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Digitalized Voting System using Blockchain Technology

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Abstract: This paper introduces a novel Digitalized Voting System designed to address the shortcomings of current voting methods employed in India. With a focus on enhancing transparency and trust in the electoral process, the system aims to overcome challenges present in both traditional and digital voting systems, including instances of mishaps and injustice. Leveraging blockchain technology, the proposed system seeks to ensure fair elections and minimise occurrences of injustice. While electronic voting has been introduced as a solution to paper-based voting, it has encountered obstacles primarily related to security and privacy concerns. To address these issues, our framework emphasises the effectiveness of various components such as the polling process, hashing algorithms, contract and block creation, data accumulation, and result declaration. Utilising an adjustable blockchain method, the system aims to provide a robust solution to the security and data management challenges inherent in blockchain technology. By incorporating elements such as blockchain, hashing algorithms, block creation, OTP verification, and Ethereum, our approach endeavours to digitalize the voting process comprehensively. This paper contributes to the advancement of electoral integrity by presenting an improved manifestation of electronic voting, paving the way for more transparent and secure elections

Keywords: Blockchain, Hashing algorithms, E-Voting System, Ethereum, Digitalizing

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