Postgraduate Certificate

Applied Design Technologies and Artificial Intelligence

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Postgraduate Certificate
Applied Design Technologies and Artificial Intelligence

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

Website: **www.techtitute.com/us/artificial-intelligence/postgraduate-certificate/applied-design-technologies-artificial-intelligence**

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01

Introduction

The integration of Artificial Intelligence (AI) in Design allows to streamline processes, optimize decision making and enhance creativity. With advanced algorithms, large data sets can be analyzed to identify patterns and trends, facilitating the generation of more efficient and customized designs. In addition, AI in Design offers simulation and rapid prototyping tools, reducing development times and enabling more agile experimentation. This combination not only improves efficiency, but also drives innovation and adaptability in an increasingly dynamic world. For this reason, TECH has devised this program, based on the Relearning approach, consisting of the reiteration of key concepts for optimal learning.

The integration of Applied Design Technologies and Artificial Intelligence will allow you to optimize creative processes and boost the ability to adapt and constantly evolve in the materialization of ideas and projects"

Applied Design Technologies and Artificial Intelligence (AI) have significantly revolutionized the way we conceive, develop and experience Design in various disciplines. By incorporating these tools, unlimited horizons have opened up in terms of creativity, efficiency and personalization. AI enhances the ability to analyze data and patterns, allowing a deeper understanding of user preferences and dynamically adapting to their needs.

This is how this Postgraduate Certificate in Applied Design Technologies and Artificial Intelligence was created, which will focus on providing professionals with practical tools and fundamental knowledge to make the most of advanced technologies in the field of Design. The course will cover everything from the incorporation of virtual assistants to AI-assisted collaboration in editorial teams, providing a complete overview of the possibilities offered by these innovations.

It will also explore how AI can boost creativity and efficiency in the design process, analyzing relevant case studies and encouraging practical experimentation so that graduates acquire solid skills in the implementation of these technologies. In addition, the importance of human-machine collaboration will be emphasized.

At the end of the program, students will be prepared to effectively apply emerging technologies in Design, with a deep understanding of how AI can transform the way we conceive, create and materialize ideas, offering more efficient and creative solutions.

In this context, TECH has developed a rigorous academic program backed by the innovative Relearning method. This educational methodology will focus on reiterating key principles to ensure a complete understanding of the content. In addition, accessibility will be paramount: only an electronic device with an Internet connection will be required to explore the material at any time, allowing students to dispense with the need to attend in person or follow strict schedules.

This **Postgraduate Certificate** in **Applied Design Technologies and 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 Design Process Innovation and AI
- The graphic, schematic and practical contents of the book provide technical 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

As a designer, your interaction with Artificial Intelligence will enhance the generation of aesthetic and functional solutions, promoting a more accessible, sustainable and user experience-centered Design"

Using AI in your Design projects will facilitate the automation of repetitive tasks, freeing up time for conceptual exploration and innovation. Bet on TECH!"

You'll delve deeper into Adaptive and Predictive Design, all through an extensive library of the most innovative multimedia resources. Enroll now!.

Thanks to this 100% online course, you will master the automatic generation of multimedia content in Editorial Design in a simple and agile way.

The program's teaching staff includes professionals from the sector who contribute their work experience to this specializing 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 and experienced experts.

02

Objectives

With a progressive and practical approach, the objective of this Postgraduate Certificate will be to equip designers with the necessary skills to master the most cutting-edge tools and revolutionize the field of Design. Through a unique combination of theory and practical application, this program will unleash the innovative potential of professionals, empowering them to lead change in an era where the synergy between human creativity and Artificial Intelligence constantly redefines the boundaries of Design.

Be part of the vanguard that will transform the world of Design with limitless vision, technical prowess and audacity! Only with TECH!"

General Objectives

- Develop skills to implement Artificial Intelligence tools in design projects, covering automatic content generation, design optimization and pattern recognition
- Develop skills in adaptive design, considering user behavior and applying advanced AI tools
- Critically analyze the challenges and opportunities when implementing custom designs in industry using AI Artificial Intelligence
- Understand the transformative role of Artificial Intelligence in design and manufacturing process innovation

Specific Objectives

- Improve comprehensive understanding and practical skills to leverage advanced technologies and Artificial Intelligence
- Understand the strategic integration of emerging technologies and AI in the Design domain
- Apply microchip architecture optimization techniques using AI to improve both performance and efficiency
- Properly utilize algorithms for automatic generation of multimedia content, enriching visual communication in editorial projects
- Implement the knowledge and skills acquired during this program to real projects involving technologies and AI in Design

Become a pioneer in the convergence between design creativity and the unlimited potential of artificial intelligence"

03

Course Management

The teachers of this Postgraduate Certificate have been meticulously selected for their experience and disruptive vision, as these academic leaders are pioneers in the convergence between Design and AI. Their commitment lies not only in transmitting knowledge, but also in guiding graduates to mastery of the most advanced technologies. With an exceptional combination of technical skills and a deep understanding of the transformative potential of these tools, these professionals are dedicated to empowering the next generation of designers.

Train alongside the leaders who are driving the very frontier of creativity and innovation in Design"

International Guest Director

Flaviane Peccin is a leading data scientist with more than a decade of international experience applying predictive modeling and machine learning in various industries. Throughout her career, she has led innovative projects in the field of Artificial Intelligence, data analytics and data-driven business decision making, consolidating herself as an influential figure in the digital transformation of large corporations.

In this regard, she has held roles of great importance at Visa, as Director of Artificial Intelligence and Machine Learning, where she has been responsible for defining and executing the company's global data science strategy, with a particular focus on Machine Learning as a service. In addition, her leadership has ranged from collaboration with commercial and scientific stakeholders, to the implementation of advanced algorithms and scalable technology solutions, which have driven efficiency and accuracy in decision making. As such, her experience in integrating emerging trends in Artificial Intelligence and Gen AI has positioned her at the forefront of her field.

She has also worked as Director of Data Science in this same organization, leading a team of experts that has provided analytical consulting to clients in Latin America, developing predictive models that have optimized the cardholder lifecycle and significantly improved the management of credit and debit portfolios. Her career has also included key positions at Souza Cruz, HSBC, GVT and Telefónica, where she has contributed to the development of innovative solutions for risk management, analytical models and fraud control.

Therefore, with extensive experience in Latin American and US markets, Flaviane Peccin has been instrumental in the adaptation of products and services, using advanced statistical techniques and deep data analysis.

Ms. Peccin, Flaviane

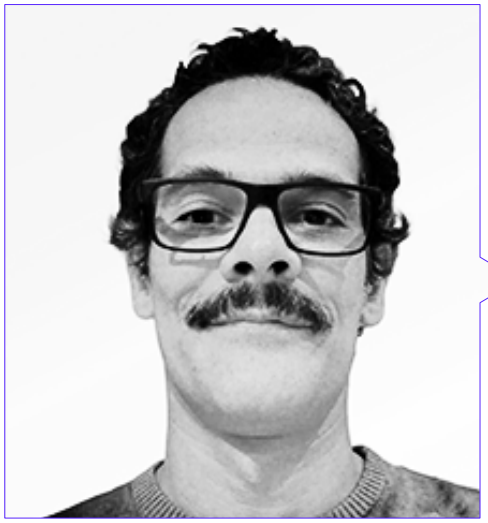
- Director of Artificial Intelligence and Machine Learning at Visa, Miami, United States
- Director of Data Science at Visa
- Customer Analytics Manager at Visa
- Coordinator/Data Science Specialist at Souza Cruz
- Quantitative Modeling Analyst at HSBC
- Credit and Collections Analyst at GVT
- Statistical Analyst at Telefónica
- Master's Degree in Numerical Methods in Engineering from Universidade Federal do Paraná
- Bachelor's Degree in Statistics from Universidade Federal do Paraná

Thanks to TECH, you will be able to learn with the best professionals in the world"

Management

Dr. Peralta Martín-Palomino, Arturo

- CEO and CTO at Prometeus 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
- PhD. in Psychology from the University of Castilla La Mancha
- PhD in Economics, Business and Finance from the Camilo José Cela University
- PhD in Psychology from University of Castilla La Mancha
- Máster in Executive MBA por la Universidad Isabel I
- Master's Degree in Sales and Marketing Management, 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



Mr. Maldonado Pardo, Chema

- Graphic Designer at DocPath Document Solutions S.L.
- Founding Partner and Head of the Design and Advertising Department at D.C.M. Difusión Integral de Ideas, C.B.
- Head of the Design and Digital Printing Department at Ofipaper, La Mancha S.L.
- Graphic Designer in Ático, Graphic Studio
- Graphic Designer and Craftsman Printer in Lozano Artes Gráficas
- Layout and Graphic Designer in Gráficas Lozano
- ETSI Telecommunications by the Polytechnic University of Madrid
- ETS Computer Systems ETSI by the University of Castilla-La Mancha

Professors

Ms. Parreño Rodríguez, Adelaida

- *Technical Developer & Energy Communities Engineer at the University of Murcia*
- Technical Developer & Energy Communities Engineer at the University of Murcia
- Manager in Research & Innovation in European Projects at the University of Murcia
- Content Creator in Global UC3M Challenge
- Ginés Huertas Martínez Award (2023)
- Master's Degree in Renewable Energies by the Polytechnic University of Cartagena
- Degree in Electrical Engineering (bilingual) from the Carlos III University of Madrid

04

Structure and Content

The program features a dynamic structure and a wealth of content that seamlessly blends theory and practice. From basic fundamentals to advanced applications, the program has been meticulously designed to offer a deep dive into the world of AI applied to Design. In this way, designers will explore current case studies, experiment with cutting-edge tools and develop skills with practical applications. In addition, they will focus on crucial areas such as automated design generation, data-driven personalization and the integration of AI into creative processes.

Get ready to become a change agent in the world of Design with this exceptionally comprehensive and cutting-edge program"

Module 1. Applied Design Technologies and AI

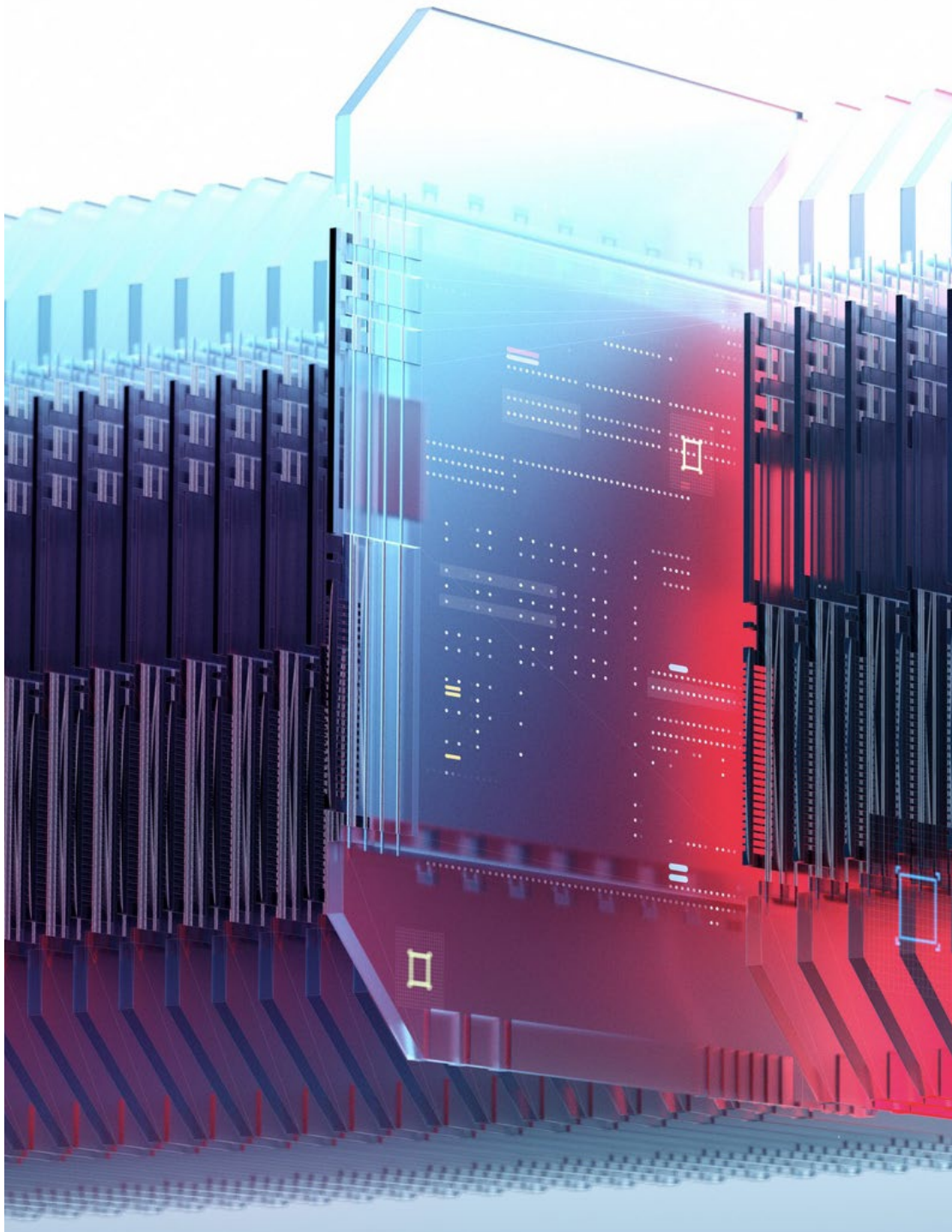
1.1. Integration of Virtual Assistants in Design Interfaces with Dialogflow, Microsoft Bot Framework and Rasa
- 1.1.1. Role of Virtual Assistants in Interactive Design
- 1.1.2. Development of Virtual Assistants Specialized in Design
- 1.1.3. Natural Interaction with Virtual Assistants in Design Projects
- 1.1.4. Implementation Challenges and Continuous Improvement

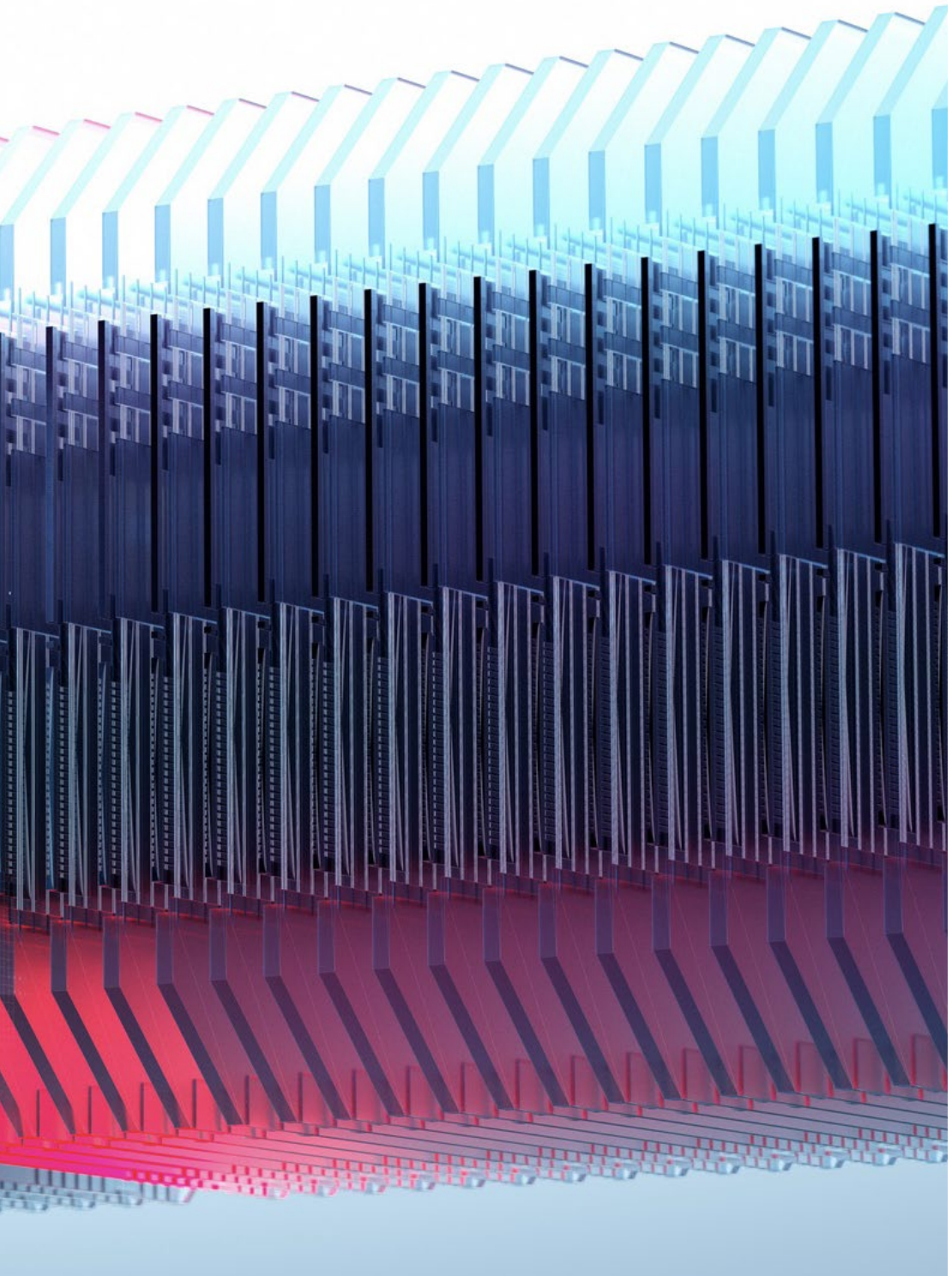
1.2. Automatic Detection and Correction of Visual Errors with AI
- 1.2.1. Importance of Automatic Visual Error Detection and Correction
- 1.2.2. Algorithms and Models for Visual Error Detection
- 1.2.3. Automatic Correction Tools in Visual Design
- 1.2.4. Challenges in Automatic Detection and Correction and Strategies for Overcoming Them

1.3. AI Tools for Usability Evaluation of Interface Designs (EyeQuant, Lookback and Mouseflow)
- 1.3.1. Analysis of Interaction Data with Machine Learning Models
- 1.3.2. Automated Report Generation and Recommendations
- 1.3.3. Virtual User Simulations for Usability Testing Using Bootpress, Botium and Rasa
- 1.3.4. Conversational Interface for User Feedback

1.4. Optimization of Editorial Workflows with Algorithms Using Chat GPT, Bing, WriteSonic and Jasper
- 1.4.1. Importance of Optimizing Editorial Workflows
- 1.4.2. Algorithms for Editorial Automation and Optimization
- 1.4.3. Tools and Technologies for Editorial Optimization
- 1.4.4. Challenges in Implementation and Continuous Improvement in Editorial Workflows

1.5. Realistic Simulations in Video Game Design with TextureLab and Leonardo
- 1.5.1. Importance of Realistic Simulations in the Videogame Industry
- 1.5.2. Modeling and Simulation of Realistic Elements in Video Games
- 1.5.3. Technologies and Tools for Realistic Simulations in Video Games
- 1.5.4. Technical and Creative Challenges in Realistic Video Game Simulations





1.6. Automatic Generation of Multimedia Content in Editorial Design
- 1.6.1. Transformation with Automatic Generation of Multimedia Content
- 1.6.2. Algorithms and Models for the Automatic Generation of Multimedia Content
- 1.6.3. Practical Applications in Publishing Projects
- 1.6.4. Challenges and Future Trends in the Automatic Generation of Multimedia Content

1.7. Adaptive and Predictive Design Based on User Data
- 1.7.1. Importance of Adaptive and Predictive Design in User Experience
- 1.7.2. Collection and Analysis of User Data for Adaptive Design
- 1.7.3. Algorithms for Adaptive and Predictive Design
- 1.7.4. Integration of Adaptive Design in Platforms and Applications

1.8. Integration of Algorithms in Usability Improvement
- 1.8.1. Segmentation and Behavioral Patterns
- 1.8.2. Detection of Usability Problems
- 1.8.3. Adaptability to Changes in User Preferences
- 1.8.4. Automated a/b Testing and Analysis of Results

1.9. Continuous Analysis of User Experience for Iterative Improvements
- 1.9.1. Importance of Continuous Feedback in Product and Service Evolution
- 1.9.2. Tools and Metrics for Continuous Analysis
- 1.9.3. Case Studies Demonstrating Substantial Improvements Achieved through this Approach
- 1.9.4. Handling of Sensitive Data

1.10. AI-assisted Collaboration in Editorial Teams
- 1.10.1. Transforming Collaboration in AI-assisted Editorial Teams
- 1.10.2. Tools and Platforms for AI-assisted Collaboration (Grammarly, Yoast SEO and Quillionz)
- 1.10.3. Development of Virtual Assistants Specialized in Editing
- 1.10.4. Challenges in the Implementation and Future Applications of AI-assisted Collaboration

05

Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning.**

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.

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

Case Study to contextualize all content

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

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

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

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

A learning method that is different and innovative

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

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

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

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

Relearning Methodology

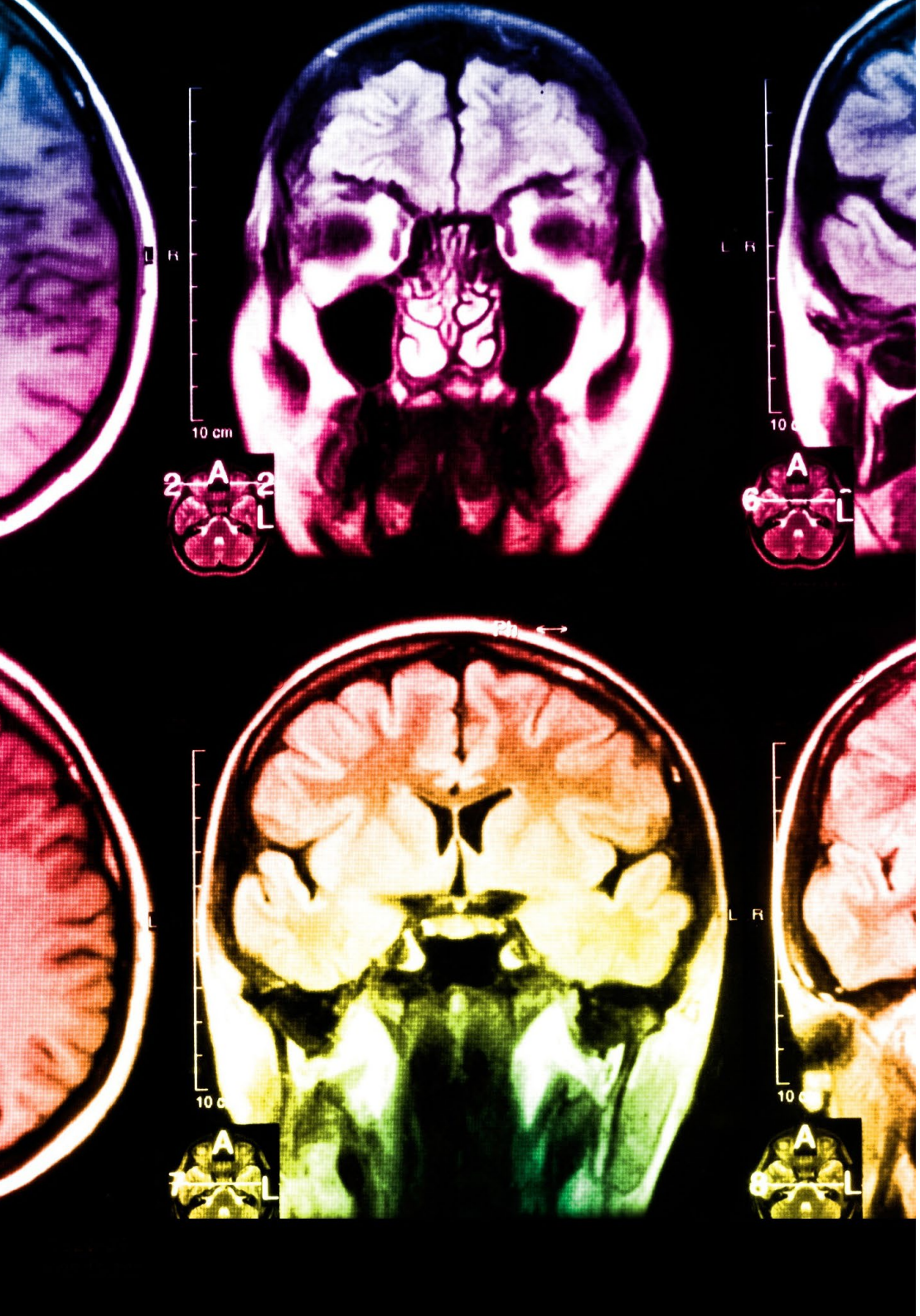
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines different teaching elements in each lesson.

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

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

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

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



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.

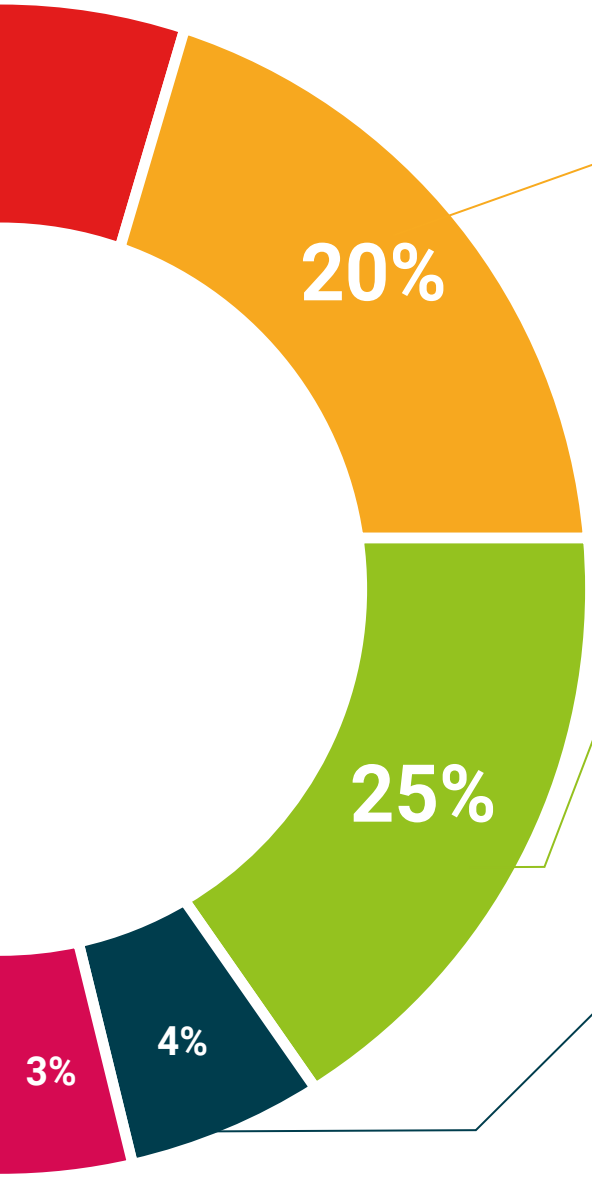
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

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.



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.

06

Certificate

The Postgraduate Certificate in Applied Design Technologies and 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 Certificate in Applied Design Technologies and 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 Certificate in Applied Design Technologies and Artificial Intelligence**

Course Modality: **Online**

Duration: **6 weeks**

Accreditation: **6 ECTS**


tech global university

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

Postgraduate Certificate in Applied Design Technologies and Artificial Intelligence

This is a private qualification 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
Dean

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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Postgraduate Certificate
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» Certificate: TECH Global University
» Accreditation: 6 ECTS
» Schedule: at your own pace
» Exams: online

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