OTTO VON GUERICKE
UNIVERSITÄT
MAGDEBURG

Faculty of Electrical Engineering and Information Technology

Catalogue of Elective Modules

for the Master's program

Electrical Engineering and Information Technology

Version from 01. March 2023

This Document is for information only.

The German version is legally binding.

Technical note: The module names in the table of contents are linked to the module descriptions. You can get back to the table of contents via the link below each module description. Alternatively, you can navigate via the bookmark function of various PDF viewers.

Contents

Elective modules

Elective modules in the extent specified in the study regulations have to be chosen. The required number of credit points must be achieved.

Technical elective modules

Technical elective modules can be chosen from th e list provided, whereby it is re commended to set a focus on one specific area.

Non-technical elective modules

Modules from the entire range of OvGU can be selected - but with out engineering modules. Explicitly allowed are also foreign languages, for example German for foreign students.

Attachment: Study- and Examination Schedule of the Master's Degree Program in Electrical Engineering and Information Technology for elective modules

Legend for the study and examination schedule

SWS	=	Semester hour per week (time required for the course per week)	SoSe	=	Summer semester
V	=	Lecture	WiSe	=	Winter semester
Ü	=	Tutorial	K	=	Written examination (stated duration in minutes)
P	=	Internship	M	=	Oral examination
S	=	Seminar	ÜS	=	Tutorial certificate
CP	=	Credit Points	PRO	=	Research Project
VL	=	Type of examinations prerequisite	R	=	Referat (Presentation)
PL	=	Type of examination performance			

Module overview of the technical elective modules

Allocation: Choice of modules according to the study plan. The required number of CP can be taken from the programme-specific study and examination regulation.

Master Electrical Engineering and Information Technology	SWS		Semester												CP
			1. (WiSe)			2. (SoSe)			3.			4.			
Modules	V|Ü|P|S	V|Ü|P|S	CP	VL	PL	CP	VL	PL	CP	VL	PL	CP	VL	PL	Σ
Automation Systems															25
Automation Lab	0|0|2|0								5		M				5
Digital Automation Systems	2|1|0|0								5		K90				5
Non-linear Control	2|1|0|0					5		M							5
Process Control	2|1|0|0					5		M							5
State Estimation	2|2|0|0					5		K90							5
Total credit points by semester in this field						15			10						

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Master Electrical Engineering and Information Technology	SWS		Semester												CP
			1. (WiSe)			2. (SoSe)			3.			4.			
Modules	V|Ü|P|S	V|Ü|P|S	CP	VL	PL	CP	VL	PL	CP	VL	PL	CP	VL	PL	Σ
Information and Communication Technology															**61**
Computed Tomography I – Methods on CT	2|1|0|0								5	ÜS	K60				5
Digital Information Processing Laboratory	0|0|2|1					5	PS	M							5
Electronic System Level Modeling	2|1|0|0								5		M				5
FPGA and Microcontroller Programming 1 u. 2	0|0|2|0	0|0|3|0				2			3		M				5
Heterogeneous Computing	2|1|0|0					5		M							5
Image Coding	2|1|0|0								5		M				5
Introduction to RF Communication Systems	2|1|0|0					5		K90							5
Microwave Measurement Techniques (µWMT) / Mikrowellenmesstechnik	2|1|1|0								6		M				6
Seminar „System-on-Chip“	0|0|0|3								5		R				5
Speech Recognition	2|1|1|0					5	ÜS	K90							5
System-on-Chip	2|1|0|0								5		M				5
Theoretical Neuroscience II	3|2|0|0					5		M							5
Total credit points by semester in this field						27			34						
Microsystems															
The field "Microsystems" is currently not offered															
Power and Energy															**35**
Control of AC Drives	2|1|0|0								5		K90				5
Digital Protection of Power Networks	2|1|0|0					5		K120							5
Electromagnetic Compatibility (EMC)	2|2|0|0								5		M				5
Power Electronic Components and Systems	2|1|0|0								5		M				5
Power System Ecomomics and Special Topics	2|1|0|0								5		K90				5
Power System Dynamics	2|1|0|0					5		M							5
Renewable Energy Resources	2|1|0|0					5		K90							5
Total credit points by semester in this field						15			20						
General															**15**
Basics of Medical Image Science	2|1|0|0					5		K90							5
Integrated Project	0|0|0|6								10		PRO				10
Total credit points by semester in this field						5			10						