

# Online Voting System

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**Abstract-** The online voting System is a web based application. The system has a centralized database to keep records of all the voters and candidates and final results. This Online Voting System is based on OTP sending to voters, to confirmation of Vote. This proposed web based system is time saving, work load reduced information available at time and it provide security for the data. During the election, the election commission of India has introduced a new method of polling by online voting system (OVS). The election commission will maintain this website. This is a simple, safe and secure method that takes minimum of time. The word vote means to choose from a list, to elect or to determine. The main goal of voting is to come up with leaders of the people’s choice. Most countries, India not an exception have problems when it comes to voting. Some of the problems involved include rigging votes during election, insecure or inaccessible polling stations, inadequate polling materials and also inexperienced personnel.

## I. INTRODUCTION

- India is a Democratic country every citizen above 18 years of age is eligible to elect their leaders. When a person’s age becomes 18 has the constitutional right to voluntarily enroll for voter id given by the Indian Election Commission (IEC).
- Voter ID is only used for electing purpose once in year or on occurrence and voter card will not provide any government facility like Aadhaar, Citizens miss out to enroll for voter card and even after getting the Voter card during the election time voter may neglect voting because voter is living in some other region which is far from his resident and voter is not ready to travel such a distance. To avail constructional voting right to every citizen, Smart Voting System is the best solution.
- Nowadays with the rise in population the need for checking the validity of the voters has become a problem.. Usages of new technology in the voting process improve the elections in natural.
- This new technology refers to online voting systems where the election data is recorded, stored and processed primarily as digital information. In the past, usually, information security was used mostly in military and government institutions. But, now need for this type of security is growing in everyday usage.

## II. LITERATURE SURVEY

Sl.No	Author	Title of the paper	Journal	Methodology	Pros	Cons
1)	Hanady Hussien, Hussien Aboelnaga	Design of secured E-voting systems	IEEE 2013	based on homomorphic property and blind signature plan.	fulfils the security requirements of e-voting.	requires either application modifications or dedicated and specialized client-server applications
2)	Daniel petcu, Dan Alexandru stoichescu,	A Hybrid mobile Biometric- based E-voting system	International Society of Automation (ISA) May 7-9, 2015.	Chi-square automatic interaction detection, also known as CHAID	its output is highly visual and easy to interpret	No variable can have more than 15 levels
3)	M.Venkata Rao, Venugopal Rao Ravula, Pavani Pala	Development Of Antirrigging Voting System Using Biometrics Based On Adhar card Numbering	IJSEAT, 2015	Collecting Latent Prints and Collecting Patent Prints	It is highly accurate. It is easy to use.	Sensitivity of finger print module causes sometimes Combine character error
4	Freye Sheer Hardwick, Apostolos Gioulis, Raja Naeem Akram,	E-Voting with Blockchain: An EVoting Protocol with Decentralization and Voter Privacy	IJASRET, 2017	In they propose a potential new evoting protocol that utilizes the blockchain as a transparent ballot box	blockchain helps businesses cut costs by eliminating middlemen – vendors and third-party providers	It does not support for complex applications
5,	Madhuri Borkar SAE, Kondhwa, India Rohini Deshmukh	Secure Internet Voting System using QR code and Face Recognition	IJIR,2016	four standardized encoding modes (numeric, alphanumeric, byte/binary, and kanji Hybrid method: face recognition	The voter just needs a smartphone to scan the QR Code and unlock their password. Encourage electoral participation	Lack of familiarity with the QR code among people. It requires phone with camera which makes it costly for the common users to afford

## III. OBJECTIVE AND METHODOLOGY

- A new platform for secure votes and voting is the online voting system. Online voting systems are a web-based voting system, which transmits votes via a web browser over the internet.
- Voters from all over the world are eligible to vote online.
- Security issues arising from online voting are as follows:
- In general applications, password protection is high and phishing attacks are not the focus of the application.
- Website users are not protected efficiently from phishing.
- The key proposal for ensuring a secure online polling protocol to meet privacy, anonymity, eligibility, equity, verification, and unique online voting safety requirements.

- To achieve reliability, eligibility, transparency, accuracy, and uniqueness of the e-vote system

#### IV. METHODOLOGY

##### Proposed Implementation The Online Voting should:

Be able to handle multiple users at the same time and with the same efficiency, this will cater for the large and ever growing population of voters. OTP The Main Security implementation of our project is the concept of One Time Password i.e. every time a new password is generated and sent to the user on his mobile phone To Email.

**Registration Activity :** The voting authority take the data from the voter and upload the voter data into database.

**Verification:** The admin fill the voter details into the database(Candidate Name,VoterId,AadharNumber,Email

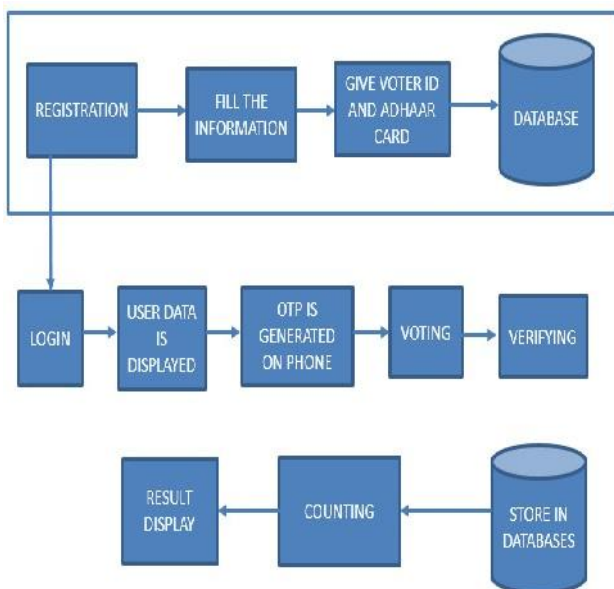
**Login Activity :** Once the user given the details to the voting authority he/she want to fill the details(Candidate Name,Aadhar Number) they will get OTP to mail.

**Result Activity:** Once the voter elect the voting party they will get the popup message voting successfully completed.

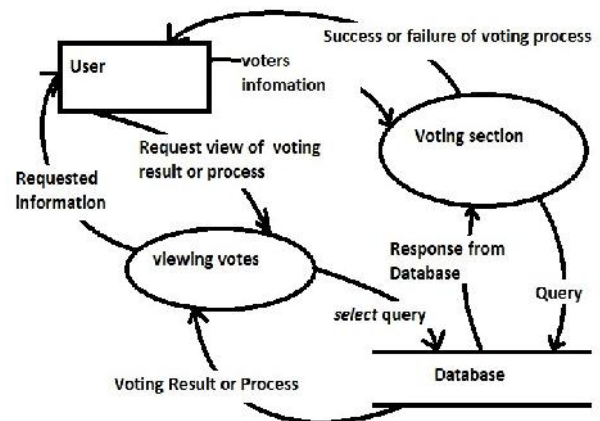
**Admin Activity :** Once the voter elected the voting party the result will be show only to the admin and give the results of the vote.

#### V. SYSTEM DESIGN AND ARCHITECTURE

##### Block Diagram

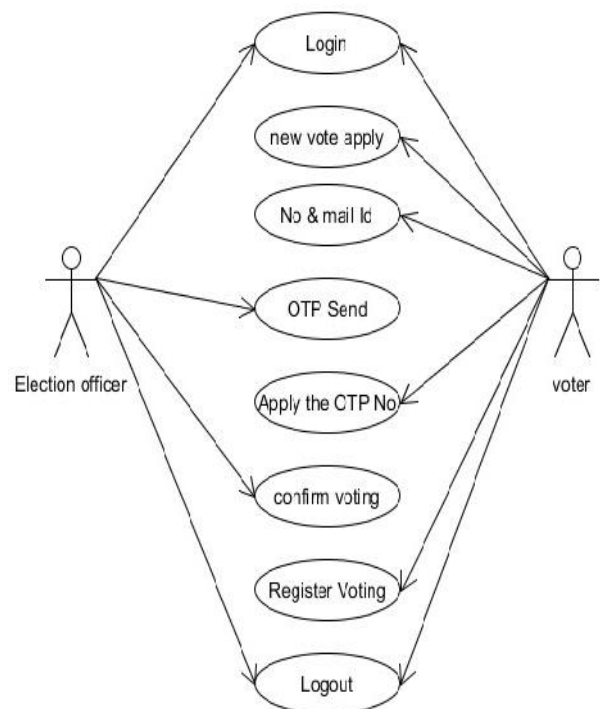


##### Data Flow Diagram



The user end section provide privilege to voter to either cast his vote , view votes and view the real time situation of the exercise. The voting exercise is viewed at 500 milliseconds intervals and the content of the database is fetched and displayed on the screen by a flash application. The voting section is simply a PHP web page that checks users information as authentication and the possibility that the user has voted or is booked not to vote for certain period of time before it records the users information.

##### Use Case Diagram



A use case diagram in the Unified Modeling Language (UML) is a type of behavioral diagram defined by and created from a Use-case analysis. Its purpose is to present a graphical overview of the functionality provided by a system in terms of actors, their goals (represented as use cases), and any dependencies between those use cases. The main purpose of a use case diagram is to show what system functions are performed for which actor. Roles of the actors in the system can be depicted.

### System Requirements

- Processor: Intel(R) Core(TM) i5-10300H
- RAM: 8GB
- Hard Disk: 1TB(Minimum)
- Speed: CPU @ 2.50GHz 2.50 GHz
- Operating System: Windows
- Scripting Language: Python
- Back-End: MYSQL .
- Front-End: HTMLAnd Webpages
- Type: Web Application.
- Server: XAMMP(version 8.0)
- Python Version : python-3.10.4-amd64

### VI. CONCLUSION AND FUTURE SCOPE

Most of the methodologies mentioned above provides the safety, security and transparent to the voting process. But we are proposing system that gives the provision to vote from anywhere in India so the voter no need to come to his constituency if he is in any other place on the day of voting. We are using a Aadhar database where the person's information like name, adahar card number, email address, phone numbers are stored . Vote casted by the voter will update on the voter's constituency database and we can also easily announce the results without any manual error. So we are hoping that may our country's voting percentage will increase in future using this system in the voting process. machine produces modified data. It, therefore, necessitates less capital and manpower. There is no need for an election official, paper ballots, or electronic voting machines in this system. It can help reduce workload and reduce manual operations. It can reduce human error when calculating the number of votes. It can help reduce the manpower required at polling stations and time consumed.

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