

IEEE Transactions on Consumer Electronics

Call for Papers

Special Section on “Secure Artificial Intelligence in 6G Consumer Electronics”

Theme:

Recently Artificial Intelligence (AI), for 6G communication is paving a way in consumer electronics. Existing consumer electronics are getting trained in AI for implementation security of 6G techniques in efficient way. Even though the existing security systems provide useful insights to the majority of the customers, some of the customers may have different needs and requirements when compared to the different electronics used by majority of the customers. AI model that identifies the individual preferences of the customers is need of the hour. Development of new machine learning and deep learnings models belong to the AI only, are providing various predictions for security threats in consumer devices. The data transmitted and received by the devices is validated through the trained data and if any threat is found, then prior hand information is provided to the consumers to keep the safety of the devices. Future is of 6G communication only. In future, digital economy of consumer electronics will run on 6G only. However, 6G-native security is attracting the attention of researchers where threats on 6G core, Edge Clouds, 5G slices are identifies. AI models are required to safeguard the systems against the threats to take security actions beforehand. As the AI models are trained on local devices, it can accelerate consumer service and enhance consumer experience. Implementing AI models for security in 6G enabled consumer electronics is creating new data challenges, even as it solves network complexities. To detect unidentified and unknown 6G intrusions, AI based network is required for security of consumer electronics and to perform the data labeling, data filtering, data preprocessing and data learning for 6G network flow and security of data. In this way AI has an enormous potential in providing predictions for security threats to save the consumer electronics.

This special issue solicits original work on various applications of Secure AI models 6G enabled networks for consumer electronics. The special issue accepts original experimental results, review papers and case studies.

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

Topics of interest:

- Safe and Robust Intelligent architecture for 5G/6G enabled Consumer Electronics.
- Security for smart cities with AI based fog/cloud computing in 5G/6G.
- Secure WSN and IoT integration for Intelligent communication for Consumer Electronics
- Secure Data Science for Consumer Electronics Applications in 5G/6G.
- AI enabled Secure Smart energy management solutions in 5G/6G.
- 5G/6G Security of smart cities with Image processing and Machine learning.
- Secure Intelligent Transportation systems in Smart Cities.
- 5G/6G Secure quantum communication for smart cities.
- AI based Secure monitoring and tracking of internet of vehicles in 5G/6G networks.
- AI based Secure digital applications for a 5G/6G network
- Secure communication in Consumer Electronic Devices protocols for 5G/6G.
- Intelligent Secure and safety solutions created on cryptanalytic architectures for 5G/6G.
- AI based Blockchain enabled security for the smart cities.

Important dates:

- ◆ End of submission of Manuscripts: 30 October 2023
- ◆ Expected publication date (tentative): 3rd Quarter 2024

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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 **“Secure Artificial Intelligence in 6G Consumer Electronics”** should be selected.