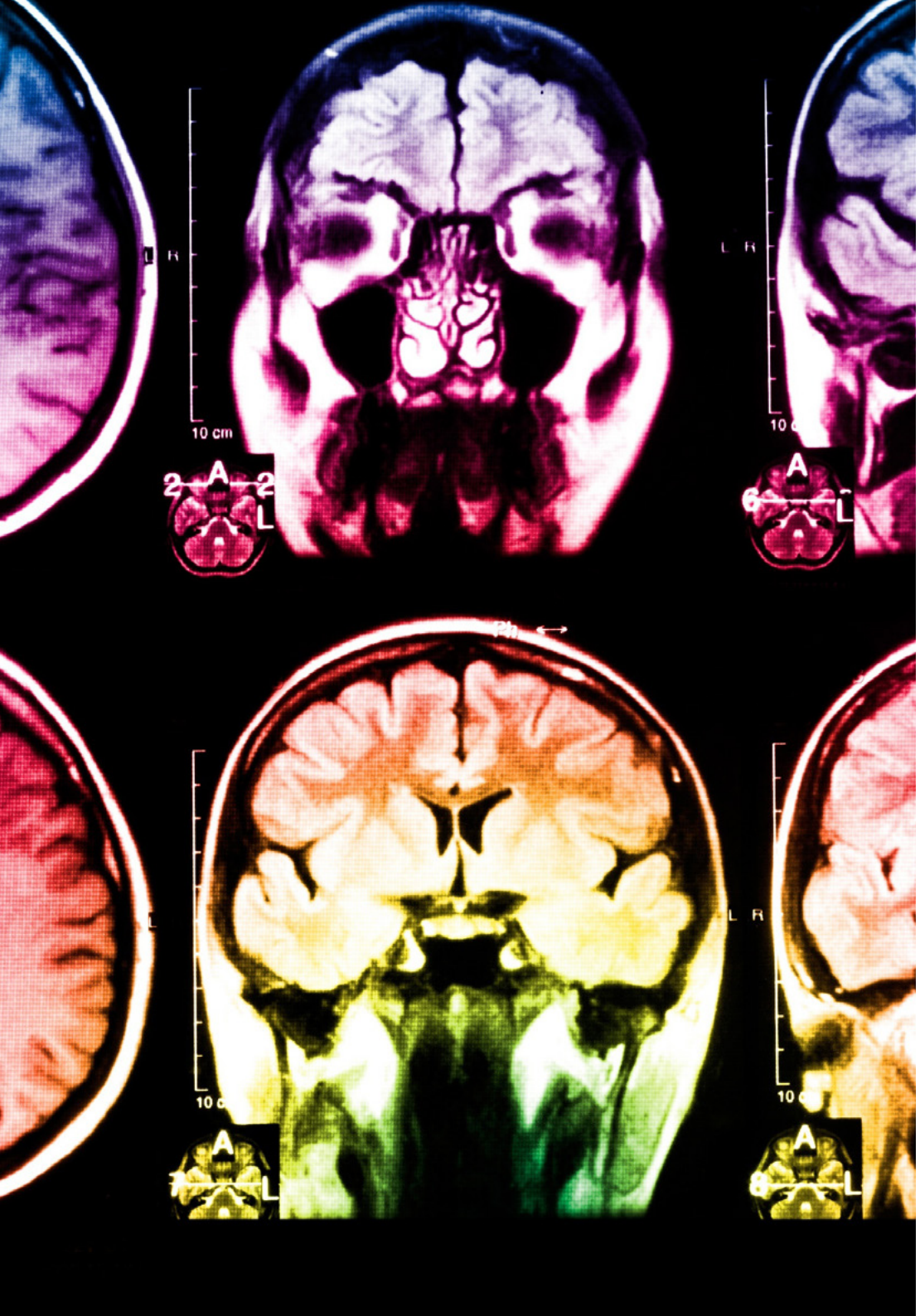
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

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.

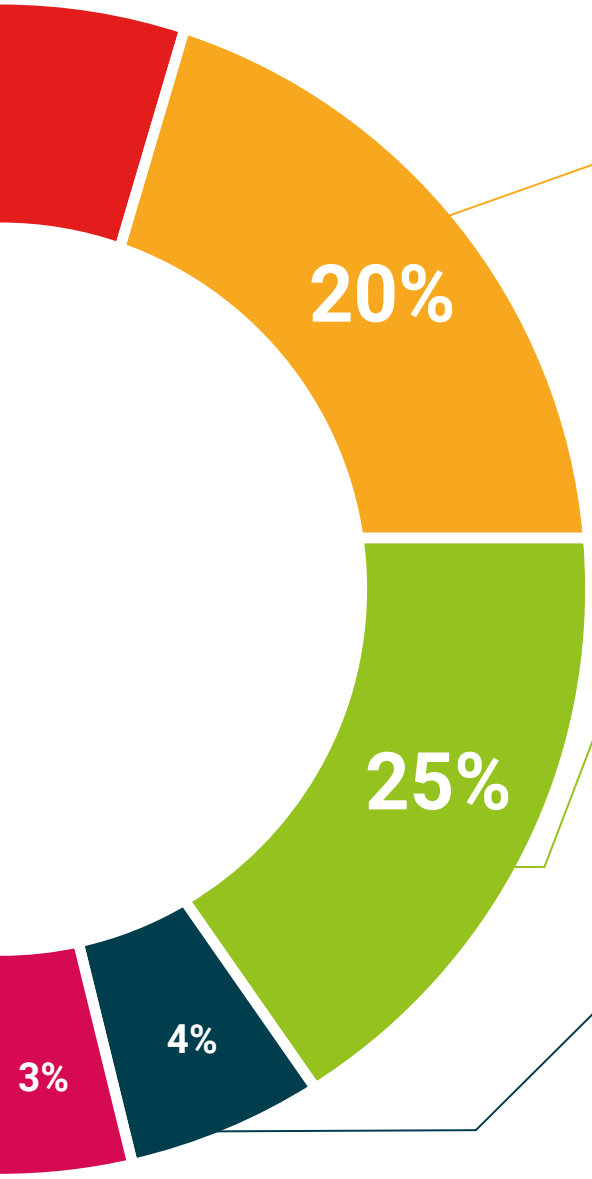
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

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 Solar Energy guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Global University.

Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork"

This program will allow you to obtain your **Postgraduate Diploma in Solar Energy** 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.

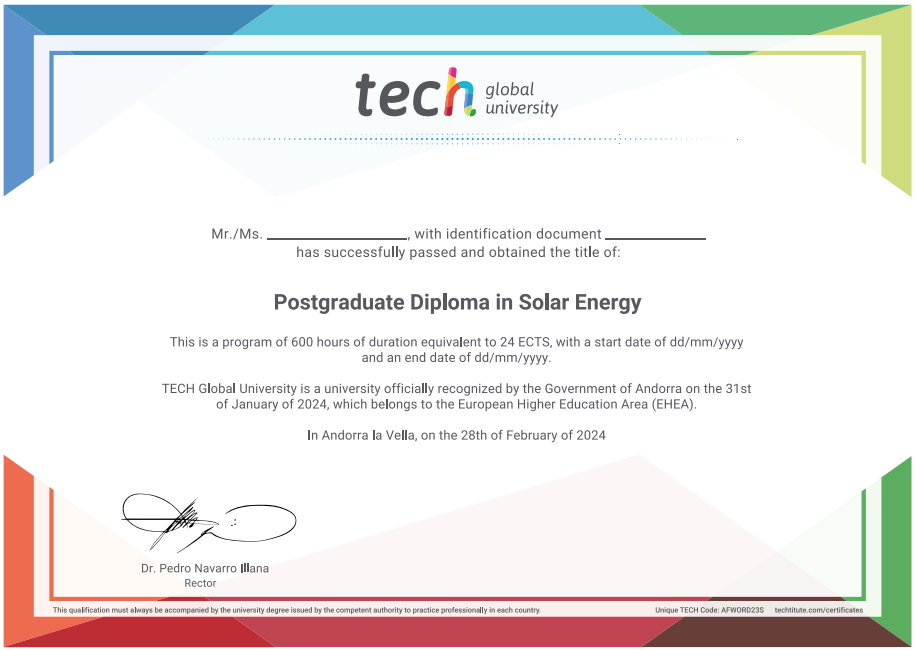
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Diploma in Solar Energy**

Modality: **online**

Duration: **6 months**

Accreditation: **24 ECTS**


tech global university

Mr./Ms. _____, with identification document _____
has successfully passed and obtained the title of:

Postgraduate Diploma in Solar Energy

This is a program of 600 hours of duration equivalent to 24 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024

Dr. Pedro Navarro Illana
Rector

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country. Unique TECH Code: AFWORD23S techtitute.com/certificates

*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.

tech global university

Postgraduate Diploma
Solar Energy

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

Postgraduate Diploma
Solar Energy

tech global university