Course Title: Microprocessor System Laboratory

Course Code: EE3272

Units: 1

Level: B3

Course Aims & Objectives:

This course consists of experiments which cover the syllabus of course EE3203 Microprocessor System Design. This Laboratory is designed to allow students to practise the design techniques learnt from lecture in order to enhance their implementation skills for real system.

Intended Learning Outcomes:
On completion of this course, the students will be able to:

1. Design and implement hardware circuit for microprocessor system.
2. Design and implement software to drive the hardware components of the microprocessor system.

Syllabus:

Unit 1: Memory System Design and Implementation
Unit 2: LCD Display Interface Design and Implementation
Unit 3: Touch Panel
Unit 4: Use of Real-time Clock
Unit 5: Communication: UART and IIC

Teaching pattern:

The experiments used will be open-ended, with students working at their own pace through the work manual. Each unit will be closely supervised, with emphasis on proper use of the laboratory lab log book.

The laboratory support, if any, will complement the lecture and reinforce students’ understanding of the material.

Duration of course: 1 semester
Suggested lecture/tutorial/laboratory mix: Laboratory Hour: 26 hours
Assessment pattern:

Examination duration: 0 hours, at the end of the semester
Percentage of coursework, examination, etc.: 100% CW; 0% Exam

For a student to pass the course, at least 75% laboratory attendance record must be obtained.

Pre-requisites: (Please quote course code and title)
EE2202 Microprocessor and Assembly Language Programming

Pre-cursor: (Please quote course code and title)
Nil

Exclusive Course: (Please quote course code and title)
Nil

Equivalent Courses: (Please quote course code and title)
Nil

Equivalent to the Old Course Code and Title: (Please quote course code and title)
Nil

Textbook:


Reference Book:

ARM7TDMI-S Technical Reference Manual, ARM Doc No.: DDI-0234A

“S3C44B0X RISC MICROPROCESSOR Databook”, Samsung.