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Thesis Proposal / Research Plan guidelines for the Interuniversity Doctoral Program in Electronic Engineering

Students ruled according to RD 56/2005 or RD 1393/2007:

(have started the doctorate the course 12/13 or before)

The **doctoral thesis proposal** is a project that the student must prepare and defense before the end of the second year since he started the research period, and **preferably at the end of the first year** in the research period, with the contents detailed later.

The thesis proposal will be supervised by the thesis advisor, and will be **defended in a public academic act** and evaluated by a committee, and will not have any credits.

For students admitted to the **formation period** who register the thesis proposal also as a Master Thesis according to their admission request, this act will allow them to obtain **30 ECTS** corresponding to the **Master Thesis** in the Master in Electronic Engineering. In this case, a single defense will be enough to evaluate both the Thesis Proposal and the Master Thesis, but two different assessment reports will be issued, being the Master Thesis evaluated numerically in the 0 – 10 scale. The Master Thesis closes the formation period, and in consequence the assessment report of the Thesis Proposal will have a subsequent date.

The thesis proposal can be **evaluated** as satisfactory or non-satisfactory. The Doctorate Program in Electronic Engineering publishes the **criteria** for the evaluation of the thesis proposal. In case a non-satisfactory evaluation is received, the student must register and defense it again. Two consecutive non-satisfactory evaluations of the thesis proposal imply the student is dismissed from the Program.

The thesis proposal will be used as a reference for the **annual tutorship evaluation**, and the student will have to justify every year the thesis progress according to the workplan scheduled, or the changes that have been produced respect to that schedule.

Students ruled according to RD 99/11:

(have started the doctorate the year 13/14 or later)

The **doctoral research plan** is a project that the student must prepare and defense before the end of the **first year since he started the doctorate**, with the contents detailed later, and which can be improved along the doctorate studies.

The research plan will be supervised by the thesis advisor, and the first presentation will be **defended in a public academic act** and evaluated by a committee, and will not have any credits.

The research plan can be **evaluated** as satisfactory or non-satisfactory. The Doctoral Program in Electronic Engineering publishes the **criteria** for the evaluation of the research plan. The positive evaluation of the research plan is a requisite mandatory to continue in the doctoral program. In case a non-satisfactory evaluation is received, the student has a term of **six months** to prepare and present a new research plan, which will be evaluated by the Academic Committee of the Doctoral Program (CAPD). Two consecutive non-satisfactory evaluations of the research plan imply the student is dismissed from the Program.

The student must include his/her research plan in the **Student Activity Report**, and the plan will be improved along the doctoral progress, after requirement of the evaluation committee, the CAPD, the thesis advisor, or by initiative of the student him/herself. The CAPD will yearly review the research plan as part of the **annual tutorship evaluation**, the student will be responsible for its update and improvement, and the changes will be supervised by the thesis advisor.

If the doctoral student decides to change his/her thesis topic, he/she must submit a new research plan

Contents of the thesis proposal or research plan:

The same format will be followed for reports of both thesis proposals and research plans. Whenever possible, the report will be written in English language. The report will contain the information necessary to evaluate the originality, coherence and viability of the proposed thesis. Therefore, the report should be structured in the following sections:

- Identification of the doctorate student and of the thesis advisor.
- Title of the thesis proposal.
- Summary of the proposal. (1 page)
- Critical state of the art on the subject.
- Thesis goals.
- Methodology and resources needed.
- Description of tasks to achieve the thesis objectives.
- Workplan schedule with estimated deadlines.
- Bibliography.
- Material published in the field, if applicable.

In case the thesis proposal is also proposed to obtain the 30 ECTS of a Master Thesis, the content should be adapted to include a report of the recent research progress of the student, according to the standard of a Master Thesis.

The most important sections are the review of the state of art on the subject, objectives, and the work plan. The study of the **context** of the thesis proposal must be sufficiently broad and detailed to offer a clear definition of the problem or subject to be studied and its implications for R&D in the fields of electronic engineering, industrial technologies and ICTs. The proposal must contain a comprehensive description of **previous research** and the research being carried out at the time of presentation of the thesis proposal, including a list of the research groups and companies working on the subject and a **critique** of their work.

The thesis proposed must be framed in this existing context, it must make comparisons with previous solutions and approaches to the subject of the thesis and **clearly express the innovative aspects**. In this direction, the proposed objectives must imply an **original and significant contribution** that lead to an advance in the state of the art, they must be reasonably **dimensioned** to allow their achievement in the expected time for the thesis completion, and must be **specific** and quantified.

The proposal must describe the proposed **research methodology** and give details of the theoretical, experimental and dissemination aspects, as well as the collaborations and additional **resources** needed. The work plan must give details of the **milestones** to be met, and should include the time needed to write, submit and defend the thesis. The workplan schedule must respect the legislation, as specified in the **regulations of the doctoral program**, regarding the **duration of the doctoral thesis**, detailing whether the thesis will be developed full-time or part-time (only for students under the RD 99/11)

Since students write their thesis proposals/plans when they are starting their doctoral research, the proposal does not need to include research published or results, although if any are available at the time of the thesis proposal/research plan defense, they should be included in it.

Defense of the Thesis Proposal or Research Plan:

In the public defense of the thesis proposal or research plan, the aspects mentioned above must be presented as clearly and concisely as possible. Special consideration will be given to students' ability to **synthesize** information and their **communication skills**. The examiners may make **recommendations** regarding the content, methodology and work plan, which will be written in the evaluation report.

The extent to which students take into account the comments made by the examiners of the thesis proposal / research plan and comply with the work plan will be important aspects of the **annual tutorship evaluation**, which will be done in the following years..

Academic Committee of the Doctoral Program in Electronic Engineering
Barcelona, 10 de Juny de 2013