Special Issue on Novel Sensors, Materials, and Related Technologies on Artificial Intelligence of Things Applications

Call for Papers

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Special Issue Information

Dear Colleagues,

In recent years, the booming economic development in Asia, particularly the leading manufacturing industries from automobiles, machinery, computers, communication, consumer products, and flat panel displays to semiconductors and micro-/nanoareas have attracted intense attention among

universities, research institutions, and many industrial corporations. Therefore, applications of novel sensors, materials, and related technologies in electronic and mechanical devices have become rapidly developing fields. Manufacturing is the economic lifeline of a country and has been regarded as a labor-intensive industry. To reduce production costs, devices for the internet of things (IoT) have been widely developed. IoT is composed of most integrated end devices and facilities, such as intelligent sensors for internal control, industrial systems, mobile terminal systems, floor control systems, and home intelligent facilities. Smart devices and external control information are utilized with the hope of attracting companies that manufacture high-value-added products in the fields of aerospace, automotive, Information Technology (IT) molds, textiles, optoelectronics, watches, medical devices, automation, energy, and semiconductor-related parts and components to drive the country's economy. Therefore, the key to maintaining a competitive advantage in domestic manufacturing in the future still relies on the development of novel manufacturing and precision machinery-related technologies.

In addition, artificial intelligence (AI) is intelligence exhibited by machines, particularly computer systems. The artificial intelligence of things (AIoT) is the combination of AI technologies with IoT infrastructure to achieve more efficient IoT operations, improve human–machine interactions and enhance data management and analytics. The special issue entitled "Novel Sensors, Materials, and Related Technologies on Artificial Intelligence of Things Applications" would like to publish excellent papers about AIoT related fields. It enables interdisciplinary collaboration of science and engineering technologists in the academic and industria fields, as well as networking internationally. This special issue covers fundamental and novel sensors, materials, and technologies related to AIoT for electronic, mechanical, and electrical engineering, including their synthesis and integration with many elements, the design of electronic and optical devices, sensing technologies, evaluation of various performance characteristics, and exploration of their broad applications to industry, environmental control, materials analyses, and so forth. We invite investigators to contribute original research articles, as well as review articles, that will stimulate the continuing efforts to develop electronic and mechanical devices and optical sensors. Potential topics include, but are not limited to the following:

- Electronic devices and mechanical sensors for AIoT applications
- Sensing technologies for AIoT applications
- Novel materials with new electronic and mechanical properties for AIoT applications
- Novel materials for preparation and applications to AIoT
- Subjects related to electronic thin films and coating technologies for AIoT applications
- Synthesis engineering of novel materials for AIoT applications

- Novel materials for mechatronics for AIoT applications
- Novel sensors for AIoT applications
- Medical and health applications of AIoT sensors
- Remote sensing for AIoT applications
- Sensors in robotics

Schedule

Deadline for Manuscripts: December 31, 2025

First Round of Reviews: January 31, 2026

Second Round of Reviews: March 31, 2026

Acceptance of Final Papers: April 30, 2026

Publication: May 31, 2026

(Attention)

As stated in Instructions to Authors in the Guidelines, the author(s) will be obliged to pay the publication fee upon the acceptance of the manuscript for publication. If the quality of the English of your manuscript does not satisfy the journal standards, the authors will bear the proofreading fee, which will be charged with the publication fee. Please refer to the Section 4 of the Instructions to Authors for detailed information on specific price amounts at our website below. (Publication fee: JPY 167200 for 10 pages paper, Proofreading fee: JPY 11000–44000 as of January 2025)

https://sensors.myu-group.co.jp/permanent/Instructions%20to%20authors2019%20EN.pdf

If you have any questions, please feel free to contact the editorial staff at the address below.

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