Internship Program
Digital Transformation and Industry 4.0

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Introduction

The technological advances that have been developed over the last two decades have led to the so-called Fourth Industrial Revolution or Industry 4.0, characterized by the combination of the most advanced production and operability techniques with the use of intelligent computer systems. All this has led to a digital transformation that, in order to be able to assume, they need the help of highly qualified professionals in the most advanced tools and methodologies appropriate to the sector in which they operate. For this reason, the specialized profile in this area has taken on significant relevance. However, the opportunities to take a practical period that allows them to make their way in the working world are scarce, which is why TECH, in its commitment to the growth of its students, has decided to create this program in which they can develop for 3 weeks in a real working environment and actively participate in the activities, along with a team of experts in the area of study.

> *This Internship Program will hone your skills and professional profile in the area of Digital and Industrial Transformation 4.0 in a cutting-edge organization for 3 weeks"*

Thanks to the implementation of digital transformation in companies, more refined and repetitive processes without errors or alterations are achieved, the quality level of the results is optimized and much more accurate future projections can be developed to make decisions in changing or complex socioeconomic environments. Therefore, today's professional must be up to date with the processes and tools that Industry 4.0 has been using in recent years.

For this, TECH has created this program focused on Internship Program, with 3 weeks of duration, where the professional will share an intensive stay of 8 hours of work from Monday to Friday, which will allow them to develop a professional profile according to the current business dynamics.

You will master Big Data and artificial intelligence applied for information gathering and data analysis, Machine Learning, Deep Learning, among many other advanced methodologies. At the end of this program, you will be able to deal with large amounts of data, define your analysis and derive value from it. Among other human and professional skills and competencies to perform in modern industry.

The graduate will have access to 120 hours of internship in a company with an international reputation, backed by thousands of satisfied customers. During the 3 weeks of training, you will be able to actively participate in the tasks of the engineering team, working side by side with the best professionals and making use of the most sophisticated technological tools. Thanks to this, you will be able to hone your skills and include in your resume a remarkable work experience, which will allow you to demonstrate, in any selection process, that you have the skills of a true specialist in Digital Transformation and Industry 4.0.

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Why Study an Internship Program?

Over the years, companies are changing their procedures and work methods to the current dynamics of immediacy and agility of tasks. Therefore, methodologies and technological tools play a fundamental role in these transformation processes. Because of this, the professional must be aware of everything new in terms of digital transformation, so this program will allow them to enter a real working environment without limitations where they will perform in the daily practice of handling automated systems, quantum computing, Big Data, analytics, augmented and mixed reality. Delve into the key principles of Industry 4.0, the technologies on which they are based and the potential of all of them in their application to the different productive sectors. From a 3-week intensive dynamic within an organization with a cutting-edge approach at the national or international level.

Live the experience of working alongside versed professionals in Digital Transformation and Industry 4.0 in a modern environment attending real cases for 3 weeks"

1. Updating from the latest technology available

There is nothing more cutting-edge than Digital Transformation. Industry 4.0 is made up of a set of Artificial Intelligence tools that optimize company performance and improve results. Therefore, it is essential for the professional to acquire the skills to use these systems and to be able to make intelligent and accurate decisions. This will also allow you greater knowledge, security in your daily practice and improvement in your actions.

2. Gaining In-Depth Knowledge from the Experience of Top Specialists

The professional will always be accompanied by a team of skilled workers and a designated tutor who will accompany them throughout the practical period. This is a first-rate endorsement and an unprecedented guarantee of updating. In addition, the student will gain a more detailed vision of the reality of the work environment in terms of digital transformation.

3. Entering first-class Corporate environments

To develop this 100% practical learning process during 3 weeks, TECH carefully selects the available centers suitable to the Digital Transformation and Industry 4.0 process to be studied. As a result, the specialist will have guaranteed access to a prestigious working environment with the most exemplary real cases.

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

From day one of the internship, the student will start the best process of study and implementation of their skills in the management of digital transformation systems within a modern company. Thanks to the dynamics of this program designed by TECH together with leading experts, you will be able to get to the forefront of state-of-the-art procedures in only 3 weeks.

5. Expanding the Boundaries of Knowledge

The professional will have the possibility of choosing their preferred Internship Program center, thanks to the fact that TECH has established agreements in different parts of the world. In this way, the specialist will be able to expand their frontiers and catch up with the best professionals, who practice in cutting-edge business centers and in different continents. An opportunity that only TECH can offer.

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

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Objectives

This program has been designed with the objective of providing graduates with the necessary knowledge to enable them to carry out an exhaustive analysis of the profound transformation and radical paradigm shift that is being experienced in the current process of global digitalization. In addition, it aims to provide all the information and technological tools necessary to face and lead the technological leap and the challenges currently present in companies. As a result, TECH believes that it will be able to master the digitization procedures of companies and the automation of their processes to create new fields of wealth in areas such as creativity, innovation and technological efficiency, as well as to lead the digital change.

General Objectives

- Mastering the digitalization procedures of companies and the automation of their processes to create new fields of wealth in areas such as creativity, innovation and technological efficiency
- Manage the technological tools necessary to face and lead the technological leap and the challenges currently present in companies
- Know the main existing Wearable devices, their usefulness, the security systems to be applied in any IoT model and its variant in the industrial world, called IoT

Specific Objectives

- Know in detail the functioning of IoT and Industry 4.0 and its combinations with other technologies, its current situation, its main devices and uses and how hyperconnectivity gives rise to new business models where all products and systems are connected and in permanent communication
- Delve into the understanding of the main automation and control systems, their connectivity, the types of industrial communications and the type of data they exchange
- Acquire in-depth knowledge of the fundamentals of Blockchain technology and its value propositions
- Deepen the knowledge of the fundamental principles of artificial intelligence
- Acquire expert knowledge on the characteristics and fundamentals of online reality, augmented reality and mixed reality, as well as their differences
- Analyze the origins of the so-called Fourth Industrial Revolution and the Industry 4.0 concept
- Understand the current online era we live in and its leadership capacity, on which will depend the success and survival of the digital transformation processes in which any type of industry is involved
- Choose a robotic platform, prototype and know in detail simulators and robot operating system (ROS)
- Conduct an exhaustive analysis of the practical application that emerging technologies are having in the different economic sectors and in the value chain of their main industries
- Possess a thorough understanding of the technological impact and how technologies are revolutionizing the tertiary economic sector in the fields of transportation and logistics, healthcare (E-Health and Smart Hospitals), smart cities, the financial sector (Fintech) and mobility solutions

The more ambitious your goals are, the more you will be able to get out of this practical experience, as you will be able to demand more of yourself and you will have everything you need to achieve it"

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Educational Plan

TECH believes that, for any graduate, having a program that guarantees a practical stay in a prestigious center is a unique and unparalleled opportunity to complete their academic development and face the labor market in a more prepared and specialized way. For this reason, TECH has developed this program that includes 120 hours in a leading company in the IT sector, where he will be able to work, from Monday to Friday and with 8-hour consecutive working days, together with engineering professionals.

In this training proposal, the activities are aimed at the development and improvement of the competencies necessary for the provision of activities related to Digital Transformation and Industry 4.0, and which are oriented to the specific endowment for the exercise of the profession, with high job performance.

Thanks to this opportunity, the graduate will be able to work on improving their skills in the management of automation systems, as well as enter in a specialized way in the world of robotics, online reality, Blockchain and quantum computing. All this, through the use of the best and most sophisticated tools, and tutored by an industry professional who will ensure that the experience is as enriching and empowering as possible.

The practical teaching will be carried out with the active participation of the student performing 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 to facilitate teamwork and multidisciplinary integration as transversal competencies for advanced computer praxis (learning to be and learning to relate).

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

Module	Practical Activity
Industry 4.0 solutions and services for the industry	Implement and manage the Industrial Internet of Things (IIoT) in the business sector
	Perform a SWOT analysis that takes into account the advantage of Industry 4.0 in the most relevant industrial factors
	Manage the underlying digital architecture of a Smart Factory
	Employ digital leadership techniques in an Industry 4.0 environment
	Analyze data and propose Industry 4.0 sector solutions based on the area of work developed
Industry 4.0 automation systems	Manage connectivity and automation systems in an industrial environment, operating with data generated on a day-to-day basis
	Analyze and evaluate large amounts of data
	Monitor and perform appropriate maintenance for all automation systems
	Configure a Machine Learning-based assistive Chatbot
	Employ Machine Learning or Deep Learning in handling large volumes of data
New technologies within Industry 4.0	Employ the basic fundamentals of blockchain technology in a professional industrial environment
	Use Smart Contracts and Big Data tools to address common issues in the Digital Industry
	Take advantage of Quantum Computing and apply it to an industrial project
	Develop digital twins of facilities, systems or assets integrated in an IoT network
	Make use of the most common Wearables in online reality of industry 4.0
	Prototype and operate robotic platforms and operational simulators

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Where Can I Do the Internship Program?

For TECH, the choice of the centers where the Internship Programs are carried out is a complex task, since they must meet the demanding standards of quality and commitment that guarantee the graduate an experience that enhances their professional development. In this way, only the best entities become part of this community, ensuring a stay in which the student will be able to fulfill their own objectives and master the work strategies that will allow them to perform their specialized profession.

You will have access to 120 hours of internship in a reference company in the IT sector, so that you can specialize working with the best professionals and using the most modern tools"

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

Information Technology

Grupo Fórmula

Country: Mexico

City: Mexico City

Address: Cda. San Isidro 44, Reforma Soc, Miguel Hidalgo, 11650 Ciudad de México, CDMX

Leading company in multimedia communication and content generation

Related internship programs:
Graphic Design
People Management

Information Technology

Smart manufacturing i4

Country: Spain

City: Barcelona

Address: Riera de Targa, 73, 08339 Vilassar de Dalt, Barcelona

Technology audit and industrial digitalization company

Related internship programs:
- Digital Transformation and Industry 4.0

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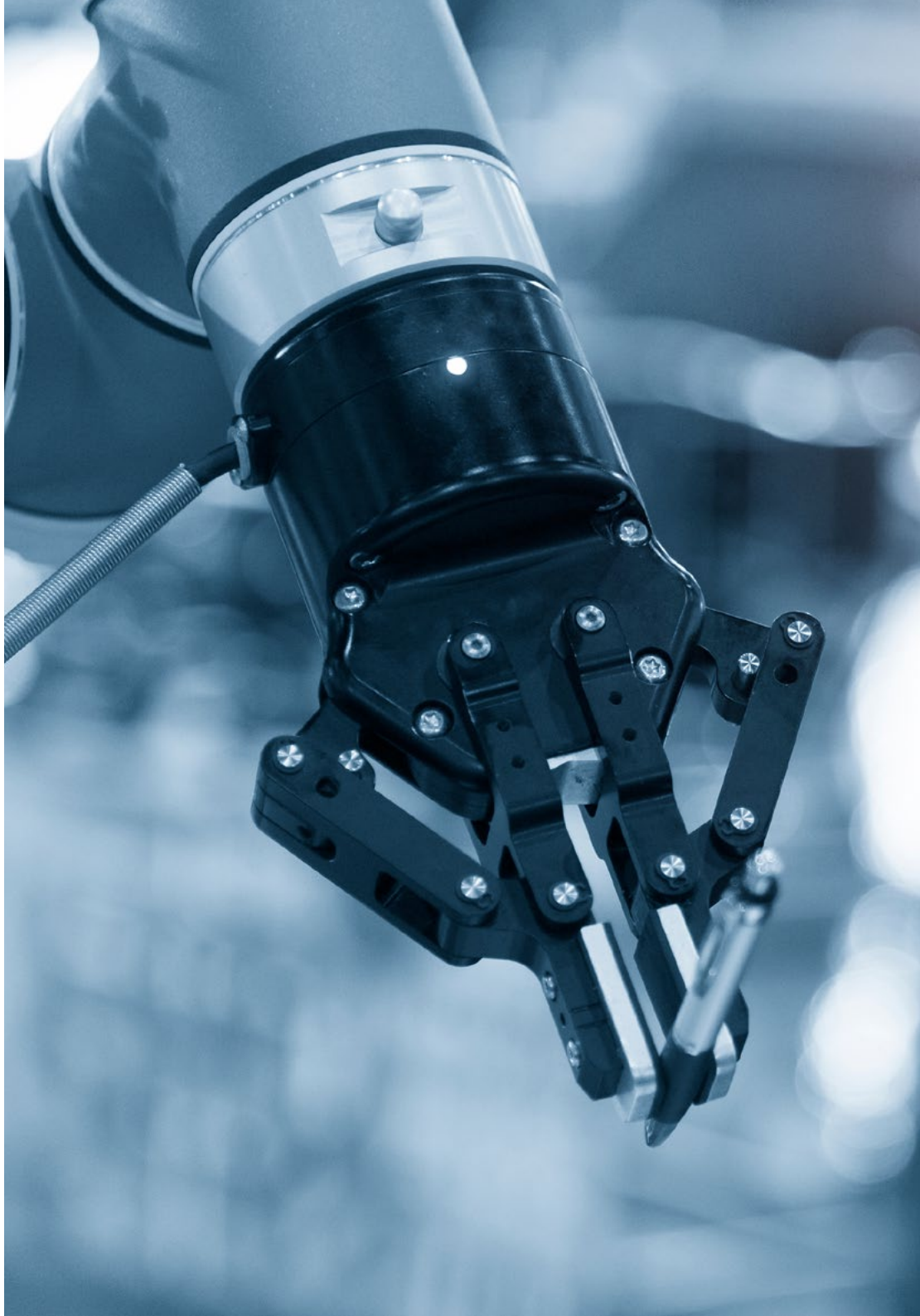
General Conditions

Civil Liability Insurance

This institution's main concern is to guarantee the safety of the trainees 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 educational entity undertakes to take out civil liability insurance to cover any eventuality that may arise during the stay at the internship center.

This liability policy for interns will have broad coverage and will be taken out prior to the start of the practical training 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 with 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 with 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 students do 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.

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Certificate

This **Internship Program in Digital Transformation and Industry 4.0** contains the Educational most comprehensive and up-to-date program in the professional and academic landscape.

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

The certificate issued by TECH will reflect the grade obtained in the test.

Title: **Internship Program in Digital Transformation and Industry 4.0**

Duration: **3 weeks**

Course Modality: **Monday to Friday, 8-hour shifts, consecutive shifts**

Total Hours: **120 h. of professional practice**


tech technological university

Awards the following

CERTIFICATE

to

Mr./Ms. _____, with identification number _____.

For having successfully passed and accredited the following program

INTERNSHIP PROGRAM

in

Digital Transformation and Industry 4.0

This is a qualification awarded by this University, with a duration of 120 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020

Tere Guevara Navarro

Dean

Unique TECH Code: AFWORD23S techtitute.com/certificates

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