SCHOOL OF INDUSTRIAL AND **INFORMATION ENGINEERING** Electrical Engineering

minim

https://www.polimi.it/en/international-prospectivestudents/

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Electrical Engineering



Profile: we pursue innovation in the study and application of electrical energy



POLITECNICO

MILANO 1863

Why should you pursue your M.Sc degree in Electrical Engineering? Why at Politecnico di Milano?

The mission



The EE field is among the most promising ones, innovation wise!



POLITECNICO

MILANO 1863

The mission of the M.Sc graduate is innovation. You study to prepare yourself to be an innovator!

The keywords



The M.Sc graduate in Electrical Engineering plays a central and important role in implementing these new paradigms, which show a strong industrial and societal impact



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Green: energy generation from renewables **Smart:** optimal energy management through smart exploitation of ICT techniques

- **E-Mobility:** design and development of
- innovative vehicles and transportation systems for electrical mobility
- **IoT:** Artificial Intelligence (AI) methods to
- optimize energy generation and consumption **Transition to a new Energy Era**

Multidisciplinarity

Why at Politecnico di Milano?

Electrical Engineering at Politecnico di Milano ranks, in 2020:

- n.17 globally
- n. 6 in Europe
- n. 1 in Italy

Faculty members of the EE school are worlwide renowned scientists

- IEEE Fellows
- Members of National Academies of Sciences
- Recipients of IEEE Technical Field Awards

Strong cooperation with **primary industries** in the EE field

Innovation starts at Politecnico di Milano





The subjects

Competences and skills are spread on a wide band:

- The required background
 - Mathematics, Physics, Fundamentals of Electromagnetism
- The core subjects
 - Circuit Theory, Power Systems, Electrical Machines and Power Electronics, Instrumentation & Measurement, Electromagnetic Compatibility
- Additional subjects
 - Automation, Electronics, Computer Science, Economy
- Soft skills

Multidisciplinarity

... innovation oriented!







The different paths...

Graduates coming from the main M.Sc path, called Electrical Engineering, are capable of generating innovation in the whole, wide Electrical Engineering field.

Graduates coming from the Smart Grid path are focused on the integration of renewables in the electric network, and their skills span over telecommunication and smart control systems.

Graduates coming from the Mobility Engineering (1 year) path are focused on electrical mobility, one of nowaday hottest topic





International exchange programmes

Study programmes have been developed to foster short exchanges and double M.Sc. degrees:

- In Europe, through the IDEA League and Alliance4Tech programmes In China through dedicated Double Degree programmes with top Universities in **Electrical Engineering:**
- Xi'an Jiaotong University (XJTU), in Xi'an, at Polimi-XJTU Joint School! Path: power systems
- **Beihang University (BUAA)**, in Beijing • **Path:** *industrial automation*
- Shanghai Jiaotong University (SJTU), in Shanghai • Path: smart technologies

>Job opportunities in a global context

Double Degrees programmes yields the M.Sc. degree in Italy and China







Job opportunities*

An M.Sc degree in this field is a great investment on yourself and your future!

100% of the M.Sc graduates find a stable job within one year graduation in Italy (93% within 6 months after after graduation), including foreign students who decide to settle down in Italy.

51% of the M.Sc graduates already working have received over 5 job offers and could select their future job (the average value for the other fields is quite lower)

Helping your choice

Source: POLIMI Career Service (2018 data)







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