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Reliability Increasing for Power DistributionSystems Using Blockchain Technology and SmartContract

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خلاصه مقاله:

This paper explores the potential of blockchaintechnology and smart contracts to enhance the reliability ofpower distribution systems. Traditional centralized powergrids face various challenges, such as single points of failure,lack of transparency, and inefficiencies. By leveragingblockchain's decentralized nature, data integrity, andautomation capabilities through smart contracts, powerdistribution systems can be transformed into more robust,secure, and efficient networks. This paper discusses the keyfeatures and benefits of blockchain technology in powerdistribution, including decentralization, smart contracts, dataintegrity, grid management, and resilience to cyber-attacks. Italso addresses the challenges and considerations forimplementing blockchain in the energy sector. Through theanalysis of simulation results and case studies, this paperhighlights the potential of blockchain technology torevolutionize power distribution systems and improvereliability compared with conventional methods.

کلمات کلیدی:

Reliability, Smart Contract, Distribution Systems,Blockchain.

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