

## Special Issue

# Machine Learning Applications to Combustion Engines

### Message from the Guest Editor

Applications of machine learning and artificial intelligence is growing and leading to tremendous advancements in areas of energy and transportation. This emergent trend is also visible in combustion engines research as it continues to advance focus areas such as combustion strategy, performance, fuel efficiency, emissions. Such applications have led to new possibilities combining expertise of engine researchers with data driven methods to make transportation more sustainable. To bring such research efforts on one platform, this special issue seeks to invite submissions in form of case studies, review articles, short communications, original research articles in machine learning applications to combustion engines. This special issue will focus on applications of machine learning and artificial intelligence methods to combustion engines in various areas including:

- Engine controls
- Fuel properties detection
- Emissions prediction
- Knock and preignition detection and/or mitigation
- Advanced combustion strategies

---

### Guest Editor

Dr. Ahfaz Ahmed

Mechanics and Maritime Sciences, Division of Combustion and Propulsion Systems, Chalmers University Technology, Chalmersplatsen 4, 412 96 Göteborg, Sweden

---

### Deadline for manuscript submissions

closed (25 February 2022)



## Energies

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.2  
CiteScore 7.3



[mdpi.com/si/66597](https://mdpi.com/si/66597)

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

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





# Energies

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.2  
CiteScore 7.3



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



## About the Journal

### Message from the Editor-in-Chief

*Energies* is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

---

### Editor-in-Chief

Prof. Dr. Enrico Sciubba

Department of Mechanical and Industrial Engineering, University  
Niccolò Cusano, 00166 Roma, 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, RePEc, Inspec, CAPlus / SciFinder, and other databases.

#### Journal Rank:

CiteScore - Q1 (Control and Optimization)