

Master Thesis

Academic Year: (2024 / 2025)

Review date: 18-09-2024

Department assigned to the subject: Systems Engineering and Automation Department

Coordinating teacher: MUÑOZ ORGANERO, MARIO

Type: Master Final Project ECTS Credits : 6.0

Year : 1 Semester : 2

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

The public defense of the Master Thesis (TFM, Trabajo Fin de Máster) will occur when the student has passed all the subjects of the master, within the period established for this purpose in the current academic calendar for postgraduate studies and according to the regulations set by the University and by the Postgraduate School.

OBJECTIVES

The objective of the master's thesis is for the student to be able to use the knowledge and skills acquired in the program to solve a specific problem in the field of the connected industry, either a real problem of a company or simulated as a training challenge. The student must know the details of the problem posed, for which it will be necessary to analyze state-of-the-art documents and propose and validate a solution to it.

As related objectives, students must be able to prepare a report and defend it before an evaluation panel.

DESCRIPTION OF CONTENTS: PROGRAMME

The Master's Thesis is organized around the treatment of a practical case of implementation of Connected Industry 4.0.

Students are presented with possible areas in which to carry out this work, and guidance and monitoring is provided through the assignment of a tutor.

The tasks included include:

- Presentation of work topics by professors or industry experts who will act as tutors for the students.
- Compilation and analysis of information related to the Master's Thesis by the student with the support of the tutor
- Development of the Master's Thesis by the student with the support of the tutor
- Preparation of the Master's Thesis Report and Defense

LEARNING ACTIVITIES AND METHODOLOGY

The training activities related to the master's thesis are:

AF5 Tutorials (10 hours)

AF7 Individual student work (140 hours)

The following methodologies are used:

MD2 Critical reading of texts recommended by the tutor as the state of the art of previous similar works, as well as the tools necessary for the preparation of the TFM.

MD3 Resolution of practical cases, problems, etc. posed by the tutor to the student in the completion of his master's thesis

MD4 Presentation and discussion with the tutor, as well as final presentation before a tribunal

MD5 Preparation of the final report individually

ASSESSMENT SYSTEM

The evaluation system for the Master's Thesis will be as follows:

The Master's Thesis will be evaluated by a specific panel in accordance with the procedures and requirements established by the University, in the periods set annually in the academic calendar.

Format of the defence act:

The student must prepare a report on the work carried out, which will be delivered to the members of the panel chosen for the purpose of evaluation with due notice (in the agreed format).

The presentation and defence of the Master's Thesis will be carried out orally by the student before the panel in a public session.

The student will make a presentation lasting no more than 20 minutes, after which the panel may ask the student any questions it deems necessary for the evaluation of the work.

The panel, after consulting the report issued by the tutor, will proceed to grade the work, which will be communicated to the interested party after the deliberation, sending a copy of the minutes to the corresponding administrative services at UC3M. The deliberation process of the panel will not be public.

The panel is appointed for each group of students in accordance with the university's regulations.

Students will present and defend their thesis in English.

The University uses the Turnitin Feedback Studio program within the platform for submitting student work. This program compares the originality of the work submitted by each student with millions of electronic resources and detects those parts of the text that have been copied and pasted. If the student has correctly cited and referenced the documents used as a source, Turnitin will not mark it as plagiarism.

The evaluation system will be:

SE5 Presentation and public defense of the TFM