

**ADDIS ABABA SCEINCE AND TECHNOLOGY UNIVERSITY**

**COLLEGE OF ELECTRICAL AND MECHANICAL ENGINEERING**

Department of Software Engineering

OBJECT ORIENTED PROGRAMMING

Title: ONLINE VOTING SYSTEM (phase I)

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# Background

The online voting system also known as e-voting is a term encompassing several different types of voting embracing both electronic means of counting votes. It also minimizes on error of voting counting. the individual votes are submitted in data base which can be queried to find out who of the aspirants for a given post has the highest number of votes.

With the online voting system, a voter can use his/her voting right online without any difficulty. he/she has to register as a voter first before being authorized to vote. The registration should be done prior to the voting date to enable data update in the database.

However, not just anybody can vote. for one to participate in elections, he/she must have the requirement. For instance, he/she must be registered citizen i.e., must be 18 and above years old. as already stated, the project 'online voting' provides means for fast and convenient voting and access to this system is limited only to registered voters.

Internet voting systems are appealing for several reasons which include; people are getting more used to work with computers to do all sorts of things, namely sensitive operations such as shopping and home banking and they allow people to vote far from where they usually live, helping to reduce absenteeism rate.

# Statement of the problem

The problems of the existing manual system of voting include among others the following:

1. **Expensive and Time consuming**: The process of collecting data and entering this data into the database takes too much time and is expensive to conduct, for example, time and money is spent in printing data capture forms, in preparing registration stations together with human resources, and there after advertising the days set for registration process including sensitizing voters on the need for registration, as well as time spent on entering this data to the database.

2. **Too much paper work:** The process involves too much paper work and paper storage which is difficult as papers become bulky with the population size.

3. **Errors during data entry:** Errors are part of all human beings; it is very unlikely for humans to be 100 percent efficient in data entry.

4. **Loss of registration forms**: Some times, registration forms get lost after being filled in with voters' details, in most cases these are difficult to follow-up and therefore many remain unregistered even though they are voting age nationals and interested in exercising their right to vote.

5. **Short time provided to view the voter register**: This is a very big problem since not all people have free time during the given short period of time to check and update the voter register.

6. Above all, a number of voters end up being locked out from voting.

# Objective

The ONLINE VOTING SYSTEM shall reduce the time spend making long queues at the polling stations during voting. It shall also enable the voters to vote from any part of the globe as explained since this is an online application available on the internet. Cases of vote miscounts shall also be solved since at the back end of this system resides a well-developed database using MYSQL that can provide the correct data once it's correctly queried. Since the voting process shall be open as early as possible.

## General objective

The main purposes of OVS include:

* Provision of improved voting services to the voters through fast, timely and convenient voting.
* Reduction of the costs incurred by the government during voting time in paying the very many clerks employed for the sake of the success of the manual system.
* Check to ensure that the members who are registered are the only ones to vote. Cases of "Dead People" voting are also minimized.

➤ Online voting system (OVS) will require being very precise or cost cutting to produce an effective election management system.

➤ Therefore crucial points that this (OVS) emphasizes on are listed below.

I. Require a smaller number of staff during the election.

ii.This system is a lot easier to independently moderate the elections and subsequently reinforce its transparency and fairness.

iii.Less capital, less effort, and less labor intensive, as the primary cost and effort will focus primarily on creating, managing, and running a secure online portal.

iv. Increased number of voters as individual will find it easier and more

convenient to vote, especially those abroad.

## Specific objective

The specific objectives of the project include:

* Reviewing the existing/current voting process or approach in Ethiopia;

coming up with an automated voting system in our country.

* Implementing an automated/online voting system;
* Validating the system to ensure that only legible voters are allowed to vote.

# Scope of the study

It is focused on studying the existing system of voting in Ethiopia and to make sure that the peoples vote is counts, for fairness in the elective positions. This is also will produce:

Less effort and less labor intensive, as the primary cost and focus primary on creating, managing, and running a secure web voting portal.

• Increasing number of voters as individuals will find it easier and more convenient to vote, especially those abroad.

# Limitation

Disadvantage of online voting is that it can lack transparency. With traditional paper-based voting, voters can see people counting the ballots. But with online voting, the process is entirely electronic, making it harder to verify the results.

It’s essential to look for an online voting system that offers transparency features. For example, some systems provide a live election results page where voters can see the results as they roll in.

# Functional Requirement

### Software Requirements:

i.**Net-beans IDE 7.1.2**- The Net Beans IDE is an award-winning integrated development environment available for Windows, Mac, Linux, and Solaris. The NetBeans project consists of an open-source IDE and an application platform that enable developers to rapidly create web, enterprise, desktop, and mobile applications using the Java platform, as well as PHP, JavaScript and Ajax, Groovy and Grails, and C/C++.

### Hardware requirements

Microsoft Windows XP Professional SP3/Vista SP1/Windows 7 Professional:

Processor: 800MHz Intel Pentium III or equivalent

# Class Diagram

