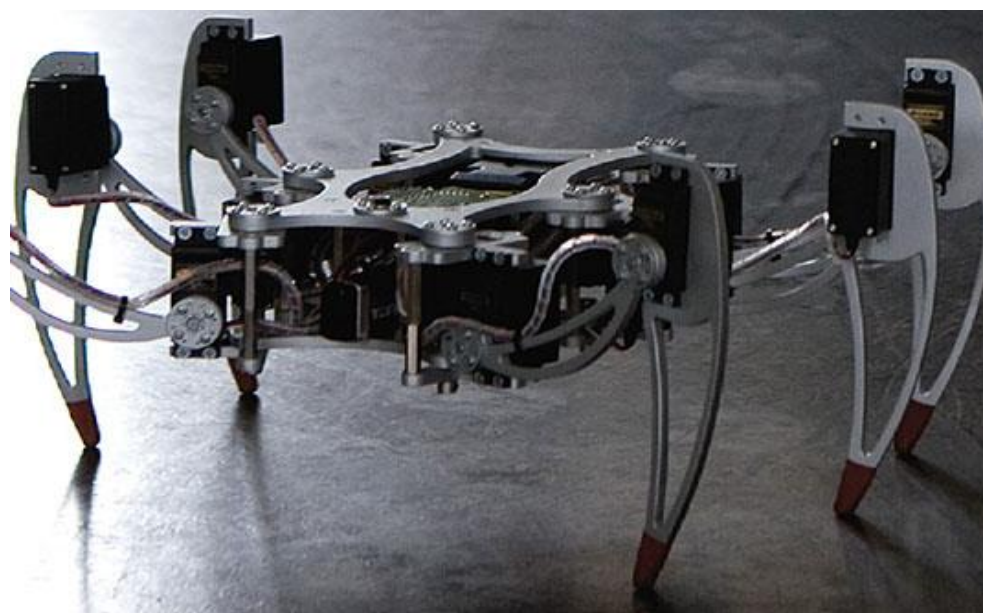


DEPARTMENT 04 – COMPUTER SCIENCE

MASTER EMBEDDED SYSTEMS ENGINEERING



HARD FACTS

Degree	Master of Engineering (M.Eng.)
Study programm	fulltime
Regular course duration	4 Semester
Start of studies	Winter semester
Entrance limitation	No
Deadline Enrolment	Current deadlines: www.fh-dortmund.de/deadlines
Admission EU nationals	Online via www.fh-dortmund.de/application + Pre Check
Admission non-EU nationals	Online via www.fh-dortmund.de/application + Pre Check



EMBEDDED SYSTEMS ENGINEERING CONTENT AND STRUCTURE

The program qualifies in the field of scientific research as well as in areas of professional practice

The master study course *Embedded Systems Engineering* leads to a degree which qualifies individuals both in the field of scientific research as well as in areas of professional practice. They are being prepared for technical careers but also for senior management assignments in technical projects. Furthermore, a subsequent career in academic research is also an option. If the master's Examination has been passed, Dortmund University of Applied Sciences and Arts, Fachhochschule Dortmund, awards the degree Master of Engineering (M.Eng.). It confirms that the students have acquired the advanced professional expertise as well as the methodological and key skills required in order to work independently in their profession, and that they are capable to work independently in an entrepreneurial context on the basis of scientific findings and methods.

The master program will be completed in 4 semesters within the standard course duration. A teaching program with compulsory courses in the first and second semester provides basic competences and enables the students to develop their distinctive profile within the scope of their main focus areas. This is combined with a 2-semester research phase with electives and thesis projects. Through the subject range offered by the *Ruhr Master School (RMS)*, the compulsory elective studies are integrated in a cross-university network. This offer is completed by international, project-oriented components and summer schools as well as symposia. The workload for the course of studies amounts to a total of 3,600 hours (900 hours per semester), including time for the Master's thesis. To successfully complete the course of studies, a total of 120 credit points according to the *European Credit Transfer and Accumulation System (ECTS)* must be obtained.

STUDY COURSE PLAN* – EMBEDDED SYSTEMS ENGINEERING

1. Semester	Mathematics for Signal & Controls	Distributed and Parallel Systems	Embedded Software Engineering	Requirements Engineering	Scientific & Transversal Skills
2. Semester	Mechatronic Systems Engineering	Microelectronics & HW/SW Co-Design	R&D Project Management	Signals and Control Systems	Elective
3. Semester	Elective	Elective	Research Project (Thesis)		
4. Semester	Master Thesis and Colloquium				

*This is a thematic overview of the course contents. Detailed information on the exact names of the courses, information on Electives, ECTS or semester hours per week can be found in the module handbook on the page www.fh-dortmund.de/ese.



PERSPECTIVES AFTER GRADUATION

Professional perspectives

Graduates of this master course find their job opportunities:

- in automotive industry
- in industrial automation
- in medical technology
- in research institutes

Information und counselling Career Service

Further information: www.fh-dortmund.de/careerservice

ADMISSION REQUIREMENTS

Required degree

Diplom or Bachelor degree

Bachelor of Science or Bachelor of Engineering (at least 180 ECTS), Diplom-Engineer in the field of Computer Science, Electrical Engineering or Information Technology; or foreign equivalent with a final grade or mark of at least „good“ (2.5). It must have included relevant competence in the areas of Software Engineering, Control Engineering, Signal Processing and Systems Engineering (cf. Study and examination regulation on www.fh-dortmund.de/pruefungsordnung). Course programs at foreign universities must include a final thesis comparable to the course programs at German universities with regard to the minimum quality requirements. An expert committee of the Master Course *Embedded Systems for Mechatronics* will check if these requirements are achieved.

Proof of English language skills

Proof of required English language proficiency acquired in the TOEFL ITP test with at least 550 points or in the TOEFL iBT test with at least 90 points, taken within the last two years before the application. The proof of language proficiency can also be provided by other test types equivalent to the TOEFL test in accordance with the *Common European Framework of Reference for Languages: Learning, Teaching, Assessment - CEFR*, (e.g. IELTS with a score of at least 6.5). In exceptional cases, the proof can be provided by an equivalent certificate or other certificates that confirm the corresponding minimum requirements (equivalent to C1 of the *Common European Framework of Reference for Languages*). An appointed committee decides whether the equivalence is met.

Pre-Check Form

In order to be able to verify before the application whether you meet the requirements for admission to the program all applicants (EU, German, non-EU) are highly recommended to send us their documents for a pre-check to service-esm@fh-dortmund.de.

Therefore, please send one PDF containing your bachelor's certificate and transcripts, your CV, your language certificates and the filled-out form sheet. After the pre-check you will be provided with instructions and a link to the online portal.

Fachhochschule Dortmund
Department of Information Engineering
– Master Embedded Systems Engineering –
service-esm@fh-dortmund.de

More Details and the Pre-Check Form sheet

www.fh-dortmund.de/ese

APPLICATION AND ADMISSION

Start of studies in winter semester

The courses of the Master Embedded Systems Engineering start in the winter semester only and are usually offered in an annual frequency.

Allocation of study places will be made by the Fachhochschule. Although there is no admission restriction for the Master *Embedded System for Mechatronics*, the above specified requirements are valid.

EU-nationals and with EU-nationals equated

EU-nationals and with EU-nationals equated, meaning:

- EU-nationals,
- Non-EU nationals who have obtained their university entrance qualification within the EU or Liechtenstein, Norway or Iceland
- Members of the European Economic Area (EEA): Norway, Liechtenstein and Iceland,
- Non-EU nationals who live in Germany and married to an EU- or EEA-national who are working in Germany, or
- Non-EU nationals who live in Germany and have a parent who is EU- or EEA national and has worked or work in Germany,



must register online via www.fh-dortmund.de for application beginning in mid-May. Deadline for applications via: www.fh-dortmund.de/deadlines

Application and admission of non-EU national

All international applicants will be able to apply online at Fachhochschule Dortmund. The application will start in April.

Current deadlines via: www.fh-dortmund.de/deadlines

If you have questions concerning application, study structure, content of course and process of studies, please address to the Department counsellors (see *Further information and counselling*).

SEMESTER CONTRIBUTION

A semester contribution must be paid for the use of social and student facilities (student restaurant, student hostels, membership to student union, special-rate student ticket for public transportation in the federal state of North-Rhine Westphalia). Find current contribution here: www.fh-dortmund.de/semesterbeitrag

If you need information on financing of studies, please address to the Student Advisory Service (Studienberatung).

Information on BAföG (federal student support) will be given by the BAföG-Amt of the Studentenwerk.

FURTHER INFORMATION AND COUNSELLING

Student Advisory Service

P 0231 9112-8965

studienberatung@fh-dortmund.de

Office hours: www.fh-dortmund.de/student-advisory-service

Team des International Office

P 0231 9112-9266

international-office@fh-dortmund.de

contact: www.fh-dortmund.de/contact-io

Office hours:

Monday, Wednesday, Friday 9.30 – 12.30 a.m.

Tuesday: 1 – 4 p.m.

Department counsellors

Course Director

Prof. Dr. Rolf Schuster

Emil-Figge-Str. 42

Room C.3.44

44227 Dortmund

P 0231 9112-9711

Prof. Dr. Andreas Becker

Sonnenstr. 96

Room 619

44139 Dortmund

Course Coordinator

Thorsten Ruben

Emil-Figge-Str. 42

room C.3.50

44227 Dortmund

service-esm@fh-dortmund.de

The Student Advisory Service (Studienberatung) will help you, if you have questions regarding choice of study course, admission requirements, financial support etc.

Responsible for applicants from Non-EU countries and questions regarding language tests

If you have questions concerning application, study structure, content of courses and process of studies, please address to the Department counsellors

