



## Promoting Sustainable and Innovative Waste Management in the 4th Industrial Revolution (4IR) Era

Guest Editors:

**Dr. Tonni Agustiono Kurniawan**

College of Ecology and  
Environment, Xiamen University,  
Xiamen 361102, China

**Dr. Ram Avtar**

Graduate School of  
Environmental Science,  
Hokkaido University, Sapporo,  
Japan

**Dr. Deepak Singh**

Department of Geography and  
Resource Management, China  
University of Hong Kong, Hong  
Kong SAR, China

Deadline for manuscript  
submissions:

**closed (31 December 2022)**

### Message from the Guest Editors

Since 2015, the United Nations (UN) Member States have adopted a set of 17 Sustainable Development Goals (SDGs) that have become a reference agenda for addressing a variety of global challenges.

The emergence of the 4th Industrial Revolution revolutionizes the way we address the solid waste problem by improving environmental protection using innovative solutions. In recent years, novel technologies such as artificial intelligence, machine learning, deep learning, and digitization have been developed as intelligence supports to transform the problem of solid waste management into zero-waste by applying a resource recovery paradigm towards a circular economy (CE). The benefits of such smart technologies should be based on the nexus of sustainability and cost-effectiveness to minimize potential harmful impacts to the environment and maximize benefits.

To complement the body of knowledge, we welcome contributions that include solid waste management, water treatment, and air pollution control that particularly apply (but are not limited to) the following technologies: artificial intelligence, machine learning, deep learning, cloud computing, or digitization.





an Open Access Journal by MDPI

## Editor-in-Chief

### **Prof. Dr. Marc A. Rosen**

Faculty of Engineering and  
Applied Science, University of  
Ontario Institute of Technology,  
Oshawa, ON L1G 0C5, Canada

## Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in *Sustainability*, an international Open Access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. *Sustainability* publishes original research articles, review articles and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

## Author Benefits

**Open Access:** free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

**High Visibility:** indexed within [Scopus](#), [SCIE](#) and [SSCI \(Web of Science\)](#), [GEOBASE](#), [GeoRef](#), [Inspec](#), [AGRIS](#), [RePEc](#), [CAPlus / SciFinder](#), and [other databases](#).

**Journal Rank:** JCR - Q2 (*Environmental Studies*) / CiteScore - Q1 (*Geography, Planning and Development*)

## Contact Us

*Sustainability* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/sustainability](http://mdpi.com/journal/sustainability)  
[sustainability@mdpi.com](mailto:sustainability@mdpi.com)  
[X@Sus\\_MDPI](#)