

IET Blockchain

Call for Papers



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Special Issue on: Blockchain Transaction Data Mining and its Applications

Since the birth of blockchain as the underlying support technology for bitcoin, blockchain technology has received widespread attention from academia and industry worldwide and is considered to have profound potential for disruptive change in areas such as finance, smart manufacturing, and the Internet of Things. As cryptocurrencies, smart contracts, decentralized applications and other derivatives continue to be generated on the blockchain, the volume of transaction data on the blockchain has been maintaining a high growth. With the help of these massive data, we can dig out the development rules of blockchain, analyze the characteristics of different transactions, and then identify the abnormal behaviour on blockchain to promote the green and sustainable development of blockchain. Unfortunately, blockchain transaction data mining faces challenges, such as, blockchain data heterogeneity, anonymity and decentralization as well as real-time and generality.

This special issue aims to provide an open venue for academic and industrial communities to present and discuss cutting-edge technologies and research results regarding blockchain transaction data mining and its applications. It solicits original high-quality papers with new transaction data acquisition tools, transaction network construction and mining methods, anomaly detection algorithm, etc.

Topics of interest include, but are not limited to:

- Real-time blockchain on-chain data collection techniques
- Blockchain off-chain data-aware techniques
- Blockchain data correlation and fusion techniques
- Methods for modeling and analyzing blockchain transaction networks
- Methods for learning blockchain transaction network representations
- Methods for predicting the evolution of blockchain transaction networks
- Systematic study of network science tools and techniques for blockchain
- Techniques for combining machine learning and network science in blockchain
- Tools and techniques for tracking and tracing blockchain transactions
- Blockchain entity identification and business classification techniques
- Blockchain transaction risk assessment techniques
- Blockchain linked group detection techniques
- Blockchain money laundering behavior analysis methods
- Blockchain money laundering recognition algorithm
- Introduction of new blockchain de-anonymization techniques
- Blockchain wash trading identification techniques
- Blockchain mixing service detection techniques
- Blockchain transaction semantic parsing techniques
- Blockchain smart contract classification techniques
- Blockchain smart contract recommendation techniques
- Blockchain cryptocurrency price prediction techniques
- Blockchain NFT transaction data analysis

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