# Special Issue

# Technical Advances in Combustion Engines: Efficiency, Power and Fuels

# Message from the Guest Editors

This Special Issue aims to showcase innovative research that enhances the efficiency, performance, and sustainability of combustion engines. The scope includes studies on novel combustion strategies, advanced techniques for improving thermal efficiency, engine downsizing, boosting and hybridization methods, waste heat recovery, thermodynamic optimization, and next-generation fuels such as biofuels and hydrogen. It also covers emission reduction technologies, aftertreatment systems, emerging digital technologies for engine optimization, applications of artificial intelligence and machine learning in combustion engine development, and life cycle analysis of combustion engine advancements and their environmental impact. This Special Issue will contribute to the ongoing evolution of combustion engines, supporting their role in a decarbonized and energy-efficient future.

#### **Guest Editors**

Dr. Denvs Baranovskvi

Faculty of Mechanics and Technology, Rzeszow University of Technology, Stalowa Wola, Poland

Prof. Dr. Jose Ramon Serrano

CMT-Clean Mobility & Thermofluids, Universitat Politècnica de València, 6D-UPV, Camí de Vera, S/N, 46022 Valencia, Spain

# Deadline for manuscript submissions

20 May 2026



# Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.5



mdpi.com/si/232325

Applied Sciences Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 applsci@mdpi.com

mdpi.com/journal/applsci





# Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5 CiteScore 5.5



# **About the Journal**

# 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.

## **Editor-in-Chief**

Prof. Dr. Giulio Nicola Cerullo

Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

### **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), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

