

# A Blockchain-Based Decentralized Insurance Platform

Santhusha Alwis\*  
Department of Computer Science  
University of Sri Jayewardenepura, Sri Lanka  
alwissanthu@gmail.com

T. M. K. K. Jinasena  
Department of Computer Science  
University of Sri Jayewardenepura, Sri Lanka  
kasun@sjp.ac.lk

**Abstract** - Blockchain technology is considered as revolutionary for its potential to revolutionize many sectors by addressing existing issues in the traditional systems. A blockchain is a digital ledger consisting of transaction records that is duplicated and distributed to every participant computer in the network. Insurance industry is one of the most significant sectors where large institutes dominate the market. The traditional insurance process is highly centralized and cost-intensive to both insurance companies and customers. The process involves a third party to handle several processes among multiple parties manually in the form of paperwork. Inefficiency in centralized, manual processes lead to large frictional costs being borne by the customers. Also, conflicts of interest between insurance companies and policyholders are very common due to lack of trust, lack of transparency, and ambiguity in policy terms. To provide a solution for these issues in the traditional centralized systems, this research proposes a blockchain-based, decentralized platform for insurance. The platform aims to replace the conventional insurance companies. Using blockchain technology, the platform allows users to transact directly with each other, eliminating the need for an intermediary third party.

**Keywords** - blockchain, decentralization, insurance, smart contracts