

## Special Issue

# Sustainable Variable Speed Drives: Power Electronics Topologies, Monitoring, Operation and Control

### Message from the Guest Editors

We invite you to contribute to this Special Issue in *Sustainability* with your latest research on power electronics topologies, monitoring, operation, and control schemes in Variable Speed Drives (VSDs). This Special Issue requests articles that address the original advancements, technical challenges impeding advancement, and novel solutions to these issues. Topics of interest for this Special Issue include, but are not limited to:

- Sustainable drive system
- Architecture and hardware design of VSDs
- Speed control of AC machines
- Speed control of DC machines
- Speed/torque control of electrical vehicles
- New power electronics topologies
- Enhanced control schemes for VSDs
- New modulation schemes for VSDs
- Sensorless control for machine drives
- Machine side control in wind turbines
- Design for reliability, resilience, and robustness
- Integration of renewable energy resources
- Control and power-sharing between VSDs
- Power quality aspects
- Industrial, experimental, and hardware-in-the-loop tests and validation

---

### Guest Editors

Dr. Mahdi Shahparasti

Prof. Dr. Hannu Laaksonen

Dr. Amirhossein Rajaei

---

### Deadline for manuscript submissions

closed (28 February 2022)



**Sustainability**

---

an Open Access Journal  
by MDPI

---

**Impact Factor 3.3**  
**CiteScore 7.7**



[mdpi.com/si/75516](https://mdpi.com/si/75516)

*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. *Sustainability* publishes original research articles, review 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. Marc A. Rosen

Faculty of Engineering and Applied Science, University of Ontario  
Institute of Technology, Oshawa, ON L1G 0C5, Canada

---

### 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, CAPIus / SciFinder, and other databases.

#### Journal Rank:

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