Zurich University of Applied Sciences

School of Engineering

t.ET1 - Elektrotechnik 1

Person responsible for the course:	Jakob Lattmann, latj
Credits:	3
Valid for:	2010/2011
Last saved:	22.03.2011 11:11

Learning objectives:

- Knowing the properties of passive elements in the time and frequency behavior
- Being able to apply a network description with complex phasors
- Knowing the properties and the selection of DC motors being are able to select it
- Knowing semiconductors and its coherence with DC motors
- Application and operation of electric analyzers and instruments

Course content:

- Basics: Laws, sources, measurements of DC- and AC-quantities
- Passive elements: R, L, C: behavior in switching operations, in harmonic voltages, combinations of impedances, phasor representation, complex calculations
- DC machines. Laws, characteristics, operation modes, applications, selection of a suitable drive
- Power semiconductors: properties and applications in power converters
- Power converters: overview, AC-input, DC-input, applications in coherence wit DC drives, selections according to various criterias

Previous knowledge:

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Teaching method:

Type of lesson:	Number of lessons per week:
Lecture	14x2L
Tutorial/Practicum	4x3.5L
Group teaching	
Block instruction	
Seminar	

Assessment:

According to the table or as specified in writing by the lecture at the beginning of the semester!

Number	Type	Weighting
1	End of term exam	80%
1	Exam during the semester	20%
	Further assessments	

Language of instruction:

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Instruction material:

Gemäss Vorgabe des Dozierenden (z.B. Vorlesungsscript oder Buch)
Aktuelle Bücher (Bekanntmachung während der Lehrveranstaltung)

Comments:

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