

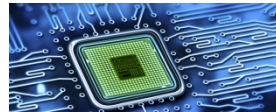


POLITECNICO
DI TORINO

ScuDo

Scuola di Dottorato ~ Doctoral School

WHAT YOU ARE, TAKES YOU FAR



PhD Program in EECE: Electrical, Electronics, and Communications Engineering

XXXII Cycle – Meeting on Final Exam

9 July 2019, Maxwell Room, DET, Politecnico di Torino

Some Basic Rules...

Duration (XXXII cycle)

The PhD program lasts 3 years

1 Nov 2016 – 31 Oct 2019

Max 6 months extension*

To graduate

Training requirements

Publication requirements

Write a **PhD thesis**

Pass the **final examination**



Ministero dell'Istruzione
dell'Università e della Ricerca



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*only duration, not scholarship



+ **EECE**



+ **EECE**

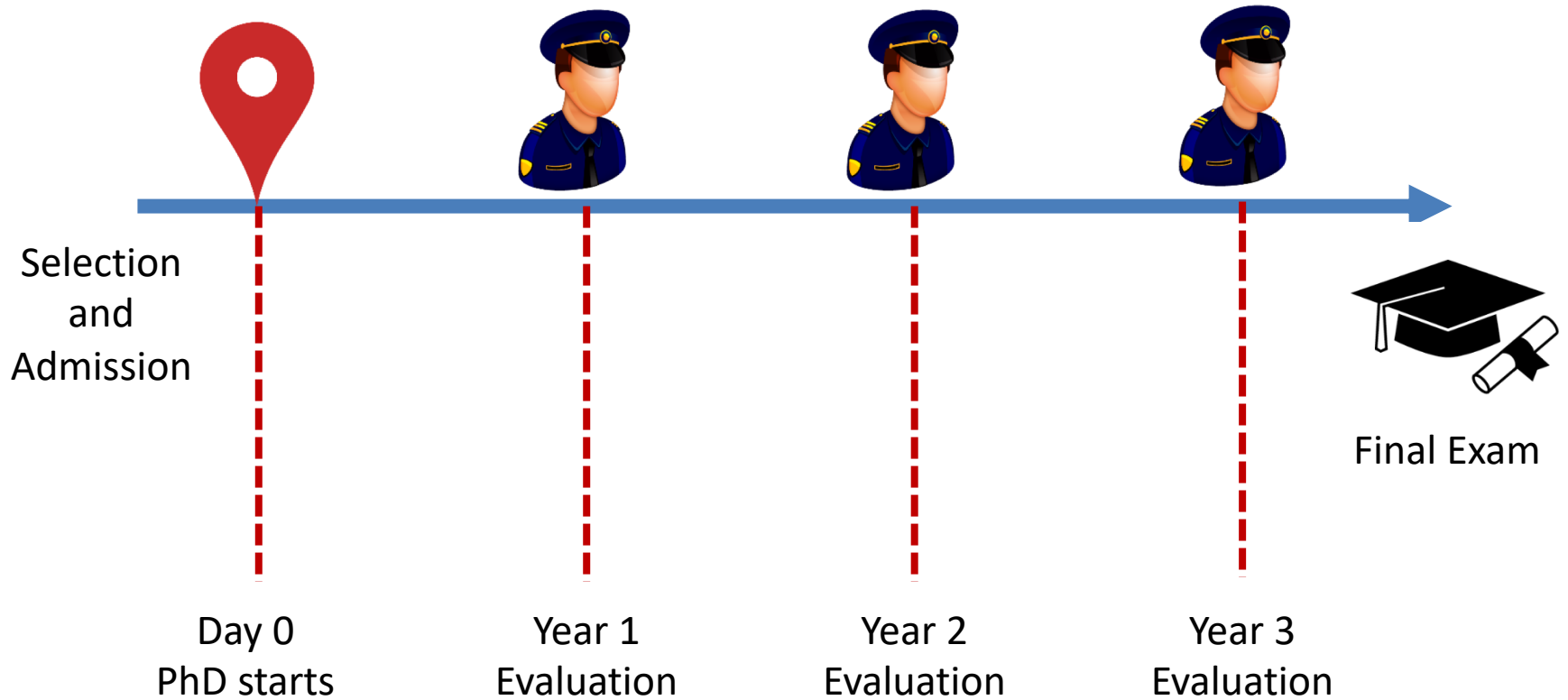


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PhD Candidate Path





PhD Activities

1. Education
2. External research activity
3. Scientific production

A point-system is in place for all PhD activities

Training Activities: Accounting

All activities **MUST** be inserted in the «cruscotto»
Definitions

- $H_{s,i}, H_{h,i}$: **hours** of course i (s : soft, h : hard)
 - Phd hard skill course hours are counted in full
 - M.Sc. hard skill course hours count only 1/2
 - B.Sc. hard skill course hours count only 1/3
- $E_{s,i}, E_{h,i}$: **weight** that accounts for examination result
 - 1 if no exam
 - 4/3 if «pass» (18-24)
 - 5/3 if «pass with merit» (25-30)
- $D_{s,i}, D_{h,i}$: training **points**

$$D_{h,i} = E_{h,i} \cdot H_{h,i}, \quad D_h = \sum_i D_{h,i}, \quad H_h = \sum_i H_{h,i}$$

$$D_{s,i} = E_{s,i} \cdot H_{s,i}, \quad D_s = \sum_i D_{s,i}, \quad H_s = \sum_i H_{s,i}$$



Research Activities and Publications

Research results should be published

Journal publications

Conference publications

Other (book chapters, patents, etc...)

All publications must be inserted in IRIS database

<https://iris.polito.it>

Automatically copied to the «cruscotto»

Publication metrics are used to evaluate faculty...

...and PhD Students too!

No publications ⇒ No graduation



Publications: Accounting

Publication metrics that are relevant for your PhD

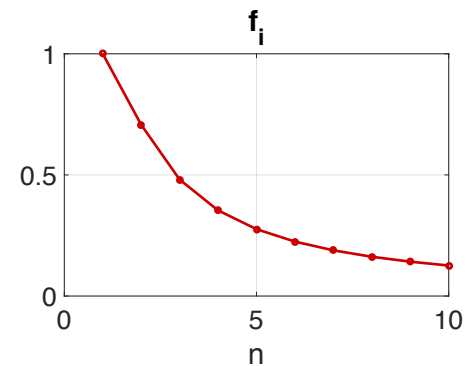
- N : total number of **exclusive journal publications**
 - Only indexed journals in SCOPUS* or WOS** (VQR-approved)
 - If k authors are polito PhD students, then $N = 1/k$
 - (other non-PhD-Student Authors do not count)
- R : cumulative indicator of all publications
 - Includes also conferences
- P_i : score of i -th publication according to polito rules
 - Journals in 4 quartiles (A: 1.0, B: 0.8, C: 0.5, D: 0.0)
 - Conferences: standard score 0.5
- f_i : weight accounting for number of authors n

$$f_i = \left(\frac{1}{n}\right)^{\left(\frac{n-1}{n}\right)} \text{ if } n \leq 10, \quad f_i = 0.1 \text{ if } n > 10$$

$$R = 50N + \alpha \sum_i P_i f_i$$

EECE

$$\alpha = 60$$





External Research Activities

All PhD students are **STRONGLY ENCOURAGED** to spend a research period abroad

Up to 18 months: if you have a scholarship amount will be augmented by 50%

EECE

approved this augmentation for **any** research-related stay abroad including short stays for conferences

All external research activities must be logged in your «cruscotto»



External Research Activities: Accounting

1. Request authorization BEFORE departure!!

There is a special section in your «cruscotto»

2. When you return

Upload in your «cruscotto» a final PDF report

Short letter from your host

confirming the dates of your stay

No report ⇒ No accounting

3. External research stay indicator: $R_e = d/5$

where d is the number of days of your stay

EECE

delegate for external research stay approval

roberto.gaudino@polito.it



PhD Regulations



- Admission to final exam (**hours** and not **points**)
 - $N \geq 1, R \geq 50, H_s \geq 40, H_h \geq 100$
- Admission to second and third year
 - No specific requirement: each board decides

EECE

- All above SCUDO requirements, plus:
- Admission to final exam (**points** and not **hours**)
 - $N \geq 1, R \geq 100, D_s \geq 40, D_h \geq 200$
- Admission to 3^o year:
 - $T = R + R_e + D_s + D_h \geq 220$ + good marks at poster day
- Admission to 2^o year:
 - $T = R + R_e + D_s + D_h \geq 100$ + good marks at poster day



EECE PhD Poster Day

Main event for all EECE PhD Students

Takes place yearly (October)

For 1^o and 2^o **and 3^o** year students

Last Poster Day: 1 October 2018

Next Poster Day: **1 October 2019**

All students must participate

Posters discussed with faculty and visitors

Review of posters based on an online system

Results used for admission to

2^o year, 3^o year, and **final exam**



The Final Exam: overview

Your PhD Thesis must be completed in 3 years!

XXXII cycle: by October 31, 2019

The final exam starts **ONLY...**

...if minimum requirements are met

The academic board votes admission to final exam

can grant short extensions

BY LAW, no more than 6 months

Common critical cases:

... no journal publication

... did not update my «cruscotto»

... still have to complete my thesis (this is ok)

Minimum requirements not met ⇒ Drop from PhD



The Thesis

- **Official ScuDO template** is available for download at http://dottorato.polito.it/en/final_oral_defence
- **For IEEE members:** free Overleaf Pro (online LaTeX editor), very useful to write the thesis



The Final Exam

Procedure

http://dottorato.polito.it/en/final_examination

1. Admission from academic board

Make sure your «cruscotto» is always updated!

2. Enroll online

3. Evaluation of the PhD thesis by external referees

Two from a list of at least 4 (in order to apply for awards)

May require revisions and resubmissions

Thesis must be first checked for anti-plegiarism

dedicated software available

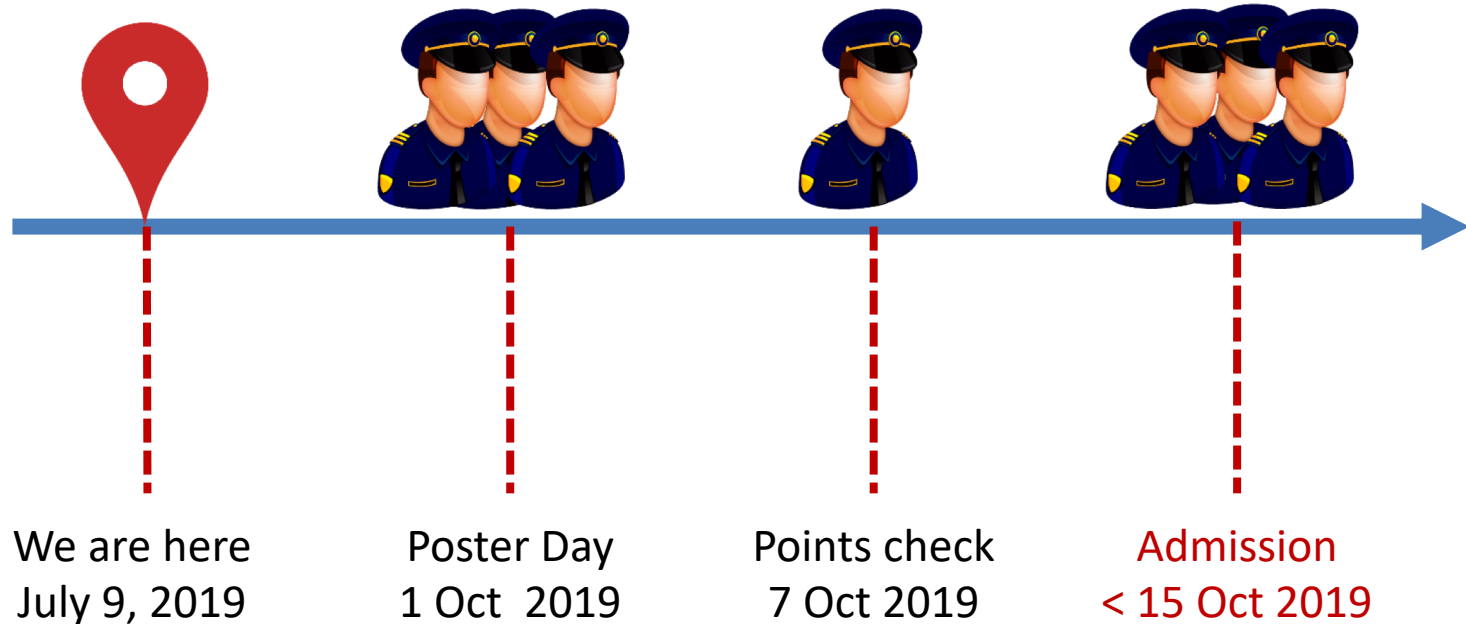
4. Thesis defence

Examination board: 2 referees + 3 other membes

Presentation (about 40 min), in English, Q&A

5. Approved Thesis document upload to IRIS

The Final Exam



Requisites for admission:

- Good evaluation at Poster Day (from Reviewers)
- Minimum points achieved (from Cruscotto, automated)
- Thesis “almost” complete (as declared by Tutor)

The Final Exam



ScuDo Dashboard - Thesis Management

Scarica Modalità operative (PDF) [ITA](#) | [ENG](#)

 PhD candidate details

 Training Activities

 External Training Activities

 External Research Activities

 Publications

 Thesis

New section “Thesis” will appear on the “cruscotto”

This section will guide student and tutor throughout the entire process of the final exam

The tab appears at the end of 3rd year

Steps to follow after admission

1. **Student compiles** and **uploads** the “*Activities Report*”
2. **Tutor** suggests to the EECE academic board (Coordinator) the list of **referees**, which approves them
3. **Student uploads** to the “cruscotto” the approved list of referees. **EECE coordinator approves it**
4. **Student** enrolls to the “final exam” on the “Portale della didattica”, and pays the final exam fee (32 euros)
5. **Student** uploads thesis ad abstract
6. **Tutor** performs plagiarism check and approves thesis
7. “**Cruscotto**” randomly chooses 2 referees. After **5 days**, thesis is sent to them. “Informal” contact strongly encouraged (e-mails from cruscotto often go to Spam)
8. **Referee process** is started

INTRODUCTION TO THE FINAL EXAM

PLAGIARISM PREVENTION

-> Plagiarism and auto-plagiarism: instructions are available at https://didattica.polito.it/zxd/cms_data/attachment/30/Circolare%20Plagio.pdf



web access www.turnitin.com with authentication

- Supervisors will receive an e-mail in order to activate their accounts,
- PhD candidates accounts will be activated by their supervisors,
- A manual for both is available at http://dottorato.polito.it/it/esame_finale

Turnitin functionalities:

- Originality check
- GradeMark

INTRODUCTION TO THE FINAL EXAM



Originality check –

Compares thesis for similarity to content in Turnitin's database.

overall similarity percentage

The screenshot shows a Turnitin report for a document titled "A Natural Setting" by Cael Burroughs. The overall similarity percentage is 32% (87 out of 100). The match overview table is as follows:

Match Number	Source	Similarity Percentage
1	www.nps.gov Internet source	15%
2	www.absoluteastronomy.com Internet source	10%
3	www.nydailynews.com Internet source	4%
4	Brick, Michael. "His ..." Publication	3%

The document text includes the following highlighted sections:

A Natural Setting
A History of Exploration and Settlement in Yosemite Valley

Yosemite National Park is a United States National Park spanning eastern portions of Tuolumne, Mariposa and Madera counties in east central California, United States. Although not the first designated national park Yosemite was central to the development of the national park idea since its first discovery by non-indigenous people in mid-nineteenth century, Yosemite Valley has held a special, even religious, hold on the American conscience because its beauty makes it an incomparable valley and one of the grandest of all special temples of Nature.

While Yosemite holds a special grip on the western mind,

similarity percentage to individual sources

THESIS EVALUATION

REFEREES



They are 2 University professors or researchers from public research institutions; no researchers from Industry.

They shall be internationally recognized in the field of the thesis research and be external to Politecnico and to the Academic Board (Collegio Docenti); preferably foreigners.



No publications in common with the PhD candidate in the last 3 years.

- The supervisor suggests a list of perspective referees (min 2 to a max of 5).
- The Academic Board validates the referees, while admitting the PhD candidate.
- The procedure automatically puts in a random order the referees: the selected referees are the first 2 on the list.
- An informal contact of the supervisor with the referees is suggested, before the tool sends accreditation and information.

THESIS EVALUATION

Following the validation of the thesis, the referees begin the assessment and shall give back their judgement within 30 days.

Referees select among:

- **admit the thesis to the final defence as it is** 
- **admit the thesis to the final defence with minor revisions** 
- **major revisions and integrations and a new assessment are required** 

If one of the referees requires **major revisions**, the postponement procedure is activated. **The PhD candidate has maximum 6 months for revisions.** All steps of the assessment procedure shall be repeated. Major revisions may be asked only once.

In case of **minor revisions**, the candidate has to revise the thesis and the other documents uploaded on the web tool and they have to be validated again by the supervisor, including the anti-plagiarism check.

The PhD candidate has maximum 90 days to end the procedure and to discuss his/her thesis.



After referee process



1. **Student** uploads final version of the thesis, after final plagiarism check by Tutor
2. **Tutor** approves the final version of the thesis. PhD defence process can start
3. **Tutor** uploads to the “cruscotto” the members of the examination board, the date and the location of the final exam
 - Date **must be** within 3 months (90 days) from the reception of referees' comments

THESIS DEFENCE

EXAMINATION BOARD

The Examination Board is composed by **5 members (with voting rights):**

- the 2 referees
- 3 other members, proposed by the Academic Board

Constraints:

- **3 out of 5 members shall be tenured professors or researchers,**
- **3 out of 5 members shall be external to any of the institutions involved in the PhD.**

Appointed members outside Academia must hold a PhD.

The supervisor is added without voting right.

Other members can be added (without voting right and without complying to the previous constraints), but no travel costs are provided.

THESIS DEFENCE

FINAL EXAMINATION

The Evaluation Board is able to see **the thesis, the abstract, the report, the referees judgements, the documents for final exam and the reimbursement form** in the web tool.

Defence

Presentation (40 min) by PhD candidate's physically present.

Questions and discussion with the Examination Board.

Grant of the PhD Title

The thesis is approved/rejected by a majority of votes of the 5 voting members. Written evaluation report is necessary. The Examination Board can unanimously propose the award of a degree **cum laude**.

THESIS DEFENCE

FINAL STEPS AFTER THE DEFENCE

Thesis approved by the Examination Board is final, no changes allowed.

After few days from the reception by ScuDO of the examination board's report, the thesis is **automatically:**

Uploaded to IRIS

Freely downloadable by everyone (open access)

and

Sent to National Libraries of Rome and Florence

(mandatory by Italian law)