Guidelines of Best Practices for PhD Thesis Advisors PhD Program in Telematics Engineering University Carlos III of Madrid

In order to comply with the Royal Decree ("Real Decreto") 99/2011 [1], of January 28, which regulates the official doctoral studies in Spain, the **PhD Program in Telematics Engineering** (PDIT) presents the following **guidelines to help dissertation tutors and advisors understand and fulfil this role**.

This guide is a non-exhaustive document that includes best practices, recommendations, curricular requirements to be a thesis advisor/tutor, rights and duties of doctoral students and activities that must be fulfilled by doctoral students and thesis advisors in the development of research work.

This document that complements the existing legal regulations at the Carlos III University of Madrid (such as the Rules and Regulations of the Doctoral School (DS) [2], the Code of Good Practice [3] or the Code of Good Practice for Managing Plagiarism of Ph.D. Theses [4]) aims to promote honest and responsible academic practices.

Definitions

In accordance with RD 99/2011 [1] and Rules and Regulations of the UC3M Doctoral School [2]:

- **Doctoral student** or **advisee** is who has enrolled in the PDIT, after accreditation of the requirements established in RD 99/2011 and in the PDIT.
- **Tutor** must hold a Ph.D. degree and be associated with the Ph.D. he/she is also required to have at least a verified six-year tenure in research (or proof of equivalent qualifications). A tutor is responsible for the training and research activities required by the PDIT and Doctoral School.
- Advisor must hold a Ph.D. degree and has at least a verified six-year tenure in research (or proof of equivalent qualifications), as well as specific research experience in the field of your thesis. Advisors may be based at any university, center or institute in Spain or abroad.
- Academic Committee is responsible for the definition, updating, quality and coordination of the Ph.D. Program, as well as for supervising the progress of research and training and for authorizing the thesis defense.
- Doctoral School, established in accordance with article 26 of UC3M Rules and Regulations, is in charge of the central management of the Ph.D. training procedures.
- Research plan is elaborated at the beginning of Ph.D. and serves as a tracking
 tool of doctoral student project, listing the objectives and methodology of
 her/his research as well as a timeline for estimated goal achievements. This plan
 must be validated by tutor or advisor and will be updated in subsequent years.

• **Doctoral activities** are seminars, meetings, conferences, publications, international fellowship programs, etc., carried out during the academic year. Certificates or papers are required as proof of completion.

Thesis Co-supervision

Doctoral thesis may be co-supervised by several doctors with accredited research experience, although it is recommended 2 supervisors as maximum. Co-supervision will be encouraged when there are academic or interdisciplinary thematic reasons, national or international collaboration or when there is a novice supervisor who requires an experienced advisor.

Whenever possible and represents a benefit for the doctoral student, co-direction by international researchers will be encouraged to promote the internationalization of the Program and/or researchers or technology transfer to the industrial sector.

Tutor/Advisor Responsibilities

Tutors/Advisors will offer intellectual and academic support to the doctoral student with the aim that her/his research work is carried out in the best conditions as follows:

- a) Participate in the procedures established by the DS for the monitoring and evaluation of the doctoral student's research activity every year.
- b) Know and make known to the doctoral student the general rules and regulations for doctoral studies, and specific regulations of the UC3M DS.
- c) Respect the principles of research and doctoral student training indicated in the Code of Good Practices of the DS [3].
- d) Assist doctoral student in matters concerning academic activities for her/his specific training and, if required, transversal training.
- e) Ensure compliance with ethical and legal aspects, intellectual or industrial property rights that may be generated from research.
- f) Give feedback and discuss the research work strengths and weaknesses, offering strategies for addressing the weaknesses and advising to apply the most appropriate methodologies.
- g) Provide a collaborative and friendly environment that is intellectually stimulating, emotionally supportive, respect and safe.
- h) Safeguard academic interests and promote the best training of doctoral student.
- i) Review the research plan, ensuring that its scope and scientific novelty are defined, goals are attainable, and timeline is realistic (depending on the part-time or full-time dedication of the doctoral student).
- j) Meet with the doctoral student on a regular period, through face-to-face meetings, email, video chat or phone, etc., to follow-up the development of the research.
- k) Facilitate national and international mobility activities, through collaboration and/or research stays, encouraging participation in competitive mobility aid programs.
- l) Try to participate in competitive programs, both national and international, to help doctoral training.

- m) Promote quality scientific dissemination activities, both national and international, protecting the possible patents or authorship.
- n) Try to participate in research projects or contracts, the subject matter of which is directly related to the student doctoral thesis, in order to enhance her/his research.
- o) Ensure the quality of the doctoral thesis and the doctoral student training for autonomous work in RD&I field.
- p) Support advisees during the writing phase of scientific articles and dissertation or PhD thesis. PhD thesis, which will consist of an original research work, prepared by the doctoral student, whose document may be made in the classical format (<u>UC3M Library Guide</u>) or by compendium of publications, according to the requirements established by the PDIT for each one of them.
- q) Assist doctoral student in managing the process of plagiarism control, thesis deposit and selection of dissertation committee.
- r) Encourage the presence of international experts in reports, monitoring and dissertation committee.
- s) Accept a reasonable number of thesis supervisions, in order to guarantee quality of supervision and monitoring.

Doctoral Student Rights

The RD 1791/2010 [5] in its article 10 describes as specific rights of doctoral students, related to their training and supervision, the following:

- a) To receive quality research training that promotes scientific excellence and attends to equity and social responsibility.
- b) To have a tutor and advisor to guide their training process, when appropriate, a coadvisor, with accredited research experience, who supervises the completion of the doctoral thesis.
- c) To learn about the research career and for universities to promote research career development opportunities in their programs.
- d) To participate in programs and calls for grants for research training and for national and international mobility.
- e) To have the recognition and protection of intellectual property based on the results of the Doctoral Thesis and previous research works in the terms established in the current legislation.
- f) To be considered, in terms of rights of representation in the governing bodies of the universities, as research personnel in training, in accordance with what is established in the legislation on science and research.
- g) To participate in the monitoring of doctoral programs and in institutional evaluation processes, under the terms provided by current regulations.

Doctoral Student Duties

In accordance with the article 13 of RD 1791/2010 [5], university students must assume the commitment to have an active and co-responsible presence at the university, they

must know their university, respect its Statutes and other operating rules approved by the regulatory procedures. As part of that commitment, the following duties of students is highlighted:

- a) Study and active participation in academic activities that help complete their training. In the case of the PDIT, the academic activities are included in the Rules and Regulations of the Doctoral School, titles III, IV and V [2].
- b) Respect the members of the university community, the staff of collaborating entities or that provide services at the university.
- c) Caring for and properly using the property, equipment, facilities or campus of the university or those entities collaborating with it.
- d) Refrain from the use or cooperation in fraudulent procedures in the evaluation tests, in the works that are carried out or in official documents of the university.
- e) Know and comply with internal regulations on health and safety, especially those that refer to the use of practice laboratories and research environments.

References

- [1] Ministerio de Educación. Real Decreto 99/2011, de 28 de enero, por el que se regulan las enseñanzas oficiales de doctorado. Boletín Oficial del Estado (BOE) núm. 35, de 10 de febrero de 2011, referencia: BOE-A-2011-2541. Última modificación: 3 de junio de 2016.
- [2] Doctoral School at UC3M. Rules and Regulations of the Doctoral School at Universidad Carlos III de Madrid, approved by Governing Council on February 7, 2013; modified on November 28, 2013. Available at: https://www.uc3m.es/phdprogram/regulations. Last access: September 2021.
- [3] Doctoral School at UC3M. Code of Good Practice of the Doctoral School. Available at: https://www.uc3m.es/phdprogram/regulations. Last access: September 2021.
- [4] Doctoral School at UC3M. Code of Good Practice for Managing Plagiarism of Ph.D. Theses. Available at: https://www.uc3m.es/phdprogram/regulations. Last access: September 2021.
- [5] Ministerio de Educación. Real Decreto 1791/2010, de 30 de diciembre, por el que se aprueba el Estatuto del Estudiante Universitario. BOE núm. 318, de 31 de diciembre de 2010.