

PROJECT SYNOPSIS

TITLE ON

**“FINGERPRINT BASED BIOMETRIC VOTING
MACHINE”**

MASTER OF COMPUTER APPLICATION
(3rd semester)



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ABSTRACT:

We all are aware of the existing electronic voting machine where the user has to press a button to cast the vote. But these machines have been criticized for tempering since the beginning. So the government is planning to introduce a fingerprint based voting machine where users can cast the vote based on his/her fingerprint impression. This system will not only remove the possibility of duplicate votes but also prevent any kind of manipulation..

INTRODUCTION:

So in this project, we are going to build a prototype of a Biometric voting machine using the Arduino Uno, TFT display, and Fingerprint Sensor.

We previously used R305 Fingerprint Sensor with NodeMCU to build a Biometric based Attendance System. but here we will use the advanced GT-511C3 fingerprint sensor with Arduino

OBJECTIVE OF PROJECT:

Voter registration is one of the most important activities that an electoral management body (EMB) needs to conduct, but it is also one of the most costly in terms of both time and resources. A credible voter register confers legitimacy on the electoral process, helps prevent electoral fraud and ensures that every eligible voter can vote in an election and that they can do so only once.

An inaccurate voter register can cause problems in the electoral process by raising doubts about the election's inclusiveness and outcome and by opening up avenues for fraud and manipulation. Many countries that face challenges in creating an accurate

voter register are considering reforming their voter registration systems through the introduction of biometric technologies. Such reforms are aimed at increasing trust in the electoral process by enfranchising all eligible citizens and, at the same time, reducing various forms of electoral fraud, such as voter impersonation and multiple voting

HARDWARE REQUIREMENTS:

- Arduino Uno
- 2.4 TFT LCD Display Shield
- GT-511C3 Fingerprint Sensor

SOFTWARE REQUIREMENTS

- SPFD5408
- SOFTWARE SERIAL
- FPS GT511C3

CONCLUSION:

So in this project, we are going to build a prototype of a Biometric voting machine using the Arduino Uno, TFT display, and Fingerprint Sensor.