EE 200 -03&04 Term Project (071)

The first step in carrying out the project design is to form a group of three students and select a leader for the group. The next step is to select a project from the following list of three projects:

A.   Data squarer

Design a logic circuit that produces the 8 bit result corresponding to the square of a 4 bit input. Implement the design and test it in Logic Works. Provide means for entering input numbers and displaying the results.
Modify your design so that it can receive multiple 4 bit numbers and stores the square of these numbers and displays them sequentially.

B.   Design of a Digital Clock

Design a digital clock that displays the time in hours, minutes and seconds. Simulate your design in Logic Works so that you can display the digital clock in real time.

C.   Design of a simple calculator

Design a simple calculator that can add, subtract, multiply and compare two 2-bit numbers A and B. Two control inputs x and y can select the function according to the following table:

X	y	
0	0	Add a+b
0	1	Subtract A-B
1	0	Multiply A*B
1	1	Compare A to B

Simulate your design in Logic Works.

The final report should contain the following:

1. Introduction and description of the design and required components.
2. A complete details of the design and logic circuit diagram
3. The implemented circuit in Logic Works supplied on a CD (The simulation must be working)
4. Sample of the simulation results in the report.
5. conclusions.