The International Workshop on Near-Field Secure Communication, Computing, and Sensing (NFCCS 2025)

To be held in conjunction with The 24th IEEE International Conference on Trust, Security and Privacy in Computing and Communications (Trustcom2025: https://ieee-aiplus-2025.org/trustcom.html), 14-17 November, 2025, Guiyang China.

Call for paper

The upcoming six-generation (6G) era will be a revolution of current wireless networks, designed to redefine the wireless landscape with ultra-fast and ubiquitous connectivity, near-zero latency, and greater efficiency. The key characteristic of 6G networks will be the native fusion of intelligence, including the exploitation of artificial intelligence (AI) and the integration of multi-function intelligent radio networks, embracing versatile functionalities of communication, computation, and sensing. To support these exciting visions, novel techniques and signal processing algorithms have been proposed such as extremely large-scale MIMO, reconfigurable intelligent surface (RIS), and dynamic metasurface antennas. With larger array aperture and near/far/hybrid-field electromagnetic propagation environment, these technologies possess great potential to provide richer degree-of-freedom for communication, higher spatial resolution for sensing and localization, and lower latency for computation.

Notwithstanding, a key prerequisite to realize the full value and potential of 6G networks will be the addressing of challenges on cyber-resilience, security, privacy, and trust. It is critical to protect the sensitive information contained in the training model and communication data involved in the usage scenarios of communication, computation, and sensing, from eavesdropping attacks and leakage risks. Notably, the emerging theories and algorithms enabled by near-field techniques, XL-MIMO, and smart antennas have opened new frontiers in addressing physical-layer security. These advancements leverage unique wireless channel characteristics, optimize resource allocation, and integrate AI-driven approaches to enhance protection. Therefore, this workshop focuses on the potential of AI and near-field techniques in addressing the challenges of security and privacy protection, in a wide scope of applications, especially the frontiers of communication, computation, and sensing.

Topics of interest include, but are not limited to:

- Near-field/Hybrid-field secure communications
- Secure integrated communication and sensing with artificial noise
- AI-native solutions to integrated communication, computation, and sensing
- Anti-jamming using XL-MIMO/reconfigurable antenna arrays
- AI-empowered resource allocation towards security and privacy
- Secure and private federate learning in near/far/hybrid fields
- Near-field wireless power transfer and mobile edge computing
- RIS-aided secure communication/sensing/computing
- Network-level security analysis in communication/sensing/computation
- Distributed sensing/localization/communication in near/far/hybrid fields
- Cross-layer and network architecture design towards secure 6G networks
- Security and trust in green and sustainable 6G network

Important Dates

- Paper submission deadline: before **August 1st, 2025**
- Author notification: **October 1st, 2025**
- Final manuscript due: **October 15th, 2025**

Submission Instructions

Papers submitted to NFCCS 2025 should be written in English conforming to the IEEE Conference Proceedings Format (8.5" x 11", Two-Column). The paper should be submitted through the https://edas.info/N34057 at the workshop website. The length of the papers should not exceed 6 pages + 2 pages for over length charges.

Accepted and presented papers will be included into the IEEE Conference Proceedings published by IEEE CS CPS and submitted to IEEE Xplore and CSDL. Authors of accepted papers, or at least one of them, are requested to register and present their work at the conference, otherwise their papers will be removed from the digital libraries of IEEE CS after the conference. Distinguished papers presented at the conference, after further revision, will be recommended to special issues of reputable SCI/EI-indexed journals.

Submitting a paper to the workshop means that, if the paper is accepted, at least one author should attend the Symposium and present the paper.

Workshop Chairs

Cunhua Pan, Southeast University, China

Qihao Peng, University of Surrey, UK

Guangji Chen, Nanjing University of Science and Technology, China

Zhuangzhuang Cui, KU Leuven, Belgium

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Contact

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