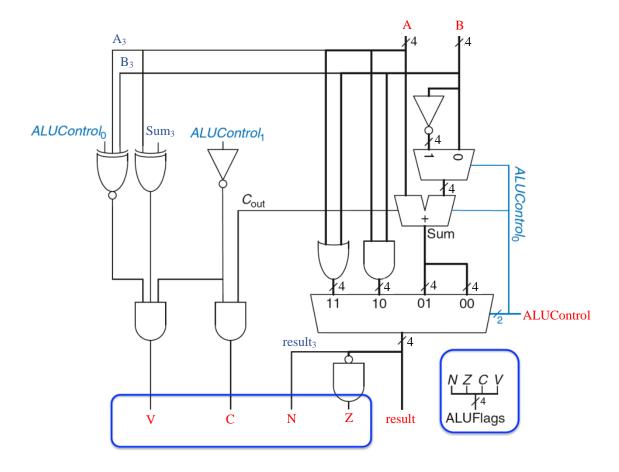
## **Digital Computer Design Laboratory**

## #4 ALU-2

**1-** Convert your ALU design in the previous lab into a 4-bit version and add the flags in the Figure-1 below. The input and output variable names (coloured as red) should be given as in the figure below.



- **2-** Create a **testbench** for the new ALU design, simulate the project and observe the outputs.
- **3-** Download the constraint file from the Moodle page of the course. Add this constraint file into your project. Create your bit stream for your project and upload this bit stream file into the Nexsys 4 DDR cards given to you by the instructors. Change the input values by the switches and observe the results from LEDs.