

SCHOOL OF COMMUNICATIONS, INSTRUMENTATIONS & CONTROL
SIRINDHORN INTERNATIONAL INSTITUTE OF TECHNOLOGY
THAMMASAT UNIVERSITY

Sections 3, 4 (CS, IT)

Course : ECS 370 Digital Circuits Laboratory
Semester : 1/2008
Instructor : Dr. Wiroonsak Santipach (wiroonsak.s@ku.ac.th)
Time : Section 3 Thursdays 9-12 (AM)
 Section 4 Thursdays 1-4 (PM)
Place : Room 3501, Sirindharai Building at Bangkokdi

SCHEDULE

Topics	Date
Lab 0: Introduction to the Digital Electronics Laboratory Equipment	12-Jun-08
Lab 1: Logic Gates and DeMorgan's Theorem	19-Jun-08
No class	26-Jun-08
Lab 2: Electronics of Logic Gates	3-Jun-08
Lab 3: Combinational Logic Circuits	10-Jul-08
Asarnhabucha Day: No class	17-Jul-08
Lab 4: Using Logic Works to draw a Digital Schematics	24-Jul-08
Midterm Exam Period: No class	31-Jul-08
Practical Session I	7-Aug-08
Practical Assessment	14-Aug-08
Lab 5: Practicing Designs of Combination Logic Circuits	21-Aug-08
Lab 6: Sequential Logic Circuit I	28-Aug-08
Lab 7: Sequential Logic Circuit II	4-Sep-08
Lab 8: Practicing Designs of Sequential Logic Circuits	11-Sep-08
Practical Session II	18-Sep-08
Final Examination	25-Sep-08

GRADING

Contents	Percentage
1. Quiz	10 %
2. Lab reports & performance	50 %
2.1 Result1 (performance)	20 %
2.2 Result2 (report)	20 %
2.3 Attendance and dress properly	10 %
3. Practical assessment	20 %
4. Final examination	20 %
Total	100 %

Laboratory regulations:

1. Students must wear the SIIT workshop shirt. White shirt with collar and dark trouser or skirt are required.
2. Slippers, sandals, and bare feet are absolutely **NOT** allowed in the laboratory.
3. Food and drink are also absolutely **NOT** allowed.
4. Student who comes **10 MINUTES LATE** will be considered as an absentee. **A student who is absent three classes will get an “F” automatically.**
5. Students are financially responsible for missing or damaging instruments in the laboratory.
6. **Copying any parts of a report leads to a zero score.** Repetitions of such an action results in an “F”.
7. Students must ask either instructor or laboratory assistants for signatures on the recorded experimental results.

Report guidelines:

1. Lab report has to be submitted **1 copy per group** at the beginning of the next lab before having quiz and **must be PRINTED on a clean A4 paper. Late submission will result in minus 2 points per day.**
2. A report consists of :
 - a) First page consists of the subject, date and time of the experiment, group no., section, name and ID.
 - b) The discussions which should include the related theory, the error, in percentage, reflecting the difference between the experimental result and the theoretical calculation for each part of the experiment. (10 marks)
 - c) The conclusions where you must state your understanding according to the objectives of the experiment, as well as the knowledge gained from the experiment. (10 marks)
 - d) Font must be Times New Roman, size 12, using 1.5 line spacing, and limit 4 pages for each laboratory report.