

# New Generation Voting System for Convenient and Compulsory Voting

Mariyam Fathima

4<sup>th</sup> year, Electronics and communication,  
Navkis college of Engineering  
Hassan, India

Sachin H C

4<sup>th</sup> year, Electronics and communication,  
Navkis college of Engineering  
Hassan, India

Pooja K H

4<sup>th</sup> year, Electronics and communication,  
Navkis college of Engineering  
Hassan, India

Yogeesh G H

Assistant Professor, Electronics and communication,  
Navkis college of Engineering  
Hassan, India

**Abstract** - E-Electronic voting system have the potential to improve percentage of the voting. in the traditional voting such as the electronics voting and paper-based voting percentage of voting is decreasing. now a day's most of voters are busy in his /her work and most of the voter are living far away from voting centre some voter doesn't like to wait in queues thus due to these voters don't visit to the polling booth and Percentage of voting is decreasing. these is main and serious drawback of traditional voting scheme. now a day's some improvement needed in this field, in this paper we are introducing such a system which eliminate drawback of traditional voting scheme. In this paper the concept is to provide an easy to use and with a concept "one nation one election", to avoid fake voting.

**Keywords** - Buzzer, GSM, LED voting machine

## I. INTRODUCTION

E-Electronic voting system have the potential to improve percentage of the voting. in the traditional voting such as the electronics voting and paper-based voting percentage of voting is decreasing. now a day's most of voters are busy in his /her work and most of the voter are living far away from voting centre and Percentage of voting is decreasing. these is main and serious drawback of traditional voting scheme. now a day's some improvement needed in this field, in this paper we are introducing such a system which eliminate drawback of traditional voting scheme and this new voting scheme is. Now we are developed modified electronic voting machine (MEVM). we can call this voting machine as, "New generation voting system for convenient and compulsory voting".

A voting system or electoral system is a method by which voters make a choice between options, often in an election or on a policy referendum. A voting system enforces rules to ensure valid voting, and how votes are counted and aggregated to yield a final result. Common voting systems are majority rule, proportional representation or plurality voting with a number of variations and methods such as first-past-the-post or preferential voting. The study of formally defined voting systems is called social choice theory a subfield of political science, economics, or mathematics. With majority rule, those who are unfamiliar with voting theory are often surprised that

another voting system exists, or that disagreements may exist over the definition of what it means to be supported by a majority.

Depending on the meaning chosen, the common "majority rule" systems can produce results that the majority does not support. If every election had only two choices, the winner would be determined using majority rule alone. However, when there are three or more options, there may not be a single option that is most liked or most disliked by a majority. A simple choice does not allow voters to express the ordering or the intensity of their feeling. Different voting systems may give very different results, particularly in cases where there is no clear majority preference ELECTRONIC VOTING (also known as e-voting) is

a term encompassing several different types of voting, embracing both electronic means of casting a vote and electronic means of counting votes. Electronic voting technology can include punched cards, optical scan voting systems and specialized voting kiosks (including self-contained direct-recording electronic voting systems, or DRE).

E-Electronic voting system have the potential to improve percentage of the voting. in the traditional voting such as the electronics voting and paper-based voting percentage of voting is decreasing. now a day's most of voters are busy in his /her work and most of the voter are living far away from voting centre some voter doesn't like to wait in queues thus due to these voters don't visit to the pooling booth and Percentage of voting is decreasing. these is main and serious drawback of traditional voting scheme. now a day's some improvement needed in this field.

## II. BACKGROUND

Now a day's most of voters are busy in his /her work and most of the voter are living far away from voting centre some voter doesn't like to wait in queues thus due to these voters don't visit to the pooling booth and Percentage of voting is decreasing. Now a days voting system is somehow complicated and time consuming now. this process is such as voter manually going to a voting centre and shows voter card (Id) to the voting officer. this voting card will be issued for

getting the authentication during the actual process of voting at the station. where they believe that their names are made available and if so after authentication with this, a voters' list will be generated for each constituency.

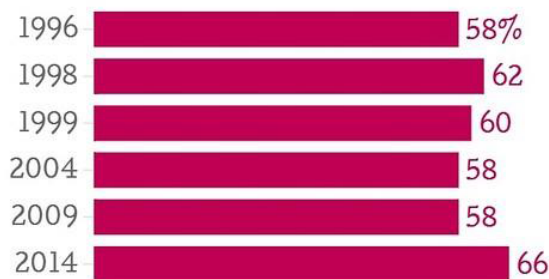
Then name of the such voter will be search in the list and then each voter will then have to go to a polling station and then such person will cast their vote by placing a mark against the political party symbol of their choice. In some cases, on the voter's right index finger, an indelible ink mark is made to show that this person has +6

already voted and so the voter cannot vote again. this is all time-consuming process. also, the large man power is needed for checking voter id, voter list and marking the figure and at each polling station. so, election commission have need to pay the so much cost for this man power. After the voting schedule is complete, voting station officer will then take the ballot boxes or electronic voting machine to a centralized place, then declare the voting results after 8-10 days. during this day security of this is big problem. for this large manpower is need and election commission pay so much cost for this.

### III. PROBLEM STATEMENT

As we have gone through the below voter's chart, our voting ratio from 1996-2004 is very poor. Most of educated people will not vote, because they have migrated to city for their job/higher education. If they want vote, they have to travel back to their origin place where they got their voter card. Existing system will not allow a person to vote from anywhere, so this is completely inconvenient system. So, this is reason which motivate us implement this idea i.e. **"Convenient voting System"**. By this approach we can achieve 100% voting and also, we can avoid the fake voting. Bio-metric sensor is the best solution for authentication.

Voter Turnout in National Elections



Made with Chartbuilder      Data: Election Commission of India

Fig. 1 voter turnouts in national elections

### IV. METHODOLOGY

In this Bright 16\*2 LCD is interface with a microcontroller.

- When a person wants to vote he/she has to place the finger on finger print reader.
- The reader will read the user data and sends the details to the controller.
- The controller will recover this data and check for authorization and allow this person to vote.

- If not permitted, it will display "ACCESS DENIED" with buzzer sound.
- The person can vote from any voting station.
- At the end of the day the controller program will calculate the total voting.
- After that by using GSM technology we send the total voting information to Talk office data base.

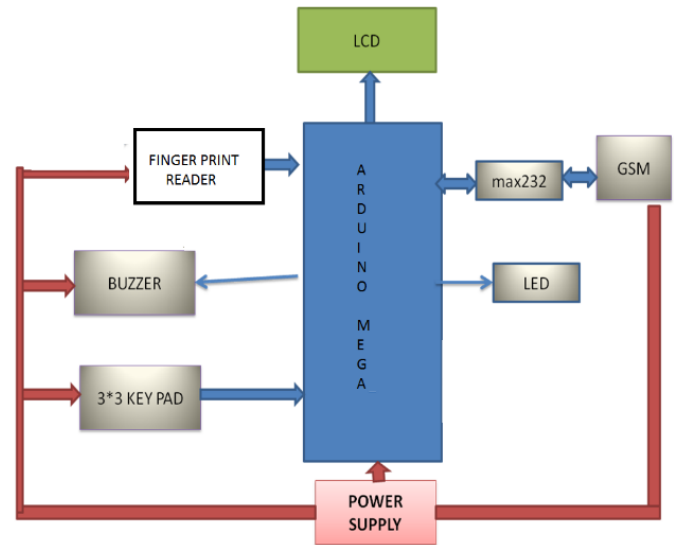


Fig.2 Block diagram of Voting station

#### A. Arduino UNO

The Arduino Uno is an open-source microcontroller board based on the Microchip ATmega328P microcontroller and developed by Arduino.cc. The board is equipped with sets of digital and analog input/output (I/O) pins that may be interfaced to various expansion boards (shields) and other circuits. The board has 14 digital I/O pins (six capable of PWM output), 6 analog I/O pins, and is programmable with the Arduino IDE (Integrated Development Environment), via a type B USB

cable. It can be powered by the USB cable or by an external 9-volt battery, though it accepts voltages between 7 and 20 volts. It is similar to the Arduino Nano and Leonardo. The hardware reference design is distributed under a Creative Commons Attribution Share-Alike 2.5 license and is available on the Arduino website. Layout and production files for some versions of the hardware are also available.

#### B.LCD

A liquid-crystal display (LCD) is a flat-panel display or other electronically modulated optical device that uses the light-modulating properties of liquid crystals combined with polarizers. Liquid crystals do not emit light directly,[1] instead using a backlight or reflector to produce images in colour or monochrome.[2] LCDs are available to display arbitrary images (as in a general-purpose computer display) or fixed images with low information content, which can be displayed or hidden, such as pre-set words, digits, and seven-segment displays, as in a digital clock. They use the same basic technology, except that arbitrary images are made from a matrix of small pixels, while other displays have larger elements. After dumping the program onto microcontroller, the information will be displayed on the LCD. LCD has single,

double- and four-line displays. Every line has 16 characters. In this Two-line display is used i.e., 16\*2 LCD. 8 pins of LCD are connected to P89V51RD2 for transmitting data and one pin is connected to both registers select and enable. The main application of LCD in this project is to display the modem status, status of sensor etc.

### C. Power supply

A power supply is an electrical device that supplies electric power to an electrical load. The primary function of a power supply is to convert electric current from a source to the correct voltage, current, and frequency to power the load. As a result, power supplies are sometimes referred to as electric power converters. Some power supplies are separate standalone pieces of equipment, while others are built into the load appliances that they power.

### D. Finger print Reader

Fingerprint scanners are security systems of biometrics. They are now used in police stations, security industries and most recently, on smartphones.

Everyone has marks on their fingers. They cannot be removed or changed. These marks have a pattern and this pattern is called the fingerprint. Because there are countless combinations, fingerprints have become an ideal means of identification.

### E. LED

A light-emitting diode (LED) is a two-lead semiconductor light source. It is a p-n junction diode that emits light when activated. When a suitable current is applied to the leads, electrons are able to recombine with electron holes within the device, releasing energy in the form of photons. This effect is called electroluminescence, and the colour of the light (corresponding to the energy of the photon) is determined by the energy band gap of the semiconductor. LEDs are typically small (less than 1 mm<sup>2</sup>) and integrated optical components may be used to shape the radiation pattern.

### F.GSM

Used to for centralising the data about voter's information & candidate information

### G. BUZZER

Buzzer is to indicate voting has done or access denied, or unauthorised voting.

### F. Max 232

max 232 is a voltage converter which converts TTL (transistors transistor logic) to RS232 G. Key pad Keypad is one that can be used for many purposes. Here, voting is done through the key pad.



Fig.4 Electronic Voting Machine

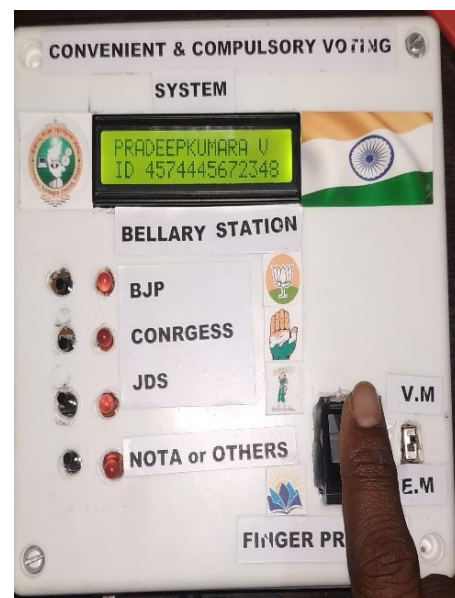


Fig.5 Finger to Be Placed to vote



Fig.6 identification of the person who has come to vote

- [5] Kazushige Ouchi, Takuji Suzuki, and MiwakoDoi, "Lifeminder: A wearable healthcare support system with timely instruction based on the user's context - Advanced Motion Control," 8th IEEE International Workshop on AMC,2004.



Fig7. Final Model

## VI RESULT

The project is cost effective which is specially designed for convenient and compulsory voting .From this we can achieve 100% voting and fake voting can be avoided.

## VII FUTURE WORK

If there is no sufficient power supply in villages ,the batteries can be used instead of power supply. Touch screens can be used

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