



## Tribological and Mechanical Properties Studies of Smart Materials at Micro–Nano Scale

Guest Editors:

**Dr. Jurgita Zekonyte**

School of Mechanical and Design  
Engineering, University of  
Portsmouth, Portsmouth, UK

**Prof. Dr. Hom Nath Dhakal**

School of Mechanical and Design  
Engineering, University of  
Portsmouth, Anglesea Building,  
Anglesea Road, Portsmouth PO1  
3DJ, Hampshire, UK

Deadline for manuscript  
submissions:

**closed (30 June 2021)**

### Message from the Guest Editors

Dear Colleagues,

The emerging field of new, smart, advanced, multifunctional materials plays a significant role in modern sciences and technologies. It is expected that they will replace conventional materials in various engineering applications. However, there are still many challenges for their utilization at their full potential.

This Special Issue will cover a wide range of topics in the mechanical and tribological properties characterization of new, smart advanced materials from nano to micro scale. These may include, but not are limited to, nano/micro-composites, bio-composites, new alloys, functional surfaces, adaptive coatings, as well as procedures and technologies for improving their properties and functions. Importantly, original research studies on numerical analysis and simulations are welcomed. Modern characterization techniques such as AFM, TEM, SEM, micro-CT, XPS, XRD, nanoindentation, tribometers, various mechanical tests, and many more that are appropriate to the field of study should be utilized in the research.

Original research papers, communications, and reviews that address the scope of this Special Issue are welcomed.





an Open Access Journal by MDPI

## Editor-in-Chief

**Prof. Dr. Giulio Nicola Cerullo**  
Dipartimento di Fisica,  
Politecnico di Milano, Piazza L.  
da Vinci 32, 20133 Milano, Italy

## Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

## Author Benefits

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

**High Visibility:** indexed within Scopus, SCIE (Web of Science), Inspec, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q1 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

## Contact Us

---

*Applied Sciences* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

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

[mdpi.com/journal/applsci](http://mdpi.com/journal/applsci)  
[applsci@mdpi.com](mailto:applsci@mdpi.com)  
[X@Applsci](#)