

# ***Sensors and Materials***

## **Special Issue Call for Papers**

**Name of Special Issue: “Intelligent Sensing Control Analysis, Optimization and Automation”**

### **Call for Papers**

Advances in hardware development have made low-cost, low-power miniature devices available for use in smart sensing applications. This has improved the viability of utilizing a sensor network consisting of a large number of intelligent sensors to collect, process, analyze, and disseminate valuable information, such as vibration signals, displacement, temperature, and humidity, gathered in a variety of environments or in machine equipment. Intelligent technologies in the research fields of innovation in advanced system design, sensing control, optimization, and automation have made great progress in recent years, and intelligent automation systems are now a popular term in the fields of mechatronic engineering and the development of intelligent manufacturing. Many researchers in smart system control design, analysis, optimization, and automation have made great effort to develop innovative methodologies for engineering, physical, and biological uses, which have had a major influence in the encompassing field of system simulation and control.

Owing to the advances in smart materials, also called intelligent or responsive materials, materials can be designed with properties that can be significantly changed in a controlled manner by external stimuli, such as stress, moisture, electric and magnetic fields, light, and temperature. Smart materials are the basis of many applications, including sensors and actuators, and artificial muscles. They can also be used in intelligent automation system monitoring and feedback optimization to increase the efficiency or quality in industry. Driven by such motivation, the innovative design of smart materials combined with intelligent sensing control techniques have been proposed not only in the area of engineering but also as new paradigms in smart science. This special issue includes the mathematical and physical theories of smart 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 sensing system analysis and control
- Inventions/innovations in intelligent systems

- Innovations in smart sensors, metrology, and intelligent automation systems
- Optimization schemes and control systems
- Smart materials for sensor technology
- Other sensing systems and applications

Prospective contributors are invited to submit their paper to Prof. Wang by email:

[wcc@mail.nptu.edu.tw](mailto:wcc@mail.nptu.edu.tw).

### Schedule

Submission Deadline	<b>September 30, 2020</b>
Acceptance Notice	<b>October 31, 2020</b>
Final Manuscript	<b>November 30, 2020</b>
Publication Date	<b>December 31, 2020</b>

### 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 will bear the proofreading fee, 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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