

PROGRAMME INFORMATION



UNIVERSITY MASTER'S DEGREE IN CONNECTED INDUSTRY

CÓDIGO 280701

UNED

ETS de
Ingenieros
Industriales

**UNIVERSITY MASTER'S DEGREE
IN CONNECTED INDUSTRY**

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University Master's Degree in Connected Industry

INFORMATION IDENTIFYING THE QUALIFICATION

Name and status of awarding institution

Universidad Nacional de Educación a Distancia.

Public university.

Name of qualification and title conferred in original language

Máster Universitario en Industria Conectada por la Universidad Nacional de Educación a Distancia.

Status

National validity.

Approved by Accord of the Council of Ministers on Jun 1st, 2023.

Main field(s) of study for the qualification

The study is included in the field of Engineering and Architecture.

Language(s) of instruction/examination

The degree is taught in Spanish.

INFORMATION ON THE LEVEL OF THE QUALIFICATION

Level of qualification

Level 3 (Master) in the Spanish Framework of Higher Education (MECES) is equivalent to level 7 of European Qualifications Framework (EQF).

Official length of programme

The official length of programme is 60 ECTS and 1 year full time

Access requirements

University degree in the field of industrial engineering, telecommunications engineering, or computer engineering.

As specific prerequisites, students are expected to have prior knowledge at the undergraduate level in programming and electronics.

INFORMATION ON THE CONTENTS

Mode of study

Distance learning full time.

Programme requirements

The programme of studies is composed of 25 compulsory ECTS, 25 elective ECTS and 10 Master's Dissertation ECTS.

Subjects

- Network Security Management Processes and Tools
- Digital Systems for the Internet of Things
- Industrial Communications
- Cloud Computing for Industrial Environments
- Research Methodology in Connected Industry
- Wireless Communications and Protocols for the Internet of Things
- Perception Systems
- Processing and Control in Real Time
- Platforms for Massive Data Processing
- Mathematical Foundations for Data Analytics
- Digital Transformation
- Advanced Manufacturing Technologies
- Artificial Intelligence in Engineering
- Simulation of Connected Industrial Processes
- Robotics for the Connected Industry
- Cybersecurity in Connected Industry
- Deep Learning Techniques in Industry
- Data Visualization and Analytics
- Additive Manufacturing in Connected Industry
- Web Development and Mobile Applications for Industrial Environments
- Mechanical Systems and Components for the Connected Industry
- Final Master Thesis

Grading scheme

In the Spanish university system, modules/courses are graded on a scale of 0 to 10 points with the following qualitative equivalence:

0-4.9: "suspenso"; 5-6.9: "aprobado"; 7-8.9: "notable"; 9-10: "sobresaliente". A special mention, "Matrícula de Honor" may be granted to up to 5% of the students in a group provided they have got a "sobresaliente". To pass a module/course it is necessary to get at least 5 points.

In cases of recognition of ECTS, professional experience, cultural or sports activities, or student representation no grading will be recorded but, where appropriate, the word "Apto".

INFORMATION ON THE FUNCTION OF THE QUALIFICATION

Access to further study

This qualification gives access to Doctoral studies, provided that the student has completed a minimum of 300 ECTS in the overall teachings of Bachelor and Master.

Stated objectives associated with the qualification and professional status (if applicable)

The main aim and competencies of this degree is understand and be able to develop digital systems for connected environments; understand and be able to use the most common communications architectures and protocols in connected industry environments; being able to use cloud computing systems in industrial environments; understand and be able to apply the methods and techniques of scientific research and technological development in the field of connected industry; prepare and be able to defend a connected industry project before a specialized and non-specialized audience.

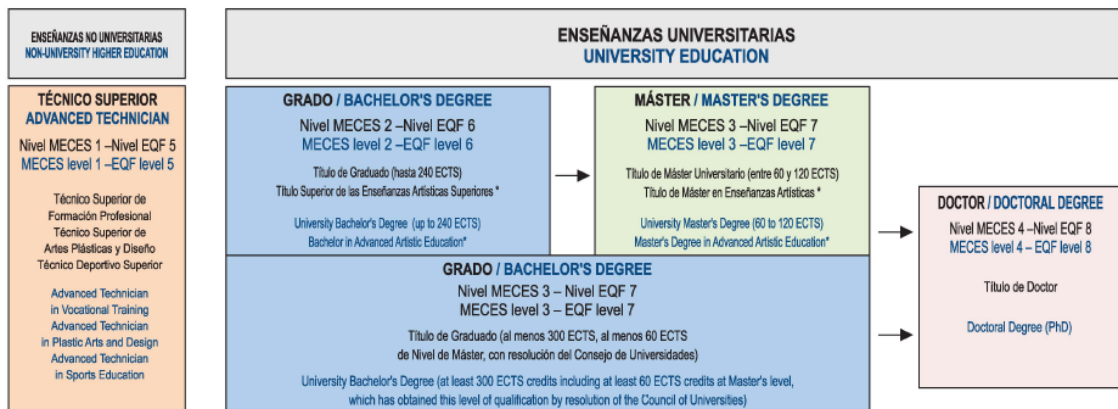
This degree covers the main pillars identified as fundamental for the Fourth Industrial Revolution, also known as Connected Industry, based on a detailed and well-founded understanding of the methodology, theoretical and practical aspects of said enabling digital technologies: Internet of Things, Big Data, Simulation, Additive Manufacturing, Cybersecurity, Cloud Computing, Cyber-Physical Systems, Robotics and Artificial Intelligence. In addition, it is designed to contribute to the training of professionals with the ability to integrate the

different existing digital technologies in the improvement of current industrial processes.

ADDITIONAL INFORMATION

<https://www.uned.es>

INFORMATION ON THE NATIONAL HIGHER EDUCATION SYSTEM



* Las enseñanzas Artísticas Superiores son Enseñanzas no Universitarias dentro del Sistema Educativo español de Enseñanza Superior
 *Advanced Artistic Education is non-university education within the Spanish Higher Education System