

E-Online Voting System-Making Democracy more Secure

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ABSTRACT

The traditional methods like hands counting, paper ballot and the EVM required the voter to go to the designated location and cast the voter there, this method had many flaws like bogus voting and repeated votes of same person this was solved to some end but the results are still inaccurate. Not only there was inaccuracy this method required a lot of preparation and also required a large amount of money. According to the data reveals that in 2015-2020 more that Rs 2000 crore was spent only on advertisements and publicity alone. By this we can estimate how much money is being spend in the election if we combine the expenditure of all the candidates. Here comes the work of Online Voting System as it reduces the cost it also provides security to the votes. This paper deals with the Online Voting System that provides user(voter) with a platform on which he/she can vote freely without any difficulties. The purpose of this research is to provide a functioning system that reduces the cost of labour and reduces the human interference in the election. The user only needs to register via there mobile number and by matching the database of the Indian government we can get the Aadhaar id of the user, after completing the registration process the only thing left is to login and cast your vote. This helps the user and people by choosing the right and deserving candidates to lead our country towards a beautiful future.

Keywords: HTML, CSS, Java Script, PHP, MYSQL, phpMyAdmin, XAMPP.

I. INTRODUCTION

Online voting system is a vast area where we are yet taking step towards, there has been same progress towards this topic and had good results. By continuing research in this field, we have made a working model of an online voting system. Since the last covid wave, now most of the Indian citizens became a part of the growing digital India. In this digital era where we all have access to all kinds of entertainments and knowledge, we have also made progress in the voting system of our country from counting hands in early days to systems that include paper, punch card, electronic voting machines. Online voting system which is used to provide efficient ways to cast a vote by just a click.

In this way a voter can use his/her voting right online without any difficulty. Online voting is used in many countries like Brazil,

USA, Republic of Congo and many more, so by implementing this method in our country it will help many people to cast vote remotely.

1.1. Problem Background:

In the recent times there are many models developed to increase the security of the system and more efforts are made to make it more secure. The use of false id's, internet and security issues are the only issues left to resolve.

1.2. Problem Statement:

Our E-Online Voting System will make voting process easy as it includes an id verification system that only allows only one vote per id as the id is created with user's own Aadhaar Id and mobile number which provides our model and secure and unique way to register and work.

1.3. Research Objective:

The main objective of our project is that it provides a platform where everyone with no discrimination can cast vote as per their wishes and believes. While it also helps elderly that are unable to walk to the local voting booth will have an equal chance to vote, it also eliminates the bogus voting which can occur in traditional voting schemes.

1.4. Scope:

The individuals will find it easier as it takes less effort and less working cost to operate, it is flexible and it also reduces human intervention reducing fraud votes and false registrations by connecting the Aadhaar id or mobile number to the user's unique id.

II. LITERATURE SURVEY

To make the voting process very easy and efficient web technologies are used which has the possibility of secure, easy and safe way to count the votes in the election.

The author in [1]" Online Voting System based on Aadhaar id" used Aadhaar id as a unique and way to identify the user it is efficient but the problem is in the authentication of the user as there are various forged Id's in circulation so it makes hard to make an accurate decision between the genuine and fake Id's. The paper [2]" Secure Authentication for Online Voting System" Presents non traceability and integrity of the votes, smart cards were used to avoid multiple votes by the users the main security issue in this system was that it would take a lot of time to manufacture than many cards and it would require a lot of money to setup something like this. So, it was not an ideal solution as it has more flaws the users also need to carry their voter id and the smart card so it was more of a hassle to carry more cards because it was the main priority to carry the voter id and the smart card both at the same time despite all the techniques to make the system robust there is always a chance of mal practice when your system is online.

In [3] Online Voting System powered by biometric security" the author has used a biometric thumb impression, a secret key and a identification number which is used in the system, It is a robust system but it also have some flaws as there are many handicapped persons or those who are not physically abled they may face some problem and another problem is that the storing and management of data will be difficult as there are more things to store and it will require a huge amount of money as every voter needs to have an biometric machine that can scan the thumb impression and the maintenance of the machine will be another tough challenge.

III. EXISTING SYSTEM

The existing system was a manual system that required the voter to him/her self to go to the voting place and manually register into the voter list and then cast the vote which is a waste of time. Also, the counting of the vote was done manually before the invention of the EVM (electronic voting machine)

but the voter must be present in this scenario also. Previously used Government system was the paper-based voting system where the voter picks up a ballot sheet in which the names of the candidates was written they would have to tick the candidate which they want to vote and hands the ticket off to the electoral official.

3.1. Scope:

- i. Voters will find it convenient and easier to vote.
- ii. Less labour and less effort.
- iii. No fraud or bogus voting.
- iv. Reduces human intervention and saves time.
- v. Improves voting with user friendly interface.

3.2. Proposed System:

This E-Online Voting System will manage the voter's information by which the voter can login and cast the vote. The data will all be stored and managed under the admin and the Election Commission of India in which the complete data of the voter will be available like age, Aadhaar number, mobile number, email id and more important documents (if asked). The voter has to first register by him mobile number, upload a photo of his/her and create a password which will be connected to the voter's Aadhaar Id and the data from the database of the government will be shown and then the voter has to login using his mobile number and the password then he/she can cast the vote to the candidates present in the election.

3.3 Improvement in Existing System:

The improvements done in the existing system were that the previous system was just providing a platform to vote but there was no restriction and the person that wanted to vote has to do a lot of registration work. So, by simply connection the government's database most of the details are already available when the voter registers in the system and can also verify by the photo he/she uploaded is the right details or not. This system is very user friendly.

IV. METHODOLOGY

E-Online Voting System is a portal through which a voter can cast his/her vote by just registering and filling in the required basic information. There are tables and spreadsheets which include the login and registration panel. All the information is stored in the database so that the admin can verify the user.

4.1. Home:

It is the first page of the portal that the user sees after opening the website it contains the registration panel, Login page.

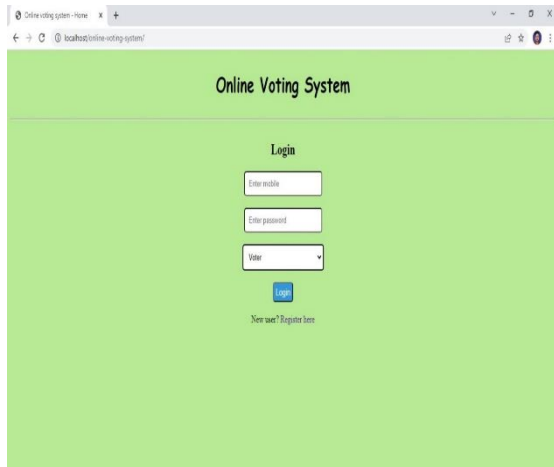


Fig 1: Home

4.2. Registration:

This is the registration page which contain the all the data that the voter needs to fill in order to register themselves in the system.

All the data provided by the voter is saved in the database for security reasons. When the registration in completed then they can proceed to the login and the voting process.

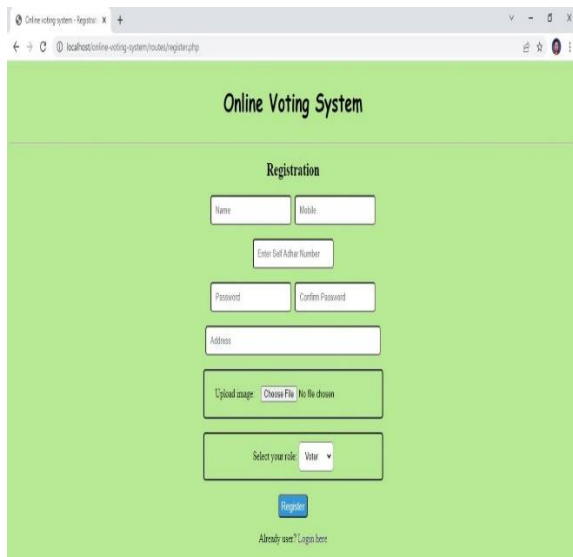


Fig 2: Registration Panel

4.3. User Login:

This page is used by the voter to login into the system by using the mobile number and the password known by the voter made in the registration page.



Fig 3: User Login

4.4. Voting Section and Result:

In this section the voter can cast their vote and also at the same time see the total votes collected by the candidates which will help in making prediction for the winning candidate. In this way there will be no need of the Exit Poll that is announced before the real result of the election. By doing this we are maintaining total transparency towards the voters which is an important component of the trust between the admin and the voter.



Fig 4: Voting and Result

V. SYSTEM FLOW

This shows that how the system works by a 2-dimensional diagram which shows total ongoing process of the system from scratch to the final working level of the system.

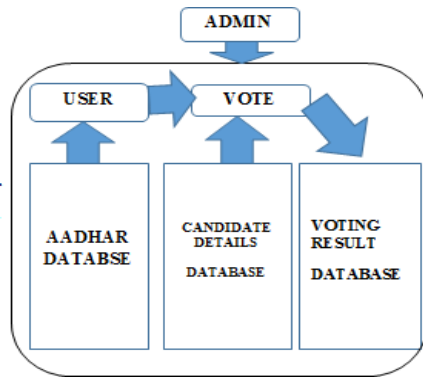


Fig 5: System Flow

VI. SYSTEM REQUIRMENT

6.1. Software Requirements:

- i. Database: MySQL, phpmyadmin
- ii. Back-End: PHP, JavaScript
- iii. Front-End: HTML, CSS, Bootstrap
- iii. Testing: XAMP Server

6.2. Hardware Requirement:

- i. Microsoft Windows XP Professional /Windows 7 Professional /Windows 10
- ii. Processor: Intel Pentium or equivalent or more
- iii. Memory: 512 MB
- iv. Disk space: 500 MB of free disk space

VII. CONCLUSION

This Online Voting System gives the chance to the voter to cast his/her votes without any inconvenience. It is a hassle-free process where the voter only needs to vote on the internet without going anywhere like voting booths as done in the traditional voting system. Through this we want to state that the Online Voting System is a very advantageous project as it has less functioning than the traditional system but also the comfort and the convenience to vote by just sitting at home is the next level for the evolution in voting. Online Voting System is the future of the voting systems currently in practice as this system eliminates any chances of the fake person casting a vote or any cheating methods. This system also reduces the unwanted human errors, improves the accuracy, also reduces

the time required and paper work. Hence the Online Voting System make all the voting process fast and gives security to votes.

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