

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

September 22, 2025
Leuven, Belgium
(Co-located with EWSN 2025)

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 paper submissions with systematic design on 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 submissions in a short-paper format to showcase in-progress research, new problem discussions, or recent results. If the poster includes an interactive demo, the author(s) will be expected to bring all necessary equipment with them. The acceptance of paper and poster submissions will hinge on their novelty and relevance to the workshop.

Important Dates

Workshop Paper Deadline: ~~01 June 2025 (AoE, 23:59 UTC-12)~~ 01 July 2025 (AoE, 23:59 UTC-12) (FIRM)

Notification of Paper Acceptance: 15 July 2025

Camera-Ready Deadline: 18 July 2025

If your paper is accepted to the workshop, it is expected that one of the authors will be available to present in-person on 22 September 2025 in Leuven, Belgium.

We also invite any presenting authors to register and attend the main EWSN conference which will occur on 23-24 September 2025.

Submission Instructions

The workshop language is in English.

Submitted papers are required to comply with guidelines for **ACM conference manuscripts** and must not exceed **6 pages** in length for papers and **2 pages** for short submissions. ACM guides and templates for LaTeX and Word are available:

- [Preparing Your Article with LaTeX](#)
- [Preparing Your Article with Microsoft Word](#)

Submission site is hosted on [EasyChair](#) and will open soon!