MASTER OF SCIENCE IN MECHANICAL AND ELECTRICAL SYSTEMS ENGINEERING

120 ECTS CREDITS - LANGUAGE: ENGLISH

The Faculty of Engineering and Architecture (FEA) offers most of its Engineering programmes at Master's level in English. This underlines the international ambition of the faculty, as well as the importance of an international education and multiple language skills for students.

WHAT

The Master of Science in Mechanical and Electrical Systems Engineering is a two-year degree programme intended to prepare students for a future technical leadership role in industry. The programme offers in-depth training in all technical aspects of electrical and mechanical systems engineering and its economic and societal implications based on a solid scientific basis. Graduates will have acquired an attitude of scientific synthesis, analytical reasoning as well as scientific and technical independence allowing them to design new technologies. Training in research skills provides mastery in developing, implementing and monitoring technical and scientific innovations for a sustainable society.

STRUCTURE

The first year of the program provides the students with a broad and in-depth knowledge of the four pillars of this master: electrical engineering, mechanical engineering, thermo-fluids engineering and control engineering and automation. Furthermore, the students learn to design complex systems using advanced numerical techniques. In the second year, technological electives, non-technical electives and academic specializing electives together with a Master's dissertation allow the students to either deepen or broaden their knowledge in topics of their interest. The Master's dissertation is a final step in the academic learning process. It aims at fostering the ability to conduct scientific research independently. The technical electives, company visits and guest lectures prepare the master students for a smooth transition from academia to the industrial practice.

LABOUR MARKET

Electrical and Mechanical Systems Engineering graduates are employed in all branches of industry. Both at government agencies and private companies their range of professional activity is broad and varied: energy production and distribution, electrical and mechanical equipment manufacturing, robotics and process automation, metal and chemical industry, buildings and HVAC&R, sustainable transport and consultancy.

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TOELATINGSVOORWAARDEN VOOR HOUDERS VAN EEN VLAAMS DIPLOMA

1 **Rechtstreeks:**
- Bachelor in de ingenieurswetenschappen, afstudeerrichting: werktuigkunde-elektrotechniek
- Bachelor in de ingenieurswetenschappen: werktuigkunde-elektrotechniek

2 **Rechtstreeks, na check door de inrichtende faculteit van formele toelatingsvereisten:**
- Bachelor in de ingenieurswetenschappen, afstudeerrichting: elektrotechniek nevenrichting: werktuigkunde
- Bachelor in de ingenieurswetenschappen, afstudeerrichting: werktuigkunde nevenrichting: elektrotechniek

3 **Na het met succes voltooien van een voorbereidingsprogramma:**
MIN 30 SP - MAX 90 SP

a opleidingen nieuwe structuur:
- Bachelor in de bio-ingenieurswetenschappen
- Bachelor in de fysica
- Bachelor in de fysica en de sterrenkunde
- Bachelor in de industriële wetenschappen, afstudeerrichting: elektromechanica
- Bachelor in de industriële wetenschappen: elektromechanica
- Bachelor in de ingenieurswetenschappen (KMS)
- Bachelor in de nautische wetenschappen
- Bachelor in de wiskunde
- Bachelor of Engineering Technology, afstudeerrichting: Electromechanical Engineering
- Een diploma van een opleiding 'Bachelor of Science in de ingenieurswetenschappen' (met inbegrip van 'architectuur')
- Master in de nautische wetenschappen

b opleidingen oude structuur:
- Licentiaat in de natuurkunde
- Licentiaat in de nautische wetenschappen
- Licentiaat in de wiskunde

4 **Rechtstreekse toelating voor het volgen van een brugprogramma (horizontale instroom):**

a opleidingen nieuwe structuur:
- Master in de industriële wetenschappen: elektromechanica
- Master in de industriële wetenschappen: elektrotechniek
- Master in de industriële wetenschappen: energie
- Master in de industriële wetenschappen: industrieel ontwerpen
- Master in de industriële wetenschappen: machine- en productieautomatisering
- Master of Electromechanical Engineering Technology

b opleidingen oude structuur:
- Industrieel ingenieur in elektromechanica

LANGUAGE REQUIREMENTS

Language requirements	Dutch: no language requirements English: CEFR level B2

PRACTICAL INFORMATION

Study programme
studiekiezer.ugent.be/master-of-science-in-mechanical-and-electrical-systems-engineering-en/programma

Information sessions
Graduation Fair
afstudeerbeurs.gent/en/students/further-studies

Enrolling institution
Information on enrolment at Ghent University.

Application Deadline (for International degree students)
For students who **need a visa**: before 1st of April
For students who **do not need a visa**: before 1st of June
Read more

Tuition fee
More information is to be found on: www.ugent.be/tuitionfee

Learning path counsellor
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