Online Election Application

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Abstract: The objective of our project is to design, implement and validate an Internet-Based Electronic Voting System (e-VOTE) by using any resources like their mobile phones, personal computer and to provide all required services for organizing and conducting an opinion expressing process. Online Election Application would have modules like Admin login, Candidate Information, Voters registration, Admin verification, Voters login, Voting, Counting of votes and result declaration. Admin Login will be handled by the administrator. Voters will have Unique ID (Register number) and Password, using which they can vote for a Candidate only once per Election. The project is beneficial, as this makes the election process easier. The project will be helpful for the voters by using any resources like their mobile phones, personal computer. The electronic voting schemes is to provide a set of protocols that allow voters to cast ballots while a group of authorities collect votes and output the final tally. Online Voting System is a web based system that facilitates the running of elections and surveys online. This system has been developed to simplify the process of organizing elections and make it convenient for voters to vote remotely. Online Voting System provides the online registration form for the users before voting and makes the users to cast their vote online. The system is to be developed with high security and user friendly. The study aims to analyze the election system and suggest an online election system which will allow people to cast votes more conveniently from their location.

1 INTRODUCTION

In the present era, technology has been improved and become more advanced where the online system boosts work speed, reduces mistakes and promotes the generation of accurate results, compared to manual election system. Due to this, a lot of problems in the election system, some problems are faced by voters before or during elections and others are faced by the administration before and after the voting. The proposed online system, which involves procedures like candidates who are in the election registration of voters, vote casting, vote counting, and declaring results etc., would constitute a good solution to replace current system. The system proposed in this thesis will be helpful for the voters by using any resources like their mobile phones, personal computer. The electronic voting schemes is to provide a set of protocols that allow voters to cast ballots while a group of authorities collect votes and output the final tally. Online Voting System is a web based system that facilitates the running of elections and surveys online. This system has been developed to simplify the process of organizing elections and make it convenient for voters to vote remotely. Online Voting System provides the online registration form for the users before voting and makes the users to cast their vote online. The system is to be developed with high security and user friendly. The study aims to analyze the election system and suggest an online election system which will allow people to cast votes more conveniently from their location.

2 EXISTING SYSTEM

The existing System consists of methods like Electronic Voting Machine, based voting, Lever voting machine, Punch card, and Optical voting machine.

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In Electronic Voting Machine, voting is done using electronic means to take care of the chores of casting and counting votes. An Electronic Voting Machine is designed with two units: the control unit and the counting unit. The control unit of the Electronic Voting Machine is kept with the presiding officer or the polling officer. The counting unit is kept with the voting compartment for voters to cast their votes. This is done to ensure the voter’s identity. With the Electronic Voting Machine, the voter can press the Ballot Button which enables the voter to cast their vote. A list of candidate's names and the symbols will be available on the machine with a blue button next to it. The voter can press the button next to the candidate’s name if they wish to vote for them. Then the election commission will enter the formal ballot papers into piles according to which candidate was chosen by each voter. Count the number of votes each candidate received and record on the Tally Sheet. The candidate with the maximum number of votes is elected. In a manual system [2], sometimes people are registered in more than one area and can thus cast the vote multiple times. By creating an online database covering the country it will be possible to eliminate the double casting of votes. In some areas, officials of the Election Commission themselves cast votes and after the end of election, they adjust these votes from the voter's list. Hence, they manipulate the result of the election. There is a need for a system that could reduce the authority of officials and could sustain the true nature of voting. It would also give people options to cast an empty vote if they don’t like to give the vote to any of the candidates. The Online Voting system [3] was designed to count the number of votes and thereby calculate the percentage of votes. It obtains the number of votes and percentage of votes for each candidate. The system is also designed to check for duplication of votes and decides the winner in every section. The project [3] was designed with a modular approach and the number of modules was decided as per the requirements of the organization. There are two modules administrator module and user module. The administrator has the total authority of the organization and maintains all the aspects. The user has the provision to view the list of each candidate and results as well as vote for the desired candidates. The voting protocol [4] has two main players: The voter and administrator sections. The voter (who can be found at home, in a working station, in a special polling station or at any other place) has the function of performing the Authentication and voting. The administrator performs the function of voter and candidate registration.
authorization and validation of voter, database, counting the number of votes and the result. In the system [5] we can get the result without manually counting. The computerized counting is simple. Candidate can register themselves. They all have to enter basic information best of their known. All the information registered in the website are saved in the respective database not require geographical proximity of the voters. For example, soldiers who are in abroad can participate in elections by voting online.

3 METHODOLOGY

3.1 Objective
The study aims to analyze the election system and suggest an online election system which will allow people to cast votes more conveniently, by using any resources like their mobile phones, personal computer or the resources arranged by Government which could facilitate the voters during elections. This reduces the manual work of the government employees.

3.2 Problem Description
The current voting system is not accurate enough and causes all sorts of problems from two-party systems and divisive politics. Problems with voting machines extend from the quality of the locks, to the need for a printed audit trail, to the hacking of the communication links. Although voting makes many people to believe that voting is the perfect application for technology, but in reality applying it is hard. This system requires more time for result analysis as well as more manual power.

3.3 Module design
Online Election Application would have modules like Admin login and Voters login.

3.4 Module Description
The admin Login, which will be handled by College Election Commission. The application allows the Admin to login in and upload all the candidates' and voters' details. The admin can check each voter's details and verify the documents and can remove faulty accounts. The admin has overall rights over the application and can moderate and delete any details, not of Election Rules. Voters will have a Unique ID (Register No) and Password (Date of birth), using which they can sign up and change their password. After changing the password, the voter can log in and vote for a Candidate only once per the Election. Only after verifying voters ID and Password they can vote. The application allows voters to view a list of Candidates.

4 RESULT AND DISCUSSION
The online election application is an online voting system in which the voter can register and login and then make their vote securely. The application is administrated by the Election Commission. It will reduce manual work and money expenditure during the election. Other than the user no one can make their votes. The political party can never influence the user by caste or religion as they can never come in contact with the user. There is no booth system. As the user can vote from anywhere the percentage will be increased. The result of the election will be announced shortly as the counting is computerized.

Fig. 2. Welcome page
The menu page directs the user whether to log in or signup and helps the admin to login was shown in the Fig. 2.

Fig. 3. Signup page
The signup page helps the user to register, they can enter their unique id and they have to create a new password by entering the current password (date of birth) which is shown in the Fig. 3.

Fig. 4. User login page
After successful creation of new password, the user can log in which is shown in the Fig. 4., a voting page appears on the
screen after login the user can vote by clicking the name of the candidate which is shown in the Fig. 5.

![Fig. 5. Voting page](image)

The admin can login through their account and make modification in Fig. 6.

![Fig. 6. Admin login page](image)

The admin has two main functionalities adding voter and adding candidates which is shown in the Fig. 7. The admin store the details of voter and candidate in the database. The admin has the authority to view all details.

![Fig. 7. Admin page](image)

The admin can store the details of voter by getting their unique id and date of birth which is shown in the Fig. 8.

![Fig. 8. Add voter page](image)

The admin can store the details of candidate by getting their name, mobile, department which is shown in the Fig(9). Only after this process, the candidate is eligible to participate in the election and the voter is eligible to vote. The results of the election are published by the admin. The admin publishes the name of the candidate and the number of votes he got at the election process which is shown in the Fig(10)

![Fig. 9. Add candidate page](image)

![Fig. 10. Result page](image)

5 CONCLUSION AND FUTURE ENHANCEMENT

Online Election Application enables a voter to cast his/her vote through internet without going to the voting booth and additionally registering himself/herself for voting in advance, proxy vote or double voting is not possible, highly secure, fast to access, highly efficient and flexible, easy to maintain all information of voting. The use of online voting can reduce unwanted human errors. In addition to its reliability, online voting can provide better scalability for large elections. Online election is also an excellent mechanism that does not require geographical proximity of the voters. Future enhancements of this project is focused to design the system which provide security of votes on acceptable level by concentrating the authentication and processing section. Some authentication parameters like facial Finger Vein and iris matching detection can also be done.

![Fig. 9. Add candidate page](image)

![Fig. 10. Result page](image)

6 REFERENCES


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