

# Postgraduate Certificate

## Implementation of Software and Hardware Security Policies



## Postgraduate Certificate Implementation of Software and Hardware Security Policies

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h week
- » Schedule: at your own pace
- » Tests: online
- » Target Group: University Graduates, Postgraduates and Degree holders who have previously completed any of the following programs in the field of Social and Legal Sciences, Administration and Economics.

Website: [www.techtute.com/in/school-of-business/postgraduate-certificate/implementatation-software-hardware-security-policies](http://www.techtute.com/in/school-of-business/postgraduate-certificate/implementatation-software-hardware-security-policies)

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# 01 Welcome

Nowadays, one of the fundamental pillars of the bastion of computer systems is based on logical security and access controls. In this way, advanced security methods are implemented to input processes that determine the authorization of each user to the different software and hardware of a company and the information they store and handle. Mastering these security policies has become a widespread labor claim by much of the business sector, entities seeking the figure of a qualified professional to help reduce their vulnerability to a possible malware attack. That is why this program will bring to the professional career of the graduates all they need to know to become a leader capable of assuming any type of project related to this area, through the course of a 100% online program.



Postgraduate Certificate in Implementation of Software and Hardware Security  
Policies TECH Technological University



“

*A 100% online program with which to specialize in the practical implementation of security policies in computer systems and become an expert in the sector”*

02

# Why Study at TECH?

TECH is the world's largest 100% online business school. It is an elite business school, with a model based on the highest academic standards. A world-class center for intensive managerial skills education.



“

*TECH is a university at the forefront of technology, and puts all its resources at the student's disposal to help them achieve entrepreneurial success"*

## At TECH Technological University



### Innovation

The university offers an online learning model that balances the latest educational technology with the most rigorous teaching methods. A unique method with the highest international recognition that will provide students with the keys to develop in a rapidly-evolving world, where innovation must be every entrepreneur's focus.

"*Microsoft Europe Success Story*", for integrating the innovative, interactive multi-video system.



### The Highest Standards

Admissions criteria at TECH are not economic. Students don't need to make a large investment to study at this university. However, in order to obtain a qualification from TECH, the student's intelligence and ability will be tested to their limits. The institution's academic standards are exceptionally high...

**95%** | of TECH students successfully complete their studies



### Networking

Professionals from countries all over the world attend TECH, allowing students to establish a large network of contacts that may prove useful to them in the future.

**+100000**

executives prepared each year

**+200**

different nationalities



### Empowerment

Students will grow hand in hand with the best companies and highly regarded and influential professionals. TECH has developed strategic partnerships and a valuable network of contacts with major economic players in 7 continents.

**+500**

collaborative agreements with leading companies



### Talent

This program is a unique initiative to allow students to showcase their talent in the business world. An opportunity that will allow them to voice their concerns and share their business vision.

After completing this program, TECH helps students show the world their talent.



### Multicultural Context

While studying at TECH, students will enjoy a unique experience. Study in a multicultural context. In a program with a global vision, through which students can learn about the operating methods in different parts of the world, and gather the latest information that best adapts to their business idea.

TECH students represent more than 200 different nationalities.



TECH strives for excellence and, to this end, boasts a series of characteristics that make this university unique:



### Analysis

---

TECH explores the student's critical side, their ability to question things, their problem-solving skills, as well as their interpersonal skills.



### Academic Excellence

---

TECH offers students the best online learning methodology. The university combines the Relearning method (postgraduate learning methodology with the best international valuation) with the Case Study. Tradition and vanguard in a difficult balance, and in the context of the most demanding educational itinerary.



### Economy of Scale

---

TECH is the world's largest online university. It currently boasts a portfolio of more than 10,000 university postgraduate programs. And in today's new economy, **volume + technology = a ground-breaking price**. This way, TECH ensures that studying is not as expensive for students as it would be at another university.



### Learn with the best

---

In the classroom, TECH's teaching staff discuss how they have achieved success in their companies, working in a real, lively, and dynamic context. Teachers who are fully committed to offering a quality specialization that will allow students to advance in their career and stand out in the business world.

Teachers representing 20 different nationalities.



*At TECH, you will have access to the most rigorous and up-to-date case analyses in academia"*

03

# Why Our Program?

Studying this TECH program means increasing the chances of achieving professional success in senior business management.

It is a challenge that demands effort and dedication, but it opens the door to a promising future. Students will learn from the best teaching staff and with the most flexible and innovative educational methodology.



“

*We have highly qualified teachers and the most complete syllabus on the market, which allows us to offer you education of the highest academic level”*

This program will provide you with a multitude of professional and personal advantages, among which we highlight the following:

**01**

### A Strong Boost to Your Career

By studying at TECH, students will be able to take control of their future and develop their full potential. By completing this program, students will acquire the skills required to make a positive change in their career in a short period of time.

*70% of students achieve positive career development in less than 2 years.*

**02**

### Develop a strategic and global vision of the company

TECH offers an in-depth overview of general management to understand how each decision affects each of the company's different functional fields.

*Our global vision of companies will improve your strategic vision.*

**03**

### Consolidate the student's senior management skills

Studying at TECH means opening the doors to a wide range of professional opportunities for students to position themselves as senior executives, with a broad vision of the international environment.

*You will work on more than 100 real senior management cases.*

**04**

### You will take on new responsibilities

The program will cover the latest trends, advances and strategies, so that students can carry out their professional work in a changing environment.

*45% of graduates are promoted internally.*

05

### Access to a powerful network of contacts

TECH connects its students to maximize opportunities. Students with the same concerns and desire to grow. Therefore, partnerships, customers or suppliers can be shared.

*You will find a network of contacts that will be instrumental for professional development.*

06

### Thoroughly develop business projects.

Students will acquire a deep strategic vision that will help them develop their own project, taking into account the different fields in companies.

*20% of our students develop their own business idea.*

07

### Improve soft skills and management skills

TECH helps students apply and develop the knowledge they have acquired, while improving their interpersonal skills in order to become leaders who make a difference.

*Improve your communication and leadership skills and enhance your career.*

08

### You will be part of an exclusive community

Students will be part of a community of elite executives, large companies, renowned institutions, and qualified teachers from the most prestigious universities in the world: the TECH Technological University community.

*We give you the opportunity to study with a team of world-renowned teachers.*

# 04

# Objectives

Having a good system of logical security in access controls has become a priority for many companies that handle infinite amounts of important and sensitive information. For this reason, the figure of a highly qualified professional in the management of projects of this type has become a very popular profile, which is why TECH has developed this program. Its objective is to provide the graduates with the most comprehensive and specialized knowledge in this area, information that will allow them to perfect their leadership skills and apply for more ambitious and prestigious jobs.



“

*The objective of TECH with this Postgraduate Certificate is that you finish this academic experience become a highly qualified manager to assume a safety project with guarantee of success"*

**TECH makes the goals of their students their own goals too  
Working together to achieve them**

The **Postgraduate Certificate in Implementation of Software and Hardware Security Policies** will enable students to:

01

Determine what authentication and identification are

04

Establish the main current identification technologies

02

Analyze the different authentication methods available and their practical implementation



03

Implement the correct access control policy to software and systems

05

Generate specialized knowledge on the different methodologies that exist for the systems bastion



06

Implement identification and authorization measures in systems and software

08

Implement a correct access control policy to networks and services

09

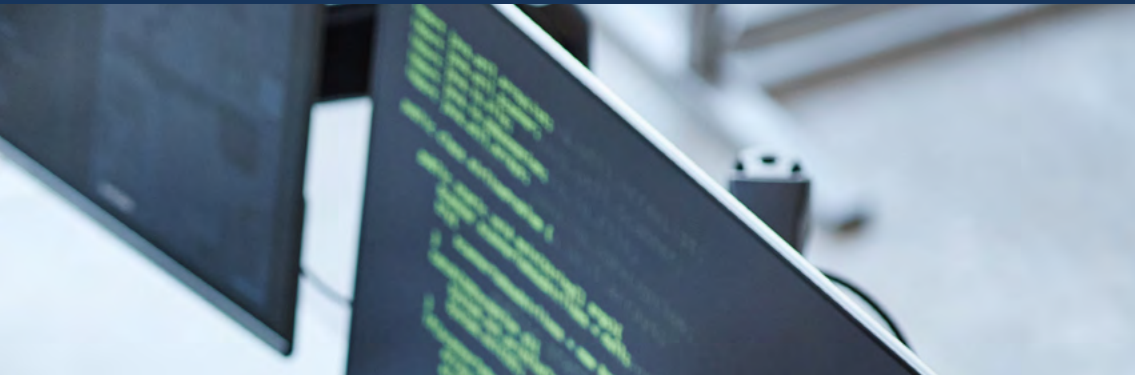
Determine the Active Directory systems and the different parallel authentication systems.

07

Analyze the different current technologies in identification and authorization.

10

Implementing CIS controls and malicious code control policies for hardware and software security



05

# Structure and Content

TECH uses the novel and effective *Relearning* methodology, a pedagogical strategy that consists of reiterating the most important concepts throughout the syllabus. In this way, there is a natural and progressive acquisition of knowledge, which, added to the practical resolution of real situations, allows this university to reduce the teaching load of its programs without diminishing the high degree of training of them.



“

*You will have access to the Virtual Classroom 24 hours a day, so that you can take this academic experience with a timetable totally adapted to your availability”*

## Syllabus

For the elaboration of the syllabus of this Postgraduate Certificate in Implementation of Software and Hardware Security Policies, TECH has taken into consideration the criteria of the teaching team, who have been in charge of selecting the most cutting-edge and important information related to the area.

In this way, the graduates who access this program will be betting on training based on the current demand of the sector, with which their overcoming will mean that they are perfectly qualified to apply for any prestigious position related to the management of cybersecurity projects.

And is that, through the resolution of real practical cases, the specialists will be able to improve their skills and professional competencies in the use of identification technologies authorization, as well as in the use of user access management and control strategies.

An academic experience that will undoubtedly raise your knowledge to the top of the sector and make you a professional versed in the practical implementation of security policies in software and hardware in any type of company.

This Postgraduate Certificate is developed over 6 week and is divided into 1 module:

### Module 1

Practical Implementation of Software and Hardware Security Policies



### Where, When and How is it Taught?

TECH offers the possibility to develop this Postgraduate Certificate in Implementation of Software and Hardware Security Policies completely online. During the 6 weeks of the specialization, the students will be able to access all the contents of this program at any time, which will allow the students to self-manage their study time.

*A unique, key, and decisive educational experience to boost your professional development.*

**Module 1. Practical Implementation of Software and Hardware Security Policies**

**1.1. Practical Implementation of Software and Hardware Security Policies**

- 1.1.1. Implementation of Identification and Authorization
- 1.1.2. Implementation of Identification Techniques
- 1.1.3. Technical Authorization Measures

**1.2. Identification and Authorization Technologies**

- 1.2.1. Identifier and OTP
- 1.2.2. USB Token or PKI Smart Card
- 1.2.3. The "Confidential Defense" Key
- 1.2.4. Active RFID

**1.3. Software and Systems Access Security Policies**

- 1.3.1. Implementation of Access Control Policies
- 1.3.2. Implementation of Communications Access Policies
- 1.3.3. Types of Security Tools for Access Control

**1.4. User Access Management**

- 1.4.1. Access Rights Management
- 1.4.2. Segregation of Roles and Access Functions
- 1.4.3. Implementation of Access Rights in Systems

**1.5. Access Control to Systems and Applications**

- 1.5.1. Minimum Access Rule
- 1.5.2. Secure Logon Technologies
- 1.5.3. Password Security Policies

**1.6. Identification Systems Technologies**

- 1.6.1. Active Directory
- 1.6.2. OTP
- 1.6.3. PAP, CHAP
- 1.6.4. KERBEROS, DIAMETER, NTLM

**1.7. CIS Controls for Systems Hardening**

- 1.7.1. Basic CIS Controls
- 1.7.2. Fundamental CIS Controls
- 1.7.3. Organizational CIS Controls

**1.8. Operational Safety**

- 1.8.1. Protection Against Malicious Code
- 1.8.2. Backup Copies
- 1.8.3. Activity Log and Supervision

**1.9. Management of Technical Vulnerabilities**

- 1.9.1. Technical Vulnerabilities
- 1.9.2. Technical Vulnerability Management
- 1.9.3. Restrictions on Software Installation

**1.10. Implementation of Security Policy Practices**

- 1.10.1. Logical Vulnerabilities
- 1.10.2. Implementation of Defense Policies



“

*Handling identification technologies such as USB tokens or PKI smart cards will add to your resume a highly valuable skill and professionalism”*

# 06

# Methodology

This academic program offers students a different way of learning. Our methodology follows a cyclical learning process: **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”*



## TECH Business School uses the Case Study to contextualize all content.

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

“

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



*This program prepares you to face business challenges in uncertain environments and achieve business success.*



*Our program prepares you to face new challenges in uncertain environments and achieve success in your career.*

## A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch to present executives with challenges and business decisions at the highest level, whether at the national or international level. 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 business reality is taken into account.

**“** *You will learn, through collaborative activities and real cases, how to solve complex situations in real business environments”*

The case method has been the most widely used learning system among the world's leading business 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 we face in the case method, an action-oriented learning method. Throughout the program, the studies will be presented with multiple real cases. They must integrate all their knowledge, research, argue and defend their ideas and decisions.

## Relearning Methodology

TECH effectively balances 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.

*Our online system will allow you to organize your time and learning pace, adapting it to your schedule. You will be able to access the contents from any device with an Internet connection.*

At TECH, you will learn using a cutting-edge methodology designed to prepare the executives of the future. This method, at the forefront of international teaching, is called Relearning.

Our online business school is the only one in the world licensed to incorporate 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 balance each of these elements concentrically. With this methodology, we have prepared 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, markets, and financial 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 specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to 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 adapted in 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.



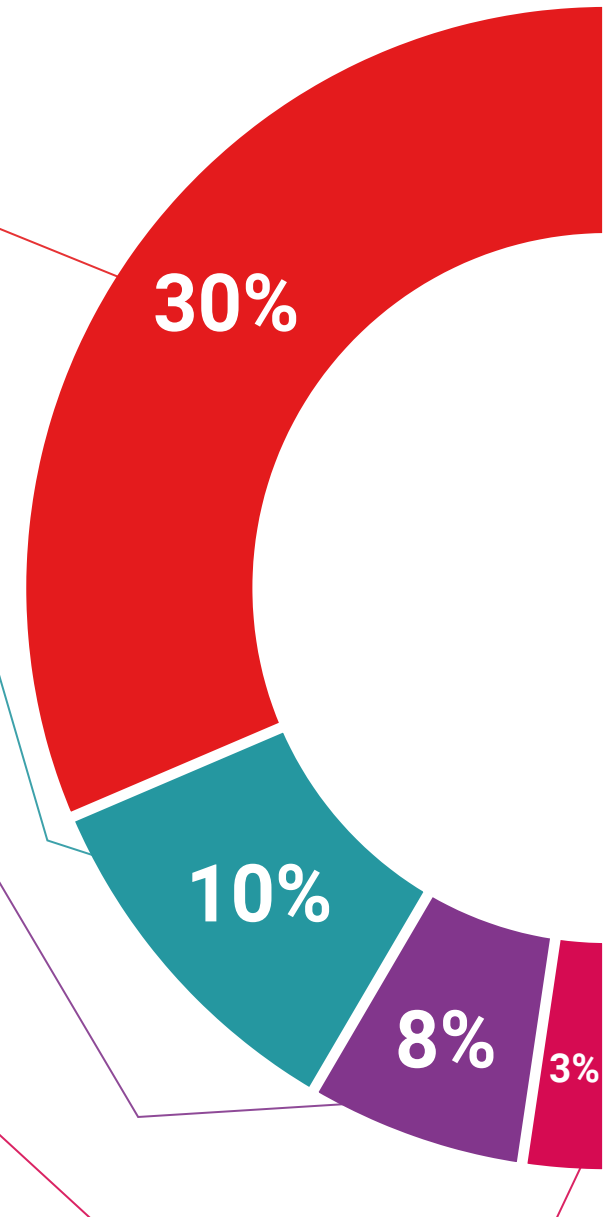
### Management Skills Exercises

They will carry out activities to develop specific executive skills in each thematic field. Practices and dynamics to acquire and develop the skills and abilities that a high-level manager needs to develop in the context of the globalization we live in.



### 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 senior management 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 assess and re-assess students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



07

# Our Students' Profiles

The Postgraduate Certificate is aimed at University Graduates, Postgraduates and Degree holders who have previously completed any of the following degrees in the field of Social and Legal Sciences, Administrative and Economic Sciences.

The diversity of participants with different academic profiles and from multiple nationalities makes up the multidisciplinary approach of this program.

The Postgraduate Certificate will also be available to professionals who, being university graduates in any area, have a work experience of two years in the field of security policy management in software and hardware.







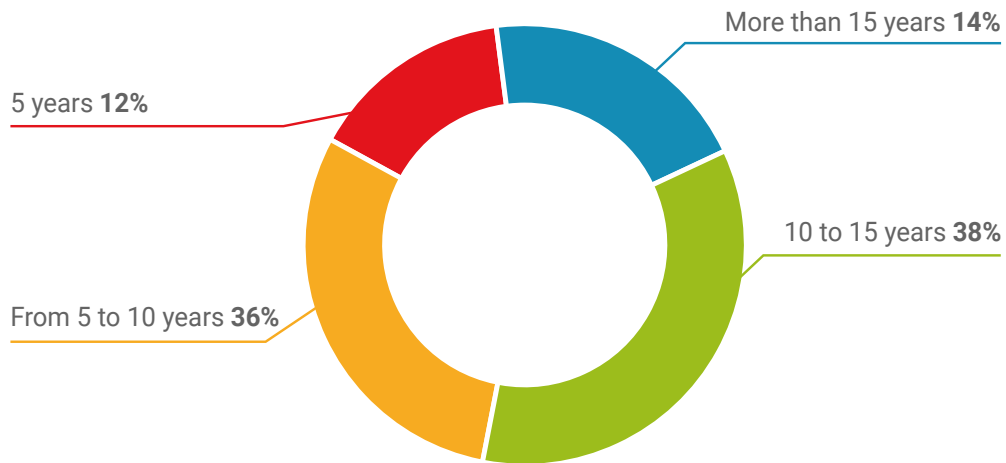
“

*In just 6 weeks you will have managed to become a specialist in CIS controls for systems bastioning"*

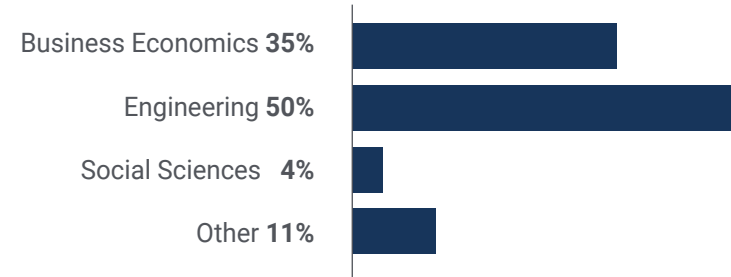
### Average Age

Between **35** and **45** years old

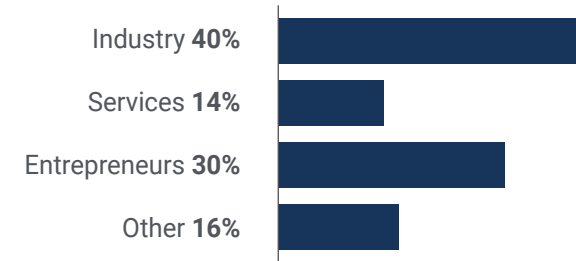
### Years of Experience



### Education

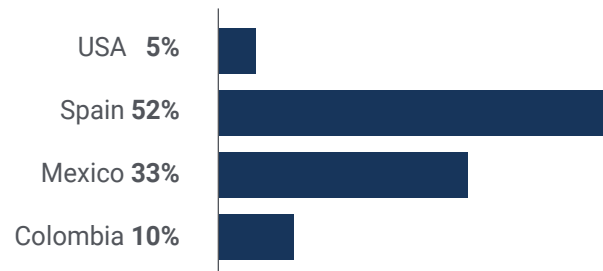


### Academic Profile



## Geographical Distribution

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## Carlos Fuentes

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Security Technician in Computer Networks

*"I recommend this Postgraduate Certificate to all those people who are looking for a job improvement and a change in their professional careers. In this program I found the most dynamic and current syllabus and thanks to all the additional material that they made available to me I can say with total guarantee, that the academic experience not only brought me a specialized knowledge, but that I flew by"*

08

# Course Management

The teaching staff of this Postgraduate Certificate is characterized, in addition to its long and extensive career in the participation of Computer Engineering projects specialized in safety systems, by its human quality. This is a group of professionals committed to the growth of the graduates, who will put at their disposal all the tools to help them improve their skills and expand their knowledge comprehensively.



“

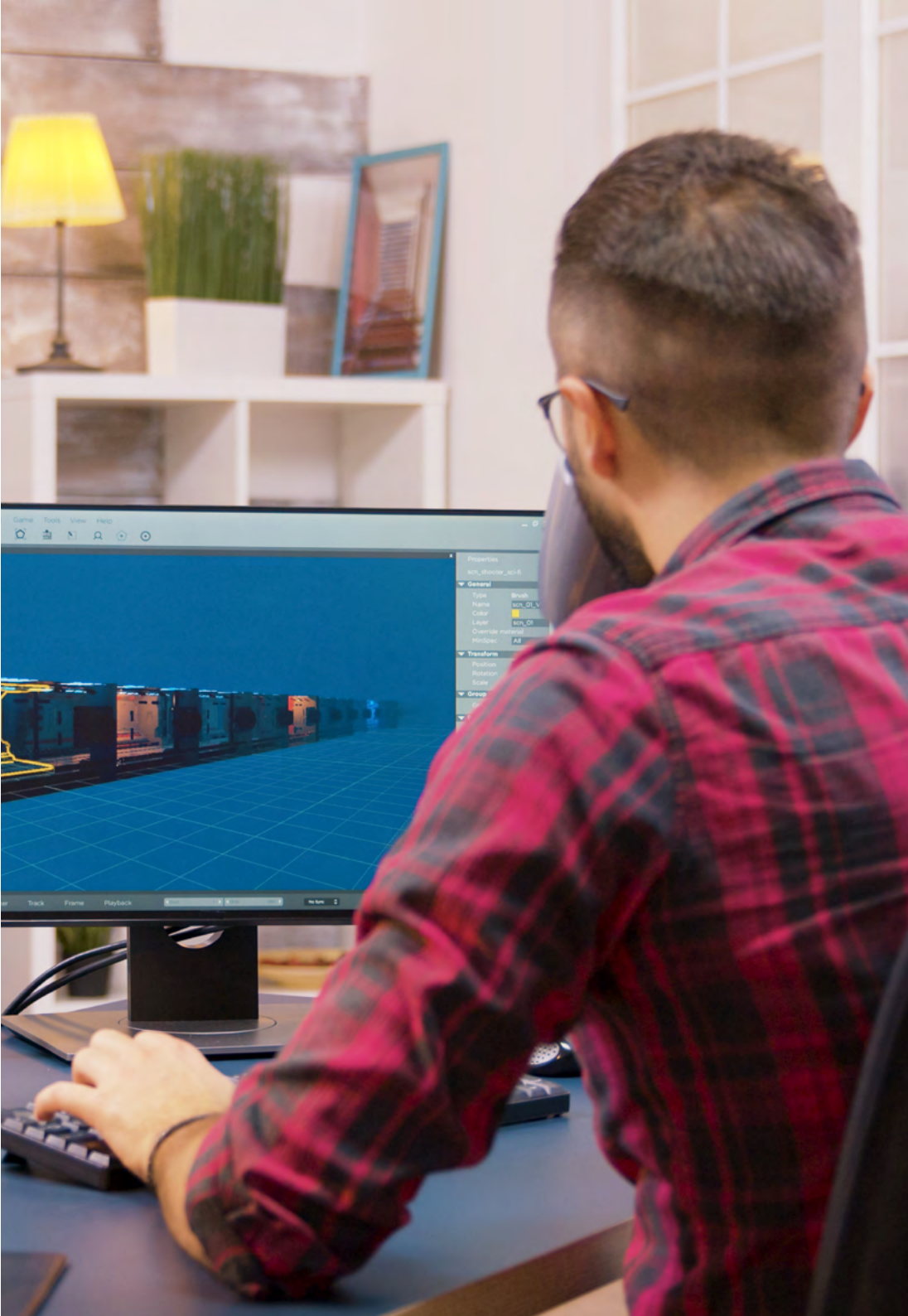
*The teaching team will be at your disposal to resolve any questions that arise during the course of the academic experience through individualized online tutorials"*

## Management



### Ms. Fernández Sapena, Sonia

- Trainer in Computer Security and Ethical Hacking at the National Reference Center for Information Technology and Telecommunications
- Trainer in Computer Security and Ethical Hacking at the National Reference Center of Getafe in Computer Science and Telecommunications in Madrid
- Certified E-Council instructor
- Trainer in the following certifications: EXIN Ethical Hacking Foundation and EXIN Cyber & IT Security Foundation. Madrid
- Accredited expert trainer by the CAM of the following certificates of professionalism: Computer Security (IFCT0190), Voice and Data Network Management (IFCM0310), Departmental Network Administration (IFCT0410), Alarm Management in Telecommunications Networks (IFCM0410), Voice and Data Network Operator (IFCM0110), and Internet Services Administration (IFCT0509)
- External collaborator CSO/SSA (*Chief Security Officer/Senior Security Architect*) at the University of the Balearic Islands
- Degree in Computer Engineering from the University of Alcalá de Henares, Madrid
- Professional Master's Degree in DevOps: Docker and Kubernetes. Cas-Training
- Microsoft Azure Security Technologies. E-Council



## Professors

### Ms. López García, Rosa María

- ♦ Management Information Specialist
- ♦ Teacher at Linux Professional Institute
- ♦ Collaborator at Incibe Hacker Academy
- ♦ Cybersecurity Talent Captain at Teamciberhack
- ♦ Administrative and accounting and financial manager at Integra2Transportes
- ♦ Administrative assistant in purchasing at the Education Center Cardenal Marcelo Espínola
- ♦ Higher Technician in Cybersecurity and Ethical *Hacking*
- ♦ Member of: Ciberpatrulla

09

# Impact on Your Career

Overcoming this program will bring to the professional career of the graduates a distinctive as a specialist in Security Policies in Software and Hardware, aspect that, undoubtedly, will emphasize it in any personnel selection process. They will be able to demonstrate that they mastered the most effective and sophisticated strategies and techniques, as well as to demonstrate their professional quality through the successful management of complex computer projects.





“

*This Postgraduate Certificate will give your professional career the boost it needs to make the leap you want in the business cybersecurity sector”*

### Are you ready to take the leap?

#### Excellent professional development awaits you

The TECH Postgraduate Certificate in Implementation of Software and Hardware Security Policies is an intensive program that prepares you to face business challenges and decisions in the field of software and hardware security. The main objective is to promote your personal and professional growth. Helping you achieve success.

If you want to improve, make a positive change at a professional level and network with the best, then this is the place for you.

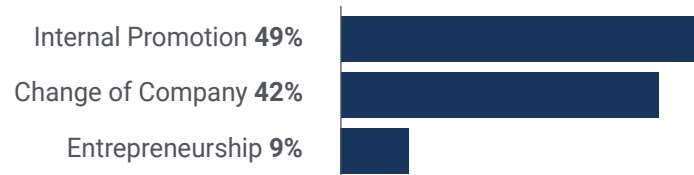
*You will acquire the necessary confidence based on a specialized knowledge about the area, to successfully undertake your own project individually or as part of a team.*

*A unique opportunity to opt for a promotion and, therefore, a salary increase.*

### When the change occurs



### Type of change



## Salary increase

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The completion of this program represents a salary increase of more than **25.22%** for our students.



10

# Benefits for Your Company

Any company that has in its staff a professional who has taken this program may develop any type of project, with the guarantee that this professional manages in detail and in a specialized way the area of the implementation of security policies in software and hardware. This will allow to raise the talent of the company above the competition and carry out successful projects without difficulty.





“

*You will be able to perfect your skills in solving complex situations, aspect that will make you stand out among your section mates”*

Developing and retaining talent in companies is the best long-term investment.

01

### **Growth of talent and intellectual capital**

The professional will introduce the company to new concepts, strategies, and perspectives that can bring about significant changes in the organization.

---

02

### **Retaining high-potential executives to avoid talent drain**

This program strengthens the link between the company and the professional and opens new avenues for professional growth within the company.

03

### **Building agents of change**

You will be able to make decisions in times of uncertainty and crisis, helping the organization overcome obstacles.

---

04

### **Increased international expansion possibilities**

Thanks to this program, the company will come into contact with the main markets in the world economy.



05

### **Project Development**

The professional can work on a real project or develop new projects in the field of R & D or business development of your company.

---

06

### **Increased competitiveness**

This program will equip students with the skills to take on new challenges and drive the organization forward.

11

# Certificate

The Executive Development Program in Executive Coaching guarantees students, in addition to the most rigorous and up-to-date education, access to an Executive Development Program diploma 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 Implementation of Software and Hardware Security Policies** contains the most complete and up-to-date program on the market.

After the students have 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 in Implementation of Software and Hardware Security Policies**

Official No. of Hours: **150 h.**



\*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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