

Call for Papers

Special Section on Fundamentals and Applications of Advanced Semiconductor Devices

The IEICE (Institute of Electronics, Information and Communication Engineers) Transactions on Electronics announce a Special Section on “Fundamentals and Applications of Advanced Semiconductor Devices” to be published in **September 2026**. As digital processing units penetrate deeply into information society, the demand for high-performance semiconductor devices is kept growing. The purpose of this Special Section is to discuss various aspects of advanced semiconductor devices from fundamental physics to circuit applications. These include Si-based MOSFETs and bipolar transistors, compound semiconductor devices, and nano-scale devices.

1. Scope

Contributions are solicited in the following areas (but are not limited to these areas):

- Advanced integration technologies
- ULSI process technologies
- High-speed devices and circuits
- Power devices
- Wide bandgap materials and devices
- Novel devices and circuits
- Semiconductor devices applications
- MOS/bipolar devices technologies
- Compound semiconductor materials and devices
- Microwave/Millimeter-wave devices and circuits
- TFT materials, devices and circuits
- Quantum effect/single electron devices
- Characterization and simulation
- Sensors and displays

2. Submission Instructions

The deadline for submission is **August 31, 2025**. Types of manuscripts should be either “Paper (within 8 pages)” or “Brief Paper (within 4 pages).” Manuscripts should be prepared according to the “Information for Authors,” the latest version of which is available at: https://www.ieice.org/eng/shiori/mokuji_es.html.

This special section will accept only papers by electronic submission. Prospective authors are requested to follow the submission procedure described below.

Submit a paper and transfer copyright of the paper using the IEICE Web site https://review.ieice.org/regist/regist_baseinfo_e.aspx. Authors should choose the [Special-FU] Fundamentals and Applications of Advanced Semiconductor Devices as a "Issue/Section" on the online screen. Do not choose [Regular-EC].

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* Upon accepted for publication, all authors, including authors of invited papers, should pay the page charges covering partial the cost of publication around Feb. 2026. If payment is not completed by 15 March 2026, your manuscript will be handled as rejection.

* The accepted papers will be published online soon on the web site of Transactions Online after the payment of page charges has been completed. For detailed information, please visit https://www.ieice.org/eng/shiori/page2_es.html#8

* If there are non-members among the authors, we recommend that the authors take this opportunity to join the IEICE. For detailed information on the IEICE Membership Application, please visit the webpage, https://www.ieice.org/eng_r/join/individual_member.html.

If all authors are non-members, the article processing charge for non-members will be applied, except for invited papers.

* IEICE Trans. on Electronics requires authors to cite 30 or more references for full paper and 15 or more references for brief paper.

* All papers published in or after August 2025 issue are opened to all readers in the world through J-STAGE.

* IEICE has begun a multilingual (16 languages) translation trial of IEICE Transactions Online in April 2024. Please visit <https://globals.ieice.org/> for details.