102-1 Preliminary Syllabus, Da-Yeh Univ

Information			
Title	FPGA晶片設計與應用實務	Serial No. / ID	2527 / EE14266
Dept.	電機工程學系	School System / Class	大學日間部3年3班
Lecturer	黃登淵	Full or Part-time	專任
Required / Credit	Optinal / 3	Graduate Class	No
Time / Place	(二)678 / H371	Language	Chinese

Introduction

This course emphasizes on both theory and practice of FPGA IC design in equality, and it also provides any needed concepts of VHDL on FPGA chip design. Additionally, EDA software like Xilinx ISE and related FPGA modules will be introduced to students. Hence, after finishing the lessons, I believe the students to take this course will be capable of being skillful in IC design.

Outline

Introduction to VHDL Design Methodology

Basics of Combinatorial Logic Design

Gate Level Functional Simulation

Chip Level Functional Verification

Basics of Sequential Logic Design I:

Registers, Counters, Timers

Basics of Sequential Logic Design II:

Process, System design, State Machine Logic

Project Demonstration: Electronic clock, Security lock

Prerequisite

Digital logic design

Electronics