

# Postgraduate Diploma

Proactive Defense and Digital  
Forensics with Artificial Intelligence



## Postgraduate Diploma Proactive Defense and Digital Forensic Analysis with Artificial Intelligence

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Accreditation: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/information-technology/postgraduate-diploma/postgraduate-diploma-proactive-defense-digital-forensics-artificial-intelligence](http://www.techtute.com/us/information-technology/postgraduate-diploma/postgraduate-diploma-proactive-defense-digital-forensics-artificial-intelligence)

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01

# Introduction to the Program

Proactive Defense and Digital Forensics represent key areas in the field of Cybersecurity, given the increasing sophistication of digital threats. This sector has been driven by the exponential increase in the volume of data, the complexity of cyber attacks and the need for rapid and automated responses. Faced with this scenario, TECH has designed a university program that prepares computer scientists to anticipate, analyze and respond to cyber incidents through the use of advanced tools, such as ChatGPT and Artificial Intelligence algorithms. All this through a 100% online academic itinerary, designed based on the innovative Relearning methodology.



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*Thanks to this 100% online university program, you will acquire key skills in Security Data Analysis, using advanced algorithms to detect anomalous patterns and prevent cyber attacks”*

Proactive Cybersecurity Defense focuses on identifying and mitigating vulnerabilities before they can be exploited, anticipating malicious actions. This is achieved through the use of advanced technologies such as Artificial Intelligence, which allows analyzing patterns, predicting behaviors and reinforcing protection measures. Moreover, Digital Forensic Analysis is concerned with investigating security incidents to identify their causes, perpetrators and consequences. In this context, tools based on intelligent systems have transformed the ability to collect, analyze and preserve digital evidence efficiently and accurately.

However, with the steady increase in targeted cyber-attacks such as ransomware and advanced phishing, the need for experts who can anticipate these threats and, in the event of an incident, conduct thorough investigations to minimize the impact and prevent future threats has become apparent. Likewise, the proliferation of connected devices and digital transformation have exponentially increased the attack surface, making specialized preparation in this field essential.

It is in this context that this TECH Postgraduate Diploma arises, a comprehensive program that provides computer scientists with advanced skills in Cyber Defense and Digital Forensics, using tools based on Artificial Intelligence to protect digital environments. In this way, they will delve into the proactive identification and mitigation of vulnerabilities, master the techniques of collection and analysis of digital evidence, and be able to design predictive models that anticipate emerging threats.

In this sense, TECH has designed this 100% online university program that guarantees maximum flexibility to professionals, who will only need an electronic device with an Internet connection to access the contents. At the same time, they will be able to benefit from the Relearning methodology, an innovative learning system based on the strategic reiteration of key concepts, which facilitates a progressive and natural assimilation of knowledge, optimizing learning and enhancing results.

This **Postgraduate Diploma in Proactive Defense and Digital Forensics with Artificial Intelligence** contains the most complete and up-to-date program on the market. The most important features include:

- ♦ The development of case studies presented by experts in cybersecurity and Digital Forensics, with extensive mastery of advanced Artificial Intelligence tools applied to proactive defense and incident investigation
- ♦ The graphic, schematic and eminently practical content of the book provides scientific and practical information on those disciplines that are essential for professional practice
- ♦ Practical exercises where the process of 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



*You will analyze practical cases of Cybersecurity guided by specialists with experience in the management of cybercrime and the use of automated response systems”*



*You will delve into advanced Cyber Defense and Forensic Analysis techniques, using intelligent systems to anticipate threats and manage incidents effectively”*

*You will apply predictive models based on Neural Networks and Reinforcement Learning to design innovative protection strategies in digital environments.*

*You will access simulated environments that recreate real scenarios, allowing you to develop practical skills and prepare you to lead Cyber Defense projects.*

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 course. For this purpose, students will be assisted by an innovative interactive video system created by renowned experts.



02

# Why Study at TECH?

TECH is the world's largest online university. With an impressive catalog of more than 14,000 university programs available in 11 languages, it is positioned as a leader in employability, with a 99% job placement rate. In addition, it relies on an enormous faculty of more than 6,000 professors of the highest international renown.



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*Study at the world's largest online university  
and guarantee your professional success.  
The future starts at TECH”*

**The world's best online university, according to FORBES**

The prestigious Forbes magazine, specialized in business and finance, has highlighted TECH as "the best online university in the world" This is what they have recently stated in an article in their digital edition in which they echo the success story of this institution, "thanks to the academic offer it provides, the selection of its teaching staff, and an innovative learning method oriented to form the professionals of the future".

**Forbes**  
The best online university in the world

The most complete  
**syllabus**

**The most complete syllabuses on the university scene**

TECH offers the most complete syllabuses on the university scene, with programs that cover fundamental concepts and, at the same time, the main scientific advances in their specific scientific areas. In addition, these programs are continuously updated to guarantee students the academic vanguard and the most demanded professional skills. and the most in-demand professional competencies. In this way, the university's qualifications provide its graduates with a significant advantage to propel their careers to success.

**The best top international faculty**

TECH's faculty is made up of more than 6,000 professors of the highest international prestige. Professors, researchers and top executives of multinational companies, including Isaiah Covington, performance coach of the Boston Celtics; Magda Romanska, principal investigator at Harvard MetaLAB; Ignacio Wistumba, chairman of the department of translational molecular pathology at MD Anderson Cancer Center; and D.W. Pine, creative director of TIME magazine, among others.

**TOP**  
international faculty

The most effective methodology

**A unique learning method**

TECH is the first university to use Relearning in all its programs. This is the best online learning methodology, accredited with international teaching quality certifications, provided by prestigious educational agencies. In addition, this innovative academic model is complemented by the "Case Method", thereby configuring a unique online teaching strategy. Innovative teaching resources are also implemented, including detailed videos, infographics and interactive summaries.

**The world's largest online university**

TECH is the world's largest online university. We are the largest educational institution, with the best and widest digital educational catalog, one hundred percent online and covering most areas of knowledge. We offer the largest selection of our own degrees and accredited online undergraduate and postgraduate degrees. In total, more than 14,000 university programs, in ten different languages, making us the largest educational institution in the world.

**World's No.1**  
The World's largest online university

**The official online university of the NBA**

TECH is the official online university of the NBA. Thanks to our agreement with the biggest league in basketball, we offer our students exclusive university programs, as well as a wide variety of educational resources focused on the business of the league and other areas of the sports industry. Each program is made up of a uniquely designed syllabus and features exceptional guest hosts: professionals with a distinguished sports background who will offer their expertise on the most relevant topics.

**Leaders in employability**

TECH has become the leading university in employability. Ninety-nine percent of its students obtain jobs in the academic field they have studied within one year of completing any of the university's programs. A similar number achieve immediate career enhancement. All this thanks to a study methodology that bases its effectiveness on the acquisition of practical skills, which are absolutely necessary for professional development.



**Google Premier Partner**

The American technology giant has awarded TECH the Google Premier Partner badge. This award, which is only available to 3% of the world's companies, highlights the efficient, flexible and tailored experience that this university provides to students. The recognition not only accredits the maximum rigor, performance and investment in TECH's digital infrastructures, but also places this university as one of the world's leading technology companies.



**The top-rated university by its students**

Students have positioned TECH as the world's top-rated university on the main review websites, with a highest rating of 4.9 out of 5, obtained from more than 1,000 reviews. These results consolidate TECH as the benchmark university institution at an international level, reflecting the excellence and positive impact of its educational model.



**Leaders in employability**

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# 03 Syllabus

Throughout the curriculum of this Postgraduate Diploma, professionals will explore the fundamental concepts of Modern Cryptography and Forensic Analysis to the design of Predictive Models for the anticipation of cyber threats. In this way, through a practical approach, and the use of advanced Artificial Intelligence tools such as ChatGPT, this program prepares computer scientists to lead digital protection strategies in increasingly complex environments.



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*You will delve into the most innovative tools for cryptographic key management and detection of anomalous patterns in encrypted systems”*



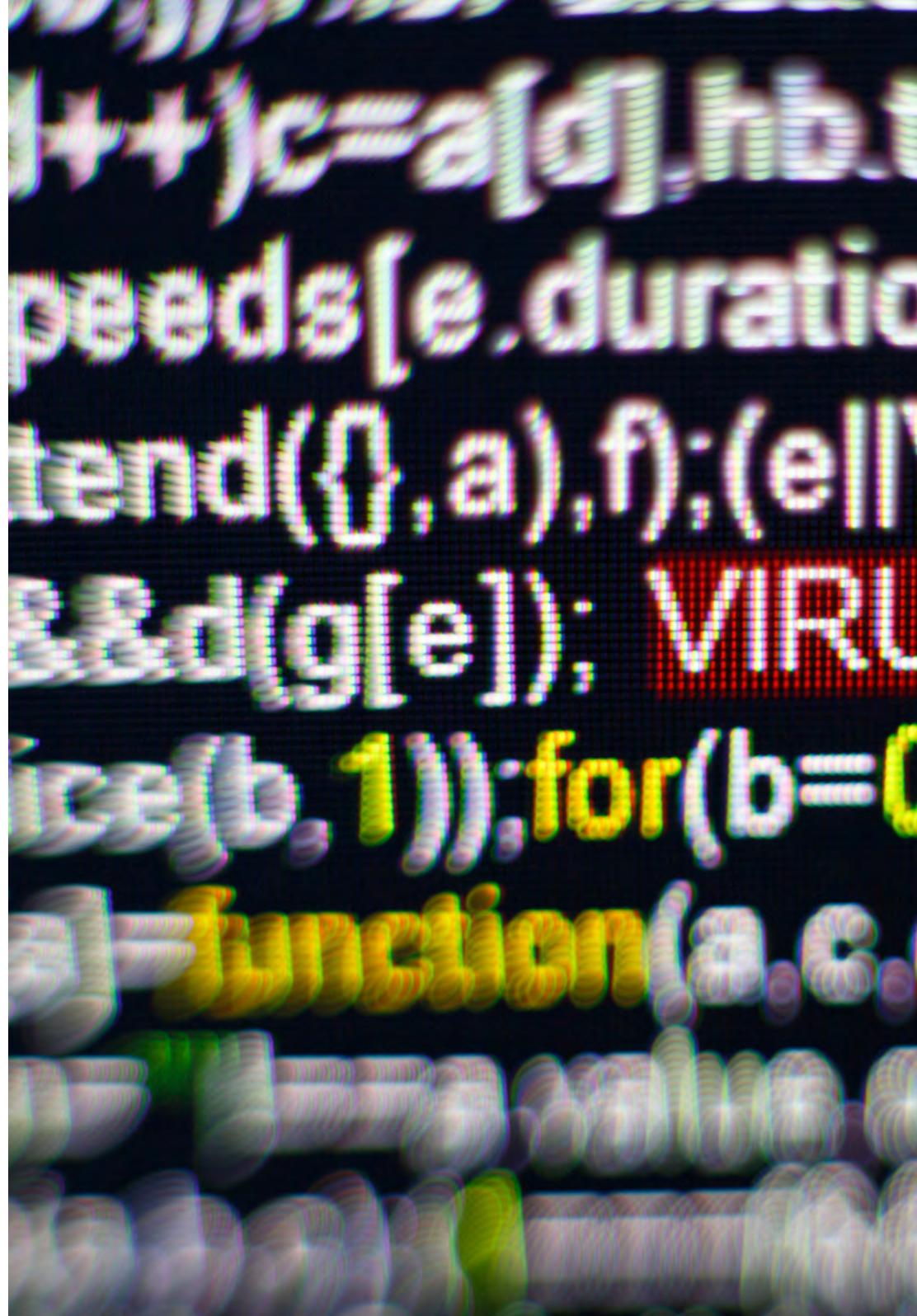
- 1.7. Introduction to Post-Quantum Cryptography with Artificial Intelligence Simulations
  - 1.7.1. Fundamentals of Post-Quantum Cryptography and Its Importance
  - 1.7.2. Main Post-Quantum Algorithms in Research
  - 1.7.3. Use of Artificial Intelligence in Simulations for the Study of Post-Quantum Cryptography
- 1.8. Blockchain and ChatGPT in the Verification of Secure Transactions
  - 1.8.1. Basic Concepts of Blockchain and Its Security Structure
  - 1.8.2. Role of Cryptography in Blockchain Integrity
  - 1.8.3. Application of ChatGPT to Explain and Analyze Secure Transactions
- 1.9. Privacy Protection and Federated Learning
  - 1.9.1. Definition and Principles of Federated Learning
  - 1.9.2. Importance of Privacy in Decentralized Learning
  - 1.9.3. Benefits and Challenges of Federated Learning for Data Security
- 1.10. Development of a Generative Artificial Intelligence Based Encryption System
  - 1.10.1. Basic Principles in the Creation of Encryption Systems
  - 1.10.2. Advantages of Generative Artificial Intelligence in the Design of Encryption Systems
  - 1.10.3. Components and Requirements of an AI-Assisted Encryption System

## Module 2. Digital Forensics and Artificial Intelligence-Assisted Incident Response

- 2.1. ChatGPT Forensic Processes for the Identification of Evidence
  - 2.1.1. Basic Concepts of Forensic Analysis in Digital Environments
  - 2.1.2. Stages of Evidence Identification and Collection
  - 2.1.3. Role of ChatGPT in the Support of Forensic Identification
- 2.2. Gemini and ChatGPT in Data Identification and Data Mining
  - 2.2.1. Fundamentals of Data Extraction for Forensic Analysis
  - 2.2.2. Relevant Data Identification Techniques
  - 2.2.3. Contribution of Artificial Intelligence to the Automation of the Extraction Process
- 2.3. Log Analysis and Event Correlation with Artificial Intelligence
  - 2.3.1. Importance of Logs in Incident Analysis
  - 2.3.2. Event Correlation Techniques for Incident Reconstruction
  - 2.3.3. Use of Artificial Intelligence to Identify Patterns in Log Correlation
- 2.4. Data Recovery and Restoration of Systems Using Artificial Intelligence
  - 2.4.1. Data Recovery Principles and Their Importance in Digital Forensics
  - 2.4.2. Restoration Techniques of Compromised Systems
  - 2.4.3. Application of Artificial Intelligence to Improve Recovery and Restoration Processes
- 2.5. Machine Learning for Incident Detection and Reconstruction
  - 2.5.1. Introduction to Machine Learning in Incident Detection
  - 2.5.2. Incident Reconstruction Techniques with Artificial Intelligence Models
  - 2.5.3. Ethical and Practical Considerations in Event Detection
- 2.6. Incident Reconstruction and Simulation with ChatGPT
  - 2.6.1. Fundamentals of Incident Reconstruction in Forensic Analysis
  - 2.6.2. ChatGPT's Ability to Create Incident Simulations
  - 2.6.3. Limitations and Challenges in Complex Incident Simulation
- 2.7. Detection of Malicious Activity on Mobile Devices
  - 2.7.1. Characteristics and Challenges in Forensic Analysis of Mobile Devices
  - 2.7.2. Major Malicious Activities in Mobile Environments
  - 2.7.3. Application of Artificial Intelligence to Identify Threats in Mobile Devices
- 2.8. Automated Incident Response with Artificial Intelligence Workflows
  - 2.8.1. Principles of Incident Response in Cybersecurity
  - 2.8.2. Importance of Automation in Rapid Incident Response
  - 2.8.3. Benefits of Artificial Intelligence-Assisted Workflows in Mitigation
- 2.9. Ethics and Transparency in Forensic Analysis with Generative AI
  - 2.9.1. Ethical Principles in the Use of Artificial Intelligence in Forensic Analysis
  - 2.9.2. Transparency and Explainability of Generative Models in Forensics
  - 2.9.3. Privacy and Accountability Considerations in Analysis
- 2.10. Forensic Analysis and Incident Recreation Lab with ChatGPT and Gemini
  - 2.10.1. Structure and Objectives of a Forensic Analysis Laboratory
  - 2.10.2. Benefits of Controlled Environments for Forensics Practice
  - 2.10.3. Key Components for Setting Up a Simulation Laboratory

### Module 3. Predictive Models for Proactive Defense in Cybersecurity Using ChatGPT

- 3.1. Predictive Analytics in Cybersecurity: Techniques and Applications with Artificial Intelligence
  - 3.1.1. Basic Concepts of Predictive Analytics in Security
  - 3.1.2. Predictive Techniques in the Field of Cybersecurity
  - 3.1.3. Application of Artificial Intelligence in the Anticipation of Cyber Threats
- 3.2. Regression and Classification Models with ChatGPT Support
  - 3.2.1. Principles of Regression and Classification in Threat Prediction
  - 3.2.2. Types of Classification Models in Cybersecurity
  - 3.2.3. ChatGPT Assistance in the Interpretation of Predictive Models
- 3.3. Identifying Emerging Threats with ChatGPT Predictions
  - 3.3.1. Emerging Threat Detection Concepts
  - 3.3.2. Techniques for Identifying New Attack Patterns
  - 3.3.3. Limitations and Precautions in the Prediction of New Threats
- 3.4. Neural Networks for Anticipation of Cyberattacks
  - 3.4.1. Fundamentals of Neural Networks Applied in Cybersecurity
  - 3.4.2. Common Architectures for Detection and Prediction of Attacks
  - 3.4.3. Challenges in Implementing Neural Networks in Cyber Defense
- 3.5. Use of ChatGPT for Threat Scenario Simulations
  - 3.5.1. Basic Concepts of Threat Simulation in Cybersecurity
  - 3.5.2. ChatGPT Capabilities for Developing Predictive Simulations
  - 3.5.3. Factors to Consider in the Design of Simulated Scenarios
- 3.6. Reinforcement Learning Algorithms for Optimization of Defenses
  - 3.6.1. Introduction to Reinforcement Learning in Cybersecurity
  - 3.6.2. Reinforcement Algorithms Applied to Defense Strategies
  - 3.6.3. Benefits and Challenges of Reinforcement Learning in Cybersecurity Environments



- 3.7. Threat Simulation and Response with ChatGPT
  - 3.7.1. Threat Simulation Principles and Their Relevance in Cyber Defense
  - 3.7.2. Automated and Optimized Responses to Simulated Attacks
  - 3.7.3. Benefits of Simulation for Improving Cyber Preparedness
- 3.8. Accuracy and Effectiveness Assessment in Predictive Artificial Intelligence Models
  - 3.8.1. Key Indicators for the Evaluation of Predictive Models
  - 3.8.2. Accuracy Assessment Methodologies in Cybersecurity Models
  - 3.8.3. Critical Factors in the Effectiveness of Artificial Intelligence Models in Cybersecurity
- 3.9. Artificial Intelligence in Incident Management and Automated Response
  - 3.9.1. Fundamentals of Incident Management in Cybersecurity
  - 3.9.2. Role of Artificial Intelligence in Real-Time Decision Making
  - 3.9.3. Challenges and Opportunities in Response Automation
- 3.10. Creation of a Predictive Defense System with ChatGPT Support
  - 3.10.1. Proactive Defense System Design Principles
  - 3.10.2. Integration of Predictive Models in Cybersecurity Environments
  - 3.10.3. Key Components for an AI-Based Predictive Defense System

“ You will implement modern encryption algorithms, including post-quantum solutions, to ensure data integrity and privacy in real-world scenarios”

04

# Teaching Objectives

Through this TECH university program, professionals will develop advanced skills in the design and implementation of Cyber Defense systems, as well as in Digital Forensics. Through the use of Artificial Intelligence, computer scientists will be able to anticipate threats, analyze incidents accurately and apply innovative solutions in digital environments. In addition, this academic path will foster the ability to lead security strategies, integrate predictive models and ensure data protection in an increasingly challenging and globalized environment.





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*You will develop key skills to implement and supervise security systems in mobile devices, protecting digital infrastructures against emerging threats”*



## General Objectives

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- ♦ Integrate advanced Artificial Intelligence tools in the protection and analysis of digital systems
- ♦ Design cyber defense strategies based on predictive models to anticipate and mitigate threats
- ♦ Apply principles of modern cryptography and post-quantum cryptography to ensure information security
- ♦ Develop skills for the identification, retrieval and analysis of digital evidence in forensic environments
- ♦ Implement advanced incident reconstruction techniques using machine learning algorithms
- ♦ Optimize cryptographic key management and authentication processes using AI-based solutions
- ♦ Establish automated workflows for real-time cyber incident response
- ♦ Ensure transparency and ethics in the use of Artificial Intelligence tools in cybersecurity
- ♦ Design simulation labs and practice environments for cyber defense and Forensic Analysis scenarios
- ♦ Evaluate the effectiveness and accuracy of predictive models in detecting emerging threats and vulnerabilities





## Specific Objectives

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### Module 1. Modern Cryptography with ChatGPT Support for Data Protection

- ♦ Master the basics of advanced cryptography, including algorithms such as AES, RSA and post-quantum algorithms
- ♦ Use ChatGPT to teach, practice and optimize cryptographic methods
- ♦ Design and manage AI-assisted encryption systems, ensuring data privacy and authenticity
- ♦ Evaluate the resilience of cryptographic algorithms against simulated attack scenarios with generative Artificial Intelligence
- ♦ Develop optimized encryption and decryption strategies to protect critical infrastructures and sensitive data
- ♦ Implement post-quantum cryptography solutions to mitigate future risks in AI-based systems

### Module 2. Digital Forensics and Artificial Intelligence-Assisted Incident Response

- ♦ Learn to identify, extract and analyze digital evidence with the support of Artificial Intelligence tools
- ♦ Use Artificial Intelligence to automate data retrieval and reconstruction of security incidents
- ♦ Design and practice automated response workflows, ensuring speed and effectiveness in mitigating incidents
- ♦ Integrate advanced forensic analysis tools for the investigation of complex cyber-attacks
- ♦ Develop Artificial Intelligence-based event reconstruction techniques for post-incident audits
- ♦ Create automated incident response protocols, prioritizing operational continuity and damage mitigation

### Module 3. Predictive Models for Proactive Defense in Cybersecurity Using ChatGPT

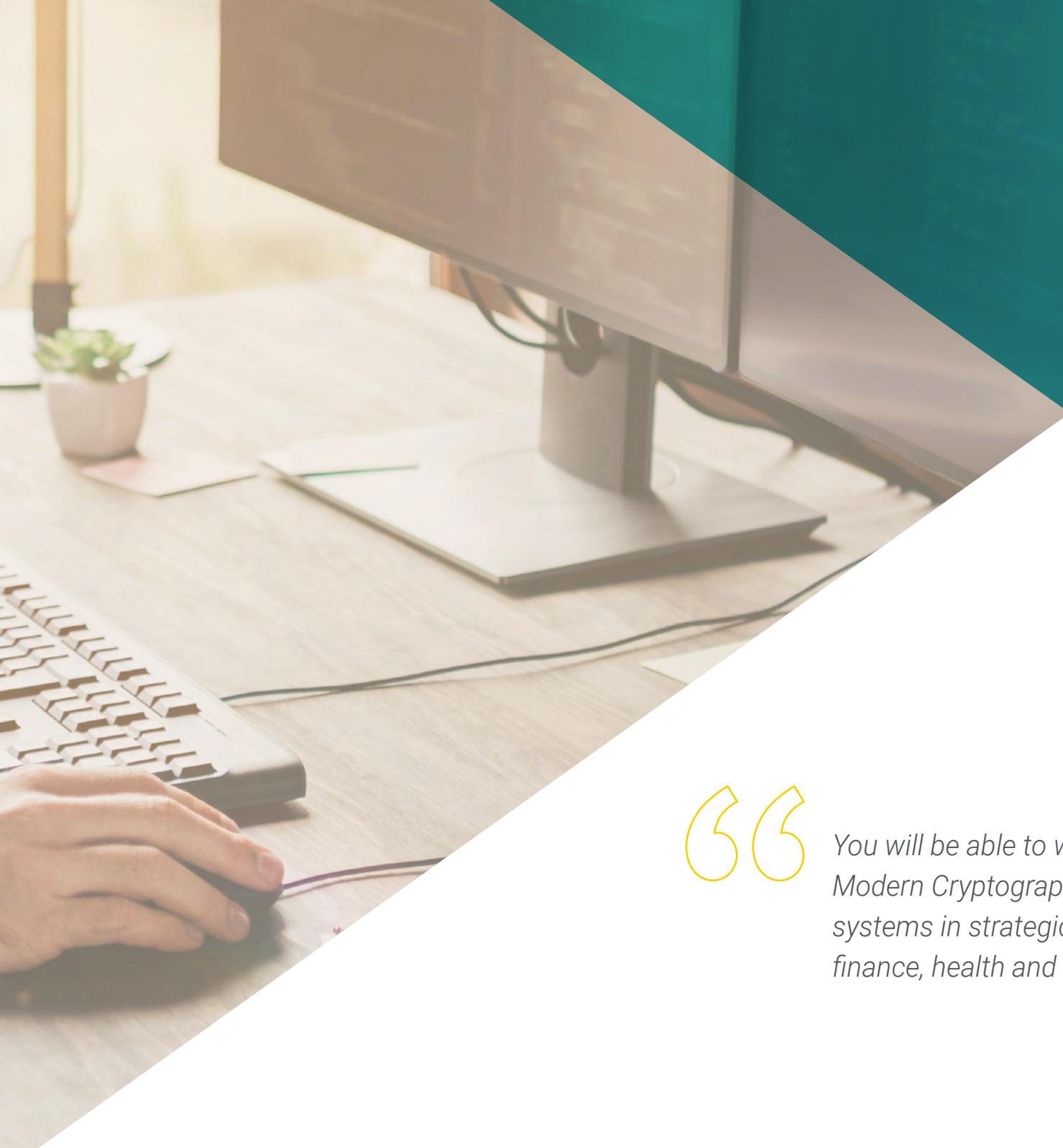
- ♦ Design advanced predictive models based on neural networks and reinforcement learning
- ♦ Implement simulations of threat scenarios to train teams and improve incident preparedness
- ♦ Evaluate and optimize proactive defense systems, integrating generative Artificial Intelligence for decision making and response automation
- ♦ Develop predictive defense frameworks adaptable to critical infrastructure and enterprise systems
- ♦ Use predictive analytics to identify emerging vulnerabilities before they are exploited
- ♦ Integrate generative Artificial Intelligence into strategic decision making processes for continuous improvement of defensive systems

# 05

# Career Opportunities

Thanks to this university program, professionals will master the most advanced Artificial Intelligence tools and develop key competencies in Proactive Defense, so they will be able to access specialized roles in key sectors such as Data Protection, Incident Management and Digital Infrastructure Security. In addition, they will be prepared to lead cyber defense strategies in companies, government agencies and technology consulting firms, responding to the demands of a constantly changing market.





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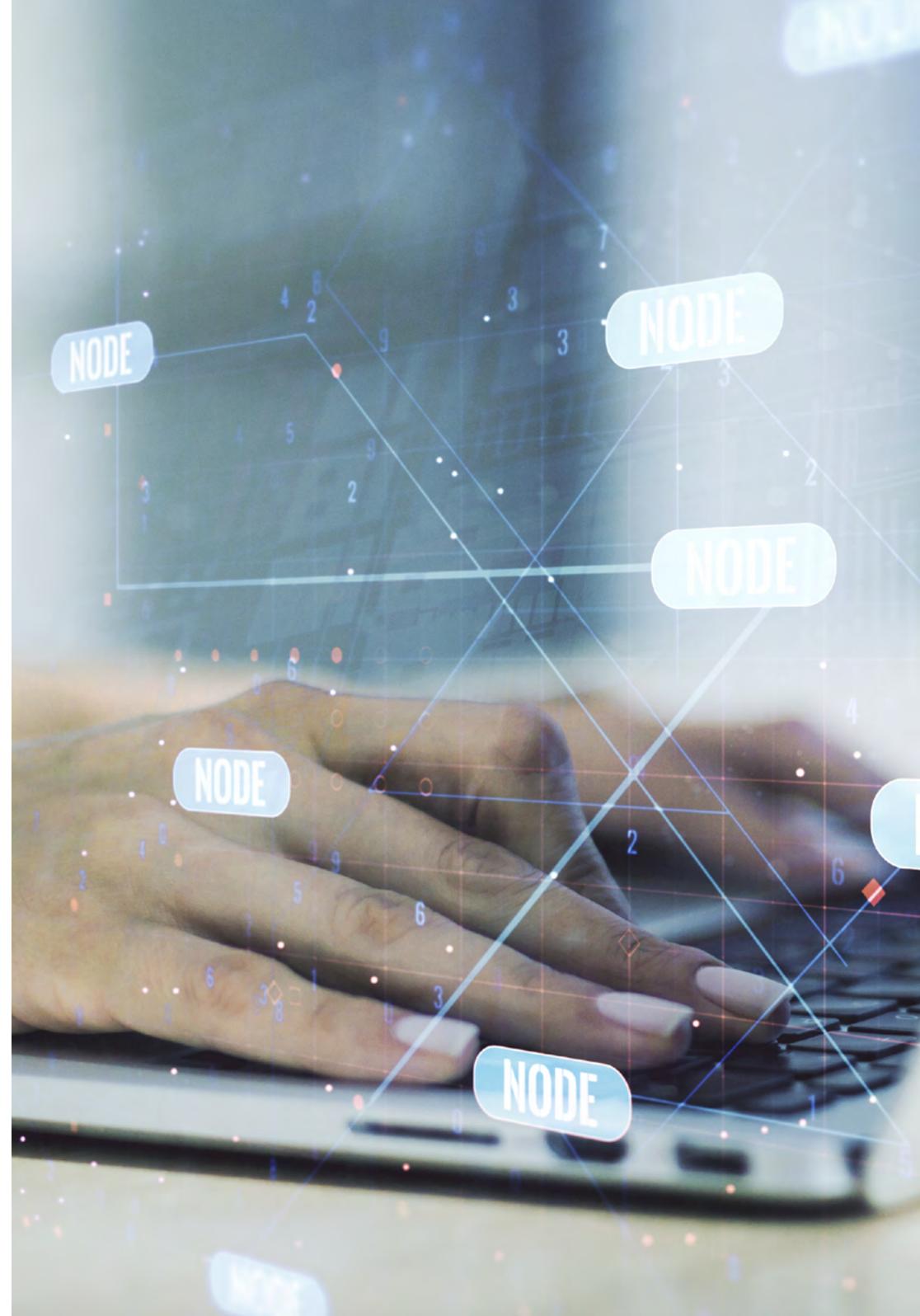
*You will be able to work as a Specialist in Modern Cryptography, applying protection systems in strategic sectors such as finance, health and telecommunications”*

### Graduate Profile

Graduates of this TECH Postgraduate Diploma will develop as professionals capable of designing Proactive Defense strategies and managing incidents with solutions based on Artificial Intelligence. Therefore, with a practical approach and advanced knowledge in Cryptography, Predictive Modeling and Data Recovery, they will be prepared to lead security projects in complex digital environments, ensuring the protection and integrity of information in organizations of any sector.

*You will be able to lead multidisciplinary teams in Digital Security projects, adapting to the latest industry challenges.*

- ♦ **Critical and Analytical Thinking:** Ability to thoroughly and accurately assess complex cybersecurity-related problems, analyzing different perspectives to propose strategic and effective solutions that address the needs of digital environments
- ♦ **Problem Solving:** Ability to identify, diagnose and address challenges in digital security systems, employing advanced tools and innovative approaches that ensure quick and effective responses to critical situations
- ♦ **Information Management:** Competency to manage, analyze and protect large volumes of sensitive data, ensuring the integrity and confidentiality of the information in contexts where digital risks are constant and diverse
- ♦ **Technological Adaptability:** Ability to integrate new technologies and emerging methodologies, such as Artificial Intelligence and predictive systems, in the continuous improvement of security processes and the optimization of solutions in changing digital environments



After completing the program, you will be able to use your knowledge and skills in the following positions:

- 1. Cybersecurity with Artificial Intelligence Analyst:** Responsible for the detection and mitigation of cyber threats through the use of predictive models and advanced Artificial Intelligence tools, ensuring the protection of digital infrastructures.
- 2. Modern Cryptography Specialist:** Designs and implements advanced encryption systems to protect the confidentiality and integrity of data in public and private organizations.
- 3. Digital Forensic Analysis Consultant:** Responsible for investigating cyber security incidents, collecting and analyzing digital evidence to identify causes and responsible parties.
- 4. Predictive Defense Systems Administrator:** Responsible for the development and monitoring of platforms that anticipate cyber threats using machine learning and AI algorithms.
- 5. Digital Infrastructure Security Auditor:** Performs audits of systems and networks to ensure compliance with international security standards, applying advanced analysis techniques.
- 6. Cybersecurity Specialist for Blockchain:** Designs and oversees the implementation of security measures in blockchain networks, ensuring the integrity of transactions and stored data.



*You will become an expert in the design and implementation of Predictive Security Systems, anticipating threats in complex environments”*

06

# Study Methodology

TECH is the world's first university to combine the **case study** methodology with **Relearning**, a 100% online learning system based on guided repetition.

This disruptive pedagogical strategy has been conceived to offer professionals the opportunity to update their knowledge and develop their skills in an intensive and rigorous way. A learning model that places students at the center of the educational process giving them the leading role, adapting to their needs and leaving aside more conventional methodologies.



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*TECH will prepare you to face new challenges in uncertain environments and achieve success in your career”*

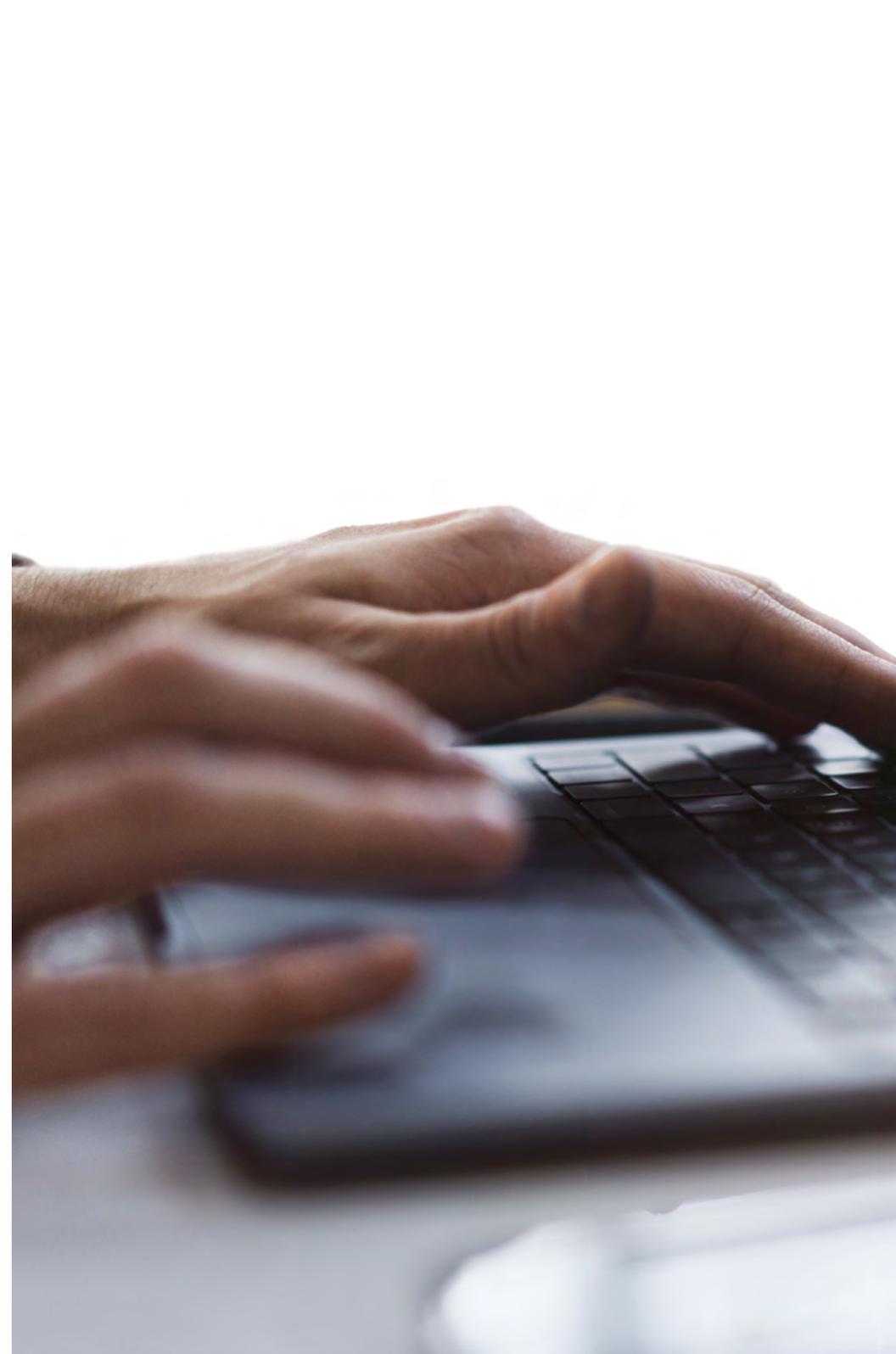
## The student: the priority of all TECH programs

In TECH's study methodology, the student is the main protagonist. The teaching tools of each program have been selected taking into account the demands of time, availability and academic rigor that, today, not only students demand but also the most competitive positions in the market.

With TECH's asynchronous educational model, it is students who choose the time they dedicate to study, how they decide to establish their routines, and all this from the comfort of the electronic device of their choice. The student will not have to participate in live classes, which in many cases they will not be able to attend. The learning activities will be done when it is convenient for them. They can always decide when and from where they want to study.

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*At TECH you will NOT have live classes  
(which you might not be able to attend)”*



### The most comprehensive study plans at the international level

TECH is distinguished by offering the most complete academic itineraries on the university scene. This comprehensiveness is achieved through the creation of syllabi that not only cover the essential knowledge, but also the most recent innovations in each area.

By being constantly up to date, these programs allow students to keep up with market changes and acquire the skills most valued by employers. In this way, those who complete their studies at TECH receive a comprehensive education that provides them with a notable competitive advantage to further their careers.

And what's more, they will be able to do so from any device, pc, tablet or smartphone.

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*TECH's model is asynchronous, so it allows you to study with your pc, tablet or your smartphone wherever you want, whenever you want and for as long as you want”*

## Case Studies and Case Method

The case method has been the learning system most used by the world's best business schools. Developed in 1912 so that law students would not only learn the law based on theoretical content, its function was also to present them with real complex situations. In this way, they could make informed decisions and value judgments about how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

With this teaching model, it is students themselves who build their professional competence through strategies such as Learning by Doing or Design Thinking, used by other renowned institutions such as Yale or Stanford.

This action-oriented method will be applied throughout the entire academic itinerary that the student undertakes with TECH. Students will be confronted with multiple real-life situations and will have to integrate knowledge, research, discuss and defend their ideas and decisions. All this with the premise of answering the question of how they would act when facing specific events of complexity in their daily work.



## Relearning Methodology

At TECH, case studies are enhanced with the best 100% online teaching method: Relearning.

This method breaks with traditional teaching techniques to put the student at the center of the equation, providing the best content in different formats. In this way, it manages to review and reiterate the key concepts of each subject and learn to apply them in a real context.

In the same line, and according to multiple scientific researches, reiteration is the best way to learn. For this reason, TECH offers between 8 and 16 repetitions of each key concept within the same lesson, presented in a different way, with the objective of ensuring that the knowledge is completely consolidated during the study process.

*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.*



## A 100% online Virtual Campus with the best teaching resources

In order to apply its methodology effectively, TECH focuses on providing graduates with teaching materials in different formats: texts, interactive videos, illustrations and knowledge maps, among others. All of them are designed by qualified teachers who focus their work on combining real cases with the resolution of complex situations through simulation, the study of contexts applied to each professional career and learning based on repetition, through audios, presentations, animations, images, etc.

The latest scientific evidence in the field of Neuroscience points to the importance of taking into account the place and context where the content is accessed before starting a new learning process. Being able to adjust these variables in a personalized way helps people to remember and store knowledge in the hippocampus to retain it in the long term. This is a model called Neurocognitive context-dependent e-learning that is consciously applied in this university qualification.

In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

Likewise, this very complete Virtual Campus will allow TECH students to organize their study schedules according to their personal availability or work obligations. In this way, they will have global control of the academic content and teaching tools, based on their fast-paced professional update.



*The online study mode of this program will allow you to organize your time and learning pace, adapting it to your schedule”*

### The effectiveness of the method is justified by four fundamental achievements:

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that assess real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.

### The university methodology top-rated by its students

The results of this innovative teaching model can be seen in the overall satisfaction levels of TECH graduates.

The students' assessment of the teaching quality, the quality of the materials, the structure of the program and its objectives is excellent. Not surprisingly, the institution became the top-rated university by its students according to the global score index, obtaining a 4.9 out of 5.

*Access the study contents from any device with an Internet connection (computer, tablet, smartphone) thanks to the fact that TECH is at the forefront of technology and teaching.*

*You will be able to learn with the advantages that come with having access to simulated learning environments and the learning by observation approach, that is, Learning from an expert.*



As such, the best educational materials, thoroughly prepared, will be available in this program:



#### 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.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.



#### Practicing Skills and Abilities

You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.



#### Interactive Summaries

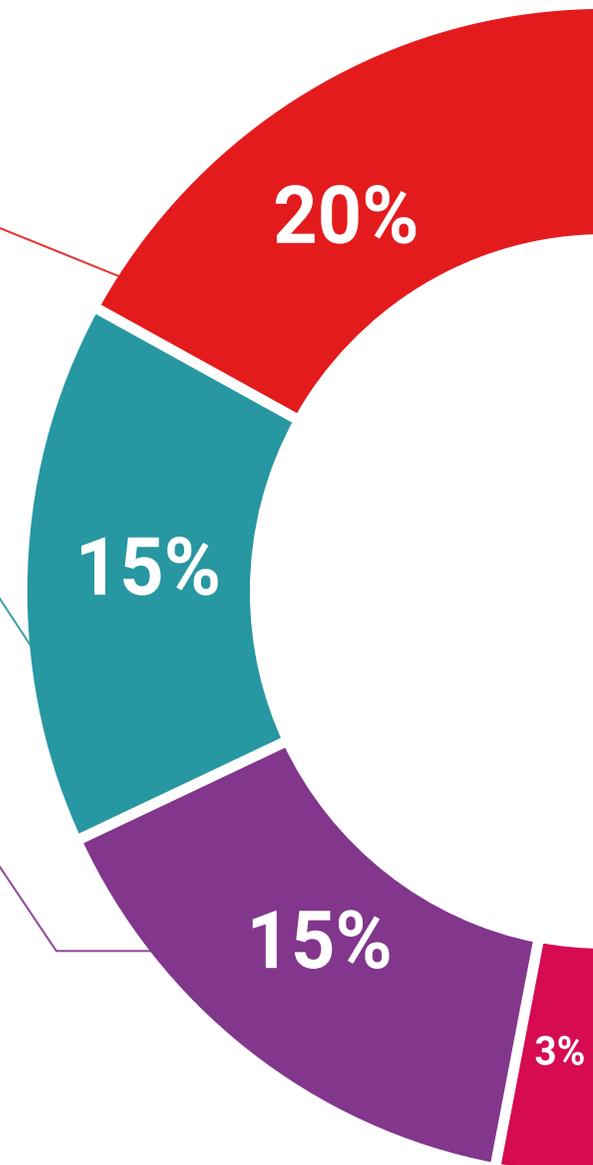
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

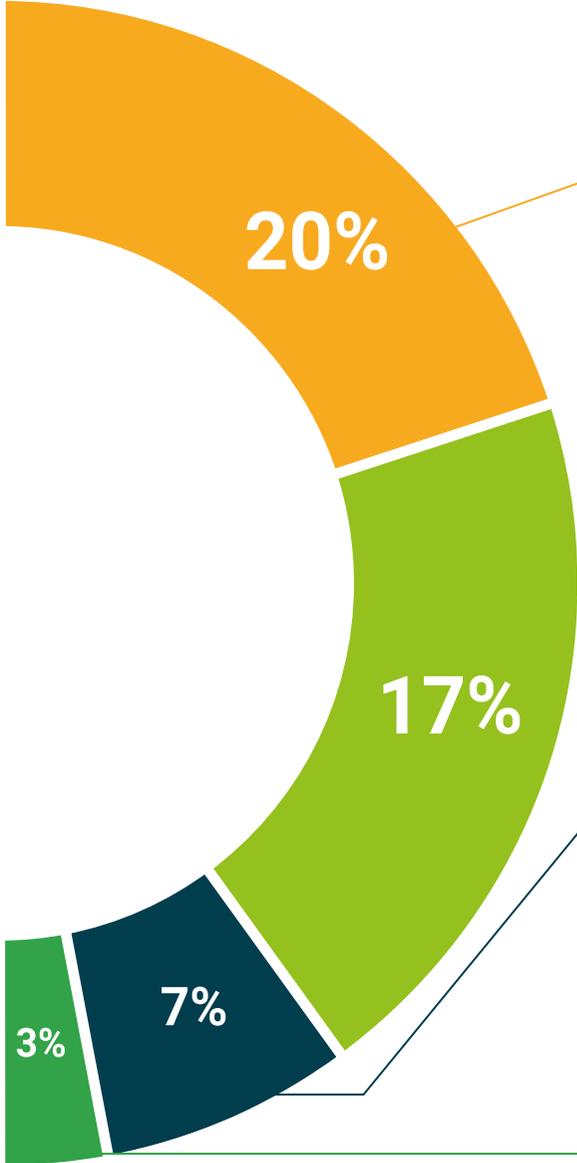
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### Additional Reading

Recent articles, consensus documents, international guides... In our virtual library you will have access to everything you need to complete your education.





**Case Studies**

Students will complete a selection of the best case studies in the field. Cases that are presented, analyzed, and supervised by the best specialists in the world.



**Testing & Retesting**

We periodically assess and re-assess your knowledge throughout the program. We do this on 3 of the 4 levels of Miller's Pyramid.



**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 for future difficult decisions.



**Quick Action Guides**

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical and effective way to help students progress in their learning.



07

# Teaching Staff

The teaching team of this university degree is made up of outstanding specialists who combine practical experience in the resolution of complex cyber incidents with a solid academic preparation in the use of Artificial Intelligence for digital defense. Each professional offers an applied perspective that allows mastering from Forensic Analysis to the implementation of predictive security systems, ensuring a deep learning aligned with the latest industry requirements.



“

*You will access a cutting-edge academic pathway, taught by active professionals in the industry who master the latest technological trends in the field of Computer Security”*

## Management



### Dr. Peralta Martín-Palomino, Arturo

- CEO and CTO at Prometheus Global Solutions
- CTO at Korporate Technologies
- CTO at AI Shepherds GmbH
- Consultant and Strategic Business Advisor at Alliance Medical
- Director of Design and Development at DocPath
- Doctorate in Psychology from the University of Castilla La Mancha
- Doctorate in Economics, Business and Finance from the Camilo José Cela University
- Doctorate in Psychology from University of Castilla La Mancha
- Master's Degree in Executive MBA from the Isabel I University
- Master's Degree in Sales and Marketing Management from the Isabel I University
- Expert Master's Degree in Big Data by Hadoop Training
- Master's Degree in Advanced Information Technologies from the University of Castilla La Mancha
- Member of: SMILE Research Group

## Professors

### Mr. Del Rey Sánchez, Alejandro

- ◆ In Charge of Implementing Programs to Improve Tactical Emergency Care
- ◆ Degree in Industrial Organization Engineering
- ◆ Certification in Big Data and Business Analytics
- ◆ Certification in Microsoft Excel Advanced, VBA, KPI and DAX
- ◆ Certification in CIS Telecommunication and Information Systems

“

*Take the opportunity to learn about the latest advances in this field in order to apply it to your daily practice”*

08

# Certificate

The Postgraduate Diploma in Proactive Defense and Digital Forensics with Artificial Intelligence guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.



“

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

This private qualification will allow you to obtain a **Postgraduate Diploma in Proactive Defense and Digital Forensics with Artificial Intelligence** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

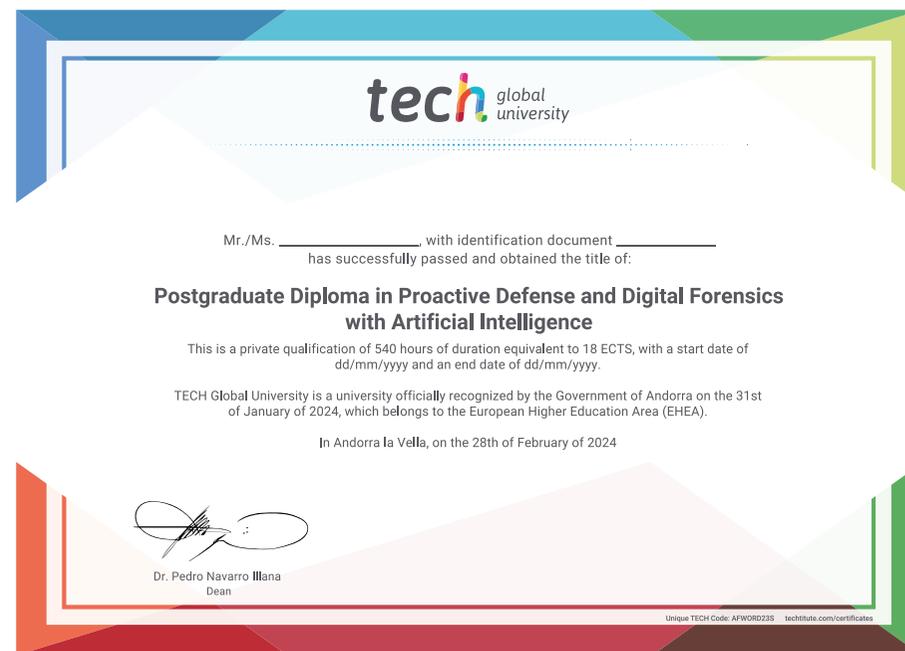
This **TECH Global University** private qualification is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Diploma in Proactive Defense and Digital Forensics with Artificial Intelligence**

Modality: **online**

Duration: **6 months**

Accreditation: **18 ECTS**



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



## Postgraduate Diploma Proactive Defense and Digital Forensic Analysis with Artificial Intelligence

- » Modality: **online**
- » Duration: **6 months**
- » Certificate: **TECH Global University**
- » Accreditation: **18 ECTS**
- » Schedule: **at your own pace**
- » Exams: **online**

# Postgraduate Diploma

## Proactive Defense and Digital Forensics with Artificial Intelligence