

Postgraduate Certificate Services and Sectorial Solutions in Industry 4.0





Postgraduate Certificate Services and Sectorial Solutions in Industry 4.0

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

Website: www.techtute.com/us/engineering/postgraduate-certificate/services-sectorial-solutions-industry-4-0

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01

Introduction

Technologies such as IoT sensors, data analysis or automation for production optimization have significantly advanced the primary and secondary sector. These advances, seamlessly integrated into the daily life of many companies, lead engineers to constantly update their knowledge of digital transformation in these areas in order to grow professionally. For this reason, this 100% online course is born, which provides students a deep and comprehensive learning about the services and different solutions provided by Industry 4.0 today. All this, in addition, through numerous multimedia teaching materials and a syllabus developed by real experts with a consolidated track record in this field.





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*A 100% online Postgraduate Certificate,
flexible, that adapts to your daily schedule"*

The race for efficiency and productivity has led to the constant introduction of technology in the agricultural and secondary sector. For this reason, digital transformation has followed its course in this field, enabling the emergence of smart farms or the use of devices that provide real-time data on a field and allow the automation of tasks in production chains.

In this continuous evolution, the engineer becomes very important given their skills and abilities to successfully perform various maintenance tasks, monitoring or process planning. That is why TECH has created this Diploma in Services and Sectorial Solutions in Industry 4.0, which provides additional knowledge in this field and improves the skills of professionals.

It is an academic journey that leads the graduate to delve dynamically through the roadmap of business digitization, the factors that influence various sectors, as well as its main features. All this, in addition, complemented with video summaries, videos in detail, essential readings and case studies, prepared by a first class teaching staff.

Furthermore, learning will be much more effective thanks to the Relearning method used by this academic institution. This system based on the continuous reiteration of key concepts throughout the program leads the graduate to focus their efforts on the most important elements, consolidating the teaching in a simple way.

Undoubtedly, this is a unique academic option due to its study plan and flexibility. All you need is an electronic device with an Internet connection to view this program at any time of the day. This way, without classroom attendance or classes with restricted schedules, students will be able to combine their daily personal activities with a university proposal that is at the forefront of education.

This **Postgraduate Certificate in Services and Sectorial Solutions in Industry 4.0** contains the most complete and up-to-date program on the market. Its most outstanding features are:

- ◆ The development of case studies presented by experts in Digital Transformation and Industry 4.0
- ◆ The graphic, schematic, and practical contents with which they are created, provide practical information on the disciplines that are essential for professional practice
- ◆ Practical exercises where self-assessment can be used to improve learning
- ◆ Its special emphasis on innovative methodologies
- ◆ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ◆ Content that is accessible from any fixed or portable device with an Internet connection



Delve into the benefits of process digitalization and the value chain in the industrial environment"

“

Forget about long hours of memorization. TECH offers you the most effective Relearning method, focused on the key contents of the syllabus"

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

Its multimedia content, developed with the latest educational technology, will allow the professional a situated and contextual learning, that is, a simulated environment that will provide an immersive training programmed to train in real situations.

The design of this program focuses on Problem-Based Learning, in which the professional will have to try to solve the different professional practice situations that will arise throughout the academic course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.

A university qualification with a global vision of digitalization in the primary and secondary sector.

Do you want to be up-to-date with Smart Factories? Enroll now and start your updating process in this field.



02

Objectives

TECH offers in its programs the most innovative technological tools in order to provide students with quality education. In this way, the engineer will obtain a much more solid and useful knowledge about Industry 4.0, digitization in various sectors and the main solutions provided by new technologies. Therefore, this academic process will allow them to increase their professional possibilities in a booming technological field in only 150 hours of classes.



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Get a much more practical and real vision of Industry 4.0 thanks to the case studies provided in this Postgraduate Certificate”



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
- ◆ Mastering 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 the Digital Change

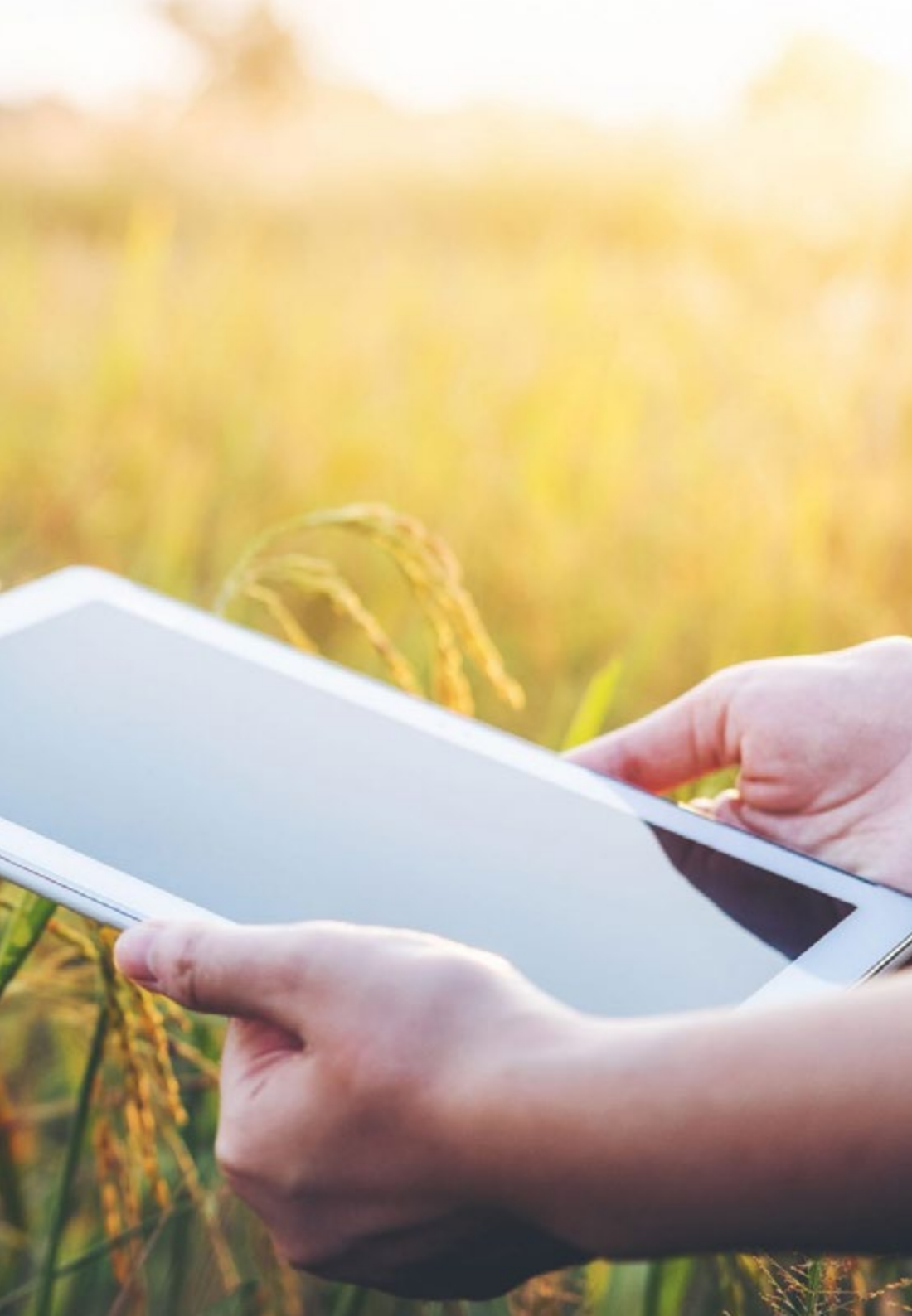




Specific Objectives

- ◆ 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
- ◆ Find out how technologies are revolutionizing the agricultural, livestock, industrial, energy and construction sectors

“*Delves into the technological impact on the primary sectors and the most effective solutions currently employed*”



03

Course Management

TECH, in its commitment to offer a high quality education, carries out a thorough selection process for each one of the teachers who make up their programs. On this occasion, the engineer will have at his disposal a syllabus prepared by specialists in Industry 4.0 and digital transformation with a wide capacity in the leadership of projects in this sector. In addition, thanks to their proximity, students will be able to resolve any doubts that may arise regarding the content of this program.





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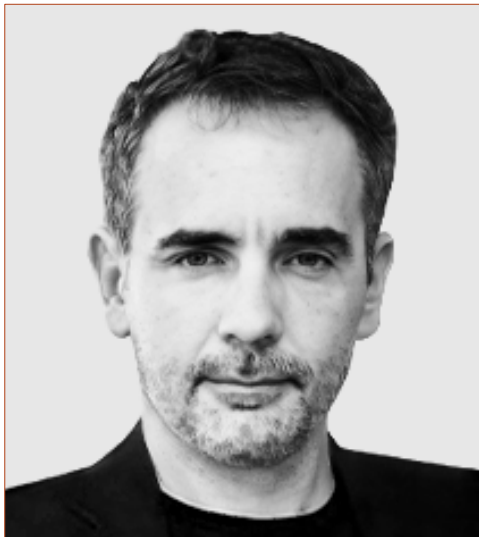
*Get the highest level of learning
from real Industry 4.0 experts”*

Management



Mr. Segovia Escobar, Pablo

- ♦ Chief Executive of the Defense Sector in the Company Tecnobit of the Oesía Group
- ♦ Corporate Project Director Indra
- ♦ Master's Degree in Companies Administration and Management by the National University of Distance Education
- ♦ Postgraduate in Strategic Management Function
- ♦ Member of: 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 business incubation and promotion
- ♦ 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



04

Structure and Content

This academic itinerary will lead students to obtain advanced learning about Industry 4.0 and the solutions it offers in different sectors. In this way, it offers a broad view that will lead the engineer to be able to integrate the most notorious advances in this field in their different projects. In addition, the graduate will have the possibility to further extend the rigorous information of this program thanks to the specialized complementary readings that are part of the didactic resources of the virtual library.





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You will have 24/7 access to a comprehensive library of high quality teaching resources"

Module 1. Industry 4.0 – Services and Sectorial Solutions I

- 1.1. Industry 4.0 and Business Strategies
 - 1.1.1. Factors of Business Digitalization
 - 1.1.2. Roadmap for Business Digitalization
- 1.2. Digitalization of Processes and the Value Chain
 - 1.2.1. Value Chain
 - 1.2.2. Key Steps in the Digitization of Processes
- 1.3. Sector Solutions Primary Sector
 - 1.3.1. The Primary Economic Sector
 - 1.3.2. Characteristics of Each Subsector
- 1.4. Digitization of the Primary Sector: Smart Farms
 - 1.4.1. Main Characteristics
 - 1.4.2. Keys Factors of Digitization
- 1.5. Digitization of the Primary Sector: Digital and Intelligent Agriculture
 - 1.5.1. Main Characteristics
 - 1.5.2. Keys Factors of Digitization
- 1.6. Sector Solutions Secondary Sector
 - 1.6.1. The Secondary Economic Sector
 - 1.6.2. Characteristics of Each Subsector
- 1.7. Digitization of the Secondary Sector: Smart Factory
 - 1.7.1. Main Characteristics
 - 1.7.2. Keys Factors of Digitization
- 1.8. Digitization of the Secondary Sector: Energy
 - 1.8.1. Main Characteristics
 - 1.8.2. Keys Factors of Digitization
- 1.9. Digitization of the Secondary Sector: Construction
 - 1.9.1. Main Characteristics
 - 1.9.2. Keys Factors of Digitization
- 1.10. Digitization of the Secondary Sector: Mining
 - 1.10.1. Main Characteristics
 - 1.10.2. Keys Factors of Digitization





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Take this program and learn about the key factors in digitalization in sectors such as energy or construction in only 6 weeks"

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.





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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.

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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 is the most widely used learning system in the best faculties in the world. 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 program, the studies 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 8 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 Services and Sectorial Solutions 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.





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

This **Postgraduate Certificate in Services and Sectorial Solutions 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 Services and Sectorial Solutions 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.

future
health confidence people
education information tutors
guarantee accreditation teaching
institutions technology learning
community commitment
personalized service innovation
knowledge present
development languages
virtual classroom



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