

COURSE DETAIL

ELECTRICAL ENERGY CONVERSION SYSTEMS

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

118

UCEAP Course Suffix**UCEAP Official Title**

ELECTRICAL ENERGY CONVERSION SYSTEMS

UCEAP Transcript Title

ELEC ENGY CONV SYST

UCEAP Quarter Units

6.00

UCEAP Semester Units

4.00

Course Description

This course examines electrical energy conversion techniques and equipment. It covers magnetic circuits, inductance, sinusoidal excitation, hysteresis and eddy current loss, permanent magnets, electromechanical energy conversion, singly-excited and doubly-excited systems, transformers, single-phase, equivalent circuit parameters, three-phase transformers, autotransformers, DC machines, separate excitation, shunt excitation, series excitation, and compound excitation, efficiency, armature reaction, induction machines, revolving field, equivalent circuit, squirrel cage machines, measurements of the parameters, DC resistance test, no-load test, blocked-rotor test, synchronous machines, field relationships, power-angle relationships, and salient pole machines.

Language(s) of Instruction

English

Host Institution Course Number

ELEC3206

Host Institution Course Title

ELECTRICAL ENERGY CONVERSION SYSTEMS

Host Institution Course Details

<https://www.sydney.edu.au/units/ELEC3206.html>

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Electrical and Information Engineering

Course Last Reviewed

2023-2024

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