ICTC 2027

Nanjing, China | May 21-23, 2027

2027 8TH INFORMATION COMMUNICATION TECHNOLOGIES CONFERENCE

www.ictc.net

Special Session

Intelligent Communication Technologies for 6G Networks

6G networks demand high capacity, low latency, and integrated sensing, computing, and intelligence, yet conventional transceivers and passive propagation limit coverage, energy efficiency, and scalability. RIS makes the wireless channel programmable, but passive RIS suffers from multiplicative fading and limited aperture efficiency at mmWave/THz. RDARS, FIM, and RHS introduce distributed active/passive operation, surface morphing, and low-power holographic beamforming. This Special Session gathers theoretical, algorithmic, and experimental work on RIS, RDARS, FIM, RHS, and related technologies, emphasizing AI/ML-enabled design, signal processing, hardware co-design, and network integration for practical intelligent radio environments in 6G.

Call For Papers

Topics include, but are not limited to:

- Fundamentals and channel modeling for RIS, RHS, FIM, SIM, and RDARS across sub-6 GHz, mmWave, and THz bands;
- AI/ML for channel estimation, beamforming, mode selection, and resource allocation;
- Transmission and signal processing for holographic beamforming, distributed operation, and shape-adaptive metasurfaces;
- Integrated sensing, communication, and computing (ISAC/ISCL) enabled by intelligent surfaces;
- Energy efficiency, hardware architectures, prototypes, and experimental validation;
- Network-level integration, multi-surface cooperation, interference management, and protocol design;
- Emerging directions: movable/fluid antennas, semantic communication, and edge intelligence.

More details about Special session, please view:
https://www.ictc.net/ss.html

Submission

To publish the full paper into conference proceedings and give the oral presentations, please send us the full paper. To give presentation only, please just send us the abstract.

Submission system:
https://www.zmeeting.org/submission/ictc2027
Submission email: ictc_general@163.com

Important Date

Paper Submission Deadline (Full-length Manuscript): December 30th, 2026
Notification of Acceptance: January 30th, 2027

Publication

Submitted manuscripts will be peer reviewed by the conference scientific committees. Accepted and presented papers will be included into **Conference Proceedings**, which will be submitted to **Ei Compendex** and **Scopus** for indexing.

ICTC has a credible publication history:
ICTC 2026 | ISBN: 979-8-3195-1877-4 |
ICTC 2025 | ISBN: 979-8-3315-6828-3 | IEEE Xplore | Ei Compendex and Scopus
ICTC 2024 | ISBN: 979-8-3503-7351-6 | IEEE Xplore | Ei Compendex and Scopus
ICTC 2023 | ISBN: 978-1-6654-6258-7 | IEEE Xplore | Ei Compendex and Scopus
ICTC 2022 | ISBN: 978-1-6654-9507-3 | IEEE Xplore | Ei Compendex and Scopus
ICTC 2021 | ISBN: 978-0-7381-4286-9 | IEEE Xplore | Ei Compendex and Scopus
ICTC 2020 | ISBN: 978-1-7281-6775-6 | IEEE Xplore | Ei Compendex and Scopus

Special Session Chair



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