SMART E-VOTING SYSTEM

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Abstract : **In Democratic countries like India, the voting system plays a major role during elections. Traditionally, the election commission in India uses electronic voting machines which need more manpower, time-consuming and also they are less trustworthy. In the field of bio-metric identification, we can get the better results and it is also trustworthy. The finger print module was already stored in the government database. The electronic voting machine was connected with the computer. Transparency of voting follows through in all phases of an election process to assure the voter that his/her vote went in favor of his/her candidate of choice. To verify the robustness and reliability of the proposed system, intensive computer simulations were run under varying voting environments. Results of the simulations show that security and performance of the system are according to expectations. These results provide the proper grounds that would guide the decision maker in customizing the proposed system to fit his particular voting needs. .**

IndexTerms **– Electronic voting Machine system, Voter, Result Count, Authentication.**

I. INTRODUCTION

A democracy principle depends upon the people's decision. So, to have great vision we need to take correct decision. This can be made by "voting". The conventional voting mechanism follows the issue of voter id and other details which is generated manually. So, there are chances of parallax errors. Moreover the electronic voting machine may be devised in a such a way that people whatever and whomever they vote, will be converted into some other's party or candidates. It may be misused. To avoid this automation had been developed. Many organizations and developed countries have accepted the automated system. This system required less man power to handle system, more secured system as it uses fingerprint Authentication, less time required For counting Votes etc.

II. MOTIVATION

The automated voting systems are developed before some years ago. The existing systems have only been approved in develop countries. That too. Not in all develop countries. Because the security has not yet been fully preserved .We moved onto automation mainly to rely on security. But the existing systems failed to ensure.

III. PROBLEM DEFINITION

There are several problems and issues which are the most important drawbacks that have to be cleared and verified. There are some of the important problems High man power, takes lots of time to give count, long distance communication is not available, less accuracy, less security etc. According to the current system, votes could be counted manually so that there is more opportunity for occurring errors, such as duplicates counting and completely missed counting.

IV. SYSTEM FEATURE

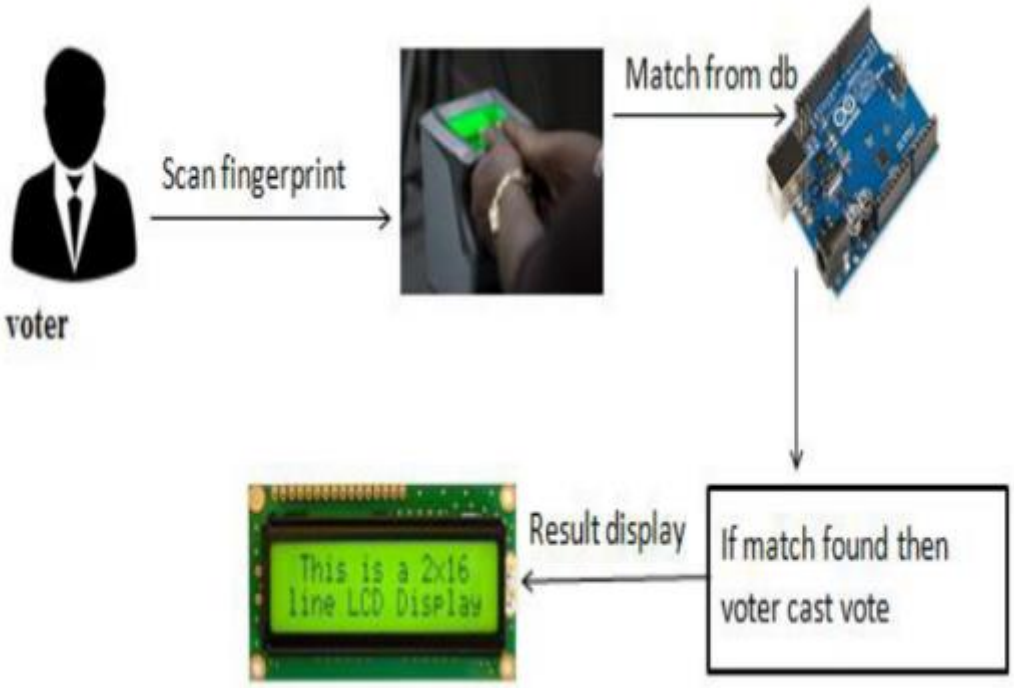
1)Authorize admin:

This is the starting point of any new system to decide the admin those responsible for handling the all over system. The main task for admin is to create/update the voter list with their location and send all the data on server.

2) Manage election unit:

Election unit is the system counterpart of the "election center". In the conceptual model the election center is central to the election procedure, as it is the fundamental tallying point. Besides, in case electronic voting is performed in a controlled environment, with machines provided by the state, all votes cast from a certain "electronic" election point should be able to be traced back to that point.

V. SYSTEM ARCHITECTURE



1) Admin:
Admin have basic information about how to register the voter information and candidate details those are reflected for election.

2) Voter:
The voters have basic idea about how to done authentication wit fingerprint and how to cast the vote on polling machine.

3) Candidate:
Candidate should be follow the rule and regulation decide by community of government

VI. METHODOLOGY

1) Arduino:-
Arduino is an open-source hardware and software company, project and user community that designs and manufactures single-board microcontrollers and microcontroller kits for building digital devices and interactive objects that can sense and control both physically and digitally.

2) Fingerprint Scanner:-
Fingerprint Scanners is a fingerprint recognition devices for computer security equipped with the fingerprint recognition module featuring with its superior performance, accuracy, durability based on unique fingerprint biometric technology. Fingerprint Reader Scanner is very safe and convenient device for security instead of password, that is vulnerable to fraud and is hard to remember.

3) Buzzer:-
A buzzer or beeper is an audio signalling device, which may be mechanical, electromechanical, or piezoelectric. Typical uses of buzzers and beepers include alarm devices, timers, and confirmation of user input such as a mouse click or keystroke.

4) ESP8266:-
The ESP8266 is a low-cost Wi-Fi microchip with full TCP/IP stack and microcontroller capability.

5) Zero PCB:-
A PCB mechanically supports and electrically connects electronic components or electrical components using conductive tracks, pads and other features etched from one or more sheet layers of copper laminated.

VII.CONCLUSION

The system is design based on latest technology is smart e-voting system. The existing system by using fingerprint recognition. Systems are providing high performance and high security to voting system. Smart e-voting system is useful for voter because voter can vote any other city to their current city. Developing Web-based Voting System using Fingerprint Recognition. Smart e-voting system may become the faster, better, and the most efficient way to administration election and counting vote as well as it consists of simple process or procedure and require a minimum election officer within the process. The system voting data are quickly transferred to the centralized databases. After the voting finishing the system display result quickly.

VIII. APPLICATION

1. Fast track voting which could be used in small scale elections, like resident welfare association, panchayat level election and other society level elections, where results can be instantaneous.
2. It could also be used to conduct opinion polls during annual shareholders meeting.
3. It could also be used to conduct general assembly elections where number of candidates are less than or equal to eight in the current situation, on a small scale basis.

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