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(57) Abstract :

Title: SatVote: Secure Remote Voting System Using Blockchain and Satellite Communication ABSTRACT A SatVote system 100 comprising: a pre-voting unit 102 to generate a unique seed value of a length 256 for generating a public and a private key and a Non-fungible token (NFT Token) and a unique id wherein the seed value is configured to bring randomness into the system every time it's changed, identify a density of area; a satellite blockchain network unit 104 to register a voter's information to generate a unique tuple voter id, NFT Token, communication (public and private) keys correspondingly to exchange necessary information and communication keys in a network; a voting unit 106 wherein the voter is verified their authenticity by verifying their credentials that include a Unique Voter ID, a Non-fungible token (NFT Token), a Biometric Hash information and to selects a candidate to vote; a set top box i.e., STB device 108 to generate a random n x n vote matrix for each voter, encrypted and sent to the satellite network for casting vote in a blockchain network wherein the satellite verifies the voter using the tuple and NFT Token and authenticate the received vote by validating the vote matrix by calculating the hash and matching it with least X bits of the NFT Token and once validated it is then passed into the satellite blockchain network where a group of miners groups all the votes received from the satellite at that instance of time and generate a block of legitimate votes; and a counting unit 110 where a miners validates the blockchain network and declares a winner, wherein the SatVote system 100 i.e., a Secure Remote Voting System Using Blockchain and Satellite Communication system allows voter or users to cast votes remotely and securely with minimal effort. FIG. 1

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