Postgraduate Certificate
Blockchain

tech technological university

Postgraduate Certificate
Blockchain

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

Website: **www.techtitute.com/in/information-technology/postgraduate-certificate/blockchain**

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01
Introduction

It is a fact that digitalization has changed the way the financial market operates. *Blockchain* technology emerged as the architecture that enabled the creation of the virtual currency bitcoin. However, in recent years the use of this technology is being considered far beyond cryptocurrencies. In particular, its potential arises around the advantages of using a distributed transaction database. This 100% online specialization allows computer scientists to identify *Blockchain* technology application cases and approach the different practical cases from a broad perspective, defining specific solutions for their application in current and existing environments within the industry.

"
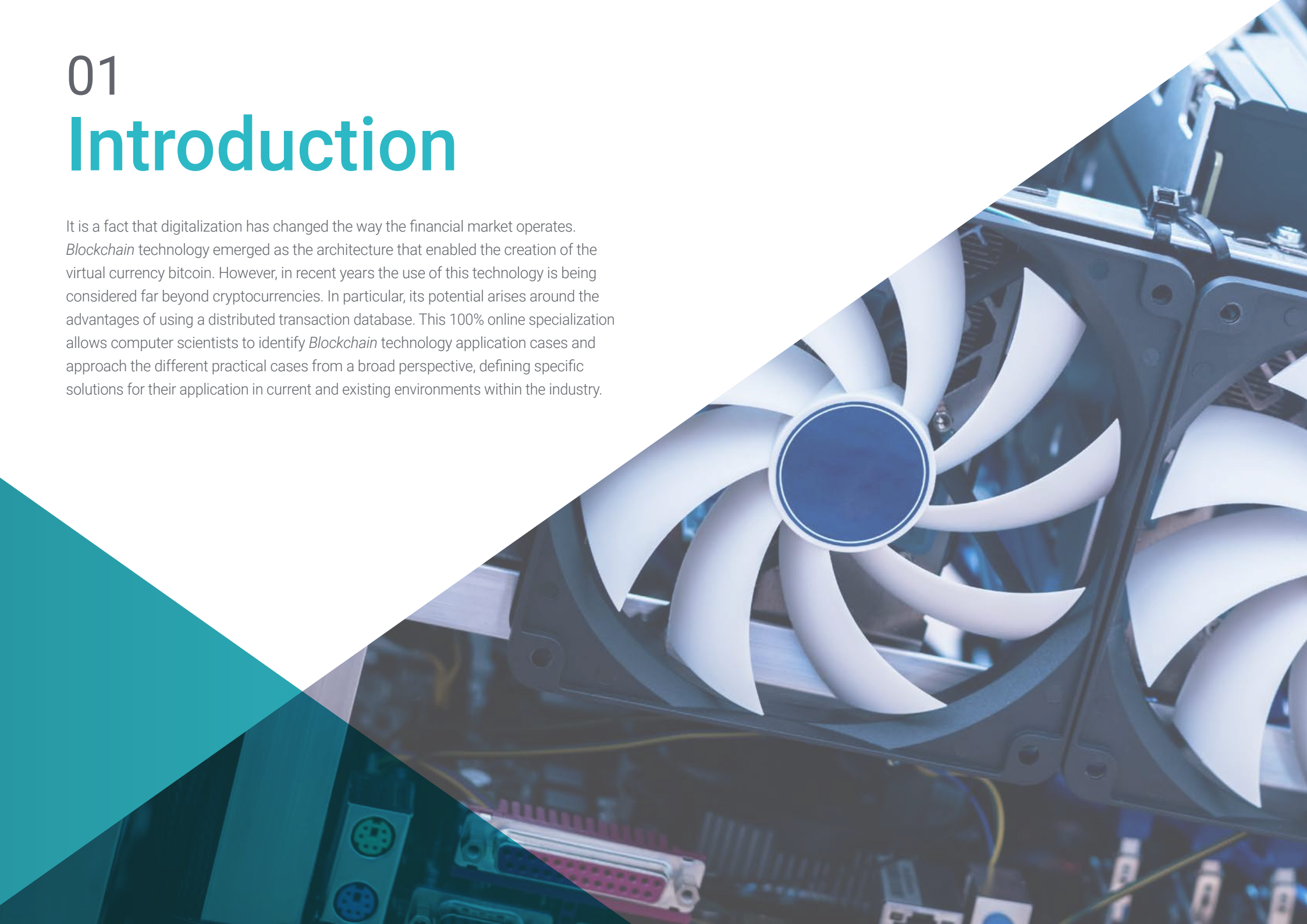
A salient feature of the Blockchain is that transparency and privacy coexist in every transaction"

The *Blockchain* is understood as a shared database that functions as a ledger for the registration of buying and selling operations or any other transaction. Therefore, this degree addresses from the problem of securitization, transparency and monitoring of communications, to the implementation of blockchain technology. All this through its evolution towards the resolution of communication problems between Nodes *(Smart Contracts)*, Generation of Unique Elements (NFT's) and Tokenization of Information Processes (SFTs).

In a first approach, this Diploma analyzes the advantages that *Blockchain* provides for knowledge and data management, applied to guarantee security, quality and traceability, as well as to increase the analysis capacity of such information through new work technologies. In this way, specific use cases are defined for each of them within different sectors of the current business landscape.

Additionally, the student has the best study methodology 100% online, which eliminates the need to attend classes in person or have to comply with a predetermined schedule. To this end, in only 6 weeks will delve into the scope of application of *Cloud Computing,* understanding the competitive advantages they provide, so they will be positioned at the technological forefront and will be able to lead ambitious projects in the present and in the future.

This **Postgraduate Certificate in Blockchain** contains the most complete and up-to-date program on the market. The most important features include:

- The development of case studies presented by *Blockchain* experts.
- 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

Your company will be able to make exchanges between nodes without the possibility of a third party accessing its content"

You will be able to transfer data with total security, since each block of the Blockchain is cryptographically encrypted.

Perform a detailed analysis of the most common business use cases for Blockchain technology.

" *Thanks to this technology you will be able to reduce costs and make exchanges with users located anywhere in the world, with a margin of error that is reduced to a minimum"*

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

Its multimedia content, developed with the latest educational technology, will allow professionals to learn in a contextual and situated learning environment, i.e., a simulated environment that will provide immersive education programmed to prepare in real situations.

The design of this program focuses on Problem-Based Learning, by means of which professionals must try to solve the different professional practice situations that are presented to them throughout the course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

02
Objectives

The main objective of this Diploma is to perform a technical immersion in public and private nodes and data operations with *Blockchain*, one of the most relevant technologies in the technological advances of the coming years. The direct application of the knowledge acquired about *Blockchain* in real projects is an added professional value, which very few computer scientists specialized in Information and Communication Technologies can offer.

"
You will learn how to define specific solutions for the application of Blockchain in current and existing environments within the industry"

General Objectives

- Establish the basis for a correct foundation in the IoT, EIoT and IIoT field
- Acquire a global vision of the IoT project, as the project as a whole provides greater added value
- Analyze the current landscape of Digital Twins and associated technologies
- Generate specialized knowledge on *Blockchain* technology.
- Develop specialized knowledge of NLP and NLU
- Examine the operation of Word Embeddings
- Analyze the mechanism of Transformers
- Develop case studies where NLP can be applied
- Demonstrate the differences between quantum and classical computing by analyzing their mathematical foundations
- Develop and demonstrate the advantages of quantum computing in application solving examples (games, examples, programs)
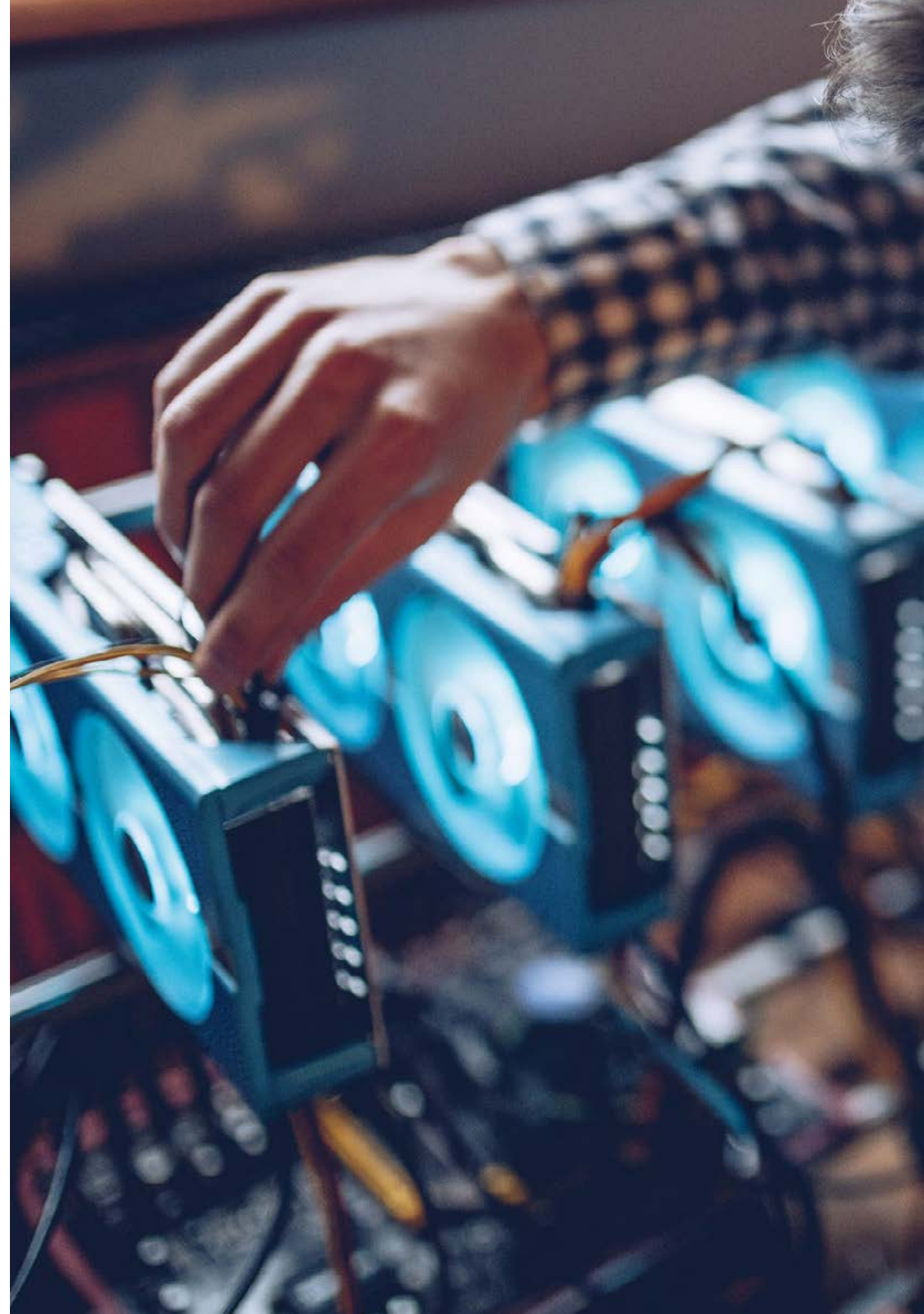
Specific Objectives

- Analyze requirements for solution definition
- Develop solutions based on *Blockchain* technologies (C#/Go)
- Optimize the performance of already implemented solutions
- Establish the basis for enabling the scalability of such solutions
- Fundamentalize the application of different tools, algorithms, Frameworks or platforms in the implementation of Blockchain solutions.
- Identify improvement points within existing architectures
- Evaluate the costs of applying the improvements to be implemented.
- Fundamentalize the application of different tools in the implementation of Blockchain solutions.

identification technology application cases Blockchain. and approach the different practical cases from a broad perspective"

03
Course Management

TECH has made an exhaustive search for the best professionals in leading technologies and disciplines. This 100% online degree provides a theoretical and practical analysis of knowledge and data management through *Blockchain* technology, applied to guarantee security, quality and traceability, as well as to increase the capacity to analyze this information through new work technologies.

It deepens, through tools and languages, in the existing algorithms, frameworks and platforms, by means of a practical implementation"

Management

Mr. Molina Molina, Jerónimo

· Head of the Artificial Intelligence Department at Ibermática

· IA Engineer & Software Architect at NASSAT - Internet Satellite in Motion

· Senior Consultant at Hexa Ingenieros. Introducer of Artificial Intelligence (ML and CV).

· Expert in Artificial Intelligence Based Solutions, in the fields of *Computer Vision*, ML/DL and NLP

· Expert in Business Creation and Development at Bancaixa - FUNDEUN Alicante

· Computer Engineer from the University of Alicante

· Master's Degree in Artificial Intelligence from the Catholic University of Avila

· Executive MBA (European Business Campus Forum)

Professors

Mr. Díaz Morales, Ángel

◆ Computer Engineer and Technology Consultant

◆ Founder and CTO of Wozala

◆ Technological Consultant at Técnicas Reunidas

◆ Project Manager at Cetelem, Gfi Spain and ISBAN

◆ Technology and Project Design Coordinator at Bankia and BBVA

◆ Programmer at Idom Consulting

◆ Computer Engineer at the University of Zaragoza

Mr. Mostajo Fernández, Iván

◆ Specialist in Project Management and Systems Computing

◆ ISBAN Consultant in Santander Consumer Finance Spain

◆ Technical Consultant at Signum Software and at Eutropraxis - Petrobass

◆ Technical Project Manager at Infortect Ingeniería

◆ Technical Engineer in Computer Systems from the Universidad Alcalá de Henares.

04
Structure and Content

Modules 1 and 2 are dedicated to *Blockchain*, a technology with applications that go beyond the *Crypto* world and where a myriad of applications can be found. This diploma course provides in-depth theoretical and practical knowledge of the tools and languages, algorithms, *frameworks* and platforms that enable the implementation of this technology.

You will be able, in a real case, to analyze, define and apply the best implementation strategy with Blockchain technology"

Module 1. R&D in Complex Software Systems. *Blockchain*. Public and Private Nodes

1.1.   *Blockchain* and Distributed Data
    1.1.1.   Information Communications. New Paradigm
    1.1.2.   Privacy and Transparency
    1.1.3.   Information Exchange. New Models
1.2.   *Blockchain*.
    1.2.1.   *Blockchain*.
    1.2.2.   *Blockchain*. Technological Base
    1.2.3.   *Blockchain*. Components and Elements
1.3.   *Blockchain*. Public Nodes
    1.3.1.   *Blockchain*. Public Nodes
    1.3.2.   Working Algorithms in Public Nodes
        1.3.2.1. *Proof of Work*
        1.3.2.2. *Proof of Stake*
        1.3.2.3. *Proof of Authority*
    1.3.3.   Use Cases and Application
        1.3.3.1. *Smart Contracts*
        1.3.3.2. *Dapps*
1.4.   *Blockchain*. Private Nodes
    1.4.1.   *Blockchain*. Private Nodes
    1.4.2.   Working Algorithms in Private Nodes
        1.4.2.1. *Proof of Work*
        1.4.2.2. *Proof of Stake*
        1.4.2.3. *Proof of Authority*
    1.4.3.   Use Cases and Application
        1.4.3.1. *Crypto* Economy
        1.4.3.2. Game Theory
        1.4.3.3. Market Modeling

1.5.   *Blockchain*. Work *Frameworks*
    1.5.1.   *Blockchain*. Work *Frameworks*
    1.5.2.   Types
        1.5.2.1. Ethereum
        1.5.2.2. *Hyperledger Fabric*
    1.5.3.   Application Examples (Ethereum)
        1.5.3.1. C#
        1.5.3.2. Go
1.6.   *Blockchain* in Finance
    1.6.1.   The Impact of *Blockchain* on the Financial World
    1.6.2.   Advanced Technologies
    1.6.3.   Use Cases and Application
        1.6.3.1. Information Assurance
        1.6.3.2. Follow-Up and Monitoring
        1.6.3.3. Certified Transmissions
        1.6.3.4. Examples within the Financial Sector
1.7.   *Blockchain* in the Industrial Environment
    1.7.1.   *Blockchain* and Logistics
    1.7.2.   Advanced Technologies
    1.7.3.   Use Cases and Application
        1.7.3.1. *Smart Contracts* between Suppliers and Customers
        1.7.3.2. Support in Automation Processes
        1.7.3.3. Real-Time Product Traceability
        1.7.3.4. Examples within the Industrial Sector
1.8.   *Blockchain*. Transaction *Tokenization*
    1.8.1.   *Tokenizing* the World
    1.8.2.   Smart Contracts Platforms (*Smart Contracts*)
        1.8.2.1. Bitcoin
        1.8.2.2. Ethereum
        1.8.2.3. Other Emerging Platforms
    1.8.3.   Communication: The Oracle Problem
    1.8.4.   Uniqueness: NFTs
    1.8.5.   Tokenization: STOs

Performs a theoretical-practical analysis of Knowledge and Data Management through Blockchain technology, applied to ensure security, quality and traceability"

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 has been the most widely used learning system among the world's leading Information Technology schools for as long as they have existed. 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 course, students 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 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.

01 learning from evidence

02 relearning from evidence

03 testing

04 learning from an expert

05 neurocognitive context dependent learning

06 Von-Restorff effect

07 case based learning through storytelling

08 competencies testing (retesting)

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.

30%

10%

8%

20%

25%

4%

3%

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.

Certificate

The Postgraduate Certificate in Blockchain 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 Blockchain** 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: **This Postgraduate Certificate in Blockchain**

Official Nº of Hours: **300 h.**

tech technological university

Awards the following

CERTIFICATE
to

Mr./Ms. _____, with identification number _____.
For having passed and accredited the following program

POSTGRADUATE CERTIFICATE
in

Anal Fissure and Sphincter Lesions

This is a qualification awarded by this University, equivalent to 300 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, 2018.

June 17, 2020

Tere Guevara Navarro
Dean

Unique 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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