Faculty of Electrical Engineering and Information Technology

Catalogue of Elective Modules

for the Master's program

Electrical Engineering and Information Technology

Version from 06. March 2024

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

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	PL	CP	PL	CP	PL	CP	PL	Σ
Automation Systems											30
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
Optimal Control / Predictive Control	2|1|0|0						5	K120			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		15				
Information and Communication Technology											66
Chatbot-Challenge	2|0|0|2				10	*					10
Computed Tomography I – Methods on CT	2|1|0|0						5	K60			5

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Master Electrical Engineering and Information Technology / Modules	SWS V|Ü|P|S	V|Ü|P|S	1. (WiSe) CP	PL	2. (SoSe) CP	PL	3. CP	PL	4. CP	PL	CP Σ
Information and Communication Technology											
Digital Information Processing Laboratory	0|0|2|1				5	M					5
Electronic System Level Modeling	2|1|0|0						5	M			5
Heterogeneous Computing	2|1|0|0				5	M					5
Image Coding	2|1|0|0						5	M			5
Microwave Engineering	2|1|0|0				5	M					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	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					35		31				
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	K90			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 Sources	2|1|0|0				5	K90					5
Total credit points by semester in this field					15		20				
General											25
Basics of Medical Image Science	2|1|0|0				5	K90					5
Integrated Project	0|0|0|6						10	PRO			10
Micromechanics	2|1|0|0						5	K90			5
Microsystems Processes and Technologies	3|0|0|0				5	K90					5
Total credit points by semester in this field					10		15				