

University of Pretoria Yearbook 2021

Power system components 320 (EKK 320)

Qualification	Undergraduate
Faculty	Faculty of Engineering, Built Environment and Information Technology
Module credits	16.00
NQF Level	07
Programmes	BEng Electrical Engineering BEng Electrical Engineering ENGAGE
Prerequisites	EIR 211, 221 GS
Contact time	1 practical per week, 1 tutorial per week, 3 lectures per week
Language of tuition	Module is presented in English
Department	Electrical, Electronic and Computer Engineering
Period of presentation	Semester 2

Module content

Single and three-phase basic concepts, Transformers: the ideal transformer, equivalent circuit, single and three-phase transformers, auto-transformers, tap changing transformers. Synchronous machines: equivalent circuit, real and reactive power control, two-axis machine model. Transmission lines, Underground Cables, Capacitors, Reactors, Single and three-phase induction motors, Load modelling.

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