

Special Issue

Mechanical Engineering for Environmental Sustainability: From Materials to Technologies

Message from the Guest Editor

As global environmental challenges—including resource scarcity, carbon emissions, and industrial waste—intensify, the role of engineering in driving sustainability has become increasingly critical. This Special Issue, “Mechanical Engineering for Environmental Sustainability: From Materials to Technologies”, focuses on how mechanical engineering innovations can mitigate environmental impacts while maintaining industrial efficiency.

A central focus is sustainable material development. Contributions explore eco-friendly alternatives to traditional metals and their integration into mechanical systems, reducing lifecycle carbon footprints and waste generation. Complementing material advancements, the issue highlights technology optimization in key mechanical domains that directly cut resource consumption and greenhouse gas emissions.

Practical case studies further combine theory and application, showcasing how mechanical engineering solutions address real-world sustainability challenges. This issue ultimately aims to foster collaboration across disciplines, accelerating the transition to low-carbon, resource-efficient industrial systems.

Guest Editor

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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

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