National Institute of Technology Rourkela

Registration Seminar

Seminar Title : A Secure Framework for Healthcare Data using Block-chain Technology

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Venue : New Conference Hall (CS 323)
Date and Time : 02 May 2024 (05:30 PM)

Abstract : Now-a-days privacy and security of healthcare data are primary concerns for maintaining the past records for each

individual patient. Most people are very worried about their medical data. All medical records contain sensitive data that

data should remain immutable the main objective of our work is to keep patient health information safe and unchangeable. With the increasing digitization of medical records and the prevalence of cyber threats, finding effective solutions to secure healthcare data is a challenging task. For this work, we have chosen block-chain technology, because block-chain technology has some special features like immutable nature, decentralized structure, transparent operations, and distributed ledger system. In our first objective, we are planning to reduce the encryption time, Decryption time, and turnaround time. Our second objective is to reduce the block generation time, for this work, we are planning a novel consensus algorithm. This work can improve transaction throughput, reduce confirmation time, and enable the block-chain to handle a higher volume of transactions without sacrificing decentralization or security which is necessary for healthcare data. Scalability is one major challenge in healthcare system. It is proposed to design a hybrid consensus algorithm under

the Ethereum blockchain platform that can help to store large amount of healthcare records without compromising

security.