

NEXT GENERATION ELECTRONIC VOTING MACHINE USING BIOMETRIC AND VOICE FEEDBACK

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ABSTRACT

Current generation of Electronic Voting Machine (EVM) in India uses push buttons, LED lights and beep sounds as its user interface. This is simple to use but has serious drawbacks when it comes to elderly and visually impaired people. They have to take an assistant along with them to vote which violates a voter's dignity and secrecy. Election commission's answer to this problem is EVMs with Braille facility which was used in 2009 elections. But the problem still remains because the question is how many of our elderly and visually impaired people have studied Braille method? Not much. Statistics say India has the highest number of blind people in the world, not to forget the elderly community of whom most of them have poor visibility. So, In order to make all our country people to exercise their right without anyone's assistance, we came up with a idea that uses some of the latest technologies available. The biometric system and wife will enhance the security of the system. The voice feedback will play the voice clips that is very helpful for visually impaired individuals.

Keywords: EVM (Electronic Voting Machine), LED (Light Emitting Diode), Braille facility, wife

I. INTRODUCTION

Our present voting framework isn't perfect for visually impaired and old individuals [1]. Our task point is to outline a minimal effort, low power cutting edge EVM that has MP3 quality voice input for visually impaired individuals[2]. We execute these innovations in our EVM. The following plan include is to actualize a MP3 quality sound interface that tells the outwardly debilitated voter, about the voting format. Fingerprint identification which is included will enhance the security of the system. A MP3 decoder chip is utilized to play

the voice records and in light of the voice cuts one can choose the contender to vote.

II. PROPOSED WORK AND METHODOLOGY

In our proposed system, first the voter needs to give his fingerprint at the administration database and at the season of voting biometric confirmation improves the security of the framework [3]. Our proposed system likewise has voice feedback, this input will give voice notes that helps visually impaired individuals and ease voting The methodology of the proposed system is explained using block diagram Fig 1.

III. Block Diagram

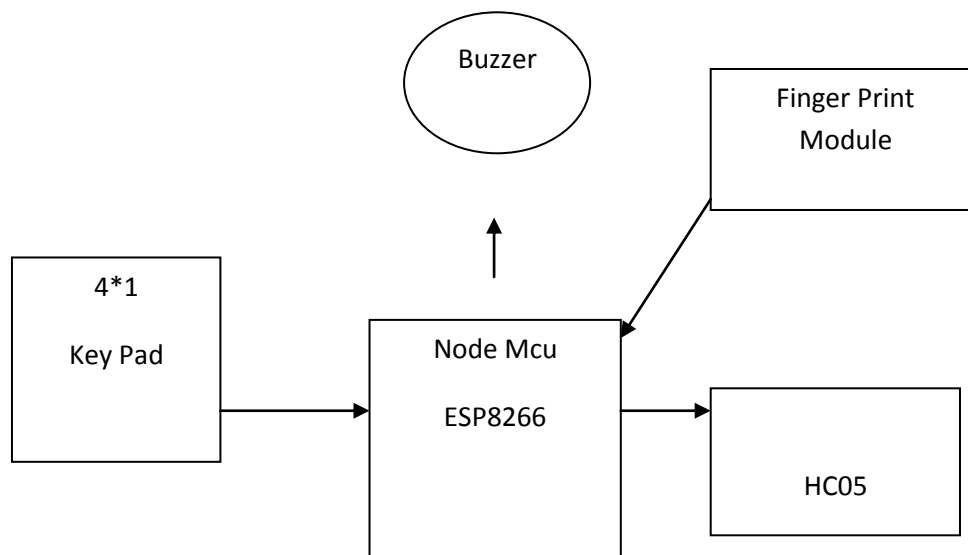


Fig 1: Block diagram for electronic voting machine using biometrics and voice feedback

Node Mcu:

The Node MCU (Node Micro Controller Unit) is an open source software and hardware development environment that is built around a very inexpensive System-on-a-Chip (SoC) called the ESP8266.

NodeMCU project aims to simplify ESP8266 development. An open source ESP8266 firmware that is built on top of the chip manufacturer's proprietary SDK. The firmware provides a simple programming environment based on eLua (embedded Lua), which is a very simple and fast scripting language with an established developer community. A DEVKIT board that incorporates the ESP8266 chip on a standard circuit board. The board has a built-in USB port that is already wired up with the chip, a hardware reset button, wifi antenna, LED lights, and standard-sized GPIO (General Purpose Input Output) pins that can plug into a bread board.

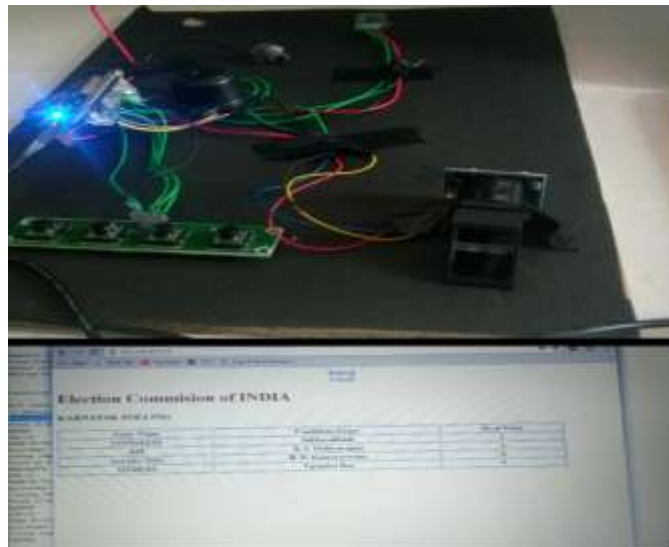
R305 Model:

This is a finger print sensor module with TTL UART interface for guide associations with microcontroller UART or to PC through MAX232/USB-Serial connector. Optical biometric unique finger impression peruser with extraordinary highlights and can be implanted into an assortment of finished results, for example, get to control, participation, security store box, auto entryway locks.

Buzzer:

A ringer is a mechanical, electromechanical, attractive, electromagnetic, electro-acoustic or piezoelectric sound flagging gadget. A piezo electric ringer can be driven by a wavering electronic circuit or other sound flag source. A tick, beep or ring can demonstrate that a catch has been squeezed.

IV. RESULT



V. CONCLUSION

Being a democratic country, India needs a fair and transparent election. Use of biometric is one of the most secured ways of conducting a fair election. Using biometric identification process, no one will be able to cast someone else vote or vote multiple times. With the help of voice clip the blind people can vote and provide feedback. Electronic voting machine helps to overcome the drawbacks of the current voting system recollecting the voting information (audit trails) which will provide evidence of the

integrity and accuracy. Therefore we can say that implementation of Electronic voting machine can provide transparent, fair, secure and accurate election process which is the main desire of every democratic country like India and thus hold democracy upright in our country.

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