



IMT Nord Europe
École Mines-Télécom
IMT-Université de Lille



Master of Science in Design and Management of the Industry 4.0

The industry 4.0 represents a critical frontier in today technological landscape, both in France and around the world. Our programme taps into the acknowledged expertise of our research professors across the diverse disciplines by this sector.

The digital revolution is reshaping diverse sectors, from quality management and industrial process performance to manufacturing and services. It's also driving advancements in automation and optimization. This global shift in the industrial landscape is affecting businesses of all sizes. In response, our timely and pertinent program is designed to impart comprehensive knowledge on the multi-faceted dimensions of Industry 4.0.

The courses provided in this master's degree directly respond to industrial issues, and students will be in direct contact with researchers in IMT Nord Europe research centres. The program is project-focused both in engineering and research. Thanks to the modern laboratories, students will be offered the up-to-date technical resources required to get an efficient background in machine learning and data analysis applied to industrial topics and to master the art methods related to processes automation

In addition to their strong technical expertise, to secure management positions in an industrial or logistics environment, one semester in IMT Business School (IMT-BS) is dedicated to the development of management and communication skills and to the acquisition of knowledge in the fields of business, finance and logistics. IMT Business School is located in Evry, south of Paris.

To facilitate the immersion of its international students in France, IMT Nord Europe offers accommodation solutions in Douai and Evry and a personalized support throughout their education.

- ▶ 100% taught in English
- ▶ 2 years on Campus
- ▶ 6-month internship

Tuition Fees:

- ▶ 6,500 €/year (non E.U Students)
- ▶ 4,500 €/year (E.U Students)
- ▶ Possible scholarship opportunities



Admission Process

Application Form and Interview
Deadline: June 30th, 2026
master-of-science@imt-nord-europe.fr

Academic Prerequisites

A Bachelor's Degree or an equivalent international degree in Science, Technology or Engineering.

For non-native English speakers, a certificate or other proof of English proficiency equivalent to B2.



Join our Master's programme and benefit from a Lean Green Belt Certification. This certification complements our curriculum, offering participants a deeper understanding of Lean methodologies.

Managing industrial projects and driving cross-functional collaboration :

- By defining project scopes, objectives, timelines, and resources.
- By coordinating interdisciplinary teams across engineering, IT, and production departments.
- By identifying risks, tracking project KPIs, and applying corrective measures.
- By communicating project progress to stakeholders through structured reporting.

Ensuring quality, sustainability, and adaptability of digital industrial systems :

- By deploying quality management systems aligned with ISO standards or Six Sigma.
- By evaluating the environmental and energy impact of production systems.
- By adapting systems to evolving regulatory, cybersecurity, or ethical requirements.
- By promoting continuous improvement and agile adaptation in fast-changing environments.

Implementing data-driven strategies for continuous improvement :

- By analyzing data from connected systems to identify process inefficiencies.
- By applying statistical tools and machine learning techniques to predict failures or optimize throughput.
- By transforming raw data into actionable insights for decision-making.
- By building and managing dashboards to monitor real-time industrial performance.

SCHOOLING PROGRAMME

Educational content of knowledge and skills blocks (KSB):

Designing and optimizing industrial systems in the context of industry 4.0 :

- By modeling and simulating production flows using digital tools.
- By integrating lean manufacturing principles into the design of automated systems.
- By considering ergonomics, cost, environmental constraints, and performance objectives.
- By specifying hardware and software components needed for smart factory systems.

Automating and digitizing production processes for operational efficiency :

- By developing or integrating industrial automation solutions (PLCs, robotics, SCADA).
- By deploying IoT sensors and edge computing tools to collect real-time production data.
- By implementing cyber-physical systems to support autonomous production lines.
- By ensuring interoperability between physical systems and digital platforms (MES, ERP).

Navigating the Age of Advanced Technologies: Skillsets for Tomorrow

Our master's program is your blueprint for thriving in a job market transformed by cutting-edge technologies. While machines handle routine tasks, roles requiring critical thinking, leadership, and adaptability are on the rise. Our focused curriculum equips you with in-demand tech skills and essential human competencies, making you highly valuable in jobs that require both human skills and technological expertise.



www.imt-nord-europe.fr



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Institut Mines-Télécom
Business School



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