Workshop on
Advanced and Lightweight
SECURITY SOLUTIONS
FOR 6G SYSTEMS (ALSS-6G)

Co-located with the 8th IEEE Cyber Science and Technology Congress: CyberSciTech 2023
Abu Dhabi, UAE | 14 - 17 Nov, 2023

The ALSS6G workshop goes beyond the conventional scope of securing classical wireless communication systems and embraces the challenges posed by emerging communication networks. It recognizes the significant advancements in communication systems that have collectively heightened the complexity of ensuring network security. Moreover, the evolving use cases envisioned for future networks will require massive interconnectivity of billions of heterogeneous devices ranging from high-end computing platforms to low-end resource-constrained devices. This necessitates looking beyond the existing security solutions and developing lightweight and adaptive security solutions. Recently, physical layer security solutions have emerged as an exciting solution to develop adaptive, lightweight, and secure security solutions. The advancements in the communication system are further favoring the development of such physical layer-based security solutions. Such advancements include using reconfigurable intelligent surfaces (RISs), exploring unregulated high-frequency bands such as Mm-wave, THz, LiFi/VLC, and FSO, and joint sensing and communication capabilities. Moreover, several cross-layer solutions can also be designed to design lightweight security solutions. Accordingly, this workshop aims to provide a vital platform for researchers, developers, and practitioners to exchange knowledge and experiences regarding developing such advanced and lightweight physical layer/cross-layer-based security solutions capable of meeting the stringent security challenges posed by the forthcoming sixth-generation and beyond communication networks while ensuring ultra-high data rates, ultra-low latency, energy efficiency, and massive connectivity.

IMPORTANT DATES

☑ **Submission due**
August 15, 2023

☑ **Acceptance notification**
Sep. 15, 2023

☑ **Camera-ready**
Sep. 30, 2023

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SUBMISSION DETAILS:
Submit original technical papers of 4 to 6 pages in length. Researchers and practitioners are strongly encouraged to participate.

MANUSCRIPT FORMAT:
The workshop will include two technical sessions and two keynote talks by renowned researchers.

TOPICS OF INTEREST INCLUDE BUT ARE NOT LIMITED TO:

- Physical Layer Security (PLS) for 6G.
- Lightweight Security Solutions for Wireless.
- Security and Privacy of Integrated Sensing and Communications (ISAC).
- Security of 6G Networks Assisted by Reconfigurable Intelligent Surfaces (RISs).
- Security of 6G Networks Assisted by Machine, Deep, and Reinforcement Learning.
- Security and Privacy for Mm-wave, THz, LiFi/VLC, and FSO.
- Secure and Efficient Authentication, Key Management, and Access Control in 6G.
- Security and Privacy in 6G-enabled Autonomous Vehicles/Drones, Healthcare, and Smart Cities.