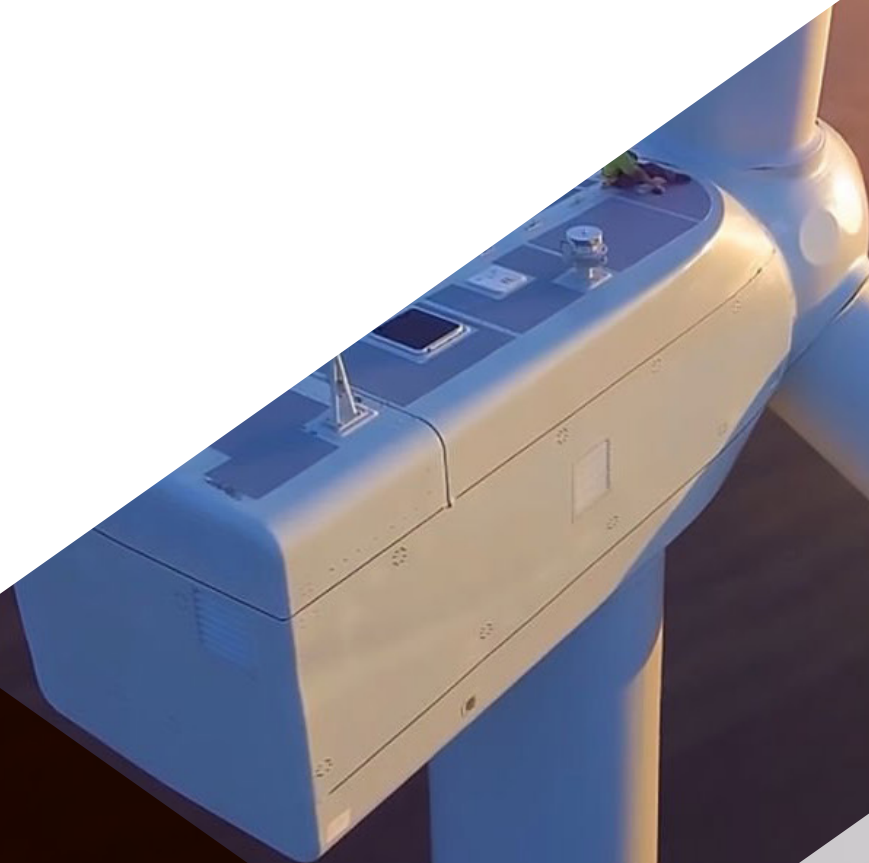


Postgraduate Diploma Wind Energy





Postgraduate Diploma Wind Energy

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

Website: www.techitute.com/us/engineering/postgraduate-diploma/postgraduate-diploma-wind-energy

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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 Wind Energy. Likewise, this program will go in depth to make the student understand the way in which wind energy is converted into electrical energy and transported to the electrical grid. 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 this complete program that aims to prepare professionals with high knowledge in everything that encompasses the renewable energy sector, specifically in wind energy, to increase their working position in today's energy market.

Specifically, this program will help the engineer to understand the process in which the kinetic energy of the air is captured by means of wind turbines, until it is converted into rotational kinetic energy and transformed into electrical energy through the use of generators. During the program, the fundamentals of wind energy extraction and wind behavior (fluid dynamics) will be defined, as well as the maintenance, operation and components of wind turbines (commonly called turbines). Finally, the two types of wind energy; onshore wind energy and offshore wind energy, as well as the advantages and disadvantages of each type will be studied.

On the other hand, the curriculum of this program is based on making the student understand how wind energy is converted into energy and transported to the power grid. To this end, the specialization will focus on; defining the behavior, characteristics and potential of wind, identifying the principle of operation, the different components of wind turbines and differentiating between on-shore and off-shore wind energy.

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 Wind Energy program 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. In addition, the program consists 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 specialization are:

- ◆ Practical case studies presented by experts
- ◆ 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



Improving your skills in Wind Energy will give you a boost to your professional career, with greater intervention capacity and better results"

“

Learn about and apply the latest advances in Wind Energy in your daily practice and give your resume a valuable boost”

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.

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.

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



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.





“

*With this program, TECH has only one goal:
to help you grow in your profession and
become a renowned 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
- ◆ Carry out the sizing of installations for the application of lesser-implemented energies, 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 conventional energy sources: nuclear energy, large hydropower, conventional thermal power, combined cycle, and the current regulatory environment of both conventional and renewable generation systems, along with their evolution dynamics
- ◆ 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. Wind Energy Systems

- ♦ Evaluate the advantages and disadvantages of replacing fossil fuels with renewable energy in various situations
- ♦ Gain in-depth knowledge to implement wind energy systems and determine the most appropriate technologies to use based on location and economic needs
- ♦ Acquire scientific and technical language related to renewable energy
- ♦ Develop the ability to establish hypotheses to address problems in the field of renewable energy and the criteria to evaluate results in an objective and coherent manner
- ♦ Understand and master the fundamental concepts regarding wind types and the installation of wind measurement systems
- ♦ Understand and master the fundamental laws governing wind energy capture and the technologies related to wind turbines
- ♦ Develop wind energy plant projects

Module 3. Development, Financing, and Feasibility of Renewable Energy Projects

- ♦ Gain in-depth knowledge and analyze the technical documentation required for renewable energy projects, necessary for their viability, financing, and processing
- ♦ Manage technical documentation up to the “Ready to Build” stage
- ♦ Establish the types of financing available for renewable energy projects
- ♦ Understand and carry out 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 viability 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

Module 4. Digital Transformation and Industry 4.0 Applied to Renewable Energy Systems

- ♦ Optimize processes, both in production and in operations and maintenance
- ♦ Gain detailed knowledge of the capabilities of digital industrialization and automation in renewable energy installations
- ♦ Understand and analyze in-depth the various alternatives and technologies offered by digital transformation
- ♦ Implement and assess mass capture systems (IoT)
- ♦ Use tools like Big Data to enhance processes and/or energy installations
- ♦ Understand in detail the scope of drones and autonomous vehicles in preventive maintenance
- ♦ Learn new methods for energy commercialization, including Blockchain and Smart Contracts



03

Course Management

TECH applies a criterion based on high quality in all its Postgraduate Diplomas. 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 Postgraduate Diploma in Wind Energy has highly prestigious professionals in this area, who pour into the training 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.





“

Learn with the best and acquire the knowledge and skills you need to intervene in this area of development with total success”

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-director



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

Dr. Gutiérrez, María Delia

- ♦ Vice President of Operations at the Tecnológico de Monterrey
- ♦ Master's Degree in Environmental Systems at Tecnológico de Monterrey
- ♦ PhD in Engineering Science with a specialization in Energy and Environment from Dartmouth College.
- ♦ Professor of Climate Change and Energy Use and Ecological Processes for Human Development at Tec de Monterrey.

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.

Mr. Martín Grande, Ángel

- ♦ Director in Chile at Reverb
- ♦ Industrial Engineer from the University of Seville
- ♦ Master's Degree in Occupational Risk Prevention.

- ♦ MBA in Technical Management in Renewable Energies and Thermal Plants
- ♦ Operations management of more than 4 GW of solar and wind power plants in Spain, Europe, United Arab Emirates, United States, Peru, Chile, Uruguay and Argentina.

Montoto Rojo, Antonio

- ♦ Electronics Engineer from the University of Seville
- ♦ MBA Master's Degree Camilo José Cela University
- ♦ Account Manager for storage systems at Gamesa Electric

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)

Dr. De la Cal Herrera, José Antonio

- ♦ Industrial Engineer, Universidad Politécnica de Madrid.
- ♦ MBA in Business Administration and Management from the Business School of Commercial and Marketing Management, ESIC
- ♦ Doctor from the University of Jaén
- ♦ Former Head of the Renewable Energy Department of AGECAM, S.A., Energy Management Agency of Castilla-La Mancha
- ♦ Associate Professor of the Department of Business Organization of the University of Jaén.

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





“

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 best professionals in the sector have designed for TECH the most complete and up-to-date syllabus on the market. This way, you'll be sure to learn from the best teaching content"

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 Environment of Renewable Energy
 - 1.2.1. Fundamentals of Climate Change and Energy Sustainability. Renewable Energy vs. Non-Renewable Energy
 - 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. Wind Energy Systems

- 2.1. Wind as a Natural Resource
 - 2.1.1. Behavior and Classification of Wind
 - 2.1.2. The Wind Resource on Our Planet
 - 2.1.3. Measurement of Wind Resources
 - 2.1.4. Wind Energy Forecasting
- 2.2. Wind Energy
 - 2.2.1. Wind Energy Evolution
 - 2.2.2. Temporal and Spatial Variability of the Wind Resource
 - 2.2.3. Wind Power Applications
- 2.3. The Wind Turbine
 - 2.3.1. Types of Wind Turbines
 - 2.3.2. Components of a Wind Turbine
 - 2.3.3. Operation of a Wind Turbine
- 2.4. Wind Generator
 - 2.4.1. Asynchronous Generators: Wound Rotor
 - 2.4.2. Asynchronous Generators: Squirrel-Cage Rotor
 - 2.4.3. Synchronous Generators: Independent Excitation
 - 2.4.4. Synchronous Permanent Magnet Generators

- 2.5. Site Selection
 - 2.5.1. Basic Criteria
 - 2.5.2. Specific Considerations
 - 2.5.3. Onshore and Offshore Wind Installations
- 2.6. Exploitation of a Wind Farm
 - 2.6.1. Exploitation Model
 - 2.6.2. Control Operations
 - 2.6.3. Remote Operation
- 2.7. Wind Farm Maintenance
 - 2.7.1. Types of Maintenance: Corrective, Preventive and Predictive
 - 2.7.2. Main Failures
 - 2.7.3. Machine Improvement and Resource Organization
 - 2.7.4. Maintenance Costs (OPEX)
- 2.8. Wind Energy Impact and Environmental Maintenance
 - 2.8.1. Impact on Flora and Erosion
 - 2.8.2. Impact on Avifauna
 - 2.8.3. Visual and Acoustic Impact
 - 2.8.4. Environmental Maintenance
- 2.9. Data Analysis and Performance
 - 2.9.1. Energy Production and Revenue
 - 2.9.2. Control Indicators (KPIs)
 - 2.9.3. Wind Farm Performance
- 2.10. Design of Wind Farms
 - 2.10.1. Design Considerations
 - 2.10.2. Wind Turbine Layout
 - 2.10.3. Effect of Wake on the Distance Between Turbines
 - 2.10.4. Medium and High Voltage Equipment
 - 2.10.5. Installation Costs (CAPEX)

Module 3. Development, Financing and Feasibility of Renewable Energy Projects

- 3.1. Identifying Stakeholders
 - 3.1.1. Developers, Engineering Firms, and Consultants
 - 3.1.2. Investment Funds, Banks, and Other Stakeholders
- 3.2. Renewable Energy Project Development
 - 3.2.1. Main Stages of Development
 - 3.2.2. Key Technical Documentation
 - 3.2.3. Sales Process. RTB
- 3.3. Evaluation of Renewable Energy Projects
 - 3.3.1. Technical Feasibility
 - 3.3.2. Commercial Feasibility
 - 3.3.3. Environmental and Social Feasibility
 - 3.3.4. Legal Feasibility and Associated Risks
- 3.4. Financial Fundamentals
 - 3.4.1. Financial Knowledge
 - 3.4.2. Analysis of Financial Statements
 - 3.4.3. Financial Modeling
- 3.5. Economic Valuation of Renewable Energy Projects and Companies
 - 3.5.1. Valuation Fundamentals
 - 3.5.2. Valuation Methods
 - 3.5.3. Calculation of Profitability and Financing Potential of Projects
- 3.6. Financing of Renewable Energies
 - 3.6.1. Project Finance Characteristics
 - 3.6.2. Financing Structuring
 - 3.6.3. Risks in Financing
- 3.7. Renewable Asset Management: *Asset Management*
 - 3.7.1. Technical Supervision
 - 3.7.2. Financial Supervision
 - 3.7.3. Claims, Permits Supervision, and Contract Management

- 3.8. Insurance in Renewable Energy Projects. Construction Phase
 - 3.8.1. Developer and Constructor. Specialized Insurance
 - 3.8.2. Construction Insurance (CAR)
 - 3.8.3. Professional Liability Insurance
 - 3.8.4. Advance Loss of Profit (ALOP) Clause
- 3.9. Insurance in Renewable Energy Projects. Operation and Exploitation Phase
 - 3.9.1. Property Insurance. Multi-risk (OAR)
 - 3.9.2. Contractor's O&M Insurance (Liability or Professional Liability)
 - 3.9.3. Appropriate Coverage. Consequential and Environmental Losses
- 3.10. Valuation and Appraisal of Damages in Renewable Energy Assets
 - 3.10.1. Industrial Valuation and Appraisal Services: Renewable Energy Facilities
 - 3.10.2. Intervention and Policy
 - 3.10.3. Property Damages and Consequential Losses
 - 3.10.4. Types of Claims: Photovoltaic, Solar Thermal, Hydroelectric and Wind Power

Module 4. Digital Transformation and Industry 4.0. Applied to Renewable Energy Systems

- 4.1. Current Situation and Outlook
 - 4.1.1. Current Situation of Technologies
 - 4.1.2. Trends and Evolution
 - 4.1.3. Future Challenges and Opportunities
- 4.2. Digital Transformation in Renewable Energy Systems
 - 4.2.1. The Age of Digital Transformation
 - 4.2.2. Digitalization of the Industry
 - 4.2.3. 5G Technology
- 4.3. Automation and Connectivity: Industry 4.0.
 - 4.3.1. Automatic Systems
 - 4.3.2. Connectivity
 - 4.3.3. The Importance of the Human Factor. Key Factor
- 4.4. Lean Management 4.0
 - 4.4.1. Lean Management 4.0
 - 4.4.2. Benefits of Lean Management in the Industry
 - 4.4.3. Lean Tools in the Management of Renewable Energy Installations





- 4.5. Mass Capture Systems. IoT
 - 4.5.1. Sensors and Actuators
 - 4.5.2. Continuous Data Monitoring
 - 4.5.3. Big Data
 - 4.5.4. SCADA Systems
- 4.6. IoT Project Applied to Renewable Energy
 - 4.6.1. Monitoring System Architecture
 - 4.6.2. IoT System Architecture
 - 4.6.3. IoT Applied Cases
- 4.7. Big Data and Renewable Energy
 - 4.7.1. Big Data Principles
 - 4.7.2. Big Data Tools
 - 4.7.3. Usability in the Energy Sector and Renewable Energy
- 4.8. Proactive or Predictive Maintenance
 - 4.8.1. Predictive Maintenance and Fault Diagnosis
 - 4.8.2. Instrumentation: Vibrations, Thermography, Damage Analysis and Diagnosis Techniques
 - 4.8.3. Predictive Models
- 4.9. Drones and Autonomous Vehicles
 - 4.9.1. Main Characteristics
 - 4.9.2. Applications of Drones
 - 4.9.3. Applications of Autonomous Vehicles
- 4.10. New Forms of Energy Commercialization. Blockchain and Smart Contracts
 - 4.10.1. Information Systems Using Blockchain
 - 4.10.2. Tokens and Smart Contracts
 - 4.10.3. Present and Future Applications for the Electrical Sector
 - 4.10.4. Available Platforms and Blockchain-Based Application Cases

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.



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

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

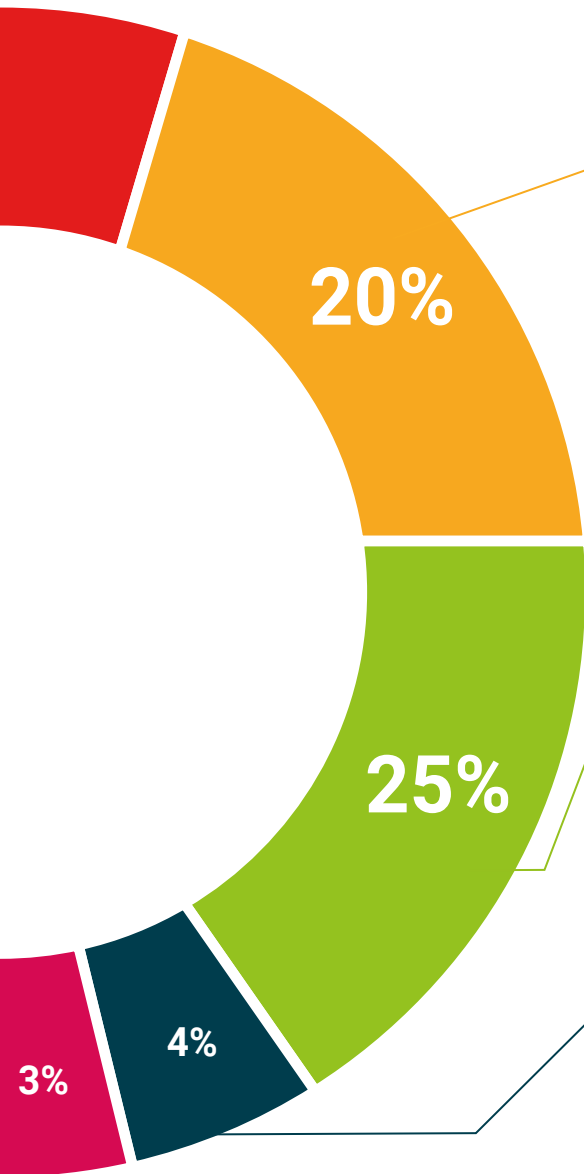
They will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.



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 Wind 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 Wind 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 Wind Energy**

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 quality

development language

virtual classroom

tech global
university

Postgraduate Diploma Wind Energy

- » Modality: online
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- » Credits: 24 ECTS
- » Schedule: at your own pace
- » Exams: online

Postgraduate Diploma Wind Energy

