

100-1 Preliminary Syllabus, Da-Yeh Univ

Information			
Title	電力電子電路	Serial No. / ID	1335 / EEI4162
Dept.	電機工程學系	School System / Class	大學日間部4年1班
Lecturer	黃登淵	Full or Part-time	專任
Required / Credit	Optinal / 3	Graduate Class	Yes
Time / Place	(二)567 / H371	Language	Chinese

Introduction

Power electronics focuses on the technique of power transformation and its related control. This course emphasizes on teaching students in understanding the properties of electronic devices, the technique of circuit analysis, and the design of various electronic converters.

Outline

Principles of Electrical Power
Diode Rectifier Circuits
Phase-Controlled Rectifier Circuits
Introduction to DC-DC Converters: The Buck Converter
General Theory of Two-Level DC-DC Converters: Boost and Buck/Boost Converters
Dynamic Modeling and Simulation of DC-DC Converters
Inverters: Converting DC to AC

Prerequisite

Electric circuits
Electronics