Internship Program
Telecommunications Engineering

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01

Introduction

Telecommunication Engineering is undergoing a rapid evolution, driven by the advancement of emerging technologies and the growing demand for advanced connectivity. Therefore, the global deployment of 5G networks is transforming the way we interact with the digital world, facilitating the integration of IoT devices in various applications, from smart cities to industrial automation. For this reason, TECH has created the present program, in which in 3 weeks the expert will be integrated into a team versed in Telecommunication Engineering to get up to date on the latest developments and technologies available, thus being able to bring them to their own daily practice in a comprehensive and efficient way.

> *Thanks to this Internship Program, you will work with state-of-the-art technologies, from network design and implementation, to the management of advanced communication systems"*

With the advent of 5G, significantly higher data transmission speeds and extremely low latency are being achieved, which is revolutionizing sectors such as automotive, healthcare and smart manufacturing. In addition, growing concerns about cybersecurity are leading to a continuous evolution in protection techniques and the development of more robust security protocols. And as the best way to perfect these skills is through practice, TECH has designed a program consisting of a 120-hour stay in a reference company in the field of Telecommunication Engineering.

In this way, during 3 weeks, the graduate will become part of a team of specialists of the highest level, with whom they will work actively in the development of telecommunications projects. In this way, they will be able not only to learn the most effective procedures, but also to implement specific technical competencies and teamwork skills into their practice, which will increase their employability and prepare them to take on key roles in the telecommunications sector, contributing to their professional success and to the advancement of technology in the industry.

During the internship they will be supported by an assistant tutor, who will ensure that the requirements for which this Internship Program was designed are met. Therefore, the specialist will work with total guarantee and security in the handling of the most innovative technology, as well as in the use of the techniques and tools with the best results to date.

02

Why Study an Internship Program?

This hands-on experience will facilitate an understanding of how technologies and systems work in operational environments, from designing and implementing networks to solving complex technical problems. In addition, computer scientists will develop advanced technical skills and gain experience with state-of-the-art tools and equipment, enhancing their employability and preparing them to take on responsible roles in the industry. By interacting with professionals in the field and facing real-world challenges, they will also broaden their professional network and gain a practical perspective that will complement their academic training, preparing them to contribute to the evolution of telecommunications.

> *This Internship Program will be essential for those seeking a deep immersion in the real world of telecommunications, applying theoretical knowledge in practical and concrete situations"*

1. Updating from the latest technology available

The deployment of 5G networks is one of the most relevant developments, as it offers ultra-fast transmission speeds and minimal latency, facilitating the integration of large-scale IoT devices, industrial automation and real-time artificial intelligence applications. In addition, the use of Software Defined Networking (SDN) and Network Functions Virtualization (NFV) allow telecommunications infrastructures to be managed and optimized in a more flexible and efficient way, facilitating the implementation of cloud-based services.

2. Gaining in-depth knowledge from the experience of top specialists

The large team of professionals that will accompany the specialist throughout the practical period is a first-class and an unprecedented guarantee of updating. With a specifically appointed tutor, students will be able to develop real projects in a state-of-the-art environment, which will allow them to incorporate the most effective procedures and approaches in Telecommunication Engineering into their daily practice.

3. Entering first-class professional environments

TECH carefully selects all available centers for Internship Programs. Thanks to this, the specialist will have guaranteed access to a prestigious environment in the area of Telecommunication Engineering. In this way, you will be able to see the day-to-day work of a demanding, rigorous and exhaustive work area, always applying the latest technology available in its work methodology.

4. Putting the acquired knowledge into daily practice from the very first moment

The academic market is plagued by teaching programs that are poorly adapted to the daily work of the specialist and that require long teaching hours, often not very compatible with personal and professional life. TECH offers a new learning model, 100% practical, that allows you to get in front of state-of-the-art procedures in the field of Telecommunication Engineering and, best of all, to put it into professional practice in just 3 weeks.

5. Opening the door to new opportunities

The convergence of telecommunications with emerging technologies such as Artificial Intelligence, data analytics and cloud computing is creating a dynamic environment full of possibilities. By exploring areas such as network optimization, the implementation of 5G solutions and the development of advanced communication systems, computer scientists can leverage their skills to innovate in creating more efficient and secure infrastructures. This intersection of technologies opens up opportunities to lead complex projects, develop new applications and services, and contribute to the evolution of a sector crucial to the digital future.

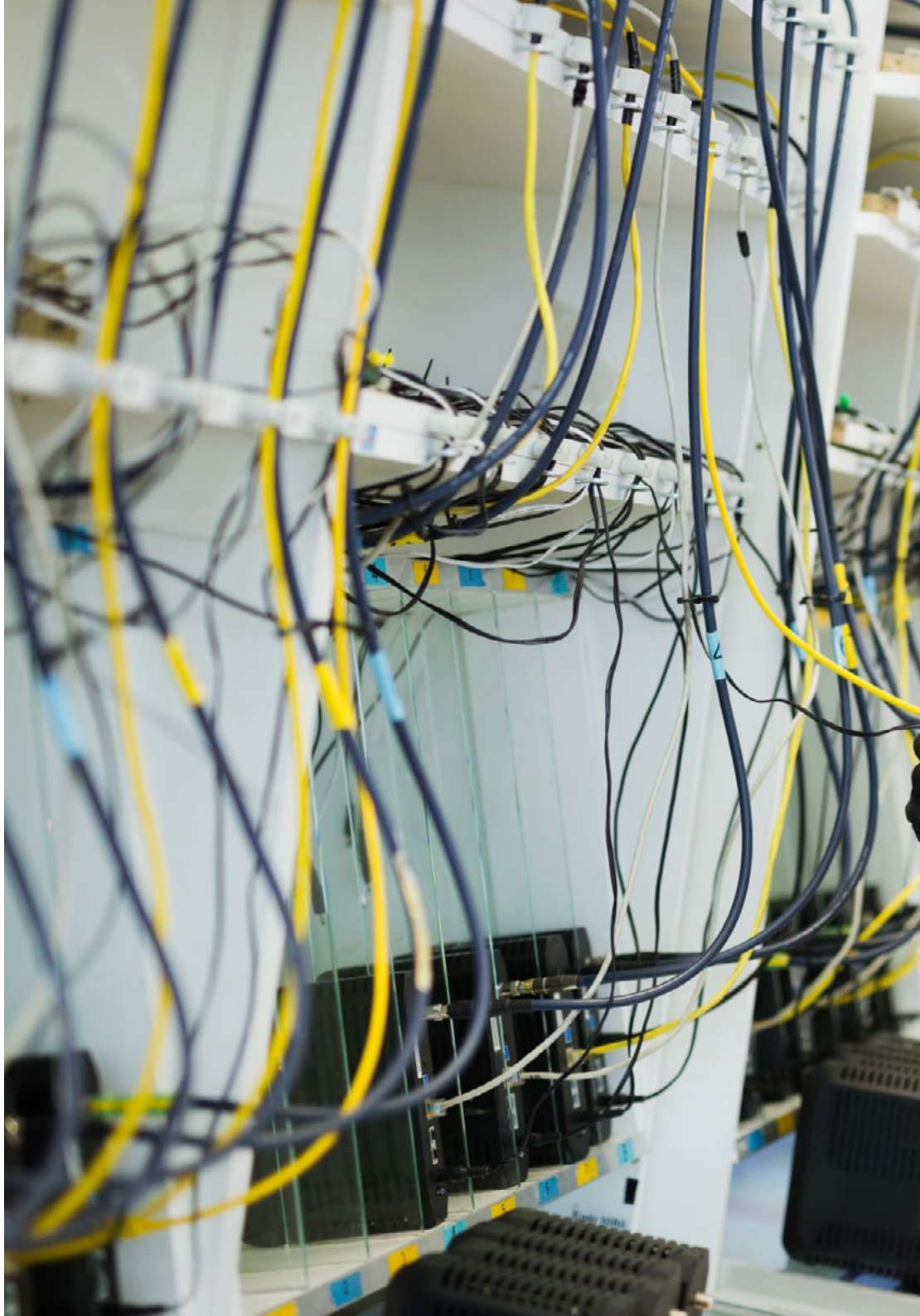
You will have full practical immersion at the center of your choice"

03
Objectives

This program will enable computer scientists to acquire practical skills in the design of networks, the configuration of communication systems and the resolution of real technical problems, using state-of-the-art equipment and tools. In addition, they will develop competencies to integrate telecommunications solutions with computer applications, such as data management and network security. In this way, they will not only reinforce their theoretical understanding, but also improve their ability to tackle complex and dynamic projects, taking on strategic and technical roles in a rapidly evolving field.

General Objectives

- Apply theoretical knowledge in real telecommunication situations
- Develop skills in the design and implementation of communication networks
- Manage and optimize technological infrastructures
- Solve technical and operational problems in professional environments
- Use advanced telecommunication tools and equipment
- Integrate telecommunications solutions with computer systems
- Implement and maintain network cybersecurity measures
- Collaborate with industry professionals on real projects
- Evaluate and improve the performance of networks and communication systems
- Acquire practical experience that enhances professional development in telecommunications



Specific Objectives

- Know the operation of telecommunications equipment and tools
- Design and configure data and communications networks
- Implement wireless and mobile network solutions
- Optimize the performance of telecommunication systems
- Perform network infrastructure fault testing and diagnostics
- Apply traffic management and quality of service techniques
- Develop and integrate advanced communication systems
- Implement network security protocols
- Manage and monitor telecommunication systems
- Collaborate in the planning and deployment of 5G networks
- Configure and maintain network cybersecurity systems
- Solve technical and operational problems in realistic environments
- Apply knowledge of fiber and optical communications networks
- Evaluate the efficiency and scalability of network infrastructures
- Work on IoT integration in communication systems
- Perform data analysis for network improvement
- Implement network virtualization techniques
- Participate in the optimization of coverage and capacity of mobile networks
- Collaborate in projects for the deployment of new technologies in telecommunications
- Develop technical project documentation and reporting skills

04
Educational Plan

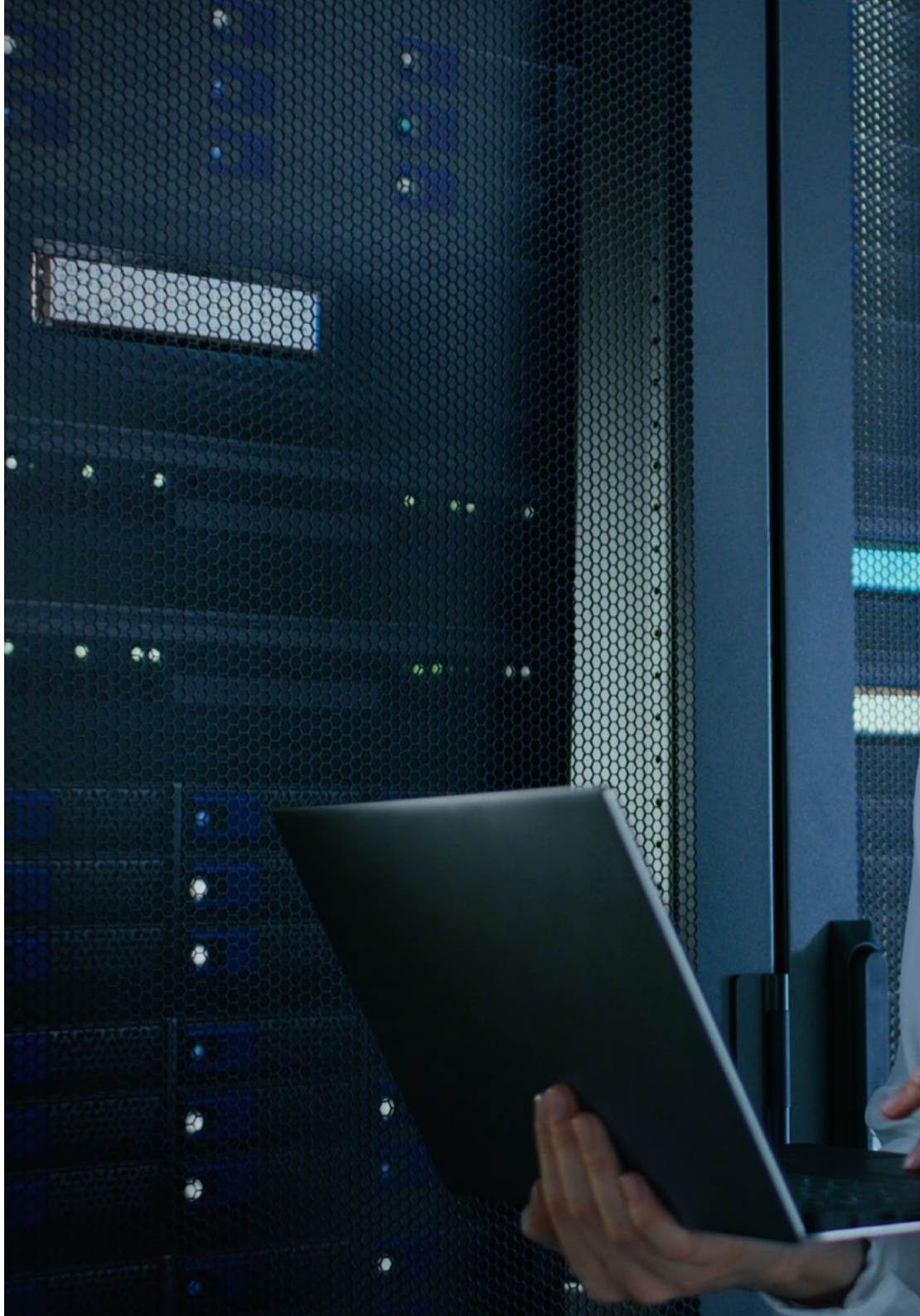
The Internship Program of this Telecommunications Engineering program consists of a practical training period of 3 weeks, from Monday to Friday, with 8 consecutive hours of practical training, always with an assistant specialist. This internship will allow the graduate to work on real telecommunication projects, alongside a team of reference professionals in the field of Telecommunication Engineering, applying the most innovative procedures and mastering the latest technology available.

In this totally practical training proposal, the activities are aimed at developing and perfecting the necessary skills to develop telecommunication projects, in areas and conditions that require a high level of qualification, and oriented to the specific training to perform the activity. This is undoubtedly an opportunity to learn by working.

The practical part will be carried out with the participation of the student performing the activities and procedures of each competence area (learning to learn and learning to do).

the activities and procedures of each area of competence (learning to learn and learning to do), with the accompaniment and guidance of teachers and other training partners that facilitate teamwork and multidisciplinary integration as transversal competences for the praxis of computer science (learning to be and learning to relate).

The procedures described below will be the basis of the practical part of the training, and its realization will be subject to the center's own availability and workload, being the proposed activities the following:



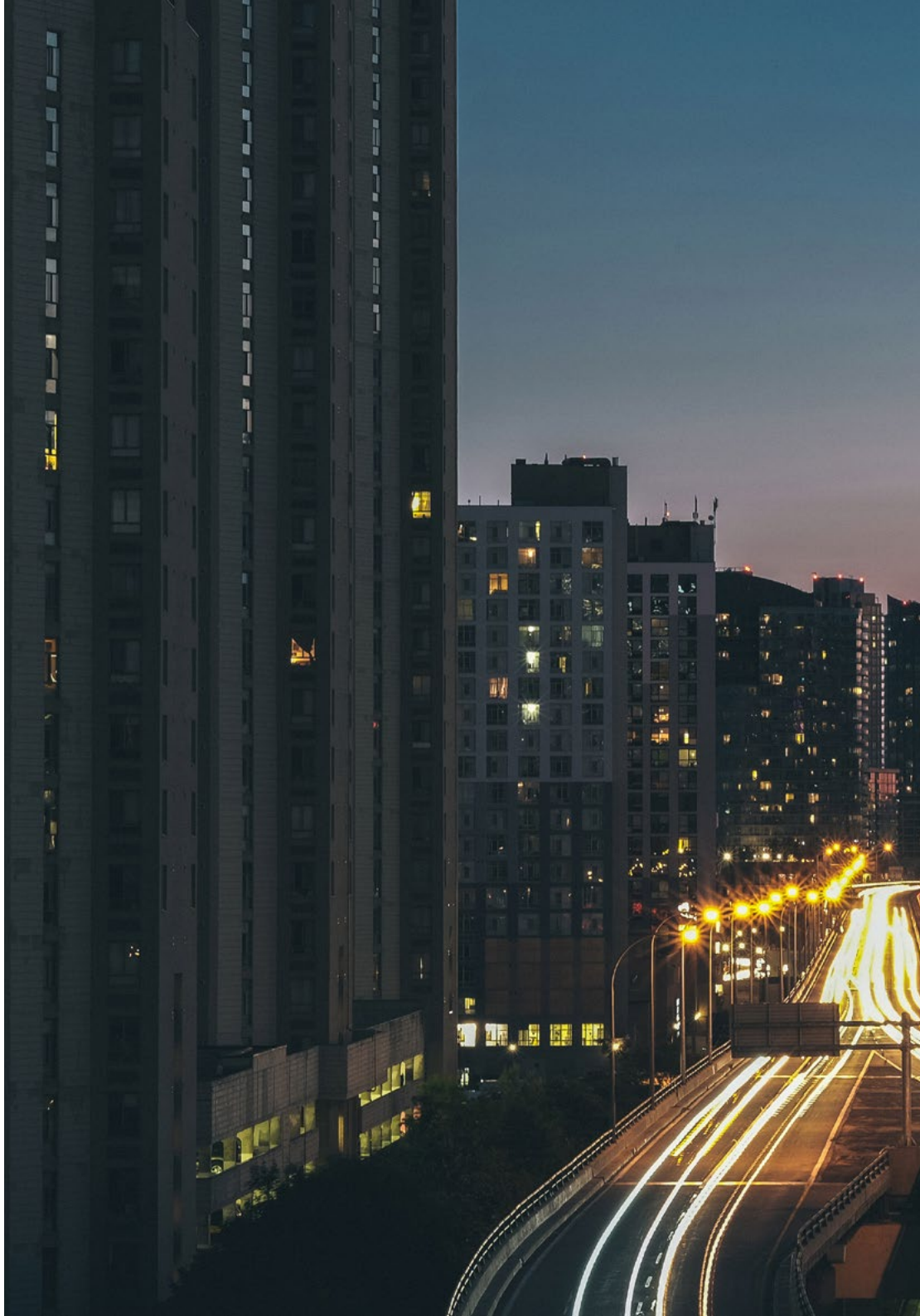
Module	Practical Activity
Design and Development of Telecommunication Systems	Analyze technical requirements for the design of telecommunication networks
	Develop software and hardware solutions for telecommunication systems
	Implement wireless and wired communication technologies
	Integrate telecommunication systems into existing infrastructures
Telecommunications Project Management	Plan telecommunication network installation projects
	Oversee compliance with deadlines and budgets in technology projects
	Coordinate multidisciplinary teams in telecommunication projects
	Evaluate performance and efficiency of implemented systems
Telecommunications Security	Develop security policies for telecommunications networks and systems
	Implement communications encryption and authentication systems
	Perform security audits in telecommunications infrastructures
	Manage the response to security incidents in communication networks
Innovation and New Technologies	Research and evaluate new and emerging telecommunications technologies
	Prototype solutions based on next-generation technologies
	Participate in the creation of patents and related intellectual property
	Collaborate in telecommunications research and development projects
Consulting and Technical Advisory Services	Advise companies on the implementation of telecommunications solutions
	Conduct technical feasibility studies for telecommunications projects
	Prepare technical reports for strategic decision making
	Train and coach internal teams in the use of telecommunication technologies

05

Where Can I Do the Internship Program?

In its maxim of offering quality education within the reach of most people, TECH has decided to broaden the academic horizons so that this program can be provided in various centers around the country. Therefore, this is a unique opportunity that will allow the professional to continue to grow his or her career alongside the best specialists in the sector in various leading companies.

> *The internships will take place in leading and cutting-edge companies in the telecommunications and technology sector, providing an immersion in highly relevant professional environments"*



The student will be able to do this program at the following centers:

IT specialist

Colegio Territorial de Arquitectos de Alicante

Country: Spain

City: Alicante

Address: Plaza Gabriel Miró, nº 2, 03001 Alicante

Represents and supports professionals in Alicante, ensuring that they have the necessary resources.

Related internship programs:

-Event Organization

- Digital Product Design (UX/UI)

Make the most of this opportunity to surround yourself with expert professionals and learn from their work methodology"

06
General Conditions

Civil Liability Insurance

This institution's main concern is to guarantee the safety of the students and other collaborating agents involved in the internship process at the company. Among the measures dedicated to achieve this is the response to any incident that may occur during the entire teaching-learning process.

To this end, this entity commits to purchasing a civil liability insurance policy to cover any eventuality that may arise during the course of the internship at the center.

This liability policy for interns will have broad coverage and will be taken out prior to the start of the Internship Program period. That way professionals will not have to worry in case of having to face an unexpected situation and will be covered until the end of the internship program at the center.

General Conditions of the Internship Program

The general terms and conditions of the internship agreement for the program are as follows:

1. TUTOR: During the Internship Program, students will be assigned two tutors who will accompany them throughout the process, answering any doubts and questions that may arise. On the one hand, there will be a professional tutor belonging to the internship center who will have the purpose of guiding and supporting the student at all times. On the other hand, they will also be assigned an academic tutor, whose mission will be to coordinate and help the students during the whole process, solving doubts and facilitating everything they may need. In this way, the student will be accompanied and will be able to discuss any doubts that may arise, both clinical and academic.

2. DURATION: The internship program will have a duration of three continuous weeks, in 8-hour days, 5 days a week. The days of attendance and the schedule will be the responsibility of the center and the professional will be informed well in advance so that they can make the appropriate arrangements.

3. ABSENCE: If the student does not show up on the start date of the Internship Program, they will lose the right to it, without the possibility of reimbursement or change of dates. Absence for more than two days from the internship, without justification or a medical reason, will result in the professional's withdrawal from the internship, therefore, automatic termination of the internship. Any problems that may arise during the course of the internship must be urgently reported to the academic tutor.

4. CERTIFICATION: Professionals who pass the Internship Program will receive a certificate accrediting their stay at the center.

5. EMPLOYMENT RELATIONSHIP: The Internship Program shall not constitute an employment relationship of any kind.

6. PRIOR EDUCATION Some centers may require a certificate of prior education for the Internship Program. In these cases, it will be necessary to submit it to the TECH internship department so that the assignment of the chosen center can be confirmed.

7. DOES NOT INCLUDE: The Internship Program will not include any element not described in the present conditions. Therefore, it does not include accommodation, transportation to the city where the internship takes place, visas or any other items not listed

However, students may consult with their academic tutor for any questions or recommendations in this regard. The academic tutor will provide the student with all the necessary information to facilitate the procedures in any case.

07

Certificate

This private qualification will allow you to obtain an **Internship Program's diploma in Telecommunications Engineering** 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** private qualification, 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: **Internship Program in Telecommunications Engineering**

Duration: **3 weeks**

Attendance: **Monday to Friday, 8-hour shifts, consecutive shifts**

Accreditation: **4 ECTS**

tech global university

Mr./Ms. _____, with identification document _____
has successfully passed and obtained the title of:

Internship Program in Telecommunications Engineering

This is a private qualification of 120 hours of duration equivalent to 4 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024

Dr. Pedro Navarro Illana
Dean

Unique TECH Code: AFWORD23S techtitute.com/certificates

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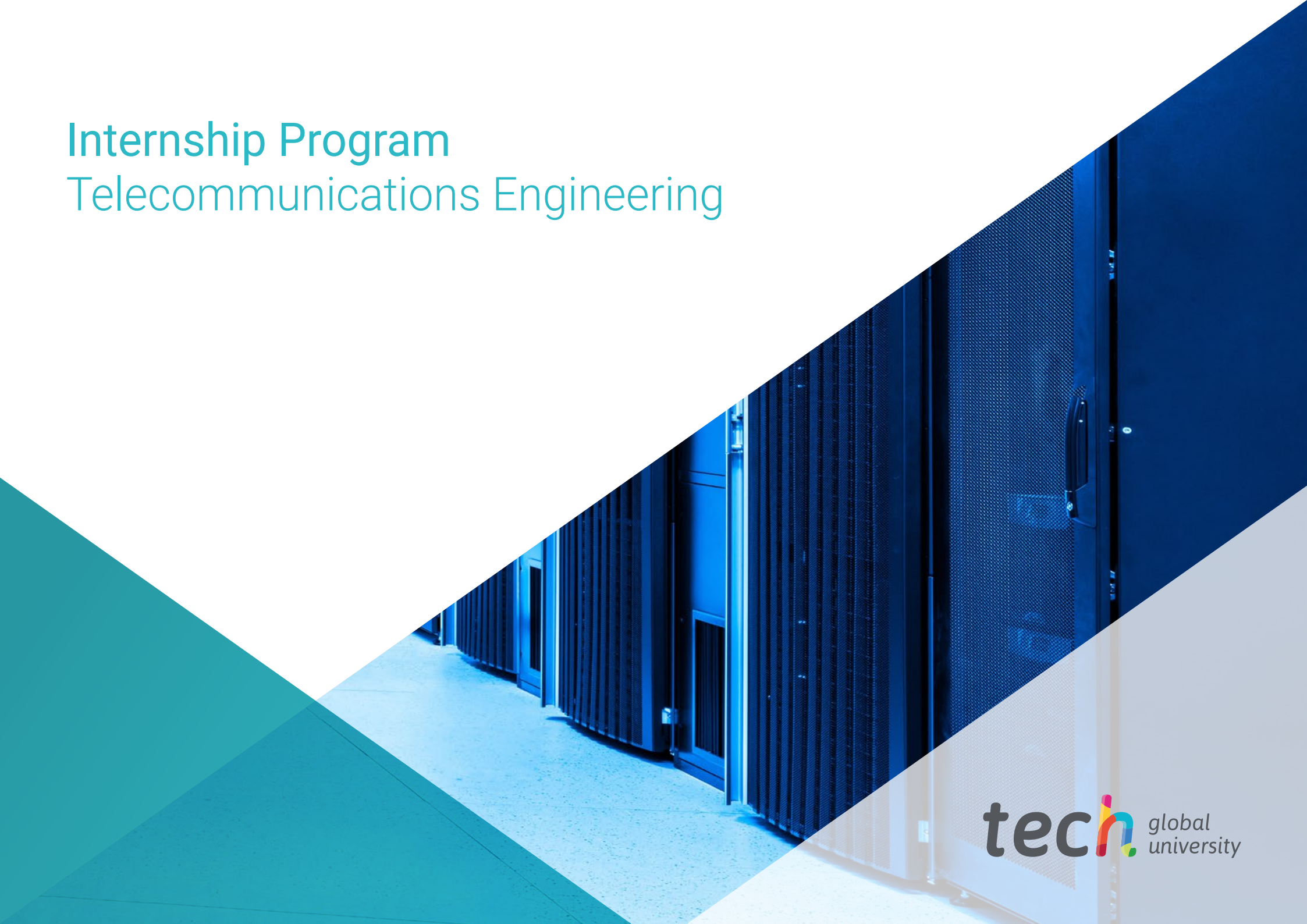

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