



ELECTRICAL ENGINEERING

PHD PROGRAMS



POLITECNICO
MILANO 1863

**MILANO
LEONARDO
AND
BOVISA
CAMPUS**

Programme

The PhD Program in Electrical Engineering is based on both teaching and research in all the fields of the Electrical Engineering: from electric power systems to electrical machines, drives and automation, from basic electromagnetics to electric measurements and signal processing. The research is carried out mainly following the directions given by the research groups where the PhD student will be hosted. The courses are given at both the Politecnico Campuses: Leonardo and Bovisa-La Masa.

Mission and goals

The main objective of the PhD Program is to allow an active involvement of PhDs in any research body such as an R&D department of a production or service company. A PhD in Electrical Engineering has a solid basic knowledge of mathematics and physics. This is essential, particularly for handling and understanding advanced tools and methods as well as for proper modelling, analysis and design of electrical engineering applications, with particular regard to power applications.

A PhD in Electrical Engineering well knows circuits and electromagnetic fields as well as methods and applications in the main disciplines of Power Systems, Electrical and Electronic Measurements, Converters, and Machines and Electrical Drives.

The didactic part of the programme includes specific courses designed for the PhD students, to be selected among those provided by either the Electrical Engineering PhD programme or any other PhD programme at the Politecnico. Also, courses taken at other Universities and/or research institutions can be suitably valued.

The most important part of the PhD program is the development of the PhD dissertation, that must be carried out in the last two years of the programme. International links and stages at foreign universities and research institutions are encouraged.

Career Opportunities

Currently, several very important opportunities are given to electrical engineers all over the world. PhDs in electrical engineering are typically employed at major research centres, including University and Academic institutions, R&D departments in the public and private industry, power generation companies, transmission and distribution utilities, consultant offices, metrology reference institutes and certification laboratories, transport areas, public bodies such as the Regulators or State offices. Moreover, self-employment professional activity is also a very popular option.

Eligible students

In order to access the PhD programme in Electrical Engineering, the MSc in Engineering level is mandatory. Given the research topics investigated during the programme, the following fields of the engineering are preferred: electrical and computer, electronic, industrial, energy. PhD students are required to work at full time for their PhD. For PhD employed at industrial companies, the Industrial Doctorate option is available.

Scholarships

Usually, a number of generic scholarships are available. Moreover, depending on the requests from industry, scholarships on specific issues might be offered. A number of agreements with many important technical universities in Europe and outside Europe are active for student exchanges during the PhD.

Contacts

For further information, please visit the following web site:

www.dottorato.polimi.it/en/phd-programmes/engineering/electrical-engineering

or contact the School of Doctoral Programmes - Politecnico di Milano at phdschool@polimi.it.

For further information on the specific program in Electrical Engineering, on the courses and curricula, please contact the Secretariat of the PhD Programme at phd-elt@polimi.it.

