Postgraduate Certificate
Intelligent Systems

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Postgraduate Certificate
Intelligent Systems

- » Modality: **online**
- » Duration: **6 weeks**
- » Certificate: **TECH Global University**
- » Credits: **6 ECTS**
- » Schedule: **at your own pace**
- » Exams: **online**

Website: **www.techtitute.com/pk/artificial-intelligence/postgraduate-certificate/intelligent-systems**

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01
Introduction

A report prepared by the Secretary of State for Digitalization and Artificial Intelligence reveals that the use of Intelligent Systems in Spanish companies increased by 48% last year. This reflects the fact that companies are giving more and more importance to this technological branch, due to its wide range of advantages. These include the fact that these tools improve operational efficiency by reducing response time and minimizing human error. In addition, their algorithms help institutions to personalize their services according to the interests of their clients, leading to a higher degree of consumer satisfaction For this reason, TECH is launching an online program that will provide professionals with the most innovative techniques in this field.

You will skillfully handle the Data Capture Methods to make more informed and accurate decisions in real time, thanks to this Postgraduate Certificate 100% online"

Industry 4.0 aims to turn companies into automated entities, maximizing business results in an efficient way. To this end, it is based on integrating new technologies into the value chain of business groups through Intelligent Systems. These models are designed to simulate, replicate or improve the human capacity to perform complex tasks that require intelligence. These computer systems have a variety of applications, including methods for developing facial recognition, creating virtual assistants and optimizing computer-assisted medical diagnoses. However, specialists need to stay at the forefront of this technological field to produce the most innovative solutions.

In this framework, TECH implements a Postgraduate Certificate in Intelligent Systems that will raise the knowledge and practical skills of professionals to a higher horizon. To achieve this, the academic itinerary will delve into the reasoning process of an agent. In relation to this, the syllabus will emphasize the importance of knowledge representation through its roles. In turn, the program will equip graduates with state-of-the-art software for the creation of ontologies. This will enable professionals to develop intelligent applications that require understanding about knowledge in a specific domain (such as recommender systems). Training will also delve into the Semantic Web, which enables machines to understand the meaning of data and facilitates the retrieval of relevant information.

On the other hand, TECH has conceived a comprehensive university program supported by the unique Relearning learning methodology. This system will allow students to consolidate their understanding through the repetition of fundamental concepts. In this way, students will enjoy a progressive and natural learning process, without having to travel to educational centers in a totally online format. In this way, professionals will combine their academic studies with the rest of their daily activities or obligations.

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

- Development of case studies presented by experts in IT Engineering
- The graphic, schematic and practical contents with which it is conceived provide cutting- Therapeutics and practical information on those disciplines that are essential for professional practice
- Practical exercises where the self-assessment process can be carried out 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

"

Expand your knowledge from the comfort of your home and renew your knowledge with TECH, the largest online University in the world"

You will delve into Semantic Reasoners, tools with which you will make logical inferences about the knowledge represented in the form of ontologies"

A first class educational experience that will raise your professional horizons in Artificial Intelligence, an ever-expanding discipline in constant expansion.

You will enjoy immersive learning based on repetition, with natural and gradual learning throughout the curriculum.

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

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

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the academic year For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

02
Objectives

Through this Postgraduate Certificate in Intelligent Systems, graduates will master the fundamental principles of this integral part of Artificial Intelligence. Likewise, students will obtain new skills to manage Agent Architectures and develop systems based on autonomous computational entities. Similarly, professionals will build efficient ontologies to represent, organize or share knowledge semantically. They will also nurture their daily praxis by incorporating Expert Systems to emulate human knowledge and behavior in a particular domain.

"

Updating your knowledge on the Semantic Web will be easier with the multimedia contents you will find in the TECH" Virtual Campus."

## General Objectives

- Prepare scientifically and technologically, as well as to develop the professional practice of Intelligent Systems, with a transversal and versatile approach adapted to the new technologies and innovations in this field

- Train students in the use of cutting-edge tools and techniques in the field of Artificial Intelligence and intelligent systems, including the mastery of relevant programming languages

- Develop problem solving and critical thinking skills, to evaluate different approaches in the design and implementation of Intelligent Systems

- Stimulate creativity and innovation in both the design and development of Intelligent Systems, promoting new ideas and approaches to address challenges in the field of Artificial Intelligence

Artificial Intelligence is increasingly present in a variety of industries. Specializing in Intelligent Systems will offer you numerous opportunities at the job level!"
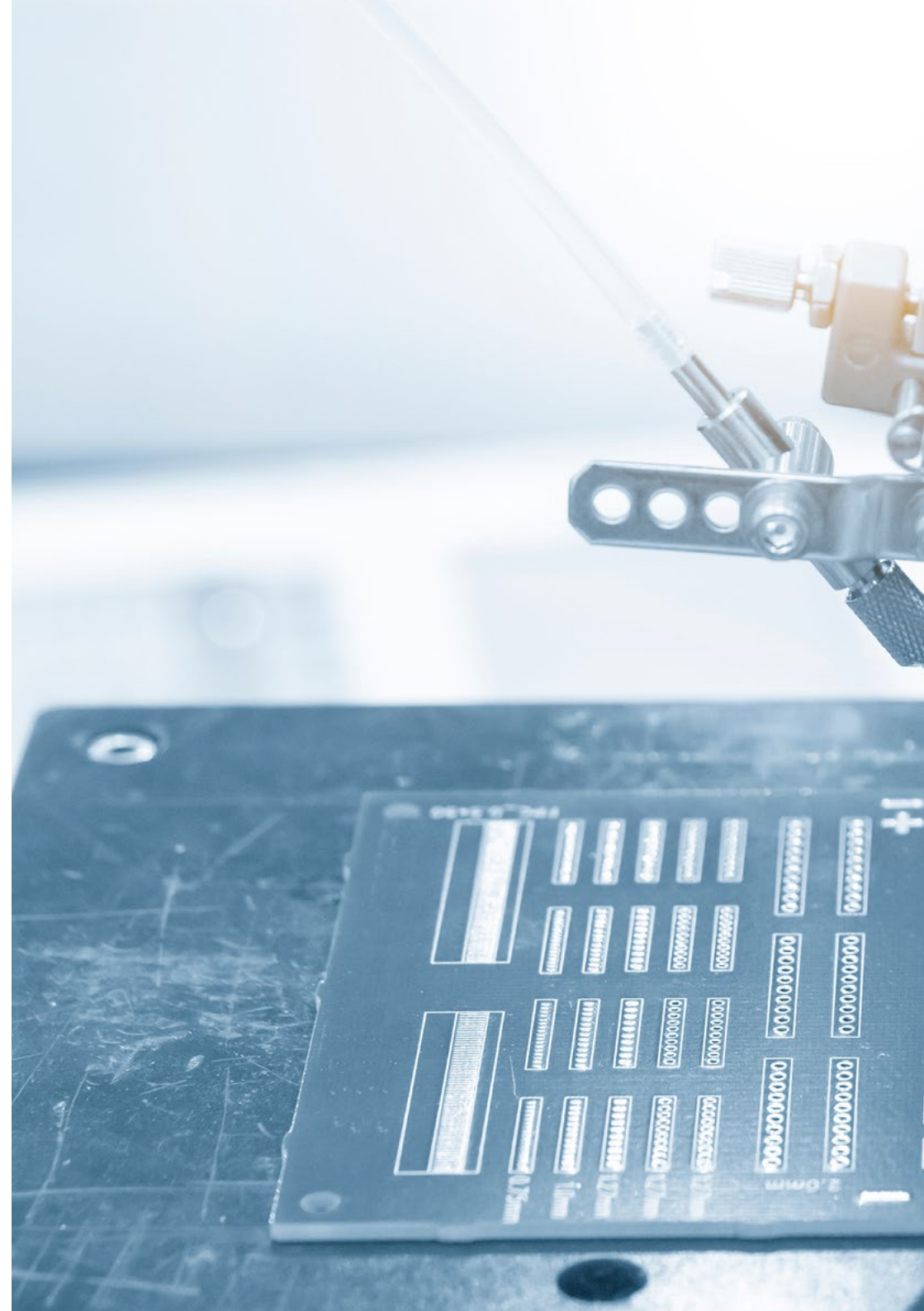
Specific Objectives

- Learn all the concepts related to agent theory and agent architecture and its reasoning process

- Assimilate the Theory and Practice behind the Concepts of Information and Knowledge, as well as the different ways of Representing Knowledge

- Understand the theory related to ontologies, as well as learn ontology languages and software for ontology creation

- Learn different models of knowledge representation, such as vocabularies, taxonomies, thesauri and mind maps, among others

- Understand the functioning of semantic reasoners, knowledge-based systems and expert systems

- Know how the semantic web works, its current and future state, as well as semantic web-based applications

Structure and Content

With this Postgraduate Certificate, students will achieve an exhaustive theoretical and practical knowledge about Intelligent Systems. The curriculum will address in detail the Architectures of Agents, allowing students to master them to design and execute automated models capable of interacting with their environment. Likewise, the syllabus will provide the keys for the construction of ontologies that improve the reasoning of the systems. In line with this, the educational resources will delve into the use of the most effective software for the design of such data structures. In addition, the program will offer students advanced strategies aimed at the evaluation of knowledge representations.
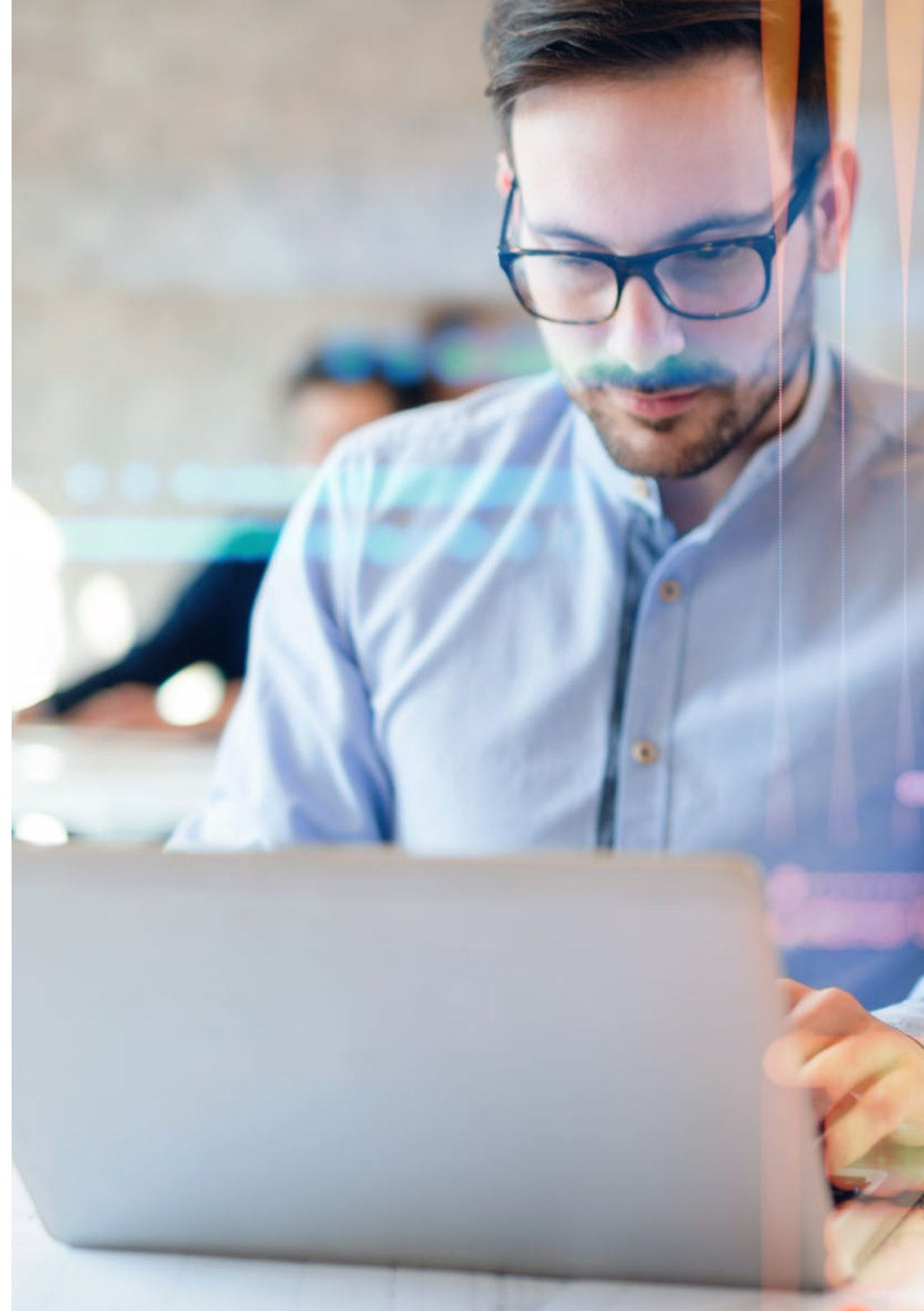
> *"This university program gives you the opportunity to address real work scenarios in Intelligent systems, alongside the best experts in Artificial Intelligence"*

Module 1. Intelligent Systems

Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning.**
This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.

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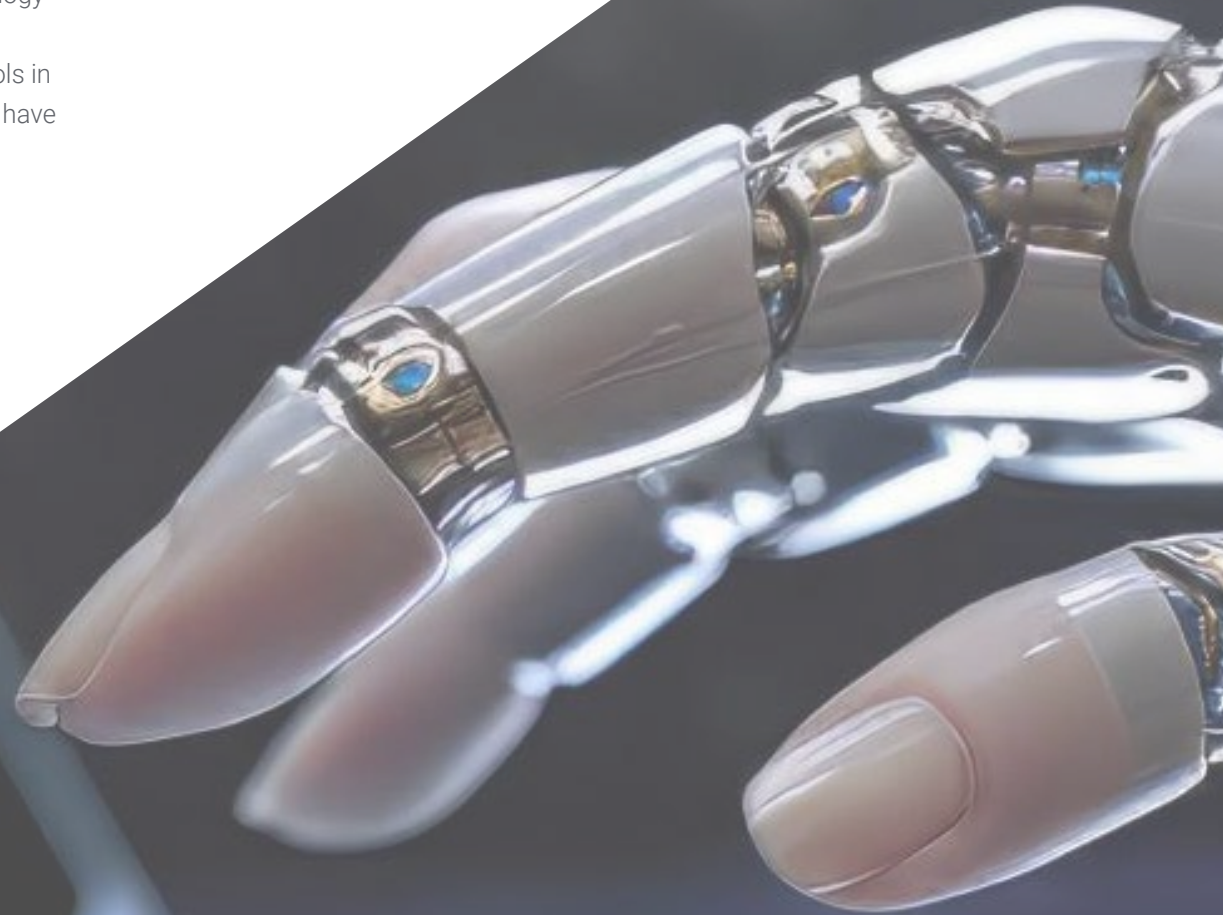
"*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization*"

Case Study to contextualize all content

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

"

At TECH, you will experience a learning methodology that is shaking the foundations of traditional universities around the world"

You will have access to a learning system based on repetition, with natural and progressive teaching throughout the entire syllabus.

The student will learn to solve complex situations in real business environments through collaborative activities and real cases.

A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch, which presents the most demanding challenges and decisions in this field, both nationally and internationally. This methodology promotes personal and professional growth, representing a significant step towards success. The case method, a technique that lays the foundation for this content, ensures that the most current economic, social and professional reality is taken into account.

"

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

The case method has been the most widely used learning system among the world's leading Information Technology schools for as long as they have existed. The case method was developed in 1912 so that law students would not only learn the law based on theoretical content. It consisted of presenting students with real-life, complex situations for them to make informed decisions and value judgments on how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

What should a professional do in a given situation? This is the question that you are presented with in the case method, an action-oriented learning method. Throughout the course, students will be presented with multiple real cases. They will have to combine all their knowledge and research, and argue and defend their ideas and decisions.

Relearning Methodology

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

We enhance the Case Study with the best 100% online teaching method: Relearning.

In 2019, we obtained the best learning results of all online universities in the world.

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

Our university is the only one in the world authorized to employ this successful method. In 2019, we managed to improve our students' overall satisfaction levels (teaching quality, quality of materials, course structure, objectives...) based on the best online university indicators.

01 learning from evidence

02 relearning from evidence

03 testing

04 learning from an expert

05 neurocognitive context dependent learning

06 Von-Restorff effect

07 case based learning through storytelling

08 competencies testing (retesting)

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically. This methodology has trained more than 650,000 university graduates with unprecedented success in fields as diverse as biochemistry, genetics, surgery, international law, management skills, sports science, philosophy, law, engineering, journalism, history, and financial markets and instruments. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

Relearning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for success.

From the latest scientific evidence in the field of neuroscience, not only do we know how to organize information, ideas, images and memories, but we know that the place and context where we have learned something is fundamental for us to be able to remember it and store it in the hippocampus, to retain it in our long-term memory.

In this way, and in what is called neurocognitive context-dependent e-learning, the different elements in our program are connected to the context where the individual carries out their professional activity.

This program offers the best educational material, prepared with professionals in mind:

Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.

Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

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

Practising Skills and Abilities

They will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.

Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.

30%

10%

8%

20%

25%

4%

3%

Case Studies

Students will complete a selection of the best case studies chosen specifically for this program. Cases that are presented, analyzed, and supervised by the best specialists in the world.

Interactive Summaries

The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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

Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.

Certificate

The Postgraduate Certificate in Intelligent Systems 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 program will allow you to obtain your **Postgraduate Certificate in Intelligent Systems** 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** title 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 Certificate in Intelligent Systems**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**

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Mr./Ms. _____, with identification document _____ has successfully passed and obtained the title of:

Postgraduate Certificate in Intelligent Systems

This is a program of 180 hours of duration equivalent to 6 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024

Dr. Pedro Navarro Illana
Rector

Unique TECH Code: AFWORD23S   techtitute.com/certificates

*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.

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