**19CS3501 DIGITAL SYSTEMS**

**LIST OF EXPERIMENTS:**

1. Verification of Boolean Theorems using basic gates.

<https://de-iitr.vlabs.ac.in/exp/truth-table-gates/index.html>

1. Design and implement Half/Full Adder and Subtractor.

<https://de-iitr.vlabs.ac.in/exp/half-full-adder/>

<https://de-iitr.vlabs.ac.in/exp/half-full-subtractor/theory.html>

1. Design and implement combinational circuits using MSI devices:

a.) Magnitude Comparator

<https://de-iitr.vlabs.ac.in/exp/comparator-using-logic-gates/theory.html>

b.) Application using multiplexers

<https://de-iitr.vlabs.ac.in/exp/multiplexer-demultiplexer/theory.html>

1. Design and implement shift-registers.

<https://de-iitr.vlabs.ac.in/exp/4bit-sipo-shift-register/>

1. Design and implement synchronous counters.
2. Design and implement asynchronous counters.

<https://de-iitr.vlabs.ac.in/exp/4bit-synchronous-asynchronous-counter/theory.html>

1. Coding combinational circuits using HDL.
2. Coding sequential circuits using HDL.

<https://www.tutorialspoint.com/compile_verilog_online.php>

<https://www.edaplayground.com/>

1. Design and implementation of a simple digital system (Mini Project).