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Aadhaar Based Smart Electronic Voting Machine

Shubham More[1], Akshay Tari[2], Aakash Thakare[3], Chirag Chaudhari[4]

Department of EXTC, VIVA Institute of Technology, Mumbai-401303

Abstract— *The main aim of the republic nation is vote by which the people can vote the Candidates for forming an productive government to fulfill their requirement and requests Such that their expectation living can be upgrade. In the independent countries like INDIA the election commission follows old voting process which is done by voting machine. This EVM machine is placed in the polling booth center and is monitored by official admin. Due to some illegal activities the polling booth center is mishandle and people vote to right person is been denied thus many cases of fake Voting is found during the process of voting. Thus all this cases of fake voting can be stopped by using our project SMART EVM. Our project presents and implements easy and secured method of polling vote by using figure print authentication sensor and cloud technology. Due to the rapid change in the technology, so many updates were introduced in the field of voting. The improvisations aim at increasing the flexibility, security, reliability, scalability of the model and provide less time to announce the result. The fingerprint data of the citizen was already stored in the government database. Hence this project provides a best solution to avoid the false and fake voting. And it also helps to determine the proper result. The design implement of the smart evm is portable easy to use and with uses less Power. The system is user friendly easy adaptable and cost effective, thus it has fast response time and scope for further expansion*

Keywords— Touch panel, Cloud computing, E-voting system, Web services, Aadhaar Card Database, Fingerprint.

I. INTRODUCTION

The smart electronic voting system is more secure as it uses cloud technology as it is more secure system in information security research in our nation. The Smart Electronic voting system provide the voter a system for voting and elect their elector select the best choice to governed the country. The trust of the public on the Electronic voting process is most important. The Smart Electronic voting system using cloud technology provide an overall process of election fully coverage of media it is helpful for public and election commission if something is going on wrong. Our project model will increase a more faith in secure voting process. Socialist affected area of the E-voting has been prelisted in while describe the origin of Maoist rudeness and the emphasis secure part of their E-voting process. An Electronic -voting system using cloud technology involves many steps in the process, voter verification and counting of electronic ballots votes etc. The main question is how to count your vote in right manner was defined in while in analyses securities of E-voting have been described. The faith of E-voting has been conferred in. The E-voting process is trustfully only if it follows high level of security requirements, confidentiality and honesty. This model process provides security for the vote in digital form which can be access by admin. Also provide trust that no one will able to manipulate the vote as been done by voter.

II. CLOUD PROCESSES USED BY ELECTRONIC VOTING SYSTEM

The Electronic voting system has many important steps by using cloud technology. The system is emphasizing on two parts

1. Admin of the Electronic voting system
2. Voter.

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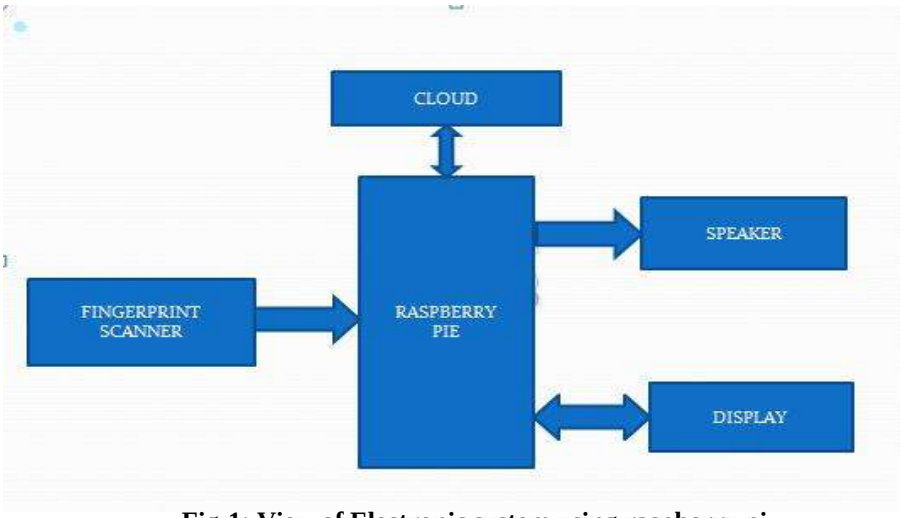

Fig-1: View of Electronic system using raspberry pi

III. STEPS FOR ELECTRONIC VOTING SYSTEM:

3.1 Verification of voter Information

In Electronic voting machine system using cloud technology, all details of the person who vote is verified with the core database of the Election commission of India; According to Unique AADHAAR Identification Number is allocated to each person of India which is register by government officials at center. The government of India has provided a Unique AADHAAR Identity number for every citizen of India which store biometric details. Through different AADHAAR Identification Number the registration and verification of voter should be done by the Admin of the election committee. If the register user id is of the voter is verified from the are the core database server of Election commission of India which is secure using all the preventive measure that contain the all details of voter . After that voter is eligible for voting, then voters will login with unique id and then voters will be able to vote. In authentication process the proposed system used an biometric detail for identifying the person who vote if the biometric detail does not match with the core database server of Election commission of India then immediately blocks the further process. And system does authentication of the voter again. All the changes will be occurring in real time only in virtual keyboard on touch screen. The main use of a virtual keyboard on touch screen is for security purpose then nobody can access the device

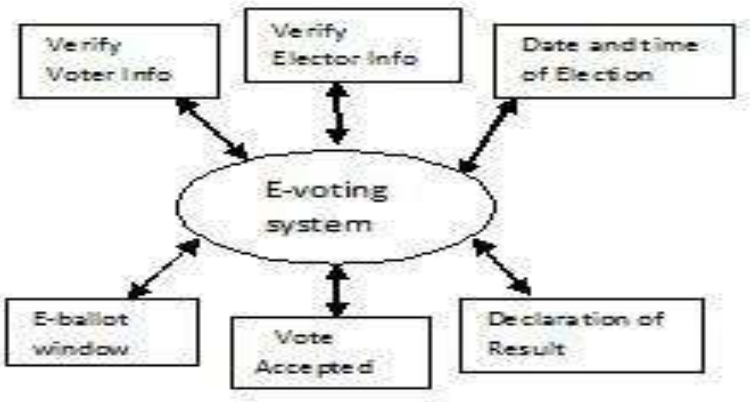

Fig-2: Function of E-voting system

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3.2 Verification and uploading of elector process

In Electronic voting machine using cloud technology , the election commission admin gets election details of the voter with the help using AADHAAR unique Identity number of the voter and after verification of all the information of voter , the election admin will register voter for voting . After registration and electro gets there unique identification number their party logo are added on touch screen. The AADHAAR unique Identity number is necessary for every person who vote to register. Then only it can able to vote for the candidate

3.3 Declaration of Date and Time

In this process, the official person of the election commission of India decides the date and the timing of initiating and termination of the election. The election Admin will set standard Indian time zone that is GM T +5:30. The citizen can vote within the decided time period by the Election commission of India on Election Day.

3.4 Election Day

On the Election Day, the election Admin of the constituent systematizes the mobile booths in all areas of India. The election official of the Election Commission opens the Electronic voting web application based on cloud technology till the terminate time. All registered citizen who is eligible for voting can vote at polling booth in given time.

3.5 Vote Submission

In this process, the authentic voter of India with their unique AADHAAR id will proceed for further process. After the authentication process is over , the window of voting user interface comes in front of the voter .The voting webpage contain the candidate information such as candidate unique AADHAAR identification number, candidate image, candidate name, candidate party logo and candidate party name and submit vote option.

When the voter click the “SUBMIT VOTE” button then cloud based server check all security process for verification of voter done automatically.

3.6 Vote Acceptance

The cloud technology automatically verify all security authentication of the citizen who vote when person press “SUBMIT VOTE”, the submit button is worked rapidly it again generates the new high level of security on the new window and the new with voting option the cloud-based technology again verified the voter through biometric details for authentication. The database of the E-commission of India is verify the fingerprints from the cloud database and then the person who is eligible for vote is accepted by the Election Commission of India and election official Admin using cloud technology. If the fingerprint of the person is not verified then person AADHAAR identification will be blocked automatically and voter will not able to vote. All votes are stored in core database server present at secure location at the E-commission of India and Admin will proceed to further voting process.

3.7 Observation of votes

At this process, the official Admin of Election commission of India verify and authenticate the voter’s vote to the cloud database server by admin.

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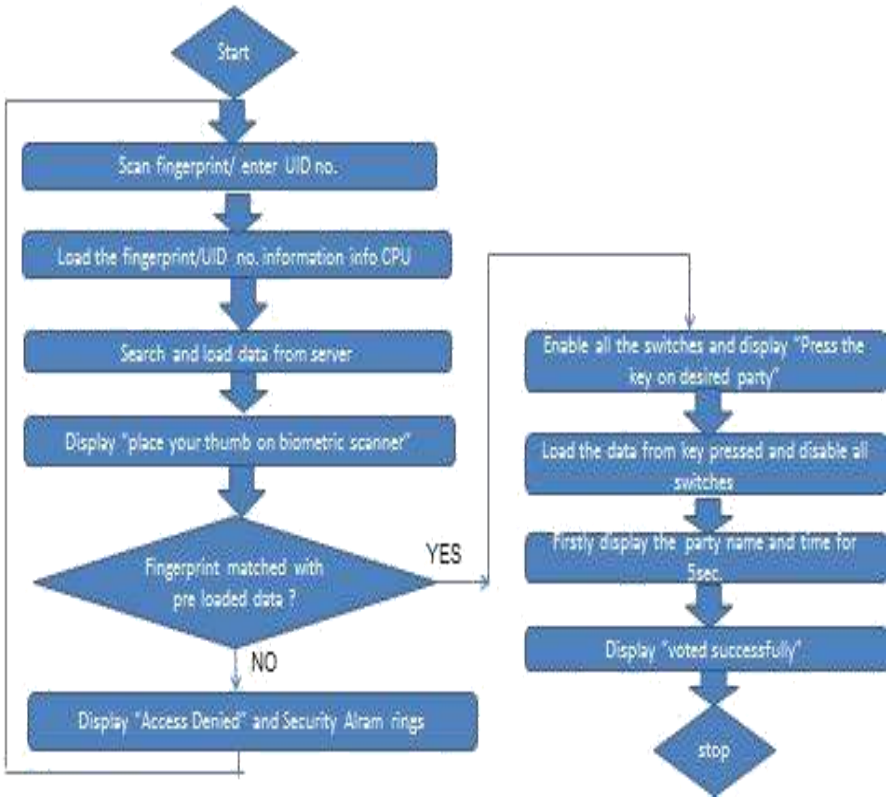

Fig-3: systematic Process and Acceptance of vote with High security

IV. CONCLUSION:

Thus by using biometric sensor and cloud technology we can able to reduce the fake and false voting cases during election process and the Aadhaar database which consist of biometric detail use for validation of the voter so the right person will able to vote to the right candidate so it can contribute in the growth of the nation and the benefit is that voter can vote on the bases Aadhaar card The system introduce has simple design architecture and also provide secure voting. The above mention project model will provide high security for the voter decision in digital form. Also provide trust that no one will able to manipulate the vote. so our project Smart Evm can increase the confidence among the citizen of India that they have voted the right person.

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