



energies



an Open Access Journal by MDPI

Voltage Stability and Load Sharing in DC Microgrids

Guest Editors:

Dr. Houshang Karimi

Department of Electrical,
Engineering, Polytechnique
Montreal, Montreal H3T 1J4,
Canada

houshang.karimi@polymtl.ca

Dr. Michele Cucuzzella

Jan C. Willems Center for
Systems and Control, ENTEG,
Faculty of Science and
Engineering, University of
Groningen, Nijenborgh 4, 9747 AG
Groningen, The Netherlands

m.cucuzzella@rug.nl

Dr. Mahdiah S. Sadabadi

Department of Automatic Control
and Systems Engineering (ACSE),
University of Sheffield, Sheffield
S1 3JD, UK

m.sadabadi@sheffield.ac.uk

Message from the Guest Editors

Although DC microgrids hold significant promise, their widespread use has revealed major challenges from a control perspective, mainly associated with voltage stabilization and load sharing. In order to achieve these objectives, the development of an appropriate control strategy which regulates the voltage at the point of common coupling and proportionally shares the load current amongst the DG units is essential.

Given this context, and especially focusing on voltage stabilization and load sharing in DC microgrids, this Special Issue aims to collect original research about the abovementioned control challenges including voltage stability, proportional load sharing, time-varying loads, distributed and consensus-based control algorithms, optimal control, social welfare, resilience to cyber-physical attacks, plug-and-play control, scalable control solutions, stability analysis, and related areas. Papers submitted to this Special Issue will be subject to a rigorous peer-review procedure, with the aim of rapid and wide dissemination of research contributions.

Deadline for manuscript
submissions:

1 October 2021



mdpi.com/si/65718

Special Issue



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, AGRIS, Inspec, CAPlus / SciFinder, and many other databases.

Journal Rank: [CiteScore](#) - Q1 (*Control and Optimization*)

Contact Us

Energies
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
Fax: +41 61 302 89 18
www.mdpi.com

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