

Mobile Cum Web Based Voting System for Rural Areas in India

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Abstract

Elections are main and very important part of our daily life. Unlike any other transactional event, the result of elections can have many positive and/or negative effects on these communities and their wellbeing. In Asian countries like India there are lots of problems in the election, such as there is no proper road developed so that voter or election committee can reach up to the election booth. In some places, fake voters are created or by forcing the voter to give vote for a fix candidate. So to overcome these drawbacks we build proper and trusted (transparent) voting system. This paper details the requirements, design and implementation of a e-voting system and held various election campaigns simultaneously and permits voters to cast their votes in the specific elections at anytime (anytime voting), from any-location (anywhere voting).

Keywords: Voter, Election, E-Voting, Voting System, Web Pages, Software Engineering.

1. INTRODUCTION

This system is pure and trustworthy which deals with the e-voting and overcomes the lot of drawbacks of the traditional voting and holds the democratic rights and the human rights. So voter can feel safe and cast his vote easily. This system is very useful in all the organizations, institutes and industries. Here to develop the system we use the election algorithm.

In the election algorithm, when a process notices that the coordinator is no longer responding to requests, it initiates an election. The efficiency of vote counting is much easy and transparent than the traditional counting. Time saving approach. No wastage of paper. So the basic principal of this system is to provide the transparent and trustworthy elections to end user(voter). [1]

1. In future it can provide better pathway for handling general voting system for democratic country like Our India.
2. It will going to reduce the huge expenditure related to the same.
3. People they have not internet connection they can be informed by SMS on their mobile. Today many websites provide free SMS to the mobile.
4. It increases the E knowledge of the users which is very necessary for current generation. 3. The mobile based cum web based voting System can be applicable in all the organizations, institutes and industries where shares of individual increases the decision making process.

2. SOFTWARE REQUIREMENT SPECIFICATION

The election-specific requirements are those requirements that are specific to a given election. For example, the election specific requirements for corporate sector include the following items. A voter must be registered as a full

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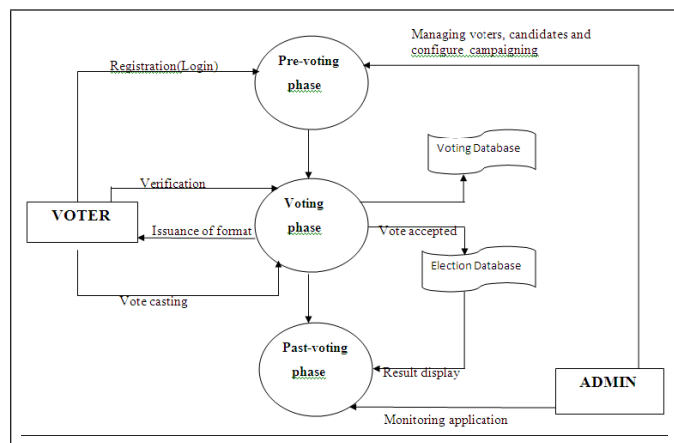
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time employee. A candidate must be registered as a full time employee. A candidate is also a voter. An election winner must be one of the candidates for that election. The application is easy to interact and communicate with. The administrator can add new database regarding voters and campaigning easily.

The performance of application depends on availability during campaigning.

The software provides Accuracy by not allowing any alteration. It is easy to maintain software.

3. DATA FLOW OF PROJECT



4. IMPORTANT MODULE AND ALGORITHMS

The complete software consist of following modules:

1. Web voter: The module is using web browser as a presentation engine. The voter will directly vote through website and cast the vote. First he /she has to fill basic information for registration, this information will be further matched with database of authorized voters. Then voter will login through the password provided to him which will allow him to select the candidate of own choice from the list of candidates.

2. WAP voter: This module is using micro browser as a presentation engine. In this user can follow the approach of both Web voter module as well as SMS voter module.

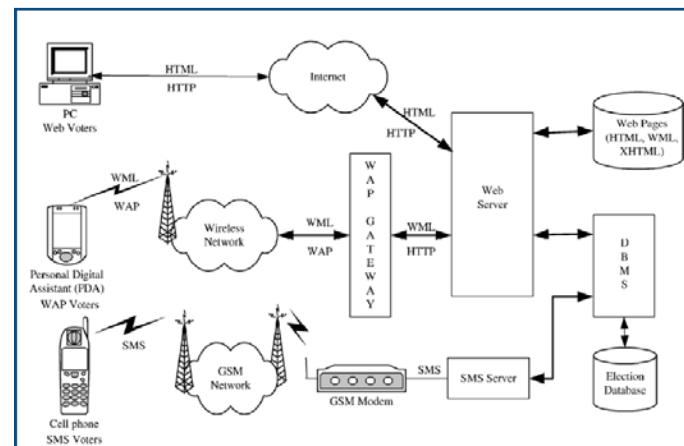
3. SMS voter: This module is using text editor as a presentation engine. Here the voter will cast the vote by sending the SMS. The user will be an authorized voter if his mobile number matches with the contact number

of the database. After being authenticated he will be provided with a session password to create a secure session while casting the vote. As soon as vote is casted the session password is destroyed.

4. Result : For maintaining the transparency of elections carried out through the system we are using counters to show the number of votes casted to the respective candidate and these counter updates will be visible to voter. To get the result at a glance of all candidates the result is displayed using histogram.

While implementing the software we have followed the Basic Election Algorithm.

5. SYSTEM ARCHITECTURE



The above fig shows the overall architecture of the voting system. Firstly the system has three medium through which the voter will cast his vote through any of the possible medium. Through WEB, through WAP enabled mobile phones and through SMS. [6]

There is election database which stores all the related information about the election. So if voter wants to cast his vote through WEB or WAP then web server handles the activity. WEB voter cast his vote through http site then it is acknowledge by WEB server and his vote is store in the database. If the user is wish to cast his vote through mobile GPRS then he will access the WAP site and it will take to the WAP gateway and then acknowledge by the WEB server and vote is store in the database.

And for the third user SMS facility is provided. This medium is for remote areas in India where people are not aware of internet and WAP. So they can vote easily through this medium in their own language. After sending

message it will acknowledge by the SMS server and vote is store in the database. So these are the three medium through which voter will cast his votes.

If voter is trying to cast his vote through all medium then only one vote is count which comes first. So we overcome the vote duplication problem. And finally the result are shown on the WEB. This system is transparent so voter can easily see the result of his specific candidate. And all results are maintain by the election database.

6. ESTIMATION OF KLOC

The number of lines required for implementation of various modules can be estimated as follows:

Sr.No.	Modules	KLOC
1.	Graphical User Interface	0.50
2.	User authentication Code	0.20
3.	Device Drivers	0.40
4.	Interfacing Code	0.20

Thus the total number of lines required is approximately 2.40 KLOC

Efforts

$$E = 3.2 * (KLOC)^{1.02}$$

$$E = 3.2 * (2.40)^{1.02}$$

$$E = 7.82 \text{ person-month}$$

Development Time (In Months)

$$D = E / N$$

$$D = 7.82 / 4$$

$$D = 3.91 \text{ months.}$$

Number of Persons

4 persons are required to complete the project with given time span successful

7. CONCLUSION AND FUTURE SCOPE

The development of the project has given us an excellent opportunity & experience to know how real life project works in its working environment and that there is always some differences in studying software engineering theoretically and its application.

This project have tried to develop a concept regarding how some of the aspects during automating the system that were taken care of-

1. The system should meet the user requirement
2. The system should be efficient enough in generating output in simplified manner.
3. The system database should be easy to maintain & upgrade easily.
4. The platform must be as simple as possible for maintenance issues.
5. It is always better to invest today on more sophisticated technology rather tomorrow spending of the system.

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