



Impedance Source Converters: Topologies, Control, and Applications

Guest Editor:

Prof. Dr. Dmitri Vinnikov

Department of Electrical Power
Engineering and Mechatronics,
School of Engineering, Tallinn
University of Technology,
Ehitajate tee 5, 19086 Tallinn,
Estonia

Deadline for manuscript
submissions:

closed (10 December 2021)

Message from the Guest Editor

Dear Colleagues,

To promote further research and development of impedance source converters and to provide a common environment for presentation and discussion on their emerging research, development, and applications, we propose a special session on the impedance source converter topologies and their applications.

Topics of interest include but are not limited to the following:

- New topologies of impedance source networks;
- Multilevel and multiphase impedance source converters;
- Impedance source DC–DC converters;
- Impedance source DC–AC and AC–DC converters;
- Impedance source matrix converters;
- Control strategies of impedance source converters;
- Design considerations for power and control stages;
- Loss analysis and losses minimization methods;
- Reliability issues;
- Review and challenges on impedance source converters;
- Applications of impedance source converters in electric drives;
- Applications of impedance source converters in renewable energy and grid connected systems, such as in:

1. Photovoltaic systems
2. Fuel cell systems
3. Wind turbine systems
4. Energy storage systems
5. Hybrid systems





energies



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Enrico Sciubba

Department of Mechanical and
Aerospace Engineering,
University of Roma Sapienza, Via
Eudossiana 18, 00184 Roma, Italy

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.

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)

Contact Us

Energies Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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

mdpi.com/journal/energies
energies@mdpi.com
[X@energies_mdpi](https://twitter.com/energies_mdpi)