

Aadhar Card Based Online Voting System

Gujarathi Arpita A.¹ Ahire Megha D.² Shirsath Mai R.³ Prof. Chandgude A. S.⁴

^{1,2,3}BE Student ⁴Professor

^{1,2,3,4}Department of Computer Engineering

^{1,2,3,4}SND COE & RC Yeola, Maharashtra, India

Abstract— This project proposes the need of authenticated voting system in our election due to the increase an illegal voting or bogus voting in State and Central government elections. Here the authentication of an individual is done by using Aadhar number eligibility of the voter that is to be verified with Aadhar card details. In this project, Aadhar’s centralized database for every individual provides the reference data for every individual. Moreover, added tier of security is enforced as Aadhar card. The key functions of this paper are enrolment and Pattern matching. During election, while the voter put his/her Aadhar number, their details from the database will be displayed in that website.

Keywords: Aadhar Number, Voting

I. INTRODUCTION

In this paper, we have proposed an Adhar card based online voting system which is based on the Aadhar number of voter which is saved as Aadhar card number in a central government database. In the 12 digit number of Aadhar’s centralized database, the government collects biometric and demographic data of citizens and provides a 12-digit unique identity number to individual. Database provide secure authentication because Aadhar number is unique to each individual.it also check the age of a person. The Person is eligible to vote or not, if the person age is smaller than 18 year then the person is not eligible to voting.

Recently in India Electronic voting system is used. In this system voter availability at in the city is compulsory; this is major drawback of electronic voting system. An Online voting system is the solution as voter can vote from anywhere. The proposed Online Voting System linked with AADHAR card. At the time of voting administrator will provide password to the voter for reducing fake voting.

India is spending lots of money to improve our whole voting system to provide a better government to citizens. In India, voting system should be honest, without corruption and fully secure for the better democracy. The current system is used to less transparency because there could be chances of fake voting at the voting time. Authentication (uniqueness) of Voters, Security of the voting process, protecting voted data these are the main challenges of current Election voting. To recover the challenges we develop our Online Voting System. This system Provide a more security than the previous system.

II. PROPOSED SYSTEM

In the architecture show the working of the voting system. firstly the voter enter Aadhar number then the check eligibility of voter the age of user is greater than the 18 year or not, if voter is eligible then it give vote otherwise the voting is cancel. The proposed Online Voting System linked with AADHAR card allows the voters to enter their Aadhar

number, which. At the time of voting administrator will provide password to the voter for reducing fake voting.

These ACBOVS will manage the voter information by which voter can be login and use these voting rights. There is DATABASE which is maintained by the ELECTION OMMISION OF INDIA in which complete data of voter with complete information stored. at the time of registration voter will be ask for this: full name, age ,Aadhar card number, mobile number, email id, and verified details by administrator. At the time of requesting vote voter will be ask to enter his Aadhar id. Then voter will be authenticated and he can be vote from one of the candidate from the list.

The proposed system is divided into following module, and they are used along with each other to provide more services as follows:

A. Voter Registration:

In this module, the voter, enter their all details of their Aadhar information.

B. Eligibility Check:

In this module, we can know the eligibility whether your age is above 18 and also able to vote or not.

C. Voting:

In this module, voting process will be done, according to if person is authorized.

D. Voting Result:

In this module, voting process will be done. After voting, the count of vote in particular polling station will be easily calculated by the higher officials.

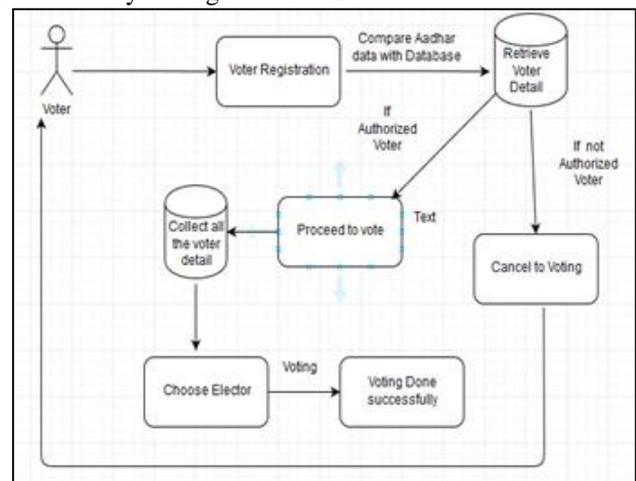


Fig. 1: System Architecture

III. METHODOLOGIES

A. Homomorphic Algorithm

Homomorphic encryption is a form of encryption that allows computation to be carried out on cipher text, thus generating

and encrypted result which, when decrypted, matches the result of operation performed on the plain text.

Today the lot alternative online voting system have been proposed and already used. But of them do not even fulfill the most basic security requirements, where as other systems are probably secure, but they are impractical as a result, we have the need for a new easy to use, practical, secure and transparent online voting system the objective of proposed project are providing all the required services for conducting an election. Providing support to all the actors present .easy and user friendly interface design. Offering the necessary functionalities for registration of eligible people to cast their votes and providing unique identification. Automated vote tally.

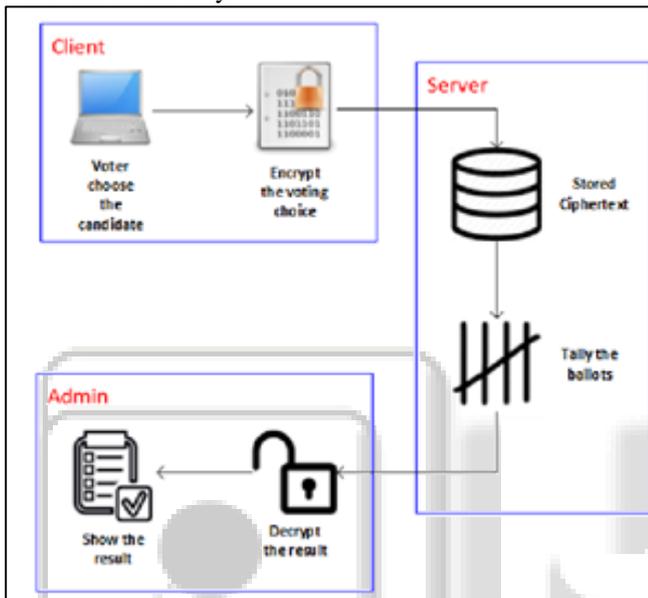


Fig. 2: Homomorphic Algorithm

B. Steps

- 1) Step 1: Choose p and q
- 2) Step 2: Compute $n = p * q$
- 3) Step 3: Compute $f(n) = (p - 1) * (q - 1)$
- 4) Step 4: Choose e such that $1 < e < f(n)$ and e and $f(n)$ are co-prime.
- 5) Step 5: Compute a value for d such that $(d * e) \% f(n) = 1$.
- 6) Step 6: Public key is (e, n)
- 7) Step 7: Private key is (d, n)
- 8) Step 8: The encryption of p is $c = p^e \% n$
- 9) Step 9: The decryption of c is $p = p^d \% n$

IV. SYSTEM ANALYSIS

We have created a system in .NET and used a SQL Server and an Android platform etc. Data is processed in Cloud Environment Android and Windows system. We have created .NET application with a local Server. We upload the data on Cloud as data is collected from various modules firstly data is collected from various modules like Voter, Elector, etc. and this data is used for communication and analysis as to work system efficiently and data is stored on the cloud as to provide security and efficiency. Here we conclude that it ensures security and provides global access to data.

V. SYSTEM FLOW

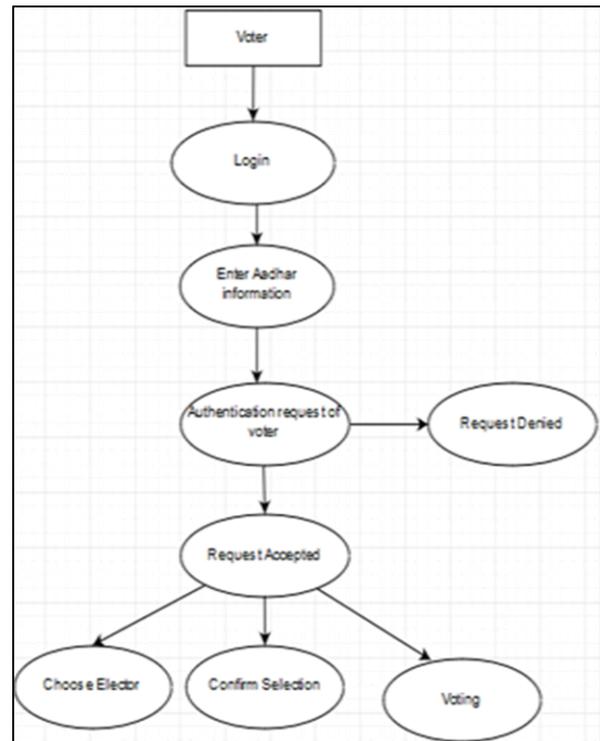


Fig. 3: System Flow

VI. RESULT

The data collected from various modules are grouped and classified and stored on the Cloud. Our aim is to maintain the history record of each and every voter from their Aadhar details.

This voting system provides Authentication for Voters, Security for the voting process, protecting voted data these all are the features of Online voting system.

VII. CONCLUSION

The proposed secured Online voting system uses AADHAR card and Voter Id for authentication. Database consisting of the details like name, address, age, gender should be updated every time before election. This system affords additional security by allowing voter to vote only once by comparing unique identification. Our main proposal is to enable the user to cast his vote using ACBOVS without going to booth. Due to easy and secure voting the voting percentage also increases drastically.

Aadhar card based online voting systems have many advantages over the traditional voting system. Some of these advantages are less cost, faster generation result, easy access accessibility, accuracy, and low risk of human and mechanical errors. It is very difficult to develop Aadhar card based online voting system which can allow security and privacy on high level. Future development focus to design a system which can be easy to use and will provide security and privacy of votes on acceptable level by proper authentication and processing section. It is easy to use and it is less time consuming. It is very easy to debug.

VIII. FUTURE WORK

Our future work is use Biometric for authentication. if the Aadhar number is access by any voter then the second option is check the biometric of that voter.

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