COURSE DETAIL

ELECTRICITY NETWORKS
Country Australia
Host Institution University of Sydney
Program(s) University of Sydney
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Electrical Engineering
UCEAP Course Number 117
UCEAP Course Suffix
UCEAP Official Title ELECTRICITY NETWORKS
UCEAP Transcript Title ELECTRICITY NETWORK
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description

This course examines modern electric power systems with particular emphasis on generation and transmission. The following topics are covered: the use of three phase systems and their analysis under balanced conditions; transmission lines: calculation of parameters, modelling, analysis; transformers: construction, equivalent circuits; generators: construction, modelling for steady state operation; the use of per unit system; the analysis of systems with a number of voltage levels; the load flow problem: bus and impedance matrices, solution methods; power system transient stability; the control of active and reactive power; electricity markets, market structures and economic dispatch; types of electricity grids, radial, mesh, networks; and distribution systems and smart grids.

Language(s) of Instruction
English

Host Institution Course Number
ELEC3203

Host Institution Course Title
ELECTRICITY NETWORKS

Host Institution Course Details
https://www.sydney.edu.au/units/ELEC3203/2023-S1C-ND-CC

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Course Last Reviewed
2022-2023

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