The PhD Program in Information Technology at DEIB

Prof. Barbara Pernici
Chair of the PhD Program in Information Technology
November 12th, 2019
INTRODUCTION
**Self introduction**

Prof. Barbara Pernici, IT PhD Coordinator, professor of Computer Engineering, DEIB
barbara.pernici@polimi.it

Francesca Clemenza, IT PhD Secretariat, DEIB
francesca.clemenza@polimi.it

IT PhD students representatives
Andrea Pimpinella, TLC, andrea.pimpinella@polimi.it
Fabio Garzetti, ELN, fabio.garzetti@polimi.it

Mail for enquiries and requests:
phd-inf@polimi.it
Other key persons

Area responsible:

- Automatica, Luigi Piroddi
- Computer Science and Engineering, Cristina Silvano
- Electronics, Angelo Geraci
- Telecommunications: Matteo Cesana
About you

61 new PhD candidates

- Automatica 12
- Computer Science and Engineering 23
- Electronics 14
- Telecommunications 12
About you

Please tell us

Your name
Area
Where you graduated
Title of your thesis (or topic)
Advisor
One sentence description
Board of professors (= possible tutors) 1/2

Area 1: Computer Science and Engineering

Cristina Silvano - Vice Chair Computer Science and Engineering - cristina.silvano@polimi.it
Cesare Alippi
Francesco Amigoni
Florian Daniel
Nicola Gatti
Raffaela Mirandola
Barbara Pernici
Matteo Pradella
Letizia Tanca

Area 2: Electronics

Angelo Geraci - Vice Chair Electronics - angelo.geraci@polimi.it
Giuseppe Bertuccio
Carlo Fiorini
Ivan Rech
Alessandro Sottocornola Spinelli
Board of professors (= possible tutors) 2/2

**Area 3: Systems and Control**

Luigi Piroddi - Vice Chair *Systems and Control* - luigi.piroddi@polimi.it  
Luca Bascetta  
Andrea Castelletti  
Fabio Dercole  
Lorenzo Fagiano  
Simone Garatti

**Area 4: Telecommunications**

Matteo Cesana - Vice Chair *Telecommunications* - matteo.cesana@polimi.it  
Paolo Martelli  
Andrea Monti Guarnieri  
Carlo Riva  
Massimo Tornatore

**Representative from the Bioengineering Area**

Giancarlo Ferrigno
Summary

1. The PhD in IT at DEIB
2. Information for students entering their PhD program now
   • Study plan
   • Services and Administration
3. Question answering
IT PHD AT DEIB
PhD in Information Technology at Polimi

- First PhD degree in Italy started in 1985
- 2 Nov. 2019: start of XXXV cycle

- PhD School of Politecnico di Milano
  - 19 PhD Programs in Engineering, Architecture, and Design
  - Central coordination and rules
  - Common teaching (transversal skills)

- PhD In IT
  - about 19% of the students of the School
PhD in Information Technology at Polimi

Goals:
• PhD thesis: an original research contribution
• Advanced education: advanced courses, seminars
• Opportunity to develop original research in a rich, international, multidisciplinary environment
• Opportunity of experience abroad, participation in conferences, pubbllication on international journals

PhD Candidate status:
• A student (earns a degree)
• An early stage researcher
DEIB People: staff by role (Year 2018)

796 persons

- 107 Associate Professors
- 55 Assistant Professors
- 73 Full Professors
- 67 Tech and Administration Staff
- 190 Research Assistants
- 87 BIO PhD Students
- 11 DAAD PhD Students

- 71 Computer Science and Engineering
- 49 Electronics
- 37 System and Control
- 35 Telecommunications

- 161 Indian Students
- 31 Foreign Students
PhD activities

• **Research**
  - Within Department research areas -> if you do not have an advisor yet contact me
  - Involvement in research projects (basic and applied research)
  - Develop new research ideas -> publish papers, present them at conferences – aiming at excellent research results
  - Write your thesis

• **Courses**
  - All DEIB teaching activities in English
  - 25 credits (CFU), typically: 5 courses x 5 CFU each, among them:
    - at least 10 CFU from DEIB courses
    - at least 10 CFU from courses of the PhD school on soft skills
PhD activities – roles of professors

**Advisor**: research direction

**Tutor**: advice and study plan approval
Study Plan

Study plan presentation:

- Select courses (on line, filling in your study plan) as soon as possible (see list available on Polimi website)
  - Approval by tutor (with an email to phd-inf@polimi.it)
  - deadline Dec. 31, 2019
  - for the residential course on Machine learning for non-matrix data the deadline is Nov. 30)

- PhD School course participation must be approved by the School (an email for PhD course participation will arrive from phdschool@polimi.it)

- if other courses are announced, or any other reason, you may change your study plan at any time, and request for approval again
Some hints for study plan

- Insert the Courses (from DEIB, School, other PhD Programs) from the PhD courses list accessible from your ‘PhD Study Plan’ page
  - 10 credits from PhD school courses
  - 10 credits from IT PhD (IINFO)
  - 5 credits free

- Courses change every year

- For any type of external course (including summer schools) select: EXTERNAL COURSES WITH EVALUATION
  - Please note that formal approval of the course by the tutor is needed
  - All courses should have an evaluation, otherwise a public seminar on the course must be given by the candidate and an evaluation by the advisor is required
Personal information on PhD and department web site

Enter info on your PhD Career section (as soon as ready, will be evaluated at the end of the first year):
- Thesis title
- Abstract

They will appear at
https://dottoratoit.deib.polimi.it/?m=5&id=4&c=35&s=All

Enter info and a picture in the DEIB web site
- Writing to redazione-deib@polimi.it
Deadlines

- Formalize choice of advisor and tutor (December 31): e-mail to phd-inf@polimi.it
- Choose courses and insert them in your study plan (Dec. 31)
- Thesis title and abstract (February 28): in your Online service career management pages
- Annual report (September 15th)
- Annual evaluation mid Sept./beginning Oct.
- All your deadlines are available at https://dottoratoit.deib.polimi.it/?m=6&id=152

Deadlines must be matched!
Annual evaluation

- Admission to the following year (September 15- October 15)
- First year: minimum 10 credits (at least 15 suggested) should be taken and research on thesis should have a good start
- Second year: all courses must be completed
- 3rd year: evaluation of the 3-year curriculum, admission to the final exam, an interview may be requested for clarifications
- 3rd year (October 15): Thesis draft to external reviewers
- Final exam (external examiners): end of 3rd year (defense January 2023/March 2023, earlier defense possible on request)
Evaluations and grades

Courses: IT PhD courses are pass/fail
PhD School courses have a A/B/C/D evaluation
Master courses have regular exams (exam registration requested) and grades 18-30.

Annual evaluation grades:
A/B/C/D

A: ok for 1° and 2° year; excellent in the third year
B: needs some attention
(C and) D: some critical issues, contact area responsible
How to get an A? what is expected? MINIMUM requirements

First year:
10 CFU of courses and at least one work published at a conference or workshop on your PhD research theme

Second year:
all courses, 1 paper published at conference or submitted to journal

Third year:
at least one top level publication
Publications (2018) – average values per PhD candidate at the end of the Program over the last three cycles.
Research ethics and code of conducts

Research work must be original and proper citations given to previous work

Responsible conduct in the working environment is expected

Theses will be checked with antiplagiarism software

Links to regulations:
• Codice etico e di comportamento del Politecnico di Milano
• Codice di condotta del Politecnico di Milano per la tutela della dignità della persona
Budget, PhD duration

- To each student are assigned 3.068 euros in the triennium that can be used for:
  - Travel expenses, conferences
  - Books, computers, instruments that at the end of PhD remain at Polimi
- Long stays abroad are possible (up to 18 months). Scholarships are increased 50% for the first six months. Formal approval by Board of Professors required.
- A period at another institution (e.g. abroad) is encouraged, usually 6-12 months
- Other funding may come from the advisor’s funds, teaching...
- Max duration of PhD = 6 years (each year can be repeated once)
Small expenses

Please refer to Claudia Conci in the DEIB administration to ask for detailed information about your expenses.

To get a refund you have to print the request form from the DEIB Intranet, Administration section, and get it signed by the PhD coordinator.
Services (on additional funds provided by the PhD program)

Business cards requests
(fill in the following form by November 20)
https://forms.gle/UeTTXKq87FfzKg4c7

English revisions for top journal papers:
• Write to ufficioacquisti-deib@polimi.it

Language courses organized by PoliMI:
• Registration fee refunded by the PhD programme (small expenses procedure)
Services (on additional funds provided by the PhD program)

Subscription to professional associations - Allowed payments:

• **IEEE**
  – IEEE yearly student subscription and registration to IEEE Societies (max 2)

Two possibilities:

  • **IEEE renewal** (form to be filled by November 30)
    [https://forms.gle/9W5FmT7eYYdcHVXr5](https://forms.gle/9W5FmT7eYYdcHVXr5)
  
  • **IEEE new subscription** (as refunds, as small expenses, with
    • payment proof – credit card billing statement
    • invoice containing your name and DEIB address for billing and DEIB VAT number IT04376620151 if required
    • do not use personal addresses for shipping purposes, always DEIB address)
    • DEIB Form for small expenses signed by the coordinator

• **ACM** (as refunds, as small expenses, with documents as above for IEEE)

• **Other associations** (send email request for approval to phd-inf, then proceed as above)
Support for administration procedures

• Secretariat of PhD Program
  The secretariat is responsible for supporting the students and PhD Board in their teaching, administration activities, and formalization of procedures to enroll, and to obtain the degree. It is located in building 20 of DEIB, on the ground floor, in the administrative area.
  Francesca Clemenza - secretariat responsible
  francesca.clemenza@polimi.it - tel. 4209
  phd-inf@polimi.it

• Specific support for international students: Welcome Office
  The welcome office is responsible for supporting students coming from abroad in issues not specifically related to PhD (e.g., visa, accommodation). It is located in building 20 of DEIB, on the ground floor, in the administrative area.
  A welcome package is available.
  Laura Brambilla – welcome office responsible
  welcome-deib@polimi.it – tel. 3427
Support for administration procedures

PhD Program Web site:  http://dottoratoit.deib.polimi.it/

The home page suggests all the detailed information about training and deadlines.

You are our most valuable users of the web site, please do not hesitate to send us comments, suggestions on how to improve the web site.
Support for administration procedures

Traveling

If you plan to go abroad for research periods, conferences, summer schools, etc., before leaving you must:

• submit requests exclusively online (at least 10 days before departure) by accessing, through your personal page on the Polimi site (http://www.polimi.it/servizionline/), to the application "Phd students career". Such requests should be explicitly approved by the PhD Program Coordinator.

• after getting approval, fill the form online available on http://www.polimi.it/servizionline/, in the Mission section, to request funding for missions to the Coordinator, if the mission is paid by your PhD funds, or to any other professor that will pay for your mission. Please, check the box stating that your request has already been approved by the Program Coordinator. For insurance matters, you must fill this form even if you don’t request any funding.

BOTH authorizations should come to the mission office BEFORE your leaving date.

If the mission is in Italy you have to:

• fill the form online available on http://www.polimi.it/servizionline/, in the Mission section, to request funds for missions to the Coordinator, if the mission is paid by your PhD funds, or to any other professor that will pay for your mission.

The person in charge of this activity is: Nadia Prada (phone 3537 - fernanda.prada@polimi.it)
Support for administration procedures

Purchases
Virgilio Testa, Marco Zuin (tel. 3754 – ufficioacquisti-deib@polimi.it)
Procedure: fill the on-line request of order for the purchase available on https://intranet.dei.polimi.it/servizi/acquisti.php

Communication
Laura Brambilla, Rosa Petrelli (tel. 3427 – redazione-deib@polimi.it)
You have to update before December 1st your page on the Department website, by sending to redazione-deib@polimi.it:

• a short bio in Italian and English, or English only
• a photo of you that will be published there
• link to personal pages, if any

As soon as you define a research line, you should send a short description of it to redazione-deib, to update your personal page.
Payment of scholarships and confirmation of attendance

For scholarships holders:

The first payment of the scholarship will be performed in December before Winter Break.

For all:

You need to sign the confirmation of presence sheet at the Welcome meeting or in the PhD secretariat.
Entering the department

DEIB WEBSITE: http://www.deib.polimi.it/

On the DEIB website are listed the procedures to obtain access to rooms and facilities. You will need badge and room keys.

Your reference for these procedures are the secretaries of your respective Sections

Computer Science: Laura Caldirola, Alessandra Viale
Electronics: Marjorie Ballesteros
Systems and Control: Antonella Rinaldi
Telecommunications: Vita Ciesco
For more information

- [http://www.deib.polimi.it](http://www.deib.polimi.it)
- [http://dottoratoit.deib.polimi.it](http://dottoratoit.deib.polimi.it)
- [http://www.polimi.it/dottorato](http://www.polimi.it/dottorato) (PhD School)
- Do not be afraid to ask! (coordinator, PhD vice chairs, professors, PhD students…)
INVITATION – PhD Colloquia, Nov. 15, 2pm

COLLOQUIA DOCTORALIA 2019

PhD in Information Technology

NOVEMBER 15TH 2019
CONFERENCE ROOM

COMPUTER SCIENCE AND ENGINEERING
ELECTRONICS
SYSTEMS AND CONTROL
TELECOMMUNICATIONS

PROGRAM

NOVEMBER 15TH 2019
CONFERENCE ROOM

14.00   Barbara Pernici - Overview of the IT PhD Program
14.15   Third-year students' posters presentations
15.10   Poster session (DEIB Hall)
16.00   Chorafias award 2019
        Alberto Bernardini, Advances in wave digital modeling
        of linear and nonlinear systems
        Dmytro Cherniak, Digitally-intensive frequency modulators
        for mm-Wave FMCW radars
16.20   Panel - Technological innovation and new professions
        in the companies
17.20   Poster awarding and conclusions

During the poster session there will be also a Career Service desk
QUESTIONS?