

Call for Papers

Themed Series of APSIPA Trans. on Signal and Information Processing on “Learning, Security, AIoT for Emerging Communication/Networking Systems”

Differential service needs have been the driving force for emerging communication/networking systems to serve as an innovative platform for digital convergence of information, control and management, based on cutting-edge technologies such as 5G/B5G-driven AI and IoT (5G-AIoT), powered by software defined networking (SDN), network functions virtualization (NFV) and multi-access edge computing (MEC). In particular, security and mobile edge intelligence are the main challenges to pursue smart-and-safe 5G-AIoT application scenarios.

By connecting everyone to everything, the smart-and-safe 5G-AIoT technology is expected to bring about a new technological and industrial revolution, such as low-latency from-core-to-edge intelligence for connected vehicles/drones and tactile internet. As billions of devices use the 5G/B5G radio access network (RAN), it will increase the risk of RAN resources overloaded by some attacks, such as DDoS. In addition, network slicing is a fundamental architecture component of the 5G/B5G. Network slicing also brings up a number of security issues from slice isolation to concurrent multiple access to slices by a single user. For smart applications of internet of things (IoT), edge intelligence is important and can be achieved via machine learning such as collaborative or cooperative learning, where the former aims for a common goal, and the latter for individual goals.

This themed series aims to provide a venue for researchers and practitioners in related fields, to communicate and share ideas and achievements of enabling smart-and-safe 5G-AIoT. Research topics of interest include but are not limited to:

- Emerging 5G/B5G technologies
 - SDN/NFV based 5G/B5G core and edge networking
 - SDN/NFV based 5G/B5G RAN networking and communication
 - 5G/B5G core and edge network slicing
 - 5G/B5G RAN slicing
 - Open RAN design
- Security Issues
 - Security of SDN
 - Security of NFV
 - Security of RAN
 - Security of MEC
- Edge Intelligence and Learning
 - 5G/B5G edge intelligence
 - 5G/B5G collaborative learning
 - 5G/B5G cooperative learning
 - Machine learning applications in any aspects of perceptual tasks

- Applications for IoT:
 - Intelligent IoT (AIoT) near the mobile edge
 - Industrial IoT (IIoT) and vertical applications
 - Internet of vehicles (IoV)
 - Tactile Internet

Each paper submitted to this series will be reviewed with the first-come-first-serve principle. The first round of decision targets at 5 weeks. Each paper will be published as an open access article immediately after its acceptance. Once all papers in this series are published, they will be assembled into an online book with an editorial written by the guest editorial team. If a paper cannot be accepted within the publication window, it will be changed to a regular paper. If you are interested in paper submission, please refer to:

<https://nowpublishers.com/Journal/AuthorInstructions/SIP>.

Submission Window: April 1, 2022 to September 30, 2022

Publication Window: June 1, 2022 to October 30, 2022

Guest Editorial Team

Jia-Ching Wang, National Central University

Wen-Ping Lai, Yuan Ze University

Po-Chiang Lin, Yuan Ze University

Shinsuke Ibi, Doshisha University

Wenyi Zhang, University of Science and Technology of China

Guan Gui, Nanjing University of Posts and Telecommunications

Thuong Le-Tien, Hochiminh City University of Technology

Seksan Mathulaprangsan, Kasetsart University