



The background of the slide features a hand reaching out towards a futuristic digital dashboard. The dashboard includes several gauges, with one prominently showing a scale from 60 to 160. There are also various data visualizations and icons, including a car's wireframe model in the top left and a grid of icons in the bottom left. The overall aesthetic is high-tech and blue-toned.

Master of Science in Mechatronics Engineering

The Master's degree program in Mechatronics Engineering aims at the education of engineers able to understand, design, realize and innovate the most advanced industrial products, intended as **systems characterized by increasing complexity, flexibility and functionalities**. The mechatronics engineer integrates knowledge from various frameworks - mechanics, electronics, automation, information technologies - needed to fully master the modern **intelligent mechanical systems, powered by perceptive and cognitive skills**, which enable an effective interaction with the environment.

The educational approach of the Master's degree program is inspired by the most recent trends of the technological evolution enabling the digitalisation of the manufacturing industry and services, with disruptive transformation of the design, production, marketing and dismissal of goods.

The velocity, intensity and pervasiveness of this process is such as to be considered the **fourth industrial revolution**, often referred to as **Industry4.0**. The Master's degree aims at providing **the knowledge which enables the leadership of this fast and deep evolutionary process**.

The program is specially designed for students who **already have solid knowledge about the field of industrial engineering**.

Programme overview

Degree awarded

Master of Science - "Laurea Magistrale" - in Mechatronics Engineering

Language

English

Class Size

Up to 25 students

Workload

The total workload for each student is 120 ECTS (European Credit Transfer System)

Intake

September each year

Duration

2 years full-time

Fees and funding

- EU: 340€ - 3.400€ (based on income/merit)
- Non-EU: 1.000€ - 4.500€ (based on merit)
- Income/merit based scholarships and tuition waivers available

Admission

Application deadlines (check online for updates)

- February for non-EU citizens living outside Italy
- From June to November: rolling admission for EU citizens and non-EU citizens regularly living in Italy

How to apply

- Access the online application form
- Upload the required documents
- Submit your online application by the deadline
- Check online for more information and updates: www.international.unitn.it/mastermech

Selection criteria

- Academic curriculum
- English test
- Curriculum Vitae
- Statement of purpose

Requirements

Bachelor's degree (or equivalent) in Industrial Engineering or related field

- English at B2 level of the Common European Framework of Reference for Languages

Study Plan

During the first year, common courses aim to provide students with a **solid foundation in Mechanics, Automatic controls, Signal Processing, System Simulation, Precision engineering and Digital manufacturing.**

On this basis, students can choose to **specialize in one of the following three curriculums in the second year:**

Mechanics

Focuses on the most advanced tools for the design of mechanical systems, their prototyping and testing, and the development of their production technologies.

Electronics and Robotics

Provides the student with adequate knowledge about the modern techniques of Artificial Intelligence focused on their application on mechanical and industrial systems, together with a proper insight into measurement systems and robot modelling, planning and control.

Intelligent Vehicles

Deals with the enabling technologies for the design and development of intelligent systems for connected and autonomous vehicles, the most advances Intelligent Transportation Systems.



For all curricula

- Elective courses
- Internship
- Final thesis

Extracurricular activities (for all curricula)

Activities related to the Career Boosting Program:

- Company tours
- Company presentations
- Company awards and scholarships

Dual Degrees

Beside the several international mobility opportunities active on this Master's degree, enrolled students can apply for a dual degree programme with:

- Instituto Superior Técnico, Lisboa (Portugal)
- Technische Universität München (Germany)
- Ecoles Centrales Paris/Lille/Lyon/Nantes/Marseille - Centrale Supélec, Paris (France)
- EIT Digital Autonomous Systems, Aalto (Finland), KTH (Sweden), UCA (France), EURECOM (France), BME (Hungary), ELTE (Hungary).



Career opportunities

Graduates with a Master's degree in Mechatronics Engineering will be a **valuable human resource** in a variety of areas, such as the manufacturing and service industry, public administration, research institutes and private practices, where interdisciplinary profiles are more and more requested. Master graduates, in fact, will have skills and knowledge from disciplines which traditionally belong to different areas, like mechanics, electronics, automatics and information technology.

Graduates with a Master's degree in Mechatronics Engineering will have a command of the main reference methods for the design, development, production and management of the modern **Cyber Physical Systems**. They will be able to apply such methods and techniques to the functional subsystems and related interfaces while keeping the broad system overview. Master graduates will be able to use the modern tools to update their knowledge and to promote innovation of the existing technologies.

In particular, they will also have the competencies to apply the **Artificial Intelligence technologies**, often implemented in the development of the modern Cyber Physical Systems.

Graduates may pursue a PhD in Trento (Materials, Mechatronics and Systems Engineering or Industrial Innovation), elsewhere in Italy or at the international level.



REAL TIME PRODUCTION DATA : Line 3

- Main
- Dashboards
- Production
- Reports
- Config
- Logout

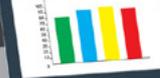
OEE TREND WEEK 30



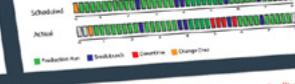
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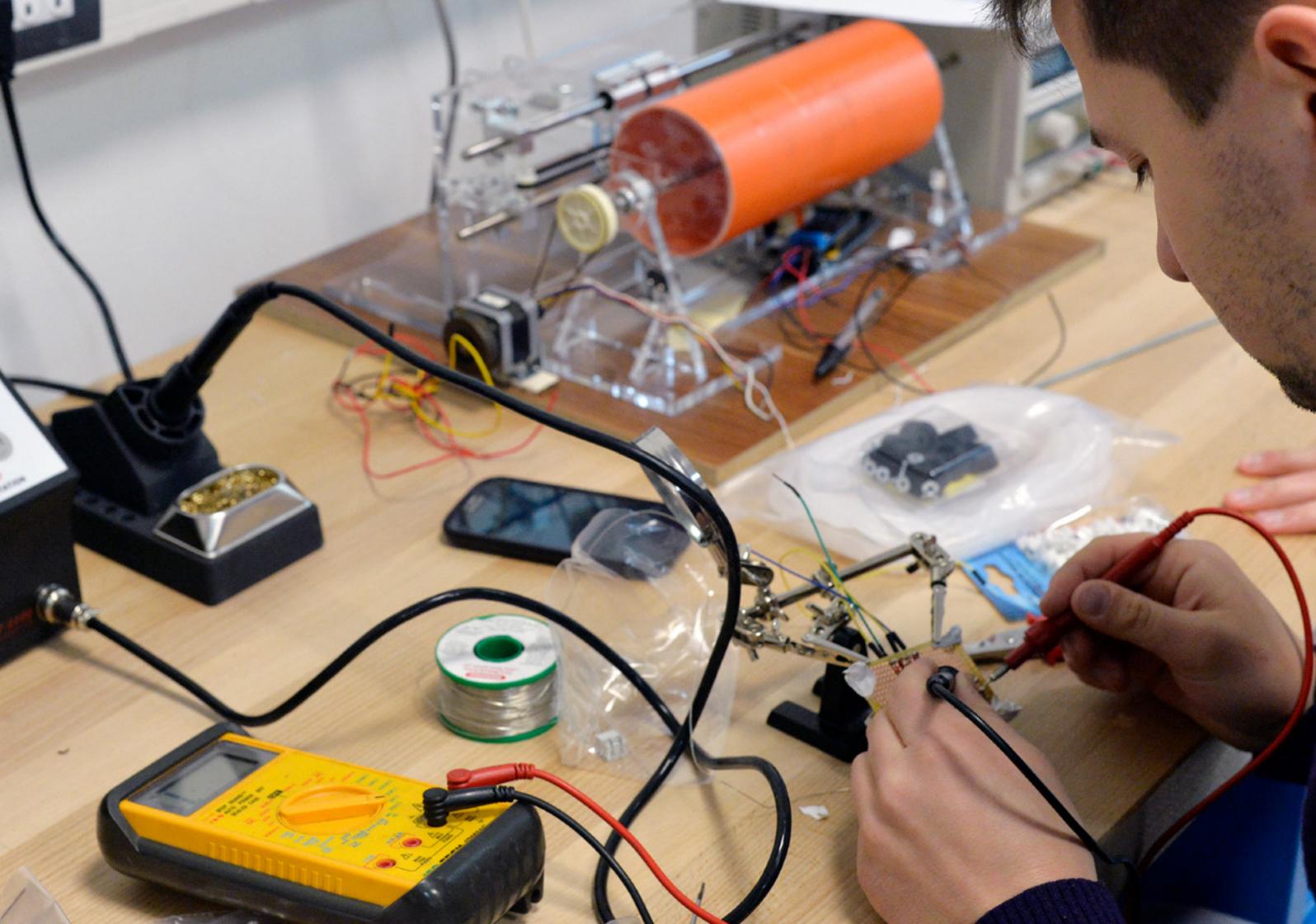


Actual OEE



Scheduled and Actual Production







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