

Effective and Secure E- Voting Application in GSM Module using IOT

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Abstract- E-voting system gives biometric security and is used for government choices. Recasting and middle person voting is shockingly irreversible. Continuously, the endorsed customers are chosen and checked. E-voting structure has pushed toward getting to be secured however not all people can vote in corners. By insights, around 75% of the general population just survey their votes, remaining individuals are not ready to cast votes. Here Fingerprints of the endorsed customers are enrolled and checked to offer access to an office that is used by different customers. A customer can in like manner be removed and another customer can be chosen in the structure. Here the joined control framework from where we can control who can go into in which room and who can't are acknowledged. The thinking is to make same finger print application for voting structure as opposed to run of the mill door locking system. Both RFID and finger print are used for user authentication and select reason. The general population vote is accomplished and after that the vote is enlisted. By then the selected vote is normally invigorated securely in site through IOT. This procedure is completed by a microcontroller. By using this application, results are reported at a similar time of the Election. It is a reliable framework for the general population remaining outside.

Key Words: Fingerprint sensor

1. INTRODUCTION

Unique mark Based Voting Project is where the client is perceived by his finger design. Since the finger example of every person is unique, the voter can be effortlessly validated. The framework enables the voter to vote through his unique finger impression. Unique finger impression is utilized to exceptionally distinguish the client. The unique mark particulars highlights are diverse for every person. Unique mark is utilized as a validation of the voters. Voter can vote the applicant just once, the framework won't enable the contender to vote in favor of the second time. The framework will permit the Administrator to include the applicant name and competitor photograph who are selected for the race. Administrator just has the Privilege to include competitor name and photograph who are designated. Administrator will enlist the voters name by confirming voter. Administrator will validate the client by checking the client's personality evidence and afterward administrator will enlist the voter. The quantity of applicant added to the framework by the administrator will be consequently erased after the fruition of the decision. Administrator needs to include the date when the decision going to end. Once the client has the client id and secret word from the administrator the client can login and vote in favour of the

hopeful who are assigned. The framework will enable the client to vote in favour of just a single applicant. The framework will enable the client to vote in favour of one time for a specific race. Administrator can include any number of applicants when the new decision will be declared.

2. LITERATURE SURVEY

Prof. Uttam Patil and Asst.Prof. at Dr. MSSCET [1] proposed a method that the Admin will load the databases of all voter so that he can add/delete/edit candidates, parties and voters. He registers each voter with valid E-mail ID and corresponding information. The user can cast vote from any place with increased security. Prof. Anisaara Nadaph, Ashmita Katiyar, Tushar Naidu, Rakhi Bondre, Durgesh Kumari Goswam[2] Proposed method that system is a two fold system comprising of SMS voting system and website voting. The voter can use either of the two ways as per his convenience. In this paper, a new approach of voting breaks the limitation of traditional voting and focuses on the security and feasibility of the voting. Emanuela Marasco and Arun Ross [3] proposed a method that will reduce vulnerabilities in biometrics, including those due to spoof attacks using finger print sensing and antispoofting methods for fingerprints which can be hardware or software based. Harshad Velapure, Saurabh Rai, Saransh Sharma,

Sharma, Preetam Naiknavre, Pranali Jadhav, Kalyan Bamane[4] proposed an Android e-Voting application on smart phone user gives voter facility to vote, an application with an Admininterface for consultation to a dynamic web page offers the main question to be answered (voted), and together to this page are available the buttons to send the votes: Yes, No. The aim of this work is to design and implement an electronic voting application for the Android platform that will enable people to vote securely from anywhere. Mr.Dinesh R.Gawade, Mr. Amardeep A. Shirolkarwas, Mr. Sagar R. Patil[5] proposed a modified electronic voting machine (MEVM). And called this voting machine an E-Electronic voting machine(M-EVM). This has two facility, first for those voters who don't have a mobile. such voter can vote going to voting centre and casting the vote normally. Second for those voter have mobile and are living in remote place from voting centre, don't like to wait in queues, and don't have time. such voter can vote using his/her personal mobile to send the SMS. Voting summation of the each candidate from each division done in respective division personal computer/ laptop. Then the results are displayed on the same day. SMS of the result is sent to all the registered mobile number.

3. EXISTING SYSTEM

Voters are verified using voter's ID only. Recasting & proxy voting is unfortunately irreversible in real-time of the authorized users are enrolled and verified By that way voting system is secured but not all people are voting on booth. By statistics around 75% of people only polled their votes remaining people are not poll their votes.

3.1 DISADVANTAGES

- ⊙ No SMS intimation
- ⊙ 100% votes are not polled.

4. PROPOSED SYSTEM

Fingerprints of the authorized users are enrolled and verified to provide access to a facility that is used by multiple users. A user can also be removed and a new user can be enrolled in the system. We have implemented centralized control system from where we can control who can enter in which rooms and who cannot.

4.1 ADVANTAGES

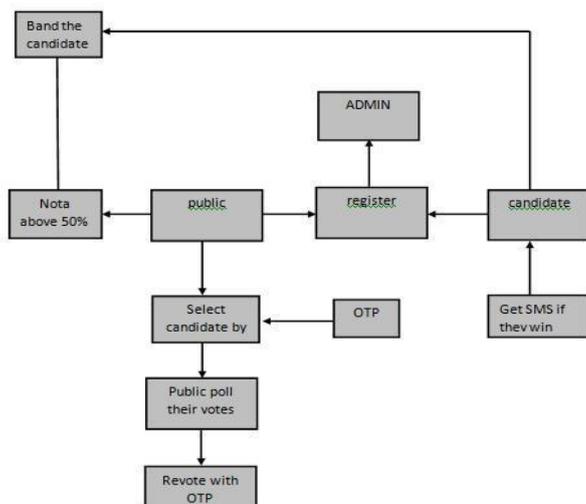
- ⊙ People can vote through mobile.
- ⊙ Time will consume

Compulsory voting system will execute

Result will be announced on the same date

People can change their candidate after they polled the vote

5. BLOCK DIAGRAM



5.1 USER REGISTRATION

Radio-Frequency Identification (RFID) proof is the remote utilization of electromagnetic fields to exchange information for the reasons for consequently distinguishing and

following labels connected to objects. The labels contain electronically put away data. The data contained inside a RFID label's electronic chip relies upon its application. It might be a one of a kind identifier. Here first the User needs to make a record utilizing RFID and after that exclusive they are permitted to get to the Network. Once the User makes a record, they are permitted to login into their record to get to the application. In view of the User's ask for, the Server will react to the User. All the User subtle elements will be put away in the Database of the Server. User and admin need to enroll their points of interest alongside the Adhar number.

5.2 VOTING SERVER

The Server will store the entire voter's information in their database and verify them if required. It will also store the entire voter's information in their database and will establish a connection to communicate with the Users. It will update the voter's details in the database. The Server will authenticate each voter by RFID and finger print before they access the Application so that the Server will store the RFID and finger print of every voter in the server.

5.3 FINGER PRINT & RFID AUTHENTICATION

A microcontroller is used to communicate with the finger print and RFID authentication so that the people can independently cast their votes. There will be no duplication or proxy of votes. The election commission has to validate this authentication method and allow the user to cast the vote.

5.4 SELECT CANDIDATE BY NEEDS

While the finger print is scanned, public needs will be shown on screen. People can select their needs and the system will analyse the users options and match it with candidate who has that needs in the promising data.

5.5 TOUCH PANEL VOTING SYSTEM

The main objective of this project is to develop an embedded system, which is an electronic voting machine using touch panel.

5.6 SMS GENERATION

In this the user will get an SMS intimating that they have not voted and after they have polled their votes. The purpose of this is for the conformation of the vote.

5.7 EMPHASIS THE CANDIDATE

This is another framework for the legislature and addition of individuals. In this module the decision commission can emphasis the competitor by number of vote polled in NOTA. That is, If more than 50 % of vote was polled NOTA, the commission can ban the candidate who stand for election.

5.8 SECURED VOTE CASTING

In this secured vote casting method, for security we implemented two this first method is RFID based authentication i.e. user will have RFID and second method finger print based authentication, these two are used to cast the vote so when the user file is vote the two authentication is done after that only the vote casted otherwise it will not cast.

5.9 ANNOUNCEMENT OF RESULTS

In this system the results are announced on the same day since our deployed sever will calculated the votes casted by authenticating the RFID and finger print of the voters and the political parties who has registered for election.

6. RESULT AND CONCLUSION



FIG-1: Welcome Page



FIG-2: Sign up



FIG-3: Login page



FIG-4: Admin Login Page

Fig-1 is the welcome page, Fig-2 is the page to add new user, Fig-3 is the polling page where the voters enter their RFID card details and password and Fig-4 is the authorized admin login.

CONCLUSION

Thus a new method for developing secured electronic voting systems have been designed and developed. Evoting system based on fingerprint biometric is proposed and implemented with the objective of eliminating bogus voting and vote repetition, less election expenditure more transparency and fast results.

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