

# Smart Voting System using Pattern Matching

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## Objective:

The objective of this project is to conduct an election in an easy manner. The online execution of the voting system enables the voters to cast their vote simply by verifying their identity by sitting at home. It also avoids any rigging process.

## Abstract:

Smart voting system is an easy and efficient way to conduct elections and avoid any errors, misleading's etc. We can start the process by a simple login to a portal that is accessible during the period of voting. A voter can look over the candidates participating in the election which will be provided in the portal. Every citizen can cast their vote by providing their details which will be verified through the database originated. By wrapping up all the verification steps a user will be accepted to cast a vote once only.

## Introduction:

The smart voting system is a procedure of conducting elections in a semi-online mode. The voters can cast their vote by verifying the voter card details presented to them. An online validation can be done using two step authentication process, which includes OTP generation to the user mobile number and fingerprint recognition for confirming the person identity.

## Software and Hardware Requirement:

SDK tool: Freeware VeriFinger,  
Precise BioMatch

## Existing System:

In the current voting system, the ballot machines were used in which the symbols of various political parties are displayed. When we press the button with the respective party's (political party) symbol the voting is done. The chance of fake person casting their vote is more in the existing system. The voting person may use the fake voting card and cast his vote; this may cause problem. In the existing system, the person has to travel long places to his constituency to cast his vote. Therefore, we need an effective method to identify the fake voters during voting. So, the facial authentication process is used for detecting the right person and also making the system to work in online, which will help the voters to cast their vote from their place itself.

## Proposed System:

An online portal is provided for the voters where they can login using their e-voter details. The person's e-card can be verified using their mobile number, with the help of One-time Password generation system. Before casting their vote, the user must validate his identity by providing his/her fingerprint, which can be validated through matching algorithms. After all the verification stages the user can cast their vote by choosing the selected candidate from the given list.

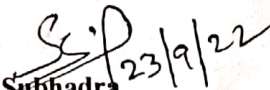
### Conclusion:

This project can help the government to conduct a fair and rigging free election across the regions in an quick and easy manner. It promises a simple solution to the election committee for conducting elections. It also helps the committee to present the results quickly.

### References:

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[2] Pandit, Varad, Prathamesh Majgaonkar, Pratik Meher, Shashank Sapaliga, and Sachin Bojewar. "Intelligent security lock." In Trends in Electronics and Informatics (ICEI), 2017 International Conference on, pp. 713-716. IEEE, 2017.

  
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