

# Postgraduate Certificate Aeronautical Airport Infrastructures



## Postgraduate Certificate Aeronautical Airport Infrastructures

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

Website: [www.techtute.com/pk/engineering/postgraduate-certificate/aeronautical-airport-infrastructures](http://www.techtute.com/pk/engineering/postgraduate-certificate/aeronautical-airport-infrastructures)

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# 01

# Introduction

Aeronautical Airport Infrastructures have strong scientific backing for their possible development and operation. The changes in protocol in the different areas that affect it mean that professionals in this field have to be constantly up to date and prepared to apply their knowledge to professional practice. Therefore, this educational plan focuses on providing innovative content in this field. In online mode, the program combines the conditions to make learning easier and more practical, so that it is not necessary to dispense with other professional or personal projects in order to take it.





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*Stay up to date on Aeronautical Airport Infrastructures with this online educational program, designed to be combined with other professional and personal projects"*

The safety of airport infrastructure is perhaps one of the most important aspects of airport security. This is why the protocols for the creation and operation of these zones have undergone transformations at the same time as the flight experience has, in order to bring a higher level of safety to air travel.

This Postgraduate Certificate in Airport Infrastructures Aeronautical has been designed to manage and understand in depth the "air side" of them, that is, everything related to the aeronautical outdoor areas such as the airfield, service roads and lanes, as well as everything related to air transport.

It is an educational program tailored to any user with an Internet connection and a desire to recycle their knowledge. In a fully online format, this Postgraduate Certificate offers all its multimedia content on the virtual platform, which can be accessed without limits for the duration of the program.

This **Postgraduate Certificate in Aeronautical Airport Infrastructures** contains the most complete and up-to-date program on the market. The most important features include:

- ◆ The development of practical cases presented by experts in Airport Infrastructures. Aeronautical
- ◆ 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 the self-assessment process can be carried out 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



*Update your notions and knowledge on the creation and operation of the "air side" of airports with this online training"*

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*This Postgraduate Certificate will give you the necessary criteria and notions to delve into the management of Aeronautical Airport Infrastructures”*

The program's teaching staff includes professionals from the sector who bring to this program the experience of their work, in addition to recognized specialists from prestigious reference societies and 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 immersive education programmed to learn in real 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. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

*Learn to manage and understand in depth the "air side" of airports, keep your resume attractive and up to date.*

*An online Postgraduate Certificate designed to reconcile professional and personal life with the updating of knowledge.*



# 02

# Objectives

This training has been developed so that the user, after completing it, will be able to design, create and exploit the "air side" of airports, as well as the existing materials, rules and regulations. Therefore, this Postgraduate Certificate focuses on meeting this requirement. The program management has considered a series of basic items to control this matter. Therefore, special emphasis is also placed on the fact that this type of specific training opens up job opportunities, as well as allowing the professional career to be refocused because knowledge is acquired in very specific fields.







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*This Postgraduate Certificate is led by professionals in the field and focuses on responding to the requirements of the sector”*



## General Objectives

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- ◆ Provide the professional with the specific and necessary knowledge to perform with a critical and formed opinion in any phase of planning, design, construction or operation of the airport
- ◆ Determine the problems of airport design and look for solutions adjusted to the airport's needs
- ◆ Master the main constraints involved in an airport project
- ◆ Acquire a specialized approach and be able to monitor the management of any airport department
- ◆ Apply the latest techniques used in the industry today
- ◆ Outline the new trends that airports plan to implement in the post-COVID era
- ◆ Deepen the knowledge of the different critical and common airside infrastructures and their design



*Refocus your professional career with this Postgraduate Certificate and become an expert in Aeronautical Airport Infrastructures"*





## Specific Objectives

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- ◆ Identify the optimal location for an airport
- ◆ Detailing the content and drafting a master plan
- ◆ Master the airport manual, as a starting point for an airport
- ◆ Delve into runway types and runway designs
- ◆ Delve into the types and design taxiway and its parts
- ◆ Master the types and design of aprons
- ◆ Determine the problems in the construction of apron slabs on aprons
- ◆ Identify the drainage systems needed in an airport
- ◆ Analyze the safety areas and design of airports
- ◆ Master the minimum requirements of a heliport
- ◆ Acquire the ability to design a heliport
- ◆ Delve into the requirements and design of the taxiways

03

# Course Management

This program is designed following the guidelines of a group of experts of the highest prestige, composed of active professionals who have dedicated a large part of their careers to the development of works, management and direction of airports, continuing at the forefront of the sector and developing their professional practice in the best animation studios and projects of international stature. Therefore, through the content presented by the faculty and the various teaching materials they have developed, the student will receive the most current and sought-after knowledge of this industry.





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*The student will receive the most current and in-demand knowledge of this industry thanks to the design of the teaching team”*

## Management



### D. Moreno Merino, Rafael

- ♦ High Speed Projects Technician. Risk Assessment Expert at INECO
- ♦ Airport Maintenance Project Manager at INECO
- ♦ Engineer at INECO
- ♦ Director of the Master's Degree in Project, Construction and Operation of Airport Infrastructures
- ♦ Head of Occupational Risk Prevention and Production at ACCIONA
- ♦ Professional Master's Degree in Business Administration at Polytechnic University of Madrid
- ♦ Professional Master's Degree in Business Administration from Polytechnic University of Madrid
- ♦ Degree in Civil Engineering from Universidad Católica San Antonio de Murcia

## Professors

### Ms. Blázquez del Rivero, Miriam

- ♦ Aeronautical Engineer at Gesnaer Consulting
- ♦ Airport Engineer for INECO
- ♦ Junior Aeronautical Engineer for ALBEN 4000 Ingeniería y Consultoría
- ♦ Consultant for Altran and Alben 4000
- ♦ Aeronautical Technical Engineer at Universidad Politécnica de Madrid



# 04

# Structure and Content

This Postgraduate Certificate goes in depth into the outdoor areas of an airport and the main elements on which it depends. Therefore, the content is directly introduced in the runway and related to aeronautical transport. Technical issues such as airport planning, the design, construction and operation of the runway or the details of taxiways are addressed. In addition, other important issues such as aprons, drainage and obstacle limitation surfaces are also covered.







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*This study plan delves into the "air side" of airport infrastructures"*

## Module 1. Airside Airport Infrastructures

- 1.1. Airport Planning
  - 1.1.1. Location of an Airport
  - 1.1.2. Meteorological Requirements
  - 1.1.3. Master Plan Land Reserves
  - 1.1.4. Airport Certificate
- 1.2. The Track
  - 1.2.1. Design. Typology
  - 1.2.2. Construction
  - 1.2.3. Runway Operation
- 1.3. Road of Filming
  - 1.3.1. Design of Taxiways
  - 1.3.2. Operation Traffic Siding
  - 1.3.3. Platform Shooting Lanes
- 1.4. Platforms
  - 1.4.1. Parking Lot Design
  - 1.4.2. Dimensioning of Service Areas
  - 1.4.3. Platform Types
  - 1.4.4. Construction Slabs Joints
  - 1.4.5. Platform Operation
- 1.5. Aircraft Safety Areas
  - 1.5.1. Striping, RESAs, Clearways and Stopways Design
  - 1.5.2. Construction Earrings Resistance
  - 1.5.3. Operation
- 1.6. Drainages
  - 1.6.1. Drainage in Paved Areas
  - 1.6.2. Drainage in NO Paved Areas
  - 1.6.3. Hydrocarbon Separation Plants (HSP)
  - 1.6.4. Construction Problems
- 1.7. Obstacle Limiting Surfaces
  - 1.7.1. Declaration of Limiting Surfaces
  - 1.7.2. Obstacle Limitations in Municipalities
  - 1.7.3. Surveillance and Violation





- 1.8. Heliports
  - 1.8.1. Design. FATO and TLOF
  - 1.8.2. Construction
  - 1.8.3. Operation
- 1.9. Control Tower
  - 1.9.1. Functional Design
  - 1.9.2. Construction
  - 1.9.3. Operation
- 1.10. Carousel Courtyards
  - 1.10.1. Design and Functionality
  - 1.10.2. Construction Pavements
  - 1.10.3. Operation

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*In just 10 units, you will gain a comprehensive understanding of Aeronautical Airport Infrastructures”*

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 Aeronautical Airport Infrastructures 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 Aeronautical Airport Infrastructures** 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 certificate 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 Aeronautical Airport Infrastructures**

Official N° of hours: **150 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.

future

health confidence people

education information tutors

guarantee accreditation teaching

institutions technology learning

community commitment

personalized service innovation

knowledge present

development language

virtual classroom

**tech** technological  
university

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