DIGISIM PS-1 PART 1

EXPLANATION

Team Members:

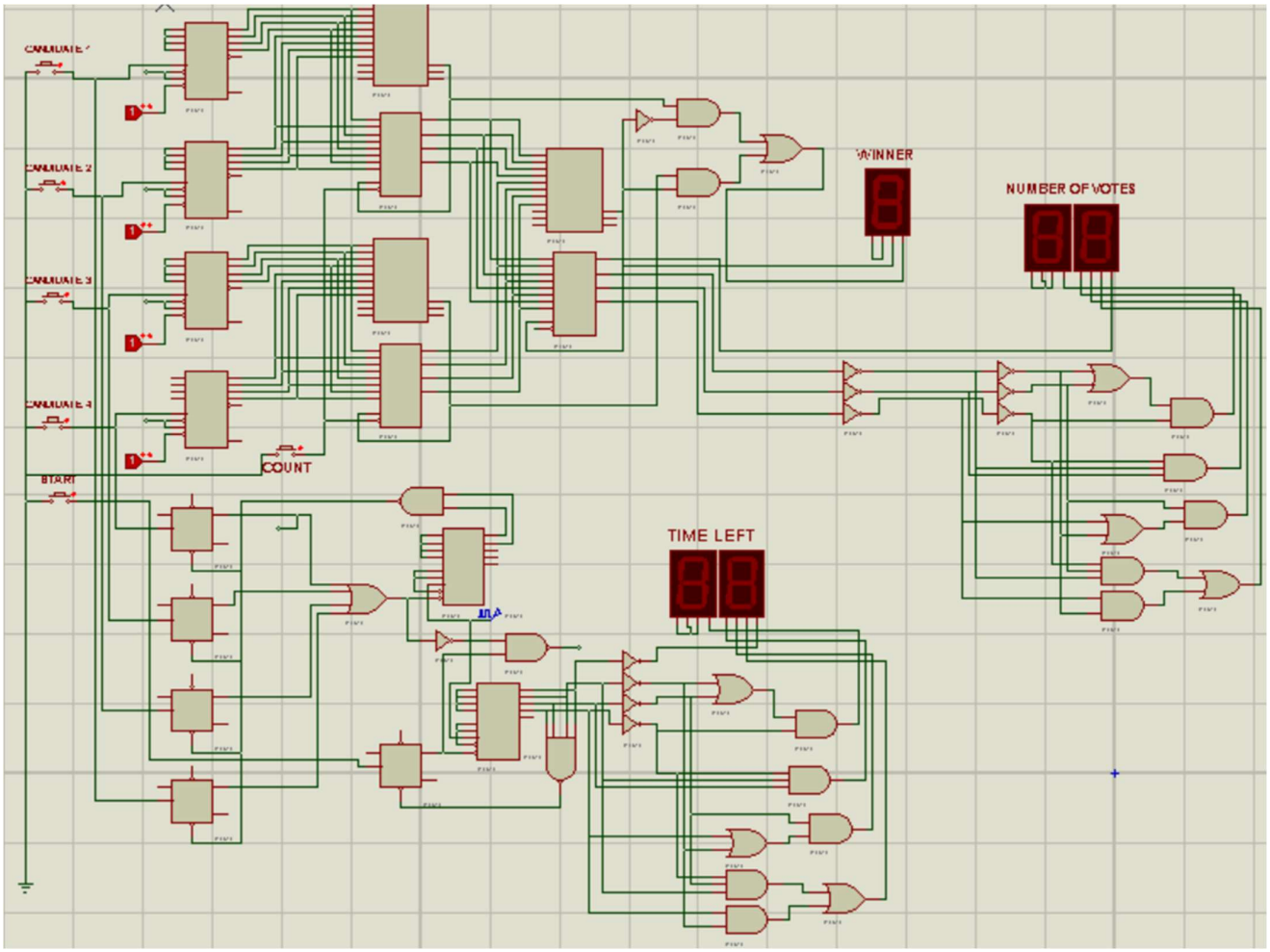
1) Name – Mehul Kumar Sahoo

Email – mehul.kumarsahoo.ece21@itbhu.ac.in

2) Name – Vaibhav Bansal

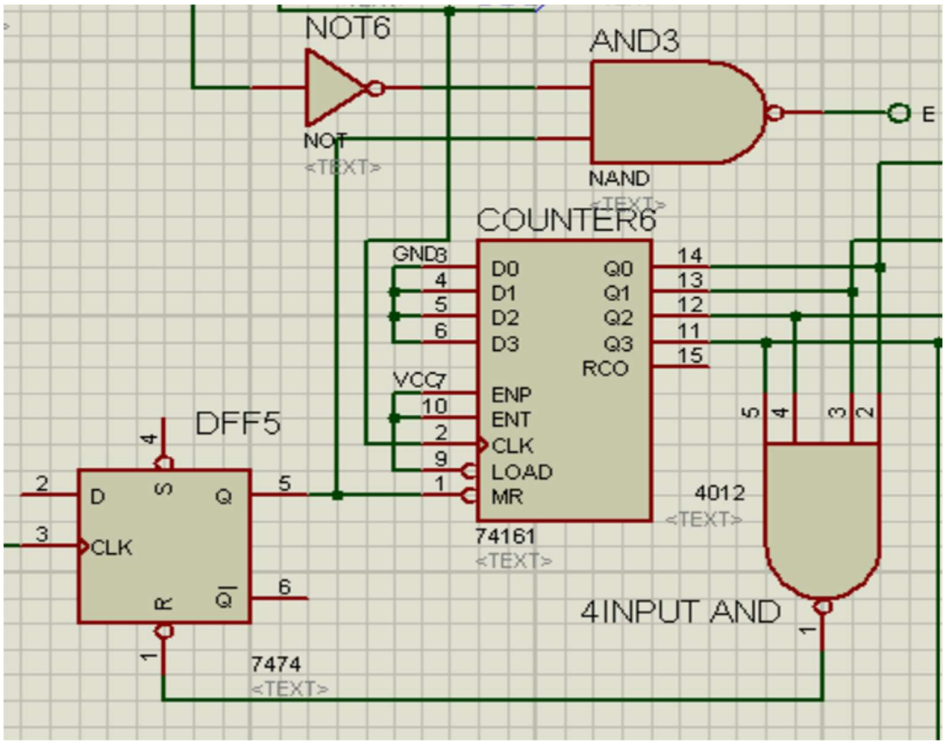
Email – vaibhav.bansal.ece21@itbhu.ac.in

Circuit Diagram:

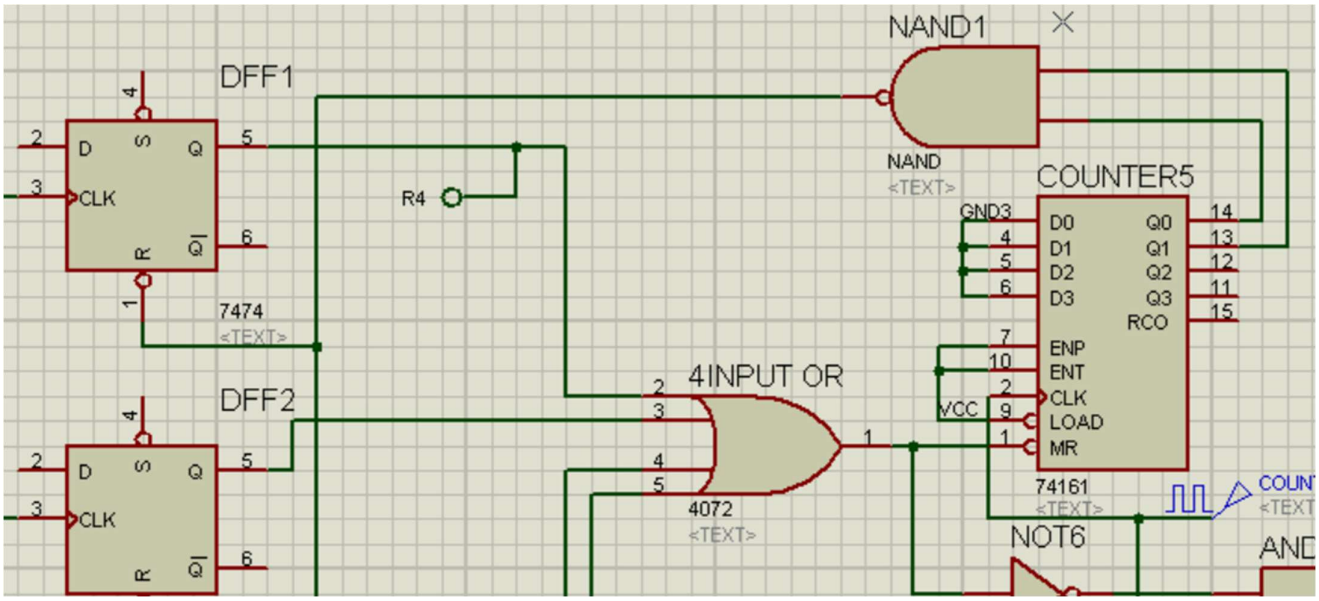


We have implemented the following features in the Electronic Voting Machine.

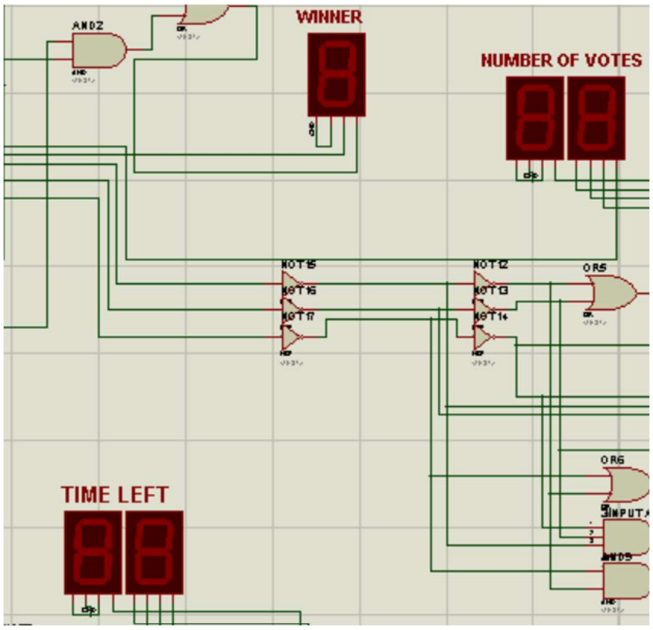
1. A start button to begin the voting process gives the voter a window of 15 seconds to vote for a person.



2. After each voting button is pressed, the circuit stops working for 3 seconds to prevent the debouncing of the button.

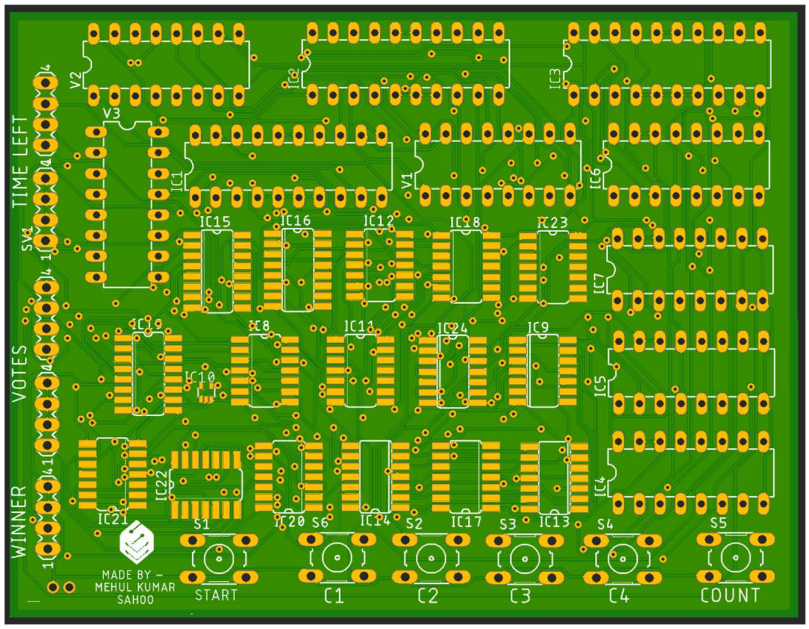


3. A count button so that when pressed, it counts the number of votes the winning person has.
4. We have also added seven segment displays to display the winning candidate, the number of votes of the winning candidate, and the time left for voting.



We have implemented all the above features in the circuit made in Proteus as well as in the PCB.

We have made a 2-layered PCB of the schematic made in PROTEUS



For most of the components, we have used SMT PCB packages, but unfortunately, for some components, only THT PCB packages were available. We have used 4 pin holes for the connections of the 7 Segment BCD displays (Not available in EAGLE CAD). Similarly, for providing a clock cycle, we have used 2 pins at the bottom right so that we can connect the function generator from there. All the buttons are also marked according to their functions. We have applied Copper masking on both sides of the PCB, which will act as a heat sink. We have also added an EES logo in the bottom left of the PCB.