The Master of Electrical Engineering programme is a comprehensive course of study providing graduate students with the foundational knowledge needed to pioneer the next generation of networked, integrated systems. Students from around the world are drawn to the programme's excellent faculty, comprehensive curriculum, stimulating learning environment and state-of-the-art research facilities. This close link between education and research exposes students to challenging and ground-breaking topics during their coursework and Master's thesis research.

The next generation of ICT infrastructures will undoubtedly be built on complex integrated systems. These systems will depend on miniature devices omnipresent in the digital environment: complex servers, routers and complete computing farms communicating over both wired and wireless networks. The applications executed by these systems will be rich in multimedia content and will require system-wide security and privacy features. Our goal is to equip students with the necessary technical skills and methods to contribute to the creation of this and other future ICT infrastructures.

**Programme**

The Master of Electrical Engineering programme gives you in-depth training in software and hardware design of electronic systems, with an emphasis either on circuit design or application design. It consists of a common core and a choice between two options, supplemented by a wide choice of elective courses.

The core provide fundamental knowledge of common hardware and software requirements for electronic platforms, analogue and digital circuits, signal processing and telecommunications. It also includes the final Master's thesis, which will expose you to cutting-edge research topics.

After the first semester, you choose an option, allowing you to specialise in one of two approaches to creating electronic systems.

- **The option Electronics and Integrated Circuits** explores the design of electronic components and systems. You will learn how to design integrated analogue, digital and high frequency circuits as well as building blocks and platforms for different applications.
- **The option Embedded Systems and Multimedia** explores the design of applications for electronic systems. You will learn to develop and evaluate applications in telecommunication, cryptography, and in audio, image and signal processing in the light of an optimal implementation (hardware/software).

The remaining 24 credits are available for elective courses to allow you to personalise your programme. It also allows for internships and international courses.

For detailed descriptions of the courses and for the course timetable, please consult www.kuleuven.be/ma/meel/programme.
Your Profile

You are looking for a programme which creates engineers who are able to design complex electronic circuits and systems as well as advanced algorithms for signal and data processing in information and telecommunication systems. You enjoy the problem solving process, dealing with technological constraints and constraints inherent to the industrial environment, both in terms of hardware and software, and are ready to meet state-of-the-art challenges.

Admission requirements

To be eligible for the Master of Electrical Engineering, you must have obtained a bachelor’s degree in the field of electrical engineering or in a related field (e.g. physics, computer engineering, computer science) with a proven knowledge of the basics of electrical engineering. You also have to provide evidence of your English proficiency.

Admission is based on the evaluation of a complete application file, submitted via KU Leuven’s online application system. Admission criteria include the quality of your bachelor’s degree, your grades, your motivation and reference letters, and your TOEFL/IELTS and GRE scores.

Programme admission: www.kuleuven.be/ma/melel
General admission: www.kuleuven.be/admissions

Application procedure

KU Leuven uses an online application system. You can download and submit your application form via www.kuleuven.be/application.

Students with a Flemish degree can consult www.kuleuven.be/inschrijven.

Career perspectives

The Master of Electrical Engineering programme graduates are found in a surprising amount of sectors. Masters graduates work in Electrical Engineering, in ICT companies and the IT departments of large companies, banks and service providers. You can also find Masters graduates in sectors where there is a need for integrated circuits and electronic systems with both hardware and software aspects. The knowledge of both algorithms and their implementation in hardware and software is an important asset.

Contact

www.kuleuven.be/ma/melel
Ingrid Verbauwhede, chair of the admission committee
Luc Van Eycken, programme director