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Smart Insurance System Using Blockchain

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Abstract: *The insurance sector is an essential component of modern financial systems, offering protection against risks related to health, life, property, and assets. Despite its importance, traditional insurance systems continue to face critical challenges such as lack of transparency, excessive paperwork, fraudulent claims, delayed settlements, and dependence on centralized authorities. These limitations not only increase operational costs for insurance providers but also reduce trust and satisfaction among policyholders.*

This paper presents a Smart Insurance System using Blockchain technology to overcome the inefficiencies of conventional insurance models. The proposed system leverages a decentralized blockchain network to securely manage insurance policies, premium transactions, and claim records. Smart contracts are employed to automatically enforce policy rules and execute claim settlements when predefined conditions are satisfied. This automation significantly reduces manual intervention, processing time, and the possibility of fraud.

The immutable and transparent nature of blockchain ensures that all insurance-related transactions are tamper-proof and auditable, thereby improving trust between insurers and customers. The proposed framework demonstrates how blockchain-based insurance systems can enhance efficiency, security, and reliability while enabling faster claim settlements and reduced administrative overhead. The solution provides a scalable and practical approach for modernizing insurance services in a digital environment.

Keywords: Blockchain Technology, Smart Contracts, Insurance Automation, Decentralized Systems, Secure Transactions

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