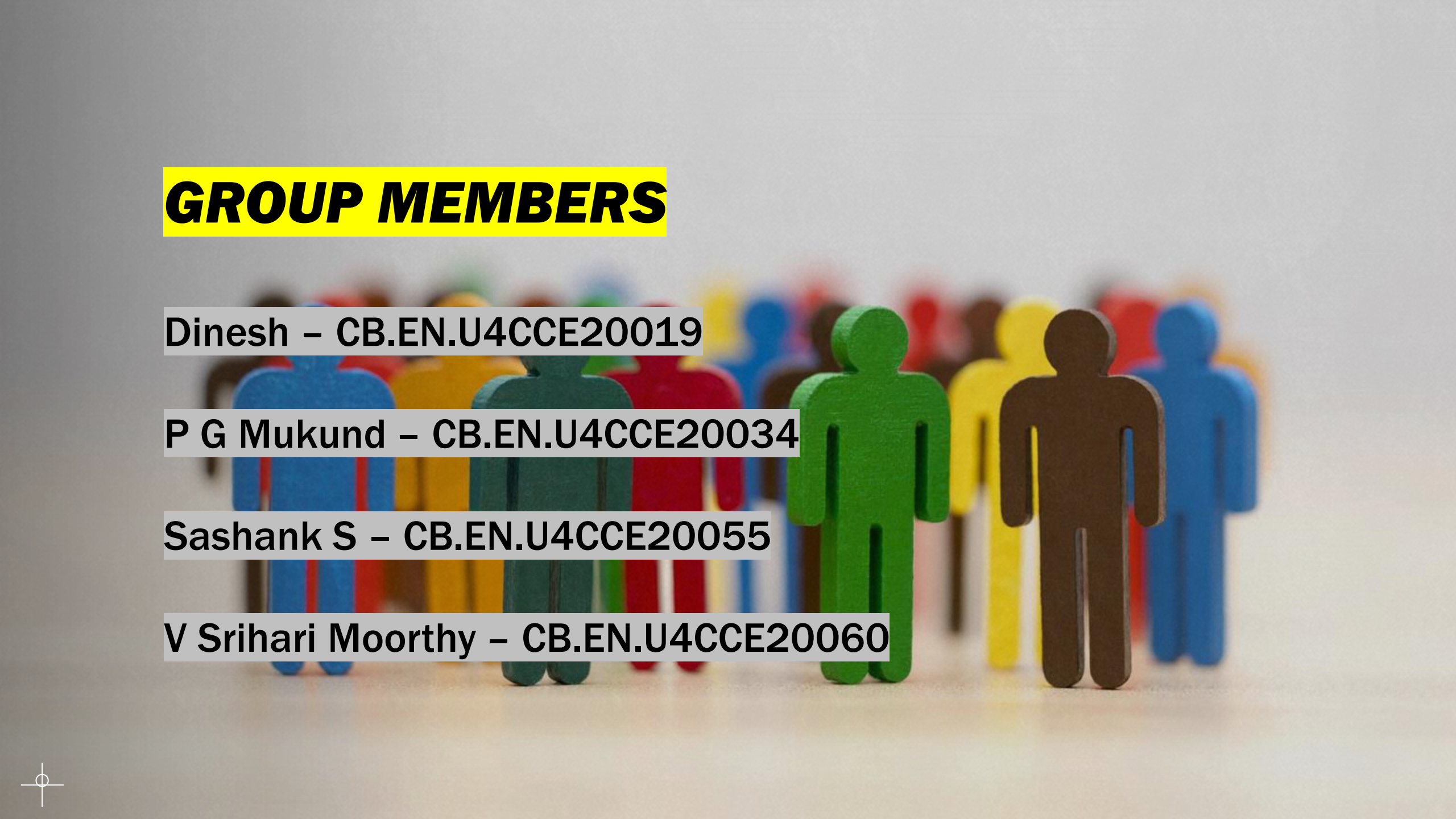
Electronic Voting Machine

GROUP 6

19CCE201- Microcontrollers and Interfacing Techniques – Term Project

GROUP MEMBERS



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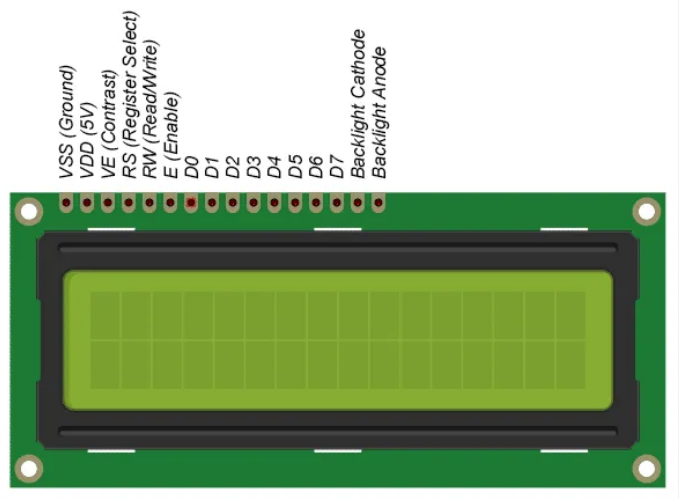
INTRODUCTION

- Our project utilises the concepts taught in the 19CCE201 Course like LED Blinking, Serial Communication using UART and LCD Configuration to create an Electronic Voting Machine.
- The Voting Machine is created with the names of the registered candidates and the number of registered voters is predefined in the code.
- A button is assigned to every candidate and acts as a Ballot that the voters use to cast their votes.
- After the process of voting is completed, the winner is declared, and the vote count is displayed.


TRAINING
EVM
Election Commission of India
NONE OF THE ABOVE

ALGORITHM



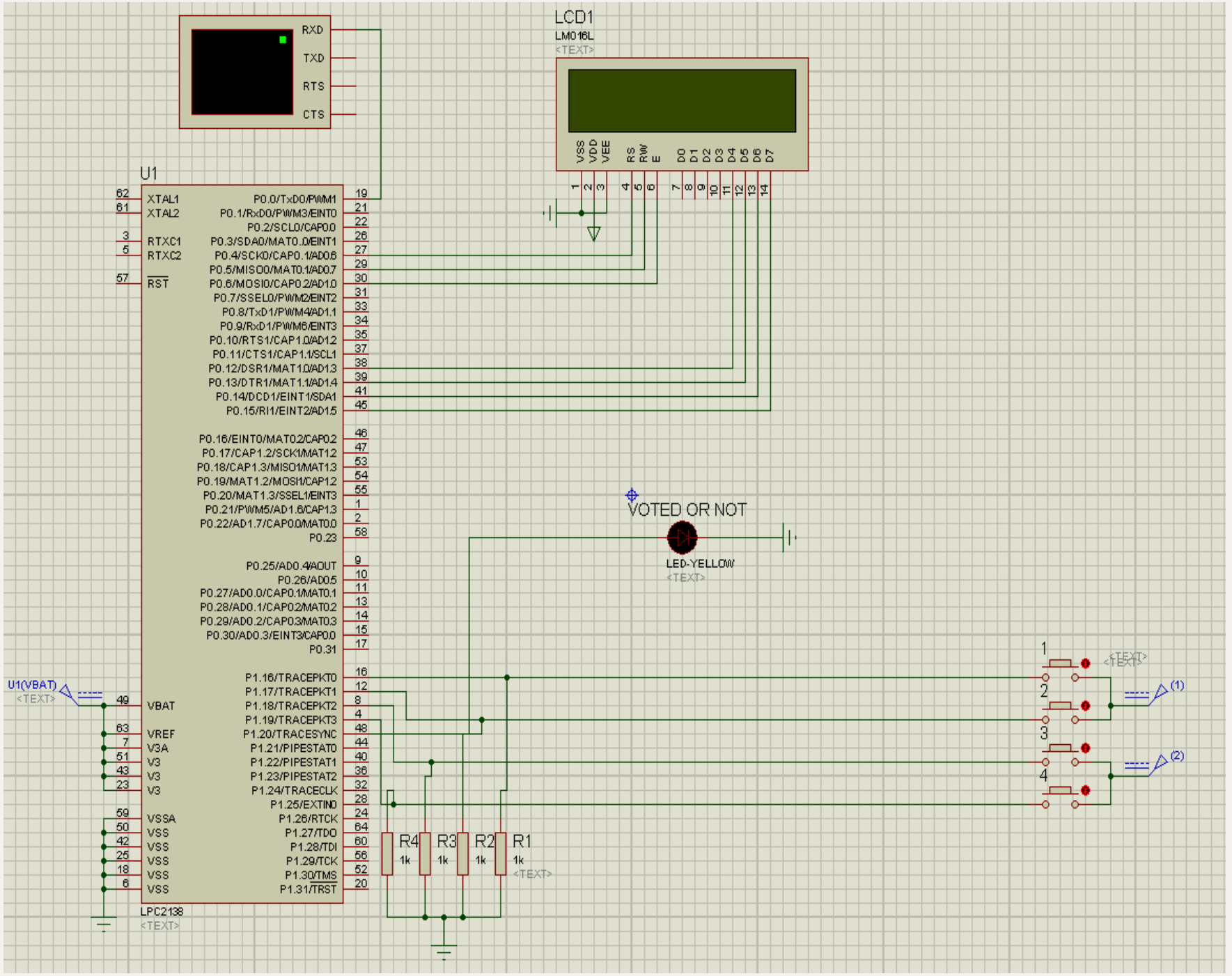
- Initialise Header Files.
- Create a function delay() that runs a nested loop to wait for a time.
- Creating 2 functions TERMINAL_INIT() and LCD_INIT() to initialise the virtual terminal and LCD.
- A function LCD_String() to print an array of characters.
- Declaring and initialising the required variables.
- **Inside the main()**:
- select the respective Port Pins and set them as Input/Output accordingly.
- Using LSR, check if U0THR is not empty and then print the characters in Virtual Terminal.

- For 'n' registered voters, display the candidates list.
- Get the votes from each of the voters and add up the vote count for every candidate.
- After the last vote is cast , run condition to check which candidate had the most votes.
- Using UART0, transmit the details of the winner to the virtual terminal.

ASSUMPTIONS

- The code assumes that the number of Registered Voters has been pre-determined by the Election Officers beforehand.
- The assumed number of registered candidates contesting in the election is 4.
  + Additional blocks of code can be added in for every new candidate registered as per Election Commission Rules.
  + Provisions in the EVM are modified accordingly.
- NOTA(NONE OF THE ABOVE) option available on the EVM is assumed to be Candidate 4 here.
- Due Procedure regarding enforcement of Model Election Rules are followed.

CIRCUIT DIAGRAM



LIMITATIONS AND SCOPE FOR IMPROVEMENT

- More security procedures could be added in the code, verifying the authenticity of Counting Officers and preventing tampering of the EVM.
- Since a 16x2 LCD is being used, the votes of all the candidates cannot be shown simultaneously.
- Large number of candidates results in many buttons used, but the number of lines are fixed.
- Votes of the candidates could be concealed in the LCD Display to prevent unnecessary influencing of voters.


THANK
YOU!