PHD PROGRAM IN COMPUTER AND CONTROL ENGINEERING:
GENERAL INFORMATION

MATTEO SONZA REORDA
ALFREDO BENSO

DEPT. OF CONTROL AND COMPUTER ENGINEERING

22.11.2019

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35TH CYCLE STUDENTS

Student		Advisor	Grant type
ALIBERTI	EMANUELE	Caputo	COM. ICT
BATTEGAZZORRE	EDOARDO	Bottino	DAUIN
BELLAGARDA	ANDREA	E. Macii	senza borsa
BOCCA	ALBERTO	E. Macii	DAUIN
BORZI'	LUIGI	Olmo	DAUIN
BRINGHENTI	DANIELE	Sisto	DAUIN
BUCCI	SILVIA	Tommasi	senza borsa
CALANDRA	DAVIDE	Lamberti	POLITO
CANNIZZARO	DAVIDE	Poncino	COM. ICT
CERMELLI	FABIO	Caputo	IIT
DE SIO	CORRADO	Sterpone	DAUIN
FEDOROV	STANISLAV	Perboli	SMARTDATA
FIOR	JACOPO	Cagliero	SMARTDATA
FONTANEL	DARIO	Caputo	Inxpect
FORNO	EVELINA	E. Macii	POLITO
GARCEA	FABIO	Lamberti	POLITO
GIOBERGIA	FLAVIO	Baralis	SMARTDATA
LEONARDI	SIMONE	Morisio	POLITO
MAUNERO	NICOLO'	Prinetto	CINI
MECATI	MARIACHIARA	Torchiano	POLITO
OLIVERI	ISABEU	Morisio	POLITO
ORLANDO	MATTEO	Poncino	COM. ICT
PEDONE	IGNAZIO	Lioy	PEIC
PLANAMENTE	MIRCO	Caputo	POLITO
RAMIREZ ESPINOSA	GUSTAVO ADOLFO	Montrucchio	senza borsa
ROASCIO	GIANLUCA	Prinetto	POLITO
SARTONI	SANDRO	Sonza	CINI
TAVERA	ANTONIO	Caputo	DAUIN

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	UIGI	Olmo	DAUIN
	DANIELE	Sisto	DAUIN
	LVIA	Tommasi	senza borsa
	DAVIDE	Lamberti	POLITO
	DAVIDE	Poncino	COM. ICT
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Record number of students

GOAL OF THE PHD CURRICULUM

To train the students to become high-level researchers able to

- Fill research positions in academia and industry
- Effectively compete with PhD students from similar institutions.

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At the end of the curriculum, a PhD student should be able to autonomously perform research. This means:

- Identifying promising research areas
- Devising, developing and evaluating innovative ideas and solutions
- Disseminating them in the worldwide research community (writing papers, presenting his/her work at conferences)
- Interacting with other researchers from industry or academia
- Attracting resources (i.e., preparing successful research projects)
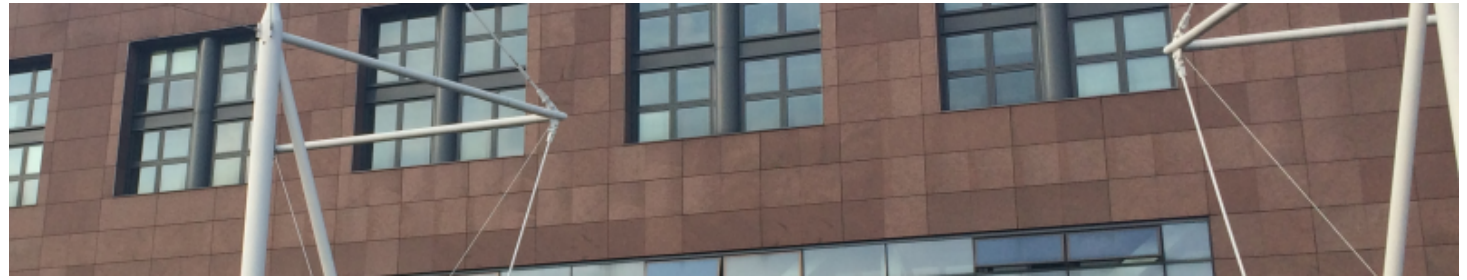- Tutoring new researchers
- …

ORGANIZATIONAL ISSUES

Politecnico di Torino (POLITO) is organized in 11 Departments, managing both teaching and research:

- **DAD - Dip. di Architettura e Design**

- **DAUIN - Dip. di Automatica e Informatica**

- **DENERG - Dip. di Energia**

- **DET - Dip. di Elettronica e Telecomunicazioni**

- **DIATI - Dip. di Ingegneria dell'Ambiente, del Territorio e delle Infrastrutture**

- **DIGEP - Dip. di Ingegneria Gestionale e della Produzione**

- **DIMEAS - Dip. di Ingegneria Meccanica e Aerospaziale**

- **DISAT - Dip. Scienza Applicata e Tecnologia**

- **DISEG - Dip. di Ingegneria Strutturale, Edile e Geotecnica**

- **DISMA - Dip. di Scienze Matematiche**

- **DIST - Dip. Interateneo di Scienze, Progetto e Politiche del Territorio**

DAUIN

Personnel

- **74 faculty members**

- **29 staff members**

- **about 135 PhD students, post-doc and temporary members**

DAUIN covers 3 areas

- Computer engineering
- Control engineering
- Operational research

From an administrative point of view, DAUIN is split in "*groups*"

Director

- Prof. Elena BARALIS

Web site

- http://www.dauin.polito.it/

THE PHD PROGRAM IN COMPUTER AND CONTROL ENG.

It is strictly connected to DAUIN

It is managed by a PhD board ("Collegio dei Docenti")

- composed of 24 DAUIN members and a student representative (A. Sacco)
- chaired by M. Sonza Reorda and A. Benso

The PhD board is in charge of

- defining specific rules for the program
- assigning tutors to students
- evaluating their activities and deciding whether to admit them to the following year/final exam
- identifying PhD training activities
- facing critical situations

Administrative support: Elisabetta D'Altoè, Paola Campana

Web site

- http://www.phd-dauin.polito.it/index.html

SCUDO

It is the body in charge of

- Managing all the PhD programs of POLITO
- Performing most of the related administrative work
- Defining POLITO specific rules

It is ruled by a board including

- the chairs of the boards of the different PhD programs
- two student representatives

Chair

- Prof. E. Brusa

Web site

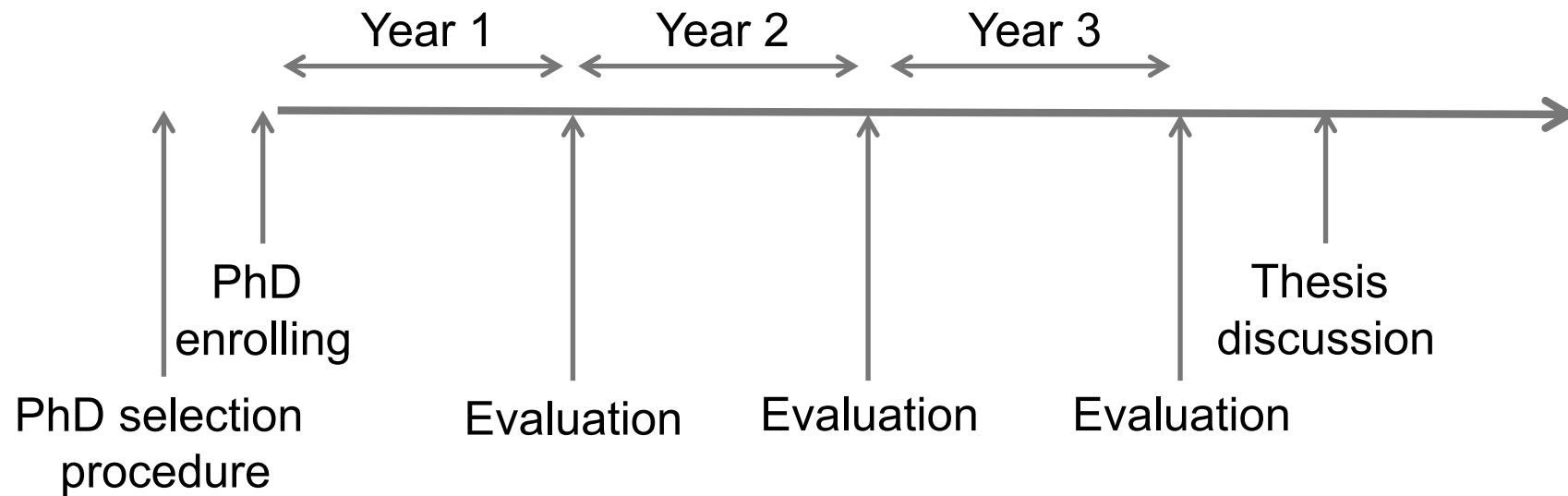- http://dottorato.polito.it/index_en.html

THE SUPERVISOR

"The Supervisor has to guide and assist the doctoral candidate in the composition of his/her study plan. […]

The Supervisor is the candidate's focal point within the Academic Board and is responsible for the research activities and progress of the doctoral candidate as well as for his/her compliance with the ethical principles of the international scientific community and the Code of Ethical Conduct of the University. […]
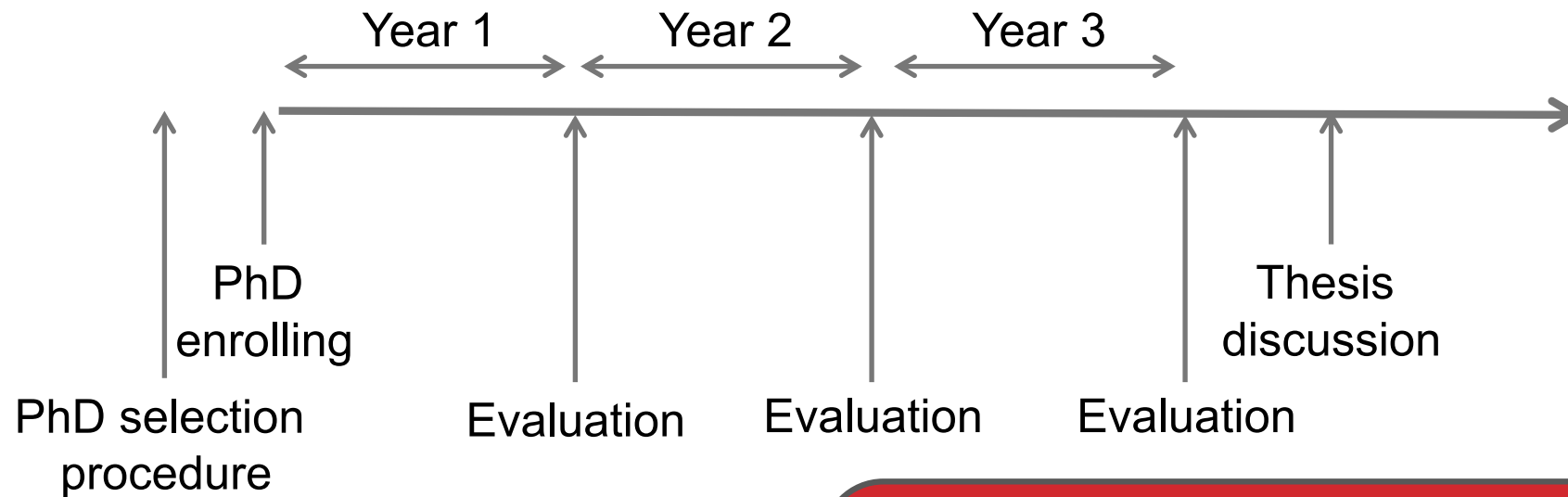
The Supervisor submits to the Academic Board a report and an evaluation which constitute the basis for admitting the doctoral candidate to the following year of the programme or to oral defence.

The Supervisor is required to immediately report any critical situations that might arise to the Coordinator who will inform the Academic Board. "

From the «Politecnico di Torino Regulations for doctoral programmes», 3.11.2017

PHD CAREER

Year 1   Year 2   Year 3

PhD
enrolling

Thesis
discussion

PhD selection
procedure

Evaluation   Evaluation   Evaluation

PHD CAREER

Year 1   Year 2   Year 3

PhD
enrolling

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discussion

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procedure

Evaluation   Evaluation   Evaluation

Each year starts on Nov. 1

EVALUATION

At the end of each year each PhD student is invited to

- Upload a report on the performed activities on an ad-hoc web site (PHDMAN)
- Present them (as well as the plan for the future activities) to a selected group of reviewers

His/her report and presentation will be evaluated by anonymous reviewers from DAUIN, who will submit their comments

The tutor will also be asked for a comment

The PhD board will take the final decision about admission to the following year (or final exam)

Both the PhD board and SCUDO decided some <u>minimum</u> requirements for the admission to the following year (or final thesis discussion)

Evaluation
- ☑ OUTSTANDING
- ☐ Excellent
- ☐ Very Good
- ☐ Average
- ☐ Below Average

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Both the PhD board an **requirements for the ad** **thesis discussion)**

The whole evaluation procedure is managed through an ad hoc web-based system (PhDman)

Evaluation
- ☑ OUTSTANDING
- ☐ Excellent
- ☐ Very Good
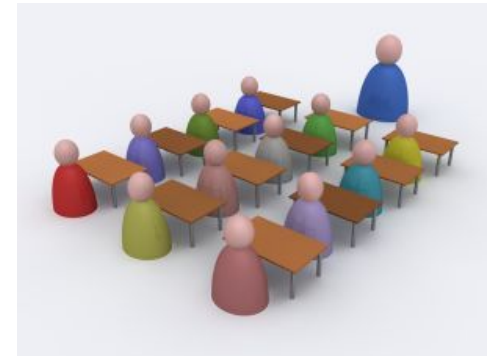- ☐ Average
- ☐ Below Average

THE ANNUAL REPORT

It will include the following information:

- Basic info (name, title, tutor, etc.)
- Short description of the PhD thesis main research topic (max 30 lines)
- Short description of the activities performed in the current year (max 50 lines)
- Short description of the plan for next year activities (max 20 lines) – only for first and second year students
- Short description of the main achievements from the 3 years PhD activities (max 20 lines) – only for third year students
- Publication list *(as from PORTO)*
- Training activities performed in the last year (e.g., attended courses)
- Participation to research projects
- Attendance to conferences (conference name, location, period, role, e.g., attendee, presenter, invited)
- Time spent during the last year in research institutions different than POLITO
- Teaching activities performed in the last year (including the CPD evaluation you received for each of them)
- Involvement in the international research community (e.g., role as reviewer, program committee member, volunteer in conference organization)
- Achievements (e.g., awards or recognitions)
- Other items to report

TRAINING REQUIREMENTS

The student <u>must</u> follow courses for a minimum of 140 hours (100 hours of hard skills, 40 hours of soft skills)

You must refer to SCUDO rules for the details

- http://dottorato.polito.it/en/legislation

Via the SCUDO Cruscotto you can check how many hours you followed already

SCUDO will enforce the achievement of the required hours by the 3rd year

At the end of each year, the evaluation committee will judge

- whether the student followed enough courses
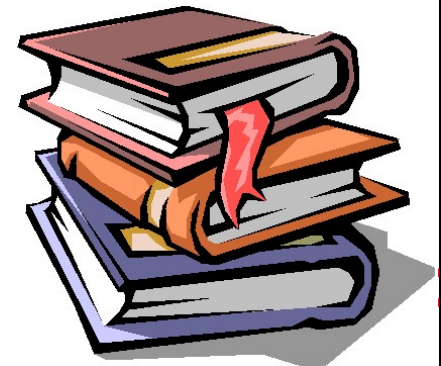- whether these courses are coherent with his/her research topic

PUBLICATION REQUIREMENTS

The PhD student <u>must</u> produce

- at least one paper accepted for publication in an international conference with peer review or in an international journal for every year
- one paper accepted for publication in an international journal in the 3 years.

Notes

1. **Only the journals listed either in the SCOPUS or WOS repositories will be considered**

2. **Conference papers published as they are in journals (e.g., LNCS, Procedia) are <u>not</u> considered as journal papers**

3. **Only publications appearing in the official POLITO repository (IRIS) are considered**

4. **Only publications after Nov. 1, 2019 will be considered**

5. **If you coauthor a journal paper with other n PhD students, its weight is divided by $n+1$**

FINAL EXAM

The student will send his/her thesis to two external referees

They will decide whether he/she will be allowed to discuss it

If yes, he/she will present and discuss the thesis in front of an Evaluation Board composed of 5 people (3 from outside POLITO), including the 2 referees

DEGREE CUM LAUDE

When admitting a student to the final exam, the PhD board may assign him/her an excellence score

The Evaluation Board will use this score to possibly assign the Degree "cum Laude"

The excellence score depends on

- Number and quality of journal publications
- Awards
- Periods abroad

THE SCUDO CRUSCOTTO

It is a web site managed by SCUDO allowing

- Students to upload information about their activities (publications, courses, periods outside, etc.)
- Students (and tutors) to manage their final thesis discussion procedure
- Politecnico staff to check about the status of each student

The SCUDO Cruscotto can be accessed via the Portale della Didattica

EXTERNAL TRAINING ACTIVITIES

SCUDO grants hours for external activities, too (e.g., on-line courses, summers schools)

On-line courses

- Some rules have been defined for our PhD program:
    - http://www.phd-dauin.polito.it/documents.html

Other external activities (e.g., summer schools)

- They will be accepted if an exam has been passed
- In order to get the credits, the student must
    - Upload the required information on the SCUDO Cruscotto, including the documents stating that he/she
        - Attended the course
        - Passed the exam
    - Send an email to the chair, asking for approval,

EXTERNAL RESEARCH ACTIVITIES

If the student spends any time in another research center, he/she can get additional points from SCUDO (see the tab «Attività fuorisede» in the Cruscotto)

The procedure for getting points requires

- The approval by the chair BEFORE the departure

- The uploading of a report by the student AFTER the student return

- The validation by the chair

The whole procedure must be performed through the Cruscotto

You should inform by email the chair when you need any action by him

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If the activity is performed outside Italy, the student gets a 50% increase of his/her grant for the corresponding period

TRAVELS ("MISSIONI")

When a PhD student has to travel (e.g., to attend a conference), he must preliminarily ask for a permission, filling an on-line form through the POLITO web site

After his/her request

1. The owner of the money the student will travel with must approve the travel

2. The DAUIN administration will check whether the specified money is eligible for this purpose

3. The PhD program chair will finally approve the request.

MONEY

The economical support for the PhD student activities (e.g., for equipment and travels) is in charge to the tutor/group

The tutor receives from SCUDO for this purpose

- 1,885 € during the third year

- 1,885 € during the second year

- An additional amount (changing each year) during the first year

TEACHING ACTIVITIES

DAUIN PhD students can perform some teaching activities (e.g., in the labs) for a maximum of 60 hours yearly

If they decide to do so, they receive some extra money

AWARDS

Starting from 2015, several Awards have been established to recognize the best PhD students

- At the end of the curriculum (2500€)
- At the end of the 2nd year (1200€)

These awards include a recognition and an amount of money

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For 2019, the award winners have been S. Azimi, R. Coppola, M. Hemmatpour, M. Rosano

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For 2019, the recipients of the awards are Francesco BARCHI Alberto CANNAVO', Marco DE BENEDICTIS, Alberto MONGE ROFFARELLO, Enrico PALUMBO, Marco RESTIFO

AWARDS

The PhD board decided to increase the number of available grants, and connect them to the achieved publications

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GOOGLE SCHOLAR / LINKEDIN

DAUIN PhD students are requested to

- Own a Google Scholar account
- Own a LinkedIn account
- Send the corresponding links to *dauin.dottorato@polito.it* by Nov. 29 writing «DAUIN PhD Scholar/LinkedIn links» in the subject

COMMUNICATION MEANS

- PhD program web site
  - http://www.phd-dauin.polito.it/index.html
- Group on LinkedIn
  - PhD in Control and Computer Engineering @ PoliTO
- Email
  - Personal e-mail address (e.g., talal.abdalla@polito.it)
  - Student e-mail address (e.g., s255991@studenti.polito.it)

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Join ASAP!

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Let us know any news which could be distributed to promote and make more visible our PhD program (e.g., awards, initiatives, achievements)

SUGGESTIONS

- **Try to make your PhD period as much productive as possible**

- **Make a plan for your activities, and periodically check whether you are matching the plan deadlines and objectives**

- **Interact as much as possible with your tutor**

- **In case of problems, contact the chairs of the PhD board**

  - Unless the subject is personal, add your tutor in cc

- **Learn Italian**

- **Constantly update the POLITO data-bases (IRIS, Cruscotto)**

- **Don't hope in exceptions to rules: they will be applied <u>strictly</u>.**

Enjoy your PhD period!