



Flywheel Energy Storage

Guest Editor:

Prof. Dr. Frank A. Coutelieris

Department of Environmental
Engineering, School of
Engineering, University of Patras,
30100 Agrinio, Greece

Deadline for manuscript
submissions:

closed (30 September 2019)

Message from the Guest Editor

Dear Colleagues,

Flywheel Energy Storage Systems (FESS) convert electricity to kinetic energy, and vice versa; thus, they can be used for energy storage. High technology devices that directly use mechanical energy are currently in development, thus this scientific field is among the hottest, not only for mobile, but also for stationary applications. Precisely, FESS have a wide range of applications in transportation (especially in race cars), uninterruptable power supply (UPS) systems, off-grid electricity production and many others. Usually, magnetic bearings are used to reduce friction losses. The advantages of FESS, when compared with conventional storage technologies, such as batteries, are the limited maintenance needs, high round-trip efficiency, high-power density, long lifetime, and, mainly, their negligible environmental impact. We, therefore invite contributions on topics that include (but are not limited to):

- FESS design and operation
- Off-grid electricity production
- Mobile applications of FESS
- Materials used for FESS implementation

I look forward to your contributions,

Prof. Frank A. Coutelieris

Guest Editor





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

Contact Us

Applied Sciences Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/applsci
applsci@mdpi.com
[X@Applsci](https://twitter.com/Applsci)