

MASTER'S DEGREE IN ELECTRONIC SYSTEMS ENGINEERING

REGULATIONS FOR THE ASSIGNMENT, PREPARATION, AND EVALUATION OF THE MASTER'S THESIS

1. ON THE SUPERVISION OF THE MASTER'S THESIS

Master's theses (TFM) may be proposed and supervised by professors with a doctoral degree from the Department of Electronic Engineering. To act as a co-supervisor of the TFM, it is not necessary to meet this requirement, as long as at least one of the co-supervisors does.

Each TFM proposal and its assignment to a student must be approved by the Academic Committee of the Degree (CAT).

2. ON THE SCOPE OF THE MASTER'S THESIS

The topic of the TFM must meet at least one of the following requirements:

- 2.1. Be related to one of the research lines included in the doctoral program "Electronic Engineering" at the UPV.
- 2.2. Be related to activities that promote technological development in any field related to Electronic Engineering, including the completion of the TFM in technology-based companies.

3. ON THE PRESENTATION AND EVALUATION OF THE TFM

3.1. A single call for TFM proposals will be opened at the beginning of the academic year so that the master's program professors can publish their offers. This call will close during the last week of June of each academic year. The CAT will review and approve, if appropriate, the TFM proposals as professors upload them to the "Ebrón" application. These proposals may have been previously agreed upon with a student or may be openly offered to all students. In the latter case, students may choose a TFM proposal to be assigned to them. The management of TFM proposals and their subsequent assignment and defense is carried out through the "Ebrón" software application.

3.2. The TFM may be based on a student's work during their internship in a company. In such cases, the student must find a TFM supervisor among the professors of the master's program to oversee the work and ensure that the TFM report meets minimum academic requirements.

3.3. There are four TFM defense periods each academic year: November, March, July, and September. The specific weeks for defenses are published on the MUISE website every year before the student enrollment period.

Students who wish to defend their TFM in a specific session must notify the administrative services of the Department of Electronic Engineering and upload their TFM report in PDF format to the Ebrón application at least 15 calendar days before the defense date, so that the tribunal members can read it carefully.

Students are advised to have their TFM report ready and uploaded to Ebrón 15 days before the Monday of the defense week.

3.4. Two tribunals will be established for evaluating TFMs, one for each specialization. Each tribunal will consist of three members appointed by the Academic Committee from among the doctoral professors teaching in the master's program.

If a student and their TFM supervisor believe that the TFM should be defended before the tribunal of a specialization different from the one the student pursued, they must submit a reasoned request to the administrative services of the Department of Electronic Engineering, copying the academic director of MUISE. This request must be made at the same time the student indicates their intention to defend the TFM in a specific session.

3.5. The TFM will be defended before the designated tribunal (one per MUISE specialization). The president of the tribunal will inform the Department of Electronic Engineering (ERT) of the date, time, and location of the defense so that the students scheduled for that session can be notified in advance.

3.6. The tribunal members will evaluate the TFM based on the following criteria:

- A reasoned report by the TFM supervisor expressing their personal assessment of the work, aligned with the other evaluation criteria. This report must be uploaded to Ebrón by the supervisor before the defense date. It is advisable for the supervisor to suggest a numerical grade (between 0 and 10) or a range, which will serve as guidance for the tribunal.
- Degree of novelty and relevance of the work.
- Impact on technological and social development.
- Interest of the results obtained.
- Synthesis capability and technical accuracy of the work.
- Derived publications, patents, etc., if applicable.

3.7. According to Article 8.5 of the current GENERAL REGULATIONS FOR BACHELOR'S AND MASTER'S THESES, "In order to admit the submission of a Bachelor's or Master's Thesis, the student's transcript must reflect the completion of all ECTS credits of the degree, excluding those corresponding to the thesis itself and, if applicable, external internships or mobility courses."

3.8. Required documentation:

- Electronic PDF version of the TFM report (via Ebrón), submitted at least 15 days before the defense. The report must include references, appendices, and copies of any publications derived from the TFM, if applicable.
- Three printed copies of the presentation (PowerPoint), one for each tribunal member.

3.9. Maximum presentation duration: 15 minutes.

3.10. Any TFM proposal must be uploaded to the "Ebrón" application for approval by the Academic Committee (CAT) at least **15 working days** before the deadline to upload the TFM report, as established in section 3.8, to allow time for the CAT to convene and review the proposal. Normally, proposals should be submitted well in advance of this deadline, ideally when the student begins working on the TFM. The final date for uploading TFM proposals to Ebrón will be published on the master's website alongside the defense schedule.

4. ON THE FORMAL CHARACTERISTICS OF THE TFM REPORT

The activities carried out during the development of the TFM will be compiled in a document meeting the following requirements:

4.1. Cover page according to the annex found on the last page of this document. The Microsoft Word template is available on the MUISE website.

4.2. Text: Book Antiqua, Times New Roman, Calibri, or Arial size 11. Page layout: A4, top and bottom margins 2.5 cm, left and right margins 3 cm. Paragraph: single spacing with 6-point spacing between paragraphs.

4.3. The report must include at least the following sections:

- Author's and supervisor's name(s).
- Table of contents.

- Introduction, including the context of the work, clearly identifying the problem and previously proposed solutions.
- Description of the solution(s) studied.
- Presentation of analytical and experimental results.
- Conclusions, providing a critical evaluation of the results.
- Proposed future work, including possible doctoral thesis topics, if applicable.
- References.
- Appendices (if necessary).

4.4. There is no minimum or maximum page limit for the TFM report, but a balance between conciseness and completeness should be sought. Typically, 50 to 80 pages plus appendices are sufficient.

5. ON TFM DEFENSE BY VIDEOCONFERENCE

This TFM defense method aims to accommodate the needs of international students or those with specific personal circumstances, such as employment.

Videoconferencing is now common in many fields; therefore, with appropriate conditions, it should not be an exception.

Although the UPV allows TFM defense via videoconference, it is not the usual modality. Article 9.6 of the General Regulations for Bachelor's and Master's Theses (CGUPV 07/03/2013) states:

"In justified cases and with CAT's authorization, upon student request, the defense of a Bachelor's or Master's Thesis may be carried out by videoconference."

This is considered an exceptional situation and requires prior CAT approval. To allow the committee to decide during regular meetings without calling special ones, the request must be submitted well in advance.

It's important to remember that the defense is an academic and administrative act during which the tribunal evaluates the thesis content, presentation quality, and responses to questions. Therefore, body language and interaction — normally present in face-to-face defenses — are relevant. These could be limited if the videoconferencing setup is not technically adequate.

Currently, the university does not provide dedicated technical support for this purpose. Thus, the tribunal's only responsibility is to confirm that appropriate conditions are met. Throughout the project, the student and supervisor should already be using videoconferencing, so it should not be a difficulty during the defense.

Still, as the UPV regulations specify, the standard format is face-to-face defense. Videoconferencing must be **justified** and meet the conditions outlined below. Note that this option involves extra responsibilities for the supervisor, the tribunal, and the CAT.

Steps for conducting TFM defense by videoconference:

5.1. The student must submit a request to the Department's administrative services well in advance — before June 30 — justifying and documenting the circumstances, and with the supervisor's approval.

5.2. The CAT will decide on the request and, if approved, assign the student to a session and tribunal. If denied, the student and supervisor will be notified with an explanation. Videoconference defenses are only permitted during the final session of the academic year, in September.

5.3. For coordination, the administrative services will inform the tribunal president of the time and room for the defense. The president will schedule the student presentations, with videoconference defenses taking place at the beginning of the session to allow for contingencies.

The student and supervisor will be summoned and granted prior access to the room for testing. The supervisor must confirm conditions to the president before the scheduled defense day.

5.4. Videoconferencing during the defense must allow the tribunal to see the student and their materials simultaneously, and the student must see the tribunal. Image and sound must be of sufficient quality for fluid interaction, subject to the tribunal president's judgment.

5.5. The student's supervisor — or a delegated professor — must be present in the room to ensure the student's identity and facilitate communication.

5.6. If an unresolved issue occurs during the defense, the session will not be postponed. At most, changes in order or same-day rescheduling may be considered.

If the defense cannot be completed, the student will be marked as "not presented," just as if they had missed an in-person session.

6. ON TFM CONFIDENTIALITY

When submitting a TFM proposal on Ebrón for CAT approval, there is an option to mark it as “confidential.”

This may be necessary when the TFM is carried out within a company or research center. However, this option should be avoided unless strictly necessary, as it must be properly justified and may delay CAT approval.

To prevent confidentiality when possible, the student and company supervisor should agree on which information cannot be included in the TFM report, and this should be communicated to the university supervisor. These TFMs usually focus more on the experimental results and performance of the developed electronics rather than theoretical aspects.

If the TFM must be marked confidential in Ebrón, a brief PDF report signed by the company/research center supervisor must also be uploaded, explaining the reasons for the confidentiality.

The defense of a confidential TFM will be closed-door, and the company/research center supervisor — or a delegated representative — may attend.

A confidentiality agreement template signed by the tribunal members is available on the master’s website.

ANNEX: TFM COVER PAGE FOR MUISE



UNIVERSITAT
POLITÈCNICA
DE VALÈNCIA



DEPARTAMENTO
DE INGENIERÍA
ELECTRÓNICA

TITLE OF THE MASTER'S THESIS (IN UPPERCASE)

Author: First name and last name of the author

Supervisor: First name and last name of the supervisor

Co-supervisor: First name and last name of the co-supervisor (if applicable)

Company Supervisor: First name and last name of the company supervisor (if applicable)

Master's Thesis submitted to the
Department of Electronic Engineering at the
Universitat Politècnica de València
in partial fulfillment of the requirements for the
Master's Degree in Electronic Systems
Engineering

Academic Year 2018–19 (or as applicable)
Valencia, July 2019 (or the corresponding
month and year)