

# Postgraduate Certificate Industry 4.0





## Postgraduate Certificate Industry 4.0

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online
- » Target Group: Engineers, architects and graduates who want to learn and update themselves on the latest technological trends and digitalization processes that will help them lead technological innovation and business transformation. It is also highly recommended for innovation managers who want to create value within their area and organizations, relying on the emerging technologies of Industry 4.0, knowing them and making an intelligent selection and application of them to meet customer expectations

Website: [www.techtitute.com/us/school-of-business/postgraduate-certificate/industry-4-0](http://www.techtitute.com/us/school-of-business/postgraduate-certificate/industry-4-0)

# Index

01

Welcome

---

*p. 4*

02

Why Study at TECH?

---

*p. 6*

03

Why Our Program?

---

*p. 10*

04

Objectives

---

*p. 14*

05

Structure and Content

---

*p. 18*

06

Methodology

---

*p. 24*

07

Our Students' Profiles

---

*p. 32*

08

Course Management

---

*p. 36*

09

Impact on Your Career

---

*p. 40*

10

Benefits for Your Company

---

*p. 44*

11

Certificate

---

*p. 48*

# 01 Welcome

Under the name of Industry 4.0 the different economic sectors have joined the implementation of interconnectivity, automation, automated learning and access to data in real time: A change of enormous importance and transcendence that has translated into great advances and innovations that revolutionize the forms of production and the benefits achieved. In order to be part of this transformation, the professional needs the most up-to-date knowledge and skills in this field. This program offers an in-depth look at the current state of this field in the tertiary economic sector and the technological trends of our immediate future.

If you want to improve, make a positive change at a professional level and network with the best, then this is the place for you.



Postgraduate Certificate in Industry 4.0  
TECH Technological University



“

*Interconnectivity, automation and digital learning are the keys to the development of Industry 4.0”*

02

# Why Study at TECH?

TECH is the world's largest 100% online business school. It is an elite business school, with a model based on the highest academic standards. A world-class center for intensive managerial skills education.



“

*TECH is a university at the forefront of technology, and puts all its resources at the student's disposal to help them achieve entrepreneurial success"*

## At TECH Technological University



### Innovation

The university offers an online learning model that balances the latest educational technology with the most rigorous teaching methods. A unique method with the highest international recognition that will provide students with the keys to develop in a rapidly-evolving world, where innovation must be every entrepreneur's focus.

"*Microsoft Europe Success Story*", for integrating the innovative, interactive multi-video system.



### The Highest Standards

Admissions criteria at TECH are not economic. Students don't need to make a large investment to study at this university. However, in order to obtain a qualification from TECH, the student's intelligence and ability will be tested to their limits. The institution's academic standards are exceptionally high...

**95%** | of TECH students successfully complete their studies



### Networking

Professionals from countries all over the world attend TECH, allowing students to establish a large network of contacts that may prove useful to them in the future.

**+100000**

executives prepared each year

**+200**

different nationalities



### Empowerment

Students will grow hand in hand with the best companies and highly regarded and influential professionals. TECH has developed strategic partnerships and a valuable network of contacts with major economic players in 7 continents.

**+500**

collaborative agreements with leading companies



### Talent

This program is a unique initiative to allow students to showcase their talent in the business world. An opportunity that will allow them to voice their concerns and share their business vision.

After completing this program, TECH helps students show the world their talent.



### Multicultural Context

While studying at TECH, students will enjoy a unique experience. Study in a multicultural context. In a program with a global vision, through which students can learn about the operating methods in different parts of the world, and gather the latest information that best adapts to their business idea.

TECH students represent more than 200 different nationalities.





TECH strives for excellence and, to this end, boasts a series of characteristics that make this university unique:



### Analysis

---

TECH explores the student's critical side, their ability to question things, their problem-solving skills, as well as their interpersonal skills.



### Academic Excellence

---

TECH offers students the best online learning methodology. The university combines the *Relearning* methodology (the most internationally recognized postgraduate learning methodology) with Harvard Business School case studies. A complex balance of traditional and state-of-the-art methods, within the most demanding academic framework.



### Economy of Scale

---

TECH is the world's largest online university. It currently boasts a portfolio of more than 10,000 university postgraduate programs. And in today's new economy, **volume + technology = a groundbreaking price**. This way, TECH ensures that studying is not as expensive for students as it would be at another university.



### Learn with the best

---

In the classroom, TECH's teaching staff discuss how they have achieved success in their companies, working in a real, lively, and dynamic context. Teachers who are fully committed to offering a quality specialization that will allow students to advance in their career and stand out in the business world.

Teachers representing 20 different nationalities.



*At TECH, you will have access to the most rigorous and up-to-date case analyses in academia"*

03

# Why Our Program?

Studying this TECH program means increasing the chances of achieving professional success in senior business management.

It is a challenge that demands effort and dedication, but it opens the door to a promising future. Students will learn from the best teaching staff and with the most flexible and innovative educational methodology.



“

*We have highly qualified teachers and the most complete syllabus on the market, which allows us to offer you education of the highest academic level”*

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

**01**

### A Strong Boost to Your Career

By studying at TECH, students will be able to take control of their future and develop their full potential. By completing this program, students will acquire the skills required to make a positive change in their career in a short period of time.

*70% of students achieve positive career development in less than 2 years.*

**02**

### Develop a strategic and global vision of the company

TECH offers an in-depth overview of general management to understand how each decision affects each of the company's different functional fields.

*Our global vision of companies will improve your strategic vision.*

**03**

### Consolidate the student's senior management skills

Studying at TECH means opening the doors to a wide range of professional opportunities for students to position themselves as senior executives, with a broad vision of the international environment.

*You will work on more than 100 real senior management cases.*

**04**

### You will take on new responsibilities

The program will cover the latest trends, advances and strategies, so that students can carry out their professional work in a changing environment.

*45% of graduates are promoted internally.*

05

### Access to a powerful network of contacts

TECH connects its students to maximize opportunities. Students with the same concerns and desire to grow. Therefore, partnerships, customers or suppliers can be shared.

*You will find a network of contacts that will be instrumental for professional development.*

06

### Thoroughly develop business projects

Students will acquire a deep strategic vision that will help them develop their own project, taking into account the different fields in companies.

*20% of our students develop their own business idea.*

07

### Improve soft skills and management skills

TECH helps students apply and develop the knowledge they have acquired, while improving their interpersonal skills in order to become leaders who make a difference.

*Improve your communication and leadership skills and enhance your career.*

08

### You will be part of an exclusive community

Students will be part of a community of elite executives, large companies, renowned institutions, and qualified teachers from the most prestigious universities in the world: the TECH Technological University community.

*We give you the opportunity to study with a team of world-renowned teachers.*

# 04 Objectives

The Postgraduate Certificate in Industry 4.0 will enable the professional to acquire the theoretical and practical knowledge necessary to take advantage of the functionalities of technology and digitalization that accompany the evolution of processes and technology in various interesting industrial fields. An intensive learning experience that will enable students to master the main updates in the field, which will allow you to practice your profession with the highest quality and professionalism.

This process is driven by a staggering increase in data volume, computing power and connectivity.



“

*An intensive study of the most innovative developments in the field of Industry 4.0 that will give you the boost you need to grow"*

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

The **Postgraduate Certificate in Industry 4.0** will train the student to:

01

Analyze the origins of the so-called Fourth Industrial Revolution and the Industry 4.0 concept

02

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







03

Convert any manufacturing facility into a Smart Factory and be prepared for the challenges and challenges that come with it

04

To know the technological principles underlying possible new revolutions

05

# Structure and Content

This exceptional program developed for learning the skills needed to intervene in Industry 4.0 is a tailor-made program delivered in a 100% online format to allow students to choose the time and place that best suits their availability, schedules and interests.

A program that aims to be a unique and stimulating experience that lays the foundation for success as a project manager.



“

*Advance your learning quickly by converting knowledge into real skills, with an attainable goal of high training"*

## Syllabus

The Postgraduate Certificate in Industry 4.0 of TECH Technological University is an intensive program updated to the current market reality and the new needs in digitization and automation, crisis management and incorporation of new exponential and emerging technologies.

During the program we will not only deepen the theoretical study of Industry 4.0 and the sectoral solutions of application in relation to this field. In addition, real practices will be carried out with different technologies to enable you to be fully qualified.

Throughout 150 hours of study, students will study a multitude of practical cases through individual work, which will allow them to acquire the necessary skills to successfully develop in their daily practice. It is, therefore, an authentic immersion in real business situations.

This program deals in depth with different areas of the company and is designed for managers to understand project management from a strategic, international and innovative perspective.

A plan designed especially for students, focused on their professional improvement and that prepares to achieve excellence in the field of leadership and business management. A program that understands your needs and those of your company through innovative content based on the latest trends, and supported by the best educational methodology and an exceptional faculty, which will provide you with the skills to solve critical situations in a creative and efficient way.

This Postgraduate Certificate takes place over 6 weeks and is divided into the following topics:

### Module 1

### Industry 4.0



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

TECH offers you the possibility of taking this program completely online. Throughout the six weeks of training, you will be able to access all the program contents at any time, allowing you to self-manage your study time.

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

Module 1. Industry 4.0

1.1. Definition of 4.0 Industry

1.1.1. Features

1.2. Benefits of the 4.0 Industry

1.2.1. Key Factors  
1.2.2. Main Advantages

1.3. Industrial Revolutions and Vision of the Future

1.3.1. Industrial Revolutions  
1.3.2. Keys Factors in Each Revolution  
1.3.3. Technological Principles as a Basis for Possible New Revolutions

1.4. The Digital Transformation of the Industry

1.4.1. Characteristics of the Digitization of the Industry  
1.4.2. Disruptive Technologies  
1.4.3. Applications in the Industry

1.5. Forth Industrial Revolution Key Principles of Industry 4.0

1.5.1. Definitions  
1.5.2. Key Principles and Applications

1.6. 4.0 Industry and Industrial Internet

1.6.1. Origin of IIoT  
1.6.2. Operation  
1.6.3. Steps to Follow for its Implementation  
1.6.4. Benefits

1.7. Smart Factory Principles

1.7.1. Smart Factory  
1.7.2. Elements That Define a Smart Factory  
1.7.3. Steps to Deploy a Smart Factory

1.8. Status of the 4.0 Industry

1.8.1. Status of the 4.0 Industry in Different Sectors  
1.8.2. Barriers to the Implementation of 4.0 Industry

1.9. Challenges and Risks

1.9.1. SWOT Analysis  
1.9.2. Challenges

1.10. Role of Technological Capabilities and the Human Factor

1.10.1. Disruptive Technologies in Industry 4.0  
1.10.2. The Importance of the Human Factor Key Factor



*Put yourself at the forefront of the labor market by adding to your skills the mastery of an efficient program that will allow you to act as a specialist"*



# 06

# 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"*

## TECH Business School uses the Case Study to contextualize all content

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

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



*This program prepares you to face business challenges in uncertain environments and achieve business success.*



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

## A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch to present executives with challenges and business decisions at the highest level, whether at the national or international level. This methodology promotes personal and professional growth, representing a significant step towards success. The case method, a technique that lays the foundation for this content, ensures that the most current economic, social and business reality is taken into account.

“

*You will learn, through collaborative activities and real cases, how to solve complex situations in real business environments”*

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

What should a professional do in a given situation? This is the question we face in the case method, an action-oriented learning method. Throughout the program, the studies will be presented with multiple real cases. They must integrate all their knowledge, research, argue and defend their ideas and decisions.

## Relearning Methodology

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

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

*Our online system will allow you to organize your time and learning pace, adapting it to your schedule. You will be able to access the contents from any device with an internet connection.*

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

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



In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

With this methodology we have trained more than 650,000 university graduates with unprecedented success in fields as diverse as biochemistry, genetics, surgery, international law, management skills, sports science, philosophy, law, engineering, journalism, history, markets, and financial instruments. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

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

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

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



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



### Study Material

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

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



### Classes

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

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



### Management Skills Exercises

They will carry out activities to develop specific executive competencies in each thematic area. Practices and dynamics to acquire and develop the skills and abilities that a high-level manager needs to develop in the context of the globalization we live in.



### Additional Reading

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





### 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 senior management specialists in the world.



### Interactive Summaries

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

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



### Testing & Retesting

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.



07

# Our Students' Profiles

The Postgraduate Certificate in Industry 4.0 is a program aimed at professionals who want to update their knowledge in the technological area, discover new ways to innovate and advance in their professional career.

This program uses a multidisciplinary approach as the students have a diverse set of academic profiles and represent multiple nationalities.







“

*A step towards excellence that will allow you to compete in a field where updating is a must"*

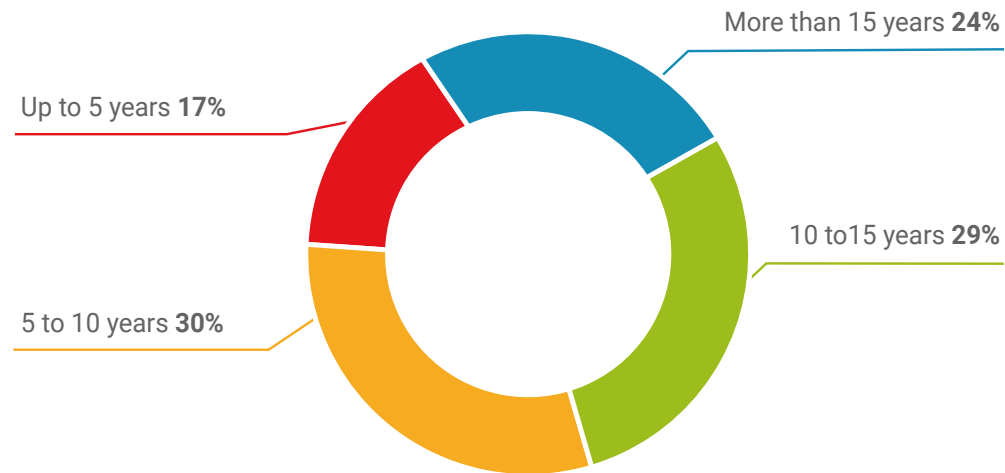
### Average Age

---

Between **35** and **45** years old

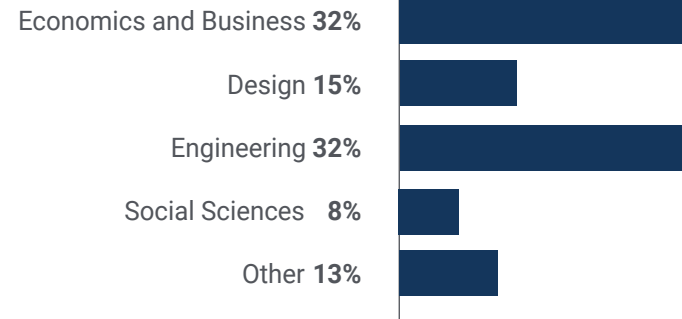
### Years of Experience

---



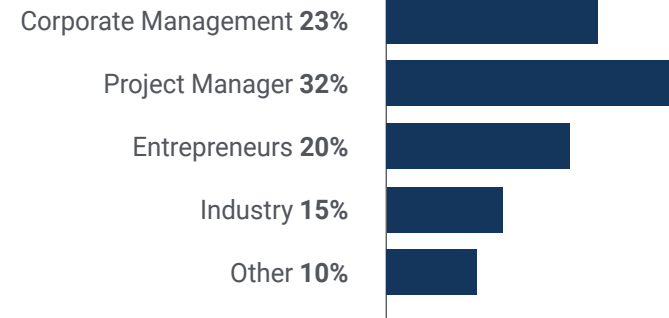
### Training

---



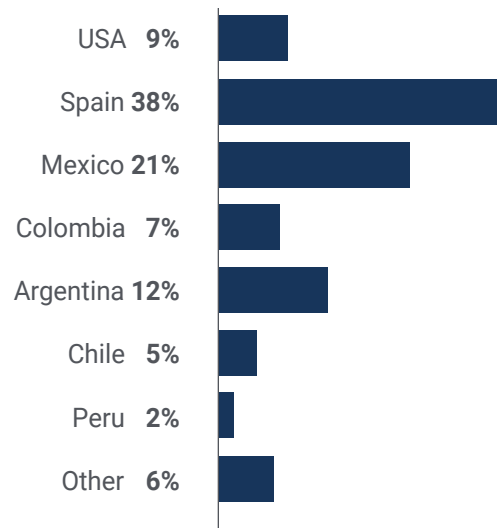
### Academic Profile

---



## Geographical Distribution

---



## Julen Arkaitia

---

CEO Automotive Industry

*"I find it very surprising how much learning efficiency I have achieved with this program. I have found it very stimulating and have achieved all the goals I set out to achieve with it"*

08

# Course Management

Specialists in this field, the teachers have acquired a compendium of transversal skills that they will also make available to the students; contextual knowledge and practical aspects of the implementation of Industry 4.0 in the company that represent a plus of quality in this learning. In this way, TECH teachers have compiled the most updated information on this subject to offer it to their students in a faithful and didactic way.



“

*The program's professors, in addition to the most innovative knowledge, bring to this process the real and current vision of this type of work"*

## Management



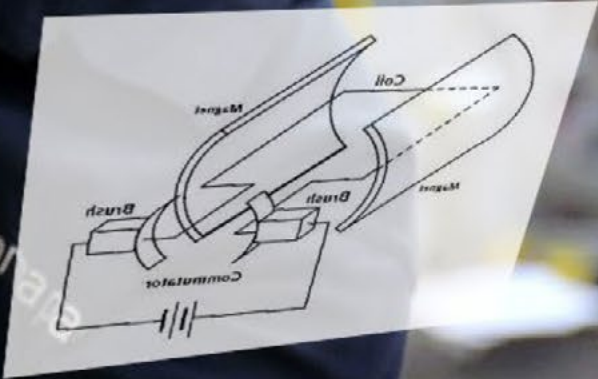
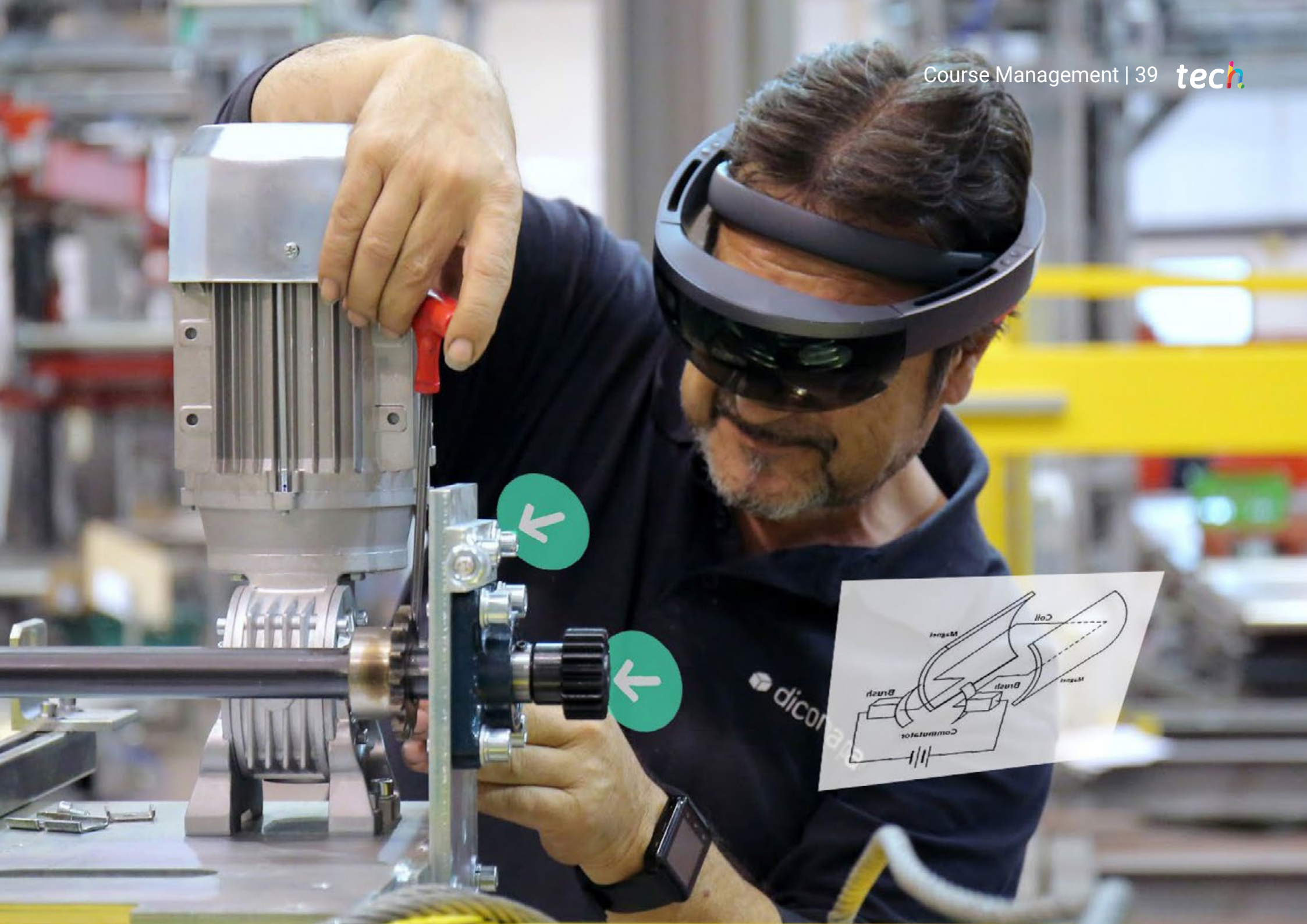
### Mr. Segovia Escobar, Pablo

- ♦ Chief Executive of the Defense Sector in the company TECNOBIT of the Oesía Group
- ♦ Project Manager at Indra
- ♦ Master's Degree in Business Administration and Management from the National University of Distance Education
- ♦ Postgraduate in Strategic Management Function
- ♦ Member of the Spanish Association of People with High Intellectual Quotient



### Mr. Diezma López, Pedro

- ♦ Chief Innovation Officer and CEO of Zerintia Technologies
- ♦ Founder of the technology company Acuilae
- ♦ Member of the Kebala Group for the incubation and promotion of businesses
- ♦ Consultant for technology companies such as Endesa, Airbus or Telefónica
- ♦ Wearable "Best Initiative" Award in eHealth 2017 and "Best Technological Solution" 2018 for Occupational Safety



09

# Impact on Your Career

For the student, to carry out a quality program such as this one is a great economic, professional and, of course, personal investment. The ultimate goal of this great effort should be to achieve professional growth. And this is achieved thanks to an academic program that offers the best educational offer of the moment in this sector. A program designed to support students at the educational level, so that they develop the necessary skills to successfully manage in this field.







“

*Access the resources and quality  
of the world's leading private  
Spanish-speaking online university"*

### Are you ready to take the leap? Excellent professional development awaits you

The Industry 4.0 Postgraduate Certificate is an intensive, high-value program aimed at improving students' job skills in an area of broad competence. Undoubtedly, it is a unique opportunity to improve professionally, but also personally, as it involves effort and dedication.

Those who wish to improve themselves, achieve a positive change at a professional level and interact with the best, will find their place at TECH.

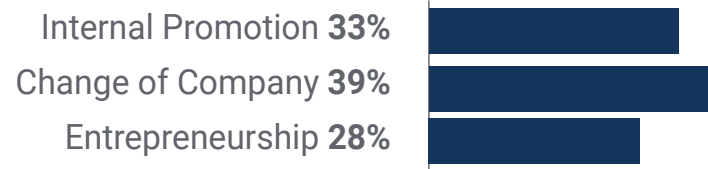
*With the highest academic standards, this program will lead your career to success.*

*This Postgraduate Certificate is an invaluable opportunity to acquire the essential skills in digitization in the Industry 4.0 environment.*

#### Time of Change



#### Type of Change



### Salary Increase

---

This program represents a salary increase of more than **25.22%** for our students.



10

# Benefits for Your Company

The Postgraduate Certificate in Industry 4.0 contributes to raising the organization's talent to its maximum potential through the specialization of high-level leaders. A program that adapts to students so they acquire the necessary tools that, later on, they will be able to apply in their daily practice, achieving great benefits for their company. In addition, participating in this academic itinerary is a unique opportunity to access a powerful network of contacts in which to find future professional partners, clients or suppliers.





“

*It provides your company with a global vision of project management and offers new perspectives that will lead your business to success”*

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

01

### **Growth of talent and intellectual capital**

The professional will introduce the company to new concepts, strategies, and perspectives that can bring about significant changes in the organization.

---

02

### **Retaining high-potential executives to avoid talent drain**

This program strengthens the link between the company and the professional and opens new avenues for professional growth within the company.

03

### **Building agents of change**

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

---

04

### **Increased international expansion possibilities**

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



05

### **Project Development**

The professional can work on a real project or develop new projects in the field of R & D or business development of your company.

---

06

### **Increased competitiveness**

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

11

# Certificate

The Postgraduate Certificate in Industry 4.0 guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.





“

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

This **Postgraduate Certificate in Industry 4.0** contains the most complete and up-to-date program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Certificate** issued by **TECH Technological University** via tracked delivery\*.

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

Title: **Postgraduate Certificate in Industry 4.0**

Official N° of Hours: **150 h.**



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



## Postgraduate Certificate Industry 4.0

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

# Postgraduate Certificate Industry 4.0

