**A Mini-Project Report**

**On**

**1 Bit ALU (Arithmetic Logic Unit)**

*Submitted in partial fulfillment of the requirements for the*

*Term-work of Subject*

*VLSI Design*

**Bachelor of Engineering**

*in*

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**ABSTRACT**

At its most fundamental level, a computer consists of a control unit, an arithmetic logic unit (ALU), a memory unit, and input/output (I/O) controllers. The ALU performs simple addition, subtraction, multiplication, division, and logic operations, such as OR and AND.

We have designed the Adder using the CMOS logic, AND and XOR using Transmission gate logic and NOR using the Pass Transistor logic. The following chapters consider every part of the ALU (i.e. Adder, AND, NOR and XOR) gates with their respective logic. The last chapter is based on the final output obtained when the above circuitry is combined to for an ALU and the obtained result is correct.

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