

# Postgraduate Diploma

## Human Resources Process Optimization with Artificial Intelligence



## Postgraduate Diploma Human Resources Process Optimization with Artificial Intelligence

- » Modality: online
- » Duration: 6 months.
- » Certificate: TECH Technological University
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/artificial-intelligence/postgraduate-diploma/postgraduate-diploma-human-resources-process-optimization-artificial-intelligence](http://www.techtute.com/us/artificial-intelligence/postgraduate-diploma/postgraduate-diploma-human-resources-process-optimization-artificial-intelligence)

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# 01

# Introduction

The optimization of HR processes through artificial intelligence (AI) is revolutionizing the workplace, enabling companies to be more efficient and effective in talent management. In fact, advanced AI tools are automating routine administrative tasks, such as interview scheduling and payroll management. In addition, AI facilitates recruitment by quickly analyzing large volumes of resumes, improving the quality of recruitment and reducing biases in the process. In this context, TECH has implemented a complete, fully online program, which adapts perfectly to the work and personal schedules of graduates. All this, using the innovative methodology known as Relearning.



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*Thanks to this 100% online Postgraduate Diploma, you will acquire skills to implement innovative solutions that improve efficiency in personnel management, from payroll administration to talent selection”*

The optimization of Human Resources processes through Artificial Intelligence (AI) is radically transforming the way organizations manage their talent. In fact, its predictive capabilities make it easier to identify trends in employee behavior, allowing companies to anticipate potential attrition and develop effective retention plans. It also improves operational efficiency in HR, enhancing the employee experience and contributing to a more dynamic work environment.

This is how this Postgraduate Diploma was created, which will emphasize the integration of Artificial Intelligence solutions to automate personnel administration and payroll management, resulting in greater operational efficiency. In addition, an in-depth understanding of AI technologies will be provided to ensure compliance with legal regulations, helping to minimize the risks associated with HR management.

Likewise, employers will use AI tools to automate various tasks, from resume analysis to candidate evaluation, optimizing the quality of recruitment. Emphasis will also be placed on identifying and eliminating biases in the selection process, which promotes fairer and more equitable practices in talent acquisition.

Finally, experts will acquire the ability to customize career development plans, tailoring growth paths to the individual needs of each employee. In turn, AI tools can be used to identify key talent within the organization and design effective retention strategies.

In this way, TECH has developed an exhaustive 100% online program, which will only require an electronic device with an Internet connection to access all the didactic materials, avoiding problems such as traveling to a physical center and adjusting to a pre-established schedule. Additionally, it will be based on the revolutionary Relearning learning methodology, consisting of the continuous repetition of key concepts for an optimal and organic assimilation of the contents.

This **Postgraduate Diploma in Human Resources Process Optimization with Artificial Intelligence** contains the most complete and up-to-date program on the market. The most important features include:

- ♦ Development of practical cases presented by experts in Artificial Intelligence in HR
- ♦ The graphic, schematic, and practical contents with which they are created, provide practical information on the disciplines that are essential for professional practice
- ♦ Practical exercises where self-assessment can be used to improve learning
- ♦ Its special emphasis on innovative methodologies
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ♦ The availability of access to the contents from any fixed or portable device with an Internet connection



*You will adapt to the demands of today's market, contributing to the sustainable growth of your organization and positioning yourself as a leader in the digital transformation of Human Resources. What are you waiting for to enroll?"*



“

*You will be able to customize professional development plans for each employee, adjusting growth opportunities to individual needs, thanks to an extensive library of innovative multimedia resources”*

The program includes in its teaching staff professionals of the sector that pour into this program the experience of their work, as well as recognized specialists from reference societies 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 immersive education programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the course. For this purpose, students will be assisted by an innovative interactive video system created by renowned experts in the field of educational coaching with extensive experience.

*You will specialize in automating personnel administration and payroll management, which will not only optimize operational processes, but also allow for a more efficient allocation of resources.*

*You will use AI tools that automate various tasks, from the analysis of resumes to the evaluation of candidates, through the best didactic materials, at the forefront of technology and education.*



# 02 Objectives

The main objective of the university program will be to specialize professionals to integrate advanced technologies in Human Resources management, improving the efficiency and effectiveness of organizational processes. Therefore, it will seek to develop skills in the automation of personnel administration and payroll management, ensuring regulatory compliance and minimizing legal risks. In addition, you will focus on the application of Artificial Intelligence in selection and recruitment processes, promoting fair and equitable practices by eliminating biases.





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*You will facilitate the personalized professional development of your employees, contributing to a more inclusive and talent-centered organizational culture, with the support of the Relearning learning methodology”*



## General Objectives

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- ♦ Use AI to monitor the work climate, proactively identifying problems and improving internal communication and employee satisfaction
- ♦ Develop the ability to use AI to identify and eliminate bias in selection, evaluation and development processes
- ♦ Specialize students to implement AI solutions that automate administrative and managerial tasks
- ♦ Apply predictive analytics techniques in HR management, anticipating needs and improving strategic planning
- ♦ Delve into the ethical and transparency principles necessary for the responsible implementation of AI in Human Resources
- ♦ Lead digital transformation projects in the Human Resources department, using AI as a key tool to innovate and improve organizational processes



*You will use Artificial Intelligence to personalize employees' professional development, identifying key talent and designing effective retention strategies. With all the guarantees of TECH quality!"*





## Specific Objectives

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### Module 1. Personnel and Payroll Management with AI

- ♦ Develop skills to implement AI solutions that automate personnel administration, payroll and resource allocation, improving personnel administration, payroll management, and resource allocation, improving operational efficiency
- ♦ Understand and apply AI technologies to ensure compliance with legal regulations in human resource management, minimizing legal risks

### Module 2. Selection Processes and Artificial Intelligence

- ♦ Acquire skills to use AI in the automation of recruitment and selection tasks, from resume analysis to candidate evaluation
- ♦ Apply AI to identify and eliminate biases in the selection process, promoting fairer and more equitable practices

### Module 3. AI and Its Application in Talent Management and Professional Development

- ♦ Develop the ability to use AI to customize employees' career development plans, tailoring growth to individual needs
- ♦ Apply AI to identify key talent within the organization and design effective retention strategies



03

# Course Management

The faculty are highly qualified professionals with extensive experience both in academia and in the practical implementation of Artificial Intelligence technologies in Human Resources management. In addition, these experts combine deep knowledge in process automation, talent management and labor regulations, with a solid track record in using Artificial Intelligence to improve operational efficiency and foster more equitable hiring practices.





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*Teachers will provide comprehensive education, with a balance between theory and real cases, so that you acquire the skills you need to meet the challenges of today's labor market with cutting-edge technology solutions”*



## Management



### Dr. Peralta Martín-Palomino, Arturo

- CEO and CTO at Prometheus Global Solutions
- CTO at Korporate Technologies
- CTO at AI Shepherds GmbH
- Consultant and Strategic Business Advisor at Alliance Medical
- Director of Design and Development at DocPath
- PhD in Psychology from the University of Castilla La Mancha
- PhD in Economics, Business and Finance from the Camilo José Cela University
- PhD in Psychology from University of Castilla La Mancha
- Master's Degree in Executive MBA from the Isabel I University
- Master's Degree in Sales and Marketing Management, Isabel I University
- Expert Master's Degree in Big Data by Hadoop Training
- Master's Degree in Advanced Information Technologies from the University of Castilla La Mancha
- Member of: SMILE Research Group



## Professors

### Ms. Del Rey Sánchez, Cristina

- ◆ Talent Management Administrative Officer at Securitas Seguridad España, S.L.
- ◆ Extracurricular Activities Center Coordinator
- ◆ Support classes and pedagogical interventions with Primary and Secondary Education students
- ◆ Postgraduate in Development, Delivery and Tutoring of e-Learning Training Actions
- ◆ Postgraduate in Early Childhood Care
- ◆ Degree in Pedagogy from the Complutense University of Madrid



*Take the opportunity to learn about the latest advances in this field in order to apply it to your daily practice"*

# 04

## Structure and Content

Throughout the program, employers will learn how to automate administrative tasks such as personnel and payroll management, optimizing resources and ensuring compliance with legal regulations. In addition, they will delve into the use of AI to improve personnel selection processes, eliminating biases and promoting fairer practices. Another key aspect will be the use of Artificial Intelligence to personalize professional development plans, identifying key talent and designing effective retention strategies.





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*This Postgraduate Diploma in Human Resources Process Optimization with Artificial Intelligence offers a comprehensive approach on how to apply AI to transform talent management in organizations”*

## Module 1. Personnel and Payroll Management with AI

- 1.1. Artificial Intelligence for Diversity and Inclusion in the Workplace
  - 1.1.1. Diversity Analysis Using IBM Watson to Detect Trends and Biases
  - 1.1.2. AI Tools for Detecting and Correcting Biases in HR Processes
  - 1.1.3. Evaluating the Impact of Inclusion Policies using Data Analytics
- 1.2. Fundamentals of Personnel Administration with AI
  - 1.2.1. Automation of Hiring and Onboarding Processes
  - 1.2.2. Use of AI-Based Personnel Data Management Systems
  - 1.2.3. Improving the Employee Experience through Intelligent Platforms
- 1.3. AI Technologies Applied to Payroll
  - 1.3.1. AI Systems for Automated Payroll Calculation
  - 1.3.2. Intelligent Profit Management with Platforms such as Gusto
  - 1.3.3. Detection of Errors and Fraud in Payrolls Using AI Algorithms
- 1.4. Optimizing Resource Allocation with AI
  - 1.4.1. Personnel Planning with Kronos Predictive Tools
  - 1.4.2. AI Models for Shift and Task Assignment Optimization
  - 1.4.3. Workload Analysis and Resource Allocation with Power BI
- 1.5. AI in HR Regulatory and Legal Compliance
  - 1.5.1. Automation of Compliance with Labor Policies
  - 1.5.2. AI Systems to Ensure Fairness and Transparency in HR
  - 1.5.3. Contract and Regulatory Management with IBM Watson Legal Advisor
- 1.6. Predictive Analytics in Workforce Management
  - 1.6.1. Predictive Models for Employee Retention with Retain's AI
  - 1.6.2. Sentiment Analysis in Internal Communications
  - 1.6.3. Predicting Training and Development Needs
- 1.7. Automating Benefits Management with AI
  - 1.7.1. Benefits Administration Using Intelligent Platforms such as Zenefits
  - 1.7.2. Customizing Benefit Packages using AI
  - 1.7.3. Optimizing Benefit Costs Using Data Analytics
- 1.8. Integrating HR Systems with AI
  - 1.8.1. Integrated Systems for Personnel Management with Salesforce Einstein
  - 1.8.2. Interface and Usability in AI-Based HR Systems
  - 1.8.3. Data Security and Privacy in Integrated Systems





- 1.9. AI-Supported Training and Development of Personnel
  - 1.9.1. Adaptive and Personalized Learning Systems
  - 1.9.2. AI-Powered E-Learning Platforms
  - 1.9.3. Performance Assessment and Monitoring Using Intelligent Technologies
- 1.10. Crisis and Change Management with AI in HR
  - 1.10.1. Using AI for Effective Management of Organizational Change
  - 1.10.2. Predictive Tools for Crisis Preparedness with Predictive Layer
  - 1.10.3. Data Analysis to Evaluate and Adapt HR Strategies in Times of Crisis

## Module 2. Selection Processes and Artificial Intelligence

- 2.1. Introduction to the Application of Artificial Intelligence in Personnel Selection
  - 2.1.1. Definition of Artificial Intelligence in the Human Resources Context. Entelo
  - 2.1.2. Importance of Applying AI in Selection Processes
  - 2.1.3. Benefits of Using AI in Selection Processes
- 2.2. Automating Tasks in the Recruitment Process
  - 2.2.1. Using AI to Automate Job Postings
  - 2.2.2. Implementing Chatbots to Answer Candidates' Frequently Asked Questions
  - 2.2.3. Tools XOR
- 2.3. Resume Analysis with AI
  - 2.3.1. Using AI Algorithms to Analyze and Evaluate Resumes. Talview
  - 2.3.2. Automatic Identification of Skills and Experience Relevant to the Position
  - 2.3.3. Advantages and Disadvantages
- 2.4. Candidate Filtering and Ranking
  - 2.4.1. Applying AI to Automatically Filter Candidates Based on Specific Criteria. Vervoe
  - 2.4.2. Ranking Candidates According to Suitability for the Position Using Machine Learning Techniques
  - 2.4.3. Using AI for Dynamic Customization of Filtering Criteria based on Job Needs
- 2.5. Pattern Recognition on Social Networks and Professional Platforms
  - 2.5.1. Using AI to Analyze Candidate Profiles on Social Networks and Professional Platforms
  - 2.5.2. Identifying Behavioral Patterns and Trends Relevant to Recruiting
  - 2.5.3. Assessing the Online Presence and Digital Influence of Candidates Using AI Tools
- 2.6. AI-Assisted Virtual Interviewing
  - 2.6.1. Implementing Virtual Interviewing Systems with Language and Emotion Analysis. Talentoday
  - 2.6.2. Automatic Evaluation of Candidate Responses Using Natural Language Processing Techniques
  - 2.6.3. Developing Automatic and Personalized Feedback for Candidates Based on AI Interview Analysis
- 2.7. Evaluation of Skills and Competencies
  - 2.7.1. Using AI-Based Assessment Tools to Measure Technical and Soft Skills. OutMatch
  - 2.7.2. Automatically Analyzing Tests and Assessment Exercises Performed by Candidates. Harver
  - 2.7.3. Correlation of Assessment Results with Success on the Job Using AI Predictive Analytics
- 2.8. Elimination of Selection Biases
  - 2.8.1. Applying AI to Identify and Mitigate Unconscious Bias in the Selection Process
  - 2.8.2. Implementing Unbiased and Fair AI Algorithms in Decision Making
  - 2.8.3. Training and Continuous Tuning of AI Models to Ensure Fairness in Personnel Selection
- 2.9. Prediction of Fit and Retention
  - 2.9.1. Using Predictive AI Models to Predict Candidate Suitability and Likelihood of Retention Hiretual
  - 2.9.2. Analyzing Historical Data and Performance Metrics to Identify Patterns of Success
  - 2.9.3. AI Models for Simulating Job Scenarios and Their Impact on Candidate Retention
- 2.10. Ethics and Transparency in AI Selection
  - 2.10.1. Ethical Considerations in the Use of AI in the Personnel Selection Processes
  - 2.10.2. Ensuring Transparency and Explainability in AI Algorithms Used in Hiring Decisions
  - 2.10.3. Developing Audit and Review Policies for Automated Decisions

### Module 3. AI and Its Application in Talent Management and Professional Development

- 3.1. Introduction to the Application of AI in Talent Management and Professional Development
  - 3.1.1. Historical Evolution of AI in Talent Management and How It Has Transformed the Industry
  - 3.1.2. Definition of Artificial Intelligence in the Human Resources Context
  - 3.1.3. Importance of Talent Management and Professional Development Glint
- 3.2. Automation of Talent Management Processes
  - 3.2.1. Using AI to Automate Administrative Tasks in Talent Management
  - 3.2.2. Implementing AI-Based Talent Management Systems
  - 3.2.3. Assessing Operational Efficiency and Cost Reduction through Automation with AI
- 3.3. Talent Identification and Retention with AI
  - 3.3.1. Using AI Algorithms to Identify and Retain Talent in the Organization
  - 3.3.2. Predictive Analytics for the Detection of Employees with High Growth Potential
  - 3.3.3. Integrating AI with HR Management Systems for Continuous Performance and Development Tracking
- 3.4. Personalization of Professional Development. Leader Amp
  - 3.4.1. Implementing Customized AI-Based Professional Development Programs
  - 3.4.2. Using Recommendation Algorithms to Suggest Learning and Growth Opportunities
  - 3.4.3. Matching Career Development Pathways to Labor Market Evolution Predictions Using AI
- 3.5. Competency and Skills Gap Analysis
  - 3.5.1. Using AI to Analyze Employees' Current Skills and Competencies
  - 3.5.2. Identification of Skills Gaps and Training Needs Using Data Analytics
  - 3.5.3. Implementing Real-Time Training Programs Based on Automated AI Recommendations
- 3.6. Mentoring and Virtual Coaching
  - 3.6.1. Implementation of AI-Assisted Virtual Mentoring Systems. Crystal
  - 3.6.2. Using Chatbots and Virtual Assistants to Provide Personalized Coaching
  - 3.6.3. Impact Assessment of Virtual Coaching Using Data Analysis and Automated AI Feedback



- 3.7. Achievement and Performance Recognition
  - 3.7.1. Using AI-Based Achievement Recognition Systems to Motivate Employees BetterUp
  - 3.7.2. Automatically Analyzing Employee Performance and Productivity Using AI
  - 3.7.3. Developing an AI-Based Reward and Recognition System
- 3.8. Evaluation of Leadership Potential
  - 3.8.1. Applying AI Techniques to Assess Leadership Potential of Employees
  - 3.8.2. Identifying Emerging Leaders and Developing Tailored Leadership Programs
  - 3.8.3. Using AI-Driven Simulations to Train and Evaluate Leadership Skills
- 3.9. Change Management and Organizational Adaptability
  - 3.9.1. Predictive Analytics to Anticipate Change Needs and Promote Organizational Resilience
  - 3.9.2. Organizational Change Planning Using AI
  - 3.9.3. Using AI to Manage Organizational Change and Promote Adaptability Cognician
- 3.10. Ethics and Accountability in Talent Management with AI
  - 3.10.1. Ethical Considerations in the Use of AI in Talent Management and Professional Development. Reflektive
  - 3.10.2. Ensuring Fairness and Transparency in AI Algorithms Used in Talent Management Decision-Making
  - 3.10.3. Implementation of Audits to Monitor and Adjust AI Algorithms to Ensure Ethical Practices

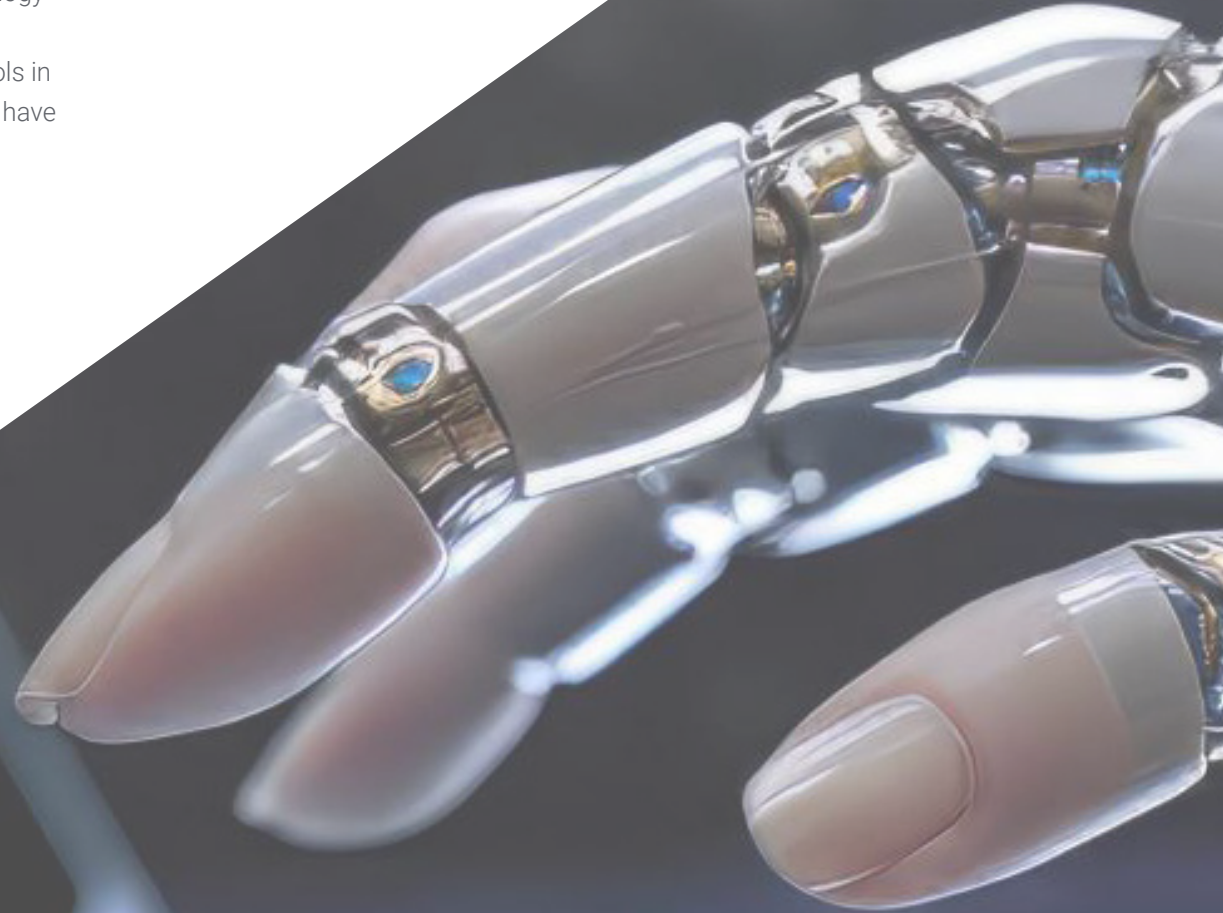


*The contents of this program will provide you with a complete and practical vision of the impact of Artificial Intelligence in the Human Resources area of companies"*

# 05 Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.







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*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*



## Case Study to contextualize all content

Our program offers a revolutionary approach to developing skills and knowledge. Our goal is to strengthen skills in a changing, competitive, and highly demanding environment.

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*At TECH, you will experience a learning methodology that is shaking the foundations of traditional universities around the world"*



*You will have access to a learning system based on repetition, with natural and progressive teaching throughout the entire syllabus.*



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

### A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch, which presents the most demanding challenges and decisions in this field, both nationally and internationally. This methodology promotes personal and professional growth, representing a significant step towards success. The case method, a technique that lays the foundation for this content, ensures that the most current economic, social and professional reality is taken into account.

“*Our program prepares you to face new challenges in uncertain environments and achieve success in your career”*

The case method has been the most widely used learning system among the world's leading Information Technology schools for as long as they have existed. 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 course, students 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 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 Human Resources Process Optimization with Artificial Intelligence guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Technological University.



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



This **Postgraduate Diploma in Human Resources Process Optimization with Artificial Intelligence** contains the most complete and up-to-date program on the market.

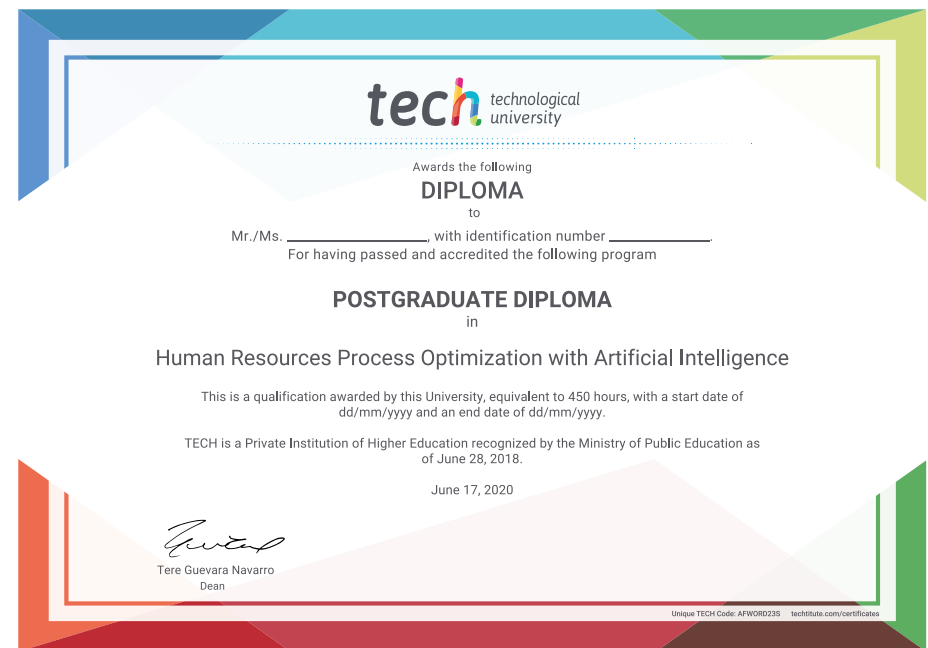
After the student has passed the assessments, they will receive their corresponding **Postgraduate Diploma** issued by **TECH Technological University** via tracked delivery\*.

The diploma issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Diploma, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Postgraduate Diploma in Human Resources Process Optimization with Artificial Intelligence**

Modality: **online**

Duration: **6 months**.





## Postgraduate Diploma Human Resources Process Optimization with Artificial Intelligence

- » Modality: online
- » Duration: 6 months.
- » Certificate: TECH Technological University
- » Schedule: at your own pace
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# Postgraduate Diploma

## Human Resources Process Optimization with Artificial Intelligence