HOSTILE TO RIGGING VOTING SYSTEM USING FINGER PRINT

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Abstract - *Now a day's elections are not conducted by the usual fair processes through which people nominate their Democratic Leader instead it becomes a battleground in most of the places in India. We can see that most parts which are affected with these problems are where the ruling political parties are unfairly cast fake votes and create violence using muscle power and influence. So we came up with a smart voting machine which helps us to bring a proper and fair voting process and passively decreases the scope of violation taking place due to unfair Election process. Now a day's each and every organization has the biometric security or identification system. So we implement the biometric identification system along with the classical EVM to make an advanced and highly secured voting system. It basically helps us to stop the fake voting and conduct a peaceful voting process.*

Key Words: **Rigging, LCD Display, Arduino Mega, Fingerprint Sensor, Database.**

1. INTRODUCTION

Elections are conducted and performed using EVM (Electronic voting machine). In this paper we present the implementation of EVM that takes fingerprint and Aadhar number as input. The actual purpose of the project is to provide a secure procedure to cast vote by the voter without any unethical disturbances. There were such a big variety of frameworks in world like paper polling forms ,punch cards and optical mark sense ballets .In our implementation each and every person will get a unique id and by the use of fingerprint identification technology the registered voter verifies his id and casts his vote securely. The distinctive mark casting a ballet framework is an associate with a degree with electronic voting machine utilizing human biometric framework. It is decreasing the workers and measuring time from paper casting a ballet framework.

2. EXISTING SYSTEM

Elections are conducted and performed using EVM (Electronic voting machine). Actual process of identifying the voter has done by the polling officer. For casting of votes, the voters have to produce their Election Photo Identity Card (EPIC) issued by the Election Commission. The polling officer needs to verify the EPIC with the official list he has, then he needs to confirm whether it is an authorized card or not and then he allows the voters to cast their votes. Therefore EVMs depends upon manual verification of the EPIC. Consequently, this slows down the voting process.

3. PROPOSED SYSTEM

In our proposed system we designed a electronic voting machine by using the fingerprint identification method. Here voter's finger prints are used for identifying the voters. During voting when the voter places his thumb within the scanner, the system will check whether it matches with pre-stored impressions within the database. If it matches then system will allow the voter to poll his vote otherwise the system will rejects his vote. If the voter has already casted his vote then the system will rejects his vote.
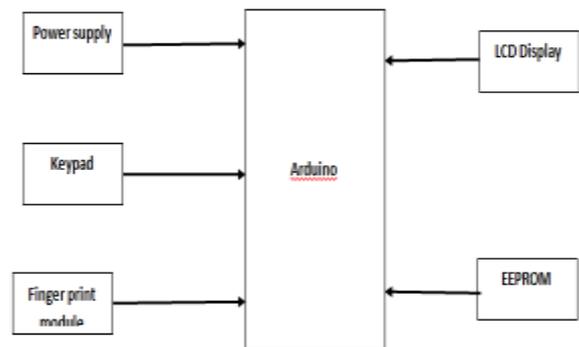

Fig-1: Block Diagram

3.1 IMPLEMENTATION

Step 1: We have to enroll the fingerprints with their aadhar number in order to cast the vote.

Step 2: When we press the enroll key then the lcd display requests us to select the id of the voter**.**

Step 3: After selecting the voter id, lcd display request us to place the finger twice.

Step 4: After taking the fingerprint as input it requests us to enter the aadhar number.

Step 5: This process is done to register the voter.

Step 6: We can enroll as many members as possible using the above procedure.

Step 7: In order to caste the vote we have to press the match key.

Step 8: The lcd display requests fingerprint for authentication.

Step 9: If valid voter then it proceed to select the candidate otherwise it displays invalid voter or already voted.

Step 10: In order to view the results we have to press the result key.

Step 11: To reset the results we have to press Result+Delete keys at a time.
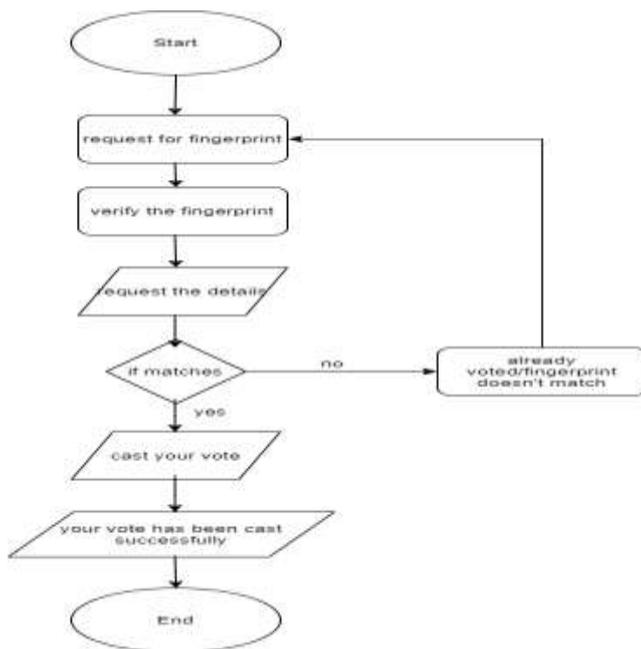

Fig-2: Flow chart diagram

3.2 *Arduino Mega:*

The micro controller board like "Arduino Mega" depends on the ATmega2560 micro controller. These boards area unit won't to extend separate interactive objects otherwise we are able to connect with computer code on your laptop like scoop MSP, Processing, and Flash. This text discusses an introduction to Arduino mega 2560 board, pin diagram and its specifications. It includes digital input/output pins-54, wherever sixteen pins area unit analog inputs, fourteen area units used like PWM outputs hardware serial ports (UARTs) – four, a crystal oscillator-16 megacycle, associate degree ICSP header, an influence jack, a USB association, further as associate degree RST button. This board in the main includes everything that is crucial for supporting the micro controller. So, the facility offer of this board is done by connecting it to a laptop employing a USB cable, or battery or associate degree AC-DC adapter. This board is shielded from the sudden discharge by inserting a base plate.

Fig-3: Arduino Board

3.3 keypad:

A keypad is a set of buttons arranged in a block which consists of digits, symbols or alphabetical letters. Blocks mostly containing numbers are called a numeric keypad. The 4 x 4 matrix keypad generally is used as input in a project. It has total 16 keys, which means the same input values. It is thin, easy to interface with any micro controller and has an adhesive backing for easy mounting for a variety of applications. Matrix keypad use a combination of four rows and four columns to assign button states to the host device, typically a micro controller. Beneath each key is a push button, with one end connected to one row and the other end connected to one column. In order to determine which button is pressed, it first needs to pull each of the four columns (pins 1-4) either low or high one at a time, and then poll the states of the four rows (pins 5-8). Depending on the states of the columns, the micro controller can notify which button is pressed.

Fig 4: Keypad

3.4 LCD (Liquid Crystal Display):

The liquid crystal display uses the feature of light monitoring of liquid crystal and they do not emit the light directly. The Liquid crystal display is a uniform panel display or the electronic visual display. With low information, LCD's are obtained in the fixed image or the arbitrary image which are displayed or hidden like present words, digits, or 7 segment display. The arbitrary images are made up of large number of small pixels and the element has larger elements. The 16×2 liquid crystal display contains two horizontal lines and they are used for compressing the space of 16 display characters.
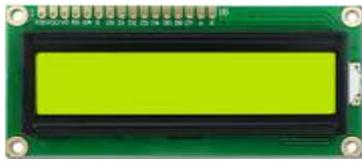
Fig-5: LCD display

3.5 Fingerprint Scanner:

A fingerprint scanner generally works by first recording fingerprint scans of all authorized individuals for a specific system. These scans are saved within a database. The user who needs access puts their finger on a finger print scanner, which scans and copies the input from the individual and appears for any similarity within the already-stored finger prints. If there's a positive match, the individual is granted access. Fingerprint scanners most ordinarily use a person's thumbprint as identification.

Fig-6: Finger print Scanner

4. RESULTS

First we connect the Arduino to our pc with USB. Our project consists of two phases (a) Enrollment (b) Voting process.

A. Enrollment:

The enrollment phase starts by pressing the enroll button. In the enrollment process voters aadhar number and fingerprint will be considered for authentication.

B. Voting Process:

In order to start the voting process we have to press the match key. It requests us to place the finger for authentication. It then checks the validity of the voter. If valid it requests to caste the vote by displaying his details like aadhar number or else denies voting. If he had already voted it displays that he had already voted.

5. CONCLUSION

This project is often used for voting since it overcome all the draw backs of ordinary mechanical device also provide additional security. Its main advantage is that since fingerprints of each person is exclusive and hence this technique completely reduces the prospect of invalid votes. The system are often manufactured simply also as cheap.

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