

Electronic voting machine (EVM) using finger-print sensor

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Abstract In electronic voting system we use finger print device for voting verifications. Finger-print based electronics voting system has its own advantages like people don't have to carry ID cards, there is no need of complex process just place your finger on biometric. When someone placed finger on finger-print sensor then data is passed onto the controlling unit of verification. The controller fetches the data from the storage device and compare with current users data .if the finger-print is matched with the already stored finger-print ,then the users is allow to cast his/her vote. All the instructions are displayed on the LCD, just follow the instructions and you are able to cast your votes.

Key Words: sensor, LCD, biometric etc.

1. INTRODUCTION

The e-voting is known as electronic voting. It is a voting and by using the electronic resources to help and taken care of the tasks and counting votes. The ranges of internet services are included in e-voting and it depends on the situation. The amount of automation may vary from simple task to a solution that can have voter registration, votes input, local, vote data services, tabulation and administration of elections. Admirable e-voting system should be done most number of tasks and full fill the set of standard establishments through regular bodies.

2. LITERATURE SURVEY

2.1) Previous voting system

A ballot is an electronic device used in an election in order to cast the votes. The election officers verify a person's right to vote by comparing their personal information with the data listed on the electoral roll. If a person has the right to vote, the election documents and the ballot paper are provided to the voter. The voter then fills out the paper ballot in the polling booth and puts their completed ballot in the ballot box. The box has to be totally locked and sealed until counting session starts so as to ensure that the ballot papers cannot be manipulated. Once the voting has formally finished, the ballot boxes will be opened under close supervision and the ballot papers will be tallied

according to the national voting laws. It requires more papers, more power for security, and time for counting.

2.2 Electronic voting in India

EVMs were first utilized as a part of the by-election to north assembly constituency of Kerala in 1981. EVM has a Control Unit and the Ballot Unit. A five-meter cable connects the two unit . Control Unit is placed in Presiding Officer's compartment or with a Polling Officer. The Balloting Unit will be kept inside the voting compartment. Primarily, the voter needs to get his voter ID checked and verified with the list. If he is eligible, then he will be permitted to vote. The voter then can make his choice by pressing the switch on the balloting unit to a particular party. Illegal voting can be done as one candidate can poll the vote of other members in the electoral list.

2.3 How to replace current system

Aadhar card system was introduced in India years back. Now a day's, aadhar services are very easy, popular and realistic. Since each aadhar card comes with a unique identification number, details of a person and biometrical identifications, government of India is allowing many services which are purely dependent on this aadhar process. Hence in this system, a unique number enrolled for each person and the fingerprints taken during the enrollment of the aadhar card is utilized as identification during the election process

3 BLOCK DIAGRAM

3.1 ARDUINO UNO :

The Arduino Uno is a microcontroller board dependent upon ATmega328p manufactured by ATMEL. It is a central unit which monitors the alcohol sensor and metal detector. It is used for controlling purpose.

3.2 BUZZER

A buzzer is an audio signaling electronic device used to produce a continuous sound when a person is drunk or detected with metal.

3.3 Finger Print Sensor Module in Voting Machine:

Finger Print Sensor Module or Finger print scanner is a module which captures finger's print image and then convert into the equivalent template and save them into its memory on selected ID by Arduino. Here all the process is commanded by Arduino like taking an image of fingerprint convert it into templates and storing location etc.

3.4 LCD (Liquid Crystal Display)

Screen is electronic display unit and a 16x2 LCD can display 16 characters for each line and there are 2 such lines

WORKING

Working of this Biometric Voting System for Election is a little bit complex for beginners. First of all, user needs to enroll finger or voters (in this code max limit of the voter is 25) with the help of push buttons/keys. To do this user need to press ENROLL key and then LCD asks for entering location/ID_OK key (DEL key). Now LCD will ask for placing finger over the finger print module. Now user needs to put his finger over finger print module.

Then LCD will ask to remove the finger from finger print module and again ask for placing the finger. Now user needs to put his finger again over finger print module. Now finger print module takes an image and converts it into templates and stores it by selected ID in to the finger print module's memory. Now voter will be registered and he/she can vote. By same method all the voter can be registered into the system.

Now if the user wants to remove or delete any of stored ID then he/she need to press DEL key, after pressing DEL key, LCD will ask for select location means select ID that to be deleted. Now user needs to select ID and press OK key (same DEL key). Now LCD will let you know that finger has been deleted successfully.

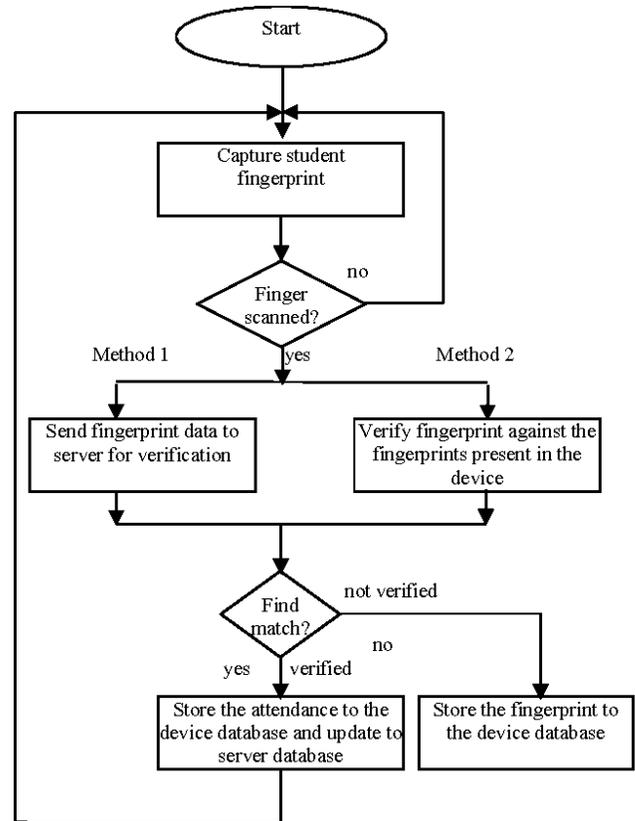


Fig. 3. Flow chart of the system operation.

ADVANTAGES

- 1 The system is more secured.
- 2The speed of the whole system is very fast, and gives instantaneous result with accuracy.

For voting process everyone required unique identification i.e. is issue by government.

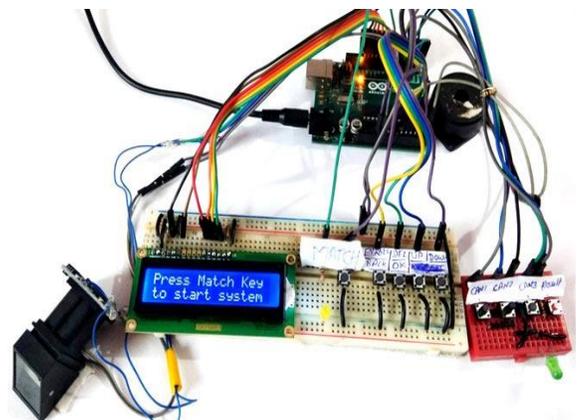


Fig -1: connection of components

CONCLUSION

This System help to solve the problem of complex voting system and this system help to minimize the corruption in voting system.

REFERENCES

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