

IEEE Transactions on Consumer Electronics

Call for Papers

Special Section on “Blockchain-assisted 6G Communication in Consumer Electronics: Applications, Challenges and Opportunities”

Theme:

The advancement of wireless communication technology has transformed the way we interact with electronic devices, and the fifth generation (5G) of wireless communication technology has already revolutionized the way we communicate, work, and consume media. However, 5G is just the tip of the iceberg as we look forward to the sixth generation (6G) of wireless communication technology. 6G communication technology is predicted to significantly enhance data speed, latency, reliability, and capacity, allowing previously unachievable applications and services. With the rise of 6G communication technology, the integration of blockchain technology is also gaining momentum, as it has already shown its potential in various fields. Blockchain technology has already proven to be a game-changer in many industries, including finance, supply chain, healthcare, and energy. Blockchain technology can enable secure, transparent, and decentralized communication networks that can protect against cyber attacks, data breaches, and privacy violations. Moreover, blockchain technology can also facilitate innovative applications and services that can transform the way we interact with electronic devices. By integrating blockchain technology with 6G communication, we can unlock new opportunities for consumer electronics, enabling secure, private, and decentralized communication networks, as well as innovative applications and services. This special issue aims to explore the applications, challenges, and opportunities of blockchain-assisted 6G communication in consumer electronics. We believe that this topic is of significant importance, as it can pave the way for the future of wireless communication and consumer electronics. The integration of blockchain technology with 6G communication can potentially bring numerous benefits to consumer electronics, including enhanced security, privacy, and data management, as well as innovative applications and services.

Topics of interest in this Special Section include (but are not limited to):

- The role of blockchain in securing 6G communication networks and protecting consumer data
- Use cases for blockchain technology in 6G-enabled consumer electronics, such as decentralized social networks and peer-to-peer marketplaces
- The potential impact of blockchain on the telecommunications industry, including the emergence of new business models and revenue streams
- Blockchain-based solutions for managing and securing IoT devices in 6G communication networks
- The challenges of integrating blockchain with 6G communication technology and potential solutions
- The role of smart contracts in facilitating transactions and interactions in 6G-enabled consumer electronics
- The impact of blockchain on privacy and data protection in 6G communication networks
- The potential for blockchain to enable new forms of digital identity and authentication in 6G-enabled consumer electronics
- The role of blockchain in enabling secure and efficient supply chain management in the context of 6G-enabled consumer electronics
- The implications of blockchain-assisted 6G communication for digital rights and ownership, including issues of censorship resistance and intellectual property.

Important dates:

- End of submission of Manuscripts: November 30, 2023
- Expected publication date (tentative): Third Quarter of 2024

Guest Editors:

1. Prof. Gaurav Dhiman, *SMIEEE* (Lead Guest Editor)

Department of Computer Science, Government Bikram College, India

Email: gdhiman0001@gmail.com , gauravdhiman.cse@geu.ac.in

Editor-in-Chief: Dr. Kim Fung Tsang

kf.tce.eic@gmail.com

Google_Scholar: <https://scholar.google.com/citations?user=E3Z7oJcAAAAJ&hl=en>

2. Prof. Atulya Nagar

PRO VICE-CHANCELLOR (RESEARCH)

Liverpool Hope University,

United Kingdom

Email: atulya.nagar@hope.ac.uk

Scopus_profile: <https://www.scopus.com/authid/detail.uri?authorId=8840681600>

3. Prof. Wattana Viriyasitavat

Chulalongkorn University,

Thailand

Email: hardgolf@gmail.com

Google Scholar: <https://scholar.google.com/citations?hl=en&user=RKI-mqcAAAAJ>

Instructions for authors:

Manuscripts should be prepared following guidelines at: <https://ctsoc.ieee.org/publications/ieee-transactions-on-consumer-electronics.html> and must be submitted online following the IEEE Transactions on Consumer Electronics instructions: <https://ctsoc.ieee.org/publications/ieee-transactions-on-consumer-electronics.html>. During submission, the Special Section on **“Blockchain-assisted 6G Communication in Consumer Electronics: Applications, Challenges and Opportunities”** should be selected.