

## Special Issue

# Mechanical Engineering: Applications of Advanced Materials and Technologies

### Message from the Guest Editor

In different aspects of mechanical engineering, a variety of advanced materials are used. With the recent technological advancements, advanced materials are being replaced by conventional materials. Nano and biotechnology have been integrated with mechanical engineering systems and designs in a wide range of applications. Lightweight materials have been created with different structures for enhanced efficiency. In addition, 2D materials, functional materials, smart materials, shape memory alloys, phase change materials, nanocomposites, biopolymers, hydrogen storage materials, alloys and compounds, 3D printing materials, fibers and other advanced and novel materials according to the requirement of mechanical engineering applications have been synthesized and characterized. Coating processes are also used to change the properties of materials in real life applications. In this Special Issue, we will highlight the future prospects and challenges of these materials and their applications.

### Guest Editor

Prof. Dr. Mohammad Asaduzzaman Chowdhury  
Department of Mechanical Engineering, Dhaka University of  
Engineering and Technology, Gazipur, Bangladesh

### Deadline for manuscript submissions

closed (15 January 2024)



## Sustainability

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.3  
CiteScore 7.7



[mdpi.com/si/166692](https://mdpi.com/si/166692)

*Sustainability*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[sustainability@mdpi.com](mailto:sustainability@mdpi.com)

[mdpi.com/journal/  
sustainability](https://mdpi.com/journal/sustainability)





## Sustainability

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.3  
CiteScore 7.7



[mdpi.com/journal/  
sustainability](https://mdpi.com/journal/sustainability)



## About the Journal

### 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. The journal publishes original research articles, reviews, conference proceedings (peer reviewed full 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.

---

### Editor-in-Chief

Prof. Dr. Steve W. Lyon

School of Environment and Natural Resources, Ohio State University,  
Columbus, OH 43210, USA

---

### 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, RePEc, CAPlus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q2 (Environmental Studies) / CiteScore - Q1  
(Geography, Planning and Development)