Postgraduate Certificate

Internet of Things (IoT)

tech technological university

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Postgraduate Certificate
Internet of Things (IoT)

- Modality: **online**
- Duration: **6 weeks**
- Certificate: **TECH Technological University**
- Dedication: **16h/week**
- Schedule: **at your own pace**
- Exams: **online**

Website: **www.techtitute.com/in/engineering/postgraduate-certificate/internet-things-iot**

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01

Introduction

The Internet of Things (IoT) is based on the connection of intelligent devices through the network, with the aim of exchanging and storing data. The need for specialists in this area is increasing and areas such as Engineering require more and more professionals with in-depth knowledge of IoT. This is the reason why TECH has created a program that seeks to provide students with advanced skills and knowledge with which to face their professional future in this sector, with the maximum possible efficiency. To this end, a curriculum has been created that addresses topics such as Cyber-Physical Systems or Security Systems in IoT and IIoT Platforms. In addition, the content is offered in a 100% online mode that gives total freedom of organization to the student.

Achieve your most ambitious IoT career goals in just 6 weeks"

The constant digitization and automation of processes is transforming the world at a dizzying speed. The Internet of Things (IoT) is based on a set of smart devices with sensors, software and electronics, connected to the internet to store and exchange data. This has made experts in areas such as engineering increasingly necessary and required in the workplace.

For this reason, TECH has designed a Postgraduate Certificate in Internet of Things (IoT) with which it seeks to provide students with skills and specialized knowledge with which to carry out their work in this area, with total guarantee of success.And this, through a program that addresses issues such as Cyberphysical Systems, IoT Platforms and their Architecture, Digital Twins, Platform Security or API Implementation Strategies, among others.

All this, in a comfortable 100% online mode that gives the student total freedom to combine their studies with their other day-to-day work. In addition, thanks to the most comprehensive multimedia content, the most up-to-date information and the most advanced technological teaching tools.

This **Postgraduate Certificate in Internet of Things (IoT)** contains the most complete and up-to-date program on the market. The most important features include:

- The examination of practical cases presented by experts in Things (IoT Internet)
- The graphic, schematic, and practical contents with which they are created, provide 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

Acquire new knowledge in IoT and IIoT Platform Security in 150 hours of practical and dynamic content"

Completion of this qualification will equip you with enhanced competencies in Intelligent Security Systems and Digital Twins"

Delve into the Internet of Things and Cyber-Physical Systems, without the need to travel, and at any time of the day.

This program will give you the boost you need to enhance your profile as an engineer in one of the most promising areas of the future.

The program's teaching staff includes professionals from the field who contribute their work experience to this educational 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 education programmed to learn 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 students will be assisted by an innovative interactive video system created by renowned and experienced experts.

02

Objectives

The objective of this Postgraduate Certificate in Internet of Things (IoT) is to provide students with the skills and competencies necessary to carry out the highest quality work in this area. All this, through the most complete, updated and dynamic content in the academic market.

Achieve your most demanding goals with a unique Internet of Things (IoT) Postgraduate Certificate"

General Objectives

- Conduct a comprehensive analysis of the profound transformation and radical paradigm shift being experienced in the current global digitalization process
- Provide in-depth knowledge and the necessary technological tools to face and lead the technological leap and the challenges currently present in companies
- Mastering the digitalization procedures of companies and the automation of their processes to create new fields of wealth in areas such as creativity, innovation and technological efficiency
- Leading Digital Change

Specific Objectives

- Have detailed knowledge of the functioning of IoT and Industry 4.0 and its combinations with other technologies, its current situation, its main devices and uses and how hyper-connectivity gives rise to new business models where all products and systems are connected and in permanent communication
- Delve into the knowledge of an IoT platform and the elements that compose it, the challenges and opportunities to implement IoT platforms in factories and companies, the main business areas related to IoT platforms and the relationship between IoT platforms, robotics and other emerging technologies
- Know the main existing wearable devices, their usefulness, the security systems to be applied in any IoT model and its variant in the industrial world, called IoT

TECH will help you achieve professional excellence by diving into a Device Ecosystem"

03

Course Management

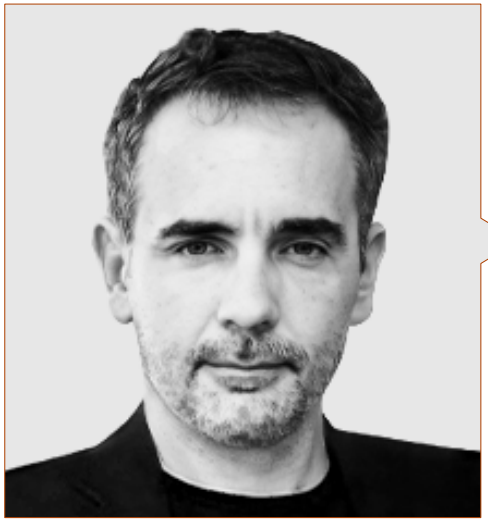
The management and teaching staff of this Postgraduate Certificate in Internet of Things (IoT) are part of the team of experts in the field of TECH. These professionals have turned their outstanding experience and their most specialized knowledge into a unique, complete and updated program.

TECH has selected an outstanding teaching team to help you in any doubt or query, during the overcoming of the program"

Management

Mr. Segovia Escobar, Pablo

- Chief Executive of the Defense Sector in the Company Tecnobit of the Oesía Group
- Corporate Project Director Indra
- Master's Degree in Companies Administration and Management by the National University of Distance Education
- Postgraduate in Strategic Management Function
- Member of: Spanish Association of People with High Intellectual Quotient



Mr. Diezma López, Pedro

- Chief Innovation Officer and CEO of Zerintia Technologies
- Founder of the technology company Acuilae
- Member of the Kebala Group for business incubation and promotion.
- Consultant for technology companies such as Endesa, Airbus or Telefónica
- Wearable "Best Initiative" Award in eHealth 2017 and "Best Technological "Solution" 2018 for occupational safety


Restart on fault
Control
Control
CONTROL PANEL
ON
OFF
ERR
38/100
264
60%
85%
94%

04

Structure and Content

The structure and content of this Postgraduate Certificate in Internet of Things (IoT) have been designed by the outstanding professionals who make up the team of experts in Internet of Things from TECH. They have created theoretical and practical contents of the highest quality, based on the most efficient pedagogical methodology in the academic market, Relearning.

Relearning guarantees optimal assimilation of essential concepts, in a natural, progressive and efficient way"

Module 1. Internet of Things (IoT)

1.1. Cyber-Physical Systems (CPS) in the Industry 4.0 Vision
- 1.1.1. Internet of Things (IoT)
- 1.1.2. Components Involved in IoT
- 1.1.3. Cases and Applications of IoT

1.2. Internet of Things and Cyber-Physical Systems
- 1.2.1. Computing and Communication Capabilities to Physical Objects
- 1.2.2. Sensors, Data and Elements in Cyber-Physical Systems

1.3. Device Ecosystem
- 1.3.1. Typologies, Examples and Uses
- 1.3.2. Applications of the Different Devices

1.4. IoT Platforms and their Architecture
- 1.4.1. IoT Market Typologies and Platforms
- 1.4.2. Operation of an IoT Platform

1.5. Digital Twins
- 1.5.1. Digital Twin
- 1.5.2. Uses and Applications the Digital Twin

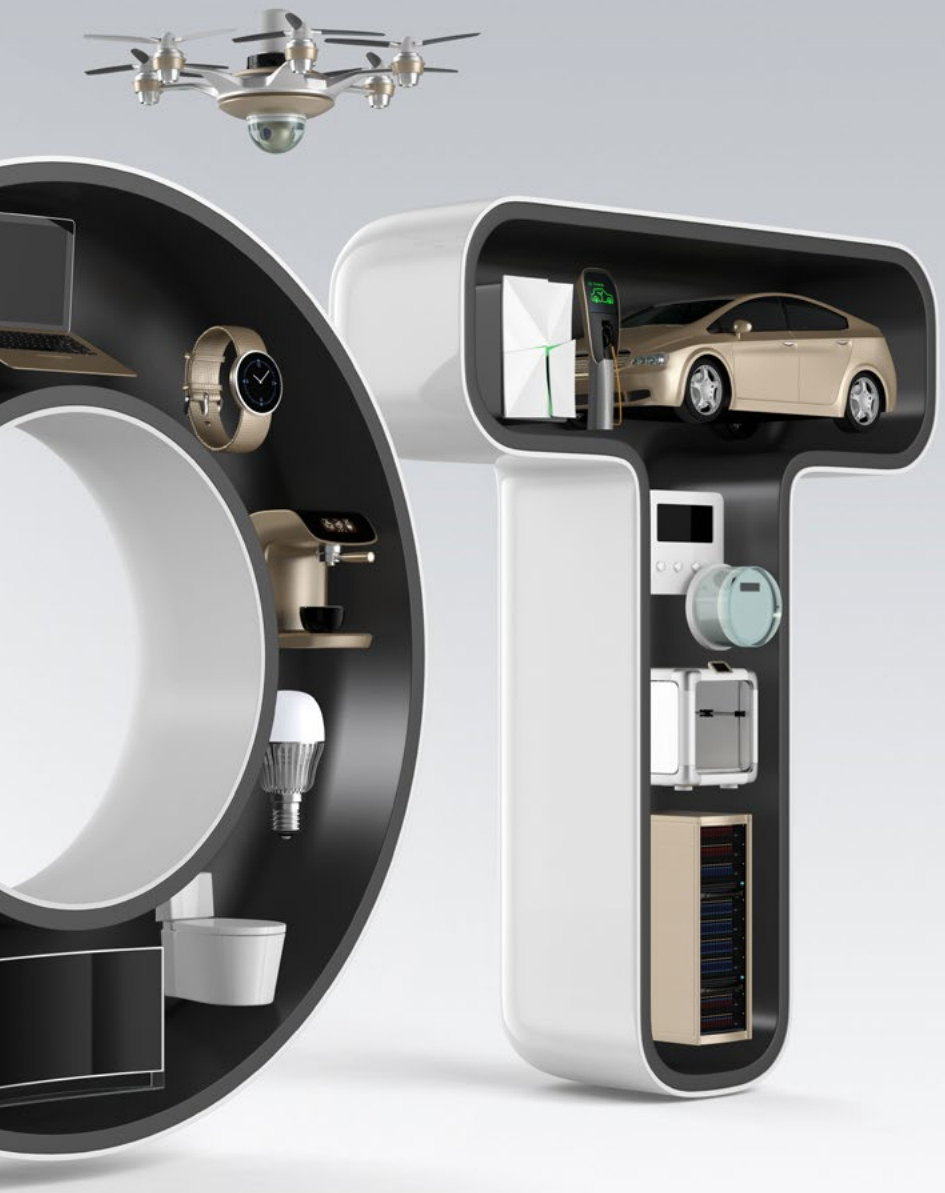
1.6. Indoor & outdoor Geolocation (Real Time Geospatial)
- 1.6.1. Indoor and Outdoor Geolocation Platforms
- 1.6.2. Implications and Challenges of Geolocation in an IoT Project

1.7. Security Intelligence Systems
- 1.7.1. Typologies and Platforms for Security Systems Implementation
- 1.7.2. Components and Architectures in Intelligent Safety Systems

1.8. IoT and IIoT Platform Security
- 1.8.1. Security Components in an IoT System
- 1.8.2. IoT Security Implementation Strategies

1.9. Wearables at Work
- 1.9.1. Types of Wearables in Industrial Environments
- 1.9.2. Lessons Learned and Challenges in Implementing Wearables in the Workplace

1.10. Implementing an API to Interact with a Platform
- 1.10.1. Types of APIs Involved in an IoT Platform
- 1.10.2. API Market
- 1.10.3. Strategies and Systems to Implement API Integrations



You will have the possibility to enjoy all the content from the first day and at any time, thanks to TECH"

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

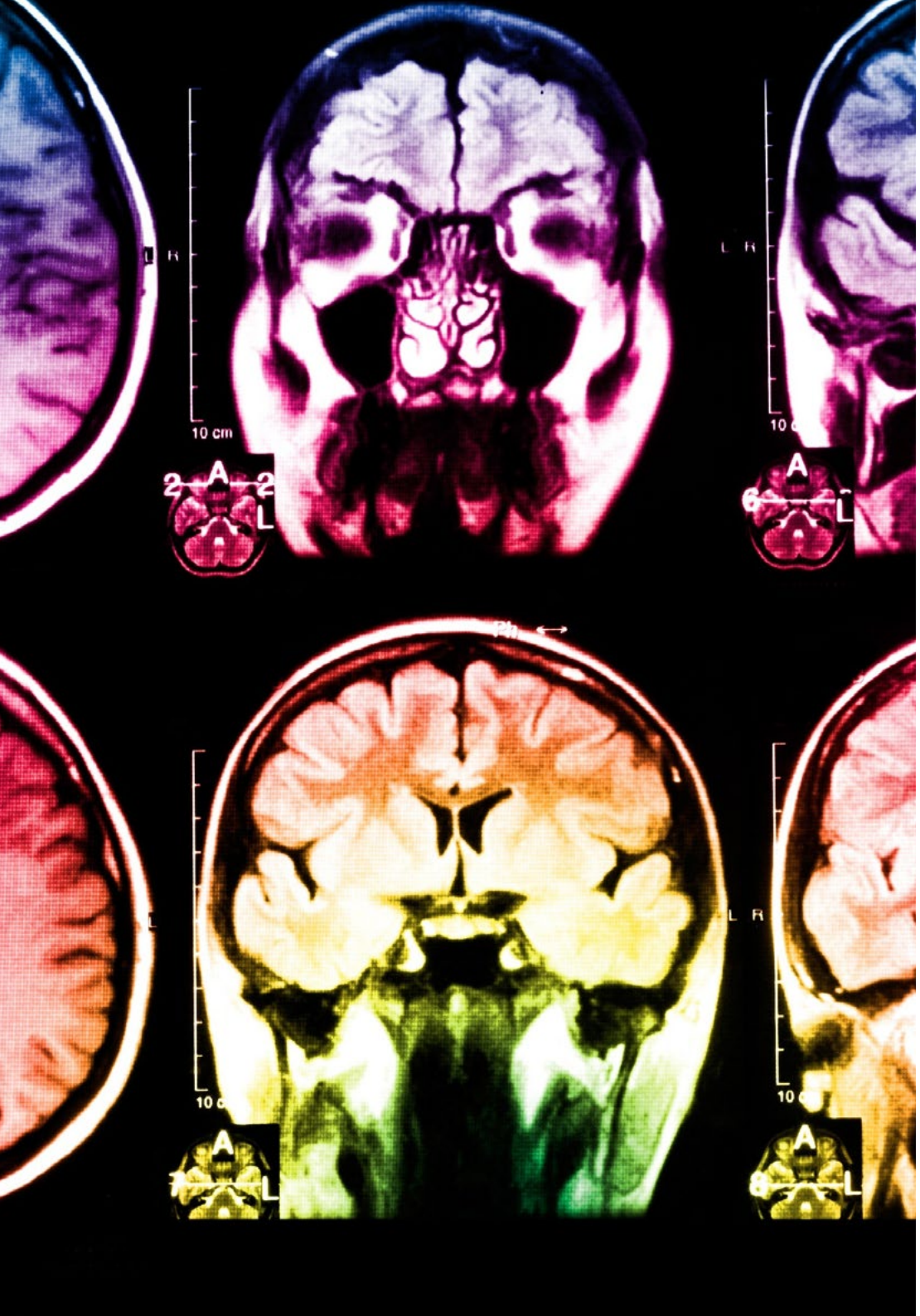
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

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.

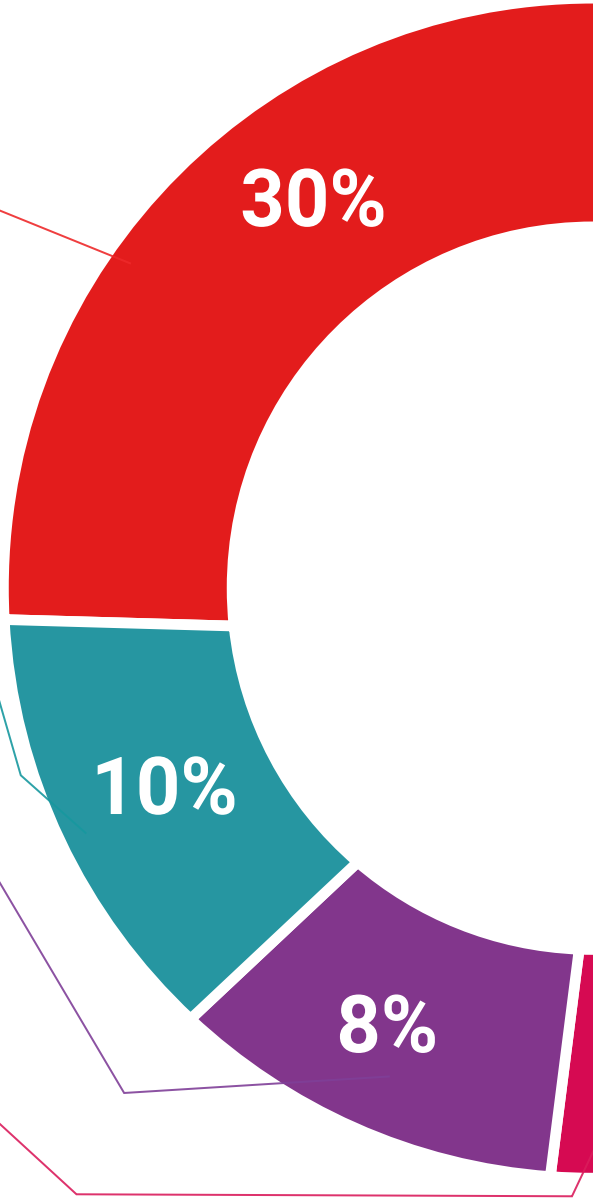
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

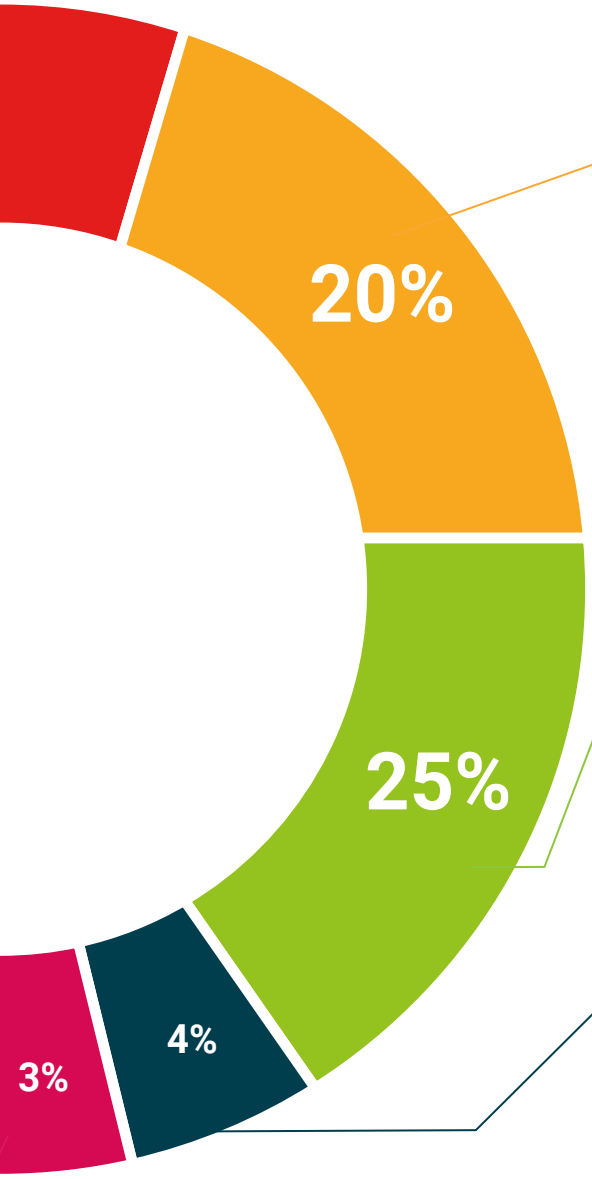
Practising Skills and Abilities

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 Certificate in Internet of Things (IoT) guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.

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

This **Postgraduate Certificate in Internet of Things (IoT)** contains the most complete and up-to-date program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Certificate** issued by **TECH Technological University** via tracked delivery*.

The certificate issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Certificate, and meets the requirements commonly demanded by labor exchanges, competitive examinations and professional career evaluation committees.

Title: **Postgraduate Certificate Internet of Things (IoT)**

Official Nº of Hours: **150 h.**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Awards the followi ng

CERTIFICATE

to

Mr./Ms. _____, with identification number _____ .

For having passed and accredited the following progra m

POSTGRADUATE CERTIFICATE

in

Internet of Things (IoT)

This is a qualification awarded by this University, equivalent to 150 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy .

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 201 8.

June 17, 2020

Tere Guevara Navarr o

Dean

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

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

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