

Vak: Analogue Electronics 2

credits: 5

Vakcode ELVP20AAE2
Naam Analogue Electronics 2
Studiejaar 2021-2022
ECTS credits 5
Taal Engels
Coördinator F. Martins

Werkvormen Hoorcollege
 Practicum / Training
Toetsen Lab - Vaardigheidstoets
 Theory - Computer, organisatie
 ToetsCentrum

Leeruitkomsten

The student can:

- use the properties of AC waveforms to calculate RMS and mean values of various waveforms;
- calculate energy and power in circuits with sinusoidal current and voltage sources;
- calculate characteristic quantities (e.g. V , I) in RC, RL and RLC circuits;
- obtain the transfer function of RC, RL and RLC networks;
- draw Bode-diagrams (including gain in dB) to explain the behavior of filters and resonance circuits;
- select and explain R, L and C for various filters;
- calculate parameters of resonance circuits (resonance, Q-factor);
- calculate efficiency and apply power conservation law to calculate voltages and currents in transformers, motors, and generators;
- apply the characteristics and properties of different kinds of diodes in electric circuits, including use of their curves for calculations in practical applications;
- apply the characteristics and properties of transistors in electric circuits, including applications as amplifiers; apply the characteristics and properties of non-ideal operational amplifier in electric circuits.

Inhoud

During this course students will expand their knowledge on analogue electronics with electrical power and energy within AC networks including filters. Students will apply these aspects.

Opgenomen in opleiding(en)

Elektrotechniek Major Sensor Technology

School(s)

Instituut voor Engineering

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