

**Bachelor Of Technology
In
Computer Science & Engineering**

Project Report

Project Title
Project on Electronic Voting Machine

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Project Report

Description:

Electronic voting machine has now days become an effective tool for voting. It ensures flawless voting and thus has become more widespread. It ensures people about their vote being secured. It avoids any kind of malpractice and invalid votes. Also such kind of system becomes more economical as consequent expenditure incurred on manpower is saved. It is also convenient on the part of voter, as he has to just press one key whichever belongs to his candidates.

voting machines are the total combination of mechanical, electromechanical, or electronic equipment (including software, firmware, and documentation required to program control, and support equipment), that is used to define ballots; to cast and count votes to report or display election results; and to maintain and produce any audit trail information. The first voting machines were mechanical but it is increasingly more common to use electronic voting machines.

A voting system includes the practices and associated documentation used to identify system components and versions of such components; to test the system during its development and maintenance; to maintain records of system errors or defects; to determine specific changes made

after initial certification; and to make available any materials to the voter (such as notices, instructions, forms, or paper ballots).

Traditionally, a voting machine has been defined by the mechanism the system uses to cast votes and further categorized by the location where the system tabulates the votes.

Voting machines have different levels of usability, security, efficiency and accuracy. Certain systems may be more or less accessible to all voters, or not accessible to those voters with certain types of disabilities. They can also have an effect on the public's ability to oversee elections.

Tools Used :

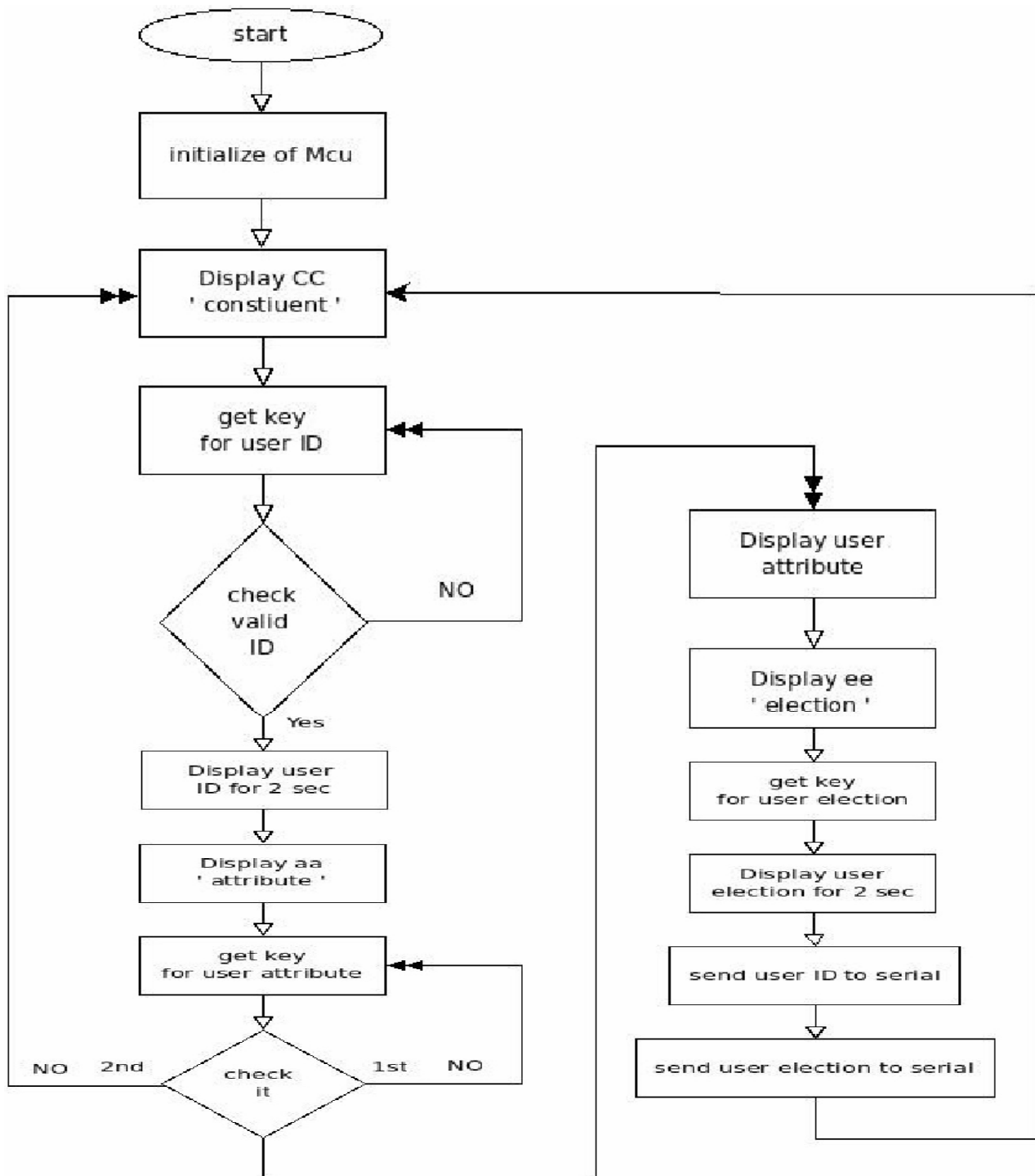
The control Unit : In Total control of the polling

Conduction of polling, display of total votes polled, sealing at the end of the poll, and finally, declaration of results – these are the various accomplishments of just one gadget : the control unit. In total control of the polling, this electronic unit gives you all necessary information at a press of a few buttons. For instance, if you need to know the total number of votes, you just have to press the Total switch. Candidates-wise results can be had only at the end of polling.

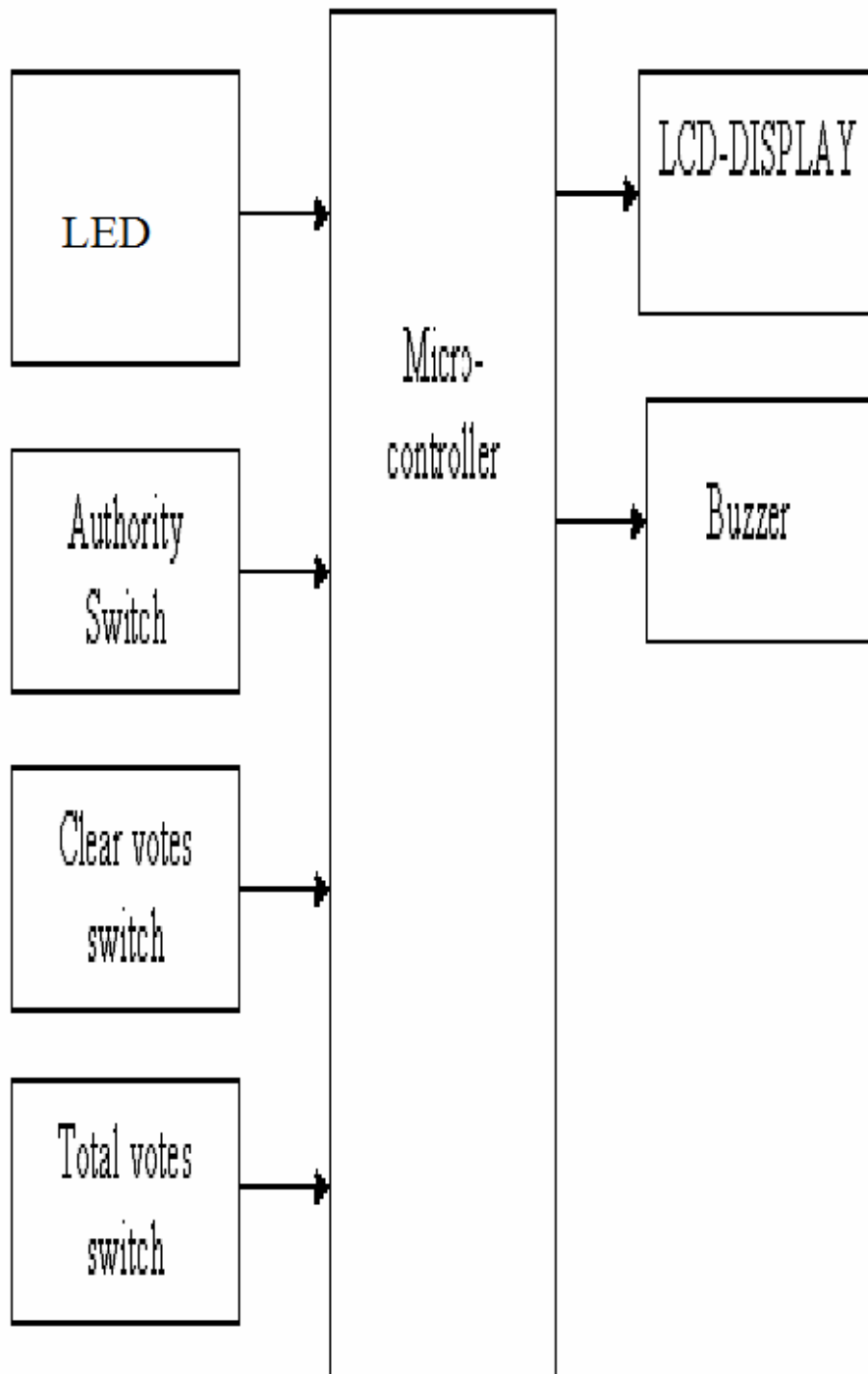
The Ballot Unit : An electronic ballot box.

A simple voting device, it displays the list of candidates. A facility to incorporate party names and symbols is in-built. All the voter has to do is press the desired switch located next to the name of each candidate. The main advantage is the speed, apart from the simplicity of operation, which requires no training at all. A single ballot unit takes in the names of 16 candidates. And thus, by connecting four ballot units the EVM can accommodate a total of 64 candidates in a single election.

FLOW DIAGRAM



BLOCK DIAGRAM OF ELECTRONIC VOTING MACHINE:



Description in detail:

The “ Electronic Voting Machine “ basically consists of four main blocks; these are keypad, micro controller, display and control switches

A T89C51 Micro Controller

1)Micro controller: Micro controller senses the signal given from switches and decides the mode of operation in voting

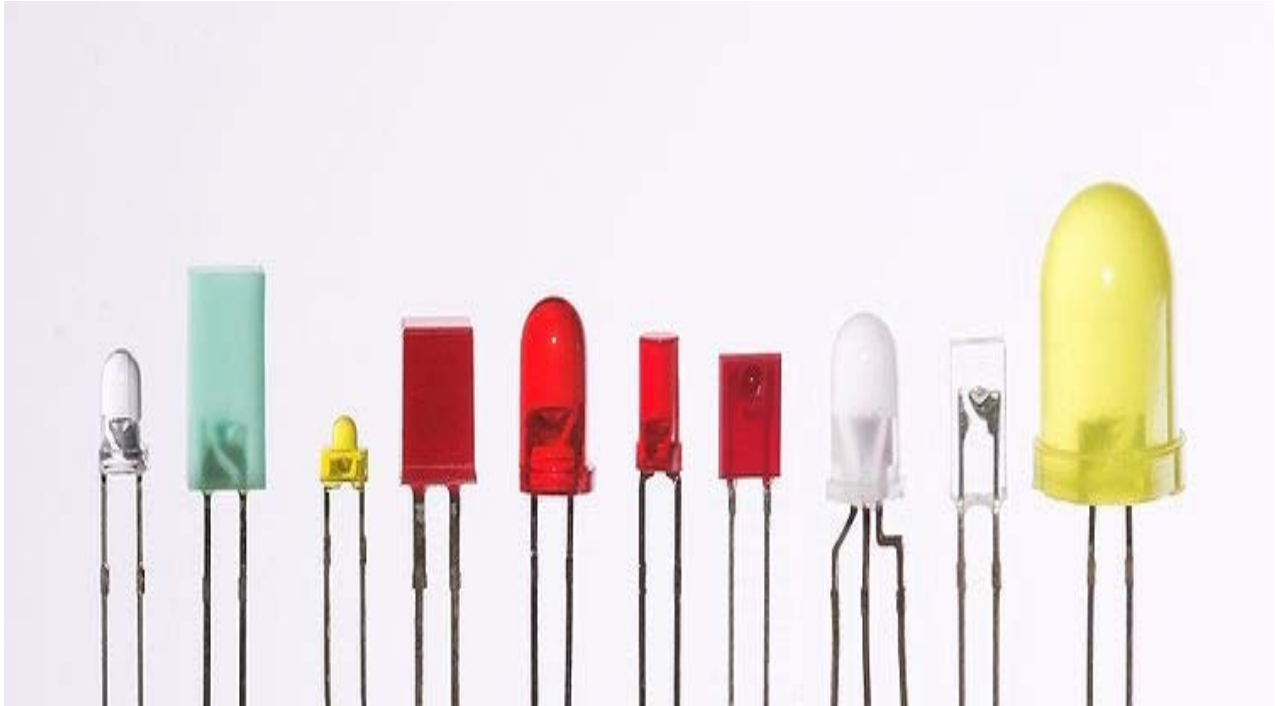
mode it increments the data for corresponding key i.e. respective candidate as well as it sends signal to display block to indicate one key is pressed. In counting mode micro controllers fetches data from memory location and send it to display devices.





2) LCD: Liquid Crystal Display which is commonly known as LCD is an Alphanumeric Display it means that it can display Alphabets, Numbers as well as special symbols thus LCD is a user friendly Display device which can be used for displaying various messages unlike seven segment display which can display only numbers and some of the alphabets. The only disadvantage of LCD over seven segment is that seven segment is robust display and be visualized from a longer distance as compared to LCD. Here I have used 16 x 2 Alphanumeric Display

which means on this display I can display two lines with maximum of 16 characters in one line.



LED:

A light-emitting diode (LED) is a semiconductor light source. LEDs are used as indicator lamps in many devices and are increasingly used for other lighting. Light-emitting diodes are used in applications as diverse as replacements for aviation lighting, automotive lighting (particularly brake lamps, turn signals and indicators) as well as in traffic signals.

Control switches: There are three control switches:

- I. Clear Votes.
- II. Controller switch.
- III. Total Votes .

OPERATION

Operation or Working of Project:

Power on: When supply is turned on RED LED glows.

Mode selection:

i. Voting mode: toggle switch on VCC ii. Counting mode: toggle switch on GND.

Voting Mode: When toggle switch is in voting mode “Voting mode” is displayed followed by “Please vote”. After a vote being given, “Please wait for authority switch” is displayed and again enable for voting after Control switch being pressed by the voting Authority.

Counting Mode: When toggle switch is in counting mode “Counting mode” is displayed on the screen, and total number of votes to respective candidate can be displayed on the screen by pressing the respective key assigned to them.

Clear mode: Press clear switch when all entries are required to be erased. Clear switch should be pressed before voting procedure.

Buzzer indication: Pressing of key in voting mode is indicated by a buzzer sound.

Controller switch: This switch is provided for enabling the keypad in voting mode. This switch is under the control of voting authority.