Postgraduate Diploma
Instrumentation and Sensors in Electronic Systems

tech technological university

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Postgraduate Diploma
Instrumentation and Sensors in Electronic Systems

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

Website: www.techtitute.com/pk/information-technology/postgraduate-diploma/postgraduate-diploma-instrumentation-sensors-electronic-systems

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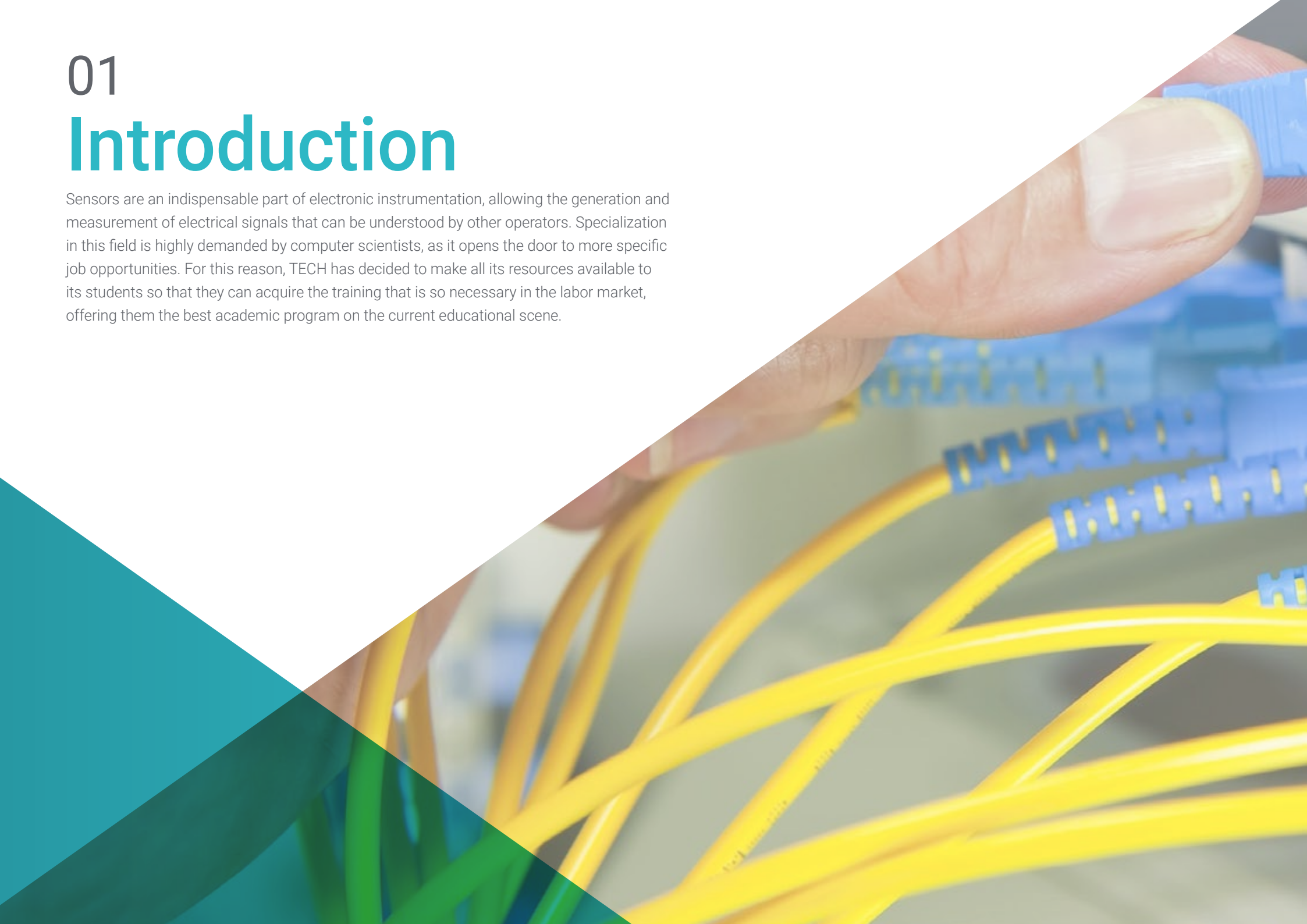
01

Introduction

Sensors are an indispensable part of electronic instrumentation, allowing the generation and measurement of electrical signals that can be understood by other operators. Specialization in this field is highly demanded by computer scientists, as it opens the door to more specific job opportunities. For this reason, TECH has decided to make all its resources available to its students so that they can acquire the training that is so necessary in the labor market, offering them the best academic program on the current educational scene.



Be able to create sensors applicable to industrial Electronic Systems and become a leading specialist in the sector"

This Postgraduate Diploma in Instrumentation and Sensors in Electronic Systems at TECH offers specialized knowledge to IT professionals so that they can develop professionally in a field that requires a high qualification. Thus, the program is aimed at both recent graduates and computer scientists with extensive experience, but who wish to update their knowledge with the latest information.

Specifically, the program analyzes the different types of sensors and actuators found in industrial processes and specifies the types of control systems in order to understand the intervention of an actuating device depending on a physical or chemical variable to be measured. In addition, the course develops specialized knowledge on current applications of power electronics, specifically devices that allow variation of the waveform of the electrical signal, known as converters. These devices are present in sectors as varied as domestic, industrial, military and aerospace.

It also shows the communication networks that are necessary for the transfer of data between all the elements of an industrial production system. In this way, controllers can communicate with sensors and other instrumentation elements, as well as with management systems, databases and even with services deployed in the cloud. Fundamental elements for this type of tools.

In short, this is a 100% online Postgraduate Diploma that will allow students to distribute their study time, not being restricted by fixed schedules or having 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 Diploma in Instrumentation and Sensors in Electronic Systems** is the most complete and up-to-date academic program on the market. The most outstanding characteristics of this program are:

- Practical cases presented by experts in information technology
- 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
- Special focus on innovative methodologies in Instrumentation and Sensors 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

A first class program, aimed at improving your professional skills"

Studying this Postgraduate Diploma will provide you with the keys to specialize in instrumentation and sensors in electronic systems and become a successful professional"

TECH provides you with a multitude of practical cases that will be fundamental to your learning.

The online format of this program will give you the opportunity to self-manage your study time.

Its teaching staff includes professionals from the field of IT, who bring to this program the experience of their work, 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 student must try to solve the different professional practice situations that arise throughout the program. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

02

Objectives

Computer scientists who wish to specialize in Instrumentation and Sensors in Electronic Systems will find the most complete and innovative information on this field in this TECH Postgraduate Diploma, which will allow them to achieve their academic objectives and go a step further to also reach their professional goals. Thus, at the end of the program, they will have acquired the necessary competencies that will allow them to work in this field with total confidence, making them more competitive in their daily practice.

Specialize in Electronic Systems and learn how to successfully program and repair all types of sensors"

General Objectives

- Analyze technical documentation by examining the characteristics of different types of projects in order to determine the data necessary for their development
- Identify standardized symbology and plotting techniques in order to analyze drawings and diagrams of automatic systems and installations
- Identify breakdowns and malfunctions in order to supervise and/or maintain installations and associated equipment
- Identify and apply quality parameters in the work and activities carried out in the learning process, in order to assess the culture of evaluation and quality, and to be able to monitor and improve quality management procedures
- Determine the need for power electronic converters in most real-world applications
- Analyze the different types of converters we can find based on their function
- Design and implement power electronic converters according to the need of use
- Analyze and simulate the behavior of the most commonly used electronic converters in electronic circuits
- Determine the characteristics of real type systems and recognize the complexity of programming these types of systems
- Analyze the different types of communication networks available
- Evaluate which type of communications network is the most suitable in certain scenarios

Specific Objectives

Module 1. Instrumentation and Sensors

- Determine measuring and control devices according to their functionality
- Evaluate the different technical characteristics of measurement and control systems
- Develop and propose measurement and regulation systems
- Specify the variables that intervene in a process
- Justify the type of sensor involved in a process according to the physical or chemical parameter to be measured
- Establish appropriate control system performance requirements in accordance with system requirements
- Analyze the operation of typical measurement and control systems in industries

Module 2. Electric Power Converters

- Analyze the converter function, classification and characteristic parameters
- Identify real applications that justify the use of power electronic converters
- Approach the analysis and study of the main converter circuits: rectifiers, inverters, switched-mode converters, voltage regulators and cycloconverters
- Analyze the different figures of merit as a measure of quality in a converter system
- Determine the different control strategies and the improvements provided by each of them
- Examine the basic structure and components of each of the converter circuits
- Develop knowledge of the performance requirements and gain specialized knowledge to be able to select the appropriate electronic circuit according to the system requirements
- Propose solutions for the design of power converters

Module 3. Industrial Communications

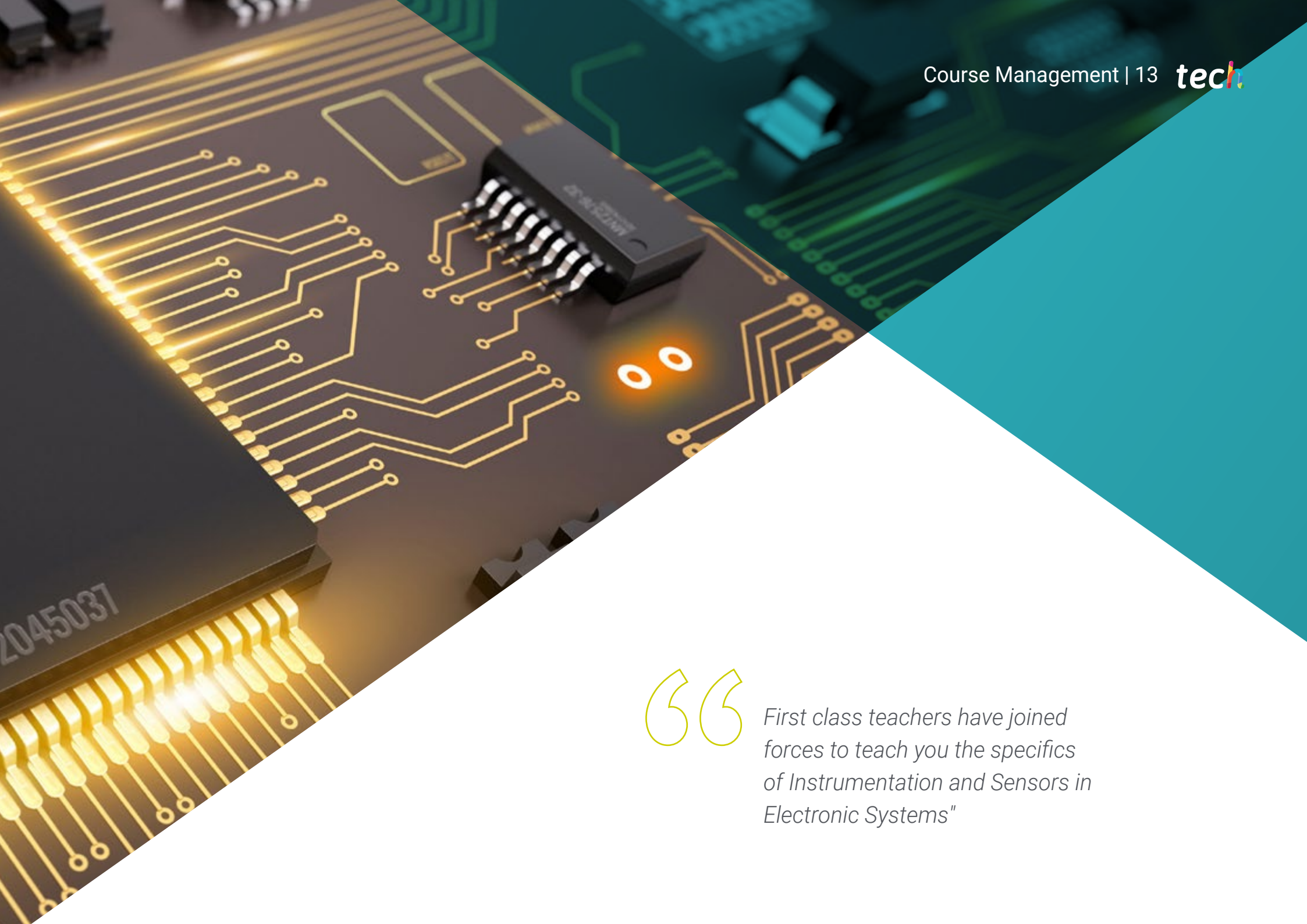
- Establish the basis of real-time systems and their main characteristics in relation to industrial communications
- Examine the need for distributed systems and their programming
- Determine the specific characteristics of industrial communications networks
- Analyze the different solutions for the implementation of a communications network in an industrial environment
- Gain in-depth knowledge of the OSI communications model and the TCP protocol
- Develop the different mechanisms to convert this type of networks into reliable networks
- Address the basic protocols on which the different mechanisms of information transmission in industrial communication networks are based

Achieve your academic goals with the best program on the current academic scene"

03

Course Management

For this Postgraduate Diploma in Instrumentation and Sensors in Electronic Systems, TECH has chosen a teaching team with extensive experience in the subject. Professors who understand the importance of higher specialization to access relevant positions and who have joined forces to offer the most complete information to their students, providing them with a multitude of theoretical and practical resources that will help them to specialize in a sector of great importance in the field of electronics.



First class teachers have joined forces to teach you the specifics of Instrumentation and Sensors in Electronic Systems"

Management

Ms. Casares Andrés, María Gregoria

- Associate professor at Carlos III University of Madrid
- Degree in IT from the Polytechnic University of Madrid
- Researcher at Polytechnic University of Madrid
- Researcher at Carlos III University of Madrid
- Evaluator and creator of OCW courses at Carlos III University of Madrid
- Tutor of courses at INTEF (National Agency for Educational Technology and Teacher Development)
- Support Technician at the Ministry of Education Directorate General of Bilingualism and Quality of Education of the Community of Madrid
- Middle and high school teacher specializing in IT
- Associate professor off the Pontificia de Cimillas University
- Teaching Expert in the Community of Madrid
- Analyst / Project Manager at Banco Urquijo Computer Systems
- ERIA Computer Analyst

Professors

Mr. De la Rosa Prada, Marcos

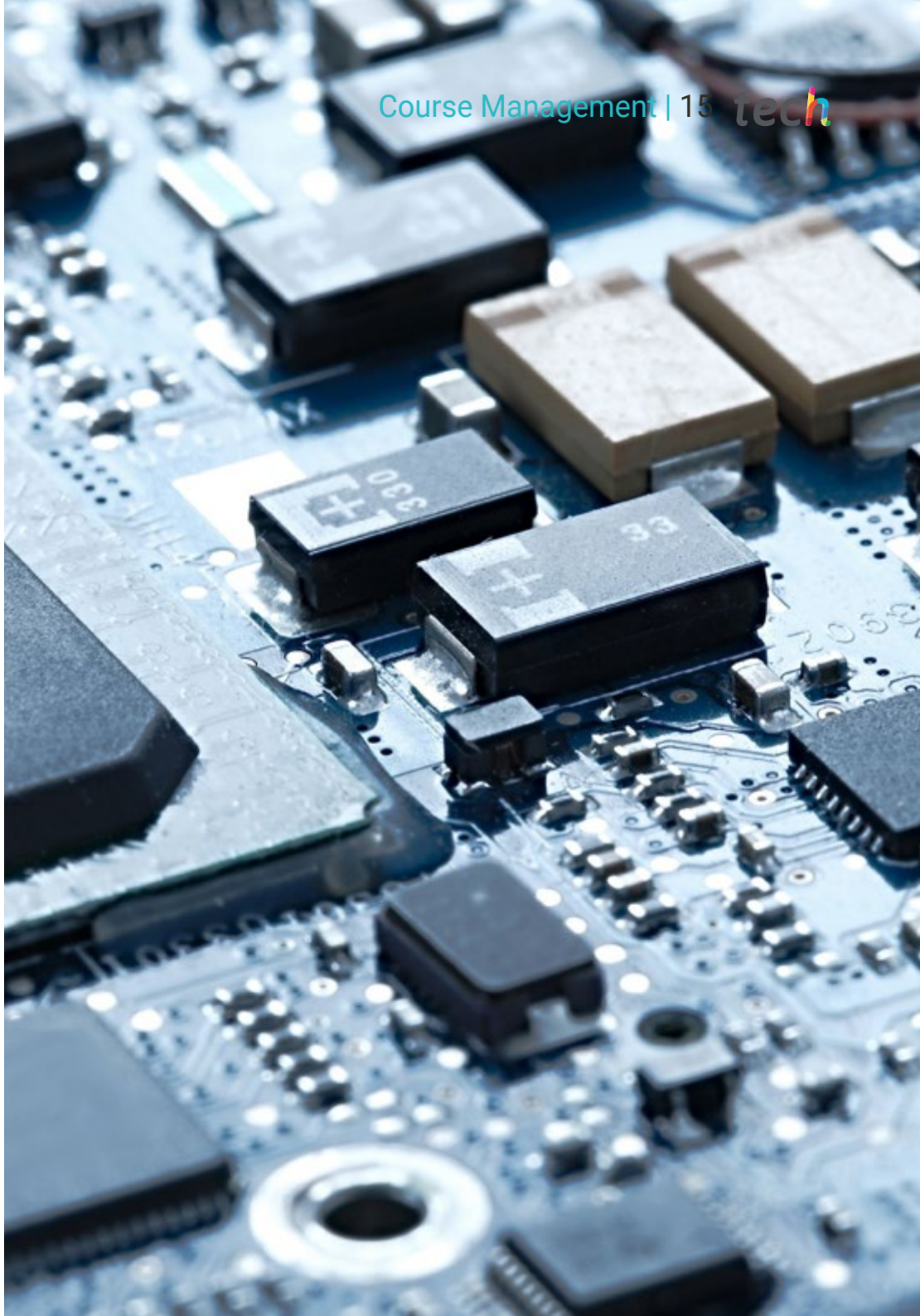
- Teacher of Vocational Training Courses, Consejería de Educación de la Comunidad de Madrid (Ministry of Education of the Community of Madrid)
- Consultant at Santander Technology
- Agent of New Technologies in Badajoz
- Author and content editor at CIDEAD (General Secretariat for Vocational Training, Ministry of Education and Vocational Training)
- Telecommunications Engineer from the University of Extremadura
- Scrum Foundation Certified Expert by EuropeanScrum.org
- Certificate in Pedagogical Aptitude, University of Extremadura

Mr. Jara Ivars, Luis

- Industrial Engineer- Sliding Ingenieros SL
- High School Teacher of Electrotechnical and Automatic Systems, Community of Madrid
- Secondary School Teacher Electronic Equipment Community of Madrid
- Physics and Chemistry High School Teacher
- Degree in Physical Sciences, Spanish Open University (UNED). Industrial Engineering, Spanish Open University (UNED)
- Master's Degree in Astronomy and Astrophysics from the International University of Valencia
- Master's Degree in Occupational Risk Prevention , UNED, 2011
- Master's Degree in University Teacher Training

Ms. Escandel Varela, Lorena

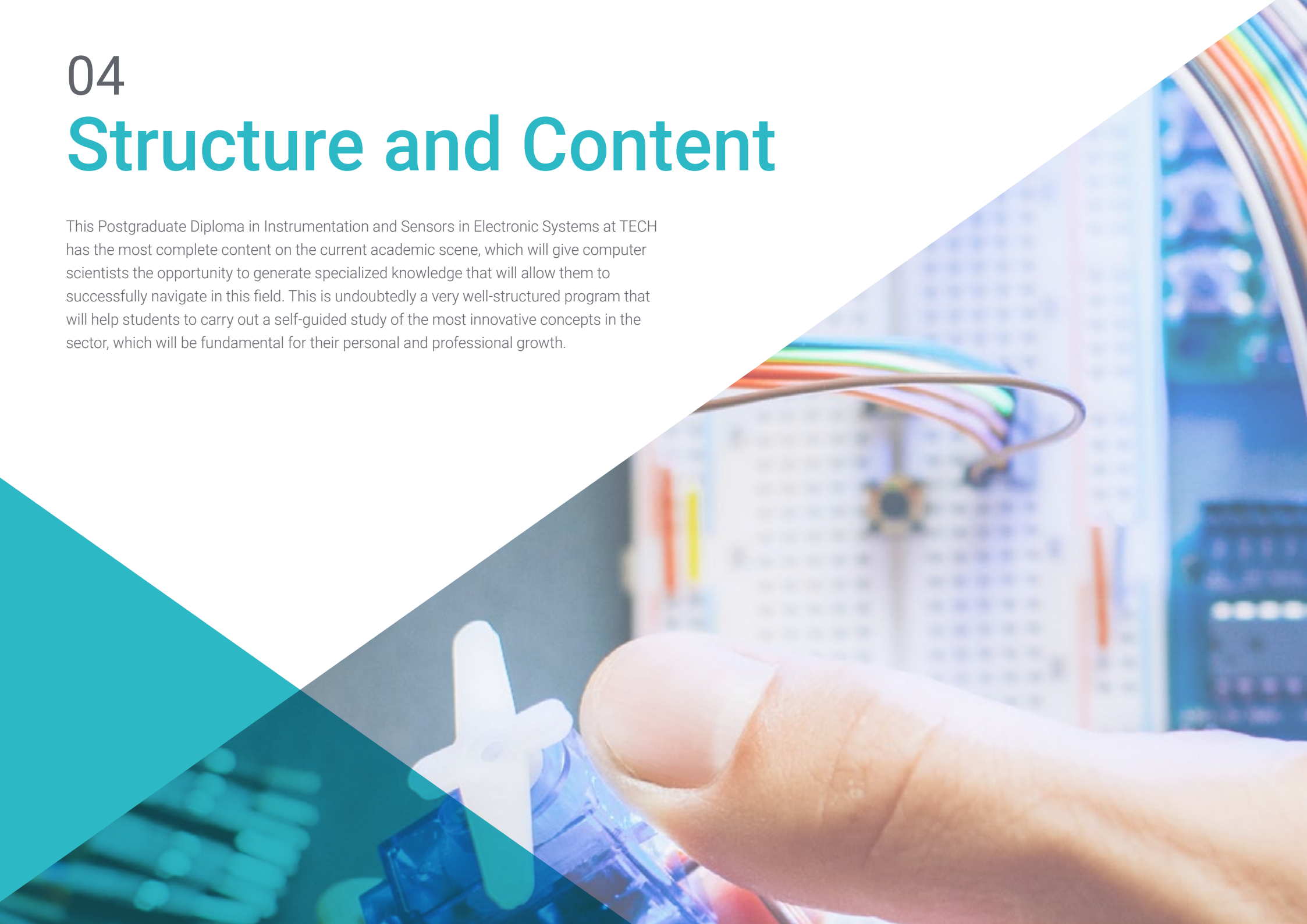
- Research support technician in the project: "System for the provision and consumption of HD multimedia content in means of collective passenger transport based on LIFI technology for data transmission" At the Carlos III University, Madrid
- Computer Sciences Specialist in Emprestur, Ministry of Toursim, Cuba
- Computer Sciences Specialist in UNE, an electrical company in Cuba
- IT and Communications Specialist, Almacenes Universales S.A., Cuba
- Specialist in Radio Communications in Santa Clara air base, Cuba
- Engineering in Telecommunications and Electronis in the Marta Abreu de las Villas Central University, Santa Clara, Cuba
- Master's Degree in Electronic Systems and Its Application at Carlos III University, Madrid: Leganés Campus, Madrid
- PhD student in Electrical, Electronic and Automation Engineering, Department of Electronic Technology. Carlos III University of Madrid: Leganés Campus



04

Structure and Content

This Postgraduate Diploma in Instrumentation and Sensors in Electronic Systems at TECH has the most complete content on the current academic scene, which will give computer scientists the opportunity to generate specialized knowledge that will allow them to successfully navigate in this field. This is undoubtedly a very well-structured program that will help students to carry out a self-guided study of the most innovative concepts in the sector, which will be fundamental for their personal and professional growth.



A unique program to learn the main sensors that can be used in electronic systems"

Module 1. Instrumentation and Sensors

1.1. Measurement
- 1.1.1. Measurement and Control Characteristics
  - 1.1.1.1. Accuracy
  - 1.1.1.2. Reliability
  - 1.1.1.3. Repeatability
  - 1.1.1.4. Reproducability
  - 1.1.1.5. Derivatives
  - 1.1.1.6. Linearity
  - 1.1.1.7. Hysteresis
  - 1.1.1.8. Resolution
  - 1.1.1.9. Scope
  - 1.1.1.10. Errors
- 1.1.2. Instrumentation Classification
  - 1.1.2.1. According to its Functionality
  - 1.1.2.2. According to the Control Variable

1.2. Regulation
- 1.2.1. Regulated Systems
  - 1.2.1.1. Open Loop Operation
  - 1.2.1.2. Closed Loop Operation
- 1.2.2. Types of Industrial Processes
  - 1.2.2.1. Continuous Processes
  - 1.2.2.2. Discrete Processes

1.3. Flow Sensors
- 1.3.1. Flow Rate
- 1.3.2. Units Used for Flow Measurement
- 1.3.3. Types of Flow Sensors
  - 1.3.3.1. Flow Measurement by Volume
  - 1.3.3.2. Flow Measurement by Mass

1.4. Pressure Sensors
- 1.4.1. Pressure
- 1.4.2. Units Used for Pressure Measurement
- 1.4.3. Types of Pressure Sensors
  - 1.4.3.1. Pressure Measurement Through Mechanical Elements
  - 1.4.3.2. Pressure Measurement Through Electro-Mechanical Elements
  - 1.4.3.3. Pressure Measurement Through Electronic Elements

1.5. Temperature Sensors
- 1.5.1. Temperature
- 1.5.2. Units Used for Temperature Measurement
- 1.5.3. Types of Temperature Sensors
  - 1.5.3.1. Bimetallic Thermometer
  - 1.5.3.2. Glass Thermometer
  - 1.5.3.3. Resistance Thermometer
  - 1.5.3.4. Thermistors
  - 1.5.3.5. Thermocouples
  - 1.5.3.6. Radiation Pyrometers

1.6. Level Sensors
- 1.6.1. Level of Liquids and Solids
- 1.6.2. Units Used for Temperature Measurement
- 1.6.3. Types of Level Sensors
  - 1.6.3.1. Liquid Level Gauges
  - 1.6.3.2. Solids Level Gauges

1.7. Sensors for Other Physical and Chemical Variables
- 1.7.1. Sensors for Other Physical Variables
  - 1.7.1.1. Weight Sensors
  - 1.7.1.2. Velocity Sensors
  - 1.7.1.3. Density Sensors
  - 1.7.1.4. Humidity Sensors
  - 1.7.1.5. Flame Sensors
  - 1.7.1.6. Solar Radiation Sensors
- 1.7.2. Sensors for Other Chemical Variables
  - 1.7.2.1. Conductivity Sensors
  - 1.7.2.2. pH Sensors
  - 1.7.2.3. Gas Concentration Sensors

1.8. Actuators
- 1.8.1. Actuators
- 1.8.2. Motors
- 1.8.3. Servo Valves

1.9. Automatic Control
- 1.9.1. Automatic Regulation
- 1.9.2. Types of Regulators
  - 1.9.2.1. Two Step Controller
  - 1.9.2.2. Proportional Controller
  - 1.9.2.3. Differential Controller
  - 1.9.2.4. Proportional-Differential Controller
  - 1.9.2.5. Integral Controller
  - 1.9.2.6. Proportional-Integral Controller
  - 1.9.2.7. Proportional-Integral-Differential Controller
  - 1.9.2.8. Digital Electronic Controller

1.10. Applications of Control in the Industry
- 1.10.1. Selection Criteria for Control Systems
- 1.10.2. Examples of Industrial Control Types
  - 1.10.2.1. Ovens
  - 1.10.2.2. Dryers
  - 1.10.2.3. Combustion Control
  - 1.10.2.4. Level Control
  - 1.10.2.5. Heat Exchangers
  - 1.10.2.6. Central Nuclear Reactor

Module 2. Power Converters

2.1. Power Electronics
- 2.1.1. Power Electronics
- 2.1.2. Applications of Power Electronics
- 2.1.3. Power Conversion Systems

2.2. Converter
- 2.2.1. Converters
- 2.2.2. Types of Converters
- 2.2.3. Characteristic Parameters
- 2.2.4. Fourier Series

2.3. AC/DC Conversion. Single-Phase Uncontrolled Rectifiers
- 2.3.1. AC/DC Conversion
- 2.3.2. Diode
- 2.3.3. Uncontrolled Half Wave Rectifier
- 2.3.4. Uncontrolled Full Wave Rectifier

2.4. AC/DC Conversion. Single-Phase Controlled Rectifiers
- 2.4.1. Thyristor
- 2.4.2. Controlled Half Wave Rectifier
- 2.4.3. Controlled Full Wave Rectifier

2.5. Three-Phase Rectifiers
- 2.5.1. Three-Phase Rectifiers
- 2.5.2. Controlled Three-Phase Rectifiers
- 2.5.3. Uncontrolled Three-Phase Rectifiers

2.6. DC/AC Conversion. Single-Phase Inverters
- 2.6.1. DC/AC Conversion
- 2.6.2. Single-Phase Square Wave Controlled Inverters
- 2.6.3. Single-Phase Inverters Using Sinusoidal PWM Modulation

2.7. DC/AC Conversion. Three-Phase Inverters
- 2.7.1. Three-Phase Inverters
- 2.7.2. Three-Phase Square Wave Controlled Inverters
- 2.7.3. Three-Phase Inverters Using Sinusoidal PWM Modulation

2.8. DC/DC Conversion
- 2.8.1. DC/DC Conversion
- 2.8.2. Classification of DC/ DC Converters
- 2.8.3. Control of DC/ DC Converters
- 2.8.4. Reducing Converter

2.9. DC/DC Conversion. Lifting Converter
- 2.9.1. Lifting Converter
- 2.9.2. Reducing-Lifting Converter
- 2.9.3. Cúk Converter

2.10. AC/AC Conversion
- 2.10.1. AC/AC Conversion
- 2.10.2. Classification of AC/ AC Converters
- 2.10.3. Voltage Regulators
- 2.10.4. Cycloconverters

An academic program that will be fundamental for your learning and professional development"

Module 3. Industrial Communications

3.1. Real Time Systems
- 3.1.1. Classification
- 3.1.2. Programming
- 3.1.3. Planning

3.2. Communication Networks
- 3.2.1. Transmission of medium
- 3.2.2. Basic Configurations
- 3.2.3. CIM Pyramid
- 3.2.4. Classification
- 3.2.5. OSI Model
- 3.2.6. TCP/IP Model

3.3. Fieldbuses
- 3.3.1. Classification
- 3.3.2. Distributed, Centralized Systems
- 3.3.3. Distributed Control Systems

3.4. BUS. Thus
- 3.4.1. Physical Level
- 3.4.2. Link level
- 3.4.3. Error Control
- 3.4.4. Components

3.5. CAN or CANopen
- 3.5.1. Physical Level
- 3.5.2. Link Level
- 3.5.3. Error Control
- 3.5.4. Devicenet
- 3.5.5. Controlnet

3.6. Profibus
- 3.6.1. Physical Level
- 3.6.2. Link level
- 3.6.3. Application Level
- 3.6.4. Communication Models
- 3.6.5. System Operation
- 3.6.6. Profinet

3.7. Modbus
- 3.7.1. Physical Environment
- 3.7.2. Access to the Environment
- 3.7.3. Transmission Series Modes
- 3.7.4. Protocol
- 3.7.5. Modbus TCP

3.8. Industrial Ethernet
- 3.8.1. Profinet
- 3.8.2. Modbus TCP
- 3.8.3. Ethernet/IP
- 3.8.4. EtherCAT

3.9. Wireless Communication
- 3.9.1. Networks 802.11 (Wifi)
- 3.9.3. Networks 802.15.1 (BlueTooth)
- 3.9.3. Networks 802.15.4 (ZigBee)
- 3.9.4. WirelessHART
- 3.9.5. WiMAX
- 3.9.6. Networks Based on Cell Phones
- 3.9.7. Satellite Communications

3.10. IoT in Industrial Environments
- 3.10.1. The Internet of Things
- 3.10.2. IoT Device Characteristics
- 3.10.3. Application of IoT in Industrial Environments
- 3.10.4. Security Requirements
- 3.10.5. Communication Protocols: MQTT and CoAP

05

Methodology

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

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

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

Case Study to contextualize all content

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

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

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

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

A learning method that is different and innovative

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

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

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

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

Relearning Methodology

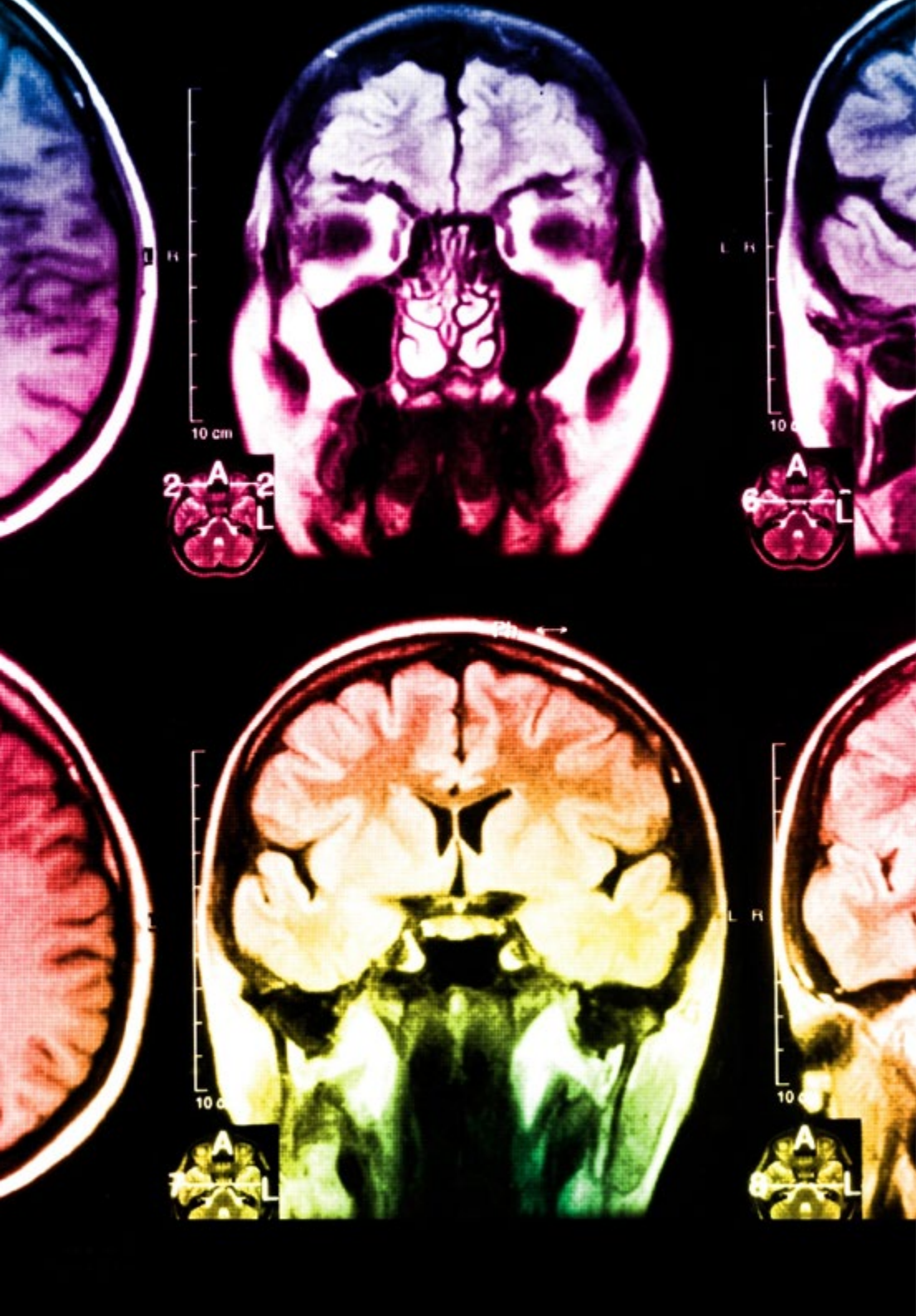
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines different teaching elements in each lesson.

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

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

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

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



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

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

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

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

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

Study Material

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

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

Classes

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

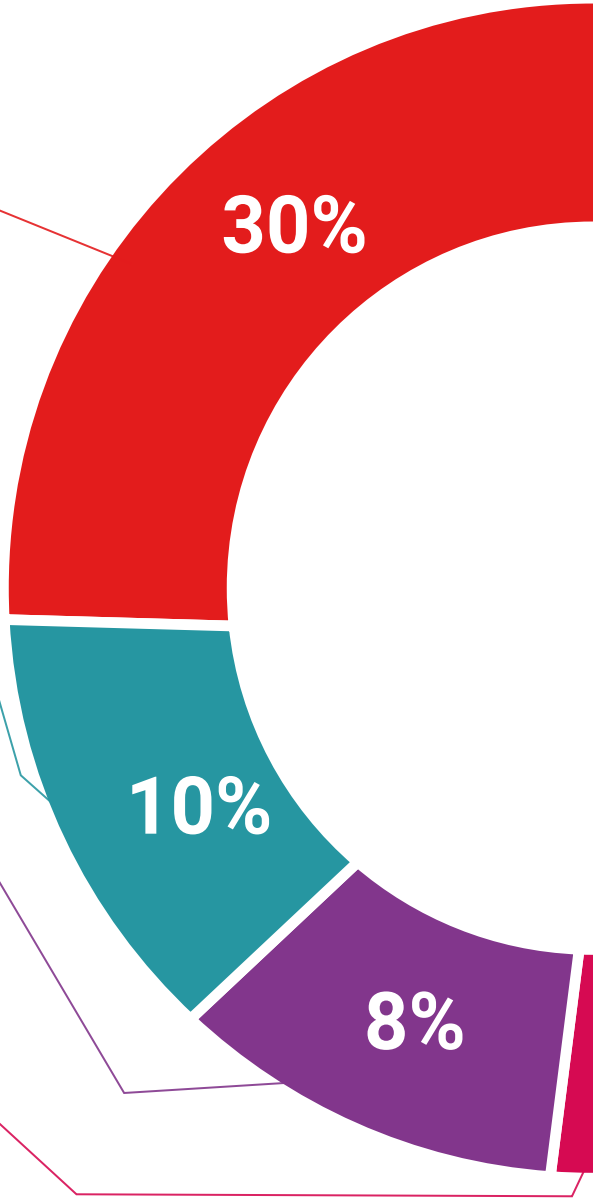
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

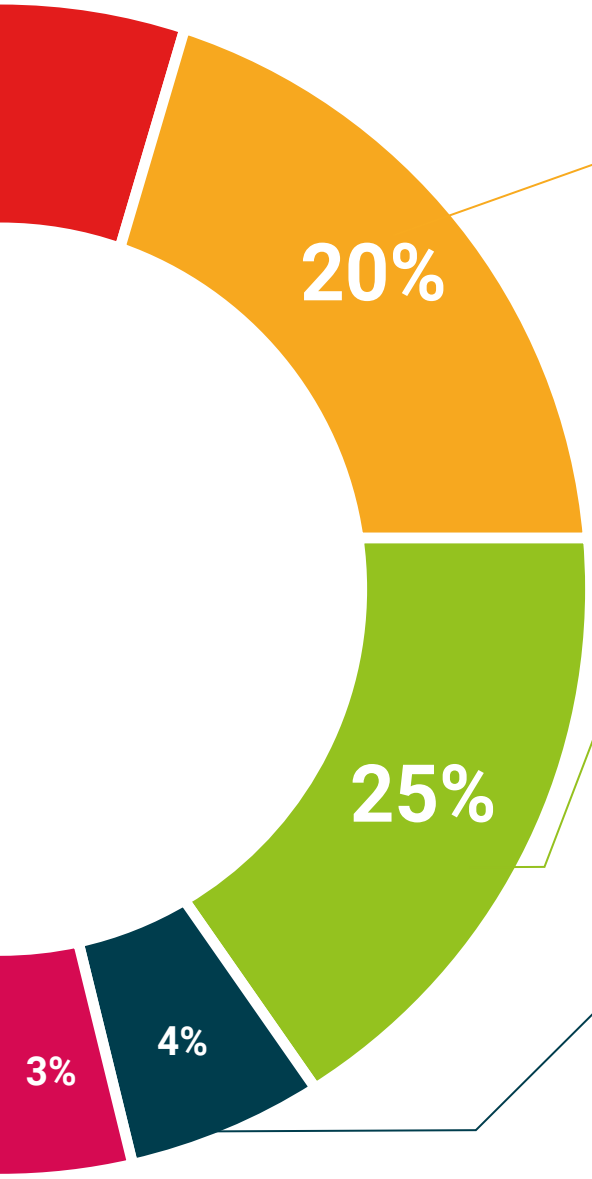
Practising Skills and Abilities

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

Additional Reading

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





Case Studies

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

Interactive Summaries

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

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

Testing & Retesting

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

06

Certificate

The Postgraduate Diploma in Instrumentation and Sensors in Electronic Systems guarantees students, in addition to the most rigorous and up-to-date education, access to Postgraduate Diploma 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 Diploma in Instrumentation and Sensors in Electronic Systems** is the most complete and up-to-date program on the market.

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

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

Title: **Postgraduate Diploma in Instrumentation and Sensors in Electronic Systems**

Official Nº of Hours: **450 h.**


tech technological university

Awards the following

CERTIFICATE

to

Mr./Ms. _____ with identification number _____.

For having passed and accredited the following program

POSTGRADUATE CERTIFICATE

in

Instrumentation and Sensors 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 certificate issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

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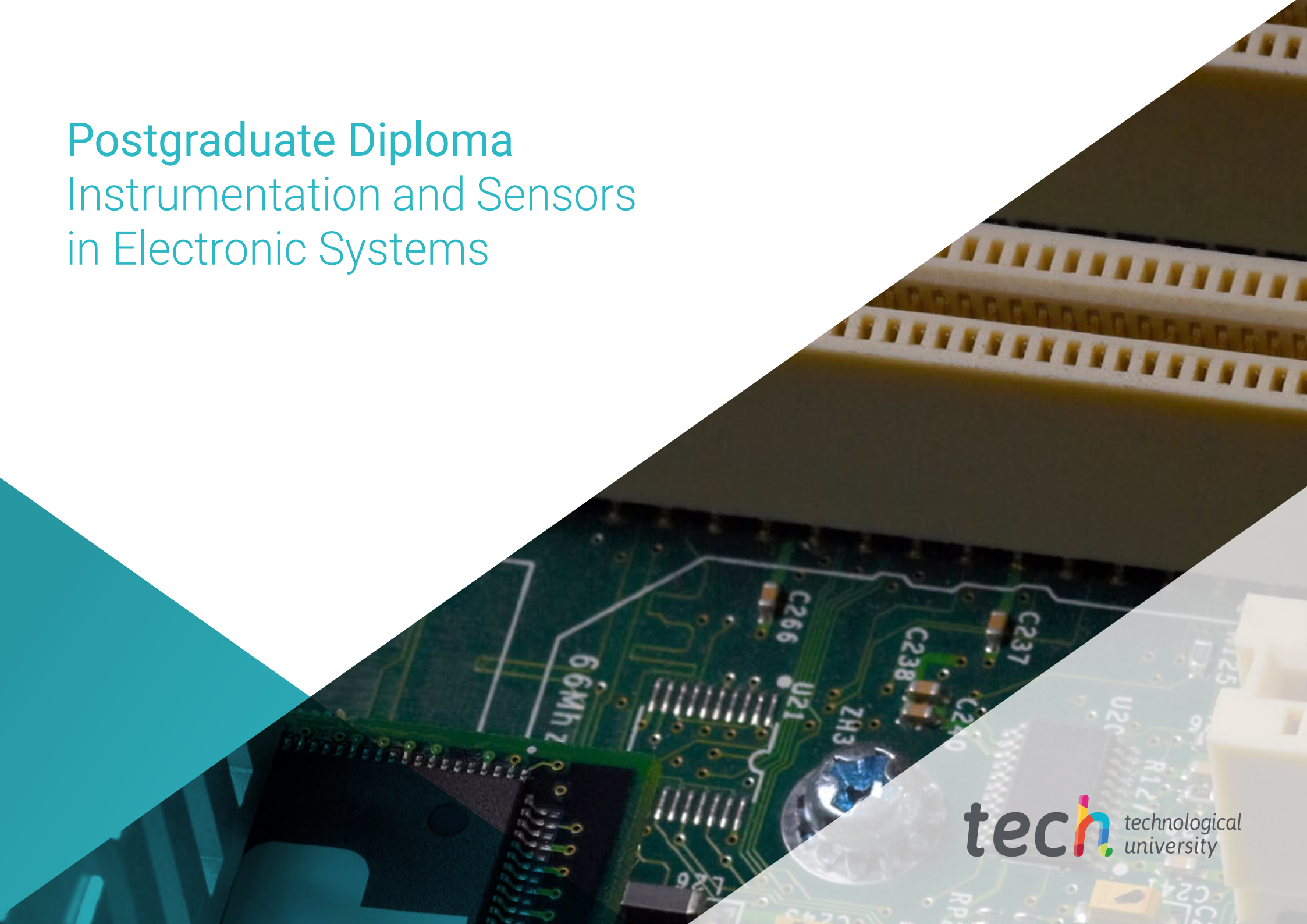
Postgraduate Diploma
Instrumentation and Sensors in Electronic Systems

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

Postgraduate Diploma
Instrumentation and Sensors in Electronic Systems



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