

Call for Papers



IEEE Sendai Section

Executive Committee

Arokia Nathan, Darwin College, Cambridge Univ (General Chair)

Qiang Chen, Tohoku Univ (Co-General Chair)

John Long, Univ of Waterloo (Technical Program Chair)

Branislav Notaros, Colorado State U., (Co-Technical Program Chair)

Hiroshi Okazaki, Tokyo IDP Univ (Co-Technical Program Chair)

Keisuke Konno, Tohoku Univ (Local Arrangements and Publicity Chair)

Ryosuke Kuwada, Tokyo University IPC (Sponsorship Chair)

Technical Program Committee

Shinjo Shintaro, Mitsubishi Electric, Tokyo

Shinji Hara, Nagoya University

Noriharu Suematsu, Tohoku University

Celimuge Wu, Univ of Electro-Communications, Tokyo

Kazuki Maruta, Tokyo Univ of Science

Jin Nakazato, University of Tokyo

So Hideya, Shonan Inst of Technology, Kanagawa

Alessandro Piovaccari, University of Bologna

Christophe Fumeaux, University of Queensland

Koichi Ito, Chiba University

IEEE IC and mmWave Platforms and Advanced Circuit Technologies for 6G Communications (IEEE IMPACT-6G)

Nov 3, 2025

Tohoku University, Sendai, Japan
(EIKE Future Hall, Aobayama Campus)

As pre-commemoration of the 100th Anniversary of the Invention of the Field Effect Transistor, the IEEE Electron Devices Society, Solid-State Circuits Society, and Antennas and Propagation Society will hold a workshop focused on Si and non-Si IC and mmWave circuit technologies tailored to 5G/6G mmWave communications. The workshop will be a hybrid event, and will take place in Japan, Tohoku University Campus.

The workshop will host a broad range of topics to represent the multi-disciplinary nature of the emerging GHz devices and circuits and millimeter-wave (mmWave) applications. In particular, we see how integrated circuit technology is continuing to have an unprecedented impact on every aspect of modern society, ranging from communications and security to healthcare and industrial automation. Over the last five decades, the relentless pursuit of IC device miniaturization for manufacturing high-performance and high-density very large scale integrated (VLSI) circuits and systems has led to the creation of a digital society. Operating speeds continue to be pushed to increasingly higher and higher frequencies enabling baseband operation in mobile devices in the 30 GHz vicinity, which is expected to provide more bandwidth and lower latency. Millimeter-wave communications will soon become part of the 5G/6G standards, alongside developments to push communications to the THz bands. The availability of bandwidth at these frequencies will offer a multitude of opportunities to increase throughput of a new generation of wireless networks. Although this area of research is relatively new, we witness a tremendous growth in the literature related to the electromagnetic properties of mmWave communications, and in particular, free space propagation loss and its susceptibility to hindrances.

This IEEE Workshop will present a forum for engineers and scientists to discuss these issues and hear recent developments from experts in areas ranging from transistors and integrated circuits, of Si and non-Si families, to antennas & propagation and communication networks, and to discuss the challenges faced in design of 6G transceiver systems and networks.

Important information

Abstract Submission: This workshop accepts abstracts only (≤ 1 pg) by Sept 1, 2025 -- no paper submission.

Interested participants please contact Keisuke Konno (keisuke.konno.b5@tohoku.ac.jp).

Registration: Deadline Sept 1, 2025.

Registration Fee: 15,000 JPY (includes lunch/dinner/refreshments). On-site cash payment only.