

# Call for Papers



## 2024 International Workshop on Antenna Technology

*Small Antennas, Novel Metamaterials and Their Applications*

April 15–18, 2024, Tohoku University, Sendai, Japan

<https://attend.ieee.org/iwat-2024/>

The International Workshop on Antenna Technology (iWAT) is an annual forum for the exchange of information on the progress of research and development in innovative antenna technology. It especially focuses on small antennas and applications of advanced and artificial materials to the antenna design. At iWAT, all the oral presentations are delivered by invited prominent researchers and professors. iWAT has a particular focus on posters by which authors have the opportunity to interact with leading researchers in their fields. iWAT is a series of annual international antenna workshops which has been held in various countries all over the world. Student Paper Awards and Student Encouragement Awards are available at iWAT2024. These awards will be presented at the banquet. iWAT 2024 commemorates 100 years anniversary of Yagi-Uda antenna developed by Prof. Hidetsugu Yagi and Shintaro Uda at Tohoku University, Sendai, Japan.



Photograph of Yagi-Uda antenna used as a UHF receiver for a communication experiment from Sendai to Otakamori in 1929 (Citation from web page of RIEC, Tohoku Univ., <https://www.riec.tohoku.ac.jp/ja/about-riec/antenna/>).

### Topics include but are not limited to the following:

#### Small Antennas

- Adaptive (smart) arrays
- Antenna design and analysis based on characteristic or eigen modes
- Antenna measurements
- Antennas on/in IC packages
- Body-centric antennas
- Broadband antennas
- Conformal antennas
- Magnetic nanoparticles, graphene or carbon-nanotubes in Antennas
- Measurements for SAR of handheld devices

#### Novel Metamaterials

- Analysis and design of EM materials
- Artificial magnetic conductors (AMC)
- Electromagnetic anisotropy
- Intelligent materials
- Electromagnetic bandgap (EBG) structures

#### Applications

- Automotive systems
- Antennas for cube satellites
- Biomedical and healthcare applications
- Bluetooth/WLAN (PDAs, laptops)
- Energy harvesting
- Hyperthermia and RF Ablation
- GPS systems
- Medical diagnostic and therapeutic applications
- Millimeter-wave/terahertz communications and imaging
- MIMO systems

- MEMS/nanotechnology for antennas
- Terahertz nano and optical antennas
- Modeling and simulations
- Non-Foster/active elements
- On-chip antennas
- Reconfigurable antennas
- Reflectarrays
- Ultra-wideband (UWB) antennas
- Wearable, implanted, and encapsulated antennas
- 3D-printed antennas and structures

- Frequency-selective surfaces (FSS)
- Single and double negative metamaterials
- Electromagnetic skins: epidermal, flexible, and stretchable antennas, sensing substrates
- Reconfigurable intelligent surfaces

- RFID antennas and wireless sensing systems
- Software-defined/cognitive radio
- Satellite communications
- UWB communications
- WBAN systems
- Wireless communication systems (handheld devices, base stations)
- Wireless power transmission and harvesting for implanted systems
- Smart radio environment for 6G communication systems

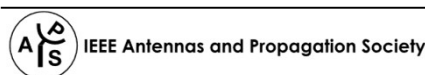
### Important Dates

Deadline of paper submission: December 8, 2023

Notification of acceptance: January 19, 2024

### Paper Submission Guidelines

Authors **MUST** submit camera-ready papers that are **2 to 4 pages** including figures by December 8, 2023 via the workshop website. All papers must be formatted in two-column IEEE format including figures and electronic submissions must meet all IEEEExplore specifications. See the workshop website for templates and more information on creating acceptable electronic files.



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