

# Postgraduate Diploma Smart City Solutions





## Postgraduate Diploma Smart City Solutions

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 24 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/engineering/postgraduate-diploma/postgraduate-diploma-smart-city-solutions](http://www.techtute.com/us/engineering/postgraduate-diploma/postgraduate-diploma-smart-city-solutions)

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# 01

# Introduction

Cities are becoming increasingly digitized, thanks to the advance of new technologies. Governments have historically developed digital systems to favor the attention to citizens, but these improvements have joined the new Smart City Solutions, implementing substantial improvements in large cities in different areas. In this program, TECH offers a specific education with an innovative academic program and an exceptional team of teachers endorsed by their professional experience. A successful program for professionals looking for further education.







“

*Learn how to develop smart city solutions in a convenient and agile way, and give your career a boost while helping to digitize cities”*

Today, Smart Cities are at the forefront of digital transformation processes and, according to all technological indicators, we are only at the beginning of this journey, since, as these digital capabilities are explored, new paths and application areas are being incorporated into the smart city ecosystem.

This Postgraduate Diploma will address from a functional and business perspective the different models currently used to build smart cities through four main blocks: first, the smart city strategy model as a fundamental basis on which to implement, measure and monitor a set of actions that allow cities to address their smart transformation in the most efficient and sustainable way possible. Second, the different Smart City construction models used, highlighting those based on the use of IoT devices and vertical solutions, models based on GIS technology and geospatial analysis and models based on VMS systems. Third, the model based on Integration Platforms, which will be the cornerstone that will allow the complete development and transformation of a smart city, as well as guarantee its interoperability with multiple systems and ensure the security of information and infrastructures. Finally, how to approach the transformation of cities from a management and operational point of view.

In this comprehensive program, special emphasis will also be placed on Digital Government systems (or e-Government), systems that have historically been developed in parallel to Smart City systems. In recent years, with the integration of classic data management systems (ERP) in Smart City data repositories, and thanks to the process management capabilities of digital platforms, this distinction between e-Government systems and Smart City systems has become increasingly blurred and both worlds converge with the aim of providing better services to the city.

This **Postgraduate Diploma in Smart City Solutions** contains the most complete and up-to-date program on the market. Its most notable features are:

- ◆ The development of case studies presented by experts in Smart City Solutions
- ◆ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- ◆ Practical exercises where self-assessment can be used to improve learning
- ◆ Special emphasis on innovative methodologies in Smart City Solutions
- ◆ 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



*The completion of this Postgraduate Diploma will place engineering and architecture professionals at the forefront of the latest developments in the sector"*



*This Postgraduate Diploma is the best investment you can make in the selection of a refresher program in the field of Smart Cities. We offer you quality and free access to content"*

Its teaching staff includes professionals from the fields of engineering and architecture, who contribute their work experience to this program, as well as renowned specialists from prestigious universities and leading societies.

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 training that is programmed to train students 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 during the academic year. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts in Smart City Solutions.

*This program comes with the best educational material, providing you with a contextual approach that will facilitate your learning.*

*This 100% online Postgraduate Diploma will allow you to balance your studies with your professional work. You choose where and when to study.*





# 02 Objectives

The program in Smart City Solutions aims to help professionals acquire and learn about the main developments in this field, which will allow them to practice their profession with the highest quality and professionalism.







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*Our goal is for you to become the best professional in your sector. And for this we have the best methodology and content”*



## General Objectives

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- ◆ Recognize Smart City projects as particular use cases of digitalization projects through platforms, to know their main particularities and the state of the art of these projects in an international context
- ◆ Value the two essential elements in any smart city project, data as the main asset and the citizen as the main motivator of such projects
- ◆ Analyze the different technologies and models to address the digital transformation of cities in depth and understand the advantages and opportunities that a model based on integration platforms offers
- ◆ Delve into the general architecture of Smart Cities Platforms and the applicable reference legislation, using international standards
- ◆ Identify the role that new digital technologies play in the construction of the smart city model: LPWAN, 5G, Cloud and Edge Computing, IoT, Big Data, Artificial Intelligence
- ◆ Know the functionalities of the different layers that constitute the digital platforms for cities in detail: support layer, acquisition layer, knowledge layer and interoperability layer
- ◆ Differentiate between digital government services and Smart city services, the possibilities of integration between the two worlds and the resulting new services for citizens, public administration services 40
- ◆ Differentiate between the two types of solutions offered within the Smart Cities smart services layer: vertical solutions and transversal solutions
- ◆ In-depth breakdown of the main vertical solutions applied in cities: waste management, parks and gardens, parking, public transport management, urban traffic control, environment, security and emergencies, water consumption and energy management
- ◆ Know the transversal solutions of the smart services layer that can be implemented in smart city projects in detail
- ◆ Delve into the difference between city management and nation management, and identify their main challenges and lines of activity
- ◆ Acquire the skills and knowledge necessary for the design of technological solutions in the fields of tourism, home care, agriculture, ecosystemic spaces and urban service provision
- ◆ Have a global perspective of Smart City projects, identifying the most useful tools in each phase of the project
- ◆ Recognize the keys to success and how to deal with the possible difficulties that a smart city project may present
- ◆ Identify the main trends and paradigms that will serve as leverage for the future transformation of Smart Cities
- ◆ Conceptually design plans and solutions aligned with the Sustainable Development Goals of the 2030 Agenda



## Specific Objectives

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### Module 1. Smart City Construction Models

- ◆ Acquire the main knowledge to apply the methodology and tools necessary to implement a smart city strategic plan
- ◆ In-depth analysis of different technologies and models to address the Smart transformation of cities
- ◆ Distinguish between the advantages and disadvantages of the different smart city models and their main applications
- ◆ Understand and conceptualize the paradigm of the integration platform model, the benefits it brings and its fundamental role in the design of cities
- ◆ Understand the differences between technology models based on Open Source technology and licensed models
- ◆ Delve into the phases of a global Smart Cities project, its transformation and the generation of new value-added services as a lever for socio-economic growth

### Module 2. The Smart City and Digital Government

- ◆ Conduct an exhaustive analysis of the history of Digital Government at the international level and the different initiatives that exist to promote it
- ◆ Differentiate, in a clear way, the classic processes of digital government and the services offered by a Smart City
- ◆ Integrating e-Government services in a Smart City and the benefits this brings to citizens
- ◆ Identify so-called City Services 4.0, such as the city government scorecard and the new citizen CRM

### Module 3. Vertical Solutions for Urban Services Management

- ◆ Know in detail the Smart City Services Layer and distinguish between Vertical Solutions and Cross-Cutting Solutions
- ◆ Identify the main areas of urban management, their competencies and their management models
- ◆ Differentiate between vertical solutions for monitoring, operation and management
- ◆ Identify specific use cases in which technology contributes to streamline and make urban services more efficient and even the integration of different urban services for an intelligent management of the city through the knowledge of a specific area

### Module 4. Smart Cities Cross-Cutting Solutions

- ◆ Differentiate the transversal solutions of the intelligent services layer and distinguish between the different groups of transversal solutions
- ◆ Deepening transversal solutions that integrate new ways of communication with the citizen or with the elements of the city
- ◆ Learn about transversal solutions that focus on the improvement of cross-cutting areas of the city such as mobility, urban planning and social policies
- ◆ Learn in depth about the transversal solutions that focus on the availability of information to different stakeholders of the city, the citizen, municipal managers, study and research centers, and the business and economic fabric
- ◆ Learn about the internal and external objects of the city, how they generate data and how they are integrated within a Smart City and the new urban planning systems by analyzing vulnerabilities and strengths and integrating all Smart City information systems

03

# Course Management

TECH has professionals specialized in each area of knowledge, who contribute their work experience to the programs. A multidisciplinary team with recognized prestige that has come together to offer you all their knowledge in this area.







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*Our university employs the best professionals in all areas who share their knowledge to help you"*

## International Guest Director

Ravi Koulagi is an outstanding leader in the **technology sector** and his excellent resume has earned him a number of senior positions, including **Global Director of Cloud Solutions at Cisco, Atlanta**. In this position, he has led the development and go-to-market strategy for **multi-cloud solutions**, focusing on integrating key capabilities in **computing, connectivity and security** into a comprehensive **cloud transformation** solution, strengthening the company's position in a highly competitive market.

He has also served as **Chief Technology Officer (CTO)** for the **Global Public Sector Segment**, where he has developed sales strategies in areas such as **intent-based networking, cybersecurity, multicloud data centers, collaboration and IoT portfolios** for global public sector customers. Likewise, his expertise in **Smart Cities and Internet of Things** architectures and platforms has been instrumental in the creation of **Cisco's IoT platform for Smart Cities**, as well as in leading **business development** in this area.

In addition to his responsibilities at **Cisco**, Ravi Koulagi has been a **member of the Smart City Expo USA Advisory Board**, where he has contributed to the evolution of the leading industry event in the **United States** focused on **urban transformation through technology and Smart Cities**, consolidating his position as an international expert in **urban technology and cloud innovation**. He has also contributed significantly to the industry with his **book on unified communications**, published by **Cisco Press**, and with his **three patents** related to **voice messaging and telephony systems**.

In this context, his experience ranges from the creation of **reference architectures in IoT and Smart Cities**, to the development of sales strategies and **technology partnerships**, positioning him as a key figure in the evolution and adoption of t.



## Mr. Koulagi, Ravi

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- Global Director of Cloud Solutions at Cisco, Atlanta, United States
- Member of the Advisory Board at Smart City Expo USA
- Chief Technology Officer (CTO) for Global Public Sector Segment at Cisco, Bangalore, India
- Global Head of IoT and Smart City Solutions at Cisco, Bangalore, India
- IoT and Smart City Solutions Architect at Cisco, Bangalore, India
- Manager, Advanced Services and Collaboration Technologies, Cisco, Bangalore, India
- Manager of Software Development, Systems Engineering and VoIP Solutions at Cisco, California
- Technical Leader in IP and UC, and Integrated Services Routers at Cisco, California
- Technology Advisor for the World Bank's Smart Cities Investment Program at the International Finance Corporation (IFC)
- AI Applications for Growth at Kellogg Executive Education

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*Thanks to TECH, you will be able to learn with the best professionals in the world”*

## Management



### Mr. Garibi, Pedro

- ◆ Technical Electronic Engineer from the University of Deusto
- ◆ Telecommunications Engineer by the University of Deusto
- ◆ Master's Degree in Mobile Communication from the Polytechnic University of Madrid
- ◆ Professional with more than 20 years of experience in project management
- ◆ Solutions architect in the fields of Smart & Safe Cities, (Indra, Huawei, T-Systems)
- ◆ Manager of Smart City projects, both in the R&D and production areas
- ◆ Independent Smart Cities Consultant
- ◆ Co-chair of the United Nations U4SSC group for the elaboration of a framework for Artificial Intelligence in Smart Cities
- ◆ Speaker at several Smart Cities congresses in Spain and Europe
- ◆ Author of several articles on the use of intelligent platforms for the improvement of citizen security
- ◆ Member of the Official College of Telecommunication Engineers of Spain (COIT)



## Professors

### Mr. Budel, Richard

- ◆ Project management professional in the public sector
- ◆ Diploma in Medical Anthropology from Trent University (Canada)
- ◆ Managing Director of Simplicities Ltd
- ◆ Managing Partner of the Public Sector Department at Sullivan & Stanley
- ◆ Chairman of the Digital Government Advisory Board at Huawei
- ◆ Former Chief Information Officer (CIO/CTO) at IBM and Huawei
- ◆ Former IT Director, Department of Public Safety and Justice, Government of Ontario, Canada
- ◆ Thought leader and speaker at events in more than 70 countries around the world
- ◆ Collaborator in UN4SSC, EIP-SCC, Smart Cities Council and other multinational organizations

### Mr. Bosch, Manuel

- ◆ Member of the Big Data and Artificial Intelligence Cluster of the Madrid City Council in the Interoperable Projects working group
- ◆ Graduate in Mining Engineering from the Polytechnic University of Madrid
- ◆ Consultant in Smart Cities and Nations, (Indra - Minsait)
- ◆ Expert in Smart Solutions in the fields of sustainability and circular economy
- ◆ Expert in the integration of eGovernment solutions in Smart Cities environments
- ◆ Extensive experience in Smart City projects
- ◆ Collaborator of the thematic group "City Platforms" of the U4SSC (United for Smart Sustainable Cities) initiative coordinated by ITU
- ◆ Author of several reports focused on the modernization of public administration through the use of new technologies

### Ms. Domínguez, Fátima

- ◆ Consultant and area manager of Business Development for Public Administrations in the field of Smart Cities (Indra-Minsait)
- ◆ Degree in Civil Engineering from the Polytechnic University of Leiria (Portugal)
- ◆ ThePowerMba Business Expert - Business Management and Administration
- ◆ Responsible for the Caceres Smart Heritage Project
- ◆ Product owner of solutions for the intelligent management of tourist destinations
- ◆ Expert in smart solutions in the fields of agribusiness, urban services and tourism destination management

### Mr. Koop, Sergio

- ◆ Expert in smart solutions in the fields of urban resilience, mobility, urban services and tourism destination management
- ◆ Degree in Industrial Technologies Engineering from Carlos III University of Madrid
- ◆ Master's Degree in Business Management from Carlos III University of Madrid
- ◆ More than 4 years of experience as a Smart Cities consultant (Indra - Minsait)
- ◆ Author of several reports focused on the use of disruptive technologies for the transformation of public administrations
- ◆ Collaborator of the S3 HIGH TECHFARMING group of the EU for the development of technologies to improve agricultural productivity

04

# Structure and Content

The structure of the contents has been designed by leading professionals in the intelligent infrastructure sector, with extensive experience and recognized prestige in the profession, and aware of the benefits that the latest educational technology can bring to higher education.



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*We have the most complete and up-to-date academic program in the market. We strive for excellence and for you to achieve it too"*

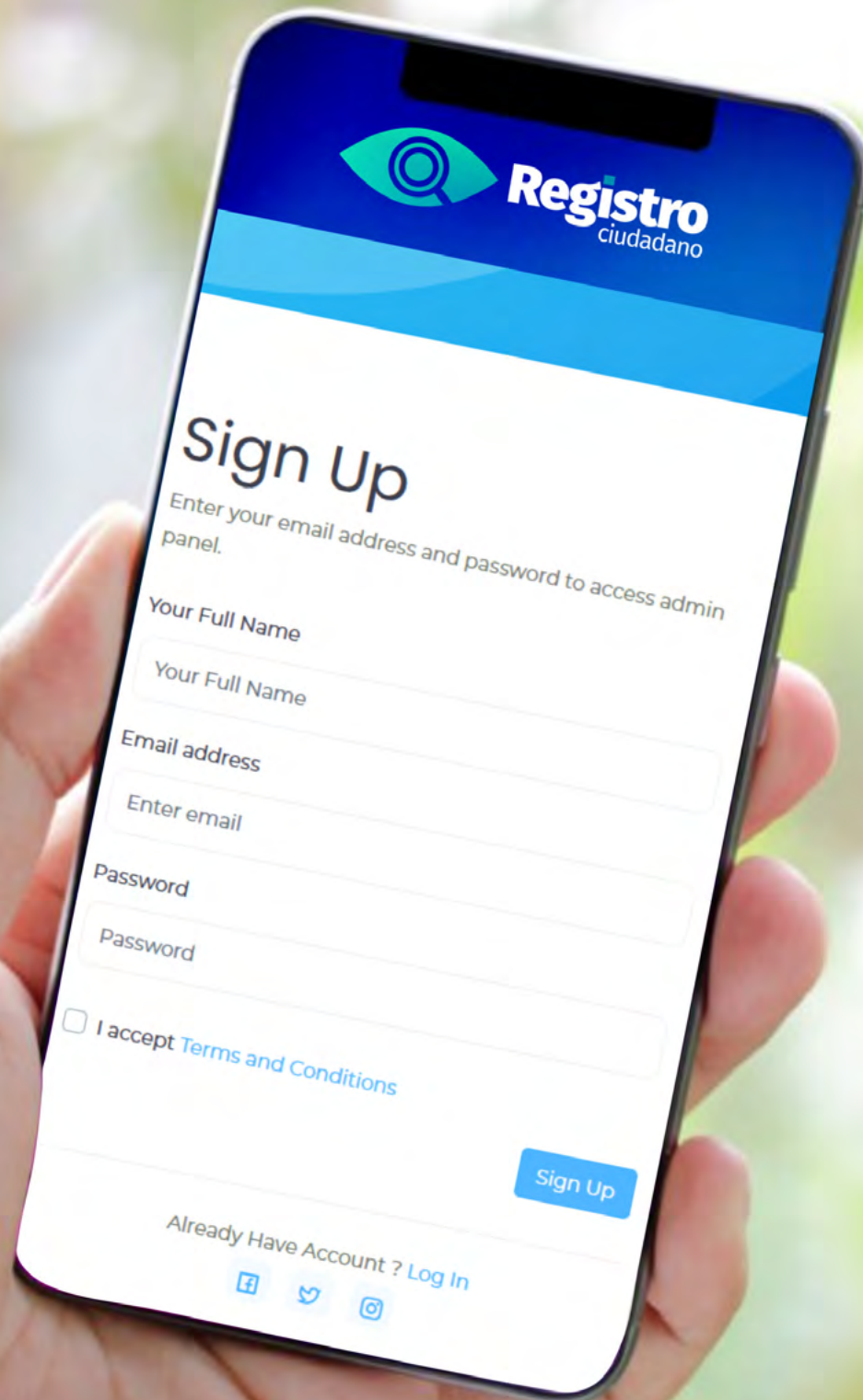
## Module 1. Smart City Construction Models

- 1.1. Different Models to Build a Smart City
  - 1.1.1. Different Smart City Models
  - 1.1.2. Greenfield and Brownfield
- 1.2. Smart City Strategy
  - 1.2.1. Master Plans
  - 1.2.2. Monitoring and Implementation: Indicators
- 1.3. Models Based on IoT Collections and Vertical Solutions
  - 1.3.1. Models Based on IoT Collections
  - 1.3.2. Models Based on Vertical Solutions
- 1.4. Models Based on GIS Systems
  - 1.4.1. Spatial Data and GIS Tools for the Management and Analysis of Geographical Information
  - 1.4.2. Geospatial Analysis
- 1.5. Models Based on VMS
  - 1.5.1. Main Features of VMS Systems
  - 1.5.2. VMS Systems for Traffic Control, Mobility and Urban Safety
- 1.6. Models Based on Integration Platforms
  - 1.6.1. The Value of an Integrating Vision
  - 1.6.2. City Semantics
- 1.7. Platform Features and Rules
  - 1.7.1. Features of Smart Cities Platforms
  - 1.7.2. Normalization, Standardization and Interoperability
- 1.8. Security in Smart City Platforms
  - 1.8.1. Cities and Critical Infrastructure
  - 1.8.2. Security and Data
- 1.9. Open Source and Licensing
  - 1.9.1. Open Source or Licensed Platforms
  - 1.9.2. Solutions and Services Ecosystems
- 1.10. Smart Cities as a Service or as a Project
  - 1.10.1. The Comprehensive Smart City Project: Consultancy, Products and Technical Office
  - 1.10.2. Smart Services as a Lever for Growth

## Module 2. The Smart City and Digital Government

- 2.1. Difference between Digital Government and Smart City
  - 2.1.1. Digital Government
  - 2.1.2. Main Difference between Digital Government and Smart City
  - 2.1.3. The Integration of Digital Government in the Smart City
- 2.2. Classic Digital Government Solutions
  - 2.2.1. Accounting Solutions
  - 2.2.2. Tax and Collection Solutions
  - 2.2.3. Document Management Solutions
  - 2.2.4. Population Management Solutions
  - 2.2.5. Records Management Solutions
- 2.3. Asset Management in the City
  - 2.3.1. The Asset Management System
  - 2.3.2. Importance of Asset Management in the City
- 2.4. The Electronic Headquarters
  - 2.4.1. The Electronic Headquarters
  - 2.4.2. Citizen's Folder
- 2.5. Integration of the Elements of Digital Government in Smart Cities
  - 2.5.1. Objective of Digital Government Integration. Smart City
  - 2.5.2. Difficulties in Integration
  - 2.5.3. Steps to Consider in Integration
- 2.6. The Smart City as a Tool for Improving Digital Government Processes
  - 2.6.1. Ease of Integration of New Services
  - 2.6.2. Optimization of Management Processes
  - 2.6.3. Improving Internal Knowledge
- 2.7. Services 4.0
  - 2.7.1. Services 4.0
  - 2.7.2. Citizen Participation Systems
- 2.8. Knowledge Management
  - 2.8.1. Big Data Technology at the Service of City Data
  - 2.8.2. The Transparency Portal
  - 2.8.3. The City Scorecard





- 2.9. Analytical Systems
  - 2.9.1. City Data Analytics on a New Level
  - 2.9.2. Fraud Detection Systems
- 2.10. Customer Relationship Management (CRM)
  - 2.10.1. Citizen CRM
  - 2.10.2. New Citizen Service Systems

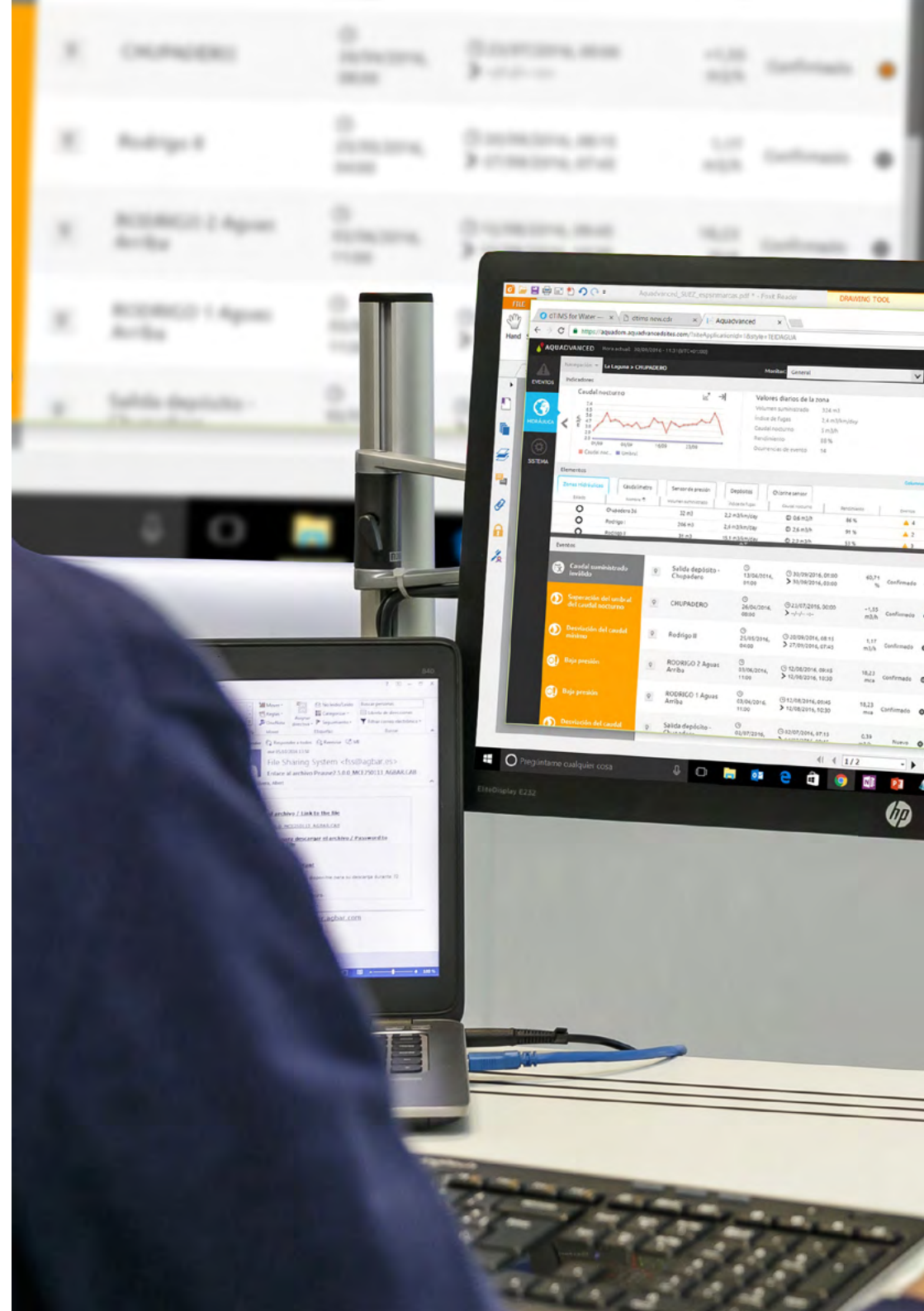
### Module 3. Vertical Solutions for Urban Services Management

- 3.1. Importance of Municipal Areas
  - 3.1.1. Organizational Model of Cities and Municipalities
  - 3.1.2. Coordination and Management of Municipal Areas
- 3.2. Waste Management
  - 3.2.1. Challenges to be Solved in Waste Management
  - 3.2.2. Technologies Involved in its Resolution
- 3.3. Environmental and Air Quality Management
  - 3.3.1. Challenges to be Solved in Environmental Management
  - 3.3.2. Air Quality
  - 3.3.3. Proactive Citizen Communication Alerts
- 3.4. Urban Traffic Control
  - 3.4.1. Challenges to be Solved in Urban Traffic Control
  - 3.4.2. Technologies Involved in its Resolution
- 3.5. Parking Management
  - 3.5.1. Challenges to be Solved in Parking Management
  - 3.5.2. Technologies Involved in its Resolution
- 3.6. Public Mobility Management
  - 3.6.1. Challenges to be Solved in Public Mobility
  - 3.6.2. Technologies Involved in its Resolution
- 3.7. Security and Emergencies Area
  - 3.7.1. Challenges to be Solved in Security and Emergencies Management
  - 3.7.2. Technologies Involved in its Resolution

- 3.8. Energy Management Area
  - 3.8.1. Challenges to be Solved in Energy Management
  - 3.8.2. Street Lighting
- 3.9. Parks and Gardens Management Area
  - 3.9.1. Challenges to be Solved in Parks and Gardens Management
  - 3.9.2. Technologies Involved in its Resolution
- 3.10. Water Consumption Management
  - 3.10.1. Challenges to be Solved in Water Consumption Management
  - 3.10.2. Monitoring of Water Supply and Sanitation Network

## Module 4. Transversal Smart City Solutions

- 4.1. Transversal Solutions
  - 4.1.1. Importance of Cross-Cutting Solutions
  - 4.1.2. Smart Cities as a Guarantor of the Operation of Transversal Solutions
- 4.2. Citizen Card Solutions
  - 4.2.1. Citizen Card
  - 4.2.2. Solutions for the Integration of the Citizen Card in City Services
- 4.3. Internal and External City Objects
  - 4.3.1. Internal City Objects
  - 4.3.2. External City Objects
  - 4.3.3. Integration of the Information of City Objects in the Smart City
- 4.4. Citizen Mobility Solutions
  - 4.4.1. Mobility Beyond Private and Public Transportation
  - 4.4.2. Mobility Management in the Smart City
- 4.5. New Urban Planning Systems
  - 4.5.1. Functional Centrality Index
  - 4.5.2. Analysis of Vulnerabilities and Strengths
  - 4.5.3. Integration of Planning Systems in the Smart City
- 4.6. Inclusive Social Policy Planning
  - 4.6.1. Complexity of Social Policies
  - 4.6.2. The Use of Data for the Articulation of Social Policies
  - 4.6.3. The Use of the Smart City for the Application of Social Policies





- 4.7. Empowering Innovation and the Local Ecosystem
  - 4.7.1. The City Lab
  - 4.7.2. The Creation of a Diverse Innovation Network
  - 4.7.3. University-Business Collaboration
- 4.8. Open Data Portals and Marketplaces
  - 4.8.1. Data Portals and their Importance in the Creation of the City Ecosystem
  - 4.8.2. Open Data Portals
  - 4.8.3. Marketplaces
- 4.9. The Citizen Portal and Citizen PPPs
  - 4.9.1. Citizen Access to City Metrics
  - 4.9.2. Citizen Portal Features
  - 4.9.3. Features of the Citizen PPP
- 4.10. IOC: Holistic City Management
  - 4.10.1. Holistic City Management Systems
  - 4.10.2. Real-Time Operation and Supervision
  - 4.10.3. Operation and Supervision in the Medium and Long Term

“*A comprehensive and multidisciplinary educational program that will allow you to excel in your career, following the latest advances in the field of smart city solutions*”

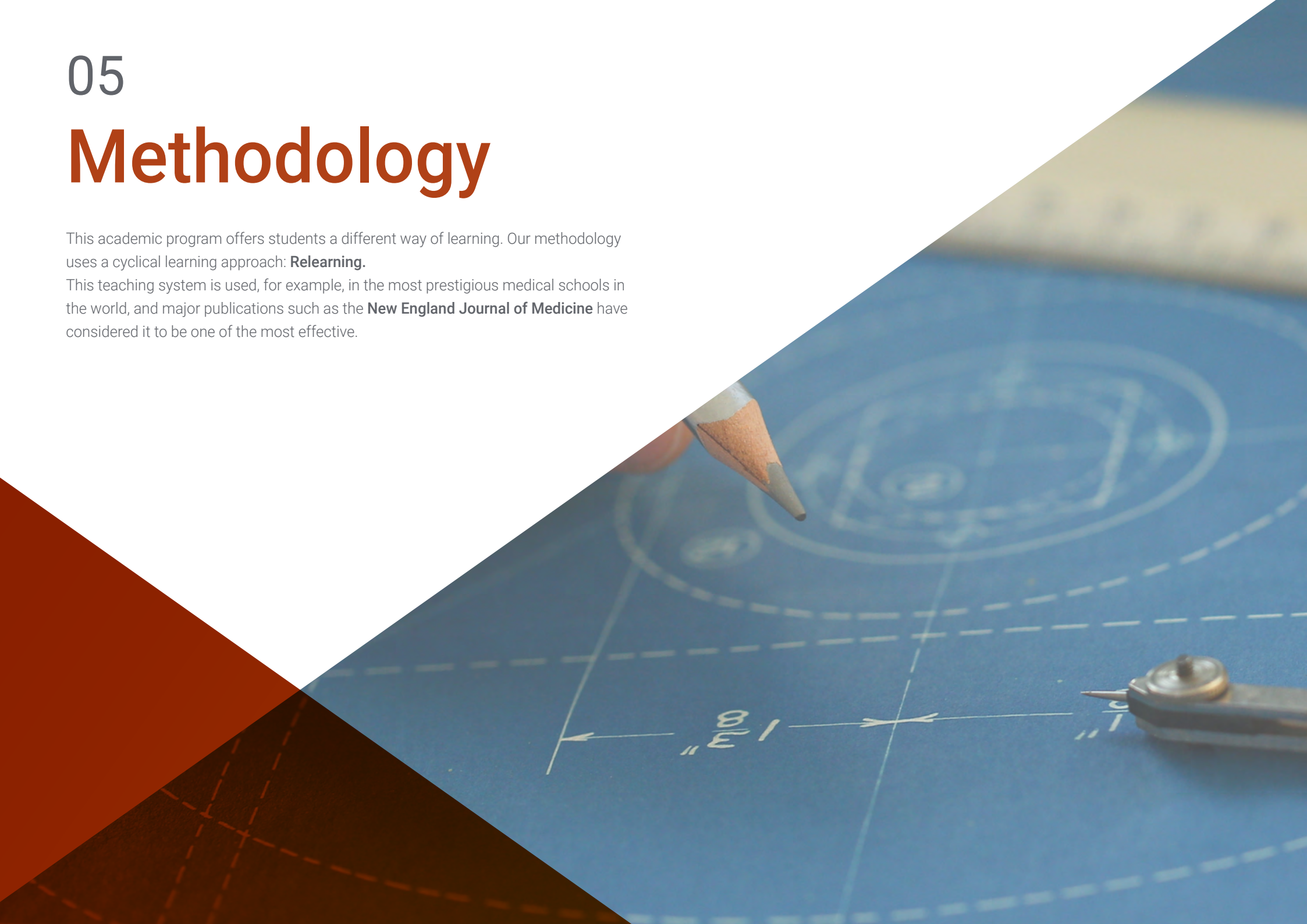


05

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

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 Diploma in Smart City Solutions guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Global University.







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

This program will allow you to obtain your **Postgraduate Diploma in Smart City Solutions** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Diploma in Smart City Solutions**

Modality: **online**

Duration: **6 months**

Accreditation: **24 ECTS**



\*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH Global University 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 quality

online training

development languages

virtual classroom

**tech** global  
university

## Postgraduate Diploma Smart City Solutions

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Credits: 24 ECTS
- » Schedule: at your own pace
- » Exams: online



# Postgraduate Diploma Smart City Solutions

# CITY

