Postgraduate Certificate
Digital Processing
in Electronic Systems

tech technological university

Postgraduate Certificate
Digital Processing
in Electronic Systems

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

Website: **www.techtitute.com/us/information-technology/postgraduate-certificate/digital-processing-electronic-systems**

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01
Introduction

Digital processing has undergone a tremendous development in recent decades with the ever-increasing implementation of devices based on digital electronics. These devices allow us to send, receive and process large volumes of data in shorter and shorter periods of time. Techniques such as image or voice recognition and compression enable its application in video surveillance systems, telemedicine, artificial intelligence or the generation of automatic subtitles, fundamental issues in the daily lives of many people. This TECH program has been designed to turn computer engineers into true experts in the field, providing them with a superior level of training that will make them successful in a booming industry.

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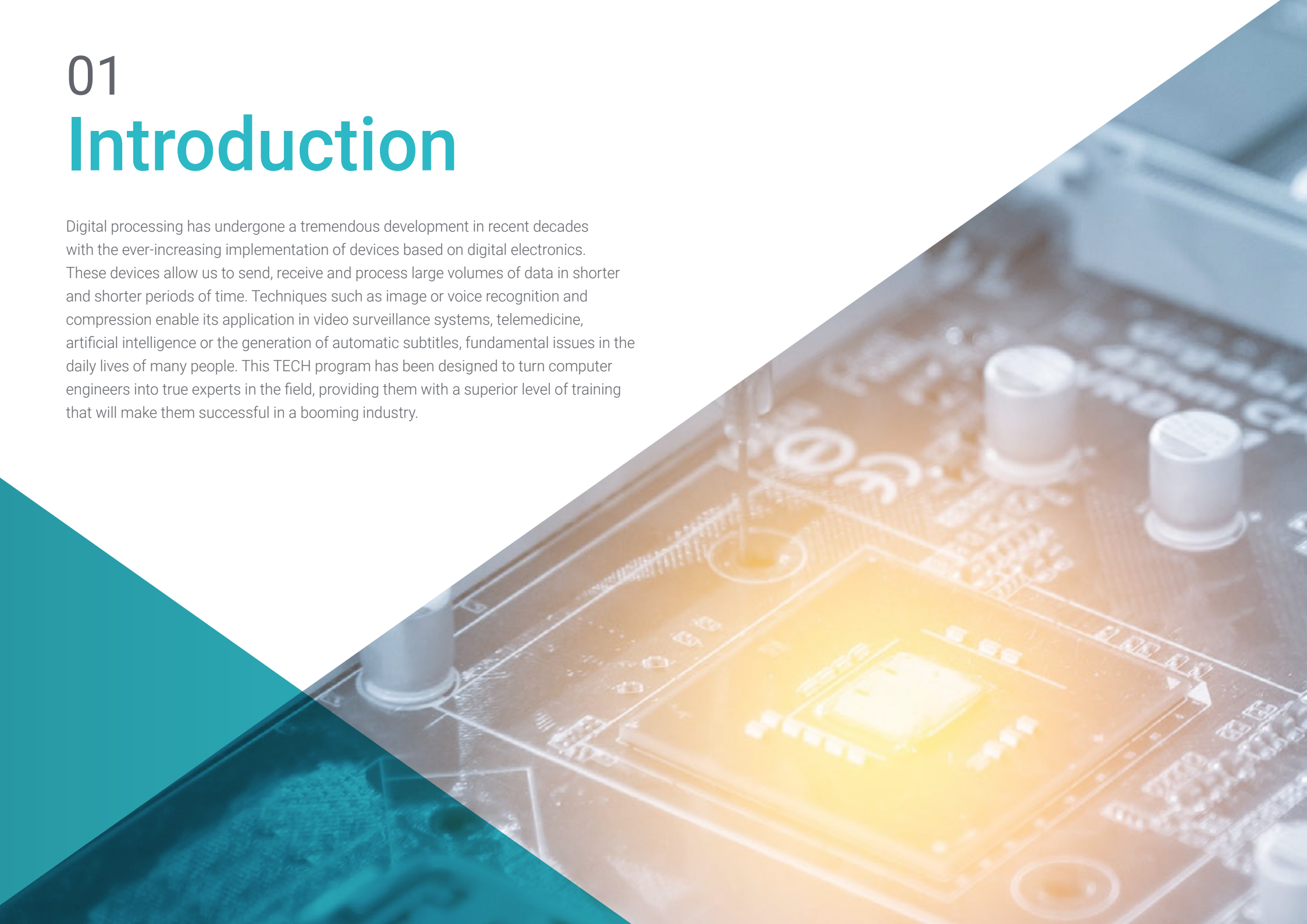
Digitization is an indispensable part of Electronic Systems, so it is necessary to have a high qualification in this field"

Electronics is immersed in people's daily lives, both at home and at work. The current trend in this field is the increase of Digital Processing, given the continuous digitization of domestic, professional and research services. For this reason, more and more IT professionals are deciding to broaden their studies in areas related to Electronic Systems, expanding their employment options in a very competitive sector that requires a high degree of specialization on the part of the workers.

To meet the academic needs of these professionals, TECH has designed this Postgraduate Certificate in Digital Processing in Electronic Systems, with which they can acquire specific knowledge on advanced techniques of digital signal processing, including practical sessions with various cases for experimentation.

A first level program that will mark a before and after in the qualification of computer scientists, which will be essential to enter a new area of work, acting with the safety and efficiency demanded by this type of work. And, above all, providing all their skills to be more competitive in their daily practice.

A 100% online Postgraduate Certificate that will allow students to distribute their study time, not being conditioned by fixed schedules or the need to move to another physical location, being able to access all the contents at any time of the day, balancing their work and personal life with their academic life.

This **Postgraduate Certificate in Digital Processing in Electronic Systems** contains the most complete and up-to-date program on the market. Its most notable features are:

- Practical cases presented by experts in IT
- The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional development
- Practical exercises where self-assessment can be used to improve learning
- Its special emphasis on innovative methodologies in Digital Processing in Electronic Systems
- 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

If you are looking for a first level program that will help you become an expert in Digital Processing in Electronic Systems, don't think twice, this is the program for you"

"*Immerse yourself in the study of Digital Processing in Electronic Systems and become a successful professional*"

TECH is a prestigious university that is at the forefront of technology.

Study with the most innovative teaching methodology in the current academic panorama.
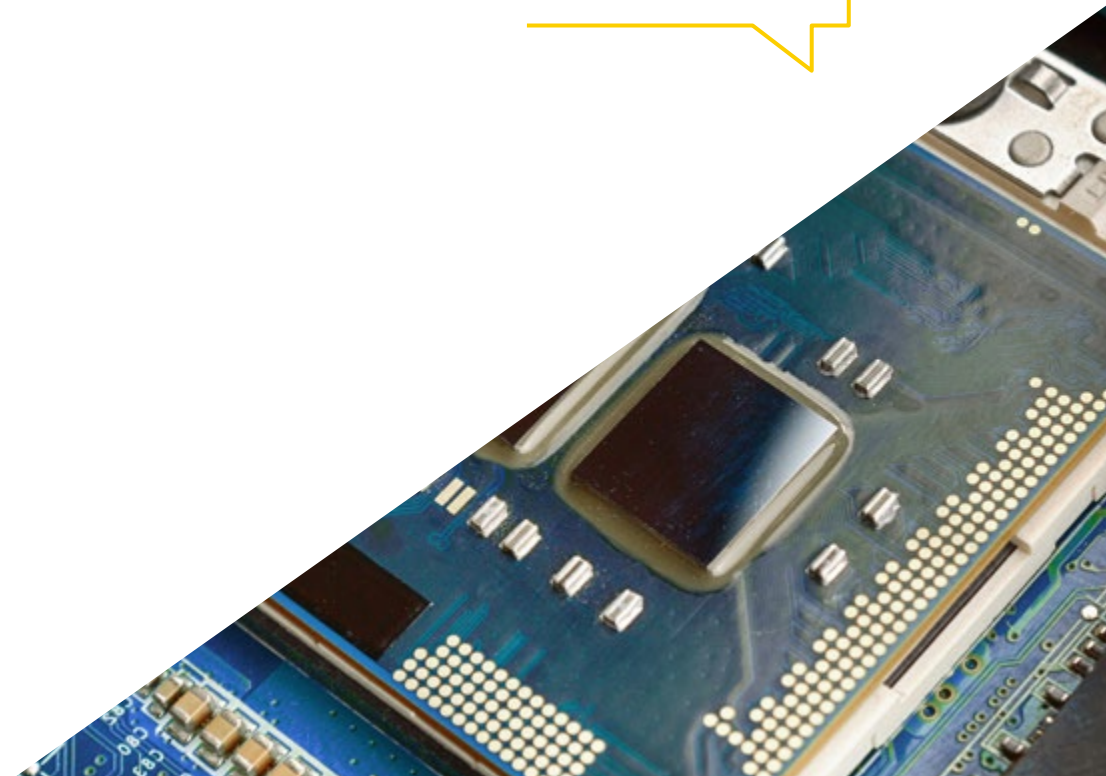
The teaching staff includes professionals from the IT sector, who contribute their experience to this program, as well as renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide an immersive training experience designed to train for real-life situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise throughout the program. This will be done with the help of an innovative system of interactive videos made by renowned experts.

02
Objectives

TECH has devised this Postgraduate Certificate in Digital Processing in Electronic Systems with the main objective of offering computer scientists a unique study opportunity to understand the particularities of digital processing and to be able to carry it out in their daily practice. A program that includes the main latest developments in the sector and that will be fundamental to increase their employability options in this field. Undoubtedly, a great academic offer demanded by professionals in the sector.

" *Acquire the skills required to implement digital processing solutions that will be of great use in your daily practice"*

General Objectives

- Examine the current techniques in digital processing
- Implement solutions for the processing of digital signals (images and audio)
- Simulating digital signals and devices capable of processing them
- Program elements for signal processing
- Design filters for digital processing
- Operate with mathematical tools for digital processing
- Value the different options for signal processing
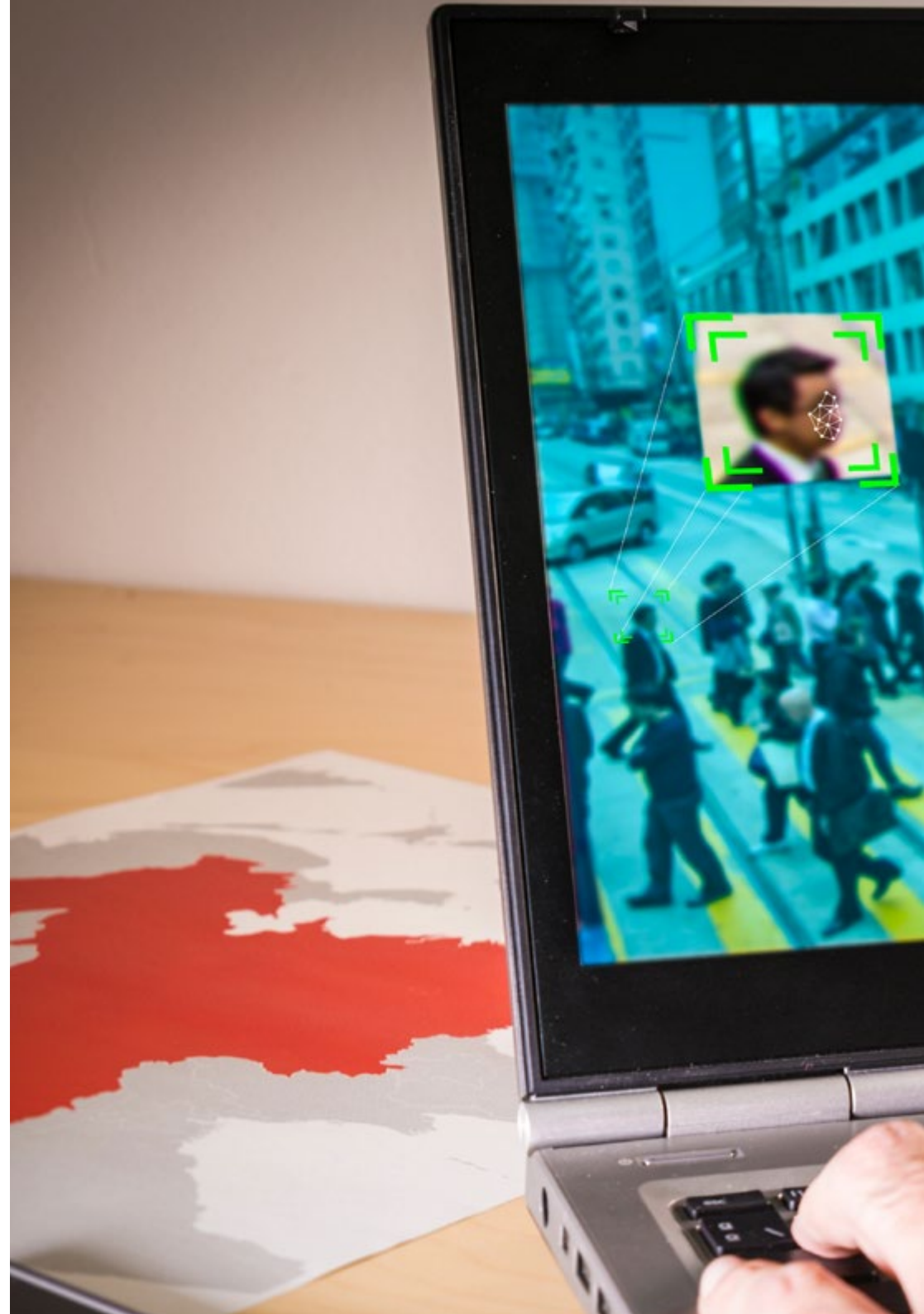
Specific Objectives

◆ Convert an analog signal into a digital one

◆ Differentiate between the types of digital systems and their properties

◆ Analyze the frequency behavior of a digital system

◆ Process, code and de-code images

◆ Simulate digital processors for voice recognition

" Achieve your academic goals and take a step further towards achieving that professional improvement you are looking for"

03
Course Management

This TECH Postgraduate Certificate in Digital Processing of Electronic Systems has been designed by professionals with extensive experience in the sector, who understand the importance of continued study during their career to improve the qualification of computer scientists and enable them to access positions of greater relevance. Teachers who have selected the most complete information and who have programmed high level practical activities, which will be fundamental to improve students' learning.

tech

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*The best teaching team on
the current academic scene"*

Management

Ms. Casares Andrés, María Gregoria

- Specialist teacher in Research and Information Technology at Polytechnic University of Madrid
- Evaluator and Creator of OCW courses at Carloss III University of Madrid
- INTEF courses tutor
- Support Technician, Ministry of Education Directorate General of Bilingualism and Quality of Education of the Community of Madrid
- Secondary Education Professor with specialty in IT
- Associate professor at the Pontificia de Comillas University
- Postgraduate Diploma in Teaching Unit, Community of Madrid
- Analyst/ IT Project manager, Banco Urquijo
- IT Analyst at ERIA
- Associate Professors, Carlos III University of Madrid
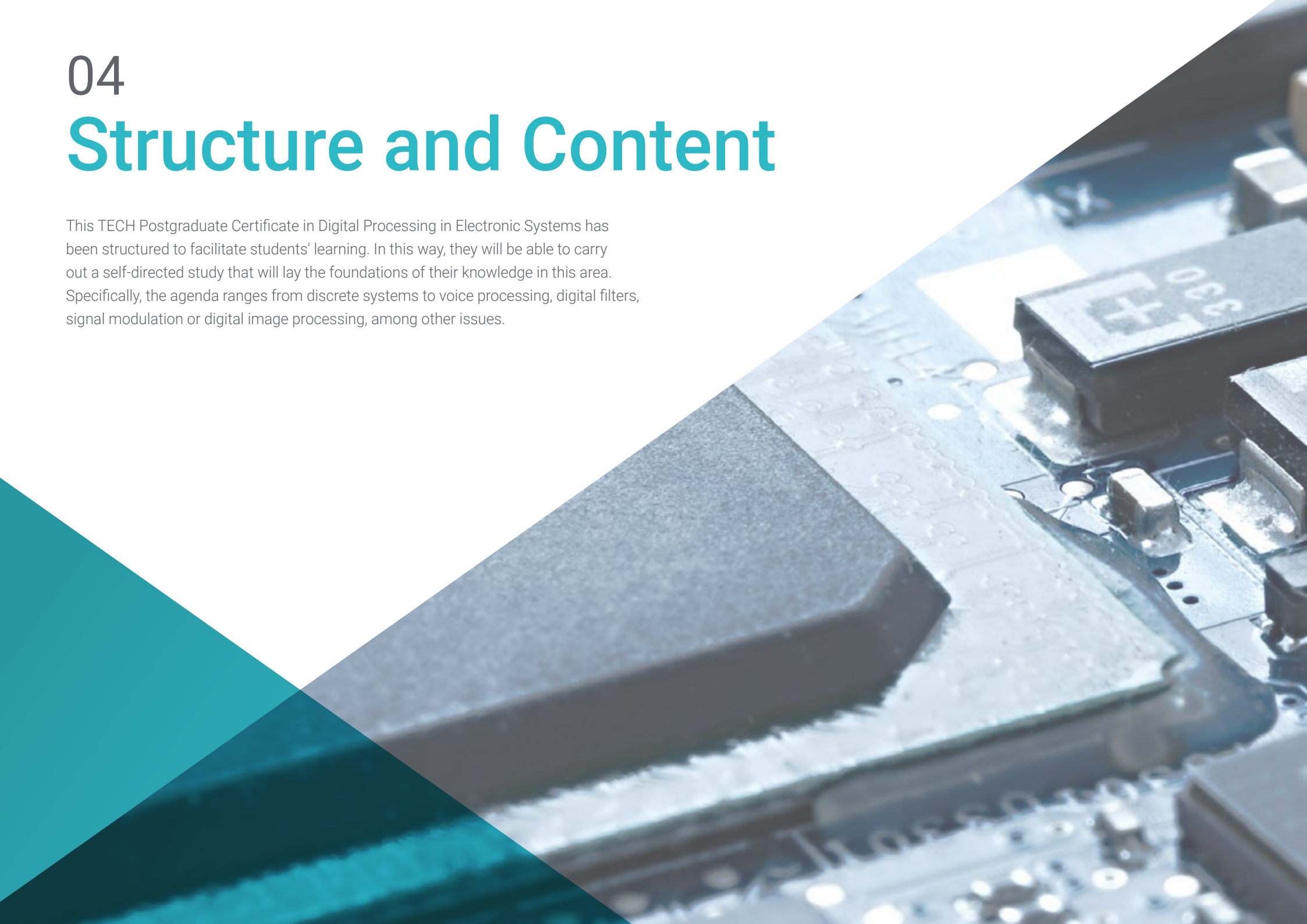
Professors

Mr. Torralbo Vecino, Manuel

- Electronic Engineer Ontech Security
- Electronic Engineer in UCAnFly Project
- Electronic Engineer in Airbus D&S
- Degree in Industrial Electronic Engineering from University of Cadiz
- IPMA Level Certification as Project Manager
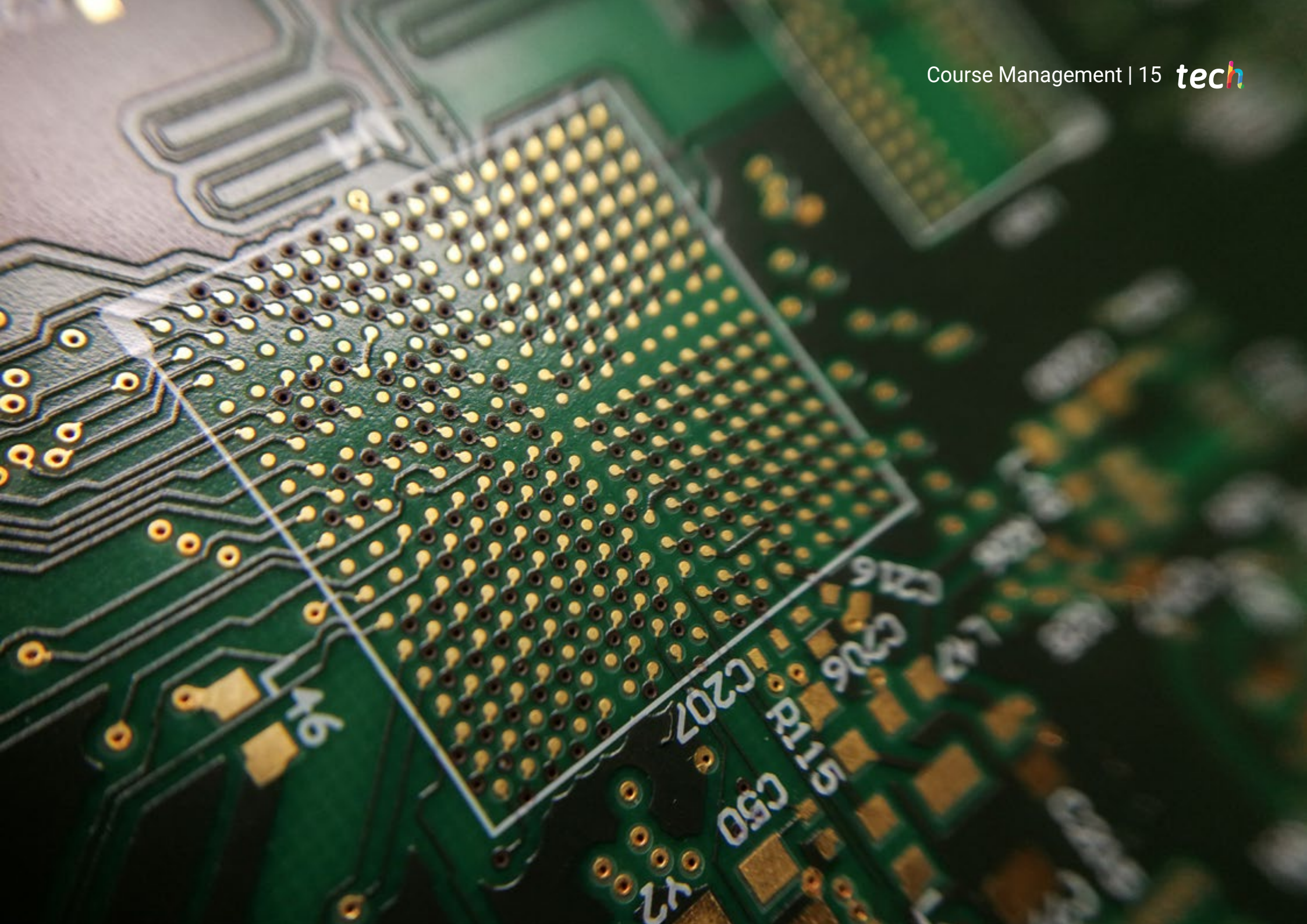
04
Structure and Content

This TECH Postgraduate Certificate in Digital Processing in Electronic Systems has been structured to facilitate students' learning. In this way, they will be able to carry out a self-directed study that will lay the foundations of their knowledge in this area. Specifically, the agenda ranges from discrete systems to voice processing, digital filters, signal modulation or digital image processing, among other issues.
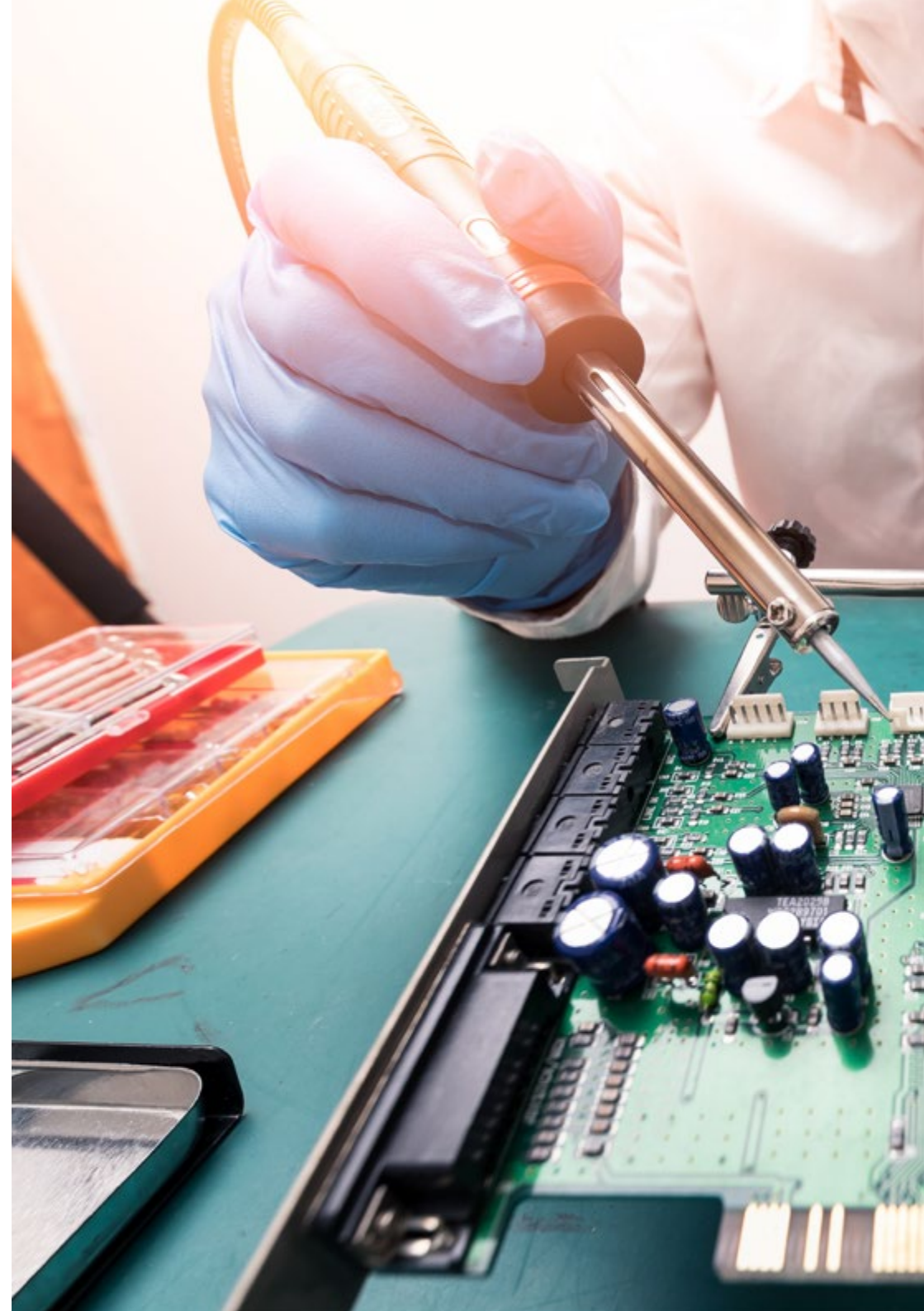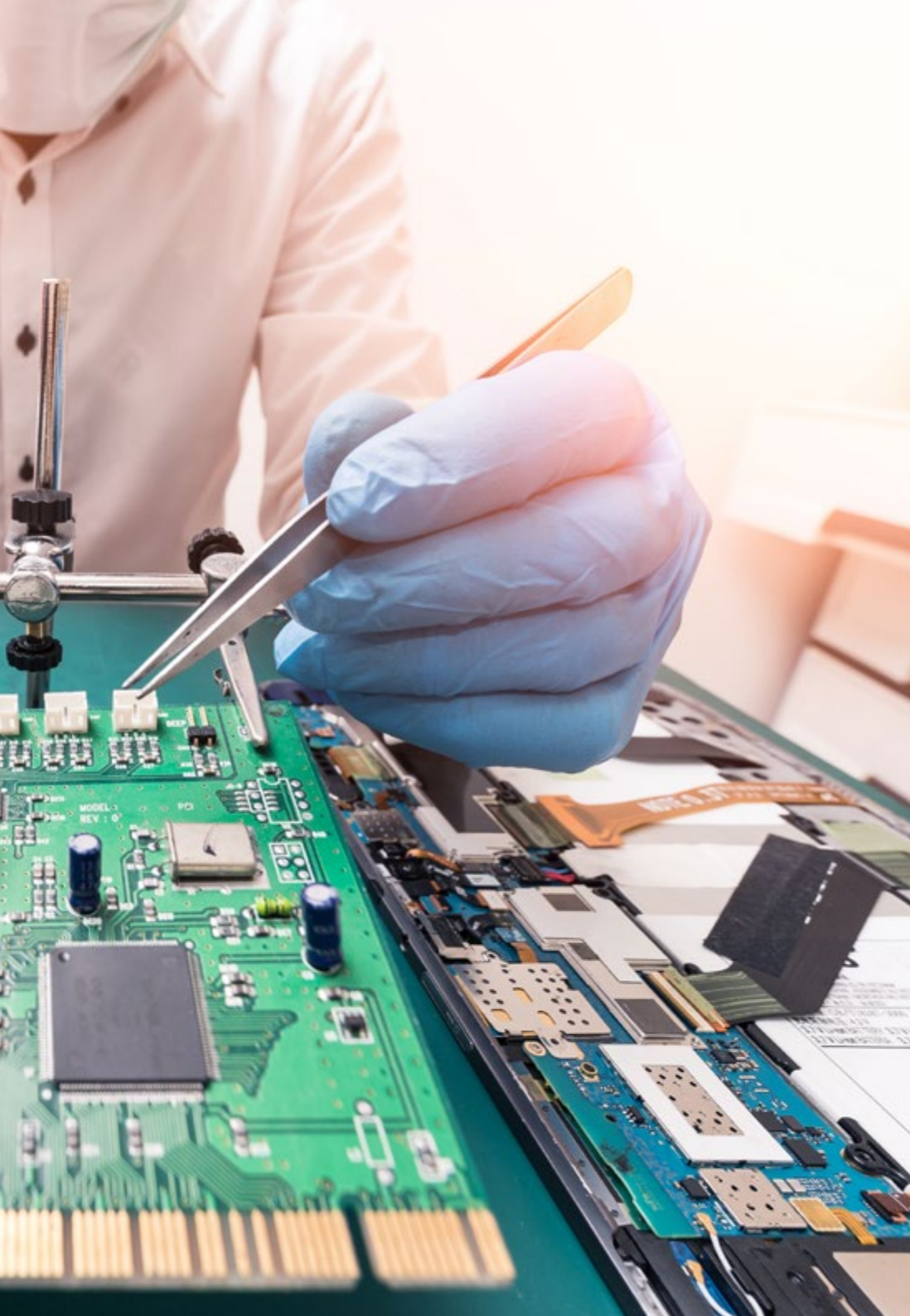
A complete syllabus that will help you to achieve professional success"

Module 1. Digital Processing

Expand your employability options with the higher qualification offered by this program"

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.

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.

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

Relearning Methodology

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

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

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

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

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

01 learning from evidence

02 relearning from evidence

03 testing

04 learning from an expert

05 neurocognitive context dependent learning

06 Von-Restorff effect

07 case based learning through storytelling

08 competencies testing (retesting)

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

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

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

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

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

Study Material

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

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

Classes

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

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

Practising Skills and Abilities

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

Additional Reading

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

30%

10%

8%

20%

25%

4%

3%

Case Studies

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

Interactive Summaries

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

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

Testing & Retesting

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

06

Certificate

The Postgraduate Certificate in Digital Processing in Electronic Systems 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 Digital Processing in Electronic Systems** 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 Digital Processing in Electronic Systems**

Official Nº of Hours: **150 h.**

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Awards the following

DIPLOMA

to

Mr./Ms. _____, with identification number _____.

For having passed and accredited the following program

POSTGRADUATE CERTIFICATE

in

Digital Processing in Electronic Systems

This is a qualification awarded by this University, equivalent to 150 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020

Tere Guevara Navarro
Dean

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country.

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 EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

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