# Assignment 01

Due Date: March 24, 2024

**Design and demonstrate Adder cum Subtractor**

Please read and follow the instructions carefully.

With reference to the 4-bit adder circuit design demonstrated in Class Lectures…basic adder circuit design is given in Figure 1.

Diagram, schematic

Description automatically generated

Figure 1: 4-bit adder implementation.

**Requirements**

* You need to modify and extend the same so that it shall works both as adders and subtractor as discussed in Lecture.
* You shall make use of switches so that you can easily change both the input numbers.
* You shall make use of 7 segment display to show your input numbers and the corresponding result.

**Submission**

You need to submit two files (Zip together)

* Your circuit design as .ewb file
* A short clip - screen recording.

Your screen recording shall contain:

* Your name and ID in the beginning
* Briefly explain your circuit design
* Try and show the addition of any two numbers.
* Try and show subtraction of any two numbers.
* Screen recording length/duration shall be 10 mins (approx.).