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Finger Print Based Smart Voting System

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AB ST R ACT

The main objective of this project is to enable safe and secure voting system and is to avoid misconceptions which take place in election period. Voting System helps to choose their government and also the political representatives. It also ensures that to avoid fake and repeated vote during election. In this project the finger print is given as input. All the database of the voter include their finger print, photo, mobile number etc has been stored in the MATLAB. If the finger print enrolled by the voter should be matched with the database, It enables the voter to enroll his/her vote. If the finger print doesn't match the system will lock the process. The important is that the voter can enroll their vote at their desire location. And also the number of vote enrolled should be updated in the database administration unit every time after voting is done. The smart voting system will enhance better accuracy and high speed process. Through this voting system the disadvantages which are in the electronic voting system should be overcome.

Keywords: Finger print Sensor, MATLAB Database, Arduino MEGA Microcontroller, LCD Display, GSM, Buzzer.

1. INTRODUCTION

Our Indian government gave us right to elect their desired leader. For controlling and conducting this election process, the government formed a separate commission named Election Commission of India. This commission should not support and favorable to any of the political leader or the party and also it work as per the rules given in law. The election commission will follow the technique named Electronic Voting Machine in which the voter should produce the election id card provided by the commission and it has been verified with the official database list. After this process only, the voter can poll their vote.

This will not leads to time consuming and less man power. But in our project, it has less manual power and time consuming. Also it is safer than the old voting process. The disadvantages in EVM is that the counting of vote and result display will take number of days and also the candidate should enroll their vote at their allocated location only. This makes less accuracy of voting. But our project enable the candidate can enroll their vote at their desired location or at from working place. So this leads 100% accuracy of voting.

2. PROBLEM STATEMENT

Election is the one of the most important thing which binding our nation together to elect our leader till the next election. In the previous system, the polling officer is the in-charge of the control of the election process until the close button is pressed. In this process it will consume more manual work and it is not secure.

The discrepancy should be noticed only through the balloting unit during the counting of votes. The problem associated with this electronic voting machine is that during election time the candidate should go to their allocated location for enroll their vote. Due this problem many of them were didn't like to vote. This create many malpractice during election.

3. PROPOSED SYSTEM

The system consists of tamper proof card which is used to store all database. And the voter can directly to go the machine to vote, there is no need of polling officer. The main advantages of this proposed system is that the voter can poll his/her vote from any location instead of going to the allocated polling center.

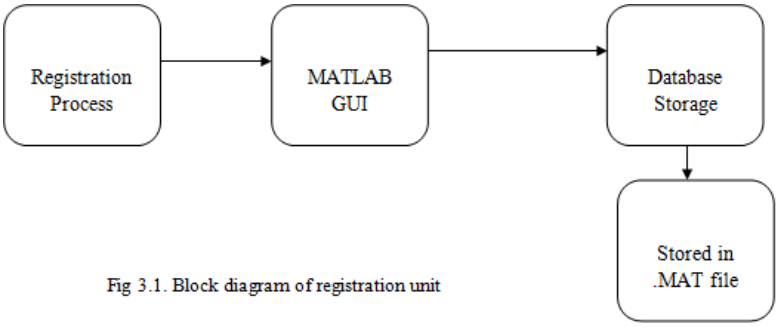


Fig 3.1. Block diagram of registration unit

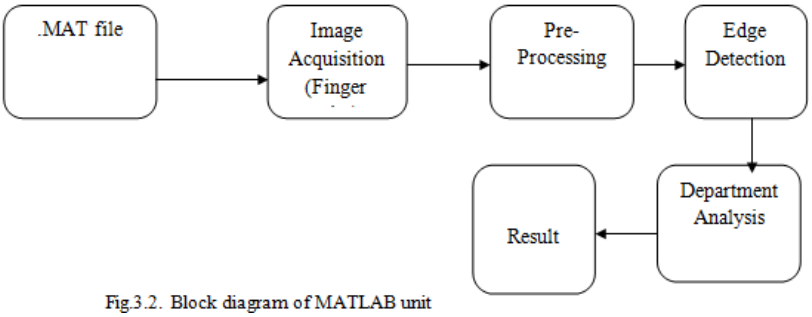
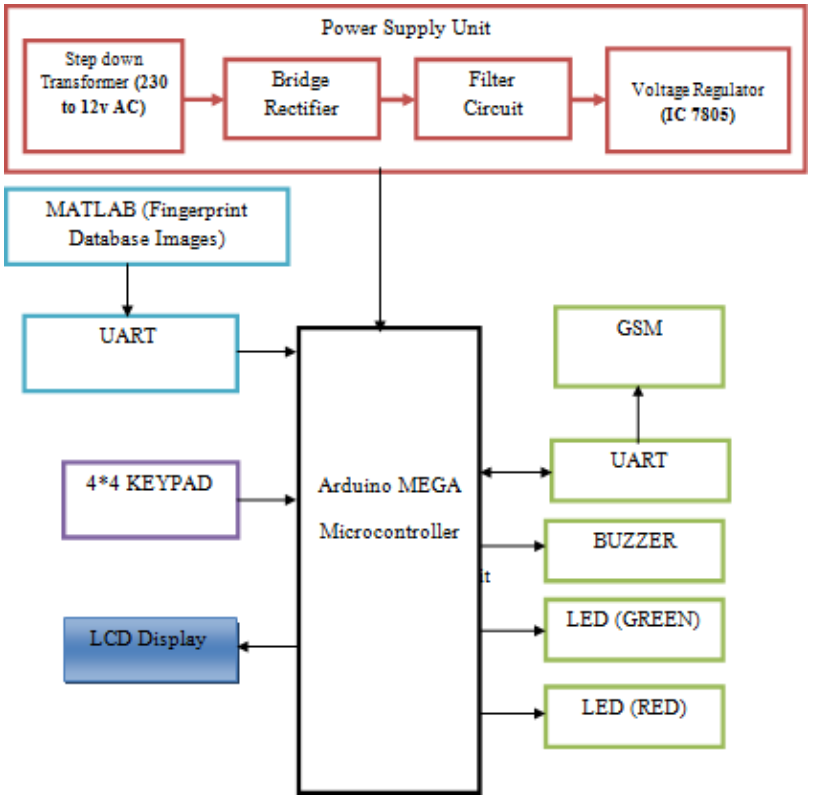
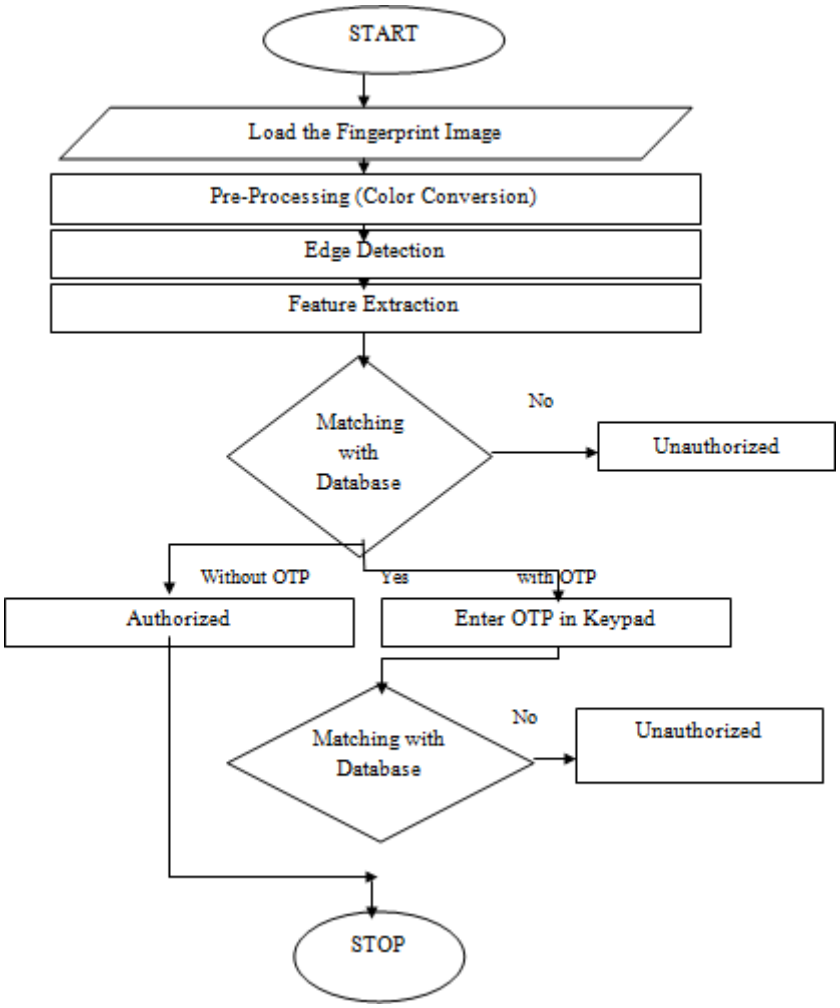


Fig.3.2. Block diagram of MATLAB unit





4. RESULT AND DICUSSION

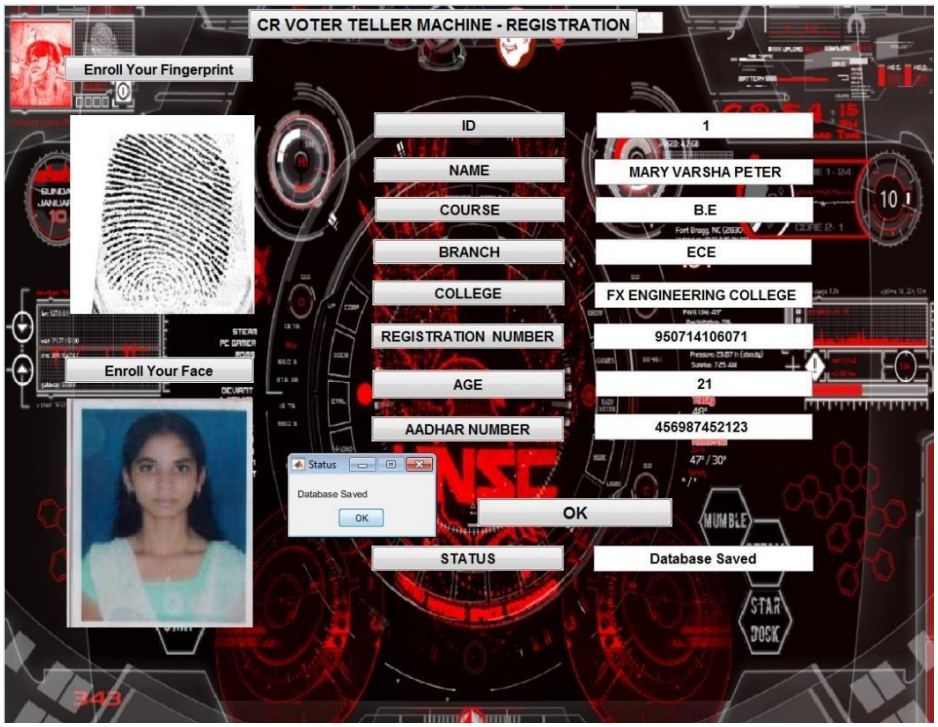


Fig.4.1.Display Module

First of all, voter should enroll his/her finger print. The enrolled finger print should be matched with the database in the system. After verification, the enrolled candidate details with photo should be displayed. If it doesn't match the system will lock the process and warning sound will be produced with the help of buzzer. After finishing this process voter can vote to the desired candidate and result will be send to control system.

5. CONCLUSION AND FUTURE ENHANCEMENT

We have just presented an idea or concept that how our voting systems can made in the recent future for "free and fair" voting, with faster, secure, easy accessible and reliable voting techniques. We have complete faith and belief in our government, the Election Commission of India and our day to day upgrading technology. We are also sure that in the upcoming days our technology is going to build something like this or much better and convenient from this.

REFERENCES

[1] R. Murali Prasad, PhD, Polaiah Bojja, PhD and Madhu Nakirekanti, "Aadhar based Electronic Voting Machine using Arduino", IJCA ,2016.

[2] Muthukumaran. N and Ravi. R, 'Hardware Implementation of Architecture Techniques for Fast Efficient loss less Image Compression System', Wireless Personal Communications, Volume. 90, No. 3, pp. 1291-1315, October 2016, SPRINGER.

[3] Muthukumaran. N and Ravi. R, 'The Performance Analysis of Fast Efficient Lossless Satellite Image Compression and Decompression for Wavelet Based Algorithm', Wireless Personal Communications, Volume. 81, No. 2, pp. 839-859, March 2015, SPRINGER.

[4] Muthukumaran. N and Ravi. R, 'VLSI Implementations of Compressive Image Acquisition using Block Based Compression Algorithm', The International Arab Journal of Information Technology, vol. 12, no. 4, pp. 333-339, July 2015.

[5] Soumadip Sen and Sankhadip Sen , "Automatic Voting Machine – An Advanced Model for Secured Biometrics Based Voting System ", IJRITCC,2015.

[6] Muthukumaran. N and Ravi. R, 'Simulation Based VLSI Implementation of Fast Efficient Lossless Image Compression System using Simplified Adjusted Binary Code & Golumb Rice Code', World Academy of Science, Engineering and Technology, Volume. 8, No. 9, pp.1603-1606, 2014.

[7] Ruban Kingston. M,Muthukumaran. and N, Ravi. R, 'A Novel Scheme of CMOS VCO Design with reduce number of Transistors using 180nm CAD Tool', International Journal of Applied Engineering Research, Volume. 10, No. 14, pp. 11934-11938, 2015.

[8] Muthukumaran. N and Ravi. R, 'Design and analysis of VLSI based FELICS Algorithm for lossless Image Compression', International Journal of Advanced Research in Technology, Vol. 2, No. 3, pp. 115-119, March 2012.

[9] Manoj Kumar. B and Muthukumaran. N, 'Design of Low power high Speed CASCADED Double Tail Comparator', International Journal of Advanced Research in Biology Engineering Science and Technology, Vol. 2, No. 4, pp.18-22, June 2016.

[10] N. Muthukumaran, 'Analyzing Throughput of MANET with Reduced Packet Loss', Wireless Personal Communications, Vol. 97, No. 1, pp. 565-578, November 2017, SPRINGER.

[11] Yashwant Singh Patel and Nitish Kumar Singh , "Kerberos based ATM Voting System: Voting Friendly Model ", ICDCIT,2014.

[12] P.Venkateswari, E.Jebitha Steffy, Dr. N. Muthukumaran, 'License Plate cognizance by Ocular Character Perception', International Research Journal of Engineering and Technology, Vol. 5, No. 2, pp. 536-542, February 2018.

[13] N. Muthukumaran, Mrs R.Sonya, Dr.Rajashekhara and Chitra V, 'Computation of Optimum ATC Using Generator Participation Factor in Deregulated System', International Journal of Advanced Research Trends in Engineering and Technology, Vol. 4, No. 1, pp. 8-11, January 2017.

[14] Keziah. J, Muthukumaran. N, 'Design of K Band Transmitting Antenna for Harbor Surveillance Radar Application', International Journal on Applications in Electrical and Electronics Engineering, Vol. 2, No. 5, pp. 16-20, May 2016.

[15] Yekini, N.A., Oyeyinka I. K., Oludipe O.O., Lawal O.N , "Computer-based Automated Voting Machine (AVM) Forelections in Nigeria ", ICDCIT,2015.

[16] Ankita R. Kasliwal, Jaya S. Gadekar, Manjiri A. Lavadkar, Pallavi K. Thorat, Dr. Prapti Deshmukh "Aadhar Based Election Voting System", IOSR-JCE,2017.

[17] Akhil. M.S and Muthukumaran. N, 'Design of Optimizing Adders for Low Power Digital Signal Processing', International Journal of Engineering Research and Applications, Vol. 5, pp. 59-65, March 2014.