

Special Issue

Blockchain-Based Networks: Security, Privacy, and Applications

Message from the Guest Editor

Blockchain technology is increasingly integrated into industries like decentralized finance, identity management, and the Internet of Things. These applications highlight its transformative potential by enabling secure, transparent transactions, facilitating asset ownership, and fostering decentralized systems. This Special Issue explores advancements in blockchain-based networks, focusing on security, privacy, and practical applications. With rapid adoption, challenges such as security, privacy, scalability, and interoperability have emerged. Security concerns include vulnerabilities in smart contracts and threats from quantum computing, while privacy issues arise from managing sensitive data on transparent blockchains. Scalability challenges, such as high transaction fees and slow processing speeds, hinder large-scale applications. This Special Issue covers topics like smart contract vulnerability detection, consensus optimization, privacy strategies, cryptographic design, and applications in supply chain management and digital identity verification. We invite submissions offering both theoretical insights and practical solutions to address challenges in this evolving field.

Guest Editor

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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