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Student Group

First Name	Surname	Matrikel Nr.

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5. linear sources
 - <https://en.wikibooks.org/wiki/Electronics>

You already know V-I-R and you not only connect AC/SC with music?

Great! Then you should Go one step Further.

In this course we will investigate

- which ideal components are used in circuits and
- how they interact with each other and different types of current.

[Introduction in Electrical Engineering 1](#)

or: How to work with this course?

Direct Current Circuits

1. [Preparation, Properties, Proportions](#)

- or: Watt is Power and Current?
- 2. [Simple Circuits](#)
or: about Branches and Stars
- 3. [non-ideal_sources_and_two_pole_networks](#)
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- 4. [Network Analysis](#)
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- 5. [dc_circuit_transients](#)
oder: unfinite Charging

Alternating Current Circuits

- 6. [Introduction in Alternating Current Technology](#)
or: active and reactive
- 7. [Circuits under different frequencies](#)
or: dampening and oscillating

[Tips for the exam electrical engineering 1](#)

Further Links

Reading material

- [Electricity and Magnetism](#): beautiful online course covering most of the parts of my course.
- [Online Brückenkurs des KIT/Uni Stuttgart](#): Nice, partly animated online script, covering chapters 1, 2, 3 and 5 (German)
- [H.Er.T.Z der HS Karlsruhe](#): The **H**ochschuloffene **E**lekt**r**otechnik **Z**entrum of the Karlsruhe HS has a nice [online script](#) (German)
- [LeifiPhysik](#): Here you can find further explanations of our chapters on vocational school/gymnasium level. (German)

Excercise

- In addition to the H.Er.T.Z script (see above), there are further [exercises](#).
- Further exercises will be distributed via ILIAS

Additional Links

English

- A great introductory script into electrical engineering can be found at [LibreText - Physics II Thermodynamics, Electricity and Magnetism](#). The content ist originally from [OpenStax](#).
- Another good introduction ist given by [HyperPhysics](#)

German

- [simple club](#): simple club: explanatory videos on electrical engineering in the field of physics ; subscription not necessary!
- [Elektrotechnik einfach erklärt](#): still few, but well developed videos
- [Elektrotechnik in 5 Minuten](#): good fund of short videos

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