

Postgraduate Diploma

Key Elements of Additive Manufacturing



Postgraduate Diploma Key Elements of Additive Manufacturing

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Accreditation: 18 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/us/design/postgraduate-diploma/postgraduate-diploma-key-elements-additive-manufacturing

Index

01

Introduction to the Program

p. 4

02

Why Study at TECH?

p. 8

03

Syllabus

p. 12

04

Teaching Objectives

p. 16

05

Career Opportunities

p. 20

06

Study Methodology

p. 24

07

Teaching Staff

p. 34

08

Certificate

p. 38

01

Introduction to the Program

Additive Manufacturing has established itself as one of the most innovative technologies in today's industry. In fact, its ability to generate complex, customized, and functional designs has transformed essential fields such as Medicine. According to a report by the United Nations, the adoption of 3D Printing in these industries has increased by more than 20% in the last decade, favoring the development of new solutions. However, the performance of manufactured parts depends on production conditions. Therefore, it is essential that designers master these aspects. In this context, TECH University presents an innovative, completely online university program focused on Key Elements of Additive Manufacturing.



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Thanks to this comprehensive, 100% online Postgraduate Diploma, you will master the latest techniques in Additive Manufacturing”

Advances in technology have transformed the way components are designed and manufactured, allowing for greater precision and optimization in the use of materials. A clear example is the development of methods that enable the creation of complex structures without the need for molds or traditional machining processes. In this context, Additive Manufacturing has established itself as an efficient solution, capable of reducing production times, minimizing waste, and improving the performance of final products.

With the aim of delving deeper into this technology, TECH has created an exclusive Postgraduate Diploma in Key Element in Additive Manufacturing. The teaching content will analyze the most suitable materials based on criteria such as their mechanical, thermal, and chemical properties. The syllabus will also offer students a variety of techniques to optimize the post-processing and finishing of parts. In this way, professionals will be able to improve the strength, surface texture, and functionality of the manufactured parts. Thanks to this comprehensive approach, the ability to make strategic decisions at each stage of the process is reinforced. In addition, analytical thinking and technical problem-solving skills will be fostered, which are essential for improving efficiency in different environments.

To ensure flexible learning tailored to current needs, TECH provides a completely online educational environment, accessible at any time and from any device with an Internet connection. It also uses its unique Relearning system, which facilitates the progressive assimilation of content through the strategic repetition of key concepts. This innovative approach allows knowledge to be consolidated dynamically, optimizing time and improving information retention.

This **Postgraduate Diploma in Key Elements of Additive Manufacturing** contains the most complete and up-to-date program on the market. The most important features include:

- ◆ The development of case studies presented by experts in Key Elements of Additive Manufacturing
- ◆ 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 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



You will be able to integrate technical criteria into the initial stages of Design to ensure the viability and efficiency of the final product"

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The wide variety of practical resources offered by this university program will allow you to consolidate your practical knowledge of the industrial applications of each thermoplastic”

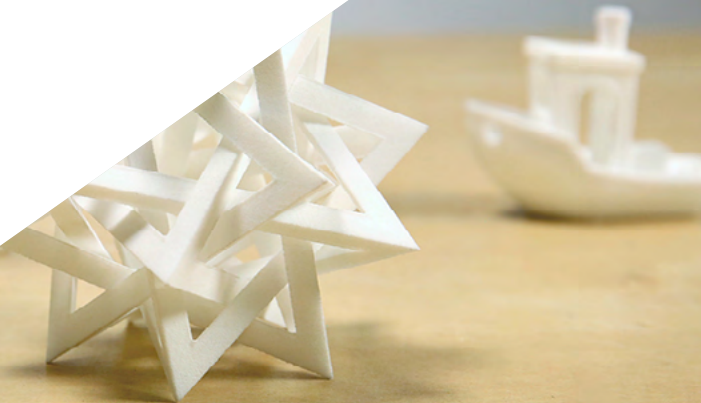
The teaching staff includes professionals from the field of Additive Manufacturing, who bring their work experience to this program, as well as renowned specialists from leading companies and prestigious universities.

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 an immersive learning experience designed to prepare for real-life situations.

This program is designed around Problem-Based Learning, whereby the student must try to solve the different professional practice situations that arise throughout the program. For this purpose, the professional will be assisted by an innovative interactive video system created by renowned and experienced experts.

You will gain an in-depth understanding of the different types of resins and their impact on the optimization of Additive Manufacturing processes.

The Relearning methodology promoted by TECH reduces the long hours of study that are so common in other educational programs.



02

Why Study at TECH?

TECH is the world's largest online university. With an impressive catalog of more than 14,000 university programs available in 11 languages, it is positioned as a leader in employability, with a 99% job placement rate. In addition, it relies on an enormous faculty of more than 6,000 professors of the highest international renown.



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*Study at the world's largest online university
and guarantee your professional success.
The future starts at TECH”*

The world's best online university, according to FORBES

The prestigious Forbes magazine, specialized in business and finance, has highlighted TECH as "the best online university in the world" This is what they have recently stated in an article in their digital edition in which they echo the success story of this institution, "thanks to the academic offer it provides, the selection of its teaching staff, and an innovative learning method oriented to form the professionals of the future".

The best top international faculty

TECH's faculty is made up of more than 6,000 professors of the highest international prestige. Professors, researchers and top executives of multinational companies, including Isaiah Covington, performance coach of the Boston Celtics; Magda Romanska, principal investigator at Harvard MetaLAB; Ignacio Wistumba, chairman of the department of translational molecular pathology at MD Anderson Cancer Center; and D.W. Pine, creative director of TIME magazine, among others.

The world's largest online university

TECH is the world's largest online university. We are the largest educational institution, with the best and widest digital educational catalog, one hundred percent online and covering most areas of knowledge. We offer the largest selection of our own degrees and accredited online undergraduate and postgraduate degrees. In total, more than 14,000 university programs, in ten different languages, making us the largest educational institution in the world.



The most complete syllabuses on the university scene

TECH offers the most complete syllabuses on the university scene, with programs that cover fundamental concepts and, at the same time, the main scientific advances in their specific scientific areas. In addition, these programs are continuously updated to guarantee students the academic vanguard and the most demanded professional skills. and the most in-demand professional competencies. In this way, the university's qualifications provide its graduates with a significant advantage to propel their careers to success.

A unique learning method

TECH is the first university to use Relearning in all its programs. This is the best online learning methodology, accredited with international teaching quality certifications, provided by prestigious educational agencies. In addition, this innovative academic model is complemented by the "Case Method", thereby configuring a unique online teaching strategy. Innovative teaching resources are also implemented, including detailed videos, infographics and interactive summaries.

The official online university of the NBA

TECH is the official online university of the NBA. Thanks to our agreement with the biggest league in basketball, we offer our students exclusive university programs, as well as a wide variety of educational resources focused on the business of the league and other areas of the sports industry. Each program is made up of a uniquely designed syllabus and features exceptional guest hosts: professionals with a distinguished sports background who will offer their expertise on the most relevant topics.

Leaders in employability

TECH has become the leading university in employability. Ninety-nine percent of its students obtain jobs in the academic field they have studied within one year of completing any of the university's programs. A similar number achieve immediate career enhancement. All this thanks to a study methodology that bases its effectiveness on the acquisition of practical skills, which are absolutely necessary for professional development.



Google Premier Partner

The American technology giant has awarded TECH the Google Premier Partner badge. This award, which is only available to 3% of the world's companies, highlights the efficient, flexible and tailored experience that this university provides to students. The recognition not only accredits the maximum rigor, performance and investment in TECH's digital infrastructures, but also places this university as one of the world's leading technology companies.



The top-rated university by its students

Students have positioned TECH as the world's top-rated university on the main review websites, with a highest rating of 4.9 out of 5, obtained from more than 1,000 reviews. These results consolidate TECH as the benchmark university institution at an international level, reflecting the excellence and positive impact of its educational model.



03 Syllabus

This university program will delve into the materials used in Additive Manufacturing, analyzing their properties and their impact on the strength, durability, and functionality of components. In addition, surface finishes and their influence on the aesthetics, dimensional accuracy, and mechanical behavior of parts will be addressed. Post-printing assembly processes, which are essential for ensuring the efficient integration of manufactured elements, will also be explored. Thanks to this approach, graduates will develop key skills to optimize production, select the most suitable materials, and apply advanced techniques that improve the quality and performance of the final products.





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*You will optimize geometries,
internal structures, and supports
based on the type of printing to
ensure top-quality results”*

Module 1. Materials for Additive Manufacturing

- 1.1. Classification of Materials for 3D Printing
 - 1.1.1. Polymers, Resins, and Metals in 3D Printing
 - 1.1.2. Composite Materials and Their Properties
 - 1.1.3. Material Selection Factors
- 1.2. Thermoplastics in FDM: PLA, ABS, and Others
 - 1.2.1. Properties of PLA and ABS
 - 1.2.2. Industrial Applications of Each Thermoplastic
 - 1.2.3. Selection Factors Based on the Final Product
- 1.3. Ceramics: A Specific Case of Deposition Printing
 - 1.3.1. Use of Ceramics in 3D Printing
 - 1.3.2. Applications in Industry and Art
 - 1.3.3. Technical Limitations
- 1.4. Resins for SLA, Types and Applications
 - 1.4.1. Types of Resins (Rigid, Flexible, Biocompatible)
 - 1.4.2. Applications in the Medical and Dental Sector
 - 1.4.3. Post-Printing Treatment of Resins
- 1.5. Powders for SLS: Nylon, Polyamides, and Others
 - 1.5.1. Characteristics of Plastic Powders
 - 1.5.2. Applications in Functional Parts
 - 1.5.3. Comparison of Materials Based on Strength
- 1.6. Materials for MultiJet Fusion
 - 1.6.1. MJF-Compatible Materials
 - 1.6.2. Advantages in the Production of Lightweight Parts
 - 1.6.3. Comparison with Other Additive Materials
- 1.7. Metallic Materials in Additive Manufacturing
 - 1.7.1. Alloys and Metals Used
 - 1.7.2. Applications in the Aerospace and Automotive Industries
 - 1.7.3. Challenges in Metal Printing
- 1.8. Composite Materials: Advanced Applications
 - 1.8.1. Combining Materials for Specific Properties
 - 1.8.2. Applications in High-Tech Industries
 - 1.8.3. Advantages of Hybrid Materials

- 1.9. Factors to Consider When Choosing Materials
 - 1.9.1. Mechanical and Thermal Properties
 - 1.9.2. Compatibility with Printing Technologies
 - 1.9.3. Costs and Market Availability
- 1.10. Recent Innovations in Materials for 3D Printing
 - 1.10.1. New Biodegradable Materials
 - 1.10.2. Functional Materials for Printed Electronics
 - 1.10.3. Development of Recyclable Materials

Module 2. Additive Manufacturing Post-Processing and Surface Finishing

- 2.1. Post-Processing Techniques: Cutting, Sanding, Polishing
 - 2.1.1. Automated Methods for Improving Surface Finish
 - 2.1.2. Polishing Tools and Equipment for Printed Parts
 - 2.1.3. Comparison of Techniques According to Material Type
- 2.2. Surface Finishes: Painting, Varnishing, and Texturizing
 - 2.2.1. Application of Protective Coatings
 - 2.2.2. Texturing Techniques to Improve Appearance
 - 2.2.3. Use of Paint and Varnishes to Improve Aesthetic Finish
- 2.3. Heat Treatment and Hardening of Parts
 - 2.3.1. Annealing Processes to Improve Strength
 - 2.3.2. Applications of Heat Treatment in Printed Metals
 - 2.3.3. Key Factors for Successful Hardening
- 2.4. Post-Printing Assembly Techniques
 - 2.4.1. Methods for Joining 3D Printed Parts
 - 2.4.2. Use of Adhesives and Welding in Complex Parts
 - 2.4.3. Design for Assembly and Simplification of Assembly
- 2.5. Support Removal Methods
 - 2.5.1. Mechanical and Chemical Techniques for Removing Supports
 - 2.5.2. Design Optimization to Facilitate Removal
 - 2.5.3. Reducing the Impact of Supports in Post-Processing
- 2.6. Post-Processing for Metallic Materials
 - 2.6.1. Polishing and Sanding of 3D Printed Metal Parts
 - 2.6.2. Specific Treatments to Improve Mechanical Properties
 - 2.6.3. Comparison of Post-Processing Techniques for Different Metals

- 2.7. Use of Soluble Materials for Supports
 - 2.7.1. Advantages of Using Water-Soluble Supports
 - 2.7.2. Materials Compatible with Dual Extruder Printers
 - 2.7.3. Reducing Post-Processing Time with Soluble Supports
- 2.8. Automation of Post-Processing: Advanced Systems
 - 2.8.1. Automated Machines for Sanding and Polishing
 - 2.8.2. Ultrasonic Cleaning Systems for Dust and Residue Removal
 - 2.8.3. Use of Robots in Post-Processing of Large Parts
- 2.9. Quality Control in Printed Parts
 - 2.9.1. Visual and Tactile Inspection Techniques
 - 2.9.2. 3D Measurement and Scanning Tools for Accuracy Verification
 - 2.9.3. Test Methods for Validating Strength and Durability
- 2.10. Post-Processing to Improve Functionality
 - 2.10.1. Additional Treatments to Improve Mechanical Properties
 - 2.10.2. Surface Finishes to Improve Functionality in Specific Parts
 - 2.10.3. Wear Reduction Through Special Coatings

Module 3. Industry-Specific Applications of Additive Manufacturing

- 3.1. Automotive: Prototypes and Functional Parts
 - 3.1.1. Rapid Prototyping for Design Validation
 - 3.1.2. Manufacturing of Functional and Customized Parts for Vehicles
 - 3.1.3. Optimization of 3D Printing in the Manufacturing of Lightweight Components
- 3.2. Aerospace: Optimization of Lightweight Components and Materials
 - 3.2.1. Weight Reduction in Aircraft Parts Using Lattice Structures
 - 3.2.2. Use of Lightweight Alloys in 3D-Printed Components
 - 3.2.3. Certification and Validation of Printed Parts for Aerospace Applications
- 3.3. Architecture: 3D-Printed Models and Constructions
 - 3.3.1. Creation of Detailed Models for Project Presentations
 - 3.3.2. Applications of 3D Printing in the Construction of Structures
 - 3.3.3. Recent Innovations in Concrete Printing and Architectural Materials

- 3.4. Health: Prosthetics, Implants, and Biomedical Applications
 - 3.4.1. Manufacturing Customized Prosthetics Using 3D Printing
 - 3.4.2. Printing Medical Implants Tailored to Patient Needs
 - 3.4.2. Innovations in Tissue and Organ Bioprinting
- 3.5. Fashion and Jewelry: Customization and Unique Design
 - 3.5.1. Producing Customized Jewelry with 3D Printers
 - 3.5.2. Use of 3D Printing for the Creation of Clothing and Accessories
 - 3.5.3. Impact of Additive Technology on the Fashion Industry
- 3.6. Education and Research: Innovative Projects with 3D Printing
 - 3.6.1. 3D Printing as an Educational Tool in Various Disciplines
 - 3.6.2. Research Projects Using 3D Printing for Prototyping
 - 3.6.2. Use of Technology in Scientific Research Laboratories
- 3.7. Electronics: Prototyping and Circuit Assembly
 - 3.7.1. Rapid Prototyping of Electronic Devices
 - 3.7.2. Printing Components for Integrated Circuit Assembly
 - 3.7.3. Innovations in Additive Manufacturing of Electronic Products
- 3.8. Food Industry: 3D Food Printing
 - 3.8.1. Applications in the Food Industry for Food Customization
 - 3.8.2. 3D Food Printing Technologies and Their Impact on Nutrition
 - 3.8.3. Innovations in Printed Textures and Shapes in Food
- 3.9. Energy and Sustainability: Components for Renewable Energy
 - 3.9.1. Production of Key Components for Renewable Energy Using 3D Printing
 - 3.9.2. Waste Reduction and Resource Optimization in Additive Manufacturing
 - 3.9.3. Innovations in Printing Components for the Solar and Wind Industry
- 3.10. Other Emerging Sectors: Exploration of New Fields
 - 3.10.1. Applications of 3D Printing in Fashion and Art
 - 3.10.2. Exploration of Emerging Sectors such as Biotechnology
 - 3.10.3. 3D Printing in the Manufacture of Customized Medical Devices

04

Teaching Objectives

This university program is designed to teach students how to master Additive Manufacturing, providing them with the tools they need to optimize each stage of the process, from material selection to final finishes. Through a practical and analytical approach, you will develop skills to improve the precision, strength, and functionality of manufactured parts. In addition, you will delve into advanced post-processing and assembly techniques, enabling efficient integration into various applications. This will boost your ability to innovate and apply technological solutions that optimize production and ensure high-quality standards.



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You will acquire advanced skills to develop Design proposals geared towards Additive Manufacturing, from conceptualization to production”



General Objectives

- ♦ Understand the concepts of how Additive Manufacturing works
- ♦ Delve into the technologies specifically for the materials used
- ♦ Understand how each technology works and its application, whether by the function of the part or object or by its performance
- ♦ Use 3D surface modeling software
- ♦ Delve into the different types of 3D printers, understanding their operating principles
- ♦ Learn about topological design and optimization of parts for 3D printing
- ♦ Use the most advanced post-processing techniques to optimize 3D printing
- ♦ Visualize products for specific sectors such as automotive, aerospace, and architecture
- ♦ Encourage the identification of business opportunities in the field of Additive Manufacturing
- ♦ Develop project management skills, from conceptualization and design to manufacturing and post-processing of parts





Specific Objectives

Module 1. Materials for Additive Manufacturing

- ◆ Identify and classify the different types of materials used in Additive Manufacturing
- ◆ Evaluate material selection criteria based on specific product requirements and available additive manufacturing technologies

Module 2. Additive Manufacturing Post-Processing and Surface Finishing

- ◆ Address the best post-processing technique for each of the technologies and materials
- ◆ Develop skills to improve the quality, precision, and resistance of parts through polishing, heat treatment, painting, and other finishing techniques

Module 3. Industry-Specific Applications of Additive Manufacturing

- ◆ Analyze how Additive Manufacturing is implemented in different industries
- ◆ Evaluate the benefits and limitations of the technology in each industry, considering aspects such as cost, time, and quality



You will assess the topological design of parts for 3D Printing, applying advanced strategies to improve their performance”

05 Career Opportunities

This Postgraduate Diploma in Key Elements of Additive Manufacturing opens up multiple opportunities in the field of product design and optimization through 3D printing. Graduates will be able to work as product designers, 3D modeling specialists, or development managers in design studios, innovation laboratories, and production centers. In addition, experts will be able to apply advanced strategies in material selection, topological design, and surface finishes, ensuring functional and efficient parts. Thanks to this knowledge, they will drive creative and technologically advanced solutions tailored to the demands of different sectors that require both precision and versatility.



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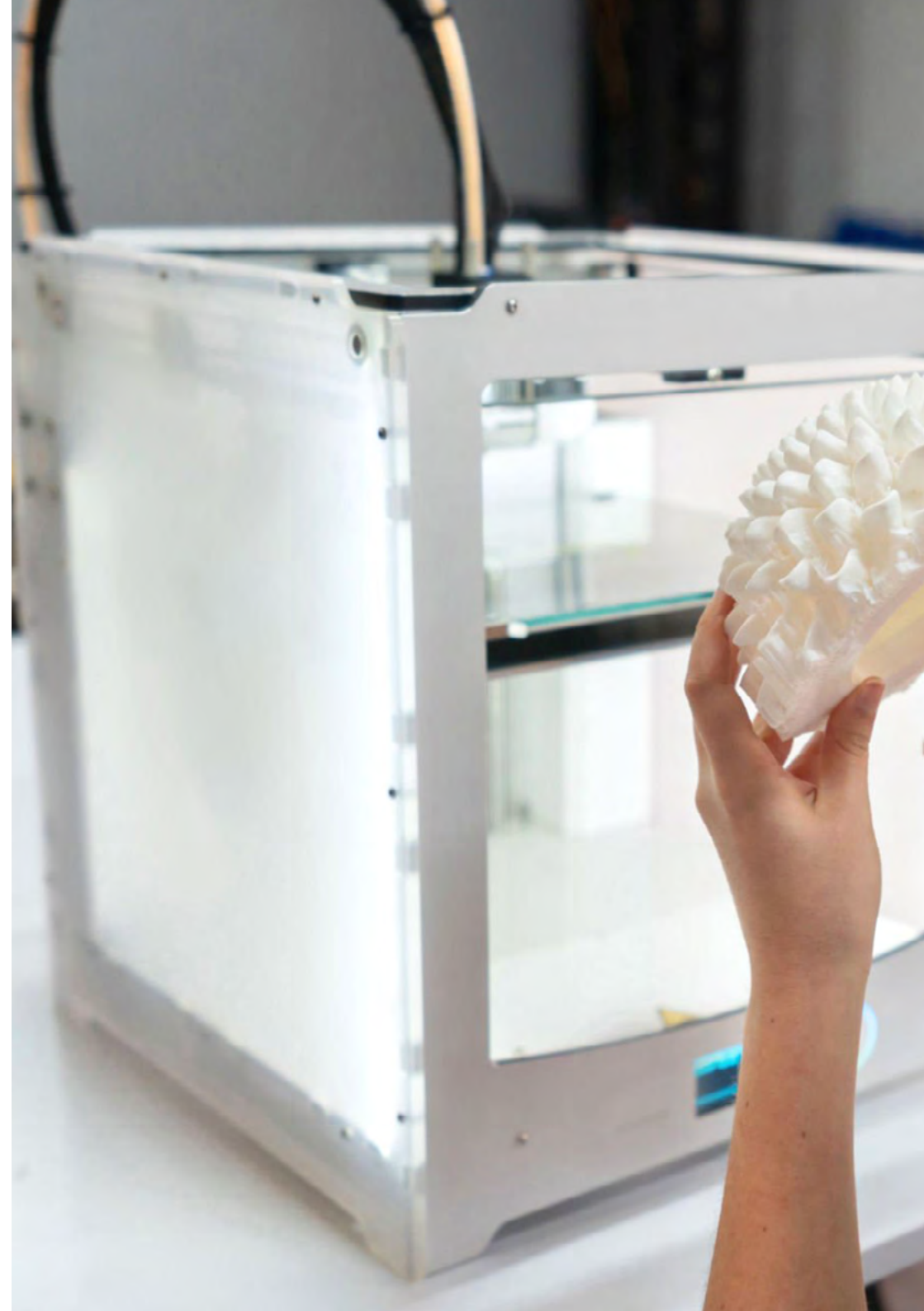
You will stand out for your comprehensive knowledge of additive technologies in different sectors, enabling you to lead the digital transformation of any organization”

Graduate Profile

Graduates of this Postgraduate Diploma will stand out for their ability to design and optimize three-dimensional models adapted to Additive Manufacturing. They will also master parametric, topological, and structural modeling techniques, ensuring efficient and functional parts. In addition, they will have in-depth knowledge of material selection, post-processing, and surface finishes, ensuring aesthetic and high-performance results. Finally, their profile will be innovation-oriented, allowing them to develop creative and customized solutions adapted to market demands. As a result, they will be able to lead design projects with advanced technologies in dynamic and highly competitive environments.

Incorporate the latest trends in topological design into your daily practice to optimize structures and improve the performance of parts built using 3D Printing.

- ♦ **Critical Thinking and Problem-Solving:** Ability to analyze complex challenges in Additive Design and Manufacturing, evaluating different approaches to find innovative and efficient solutions
- ♦ **Creativity and Innovation:** Ability to facilitate the development of optimized and functional parts, incorporating emerging technologies to improve their efficiency and performance
- ♦ **Project Management and Decision-Making:** Ability to contribute to the efficient planning and execution of Additive Manufacturing projects, considering resources, deadlines, and strategic objectives
- ♦ **Adaptability:** Competence in applying technological advances and new approaches in design and production to ensure innovation in highly competitive markets





After completing the Postgraduate Diploma, you will be able to apply your knowledge and skills in the following positions:

- 1. Additive Manufacturing Product Designer:** Responsible for developing designs optimized for production using 3D printing, considering the material efficiency, functionality, and aesthetics of each part.
- 2. Prototype Development Specialist:** Responsible for creating and validating functional prototypes, ensuring they meet quality and performance standards before mass production.
- 3. Additive Manufacturing Innovation Manager:** Focuses on overseeing the integration of new Additive Manufacturing technologies into industrial processes, promoting improvements in efficiency and sustainability.
- 4. Additive Design and Production Consultant:** Provides technical advice to institutions on the implementation of 3D printing processes, helping companies adopt this technology in their production lines.
- 5. Digital Manufacturing Laboratory Manager:** Manages innovation laboratories specializing in Digital Manufacturing, ensuring the proper functioning of equipment, software, and materials used in 3D Printing.
- 6. Additive Manufacturing Materials Engineer:** Researches and selects the most suitable materials for each application, optimizing the strength, flexibility, and durability of printed parts.
- 7. Industrial Parts Designer:** Focuses on developing customized components for specialized sectors, tailoring each design to specific technical and functional requirements.
- 8. 3D Printing Post-Processing and Finishing Specialist:** Dedicated to implementing cutting-edge surface treatment and assembly techniques to improve the quality, precision, and durability of additively manufactured parts.
- 9. Researcher in New Additive Manufacturing Technologies:** Expert in developing advances in 3D printing, evaluating the feasibility of new techniques, materials, and applications in various industrial sectors.

06

Study Methodology

TECH is the world's first university to combine the **case study** methodology with **Relearning**, a 100% online learning system based on guided repetition.

This disruptive pedagogical strategy has been conceived to offer professionals the opportunity to update their knowledge and develop their skills in an intensive and rigorous way. A learning model that places students at the center of the educational process giving them the leading role, adapting to their needs and leaving aside more conventional methodologies.



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TECH will prepare you to face new challenges in uncertain environments and achieve success in your career”

The student: the priority of all TECH programs

In TECH's study methodology, the student is the main protagonist.

The teaching tools of each program have been selected taking into account the demands of time, availability and academic rigor that, today, not only students demand but also the most competitive positions in the market.

With TECH's asynchronous educational model, it is students who choose the time they dedicate to study, how they decide to establish their routines, and all this from the comfort of the electronic device of their choice. The student will not have to participate in live classes, which in many cases they will not be able to attend. The learning activities will be done when it is convenient for them. They can always decide when and from where they want to study.

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*At TECH you will NOT have live classes
(which you might not be able to attend)”*



The most comprehensive study plans at the international level

TECH is distinguished by offering the most complete academic itineraries on the university scene. This comprehensiveness is achieved through the creation of syllabi that not only cover the essential knowledge, but also the most recent innovations in each area.

By being constantly up to date, these programs allow students to keep up with market changes and acquire the skills most valued by employers. In this way, those who complete their studies at TECH receive a comprehensive education that provides them with a notable competitive advantage to further their careers.

And what's more, they will be able to do so from any device, pc, tablet or smartphone.

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TECH's model is asynchronous, so it allows you to study with your pc, tablet or your smartphone wherever you want, whenever you want and for as long as you want”

Case Studies and Case Method

The case method has been the learning system most used by the world's best business schools. Developed in 1912 so that law students would not only learn the law based on theoretical content, its function was also to present them with real complex situations. In this way, they could make informed decisions and value judgments about how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

With this teaching model, it is students themselves who build their professional competence through strategies such as Learning by Doing or Design Thinking, used by other renowned institutions such as Yale or Stanford.

This action-oriented method will be applied throughout the entire academic itinerary that the student undertakes with TECH. Students will be confronted with multiple real-life situations and will have to integrate knowledge, research, discuss and defend their ideas and decisions. All this with the premise of answering the question of how they would act when facing specific events of complexity in their daily work.



Relearning Methodology

At TECH, case studies are enhanced with the best 100% online teaching method: Relearning.

This method breaks with traditional teaching techniques to put the student at the center of the equation, providing the best content in different formats. In this way, it manages to review and reiterate the key concepts of each subject and learn to apply them in a real context.

In the same line, and according to multiple scientific researches, reiteration is the best way to learn. For this reason, TECH offers between 8 and 16 repetitions of each key concept within the same lesson, presented in a different way, with the objective of ensuring that the knowledge is completely consolidated during the study process.

Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.



A 100% online Virtual Campus with the best teaching resources

In order to apply its methodology effectively, TECH focuses on providing graduates with teaching materials in different formats: texts, interactive videos, illustrations and knowledge maps, among others. All of them are designed by qualified teachers who focus their work on combining real cases with the resolution of complex situations through simulation, the study of contexts applied to each professional career and learning based on repetition, through audios, presentations, animations, images, etc.

The latest scientific evidence in the field of Neuroscience points to the importance of taking into account the place and context where the content is accessed before starting a new learning process. Being able to adjust these variables in a personalized way helps people to remember and store knowledge in the hippocampus to retain it in the long term. This is a model called Neurocognitive context-dependent e-learning that is consciously applied in this university qualification.

In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

Likewise, this very complete Virtual Campus will allow TECH students to organize their study schedules according to their personal availability or work obligations. In this way, they will have global control of the academic content and teaching tools, based on their fast-paced professional update.



The online study mode of this program will allow you to organize your time and learning pace, adapting it to your schedule”

The effectiveness of the method is justified by four fundamental achievements:

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that assess real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.

The university methodology top-rated by its students

The results of this innovative teaching model can be seen in the overall satisfaction levels of TECH graduates.

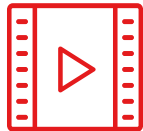
The students' assessment of the teaching quality, the quality of the materials, the structure of the program and its objectives is excellent. Not surprisingly, the institution became the top-rated university by its students according to the global score index, obtaining a 4.9 out of 5.

Access the study contents from any device with an Internet connection (computer, tablet, smartphone) thanks to the fact that TECH is at the forefront of technology and teaching.

You will be able to learn with the advantages that come with having access to simulated learning environments and the learning by observation approach, that is, Learning from an expert.



As such, the best educational materials, thoroughly prepared, will be available in this program:



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.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.



Practicing Skills and Abilities

You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.



Interactive Summaries

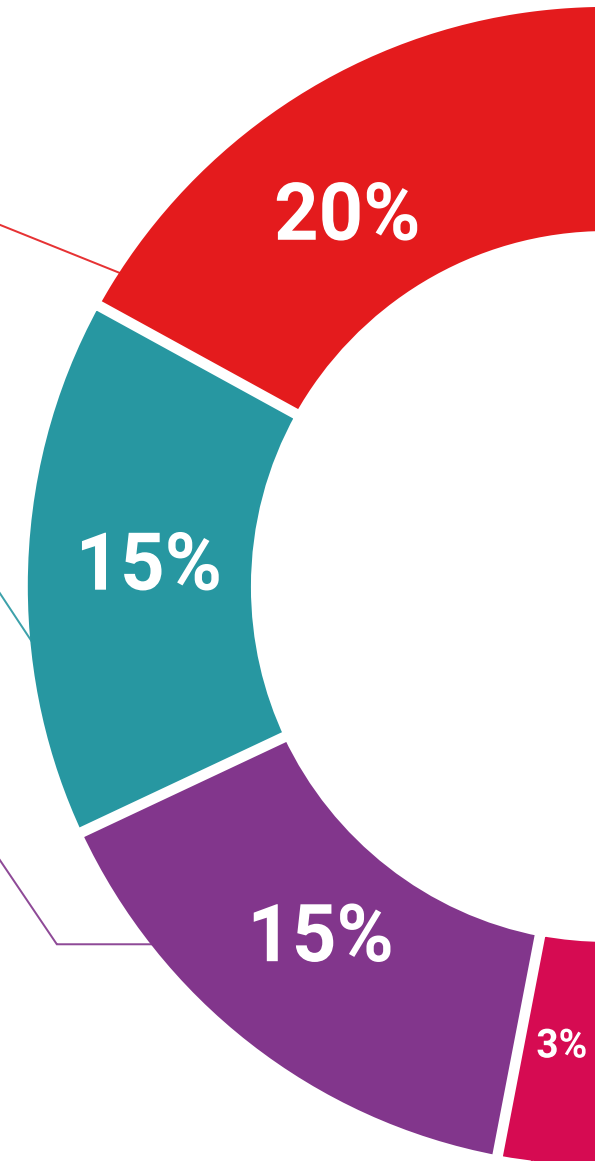
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

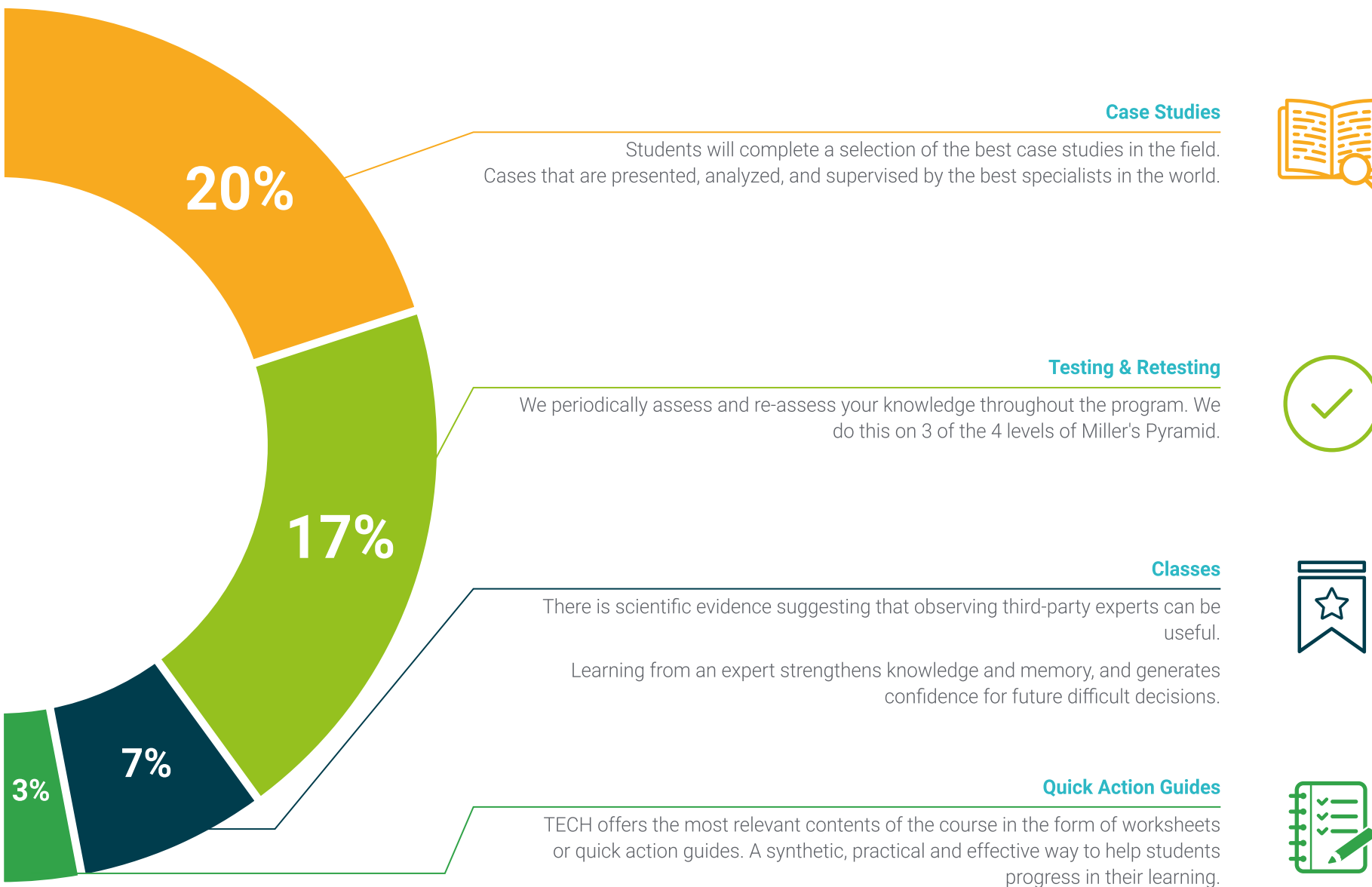
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



Additional Reading

Recent articles, consensus documents, international guides... In our virtual library you will have access to everything you need to complete your education.





07

Teaching Staff

TECH is committed to offering cutting-edge university programs designed for those seeking to specialize in the field of design applied to Additive Manufacturing. To this end, it selects the most outstanding professionals in this field, ensuring an approach that is aligned with market demands. As a result, this Postgraduate Diploma provides access to high-level content, structured to enhance creativity, product optimization, and mastery of state-of-the-art tools. Through a demanding and stimulating educational experience, graduates will be able to expand their skills and access new opportunities in a variety of industries.



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You will have the support of a teaching staff highly specialized in Additive Manufacturing, who will provide you with the keys to optimize your professional growth”

Management



Mr. Parera Buxeres, Antoni

- ♦ CEO and Creative Director at Innou
- ♦ Project Manager and Industrial Designer at Play
- ♦ Master's Degree in Project Management and Efficient Project Management from the Polytechnic University of Catalonia
- ♦ Bachelor of Arts with a specialization in Design from the University of Southampton

Professors

Mr. López Ratti, Diego

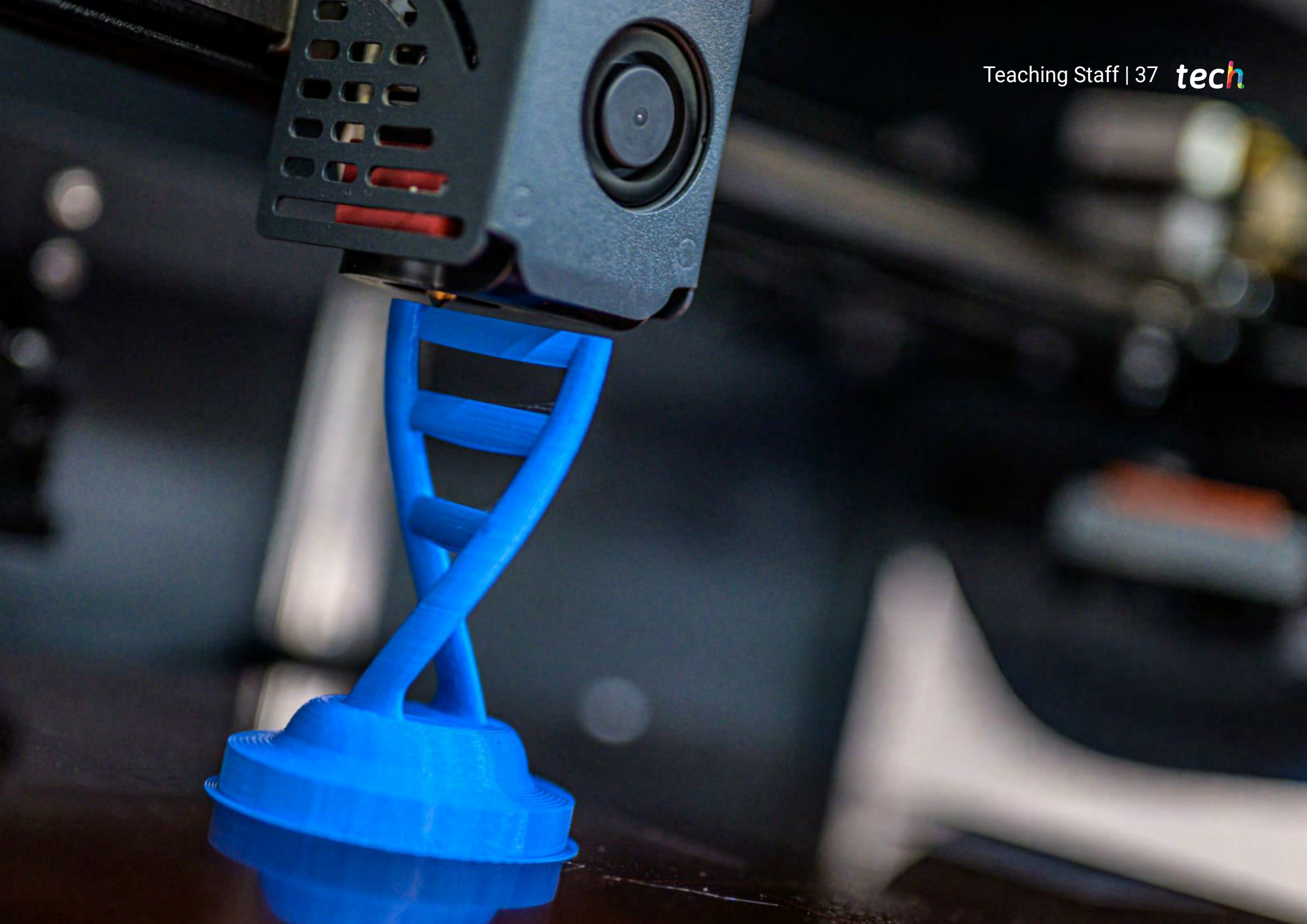
- ♦ Project Manager at Innou
- ♦ Expert in 3D Printer Assembly and Maintenance
- ♦ Master's Degree in Sustainable Product Design from IED Barcelona
- ♦ Bachelor's Degree in Product Design and Industrial Design from IED Barcelona

Mr. Tutó Cabedo, Xavier

- ♦ Director of Engineering and Design at Industria Digital
- ♦ Founder of Kxdesigners
- ♦ Master's Degree in Design Research and Management from TFRAF at ISEC
- ♦ Bachelor's Degree in Design Engineering from ELISAVA University School

Ms. Contreras, Lucía

- ♦ Creative Strategist and Social Media Manager at 3Dnatives
- ♦ Head of Influencer Communications at Bebee
- ♦ Web Content Editor at Needme
- ♦ Master's Degree in Design and Art Direction from CICE
- ♦ Bachelor's Degree in Audiovisual Communication from the Complutense University of Madrid



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