
Team Imperator

Members -

1. Harshal Deshpande - BT18CSE079
2. Swaraj Nalabale - BT18CSE080
3. Prachi Kalantri - BT18CSE136
4. Ajinkya Jadhav- BT18CSE145
5. Sakshi Yawale - BT18CSE013

Online Voting System

PROJECT VISION

To provide an complete, secure and scalable software solution to facilitate online registration and voting for areas having network connectivity

PROBLEM STATEMENT

- There are 80 Crs registered voters in India and many states having more than 3 crs voters.
- Conducting elections even with voting machines is a massive activity for governments.
- Cost of conducting elections is very high.
- Time & efforts government machinery has to invest in conducting elections is significantly high. It affects other development works.
- Many voters if not in the place where their name is registered miss to register their vote.

PROPOSED SOLUTION

- Provide complete online option for electoral list registration.
- Provide online voting option to voters in the area having good network connectivity.
- This will significantly reduce load on the manual election system as more than 40% voters can be covered through this mode.
- Will reduce the cost of conducting elections.
- Will provide hassle free option to urban voters there by increasing polling percentage which is on an average not more than 60%.

SCOPE OF PROJECT

Improve security and scalability

Implement multiple levels of security using image pre-coessing techniques and analysing semantics of voters to prevent incidences like forced login to conduct unbiased elections. This will ensure that people can vote without being under any external influence or pressure which is a notable problem in Indian elections. Also make the entire elections process faster and cost efficient by providing a fast and scalable software solution

Registration in Electoral list

Current process is partly automated. Only form can be submitted online.

Document verification process is still manual.

Enable complete on-line process.

1. Provide facility to submit and verify user documents
2. Provide cloud based storage for the same to ensure scalability of system
3. Secure documents storage by cryptographic system

Enable Online Voting

- **Scope**

For all elections like state assembly & Lok Sabha

- **System Requirement**

Access to a stable internet connection

Desktop computer with internal or external webcam

- **Steps**

1. The Personal Identification and Document verification part will already be completed while voter registration by above mentioned modules.
2. Capture vote.

Automated counting of votes

- Secure access can be provided to election returning officers to access online portal on the day of counting.
- The online votes can be added to manual voting for declaring results.
- the process of counting and declaring results faster and more transparent.
- This will drastically reduce the stress on election management systems.

Focal area of the project

1. Study the various cybersecurity threats and the existing solutions available to tackle those.
2. Study the shortcomings of present solutions (if any) and try to enhance/extend them.
3. Implement.

Proposed tech stack (Flexible)

- Frontend - ReactJs + Material UI
- Backend - NodeJs + Redis + Python + TensorflowJs
- Database - MongoDB