



The PhD Program in «Ingegneria dell'Informazione»

Structure and Features

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PhD Program General Rules (1/2)

- All PhD Programs in Italy, contrarily to most foreign countries, are **THREE YEARS, FIXED-TERM**
- The PhD is a **LEARNIGN PROGRAM IN RESEARCH** with research as well as formation (learning) activities under the immediate guide of a local supervisor from the PhD Board, plus possible additional internal or external tutors.
- Each PhD student receives a grant of 1.195,48 Euro/month (after taxes!). The grant is issued by the University and is coming either form internal (University-offered) funding, or from external funding from Research Institutions or Companies.
- The regular timing of the PhD is November 01, YYYY to October 31, YYYY+3.
- Each year, every student undergoes an end-term assessment (exam) to be admitted to the subsequent year of the program.

PhD Program General Rules (2/2)

- During the II year, the student is encouraged to spend a research period abroad at a qualified research laboratory.
- At the end of the III year, the student receives the permission to submit a draft Thesis after the whole 3-year research activity (including publications) is approved. The student has to present at least one published (or accepted for publication) paper on a major International Journal with peer review.
- The submitted draft Thesis has to be approved by the PhD Board. Once approved, it is sent out for review to (at least) two external experts who has 1 month to provide their own report. Based on reviewers' feedback, the thesis has to undergo minor or major revision.
- Once the report is finally positive, the student is asked to present (“defend”) her/his Thesis in front of an independent Committee (within 90 days since the nomination of the Final Exam committee nomination).

Rulings of Learning Activity

- The PhD in *Ingegneria dell'Informazione* adopts a system of formation credits to define and quantify the learning obligations for each students.
- The doctoral students must successfully attend at least 4 courses of at least 4 credits each, amidst those offered by PhD program (internal courses): 4 hs = 1 credit
- Such courses should preferably be followed within the first two years of doctoral studies.
- In addition to the credits obtained as above, doctoral students must earn a total of 35 credits, including those obtained from further "soft skills" courses, Laurea Magistrale courses from UniPI, National Doctoral Schools, UniPI summer schools.
- The PhD Board verifies the fulfilment of learning obligations on the basis of the annual reports required by Art. 9 of the PhD internal rulings.

More Details and Special Features

- Any external Institution/Company can fund a PhD grant by signing an agreement with UniPI. The total cost for the 3-year grant is roughly Euro 60,000 (monthly cost of Euro 1,667). The monthly cost is increased by 50% for every month spent abroad during the PhD period.
- 6-12 months of the three years may be spent at an external Institution/Company upon permission of the PhD Board (preferably in the II year).
- A special agreement can be set-up between UniPI and an external Company regarding the “**Dottorato in Alto Apprendistato**” (High Formation PhD Program): the student becomes an employee of the Company from the very start of the PhD program and for the whole duration of the PhD, receives no grant from the University, and the PhD is completely spent at the company. The PhD Board has to approve the research program of the student at the Company, and the student has the same obligations (learning, exams, publications) as regular students.

Intellectual Property (IP) Policy

- The PhD program is a LEARNING PROGRAM – even if it is funded by an external Company, it has nothing to do with a research contract between the Company and the University
- The IP of the results deriving from a PhD program funded by a Company may be shared by the Company and the University. The split of the IP can be (largely) negotiated, but by no means can the University release the IP
- Part of all of the activity performed by the student within the Doctorate can be considered confidential, and secrecy constraints about the PhD Thesis can be put up to 36 months after the defense
- Publishing the results of the PhD activity may be subject to the approval of the Company funding the program.
- Specific constraints regarding IP and confidentiality as above may appear in the agreement to issue grants between the Company and the University

The PhD Program in «Ingegneria dell'Informazione» (1/2)

Analog and RF circuit design
Assistive technologies and Rehabilitation
Automation
Communications
Digital circuits and systems
Distributed and Embedded Systems, and
Pervasive Computing
Electromagnetics
Guidance and Navigation
Industry 4.0/Cybersecurity, Big Data
Industry 4.0/Augmented Reality
Industry 4.0/Internet of Things
Industry 4.0/Advanced Manufacturing
Industry 4.0/Additive Manufacturing

Industry 4.0/IT & Society
Information Systems
Intelligent Systems
Medical Imaging
Micro/Nanosystems and Nanoelectronics
Nanotechnologies
Networking
Radar Systems
Remote Sensing
Robotics
Sensors, Biosensors, and Intelligent
Materials
Signal and Image processing
Vehicular and power electronics

The PhD Program in «Ingegneria dell'Informazione» (2/2)

- 61 UNIPI professors/researchers members of the PhD Board + 7 researchers coming from external research institutions (IIT Genova, IIT CNR Pisa, ISTI CNR Pisa, Naval Academy Livorno) + 2 representatives of the PhD students.
- 51 (1st year) + 28 (2nd year) + 24 (3rd year) students (10 from foreign countries)
- 18 courses (16-20 hours each) organized by PhD Board
- Curricula: Generale, Industry 4.0

<https://phd.dii.unipi.it/en>