

# A Smart Bio-Metric Voting System

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## ABSTRACT

**Fingerprint Based Voting Project 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 allow the voter to vote through his fingerprint. Finger print is used to uniquely identify the user. The finger print minutiae features are different for each human being. Finger print is used as a authentication of the voters. Voter can vote the candidate only once, the system will not allow the candidate to vote for the second time. The system will allow admin to add the candidate name and candidate fingerprint who are nominated for the election. Admin only has the right to add candidate name and fingerprint who are nominated. Admin will register the voters name by verifying voter. Admin will authenticate the user by verifying the user's identity proof and then admin will register the voter. The number of candidate added to the system by the admin will be automatically deleted after the completion of the election. Admin has to add the date when the election going to end. Once the user has got the user id and password from the admin the user can login and vote for the candidate who are nominated. The system will allow the user to vote for only one candidate.**

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## I. INTRODUCTION

Fingerprint Based Voting Project is a 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 allow the voter to vote through his fingerprint. Finger print is used to uniquely identify the user. The finger print minutiae features are different for each human being. Finger print is used as a authentication of the voters. Voter can vote the candidate only once, the system will not allow the candidate to vote for the second time.

The system will allow admin to add the candidate name and candidate fingerprint who are nominated for the election. Admin only has the right to add candidate name and fingerprint who are nominated. Admin will register the voters name by verifying voter. Admin will authenticate the user by verifying the user's identity proof and then admin will register the voter.

The number of candidate added to the system by the admin will be automatically deleted after the completion

of the election. Admin has to add the date when the election going to end.

Once the user has got the user id and password from the admin the user can login and vote for the candidate who are nominated. 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.

## II. LITERATURE SURVEY

Vishal Vilas Natu [1] proposed the voting system is completely depending on paper work and electronics machine. There is more paper work to save the information of voter and the voter must go to ballot box by carrying voter id for authentication. Once authentication is done by election executive then voter donate their vote by using electronic machine.

The machine consists of list of candidate and presents multiple buttons in front of their particular name by pushing the button voter can donate their vote to candidate[1]. To overcome this traditional election system there has to study of digital technology and their security.

Khasawneh, M., *et al.* said in paper-based elections voters cast their votes by simply depositing their ballots in sealed boxes distributed across the electoral circuits around a given country. When the election period ends, all these boxes are opened and votes are counted manually in presence of the certified officials

Virendra Kumar, *et al.* [3] proposed An 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

David Chaum [4] addressed the concepts of untraceable electronic mail and digital pseudonyms, which can apply for electronic voting for anonymity

Virendra Kumar Yadav *et al.* [5], an approach that will use the information provided by UIDAI in smart voting system. The proposed system procedure is carried out in mainly few stages: registration, verification and validation. These stages of proposed system are illustrated.

D. Ashok Kumar *et al.* [6] made a comparative Study on Fingerprint Matching Algorithms for EVM. Then fingerprint is match voter can vote to candidate by using EVM. Fingerprint is secure method for EVM.

Jefferson D., *et al.* [7] reviewed and computer of critique and security communication in secure voting system. The web based voting system being built by Accenture. And in security the fingerprint technology are uses.

Qijun Zhao, *et al.* [8] proposed an adaptive pore model for fingerprint pore extraction. Sweat pores have been recently employed for automated fingerprint recognition, in which the pores are usually extracted by using a computationally expensive skeletonization method or a unitary scale isotropic pore model.

R. Moheb *et al.* [9] proposed an approach to image extraction and accurate skin detection from web pages Their system to extract images from web pages and then detect the skin color regions of these images.

Manvjeet Kaur *et al.* [10] proposed a fingerprint verification system using minutiae extraction technique. Most fingerprint recognition techniques are based on minutiae matching and have been well studied.

### III. PROPOSED METHODOLOGY

#### **Module 1: System Authentication**

In system authentication model “It consist two option i.e. voter and admin. One signup button for signing to access next model. One change button for changing password.”

#### **Module 2: Register to voter and Vote**

In this module user having two different option i.e. Register to vote and Vote. If user select the Register to vote option then next module i.e. registration Form is open

and if Vote option is selected then voter first scan the fingerprint then verify it and then it allow for vote.

#### **Module 3: Voter Registration Form**

In this module voter first submit his/her full information such as Aadhar No, Name, Date of birth, Mobile no, Ward no, Ward Name. After than voter should be submit their fingerprint which is saved in database and then saved the information.

#### **Module 4: Verification**

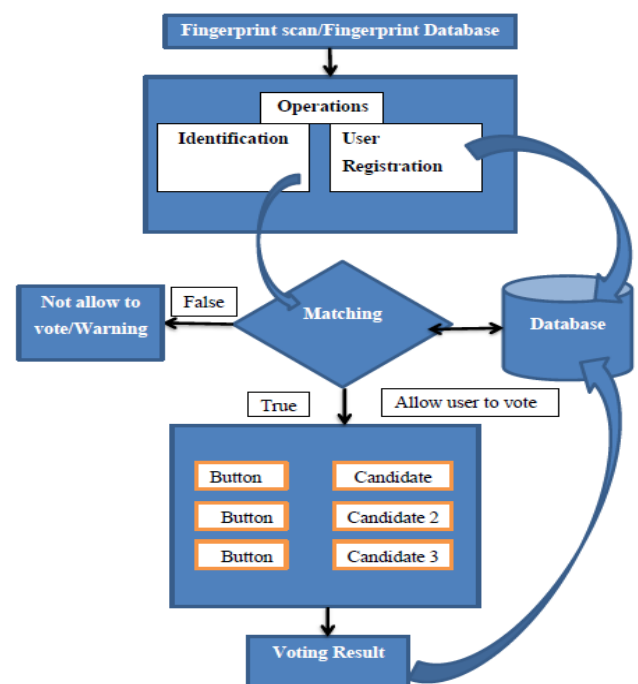
In this module voter had three options they are Fingerprint, Verify, Cancel. In this first voter scan his/her fingerprint which is compare with fingerprint saved in databased. Then voter press the verify button if fingerprint is saved in database then it successfully verified.

#### **Module 5: Voting Symbol**

In this module window is open in which voter has three option for voting they are Diamond, Heart, Club. After selecting one party window is automatically closed and voter information is deleted.

#### **Module 6: Vote Count**

This module is accessible to only to Admin. For accessing this Vote count window admin password is required. In this result of voting is displayed



### IV. CONCLUSION

By using the Aadhar card we will implement the system which increases the voter’s privacy. The system also managed in simpler way as well as secure to voting system. The Aadhar will provide the unique identification to each voter so the breach of privacy is get avoided. Aadhar numbers will eventually serve as the basis for a database with which disadvantaged Indian residents can access services that have been denied to them due to lack of identification documents.

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