

Sensors and Materials

Special Issue Call for Papers

Special Issue title: “Intelligent Manufacturing and Application Technology”

Call for Papers

Driven by the era of Industry 4.0, industrial manufacturing has been continuously integrated with technologies such as automation equipment, the Internet of Things, big data, and cloud computing. Smart transformation has become an important trend in industrial development, and the concept of smart manufacturing has gradually developed. Smart manufacturing is mainly based on data, constructing smart products, smart production, smart equipment, smart energy management, and other manufacturing processes, linking all levels from design and production to service, improving manufacturing efficiency and reducing production costs, improving product quality, optimizing product use experience, and promoting overall industrial environmental standards.

Intelligent technologies in the research field of manufacturing, including innovation sensor system design, sensing control, optimization, and machine learning, have made great progress in recent years, and “intelligent automation systems” has now become a popular term in the field of mechatronic engineering and the development of intelligent manufacturing. Many researchers in smart system control design, analysis, optimization, and automation have made great efforts to develop innovative methodologies for engineering, physical, and biological chips, and so forth, and these research results have had great influence in the greater field of system simulation and control.

Meanwhile, intelligent materials have now been developed and designed with one or more properties that can be significantly changed in a controlled fashion by external stimuli, such as stress, moisture, electric or magnetic fields, light, or changes in temperature. Intelligent materials are the basis of many applications, including sensors and actuators, and artificial muscles. They can also be applied for intelligent automation system monitoring and feedback optimization to increase the efficiency or quality in industry. This special issue includes mathematical and physical theories of intelligent manufacturing system analysis and optimization in physical, engineering, and biological studies, and their various applications. Prospective authors are invited to submit original papers to this special issue.

Indicative Topics/Areas

The topics of interest include, but are not limited to

- Intelligent manufacturing
- Intelligent sensing system analysis and control
- Intelligent materials for sensor technology
- Inventions/innovations in intelligent systems
- Intelligent sensor, metrology, and automation systems
- Other applications

Prospective contributors are invited to submit their paper to Prof. Wang by email (wcc@ncut.edu.tw).

“It is recommended that the excellent papers presented at the 2021 ISME International Conference (<http://ismeconference.nutn.edu.tw/>) are submitted to this special issue.

Schedule

Submission Deadline	September 30, 2021
Acceptance Notice	October 31, 2021
Final Manuscript	November 30, 2021
Publication Date	December 31, 2021

Lead Guest Editor:

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(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 (for example, JPY 99360 for 10 pages in *Sensors and Materials* format). If the quality of the English of your manuscript does not satisfy the journal standards, the authors should bear the proofreading fee (JPY 10000–30000), which will be charged with the publication fee.

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

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