

**SPECIAL ISSUE ON ADVANCED MATERIALS AND TECHNOLOGIES  
FOR SENSOR AND ARTIFICIAL-INTELLIGENCE-OF-THINGS APPLICATIONS  
(SELECTED PAPERS FROM ICASI 2025)**

**PREFACE**



The IEEE 11th International Conference on Applied System Innovation 2025 (IEEE ICASI 2025) was successfully held in Tokyo, Japan, on April 22–25, 2025. IEEE ICASI 2025 provided an opportunity for researchers around the world to communicate, facilitating collaborations and networking between science and engineering technologists in academic, industrial, global, and interdisciplinary fields. IEEE ICASI 2025 featured a comprehensive and interdisciplinary platform covering innovative design, information science, industrial and product design, computer science, applied mathematics, mechanical engineering, electrical and electronic engineering, green and sustainable technologies, architectural and automation engineering, materials science, cultural and creative industries, and other emerging and related disciplines.

This special issue of *Sensors and Materials* features six outstanding papers focusing on sensor fabrication and IoT-related technologies, carefully selected from among those presented at ICASI 2025. Each submission was subjected to a comprehensive and unbiased review process involving assessments by guest editors, expert peer reviewers, required revisions, and meticulous proofreading. We hope this issue will serve as a valuable academic resource and advance ongoing research in sensing technologies and IoT applications.

I would like to express my sincere appreciation to all the authors for their valuable contributions and to the reviewers for their constructive and insightful evaluations. My special thanks are extended to Ms. Naoko Makino from the Editorial Department for her dedicated assistance throughout the review and publication process. I am also deeply grateful to Editor-in-Chief Professor Kohji Mitsubayashi for his continuous support and guidance in making this special issue possible.

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