

ABSTRACT

The security considerations of the votes are based on blockchain technology using cryptographic hashes to secure end-to-end verification. To this end, a successful vote cast is considered as a transaction within the blockchain of the voting application. Therefore, a vote cast is added as a new block (after successful mining) in the blockchain as well as being recorded in data tables at the backend of the database. The system ensures only one-person, one-vote (democracy) property of voting systems. This is achieved by using the voter's unique face image, which is matched at the beginning of every voting attempt to prevent double voting. The Face Recognition is the study of physical or behavioral characteristics of human being used for the identification of person. So implement real time authentication system using face biometrics for authorized the person for online voting system. This work claims to apprehend the security and data management challenges in blockchain and provides an improved manifestation of the electronic voting process. A transaction is generated as soon as the vote is mined by the miners which are unique for each vote. If the vote is found malicious it is rejected by miners. After validation process, a notification is immediately sent to the voter through message or an email providing the above defined transaction id by which user can track his/her vote into the ledger. Although this functions as a notification to the voter however it does not enable any user to extract the information about how a specific voter voted thereby achieving privacy of a voter. It is important here to note that cryptographic hash for a voter is the unique hash of voter by which voter is known in the blockchain. This property facilitates achieving verifiability of the overall voting process. Furthermore, this id is hidden and no one can view it even a system operator cannot view this hash therefore achieving privacy of individual voters.

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