Boolean Algebra

A(B+C) = AB + AC
1+ A = 1
A + A' = 1
Course Aims

• Provide students with an understanding of the concepts of logic circuits.
• Learn the relationship of decimal numbers to binary numbers.
• Learn basic technique to develop logic circuits.
• Practice and design logic systems through laboratory.
Course Structure

Lecture: 13 weeks (39 hours)
Tutorial: 13 weeks (13 hours)
Laboratory: 5 weeks (15 hours)

**Syllabus:**

- Number Systems and Arithmetic
- Boolean Functions and Logic Gates
- Combinational Logic Design
- Combinational Function Blocks
- Flip-flops
- Synchronous Sequential Logic Circuit
- Registers and Counter
- Logic Families

Welcome to Logic Circuit Design Laboratory

The laboratory serves the EE2000 Digital Circuit Design course. It consists of five laboratory sessions designed to allow students to build, and verify digital logic circuits using Altera Quartus II and DE0 demonstration board.

This set of laboratory covers relevant topics prescribed in the syllabus and are designed to reinforce the theoretical concepts taught in the classroom with practical experience in the lab. By the end of the course, students are expected to have a good understanding of digital logic design.

Materials Include:

- Introduction to Altera Quartus II and DE0 Demonstration Board
- Tutorial on Verilog Hardware Description Language
- Laboratory Description and Laboratory Manual
- Demonstration Video