





Internship Program
Digital Transformation and Industry 4.0

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### 01 Introduction

According to the World Economic Forum Study, the Digital Transformation of the industry is expected to generate more than 35,000 new technology jobs over the next few years. This figure underscores the importance of this sector in the global economy, where it remains one of the areas with the most weight. To take advantage of this opportunity, specialists need to stay at the forefront of Artificial Intelligence and obtain new skills to lead digital transition projects in companies. In order to help them with this work, TECH is developing a university program that will delve into the application of enabling technologies such as Big Data, Internet of Things, Advanced Robotics or Virtual Reality.

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You will develop the most innovative Neural Networks to automate processes and identify trends to improve operational efficiency"





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Digital Transformation makes it possible for organizations to offer a much more personalized user experience, which serves to increase their satisfaction and strengthen their brand loyalty. This is possible thanks to sophisticated technological tools such as Machine Learning, which analyzes customer data to identify behavioral patterns and preferences. In this way, this Artificial Intelligence focuses on detecting the individual needs of each person to meet their demands. In addition, this helps companies to differentiate themselves from their main competitors through exclusive experiences. In this scenario, TECH develops an Internship Program consisting of a 120-hour stay in reference centers in the field of Industry 4.0.

During 3 intensive weeks, the graduates will be part of a team of experts of the highest level, participating in activities ranging from the creation of Smart Contracts or virtual environments to the implementation of Robot as a Service. In line with this, professionals will help graduates to incorporate in their practice the most innovative strategies for the digitalization of companies. In this way, students will raise their professional talent to the highest level, to significantly increase their employability.

It should be noted that, during their on-site stay, graduates will be under the supervision of an assistant tutor who will help them to enjoy successful learning. Likewise, this figure will provide students with personalized advice and resolve any doubts that may arise during the Internship Program.

Undoubtedly, an optimal educational experience that will allow students to boost their professional career.

# 02 Why Study an Internship Program?

For institutions, it is essential to ensure their competitiveness over time and to adapt effectively to changing business environments. In this context, it is vital that they have an expert in Digital Transformation in their organizational charts. In this way, this professional will handle the most modern tools of Artificial Intelligence to improve their operational efficiency by optimizing the workflow from automating tasks. Hence the idea of designing this Internship Program, a pioneering degree that will allow students to catch up with all the advances that have occurred in this technological branch. To do so, they will spend time in prestigious centers, accompanied by Industry 4.0 experts.



A program with which you will reach the highest level in the creation and implementation of Smart Factories"

#### 1. Updating from the latest technology available

With the advent of Industry 4.0 and the advance of Artificial Intelligence, professionals have a wide range of technological resources to enrich their daily practice. During this Internship Program, students will have access to the most cutting-edge and sophisticated technology to lead the Digital Transformation process in any company.

#### 2. Gaining in-depth knowledge from the experience of top specialists

Throughout their on-site stay at the centers, graduates will have the support of a tutor who will accompany them from the beginning of the internship until the end of the internship. This professional will guide the students to verify that all the requirements for which the program was designed are met. In addition, students will be part of a team of experts in Artificial Intelligence, who will update them on all the advances that have been made in this field.

#### 3. Entering first-class professional environments

During the Internship Program, graduates will have the opportunity to actively participate in the cases taken on by the institution. In this way, they will work with their colleagues on issues such as the implementation of robots to automate tasks and follow up on these processes. In addition, they will take on various responsibilities, so that they can hone their skills for an unparalleled activity in the job market later on.



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### 4. Putting the acquired knowledge into daily practice from the very first moment

Everything that students learn in this Internship Program will be perfectly extrapolated to the current digital market. This is because TECH agrees with companies the need to comply with internationalized protocols of action, with the aim of providing experiences in which graduates can be prepared effectively and guaranteed to work in any organization.

#### 5. Expanding the boundaries of knowledge

This Internship Program is a unique opportunity for graduates to gain access to international companies located in different parts of the world. It is, therefore, an ideal scenario for students to enter a professional culture different from their own, while it becomes a relevant asset that can be used in the various recruitment processes.



You will have full practical immersion at the center of your choice"

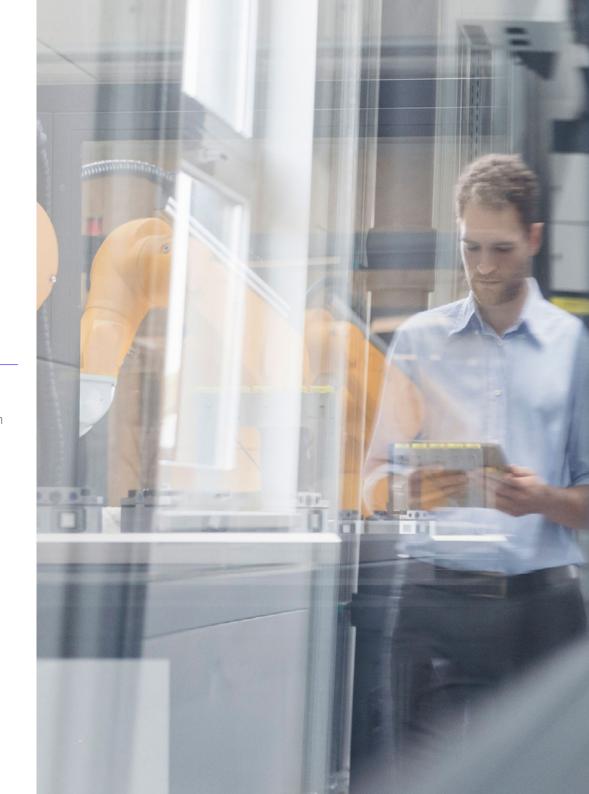
# 03 Objectives

The main purpose of this Internship Program is to provide students with a solid understanding of the emerging technologies of Digital Transformation and Industry 4.0. In this way, they will master tools such as Artificial Intelligence, Virtual Reality or Big Data to develop the most innovative business projects.



#### **General Objectives**

- Conduct a comprehensive analysis of the profound transformation and radical paradigm shift being experienced in the current global digitalization process
- Provide in-depth knowledge and the necessary technological tools to face and lead the technological leap and the challenges currently present in companies
- Master companies' digitalization procedures and the automation of their processes to create new fields of wealth in areas such as creativity, innovation and technological efficiency
- Leading Digital Change





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#### **Specific Objectives**

- Acquire in-depth knowledge of the fundamentals of blockchain technology and its value propositions
- Lead the creation of Blockchain-based projects and apply this technology to different business models and the use of tools such as Smart Contracts
- Delve into the knowledge of the fundamental principles of artificial intelligence
- Master the techniques and tools of this technology (machine learning/deep learning)
- Obtain a practical knowledge of one of the most widespread applications such as Chatbots and virtual assistants
- Acquire knowledge of the different transversal applications that this technology has in all fields
- Acquire an expert knowledge of the characteristics and fundamentals of Virtual Reality, Augmented Reality and Mixed Reality
- Delve into the existing differences between each of these fields
- Use applications of each of these technologies and develop solutions with each of them individually and in an integrated manner
- Efficiently combining all these technologies to achieve immersive experiences
- In-depth study of the key principles of Industry 4.0, the technologies on which they are based and the potential of all of them in their application to the different productive sectors
- Convert any manufacturing facility into a Smart Factory and be prepared for the challenges and challenges that come with it
- Understand the current virtual era and its leadership capacity, on which the success and survival of digital transformation processes involving any type of industry will depend
- Develop, from all available data, the Digital Twin of the facilities/systems/assets integrated in an IoT network

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- Better understanding of the main automation and control systems, their connectivity, the types of industrial communications and the type of data they exchange
- Convert the production process facilities into a true Smart Factory
- Be able to deal with large amounts of data, define their analysis and derive value from them
- Define continuous monitoring, predictive and prescriptive maintenance models
- Conduct an exhaustive analysis of the practical application that emerging technologies are having in the different economic sectors and in the value chain of their main industries
- In-depth knowledge of the primary and secondary economic sectors, as well as the technological impact they are experiencing
- Entering the world of robotics and automation
- Delve into the applications of artificial intelligence to robotics oriented to predict behaviors and optimize processes
- Study robotics concepts and tools, as well as use cases, real examples and integration with other systems and demonstration
- Analyze the most intelligent robots that will accompany us in the coming years and how humanoid machines will be specialized to perform in environments
- Possess a thorough understanding of the technological impact and how technologies are revolutionizing the tertiary economic sector in the fields of transportation and logistics, health and healthcare (e-Health and Smart Hospitals), smart cities, the financial sector (Fintech) and mobility solutions
- Know the technological trends of the future





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- Have detailed knowledge of the functioning of IoT and Industry 4.0 and its
  combinations with other technologies, its current situation, its main devices and uses
  and how hyperconnectivity gives rise to new business models where all products and
  systems are connected and in permanent communication
- Deepen the knowledge of an IoT platform and the elements that compose it, the challenges
  and opportunities to implement IoT platforms in factories and companies, the main
  business areas related to IoT platforms and the relationship between IoT platforms,
  robotics and other emerging technologies



An educational experience that will give you the expert skills to compete with the best in the technology industry"

### 04 Educational Plan

The Internship Program's Internship Program in Digital Transformation and Industry 4.0 consists of a 3-week internship in prestigious centers, from Monday to Friday, with 8 consecutive hours of practical training with an assistant specialist. Thanks to this on-site stay, the graduates will be integrated into work teams made up of Artificial Intelligence professionals. These experts will provide students with effective learning and will help them to obtain practical skills to improve their daily practice.

In this program proposal, of a completely practical nature, the activities are aimed at developing and perfecting the necessary competencies for the provision of Digital Transformation and Industry 4.0 services in companies, and which are oriented towards specific knowledge for the exercise of the activity.

Graduates have an exceptional opportunity to expand their knowledge in technological areas in continuous expansion, such as blockchain, big data, robotics, drones or augmented workers. In addition, by carrying out this program in centers of international prestige, they will enjoy top-quality facilities to perfect their professional skills.

Practical teaching will be carried out with the active participation of the student performing the activities and procedures of each area of competence (learning to learn and learning to do), with the accompaniment and guidance of teachers and other training partners that facilitate teamwork and multidisciplinary integration as transversal competencies for the praxis of Digital Transformation and Industry 4.0 (learning to be and learning to relate).

The procedures described below will be the basis of the practical part of the program, and their implementation will be subject to the center's own



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availability and workload, the proposed activities being the following:

Module	Practical Activity
Artificial Intelligence and Big Data	Build and train Machine Learning models for applications such
	as classification, regression, clustering, etc
	Use Data Mining tools and techniques to analyze large volumes of information from various sources
	Develop chatbots and virtual assistants capable of providing automatic responses to customer queries.
	Use intelligent algorithms to optimize business and operational processes
	Create Neural Networks that contribute to Natural Language generation for tasks ranging from machine translation to sentiment analysis
Blockchain and Quantum Computing	Use different types of Blockchain and protocols to maintain a
	secure and decentralized record of transactions
	Handle Smart Contracts for tasks such as automated payments or supply chain management.
	Implement secure identity management systems, where users have full control over their personal data
	Provide cryptographic mechanisms with various quantum algorithms to prevent cyber attacks
Automation Systems	Develop procedures dedicated to real-time monitoring to supervise the status of machines, assets and industrial processes from any location
	Implement flexible systems that allow mass product customization, automatically adapting the production flow according to customer preferences and market demands
	Apply Lean Manufacturing in industrial processes
	Use standardized fieldbuses to integrate industrial devices and equipment (such as sensors, actuators or PLCs)

Module	Practical Activity
Internet of Things (IoT)	Use sensors to collect condition data (vibrations, temperature, energy consumption, etc.) so that companies can implement predictive maintenance systems
	Employ IoT to optimize supply chain efficiency by providing real-time data on the status of raw materials
	Integrate IoT devices with control systems and actuators to perform intelligent automation of industrial processes
	Master Wearables at Work devices to provide specific
	functionalities that improve safety, efficiency and productivity
	in the workplace
Virtual, Augmented and Mixed Reality	Handle advanced photo and video cameras to develop 360-degree visual assets
	Apply Virtual Reality to visualize large datasets in three-dimensional environments
	Use Augmented Reality to overlay contextual information and step-by-step guides on equipment or machinery in the workplace
	Build immersive virtual environments to enhance user experience



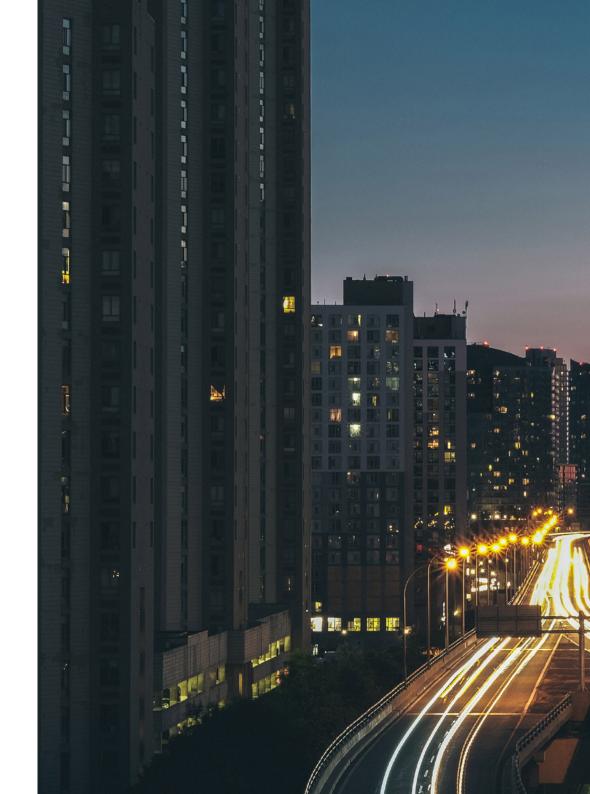
You'll have the full support of the world's largest online academic institution, TECH, with the latest educational technology at your disposal"

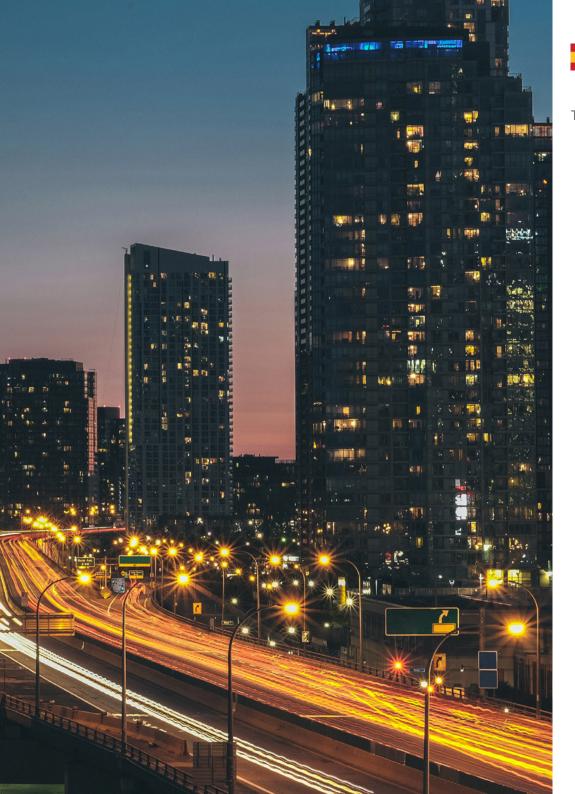
# 05 Where Can I Do the Internship Program?

In its firm commitment to provide educational excellence to anyone, TECH has set out to broaden the academic horizons of its students so that this Internship Program will be offered in different centers around the world. In this way, graduates will develop professionally in prestigious institutions to perform their various tasks in the technological field of Digital Transformation and Industry 4.0.



You will carry out your Internship Program in prestigious organizations and enhance your skills with the help of the best professionals in Industry 4.0"





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The student will be able to do this program at the following centers:



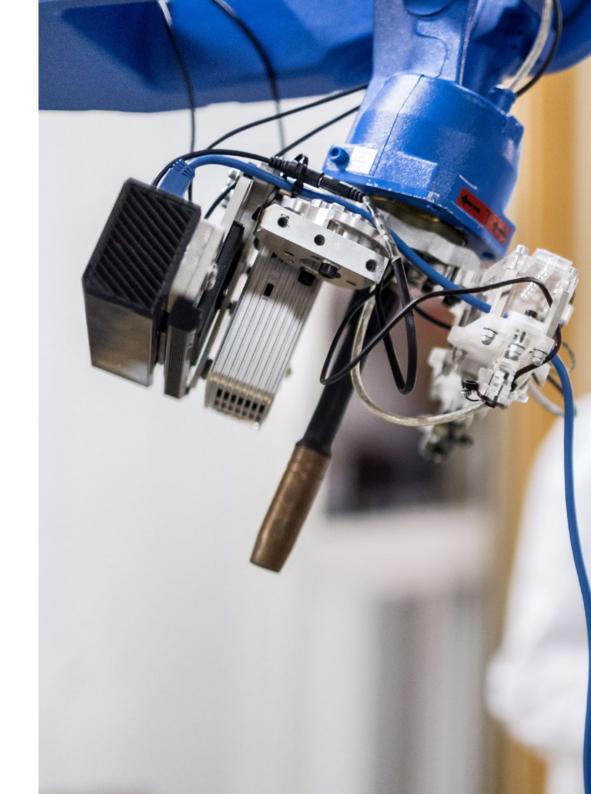
### 06 **General Conditions**

#### **Civil Liability Insurance**

This institution's main concern is to guarantee the safety of the students and other collaborating agents involved in the internship process at the company. Among the measures dedicated to achieve this is the response to any incident that may occur during the entire teaching-learning process.

To this end, this entity commits to purchasing a civil liability insurance policy to cover any eventuality that may arise during the course of the internship at the center.

This liability policy for interns will have broad coverage and will be taken out prior to the start of the Internship Program period. That way professionals will not have to worry in case of having to face an unexpected situation and will be covered until the end of the internship program at the center.



#### **General Conditions of the Internship Program**

The general terms and conditions of the internship program agreement shall be as follows:

- 1. TUTOR: During the Internship Program, students will be assigned with two tutors who will accompany them throughout the process, answering any doubts and questions that may arise. On the one hand, there will be a professional tutor belonging to the internship center who will have the purpose of guiding and supporting the student at all times. On the other hand, they will also be assigned with an academic tutor, whose mission will be to coordinate and help the students during the whole process, solving doubts and facilitating everything they may need. In this way, the student will be accompanied and will be able to discuss any doubts that may arise, both clinical and academic.
- 2. **DURATION:** The internship program will have a duration of three continuous weeks, in 8-hour days, 5 days a week. The days of attendance and the schedule will be the responsibility of the center and the professional will be informed well in advance so that they can make the appropriate arrangements.
- **3. ABSENCE**: If the students does not show up on the start date of the Internship Program, they will lose the right to it, without the possibility of reimbursement or change of dates. Absence for more than two days from the internship, without justification or a medical reason, will result in the professional's withdrawal from the internship, therefore, automatic termination of the internship. Any problems that may arise during the course of the internship must be urgently reported to the academic tutor.

- **4. CERTIFICATION:** Professionals who pass the Internship Program will receive a certificate accrediting their stay at the center.
- **5. EMPLOYMENT RELATIONSHIP:** The Internship Program shall not constitute an employment relationship of any kind.
- **6. PRIOR EDUCATION:** Some centers may require a certificate of prior education for the Internship Program. In these cases, it will be necessary to submit it to the TECH internship department so that the assignment of the chosen center can be confirmed.
- **7. DOES NOT INCLUDE:** The Internship Program will not include any element not described in the present conditions. Therefore, it does not include accommodation, transportation to the city where the internship takes place, visas or any other items not listed.

However, students may consult with their academic tutor for any questions or recommendations in this regard. The academic tutor will provide the student with all the necessary information to facilitate the procedures in any case.

## 07 Certificate

This private qualification will allow you to obtain an Internship Program diploma in MBA in Digital Transformation and Industry 4.0 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: Internship Program in MBA in Digital Transformation and Industry 4.0

Duration: 3 weeks

Attendance: Monday to Friday, 8-hour shifts, consecutive shifts

Credits 4 ECTS



### has successfully passed and obtained the title of: Internship Program in MBA in Digital Transformation and Industry 4.0

This is a private qualification of 120 hours of duration equivalent to 4 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



Inique TECH Code: AFWORD23S techtitute.com/certificate

tech global university

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