Fingerprint Based Voting System

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Abstract - *In this Fingerprint Based Voting System Project we are implementing IOT based voting machine. Finger print devices are used in the Electronic Voting machine for voter verification. We have designed a finger print based voting machine where there is no need for the user to carry his ID which contains his required details. The person at the polling booth needs only to place his Finger on the device, thus allowing the attainment of an on-spot fingerprint from the voter which serves as an identification. This Finger print reader reads the details from the tag. This data is passed onto the controlling unit for the verification. The controller fetches the data from the reader and compares this data with the already existing data stored during the registration of the voters. If the data matches with the pre-stored information of the registered fingerprint, the person is allowed to cast his vote. If not, a warning message is displayed on PC or Machine and the person is barred from polling his vote. Messages, warning and results are displayed on machine or PC. At perticular time election is close then immediately result is displayed on machine.*

Key Words: *IOT,* Fingerprint Module, Raspberry pi, USB to serial converter.

1. INTRODUCTION

In developing countries like Bangladesh, Japan, America, India etc. the number of voters are increasing day by day. And a corruption free voting system is a burning question at present. There is huge scope of corruption in these countries due to manual voting system. Each voting season lots of voting panel's vote get suspended due to corruption. Corruptions are like submitting someone else vote, same voter tries to vote again removing the voted ink mark from his/her hand. Lots of people do not come to participate in vote. Some corrupted persons take advantage of that and submit vote on behalf of absent people. Also sometime candidates submit unlimited amount of vote through bribe or arms. These types of corruptions can be stopped only through automated

voting system. And the trust can be gained through a transparent voting system like ours one fingerprint based voting system. Finger print devices are used in the Electronic Voting machine for voter verification. We have designed a finger print based voting machine where there is no need for the user to carry his ID which contains his required details.

The date and time of election is fix by the main authority. The person at the polling booth needs only to place his Finger on the device, thus allowing the attainment of an on-spot fingerprint from the voter which serves as an identification. This Finger print reader reads the details from the tag. This data is passed onto the controlling unit for the verification. The controller fetches the data from the reader and compares this data with the already existing data stored during the registration of the voters. If the data matches with the pre-stored information of the registered fingerprint, the person is allowed to cast his vote. If not, a warning message is displayed on PC or Machine and the person is barred from polling his vote. Messages, warning and results are displayed on machine or PC. At particular time election is close then immediately result is displayed on machine. Who is winner, who got more votes also displayed on that machine.

2. LITERATURE REVIEW

[1]Secured electronics voting machine using Biometric was implemented. In this machine, advanced computer technology is used. This system employs that replace incident and most important error prone human component. It increases flexibility and avoids false voting. To authenticate a vote, voter has to use fingerprint. So vote is unique. [2] Electronic Voting System that will automatically perform authentication validation and counting with the help of UIDAI. The proposed electronic voting system can be implemented along with the traditional election system. The proposed an approach that will use the information provided by UIDAI in electronic voting system. Is a Project Director at Contain

Southampton, United Kingdom. His generation on Biometric technology such as fingerprint. The fingerprints are more secured technology. Those are use in smart e-voting to secure voting process. Fingerprint are use to match the voter data base otherwise voter cannot vote. The fingerprint technologies are using Chris Roberts in voting system. [3] presented a new voting process making use of Biometric technology for voters identification purpose. This concept of biometric technology used in the paper increases the security and stopped Rigging. But the limitation of the system is that person has to be present at the voting booth for voting because of this time and money is waste.

2.1 BACKGROUND AND RELATED WORK

This project examines policy regarding the electronic approaches and developments towards electronic data storage and transmission. Finger print devices for Voting machines and other existing identity documents are discussed and implemented in this project. The user has to show his voter ID card whenever he goes to the polling booth to poll his vote. This is a time consuming process as the person has to check the voter ID card with the list he has, confirm it as an authorized card and then allow the person to poll his vote. Thus, to avoid this kind of problems, we have designed a finger print based voting machine where the person no need to carry his ID which contains his entire details Challenges of existing system: [1] First registration of the voter for election. [2]Paperless technology no need to carry paper at the time of election. [3]Fake voting is avoided by using this system. [4]Safe and secure voting system.

3. EXISTING WORK

Current voting system is based on ballot machine where when we press the button with the symbol the voting is done. Here there is a security risk, the person who votes may be fake person voting. The people there might not know that a person is using fake voting card, this may cause problem. Also the person who has to vote should travel from faraway places to his constituency to cast his vote. So, effective method is to use face detection and fingerprint sensor while voting online and enabling the right person to vote.

Issues in existing system:[1]result is displayed after one month. [2]It is not secure. [3]Fake voting is taking place.[4]Papers are needed going to cast the vote.

4. PROPOSED WORK

We have proposed the Fingerprint Based Voting System. It is an application where the user is recognized by his finger pattern. Since the finger pattern of each human being is different, the voter can be easily authenticated. The system will allow the user to vote for only one candidate. The system will allow the user to vote for one time for a particular election. Admin can add any number of candidates when the new election will be announced. Admin can view the election result by using the election id. Even user can view the election result.
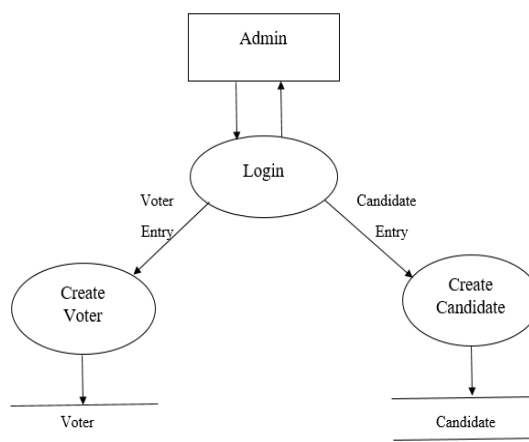
5. DESIGN AND IMPLEMENTATION

1. Block Diagram
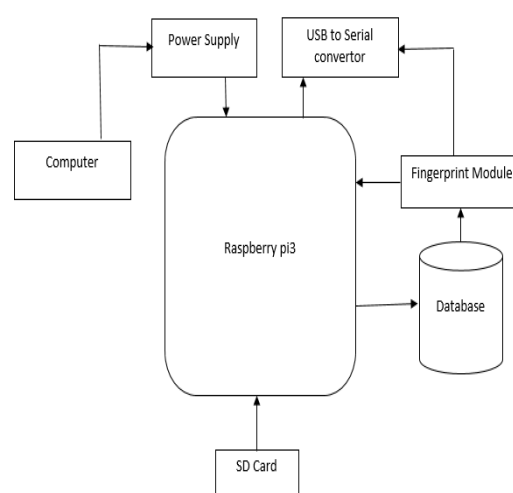
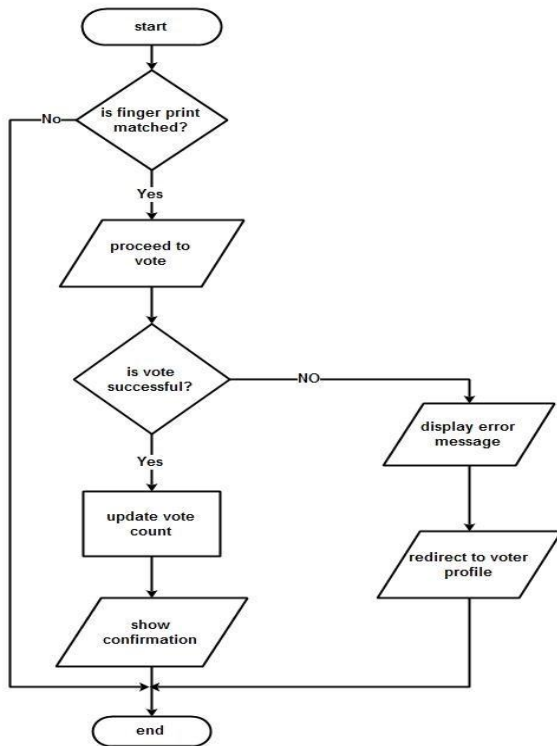**Fig.** Block Diagram of System

2. Voter Enrollment

Fig. Voter Registration

3. Vote casting

mplel task is given.

• In addition to this, Good and Bad.

6. ADVANTAGES AND DISADVANTAGES

1. Advantages

• Online voting is environmental friendly
• Online voting system is private and secure
• This is paper less system
• Print the result- print out the results and use it to help tally physical ballots if they exits
• Online voting saves money
• Provide easy and accurate counting without any misused in counting center
• Voting online is time saving
• Registration is totally depend on finger print scanner

2. Disadvantages

• Before voting the user has to enroll first.
• Sensitivity of finger print module causes sometimes Combine character error.
• It is economical.

4. CONCLUSIONS

• Data accuracy is maintained.
• Provide high security.
• Execute all components properly.
• Automatic result generation.
• Display result.

REFERENCES

[1] Raja Lakshmi, Meenakshi Nivya and K S Selvanayaki," Student online voting system" International journal of trend in research and development Volume 2(5),[ISSN2394-9333], Page no [438-440]

[2] Neha Gandhi, "Study on security of online voting system using biometric and stenography" International journal of computer science and communication, Volume 5,[ISSN-0973-7391] Page No. [29-32]

[3] Rahul V. Awathankar, Monika A Wadhai , Suraj Sawant, "I- Voting: A System For Every Citizen of India" International Journal of Control Theory and Application, Volume 10, [ISSN-0974-5572] Page no. [125-130]

[4] Sweta A. Tambe, P. S. Topannavar, "The Stenography And Biomatric Online Voting System" International Journal of Advance Research of Computer Science and Software Engineering, Volume 5, [ISSN-2277128X] Page no. [233-240]

[5] Annisara Nadaph, Rakhi Bondre, Asmita Katiyar, Durgesh Goswami, "An Implimentation Secure Online Voting System" International Journal of Engineering Research And General Science, Volume 3, Issue 2, [ISSN-2091-2730] Page no. [1110-1118].

[6] Ankit Anand, Pallavi Divya, "An Efficient Online System" International Journal of Modern Engineering Research, [IJMER], Volume 2 , Issue 4 [ISSN-22496645] Page no. [2631-2634].

[7] Alexandar. Stakeholders: EEE: Computing and control engineering, 14(1):22{26, April 2003}.