Advance SMS Based Voting System

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Abstract

In Country like India election has been the great event which we are celebrating almost every year. There should be proper and honest way to conduct it. Electronic voting systems have the potential to improve traditional voting procedures which provide additional advantage of having its accuracy   and sophistication. Numerous electronic voting schemes have been proposed in the past like paper ballots , but this provide real authentication for the voters. On the other hand, GSM (Global System for Mobile communications) is the most widely used mobile networking standard. There are more than one billion. In this paper we are presenting electronic voting scheme by using GSM communication.. By integrating an electronic voting scheme with the GSM infrastructure, we are able to modify existing GSM authentication mechanisms and provide enhanced voter authentication and mobility in order to maintain voter privacy. The objective and verdict takes of this project is to avoid the queue in voting time. Voting machines provide easy access to cast the vote by using mobile phone. . This embedded project provides a facility to store the details of the registered voters. Each registered voter can cast his vote only once. The voter readily gets to know the status of his vote as he receives an appropriate acknowledgement message for every message he sends. Thus such an SMS based voting system so developed can be used for conducting any sort of opinion poll The key benefit for this project is that people can cast their vote from any place.

Keywords: GSM, Mobile, LCD, Subscriber Identity Module (SIM).

1. Introduction

In democratic country like India where election is so important it must be conducted in proper and security manner. Traditional voting system like paper ballot system had so much problems regarding unacceptable percentage of lost,stolen,or miscounted ballots. Votes lost through unclear or invalid ballot marks, a Limited accommodation for handicapped people.Technology is changing the world but then also we are standing in queue to cast a vote. For a variety of reasons voters may be unlikely to attend voting booths physically, but need to vote for the sake of country future. for example, from home or while travelling abroad. Hence, there is great demand for remote voting procedures that are easy, transparent and most importantly, secure. Today, the most common and practical way for remote voting is to use postal voting, where voters their votes by post. However, it lacks proper authentication and involves a time-lapsing procedure. To improve mobility, address security problems of remote voting procedures and systems. We present an electronic voting using GSM. With more than one billon users, the GSM authentication infrastructure is the most widely deployed authentication mechanism so far. We insist to use of well-designed GSM authentication infrastructure to improve mobility and security of mobile voting procedures. Recently many politicians claiming that there is some problem in voting machine if this remote voting machine will be proposed ther would be no questions on its result.

1.1 Characteristics

Voting system using GSM technology is the best solution to increase voters and have accurate way for conducting elections. Reduced costs-E-voting systems takes on reduction in materials required for printing and distributing ballots. Internet based voting, in particular, offers superior economies of scale respective to the size of the electoral roll.

Increased participation and voting options - E-voting offers increased comfort to the voter, encourages more voters to cast their votes remotely, and increases the likelihood of participation for mobile voters. Additionally, it permits access to more information regarding voting options.

Greater speed and accuracy placing step by step processes help minimize the number of miscast votes. The electronic gathering and counting of ballots reduces the amount of time taken for tallying votes and delivering results.

Flexibility-E-voting can support multiple languages, and the flexible design allows up-to-the minute ballot modifications.
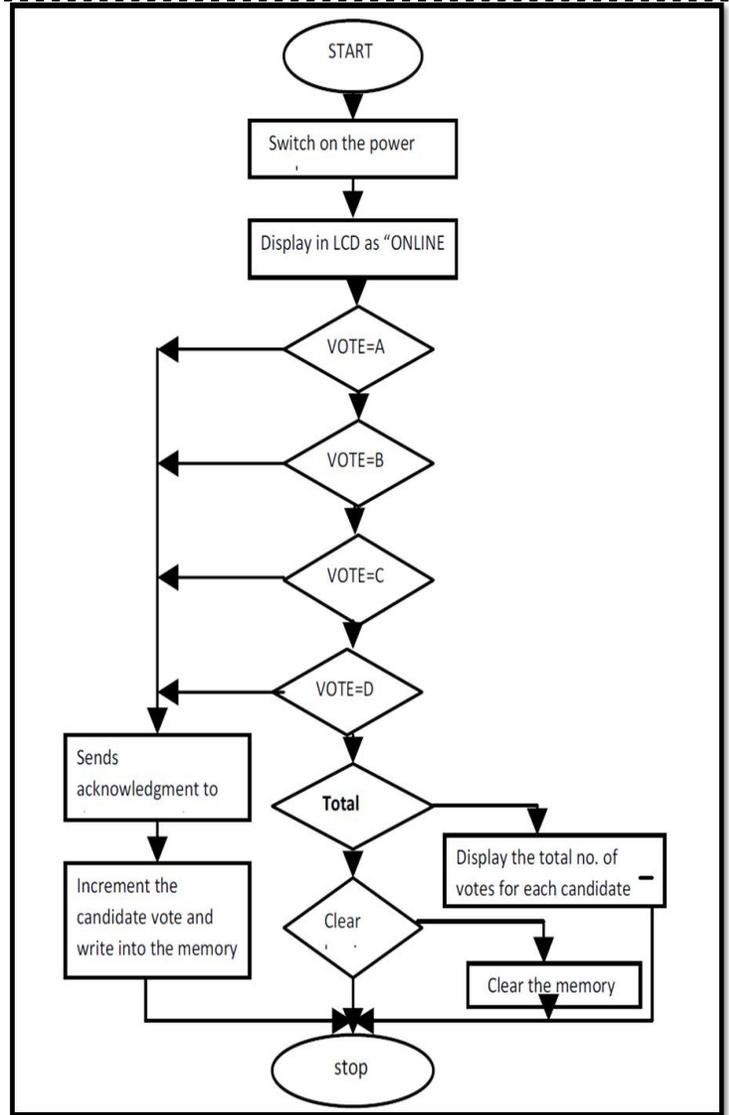
1. 2 VOTING SYSTEM USING SMS PRINCIPAL

Fig-1 Flow chart explaning operation of GSM voting System

2 Security Features in GSM:

GSM is a digital wireless network standard widely used in our country. It provides a common set of compatible services and ability to all GSM mobile users. The services and security features to subscribers are subscriber identity confidentiality, subscriber identity authentication, user data confidentiality on physical connections, connectionless user data Computer Science & Information Technology (CS & IT) 299 confidentiality and signaling information element confidentiality. They are summarized as follows: Subscriber identity confidentiality is the property that the subscriber's real identity remains secret

by protecting his International Mobile Subscriber Identity (IMSI), which is an internal subscriber identity used only by the network, and using only temporary identities for visited networks. Subscriber identity authentication is the property that ensures that the mobile subscriber who is accessing the network or using the service is the one claimed. In our proposed GSM mobile voting scheme, communication between the mobile equipment and the GSM network uses standard GSM technology. Hence GSM security features apply. Among which, the subscriber identity authentication feature is particularly used in the protocol. A random challenge is issued when a mobile subscriber gets access a visited network. The Authentication Centre (AC) computes a response SRES from RAND using an algorithm A3 under the control of a subscriber authentication key Ki, where the key Ki is unique to the subscriber, and is stored in the Subscriber Identity Module (SIM) on the Mobile Equipment (ME), as well as the Home Location Register (HLR). The ME also computes a response SRES from RAND as well. Then the value SRES computed by the ME is signaled to the visited network, where it is compared with the value SRES computed by the AC. The access of the subscriber will be considered or denied depending upon the result of comparing the two values. Authenticated, and the connection is allowed to proceed. If the values are different, then access is denied.[1]
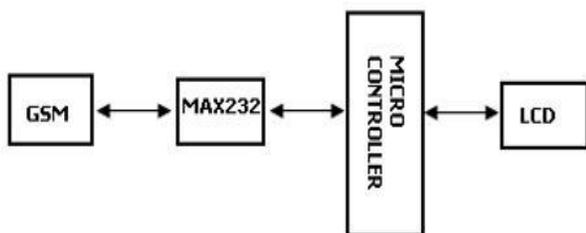

Fig.2. Block Diagram of Voting System using SMS

This paper is designed with Supporting GSM Modem LCD.

3. COMPARISION OF VARIOUS VOTING EQUIPMENT

In the recent years, voting equipments which were widely accepted may be divided into five types [4]: (1) Paper-based voting The voter gets a blank ballot and use a pen or a marker to indicate he want to vote for which candidate. Hand counted ballots is a time and labor consuming process, but it is easy to make production of paper ballots and the ballots can be retained for verifying, this type is still the most common way to vote. (2) Lever voting machine Lever machine is peculiar equipment, and each lever is assigned for a corresponding candidate. The voter pulls the lever to poll for his favorite candidate. Then (3) Direct recording electronic voting machine this type, which is abbreviated to DRE, integrates with keyboard, touch screen, or buttons for the voter press to poll. Some of them lay in voting records and counting the votes is very quickly. But the other DRE without keep voting records are doubted about its accuracy. (4) Punch card The voter uses metallic hole-punch to punch a hole on the blank ballot. It can count votes automatically, but E-Voting System Using GSM Mobile SMS is far much enhancement in voting system.

4. CONCLUSION

E-Voting System Using GSM Mobile SMS is an excellent program to receive SMS messages This is the best solution and reference.The manual voting process can be very tedious, prone to electoral fraud and costly. The time that is been consumed and the resources often times runs into expensive projects. With all this, security is compromised because of the inability of all the human factors to provide efficient security needed for robust operation of the system.

From this technology people can cast their vote from anywhere from this county.

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