



# Postgraduate Diploma Computer Security Defense Measures

» Modality: online

» Duration: 6 months

» Certificate: TECH Technological University

» Schedule: at your own pace

» Exams: online

» Target Group: University Graduates who have previously completed any of the degrees in the fields of Engineering, Computer Science, Administrative and Business Administration

Website: www.techtitute.com/pk/school-of-business/postgraduate-diploma/postgraduate-diploma-computer-security-defense-measures

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## 01 Welcome

Cyber attacks are becoming more and more frequent in companies. This is why managers must be involved and adopt a security plan that allows them to maintain the brand's reputation in the face of any data theft, including that of their own IT equipment. A need that this university qualification solves with a knowledge that will provide the professional with all the necessary knowledge to apply defense measures in the company and in the different departments involved in this responsibility. This is a 100% online qualification in which the manager will have the opportunity to improve in this area of the company while making it compatible with his professional responsibilities.







### tech 08 | Why Study at TECH?

### 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

+200

executives prepared each year

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.



### Why Study at TECH? | 09 tech

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"





### tech 12 | Why Our Program?

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



### 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.



## 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.



### 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.



### 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.



### 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.



### 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.



### 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.



### 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.





### tech 16 | Objectives

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

The Postgraduate Diploma in Computer Security Defense Measures will enable the students to:







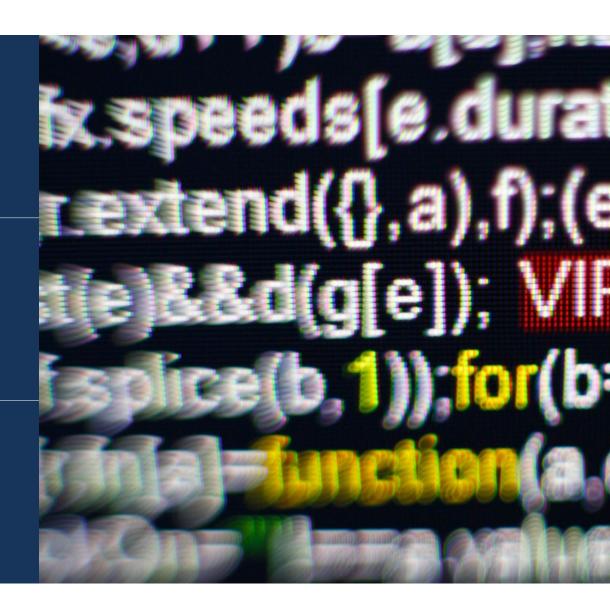
Implement CCN-STIC 817 and Implement ISO 27035

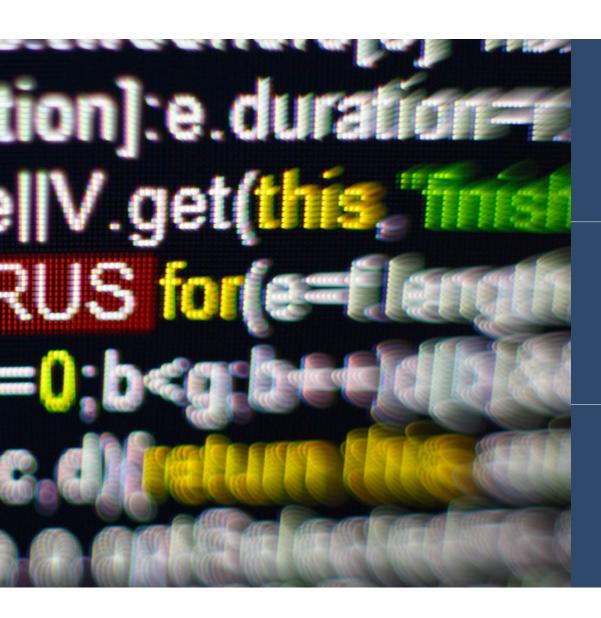


Analyze what *System Hacking*, DoS, *Session* and *Ramsonware* are and how to avoid them



Develop *Firewall/IDS* evasion techniques and how to remediate them







Establish countermeasures to prevent threats to web servers and web applications

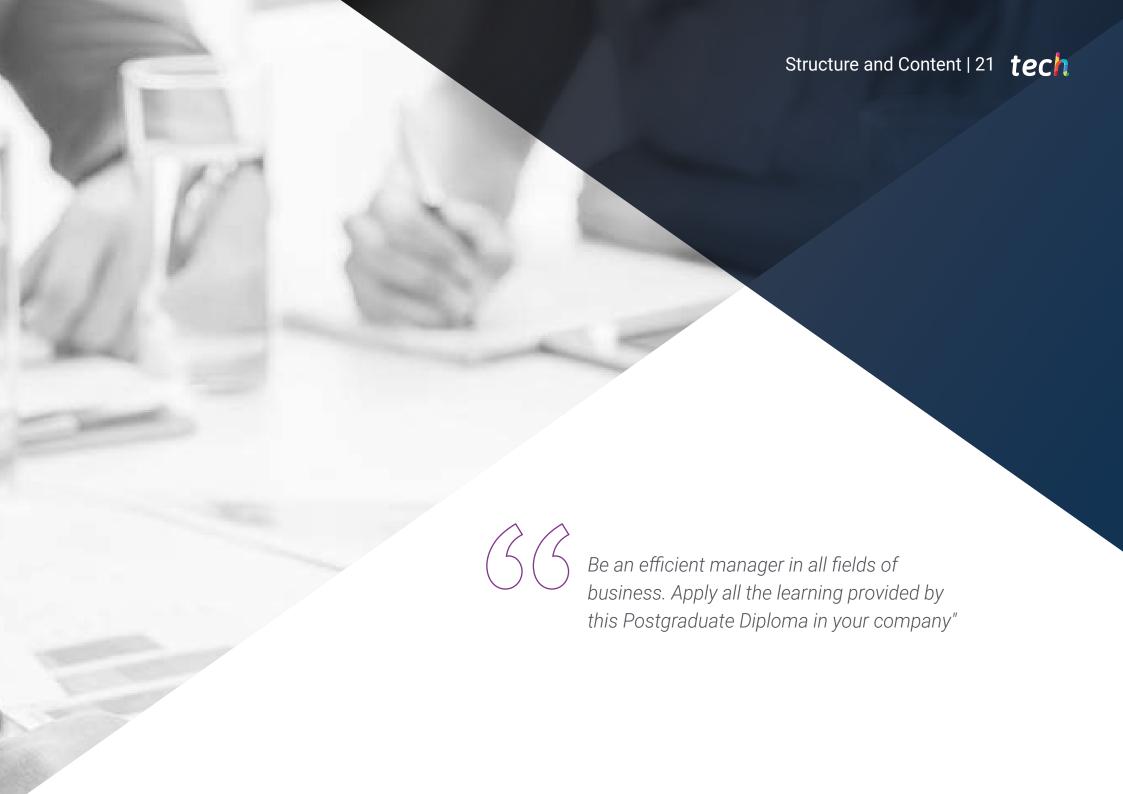


Examine the vulnerabilities of mobile and IoT platforms and how to avoid them



Establish the types of social Engineering and learn how to mitigate them





### tech 22 | Structure and Content

### **Syllabus**

The Postgraduate Diploma in Computer Security Defense Measures is an advanced program aimed at executives and managers of different departments of the company, who must assume the responsibility of protecting the company against any computer attack it may suffer.

The syllabus of this Postgraduate Diploma will provide students with the necessary leadership for the adoption of all necessary measures, as well as the implementation of the main tools and existing protocols to prevent a company from suffering a cyber-attack, and in the case of suffering it, to know how to act and lead the whole team to reverse the situation.

During the 450 hours of specialization, students will be provided with practical material that will allow them to extrapolate any incident to their own company. It is, therefore, a deep immersion in real situations that a business may experience.

This Postgraduate Diploma delves into the analysis of threats in the IT system, the management of any incident and the main policies to be adopted in each company depending on the security attack in which it has been affected.

This Postgraduate Diploma takes place over six months and is divided into 3 modules:

Module 1 Security Policies for the Analysis of Threats in Computer Systems

Module 2 Security Incident Management Policies

Module 3 Practical Implementation of Security Policies against Attacks



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

TECH offers the possibility of developing this Postgraduate Diploma in Computer Security Defense Measures completely online. Throughout the 6 months of the educational program, you will be able to access all the contents of this program at any time, allowing you to self-manage your study time.

A unique, key, and decisive educational experience to boost your professional development and make the definitive leap.

### tech 24| Structure and Content

Module 1. Security Policies for the Analysis of Threats in Computer Systems								
1.1.2 1.1.3	Threat Management in Security Policies Risk Management Security Risk Threat Management Methodologies Implementation of Methodologies	1.2.1. 1.2.2. 1.2.3.	Phases of Threat Management Identification Analysis Localization Safeguard Measures	1.3.1.	Audit Systems for Threat Localization Classification and Information Flow Analysis of Vulnerable Processes	1.4.1. 1.4.2.	Risk Classification Types of Risk Calculation of Threat Probability Residual Risk	
1.5.1.	Risk Treatment Implementation of Safeguard Measures Transfer or Assume	1.6.1. 1.6.2.	Control Risks Continuous Risk Management Process Implementation of Security Metrics Strategic Model of Information Security Metrics	1.7.1. 1.7.2.	Practical Methodologies for Threat Analysis and Control Threat Catalog Catalog of Control Measures Safeguards Catalog	1.8.1. 1.8.2.	ISO 27005 Risk Identification Risk Analysis Risk Evaluation	
1.9.1. 1.9.2.	Risk, Impact and Threat Matrix Data, Systems and Personnel Threat Probability Magnitude of Damage	1.10.1 1.10.2 1.10.3	Design of Phases and Processes in Threat Analysis Identification of Critical Elements of the Organization Determination of Threats and Impacts Impact and Risk Analysis Methods					
Mos	Jule 2. Security Incident Management P	olioioo						
<b>2.1.</b> 2.1.1. 2.1.2.	Information Security Incident Management Policies and Enhancements Incident Management Responsibilities and Procedures Event Notification	<b>2.2.</b> 2.2.1. 2.2.2.	Intrusion Detection and Prevention Systems (IDS/IPS) System Operating Data Types of Intrusion Detection Systems Criteria for IDS/IPS Placement	2.3.1. 2.3.2.	Security Incident Response Data Collection Procedure Intrusion Verification Process CERT Organizations	2.4.1. 2.4.2.	Intrusion Attempt Notification and Management Process Responsibilities in the Notification Process Classification of Incidents Resolution and Recovery Process	
2.5.1.	Forensic Analysis as a Security Policy Volatile and Non-Volatile Evidence Analysis and Collection of Electronic Evidence 2.5.2.1. Analysis of Electronic Evidence 2.5.2.2. Collection of Electronic Evidence	2.6.1. 2.6.2.	Intrusion Detection and Prevention Systems (IDS/IPS) Tools Snort Suricata Solar-Winds	2.7.1. 2.7.2.	Event Centralizing Tools SIM SEM SIEM	2.8.1. 2.8.2.	CCN-STIC Security Guide 817 CCN-STIC Security Guide 817 Cyber Incident Management Metrics and Indicators	
<b>2.9.</b> 2.9.1.	NIST SP800-61	2.10	ISO 27035					

### Structure and Content | 25 tech

Module 3. Practical Implementation of Security Policies in the Face of Attacks								
<ul><li>3.1. System Hacking</li><li>3.1.1. Risks and Vulnerabilities</li><li>3.1.2. Countermeasures</li></ul>	<ul><li>3.2. DoS Attack</li><li>3.2.1. Risks and Vulnerabilities</li><li>3.2.2. Countermeasures</li></ul>	<ul><li>3.3. Session Hijacking</li><li>3.3.1. The process of Hijacking</li><li>3.3.2. Hijacking Countermeasures</li></ul>	<ul> <li>3.4. Evading IDS, Firewalls and Honeypots</li> <li>3.4.1. Avoidance Techniques</li> <li>3.4.2. Implementation of Countermeasures</li> </ul>					
<ul><li>3.5. Hacking Web Servers</li><li>3.5.1. Attacks on Web Servers</li><li>3.5.2. Implementation of Defense Measures</li></ul>	<ul><li>3.6. Hacking Web Applications</li><li>3.6.1. Attacks on Web Applications</li><li>3.6.2. Implementation of Defense Measures</li></ul>	<ul><li>3.7. Hacking Wireless Networks</li><li>3.7.1. Vulnerabilities in Wi-Fi Networks</li><li>3.7.2. Implementation of Defense Measures</li></ul>	<ul><li>3.8. Hacking Mobile Platforvs</li><li>3.8.1. Vulnerabilities of Mobile Platforms</li><li>3.8.2. Implementation of Countermeasures</li></ul>					
3.9. Ramsonware 3.9.1. Ramsonware Vulnerabilities 3.9.2. Implementation of Countermeasures	3.10. Social Engineering 3.10.1. Types of Social Engineering 3.10.2. Countermeasures for Social Engineering							





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.





### tech 28 | Methodology

## TECH Business School uses the 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.





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.

### tech 30 | Methodology

### 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.

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 train 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.



### Methodology | 31 tech

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. With this methodology we have 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, 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 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.



#### **Management Skills Exercises**

They will carry out activities to develop specific executive competencies in each thematic area. 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.





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**

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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.

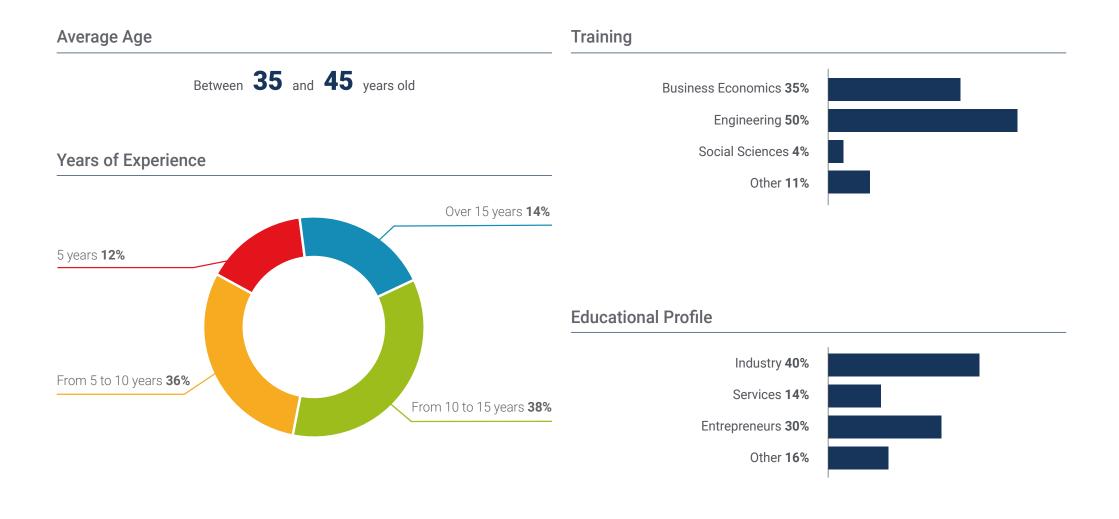


30%





### tech 36 | Our Students' Profiles



# **Geographical Distribution**





# Carlos Sánchez

**Director of Website Design and Production** 

"A program that has provided me with the knowledge I needed to be able to implement an effective protocol in my company when faced with any computer security attack. I recommend it for the professional teacher who gave us the keys and tools necessary to know how to act and the multimedia content that is very useful"





#### Management



## Ms. Fernández Sapena, Sonia

- 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
- Master's Degree in DevOps: Docker and Kubernetes. Cas-Training
- Microsoft Azure Security Techonologies. E-Council



# Course Management | 41 tech

#### **Professors**

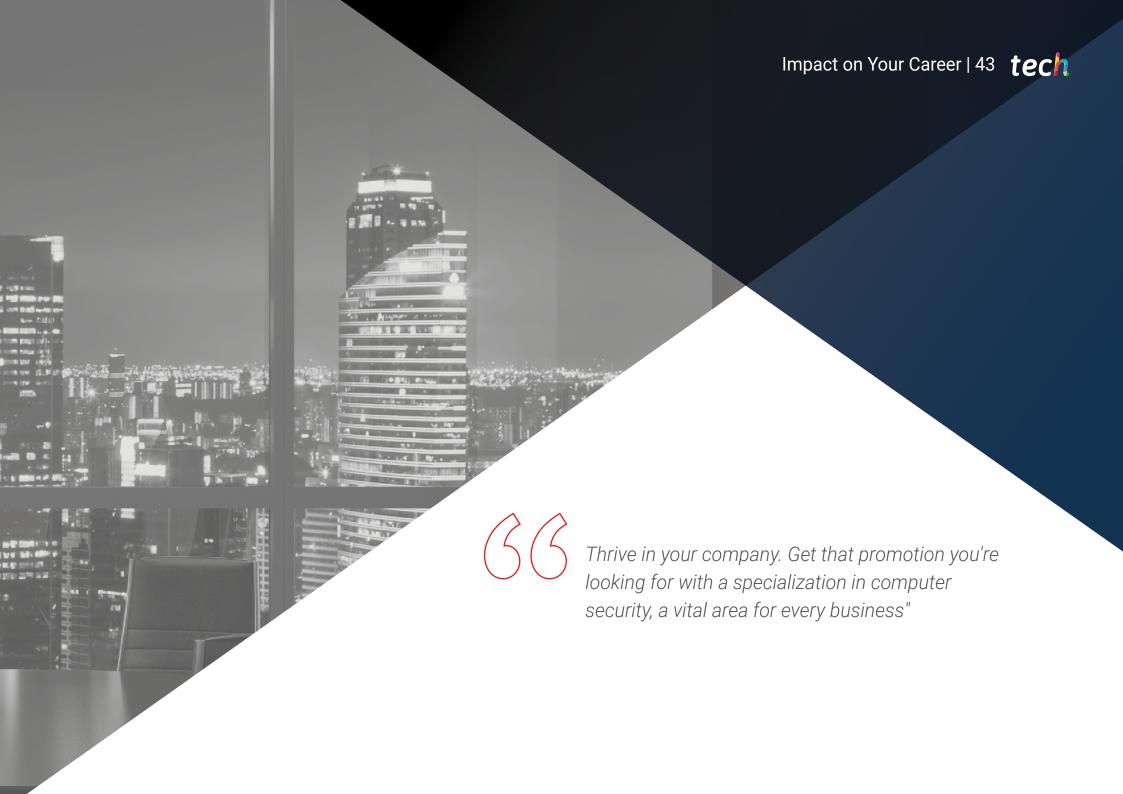
#### Ms. López García, Rosa María

- 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



TECH has carefully selected the faculty for this program so that you can learn from today's top specialists"





# tech 44 | Impact on Your Career

## Are you ready to take the leap?

## Excellent professional development awaits you.

The TECH Postgraduate Diploma is an intensive program that prepares the student to face challenges and business decisions in the field of IT Security. The main objective is to promote personal and professional growth. Helping students achieve success.

If the goal is to better yourself, make a positive change professionally and network with the best, this is the place to be.

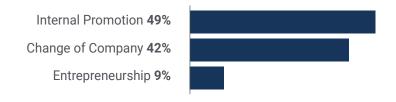
If you are looking for a salary increase in line with your knowledge, this Postgraduate Diploma will help you achieve it.

Achieve the goal you have in mind with a program taught by experts in Cybersecurity.

#### Time of change



#### Type of change



# Salary increase

The completion of this program represents a salary increase of more than **25%** for our students.

Salary before

\$57,900

A salary increase of

25,22%

Salary after

\$72,500





# tech 48 | Benefits for Your Company

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



#### 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.



# 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.



# **Building agents of change**

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



# Increased international expansion possibilities

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





# **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.



# Increased competitiveness

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





# tech 52 | Certificate

This **Postgraduate Diploma in Computer Security Defense Measures** 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 Diploma** issued by **TECH Technological University** via tracked delivery\*.

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

Title: Postgraduate Diploma in Computer Security Defense Measures
Official N° of Hours: **450 h**.



<sup>\*</sup>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.



# Postgraduate Diploma Computer Security Defense Measures

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- » Exams: online

