

DEE 3143 BASIC ELECTRICAL MACHINE & POWER SYSTEMS

Course Description

by

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This course introduces the fundamental of electrical and power system which are the concepts and principles of transformer and various types of electrical machines. It is intended the students to understand fundamental aspects of rotating electrical machines. This course introduces an overview of power system, generation, transmission lines, distribution, representation of components, basic power system analysis.

Course Outcomes

At the end of this course student should be able to:

- i. Explain the constructions, equivalent circuits and principle operations of transformers and electrical machines
- ii. Determine the roles of power system components, calculate load factor and demand based on the load profiles and explain the concept of electricity tariff and energy efficiency
- iii. Analyze the power system component representations using per-unit system
- iv. Analyze the performance of low voltage switch board for low voltage distribution system operation