



Electronic Voting System Using Aadhaar Card

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Abstract:

An online voting system is to avoid multiple polling and irregularities at counting location. In this system the voters can vote through the mobile by using application. A booth will be created for the people who do not have finger print facility in their mobile. After voting, the Aadhaar id will be blocked from the server. The ballot list will be displayed according to the address of the voter's data base. After generating the vote it will be sent directly to the election commission and a confirmation message is sent to the voter. First all the information of every candidate should be uploaded in the main database of election commission according to Aadhaar identity. An application will be created. In first page, Aadhaar id is provided by the voter and it is verified with the main database of election commission. The commission will send a unique password to the mobile number which is stored already in the database. The password must be valid for 2 minutes and if the password is correct then it will ask the finger print authentication. If the finger print match with the data of the server then the ballot list will be displayed according to the address of the voter database. After submitting the vote, the election commission will send the confirmation message to the voter.

I. INTRODUCTION

Voting schemes have evolved from counting hands in early days to systems that include paper, punch card, mechanical lever and optical-scan machines. An electronic voting system which is used nowadays provide some characteristic difference from the traditional voting technique, and also it provides improved features of voting system over traditional voting system such as accuracy, convenience, flexibility, privacy, verifiability and mobility. But Electronic voting systems suffers from various drawbacks such as time consuming, consumes large volume of paper work, no direct role for the higher officials, damage of machines due to lack of attention, mass update doesn't allows users to update and edit many item simultaneously etc. These drawbacks can overcome by Online E- Voting with finger print scanner system. This is a voting system by which any voter can use his/her voting rights from anywhere in the country. Voter can cast their votes from anywhere in the country without visiting to voting Booths, in highly secured way. That makes voting a fearless of violence and that increases the percentage of voting. This project deals with two concepts where one is booth section another one is voting through mobile application. In booth section, webpage is created. Here only two processes are present, first finger print will be scanned; the related which match with the given finger print will be displayed from the election commission. After verifying the details submit it. Next, ballot list will be displayed according to the address of the voter's database. Finally, the election commission sends confirmation message to the voter.

II. EXISTING SYSTEM

A. Design and Build a Secure E-Voting Infrastructure

We have designed a secure online e-voting system that provides confidentiality, anonymity, integrity, authenticity, auditability and verifiability. Confidentiality prevents anyone else from knowing who has voted for whom except the voters themselves. Anonymity is to prevent the tracking of the voters' real identities. Authenticity is to ensure that voters are eligible with unidentifiable-untraceable signatures of the real votes.

Integrity is to ensure that no one else is able to change the ballot, and to detect the change if it occurs. Auditability makes the election auditable with or without tracing back the true identity of the voters. Finally, verifiability enables the system to verify and count the votes, and to detect any missing or fraudulent votes.

B. A Biometric Secure E-Voting For Election Process

The proposed system warrant well-secured identification and authentication processes for the voter through the use of combined simple biometrics. The design of the system guarantees that no votes in favor of a given candidate are lost, due to improper tallying of the voting counts, with the proper incorporation of system FLAG's. This paper is designed to cater for several essential nonfunctional requirements. Of utmost importance are the requirements for correctness, robustness, coherence, consistency, and security. To verify the robustness and reliability of the proposed system, intensive computer simulations were run under varying voting environments, viz. voter density, voter interarrival times, introduced acts of malice, etc.

III PROPOSED WORK

Our proposed system mainly works in offline mode and has three modes. They are

1. Admin Mode

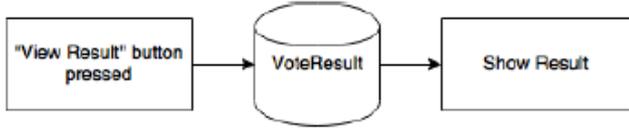
2. User Mode

1. ADMIN MODE

In this proposed system the officials of Election Commission of India play the role of admin of the system. To use the system first they need to register themselves with the system. If anybody is registered already, he/she can at once unlock the Admin Dashboard by typing the username and password in the machine. Those persons who have not registered themselves with the system, they need to register them as an Admin by typing their own Aadhaar Card no. in the specified space. The system will then search the Aadhaar card details from the "Aadhaar" Database. Next to verify the authenticity of the Admin. The system will seek the fingerprint image from the user. After getting the fingerprint image, the system will

compare the fingerprint with the stored one in the “Aadhaar” database and if it is matched then it will allow the user to create his/her own username and password for his/her Admin account. This Admin details will be stored in a separate database named as “Admin” Database. The Admin of this system can

View the result: - The system gives a facility to the admin to view the result of the election of a specific locality. It will fetch the vote result from the “Vote Result” database and show it to the admin. Here the admin can see the result of all the candidates of a specific locality.



See the number of people did not cast vote: The admin can see the name of the people of a locality who have not casted their votes. The system can lock the people who have casted their votes properly by changing the lock property to 1 from 0. So, those persons who have not casted their votes, their lock status will remain as 0. The system searches for these person and show the name and Aadhaar card details to the admin.

2. USER MODE

This mode is for the general voters. At first they need to enter the Aadhaar card in the Application. After entering the Aadhaar number the Application will search the user database. Next it will seek the fingerprint image from the voter with which it will compare the stored image in the “Vote” database. If the matching is successful then the Application will take the voter to the Vote page where the voter will get the selection option for his/her liked candidate. If the fingerprint is not matched perfectly then it may seek the fingerprint image again from the voter. When the fingerprint is matched it will direct the page to the Ballot list where people can elect the candidate. After choosing the candidate the Application will automatically lock that Aadhaar card number by changing the lock property from 0 to 1. Simultaneously at the same time it will update the “Vote Result” database by increasing the “no. of vote” attribute of the selected candidate by one. After Registering the vote a confirmation message is sent to the users.

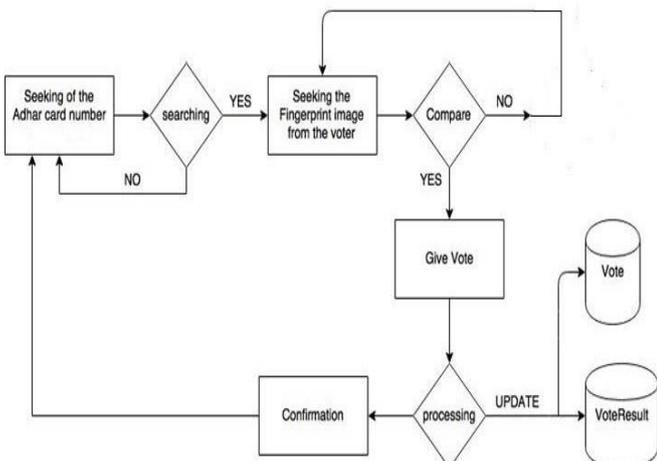


Figure.1. Block Diagram of Proposed User Mode

III. RESULT

The proposed Electronic voting system using Aadhaar card is being deployed and tested with creating a false user.

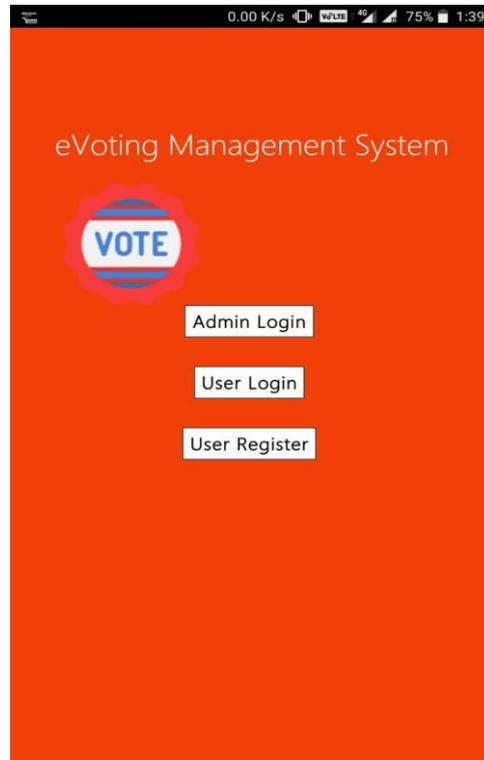


Figure .2. Homepage



Figure.3. User Login page



Figure.4. Administrator Login Page



Search Results

Search

Candidate Name	Voter ID	Ward	Year	Date of Election
arun	SL1111222	Ward 1	2018	Feb 2
Senthil	SL1111333	Ward 1	2018	Feb 2
Kumar	SL1111444	Ward 1	2018	Feb 2
Panneer	SL1111223	Ward 2	2018	Feb 2
Senthil	SL1111334	Ward 2	2018	Feb 2
Kumar	SL1111445	Ward 2	2018	Feb 2
Selvan	SL123456789	Ward 4	2018	Feb 1
cm	sl1234567	Ward 7	2018	12.4.18

Figure.5. Voting Result

IV. REFERENCES

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