

The Workshop on Crystal-Free/-Less Radio and System-based Research for IoT

May 14th, 2024
Hong Kong, China

(Co-located with CPS-IoT Week 2024)

Call For Papers

Eliminating all on-board components of an IoT device by using crystal-free/-less chip-scale wireless system innovation is the future trend of the trillion-node deployment vision. Recent work in this field has drawn significant attention in both industry and academia and is poised to usher in a new era of IoT research and development. The key drivers of these developing trends are a focus on system-based research with IoT devices and research platforms, innovation in circuit design, and improvements in system integration. In addition to the design and research on the systems themselves, their practical application to multiple disciplines will play an essential role in the adoption of these technologies in a tremendous number of IoT-based industries.

The CrystalFreeIoT workshop will bring together researchers and technical experts to share experiences and state-of-the-art research work under crystal-free/-less radio or system integration and thinking in multiple IoT related topics.

We solicit **papers proposals** with systematic design from topics including, but not limited to:

- System-level Design for IoT (including low-power wireless networking, VLSI, standards-compliant protocols, new radio designs, data fusion for multiple-sensor systems)
- Crystal-Free Radio Design and Calibration Techniques
- Wireless Indoor Localization
- Cross IoT-Protocols support
- Swarm Robotics and Behaviors Analysis
- Miniaturization of IoT devices
- Synchronization in Wireless System
- Cryptography for IoT devices (PUF, digital fingerprint, etc.)
- Integrated Backscatter Device

We also welcome **Poster/Demo** proposals. Posters can cover accepted papers, current research, new problem discussions, or recent results. Demos offer an interactive look at tools and techniques. Acceptance hinges on their novelty and relevance to the workshop. Please ensure demo proposals also include:

- Equipment to be used for the demo.
- Additional facilities needed including estimated power connections needed for the demo, special environments and tools, Internet access, physical space requirements, etc.

Important Dates

Submission Deadline: ~~Feb 14th, 2024~~, Feb 21st, 2024
Authors notification: ~~March 1st, 2024~~, March 6th, 2024
Camera-ready deadline: ~~March 9th, 2024~~, March 9th, 2024
Workshop Day: May 14th

Publication Venue

All accepted papers will be included in 2024 CPS-IoT Week Conference Proceedings and submitted for archival in IEEE Xplore.

Submission Instructions

Workshop language is English.
Submitted papers/posters/demos are required to comply with the guidelines for [IEEE conference manuscripts](#) and must not exceed **6 pages** in length for papers and **2 pages** for posters/demos. Submissions are handled via the [EasyChair Submission system](#).