

MES COLLEGE OF ENGINEERING, KUTTIPPURAM
DEPARTMENT OF COMPUTER APPLICATIONS
20MCA246 – MAIN PROJECT

PRO FORMA FOR THE APPROVAL OF THE FOURTH SEMESTER MAIN PROJECT

(Note: All entries of the pro forma for approval should be filled up with appropriate and complete information. Incomplete Pro forma of approval in any respect will be rejected.)

Main Project Proposal No : 1
(Filled by the Department)

Academic Year : 2021- 22
Year of Admission : 2020

1. Title of the Project : Online Voting System Using Blockchain
2. Name of the Guide : Mr. Nowshad C V
3. Student Details (in BLOCK LETTERS)

Name

Register Number

Signature

MOHAMMED AJNAS K

MES20MCA-2027

Date:

Approval Status : Approved / Not Approved

Signature of
Committee Members }

Comments of the Guide

Dated Signature

Initial Submission :

First Review :

Second Review :

Comments of the Project Coordinator

Dated Signature

Initial Submission:

First Review

Second Review

Final Comments :

Dated Signature of HOD

Online Voting System Using Blockchain

MOHAMMED AJNAS.K

Introduction: A fair and Transparent election is need for today's society according to the today's social environment. The current ballot system does not offer transparency in counting of votes. There are several threats of voting frauds, like fake voters, frauds in the polling booths etc. So, this need for establishment of secure decentralized fraud less, voting system came into existence. Decentralized voting system using blockchain can overcome all the issues in traditional voting systems. Blockchain provides various properties due to its decentralized ledger technology. Blockchain is a decentralized computational and information sharing platform which enables multiple authority domain who do not trust on each other but they cooperate and collaborate in certain decision making process. Blockchain uses add and append only strategy. We cannot delete the existing data in blockchain. Blockchain uses peer to peer network systems. Blockchain is a chain of blocks and it include all the information of user through distributed ledger technology. The concept of block interconnection was evaluated from Merkle tree by Ralph Merkle. Every node is labeled with a cryptographic hash of a block data. Thereby a non-leaf node is labeled with a cryptographic hash of labels of child nodes. As all the blocks are connected to each other, any change in blockchain can be easily detected. To carry out a national election certain e voting system should ensure many of the security requirements. They can be listed as voting system should not be traceable The voting system should ensure whether the voter's vote was counted & proof of vote should be provided. Voting system should not enable single entity to control systems. Only eligible individuals are allowed to participate in voting. The Election system should not be expensive. Depending on the role election system should provide limited access to participants. The use of blockchain Technology in E-Voting system can meet all the above needs as a blockchain is tamper proof and nonalterable.

Objectives: Our proposal to solving the issues of digital voting by using blockchain technology. Blockchain-enabled e-voting could reduce voter fraud and increase voter access. Eligible voters cast a ballot anonymously using a computer or smartphone.

Problem Definition: In the current system, voting is done by using EVM (Electronic Voting Machine). This system can be replaced by the online voting (e-voting) system which will limit the voting frauds. Expanding e-voting into Blockchain technology could be the solution to alleviate the present concerns in e-voting. With this view in mind we are going to develop online voting system using Blockchain. This e-voting system has the potential to make the voting process easier and more accessible for electors.

Basic functionalities:

1. The Administrator Module

The Administration module is made for the authorized person or admin of the organization. Admin has ability to handle the every function of the voter and the Candidate. The Admin can perform the functions such as Insertion of the name, Deletion of the name, updating the name and the authority to carry out the voting procedure. Admin will able to see if someone tampered the vote and he will take necessary action against it

2. The User or Voter

Module In this module User or voter will able to see the names of all electing Candidates and vote the candidate.

Tools / Platform, Hardware and Software Requirements: Describe the Operating system, Development tool, Hardware and software used etc.