University of Pretoria Yearbook 2016

Power system analysis 410 (EKK 410)

Qualification	Undergraduate
Faculty	Faculty of Engineering, Built Environment and Information Technology
Module content	Power flow: bus admittance matrix, bus impedance matrix, Gauss Seidal and Newton Raphson methods. Fault analysis: balanced fault analysis, symmetrical components, unbalanced fault analysis. Power system protection: definite time, invese-definite-minimum-time (IDMT), introduction to over-current and earth fault protection, distribution system protection, transmission system protection, reticulation system protection. Sizing of protection devices. High voltage control: over-voltages, transients.
Module credits	16.00
Programmes	BEng Electrical Engineering
	BEng Electrical Engineering Engage
Prerequisites	EKK 320 GS
Contact time	4 lectures per week, 1 tutorial per week, 1 practical per week
Language of tuition	Both Afr and Eng
Academic organisation	Electrical, Electronic and Com
Period of presentation	Semester 1