

Electrical Engineering II

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| Lecturer | Prof. Dr. Göran Andersson Markus Imhof |
| Assistants | Hubert Abgottspon Tobias Haring Philipp Fortenbacher |
| Date | unknown |
| Hours/Credit points | New 4 credits |
| Type | Elective for Mechanical Engineering BA |
| Course number | 227-0076-00L |

Subject

Contents

Signals and systems in the time and frequency domain, principle of operation and design of basic analog and digital circuits, analog-digital conversion. Basic power electronic circuits, design of magnetic components and concept of force and torque generation, electromechanical energy conversion, principle of operation and characteristics of stationary and selected rotating electrical machines.

Reference book

Grundlagen der Elektrotechnik (Dr. Ing. Hans Fricke und Dr. Ing. Paul Vaske):

[Book Electric Networks 1/4](#)
[Book Electric Networks 2/4](#)
[Book Electric Networks 3/4](#)
[Book Electric Networks 4/4](#)

Take from *Grundlagen der Leistungselektronik* (Prof. Dr. Kolar):

[DC/DC Converter](#)

Podcastm (SS 11)

<http://www.multimedia.ethz.ch/lectures/itet/2011/spring/227-0076-00L>

Repetition exam

Examination date: In the examination session in **summer 2012** (120min written exam) date is not yet known.

- Content of the exam: Lecture notes, exercises and the additional exercise, exam examples.
- Permitted aids: A self-written summary (5 sheets / 10 pages)
- Content: Everything EXCEPT copies/transcriptions of the exercises/exam examples and their solutions; Lecture notes ET I + II; Calculator

If you have urgent questions, please write one of the assistants an email with the exact description of your

problem. The assistant will respond to your email as soon as possible.

[Documents](#) [Download](#)

[Lecture highlights](#) 