

Automated Online Voting System (AOVS)

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Abstract

The word 'vote' means to choose from a list, to elect. The main aim of voting is to come up with leaders of the people's choice. Most countries are having problems when it comes to voting. Some of the problems involved include rigging votes during election, insecure or inaccessible polling stations, inadequate polling materials and also inexperienced personnel. This online voting system seeks to fix the above issues. It should be noted that with this system in place, users, citizens in this case shall be given ample time during the voting period. They shall also be trained that how to vote online. We will be providing automated online voting system.

Keywords: Automated, Web, Database, Security (SSL), Client/Server

I. INTRODUCTION

Over the years, it has been analyzed that the process of manual voting has been carried out across almost all cities, states, countries. So implemented, process is not only time consuming but also sometimes inefficient and reliable to use. In this Digital era, we need not maintain manual work. Keeping this idea in our minds, we have proposed an Automated Online Voting system which is implemented as a website. Easy to manage large amount of user and data store in system for long time. Register Vote form anywhere. The project is mainly aimed at providing a most secured and user friendly, reliable online voting system. There is No paper work. Displays voting results in a graphical fashion and also displays result for the administrator to analyze. Prevent voters from voting more than once for their choose candidates. Project ensures to offer an efficient and a user friendly environment to the user.

II. TYPES OF VOTING SYSTEM

A. Paper -based voting:

The paper based voting system is flawed and prone to corruption can be found in the Haitian elections, A document ballot voting system records votes, counts votes, and produces a table of the vote count from votes cast on paper cards or sheets.

B. Lever voting machine:

Lever machine is equipment, and each lever is assigned for a corresponding voter. The voter pulls the lever to poll for his idol candidate. It can count up ballots automatically, and giving some training to voters is necessary.

C. Direct recording electronic voting machine:

This type, which is abbreviated to ORE, integrates with keyboard; touch screen, or buttons for the voter press to poll for their idol candidate. Counting the votes is very quickly. But the other ORE without keep voting records are doubted about its accuracy.

D. Punch card:

The voter uses metallic hole punching machine to punch a hole on the blank ballot. It can count votes automatically. After voting, the voter places the ballot in a ballot box, or the ballot may be fed into a computer vote tabulating device at the precinct.

E. Optical voting machine:

An optical scan, or marksense, voting system allows a voter to record votes by making marks directly on the ballot, usually in voting response locations.

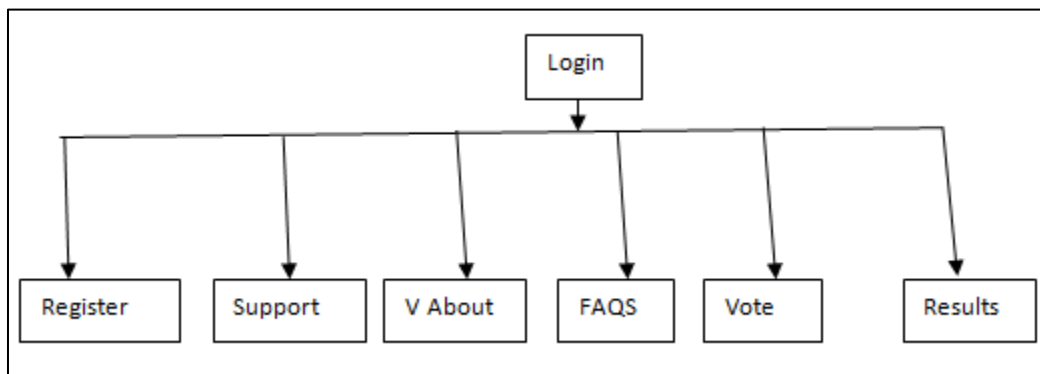
III. ALGORITHM

- 1) First you have to Login which is home page of website of voting.
- 2) Then Dashboard contains some sections such as below:
- 3) Public Section (Here admin is going to add voter personal information for security purpose) – Add New, Report
- 4) Politician Members (Here admin is going to add poll and politician information for security purpose) – Add, Report
- 5) Election Management (In this section all work related to election is going to be conducted by admin) – Add, Report
- 6) Add Members under Election
- 7) Report of Members
- 8) Active & Inactive Section: This section is for activating and inactivating the voting process for specific time only for management and security purpose.
- 9) Application Users – Create User, Report
- 10) Results Section – Election wise: Here Result will be mentioned by admin.

A. User Side

- 1) Election Links: Links for which voting is held and when.
- 2) Vote for Election: Here user is going to vote actually.
- 3) Result of Election: After voting in this section results will appear automatically.

IV. ARCHITECTURE



On the dashboard which is the main page of website, where Register, support, V About, FAQS, Vote, Downloads, Results are given in menu bar.

- Register: In this Admin have rights to add users and candidates for voting process.
- Support: In this links and addresses are provided for any accidentally occurred problem at the time of voting process.
- V About: Here, about us and project information is present.
- FAQS: In this frequently asked questions are present for any queries.
- Vote: In this section voting process is done.
- Results: Right after voting process, all the results will be automatically calculated and displayed here.

V. APPLICATION

A. Authentication:

The voting system can correctly identify the authenticity of a voter. All steps of voting can guarantee that a ballot is authentic. The voter is eligible/allowed to vote one time only.

B. Availability:

The voting system must be available to the voters at specified and predefined time. The online voting system must be able to resist denial of service attacks, viruses, and the likes.

C. Confidentiality:

Only authorized office employers have access to ballots. The secret ballot must be maintained and intruders must not be able to view a cast ballot.

D. Integrity:

Only authorized officials have access to the election canvas and only the individual voter has access to their personal ballot. Ballots would not be tampered with when being transferred to the election server.

E. Security:

The main thing is to provide a security through providing various information of voters. Fast and accurate results. With online voting there are no dismissed, mismarked or invalid ballots. Results are automatically calculated by eliminating the need for manual tabulation and dreaded recounts. Computerized table forms allow election managers to quickly announce decisions and results.

VI. ADVANTAGES

A. Empowerment

Voting is the most powerful way for society to have a voice in the leadership and direction of their association. When allowed to vote in fair and open elections, members feel a greater sense of value, right of possession and responsibility. Online elections help empower members of associations, societies, and other democratic league by making voting easy and convenient.

B. Accessibility

Online voting allows everyone to access their ballots from anywhere at any time, provided they have an Internet connection. This makes casting a vote convenient, reliable and fast. Members can cast their votes from home, from work or via their mobile devices.

C. Cost effectiveness

Online voting reduces election budgets by limiting production costs and etc. Paper, printing, and postage costs are all notably lower for online elections than for traditional voting methods. In addition, the staff will save time because online elections eliminate the need to assemble ballot packages and manually tabulate votes.

D. Security and confidentiality

A well designed, secure online voting system has safeguards in place to protect voting information and voter information. A voting website hosted on a secure server will only be accessible to authorized members of government through unique voter logins. Online ballots are transmitted from voters' computers or mobile devices to balloting systems using Secure Sockets Layer (SSL), the same encryption technology used by U.S. financial institutions. These layers of protection builds a technology shield that detects unauthorized access, eliminates ballot tampering, and reduces the chance of voting fraud.

E. Eco-friendly

Web based balloting conserves resources by reducing the amount of paper associated with an election and manual work also. Paper ballots and envelopes, flyers, and other paper collateral are either moved to electronic format or discarded. This is particularly important if your association members are aware to the use of natural resources.

F. Membership engagement

Online voting and other modern participation methods demonstrate an association's commitment to connecting with its members. It shows the organization is staying pertinent and is dedicated to keeping in touch.

G. Appeal to younger members

According to survey 95 percent people uses internet age between 18 to 29. This means that online options such as web voting might be a great way to get younger members involved in the decision-making process for society.

VII.SOFTWARE & HARDWARE REQUIREMENTS

A. Server Side Hardware & Software Requirement (Minimum)

Server Side Hardware Requirement
Processor - 2.0 GHz
Hard Disk - 40 GB Free space
RAM - 2 GB

B. Server Side Software Requirement

Operating System - Windows XP or any Compatible OS
Front end – PHP, HTML, JAVASCRIPT, CSS,
Back end – My SQL
Other Tools – Notepad++, Dreamviewer

C. Client Side Hardware & Software Requirement (Minimum)

Client Side Hardware Requirement
Processor 1.0 GHz
Hard Disk 8 GB Free Disk Space
Ram 512 MB

D. Client Side Software Requirement

Operating system Windows XP or other Compatible OS
Web- Browser Internet Explorer 6.0 or other Compatible

VIII. FUTURE WORK

In future work we are going launch this system online for use and also going to make it more reliable.
We will be giving this project to government sector for the voting work by making it more secure.
We will be adding biometric tools for making it more secure system.

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