

PHD PROGRAM IN COMPUTER AND CONTROL ENGINEERING: WELCOME MEETING

**FABRIZIO LAMBERTI
GUIDO MARCHETTO**

**DEPARTMENT OF CONTROL AND
COMPUTER ENGINEERING**

08.11.2022



38TH CYCLE STUDENTS (*)

AVIGNONE	ANDREA	2	Chiusano	Cerquitelli	SmartData
BERGAMASCO	LETIZIA	1	Olmo		Dipendente LINKS
BRAVI	ENRICO	2	Lioy		Links
BUTERA	ALBERTO	1	Gatteschi		Reply
CARDONE	LORENZO	1	Quer	Bernardi	Ateneo
D'AGOSTINO	PIETRO	3	Violante		MUR DM 352/AROL
FILIPPONI	GABRIELE	2	Bernardi		CRT
FIorenza	JACOPO	3	Lamberti	Osello	MUR DM 352/Links
FONTANA CRESPO	RAFAEL NATALIO	3	Macii	Patti	MUR DM 352/ENI
FOSCALE	TOMMASO	1	Bernardi	Cantoro	Ateneo
GARACCIONE	GIACOMO	1	Ardito	Coppola	Comitato ICT
GATTI	GABRIELE	3	Basile		ARISK/DAUIN
GAVARINI	GABRIELE	1	Sanchez		Ateneo
KOUDOUNAS	ALKIS	1	Baralis	Pastor	SmartData
LIMAS SIERRA	ROBERT ALEXANDER	2	Sonza	Rodriguez	Ateneo+DAUIN
MALAN	ERICH	2	Calimera	Macii E.	Ateneo
MARINO	JACOPO	3	Risso		MUR DM 351 - PNRR
NAPOLI	EMANUELE ANTONIO	1	Gatteschi		Ateneo
NAPOLITANO	DAVIDE	2	Cagliero	Chiusano	CRT
PIGNARI	RICCARDO	2	Macii	Urgese	Ateneo+DAUIN
REGE CAMBRIN	DANIELE	2	Garza	Apiletti	CRT
RONDINA	MARCO	2	De Martin	Vetrò	CRT
RUSSO	ALESSANDRO SEBASTIAN	1	Morra	Lamberti	SmartData
RUSSO	MARCO	1	Montrucchio		Comitato ICT
VERCELLINO	CHIARA	2	Montrucchio		Dipendente LINKS
VEZZANI	LEONARDO	2	Bottino		Reply
VISCONTI	ALESSANDRO	2	Lamberti	Cannavò	Comitato ICT
VITALI	GIACOMO	3	Montrucchio		Dipendente LINKS

* As of today, additional/PNRR-related call opening in November

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

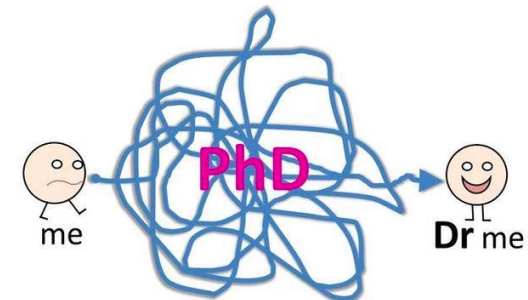
GOAL OF THE PHD CURRICULUM

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

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
- ...



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. Eugenio BRUSA

Web site

- <http://dottorato.polito.it/en/home>



POLITO DEPARTMENTS

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

- More than 70 faculty members
- More than 20 staff members
- About 150 PhD students, post-doc and temporary members

DAUIN covers three areas

- Computer engineering
- Control engineering
- Operational research

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

Director

- Prof. Elena BARALIS

Web site and Wiki

- <http://www.dauin.polito.it/>
- <https://dauin-si.polito.it/webapps/mediawiki-1.32.0/index.php/Home>



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 (S. Pirrera)
- Chair Prof. Fabrizio LAMBERTI, vice-chair Prof. Guido MARCHETTO

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 by several DAUIN staff members

Web site

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



THE SUPERVISOR

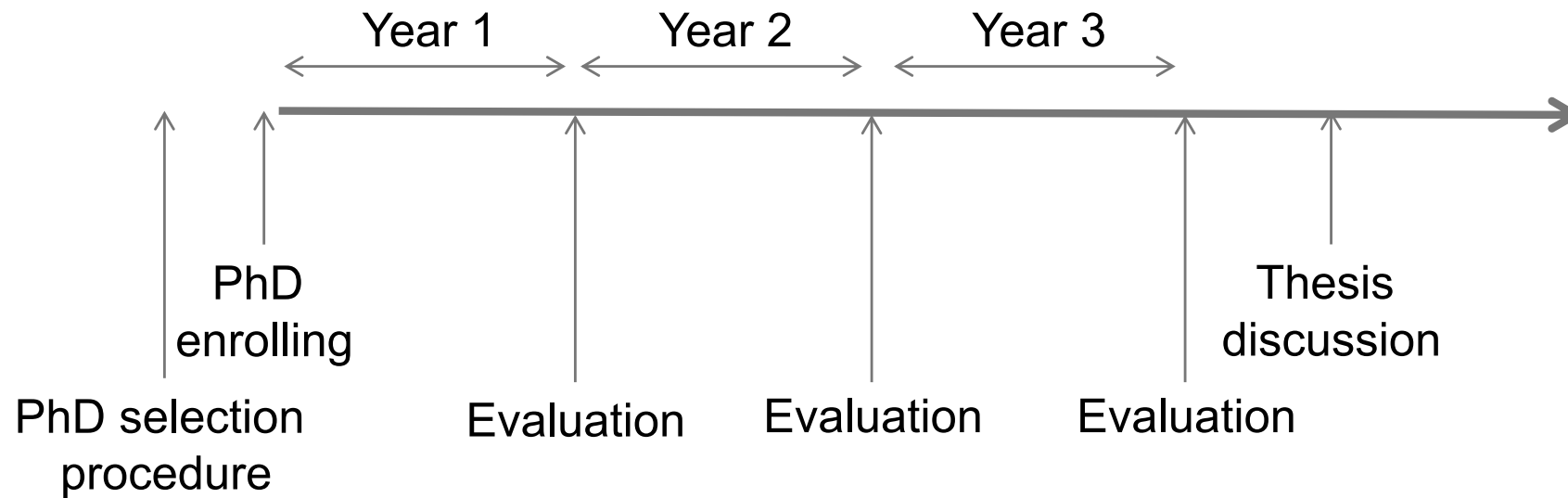
“The Supervisor has to **guide** and **assist** the doctoral candidate in the composition of his/her study plan. [...]

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. [...]

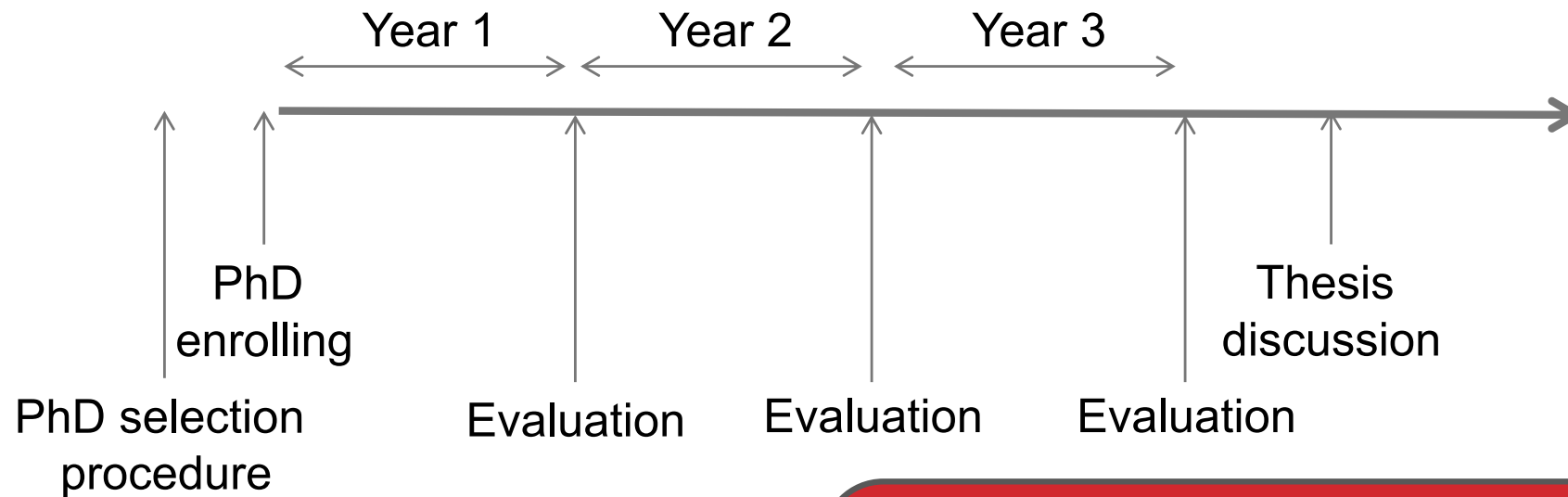
The Supervisor submits to the Academic Board a **report** and an **evaluation** which constitute the basis for admitting the doctoral candidate to the following year of the programme or to oral defence.

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

PHD CAREER



PHD CAREER



Each year starts
on November 1st (*)

* With some exceptions

EVALUATION

At (some weeks before) the end of each year each 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 minimum requirements for the admission to the following year (or final thesis discussion)

You must refer to the PhD board and SCUDO rules for details to

- <http://dottorato.polito.it/en/legislation>
- <http://www.phd-dauin.polito.it/documents.html>



EVALUATION



At (some weeks before) the end is invited to

- Upload a report on the ad-hoc web site (PhD)
- Present them (as well as a selected group of reviewers)

His/her report and presentation are reviewed by a group of reviewers from DAUIN, who will

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

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 minimum requirements for the admission to the following year (or final thesis discussion)

You must refer to the PhD board and SCUDO rules for details to

- <http://dottorato.polito.it/en/legislation>
- <http://www.phd-dauin.polito.it/documents.html>

EVALUATION



At (some weeks before) the end is invited to

- Upload a report on the ad-hoc web site (PhD)
- Present them (as well as a selected group of reviewers)

His/her report and presentation are reviewed by a group of reviewers from DAUIN, who will

The tutor will also be asked for a comment

The PhD board will take the final decision on the thesis and to the following year (or final exam)

Both the PhD board and the DAUIN will provide the requirements for the admission to the thesis discussion)

You must refer to the PhD board for more information

- <http://dottorato.polito.it/en/legislation>
- <http://www.phd-dauin.polito.it/documents.html>

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

Additional, intermediate reviews may be required in some cases

THE ANNUAL REPORT



Currently requires the student to provide the following inform

- Basic info (name, title, tutor, etc.)
- Short description of the PhD thesis main research topic
- Short description of the activities performed in the current year
- Short description of the plan for next year activities – only for first and second year students
- Short description of the main achievements from the 3 years PhD activities – only for third year students
- Publication list (*as from IRIS*)
- 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 must follow courses for a minimum of 140 hours (100 hours of hard skills, 40 hours of soft skills), to be agreed with the supervisor at the beginning of the 1st year

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 (a rule of thumb that is generally applied is having finished courses in the first two years, roughly split between first and second year)
- Whether these courses are coherent with his/her research topic

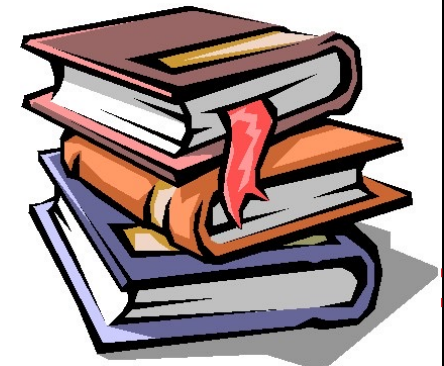
PUBLICATION REQUIREMENTS

The PhD student must 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 ranked Q1 or Q2 by Scopus or WoS.

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 not considered as journal papers
3. Only publications appearing in the official POLITO repository (IRIS) are considered
4. Only publications after Nov. 1, 2022 will be considered
5. If you coauthor a journal paper with other n PhD students, its weight is divided by $n+1$ (SCUDO consider authors as students for several months after they ended their PhD)



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 various aspects (rules defined by an ad hoc committee)

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

THE SCUDO CRUSCOTTO

It is a web site managed by SCUDO allowing

- Students to upload information about their activities and ask for related authorizations (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 (see the tab «Attività formative esterne» in the Cruscotto)

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 external research activities, 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

Only start and end dates of the activity are acceptable (travels excluded)

The whole procedure must be performed through the Cruscotto

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



EXTERNAL RESEARCH ACTIVITIES

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

If the student spends any time in external research, he/she can get additional points from SCUDO (see «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

Only start and end dates of the activity are acceptable (travels excluded)

The whole procedure must be performed through the Cruscotto

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



EXTERNAL RESEARCH ACTIVITIES

If the student spends any time in external research, he/she can get additional points from SCUDO (see «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 return
- The validation by the chair

Only start and end dates of the activity are acceptable (travels excluded)

The whole procedure must be performed through the Cruscotto

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

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

Other grants from Erasmus+ can be obtained



TRAVELS (“MISSIONI”)

When a PhD student has to travel (e.g., to attend a conference), he/she must preliminarily ask for a permission, filling an on-line form through the POLITO web site (at least 7 working days before the departure date)

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



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



AWARDS

Starting from 2015, several Awards recognize the best PhD students

- At the end of the curriculum
- At the end of the 2nd year (120 credits)

These awards include a recognition and an amount of money

The PhD board set specific requirements, periodically revised by an ad hoc committee, which consider, among others, achieved publications, external research activities, periods abroad, participation to projects and dissemination events, teaching activities, awards, etc.

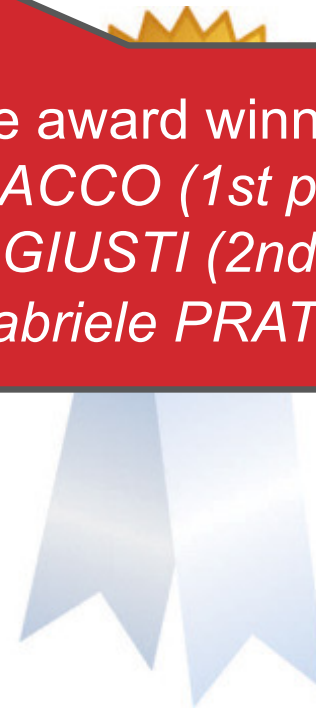


AWARDS

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

- At the end of the curriculum
- At the end of the 2nd year

These awards include a recognition and an amount of money



For 2022, the award winners are

- *Alessio SACCO (1st prize)*
- *Riccardo GIUSTI (2nd prize)*
- *Filippo Gabriele PRATTICO' (3rd prize)*

AWARDS

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

- At the end of the curriculum
- At the end of the 2nd year

These awards include a recognition and an amount of money



For 2022, the award winners are

- *Corrado DE SIO (1st prize)*
- *Luigi BORZI' (2nd prize)*
- *Daniele BRINGHENTI (3rd prize)*
- *Davide CALANDRA, Fabio CERMELLI, Mirco PLANAMENTE*

KEY POINTS



- **1 Publication EACH year** (conference/journal)
- **1 Journal by the 3rd year**



- **100 Hard Skills**
- **40 Soft Skills**



- **60 hours/year** (paid)



- **Report and oral presentation EACH year**



- **Awards**



- **Cruscotto → Tutore → DAUIN → SCUDO**

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 **November 13, 2022** writing «DAUIN PhD Scholar/LinkedIn links» in the subject

Google Scholar

LinkedIn

PERSONAL WEBPAGE

DAUIN PhD students are requested to

- Keep their personal webpage up-to-date
- Reachable at <http://dottorato.polito.it/iis/it/studenti#xxxxxx>

COMMUNICATION MEANS

- PhD program web site
 - <http://www.phd-dauin.polito.it/index.html>
- Group on LinkedIn
 - PhD in Control and Computer Engineering @ PoliTO

COMMUNICATION MEANS

- PhD program web site
 - <http://www.phd-dauin.polito.it/index.html>
- Group on LinkedIn
 - PhD in Control and Computer Engineering @ PoliTO



Join ASAP!

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., mario.rossi@polito.it)
 - Student e-mail address (e.g., sxxxxxx@studenti.polito.it)
 - Employee e-mail address (e.g., dyyyyyy@polito.it)

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., mario.rossi@polito.it)
 - Student e-mail address (e.g., sxxxxxx@studenti.polito.it)
 - Employee e-mail address (e.g., dyyyyyy@polito.it)

Forward all of them
to a single e-mail address to be sure
not to miss important
communications!

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., mario.rossi@polito.it)
 - Student e-mail address (e.g., sxxxxxx@studenti.polito.it)
 - Employee e-mail address (e.g., dyyyyyy@polito.it)

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 (for foreign students)**
- **Constantly update the POLITO databases (IRIS, Cruscotto)**
 - As soon as you receive a notification of acceptance
- **Don't hope in exceptions to rules: they will be applied strictly**

Enjoy your PhD period!