

# ***Sensors and Materials***

## **Special Issue Call for Papers**

### **Special Issue: Green Smart Manufacturing Processes and Analysis**

#### **Call for Papers**

In 2015, the United Nations Climate Summit (COP21) ratified the Paris Climate Agreement, with most countries agreeing to achieve carbon neutrality by 2050. Its most important implication is that signatory countries have pushed forward domestic legislation to achieve the goal of net zero emissions to ensure that climate collapse is averted. Therefore, most countries are aiming to achieve net zero or carbon neutrality by 2030.

Low-carbon (carbon-neutral) technologies mainly include carbon reduction technologies (energy-saving technologies in areas with high energy consumption and high emissions), carbon-free technologies (clean energy technologies such as solar energy, wind energy, and biomass energy), and decarbonization technologies (carbon dioxide capture, storage, and utilization technologies). By controlling carbon emissions, low-carbon technologies reduce the concentration of greenhouse gases in the atmosphere to a relatively stable level, which is conducive to slowing or eliminating the impact of global climate change, maintaining the balance of the ecosystem, maintaining coordinated development with the natural environment, and promoting sustainable economic development.

Green smart manufacturing technologies can be applied to carbon reduction, energy saving, and decarbonization processes by using smart composite materials, sensing-based control, optimization, and automated analysis. Many researchers in the design and study of smart system control have made great efforts to develop green innovative methodologies for engineering, physical, and biological applications, and are expected to make a major contribution to achieving the goal of carbon neutrality by 2050. Driven by such motivation, innovative green smart manufacturing processes including smart production systems, intelligent sensing control, smart material applications, and decarbonization analysis have been proposed not only in the area of engineering but also as new paradigms in smart science. This special issue will include papers on the mathematical and physical theories of smart system analysis and optimization in physical, engineering, 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

- Green smart manufacturing by sensing method
- Sensing system analysis and control
- Inventions/innovative green materials
- Innovation in smart sensors and intelligent automation systems
- Optimization schemes and control systems
- Other sensing applications

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

## Schedule

Submission Deadline	August 31, 2022
Acceptance Notice	September 30, 2022
Final Manuscript	October 31, 2022
Publication Date	November 30, 2022

## Lead Guest Editor:

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