# Master's Degree in Engineering and Computer Science

**Scientific coordinator**
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**Department**
*Engineering*

**Duration**
*2 years*

Tradition and Innovation at the Heart of the Mediterranean Sea

## Programme overview

This Master's degree develops knowledge and expertise in Computer Engineering and Computer Science. There are two strands within areas degree's classes - one focuses on Computer Engineering and one on Computer Science. The requirements overlap and complement each other. Both strands entitle graduates to participate in engineering licensing exams to work as engineers.

Skills acquired in this programme include:

- system management, planning and design; management of complex, innovative and distributed systems, data analysis, intelligent cyber physical systems, robotics;
- complex experiment design and management;
- be equipped with contextual knowledge and cross-domain skills.

## Minimal entry requirements

Admission will be granted to the candidates having a Bachelor's degree either in Engineering or Computer Science that includes the following prerequisites: Geometry, Mathematical Analysis, Physics, Computer Science, Computer Engineering, Electronics, Electromagnetic fields, Telecommunications, Automation. The course commission will evaluate the candidate's curriculum for admission.

## Language requirements

International English language certificate issued by an Institution recognized by the Italian Ministry of University and Research (MUR), B2 level of the Common European Framework of Reference.



My Master's Degree in Engineering and Computer Science is giving me new opportunities that I had never thought of before. I will be able to take the Italian national qualifying exam for engineering, and at the same time expand my skills and knowledge in the field of Computer Science. Our professors are highly qualified and they are very supportive. We have state-of-the-art equipment and it's very exciting to think about what I can do in the future. I really like my programme!

*Darsi Ashok*

**Study programme**

**Computer Engineering class degree (LM-32)**

**YEAR 1**
Embedded systems
Computer system analysis
Advanced algorithms and computational models
Industrial IoT
Computer system security
Managing innovation and entrepreneurship or Lean production and total quality management
Electives

**YEAR 2**
Distributed systems
Industrial automation and robotics
Machine Learning
Multimedia digital signal processing
Electives
Further study and internship
Final exam

**Computer Science class degree (LM-18)**

**YEAR 1**
High performance computing
Computer system analysis
Advanced algorithms and computational models
Game theory
Big data
Computer system security
Electives

**YEAR 2**
Distributed systems
Industrial automation and robotics
Machine Learning
Electives
Optimisation methods and algorithms or Acoustics and sound processing
Further knowledge and internship
Final exam

**Tuition fees**
A fixed fee (€ 156.00) and a remaining amount of tuition calculated on the basis of a sliding scale.