IEEE Consumer Electronics Magazine

Special Section: Distributed Ledger Technologies for Consumer Electronics (DLT)

Blockchain Technology (BCT) and Distributed Ledger Technologies (DLT) have recently emerged as solutions that can provide unparalleled security features to several types of systems. It has been primarily used for cryptocurrency, but it can also be applied to other domains such as IoT, IIoT, asset tracking, access control, and business processes. Moreover, its properties of encryption support, the immutability of ledger, user anonymization, validation through multi-peer consensus can be extremely beneficial for numerous types of application scenarios.

The true strength of Blockchain resides in its integration within the ecosystem of application domains, which is beyond typical cryptocurrencies. Integration into the complete stack from application to devices level is a challenging task, and hence requires significant research in different aspects ranging from core communication protocols to embedded systems. With the availability of several Blockchain platforms, researchers from different areas have started to integrate Blockchain and DLTs in different application scenarios. It is high time to focus on direct consumer-level applications of BCT and DLTs.

This special issue aims to extend high-quality research in domains of Blockchain and Distributed Ledger Technologies for Consumer-level applications, devices, and systems. We encourage original and high-quality submissions related to one or more of the following topics (but not limited to):

- Blockchain and DLT solutions for IoT and Industrial IoT devices
- Blockchain-as-a-Service for consumer applications
- Integrated and embedded Blockchain solutions for mobile devices
- Blockchain integration with 5G and 6G communication
- Device and consumer application-level security using Blockchain
- Energy and computational efficiency of Blockchain-based systems
- Implementation and experience works for Blockchain and DLTs
- Hardware designs and smart devices for efficient Blockchain networks
- Blockchain and DLT based solution for emerging technologies

Important Dates:

Submission Deadline: October 1, 2020 Revision: December 15, 2020

Acceptance Notification: February 1, 2021 Publication: 2021

Submission guideline:

All original manuscripts or revisions to the IEEE Consumer Electronics Magazine must be submitted electronically through IEEE Manuscript Central, https://mc.manuscriptcentral.com/cemag. Author guidelines and submission information can be found at https://cesoc.ieee.org/publications/ce-magazine.html. Make sure you are selecting the appropriate special section during manuscript submission. Articles that have been previously published at a conference need to have at least 50% new material as clarified in the cover letter of the submission. The authors need to select "Special Section: Distributer Ledger Technologies for Consumer Electronics (DLT)" in Step-1 of the submission process to ensure that the article is reviewed for this Special Call. For any questions, please contact the guest editor Dr. Kashif Sharif.

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