

Online Voting System Using Fingerprint Sensor

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ABSTRACT

Election is a process of selecting the right candidate to rule our nation. The voting system in India is insecure, because voters need to stand in a queue for a long time and the only security check is voter ID verification, which are fake nowadays. To overcome this we are introducing Online voting system which provides security, authentication, accuracy, flexibility and convenience to voters. It is a web application supported by all browsers. The admin stores the voter's details and their finger prints into the database before election to avoid duplication.

Keyword - **SHTML, CSS, PYTHON, JAVA SCRIPT, JAVA,XAMPP.**

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 different 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. The voting system in India is insecure, the only thing that the security checks is a voter ID card, which these days are faked nowadays. It is slow and counting the votes manually can take a long time. In some rural areas, where there is not much security available, polling booths are captured and often most ballots are destroyed. So, the development of such a system which is online will cut out these possibilities and many votes can be saved through this system even if such incidents occur. It is a web application supported by all browsers. The admin stores the voter's details and their finger prints into the database before election. So our Online System will ensure that only legitimate voters can cast their vote. This application also ensures that the voting is anonymous, the login will be successful only when the user finger print matches, then he can cast his vote for preferable candidate the interface is made as simple as possible with only basic functionalities.

II. EXISTING SYSTEM

The process of collecting data and entering this data into the database takes too much time and is expensive to conduct, for example, time and money is spent in printing data capture forms, in preparing registration stations together with human resources, and there after advertising the days set for registration process including sensitizing voters on the need for registration, as well as time spent on entering this data to the database. The process involves too

much paper work and paper storage which is difficult as papers become bulky with the population size.

2.1 Disadvantages in Existing System

- Expensive and Time consuming.
- Too much paper work.
- Security is not provided for voters.

III. PROPOSED SYSTEM

In the proposed system, we provide user friendly interface which even helps the illiterates to cast their votes, and to avoid duplication by collecting finger prints. The development of such a system which is online will cut out these possibilities and many votes can be saved through this system even if such incidents occur. So Our Online System will ensure that only legitimate voters can cast their vote. This application also ensures that the voting is anonymous, the login will be successful only when the user finger print matches, then he can cast his vote for preferable candidate the interface is made as simple as possible with only basic functionalities. This system provides accuracy, convenience, flexibility, privacy, verifiability and mobility.

3.1 Advantages in Proposed System

- System provides secure login procedure.
- Nominees of respective wards can be viewed online.
- Unauthorized user has no access to the registered account.
- Reduces Time consumption.

IV. METHODOLOGY USED

- Admin module
- Voters module
- Security module

4.1 Admin Module

In this module, admin takes over control of login session of the voters, by entering the name, gender, age, address,

location and finally scans the finger print of the candidate. Admin creates new candidate entry, and he only has the access to add, modify, and delete the details of the voters. Later to avoid duplication of votes he validates voter’s details and their finger prints. Admin has authorised to check the result and he also enables the publish votes option after the completion of the election.

4.2 Voters Module

In this module, the voter needs to bring his or her aadhaar or voter id to fetch there details from the database.The voting process done after the successful verification. The voting screen carries all the particular logos and concerned names of candidates who are all standing for the post in that particular area, and the user just needs to press the vote button to cast vote to their favorite candidate. And his/her vote will be added to the vote’s database for counting process.

4.3 Security Module

In this module, Each and every user need to follow the verification process before voting. So that it also helps no unauthorized users can get passed through the login screen.The Auto-logout feature takes care of the rest, after a vote has been placed and the main login screen is restored. So that the duplicate vote can be avoided only one vote can be casted by a single user. So no need to waste time in logout process it will automatically log’s out and another person can sign for his/her vote.

V. SOFTWARE REQUIREMENT

- Operating System: Windows 10 and above.
- Development Tool: HTML, CSS, Java Script
- Language: Java, Python 3.6
- Server : Xampp 3.2.2

VI. SYSTEM ARCHITECTURE

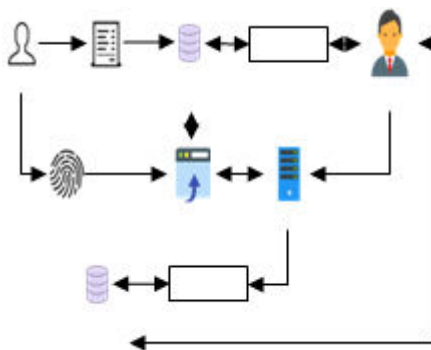


Fig: System Architecture

VII. MODULES IMPLEMENTATION

The application contains the welcome page, having all the menus for navigation.



Figure1: Screenshot of home page



Figure2:Admin login Page, in which the admin can only login into it.

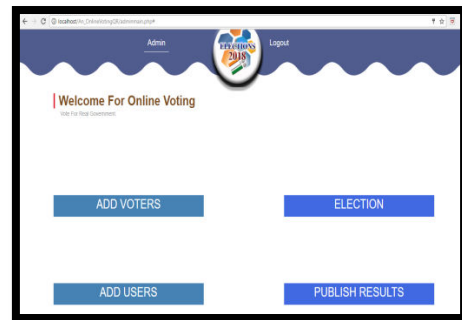


Figure3:Admin Control page, in this page admin can add voters, add users, add election details, and finally publish result.

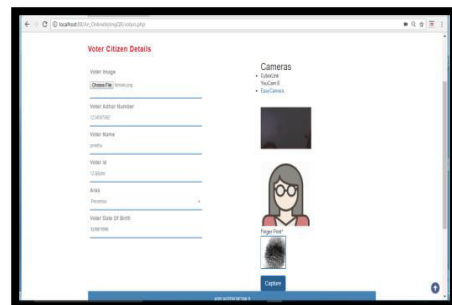


Figure 4: Voter Details page, in which admin will store personal details and the fingerprint of the voters into the database.



Figure 5: Election details page, in which admin will store the details of the candidate names and their party symbols those who are standing in election.

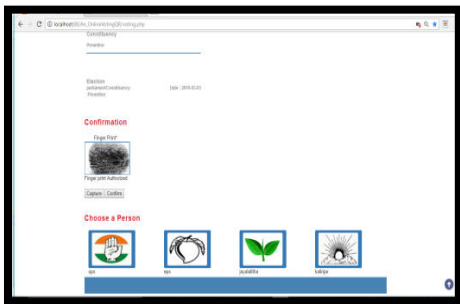


Figure 6: Voting Page, in which the user needs to enter his/her Aadhaar number and keep his/her finger print for verification, then can cast their votes to the right candidates to lead our nation.

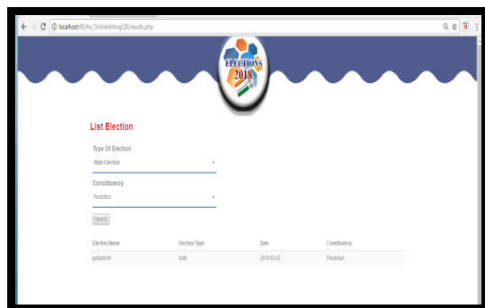


Figure 7: Publish Result Page, in which the voting results of the candidate are published by the admin.

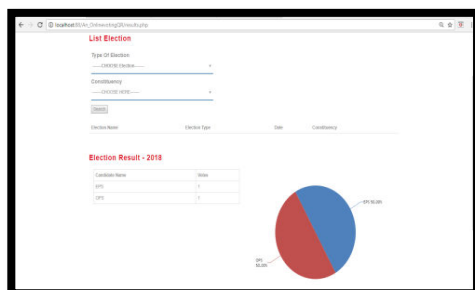


Figure 8: Result page, Final results can be viewed by all the people and the candidates in the form of a pie chart.

VIII. CONCLUSION

In this paper, we've got planned an internet electoral system that is healthier and quicker than previous systems. The new system prevents access to ill-gotten voters, provides simple use, transparency and maintains integrity of the option method. The system conjointly prevents multiple votes by a similar person and checks eligibility of the citizen. It conjointly permits someone to vote from anyplace given that the citizen is inside electoral limits.

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