



POLITECNICO
MILANO 1863

**MILANO
BOVISA
CAMPUS**

MECHANICAL ENGINEERING

PHD PROGRAMS

Programme

The PhD Programme in Mechanical Engineering is organized and carried out within the Department of Mechanical Engineering of Politecnico di Milano. It covers a number of different disciplines, namely Dynamics and Vibration of Mechanical Systems and Vehicles, Machine and Vehicle Design, Manufacturing and Production Systems, Methods and Tools for Product Design, Measurements and Experimental Techniques, Materials, with a strong drive for innovation and experimental activities in three major research areas: Advanced Materials and Smart Structures, Sustainable Mobility, Engineering Design and Manufacturing for the Industry of the Future. One of the key elements of our Doctoral Programme is represented by our laboratories: we feature some of the most unique, active and innovative set-ups in Europe. Learn more on our labs at www.mecc.polimi.it/en/

Mission and goals

Our PhD Programme trains highly skilled profiles, qualified to meet academic and industrial most challenging demands; our graduates are prepared to embrace careers and industrial paths at the forefront of technology, responding efficiently to a call for innovation and top-level research. The Programme relies on the development of an interdisciplinary and integrated high-level educational offer, by focusing on a comprehensive scientific proposal, from conception to realization.

All candidates follow a three-year path, under the guidance of a supervisor and a tutor; this path includes specific courses and lectures, held by Faculty members and foreign professors and experts, in-depth research, laboratories, and active cooperation with international industries, institutions and research groups. At the beginning of their career, candidates select and outline a major research topic, whose development throughout the whole duration of the Programme will result in a Doctoral Thesis, with

final defence. A strong drive for Internationalization tops off the picture: candidates are encouraged to arrange research periods abroad (up to 18 months) to extend their scientific, methodological and cultural frontiers. We have a long tradition of academic cooperation and agreements with some of the highest-level and best-known academic scientific institutions all over the world, such as MIT-Massachusetts Institute of Technology (US), University of California at Berkeley (US), Imperial College London (UK), Tsinghua University (CN), University of Illinois at Urbana-Champaign (US), Delft University of Technology (NL), University of Michigan (US), École Polytechnique Fédérale de Lausanne (CH), Technische Universität München (DE). We also promote, draft and activate European and extra-European Joint Degrees, Double PhD Programmes and Joint Doctoral Thesis (Cotutelle); our Department is actively involved in EU-based and governmental third-level education agreements such as H2020, Erasmus Mundus and China Scholarship Council.

Career Opportunities

The PhD Programme in Mechanical Engineering offers top-level knowledge in one of the most profitable sectors in Italy and Worldwide; it is a key instrument to access leading enterprises and to achieve prominent positions in large international companies devoted to research and development, innovation and design. The primary employment market is composed of leading companies and organizations dedicated to innovation, research and technical development, high-tech SMEs and governmental departments. A recent survey (run by Politecnico's Career Service in 2015) showed that our PhD candidates are 100% employed after one year, in national and international companies and academic and non-academic research institutions, engaged in innovation, research and technical development. On average, the survey showed that people earning our PhD title are paid 30% more than the corresponding employees with a master title.

Eligible students

All graduate students, Italian and International, holding a University Degree equivalent to a Master of Science can apply for our PhD Programme. Specific information on admission requirements is available annually in the call for application at www.dottorato.polimi.it/en.

Scholarships

Each year we award an average of 25 scholarships (1.200 Euro/month) and give additional financial support for research periods abroad (scholarship is increased by 500 Euro/month). We also provide all candidates with yearly budget for study materials, laptop and conferences fees.

Contacts

For specific information on our PhD Programme courses and activities, curricula, labs and Faculty, visit www.mecc.polimi.it/en/phd/ or contact phd-dmec@polimi.it. For further information visit www.dottorato.polimi.it/en or contact the Doctoral School of Politecnico di Milano at phdschool@polimi.it.

