

# Postgraduate Diploma Biomedical Image Analysis and Big Data in E-Health





## Postgraduate Diploma Biomedical Image Analysis and Big Data in E-Health

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online
- » Target Group: Graduates, Diploma graduates and University graduates who have previously completed any of the qualifications in the field of Social and Legal, Administrative and Business Sciences

Website: [www.techtute.com/pk/school-of-business/postgraduate-diploma/biomedical-image-analysis-big-data-ehealth](http://www.techtute.com/pk/school-of-business/postgraduate-diploma/biomedical-image-analysis-big-data-ehealth)

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# 01 Welcome

The development of eHealth fostered by the evolution of technology and the growth of the Internet of Things (IoT) has made it possible to personalize health care through the use of the most innovative and effective strategies of the moment. An example of this is the application of *Big Data* in the Analysis of Biomedical Images, which has generated important business opportunities. Therefore, having a specialized degree in this field can be, for the graduate, a unique opportunity to expand their job possibilities. For this reason, TECH Technological University has deemed it appropriate to develop this 100% online program, thanks to which you will be able to work on perfecting your professional skills, and invest your time in a highly training, versatile and multidisciplinary degree.



Postgraduate Diploma in Biomedical Image Analysis and Big Data in E-Health.  
TECH Technological University



“

*Health is a sector with broad expectations for the future. Bet on this program and get trained to lead business projects related to the Analysis of Biomedical Images and Big Data”*

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:



### Learn with the best

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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"*



### 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.

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 growing business demand related to professionals who master business strategies in the field of Biomedicine and *Big Data* is what has made TECH Technological University decide to create a specialized degree in this field. For this reason, its objective is to provide graduates with the best academic tools, through which they can expand their knowledge, as well as hone their management skills to be able to successfully face large projects.



“

*Thanks to its comfortable 100% online format, you will be able to work on achieving your professional goals through this academic experience, with a personalized schedule and from anywhere”*

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

The Postgraduate Diploma in Biomedical Image Analysis and Big Data in E-Health will enable the student to:

01

Examine the fundamentals of medical imaging technologies

04

Delve into tomography, computed and emission tomography, clinical applications and physical fundamentals

02

Develop expertise in radiology, clinical applications and physical fundamentals



03

Analyze ultrasound, clinical applications and physical fundamentals

05

Determine how to manage magnetic resonance imaging, clinical applications and physical fundamentals



06

Generate advanced knowledge of nuclear medicine, differences between PET and SPECT, clinical applications and physical fundamentals

08

Present image segmentation technologies and explain their usefulness

09

Gain a deeper understanding of the direct relationship between surgical interventions and imaging techniques

07

Discriminate noise in the image, reasons for it and image processing techniques to reduce it

10

Establish the possibilities offered by artificial intelligence in recognizing patterns in medical images, and thus deepen innovation in the field



11

Gain specialized knowledge of massive data acquisition techniques in biomedicine

14

Provide ways of interpreting results from massive data analysis

12

Analyze the importance of data preprocessing in *Big Data*



13

Determine the differences between the data derived from different massive data collection techniques, as well as their special characteristics in terms of pre-processing and handling

15

Examine the applications and future trends in the field of *Big Data* in biomedical research and public health

16

Propose communication protocols in different scenarios in the healthcare field

18

Substantiate the complexity of artificial intelligence models in its use in healthcare



19

Identify the optimization brought by parallelization in GPU-accelerated applications and its use in healthcare

17

Analyze IoT communication, as well as its application areas in e-Health

20

Present all the *Cloud* technologies available to implement e-Health and the IoT products, both in computing and communication

05

# Structure and Content

One of the keys to the success of TECH Technological University is the use of the innovative and effective *Relearning* methodology in the development of the theoretical content of all its degrees, which consists of the reiteration of the most important concepts throughout length of the topic. In addition, this pedagogical strategy is based on the resolution of practical, simulated and real cases. Both aspects favor an acquisition of gradual and natural knowledge, without the need to invest long and tedious hours of study with traditional memorization techniques.



“

*Would you like to master technical aspects of magnetic resonance, ultrasound or computed tomography to create business projects? If the answer is yes, enroll now"*

## Syllabus

The Postgraduate Diploma in Biomedical Image Analysis and Big Data in E-Health offered by TECH Technological University is an intensive and multidisciplinary program that will prepare the graduate to face the labor market and the most ambitious and complex projects in as bioinformatics and the telemedicine sector, with the guarantee of having the most up-to-date and complete knowledge.

The content of the program is designed to broaden the student's professional skills, through the mastery of the tools that are currently being used, both for research in the health sciences and for data management.

This is a program in which you will have 450 hours of the best theoretical, practical and additional material, with which you will be able to delve into the applications of this area and adapt your profile to the labor demand that currently exists in the professional sector.

This Postgraduate Diploma takes place over 6 months and is divided into 3 modules:

### Module 1.

Techniques, Recognition and Intervention using Biomedical Imaging

### Module 2.

*Big Data* in Medicine: Massive Medical Data Processing

### Module 3.

Applications of Artificial Intelligence and the Internet of Things (IoT) in Telemedicine



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

TECH offers the possibility of developing this Postgraduate Diploma in Biomedical Image Analysis and Big Data in E-Health completely online. Over the course of 6 months, you will be able to access all the contents of this program at any time, allowing you to self-manage your study time.

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

**Module 1. Techniques, Recognition and Intervention using Biomedical Imaging**

**1.1. Medical Imaging**

- 1.1.1. Modalities in Medical Imaging
- 1.1.2. Objectives in Medical Imaging Systems
- 1.1.3. Medical Imaging Storage Systems

**1.2. Radiology**

- 1.2.1. Imaging Method
- 1.2.2. Radiology Interpretation
- 1.2.3. Clinical Applications

**1.3. Computed Tomography (CT)**

- 1.3.1. Principle of Operation
- 1.3.2. Image Generation and Acquisition
- 1.3.3. Computerized Tomography. Typology
- 1.3.4. Clinical Applications

**1.4. Magnetic Resonance Imaging (MRI)**

- 1.4.1. Principle of Operation
- 1.4.2. Image Generation and Acquisition
- 1.4.3. Clinical Applications

**1.5. Ultrasound: Ultrasound and Doppler Sonography**

- 1.5.1. Principle of Operation
- 1.5.2. Image Generation and Acquisition
- 1.5.3. Typology
- 1.5.4. Clinical Applications

**1.6. Nuclear medicine**

- 1.6.1. Physiological Basis in Nuclear Studies. Radiopharmaceuticals and Nuclear Medicine
- 1.6.2. Image Generation and Acquisition
- 1.6.3. Types of Tests
  - 1.6.3.1. Gammagraphy
  - 1.6.3.2. SPECT
  - 1.6.3.3. PET
  - 1.6.3.4. Clinical Applications

**1.7. Image-Guided Interventions**

- 1.7.1. Interventional Radiology
- 1.7.2. Interventional Radiology Objectives
- 1.7.3. Procedures
- 1.7.4. Advantages and Disadvantages.

**1.8. Image Quality**

- 1.8.1. Technique
- 1.8.2. Contrast
- 1.8.3. Resolution
- 1.8.4. Noise
- 1.8.5. Distortion and Artifacts

**1.9. Medical Imaging Tests. Biomedicine**

- 1.9.1. Creating 3D Images
- 1.9.2. Biomodels
  - 1.9.2.1. DICOM Standard
  - 1.9.2.2. Clinical Applications

**1.10. Radiological Protection**

- 1.10.1. European Legislation Applicable to Radiology Services
- 1.10.2. Safety and Action Protocols
- 1.10.3. Radiological Waste Management
- 1.10.4. Radiological Protection
- 1.10.5. Care and Characteristics of Rooms



**Module 2. *Big Data* in Medicine: Massive Medical Data Processing****2.1. *Big Data* in Biomedical Research**

- 2.1.1. Data Generation in Biomedicine
- 2.1.2. *High-Throughput* Technology
- 2.1.3. Uses of High-Throughput Data. Hypotheses in the Age of *Big Data*

**2.2. Data Pre-Processing in *Big Data***

- 2.2.1. Data Pre-Processing
- 2.2.2. Methods and Approaches
- 2.2.3. Problems with Data Pre-Processing in *Big Data*

**2.3. Structural Genomics**

- 2.3.1. Sequencing the Human Genome
- 2.3.2. Sequencing vs. Chips
- 2.3.3. Variant Discovery

**2.4. Functional Genomics**

- 2.4.1. Functional Notation
- 2.4.2. Mutation Risk Predictors
- 2.4.3. Association Studies in Genomics

**2.5. Transcriptomics**

- 2.5.1. Techniques to Obtain Massive Data in Transcriptomics: RNA-seq
- 2.5.2. Data Normalization in Transcriptomics
- 2.5.3. Differential Expression Studies

**2.6. Interactomics and Epigenomics**

- 2.6.1. The Role of Chromatin in Gene Expression
- 2.6.2. High-Throughput Studies in Interactomics
- 2.6.3. High-Throughput Studies in Epigenetics

**2.7. Proteomics**

- 2.7.1. Analysis of Mass Spectrometry Data
- 2.7.2. Post-Translational Modifications Study
- 2.7.3. Quantitative Proteomics

**2.8. Enrichment and *Clustering* Techniques**

- 2.8.1. Contextualizing Results
- 2.8.2. *Clustering* Algorithms in Omics Techniques
- 2.8.3. Repositories for Enrichment: Gene Ontology and KEGG

**2.9. Applying *Big Data* to Public Health**

- 2.9.1. Discovery of New Biomarkers and Therapeutic Targets
- 2.9.2. Risk Predictors
- 2.9.3. Personalized Medicine

**2.10. *Big Data* Applied to Medicine**

- 2.10.1. Potential for Diagnostic and Preventive Assistance
- 2.10.2. Use of *Machine Learning* Algorithms in Public Health
- 2.10.3. The Problem of Privacy

**Module 3.** Applications of Artificial Intelligence and the Internet of Things (IoT) in Telemedicine

**3.1. E-Health Platforms. Personalizing Healthcare Services**

- 3.1.1. E-Health Platform
- 3.1.2. Resources for E-Health Platforms
- 3.1.3. Digital Europe Program. *Digital Europe-4-Health* and Horizon Europe

**3.2. Artificial Intelligence in Healthcare I: New Solutions in Computer Applications**

- 3.2.1. Remote Analysis of Results
- 3.2.2. Chatbox
- 3.2.3. Prevention and Real-Time Monitoring
- 3.2.4. Preventive and Personalized Medicine in Oncology

**3.3. Artificial Intelligence in Healthcare II: Monitoring and Ethical Challenges**

- 3.3.1. Monitoring Patients with Reduced Mobility
- 3.3.2. Cardiac Monitoring, Diabetes, Asthma
- 3.3.3. Health and Wellness Apps
  - 3.3.3.1. Heart Rate Monitors
  - 3.3.3.2. Blood Pressure Bracelets
- 3.3.4. Ethical Use of AI in the Medical Field. Data Protection

**3.4. Artificial Intelligence Algorithms for Image Processing**

- 3.4.1. Artificial Intelligence Algorithms for Image Handling
- 3.4.2. Image Diagnosis and Monitoring in Telemedicine
  - 3.4.2.1. Melanoma Diagnosis
- 3.4.3. Limitations and Challenges in Image Processing in Telemedicine

**3.5. Application Acceleration using Graphics Processing Units (GPU) in Medicine**

- 3.5.1. Program Parallelization
- 3.5.2. GPU Operations
- 3.5.3. Application Acceleration using GPU in Medicine

**3.6. Natural Language Processing (NLP) in Telemedicine**

- 3.6.1. Text Processing in the Medical Field. Methodology
- 3.6.2. Natural Language Processing in Therapy and Medical Records
- 3.6.3. Limitations and Challenges in Natural Language Processing in Telemedicine

**3.7. The Internet of Things (IoT) in Telemedicine. Applications**

- 3.7.1. Monitoring Vital Signs. *Wearables*
  - 3.7.1.1. Blood Pressure, Temperature, and Heart Rate
- 3.7.2. The IT and *Cloud* Technology
  - 3.7.2.1. Data Transmission to the Cloud
- 3.7.3. Self-Service Terminals

**3.8. The IT in Patient Monitoring and Care**

- 3.8.1. The IT Applications for Emergency Detection
- 3.8.2. The Internet of Things in Patient Rehabilitation
- 3.8.3. Artificial Intelligence Support in Victim Recognition and Rescue

**3.9. Nano-Robots. Typology**

- 3.9.1. Nanotechnology
- 3.9.2. Types of Nano-Robots
  - 3.9.2.1. Assemblers. Applications
  - 3.9.2.2. Self-Replicating. Applications

**3.10. Artificial Intelligence in COVID-19 Control**

- 3.10.1. Covid- 19 and Telemedicine
- 3.10.2. Management and Communication of Breakthroughs and Outbreaks
- 3.10.3. Outbreak Prediction in Artificial Intelligence



*In the virtual classroom you will find research articles, complementary readings, detailed videos and dynamic summaries to delve into each section of the agenda”*



# 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 Diploma in Biomedical Image Analysis and Big Data in E-Health is aimed at university graduates, postgraduates and undergraduates who have previously completed any of the following degrees in the field of social and legal sciences, administration and economics.

The diversity of participants with different academic profiles and from multiple nationalities makes up the multidisciplinary approach of this program.

The Postgraduate Diploma can also be taken by professionals who, being university graduates in any field, have two years of work experience in the field of telemedicine.





“

*A versatile program designed for any professional who is interested in business growth within the area of Telemedicine”*

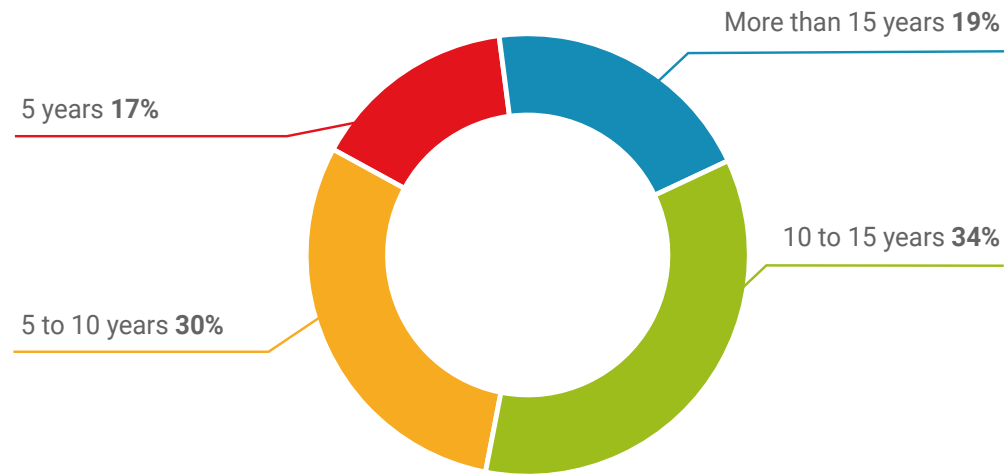
### Average Age

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

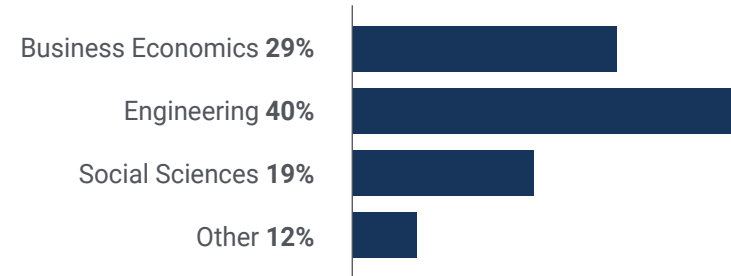
### Years of Experience

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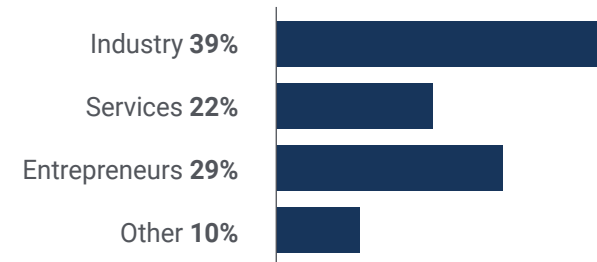
### Training

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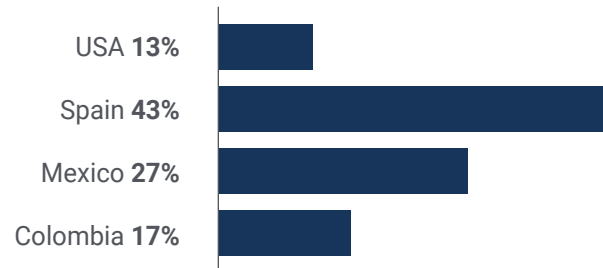
### Educational Profile

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## Geographical Distribution

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## Rocío García

Head of the IT area of a company International Telemedicine in France

*"After a long search, I ended up deciding on this Postgraduate Diploma because it was the most complete option I found. And I was not disappointed. I was able to work intensively and from home, perfecting my professional skills, delving into the multiple business opportunities of biomedical images and the application of Big Data in data processing related to the health area. Thanks to this, I was able to demonstrate my true potential and get the position I had been looking for for months"*

08

# Course Management

Not all universities are concerned with including a faculty specialized in the area in which it is going to be developed in their degrees. That is why TECH technological university is better than the rest, because it selects for each program a teaching team made up of experts with extensive professional experience. An example of this is the faculty of this Postgraduate Diploma, made up of experts in Engineering and Biology, who are characterized, in addition to their career, by their human qualities and by the commitment they have to academic growth and, therefore, both, professional, of the graduates.







“

*What happens if you have any type of questions during the course of the program? Well, you will have the teaching team at your disposal to solve them”*

## Management



### Ms. Sirera Pérez, Ángela

- ♦ Biomedical Engineer expert in Nuclear Medicine and exoskeleton design
- ♦ Designer of specific parts for 3D printing at Technadi
- ♦ Technician in the Nuclear Medicine area of the University Clinic of Navarra
- ♦ Degree in Biomedical Engineering from the University of Navarra
- ♦ MBA and Leadership in Healthcare and Medical Technology Companies

## Professors

### Ms. Muñoz Gutiérrez, Rebeca

- ♦ Data Scientist at INDITEX
- ♦ Firmware Engineer for Clue Technologies
- ♦ Graduate in Health Engineering, specializing in Biomedical Engineering, University of Malaga and University of Seville
- ♦ Master's Degree in Intelligent Avionics, Clue Technologies, in collaboration with the University of Málaga
- ♦ NVIDIA: Fundamentals of Accelerated Computing with CUDA C/C++
- ♦ NVIDIA: Accelerating CUDA C++ Applications with Multiple GPUs



09

# Impact on Your Career

For any graduate, having a qualification like the one TECH Technological University is a significant basis that will make them stand out in any selection process.

And it is that the international prestige of this university guarantees that all of its students complete their respective academic experiences, having passed a series of academic criteria that make them true professionals in the area in which the program is developed.





*Having this qualification on your resume can only mean one thing: that you are a true expert in the Analysis of Biomedical Images and Big Data in E-Health, endorsed by TECH”*

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

The Postgraduate Diploma in Biomedical Image Analysis and Big Data in E-Health TECH is an intensive program that prepares the student to face challenges and business decisions in the field of Bioinformatics in Medicine. The main objective is to promote the student's personal and professional growth. Helping them achieve success Those who wish to improve themselves, achieve a positive change at a professional level and interact with the best will find their place in this program.

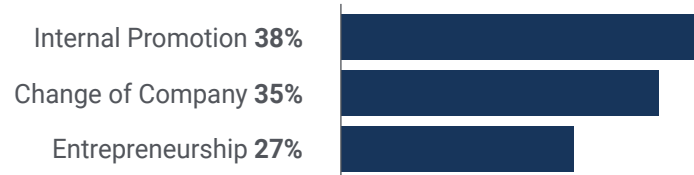
*Being able to access more prestigious job positions will increase your chances of getting a significant salary increase.*

*The perfect program that will increase your chances of internal promotion, as well as the guarantee of success of any project you want to undertake related to Telemedicine and Big Data.*

#### Time of Change



#### Type of Change



## Salary Increase

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The completion of this program represents a salary increase of more than **28%** for our students.



10

# Benefits for Your Company

The program of this Postgraduate Diploma may be the best option for the graduate's company to grow and achieve the most ambitious objectives, through exhaustive knowledge of an area in the process of development such as Telemedicine. In addition, completing the program will guarantee that you will have acquired a series of leadership skills typical of a manager prepared to face complex tasks and solve crisis situations.





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*Thanks to this Postgraduate Diploma, you will be able to demonstrate your professional skills in the successful management of crisis situations in the business environment”*

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.

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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.

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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.

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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 Diploma in Biomedical Image Analysis and Big Data in E-Health guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Technological University.



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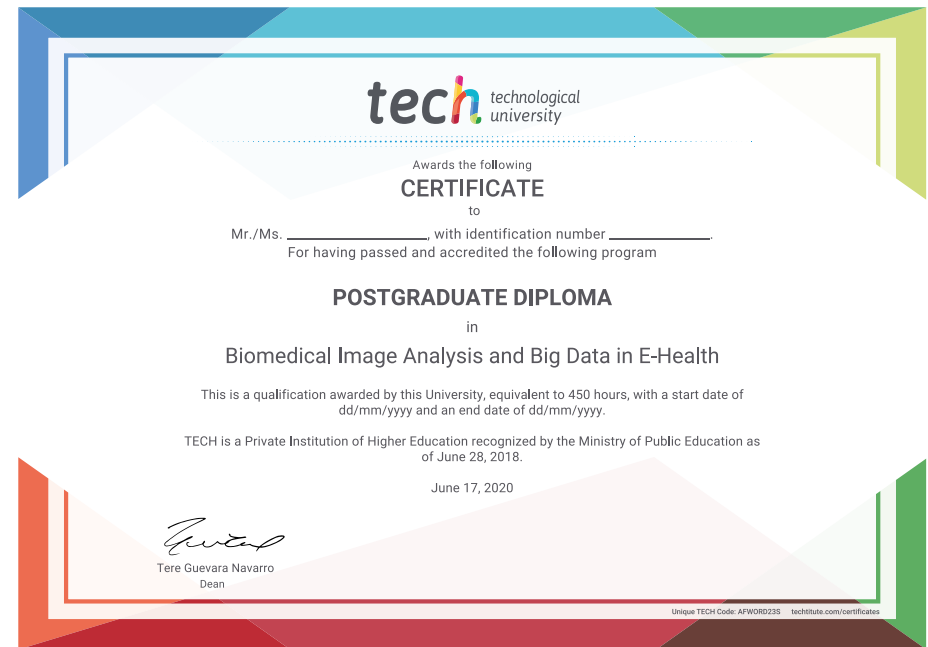
*Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork”*

This **Postgraduate Diploma in Biomedical Image Analysis and Big Data in E-Health** 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 Diploma** issued by **TECH Technological University** via tracked delivery\*.

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

Title: **Postgraduate Diploma in Biomedical Image Analysis and Big Data in E-Health**  
Official N° of Hours: **450 h.**



\*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.



## Postgraduate Diploma Biomedical Image Analysis and Big Data in E-Health

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

# Postgraduate Diploma Biomedical Image Analysis and Big Data in E-Health

