Special Issue

Modelling Power Converters in DC Distribution Systems for Telecom, Aerospace, Automobile, etc., Applications

Message from the Guest Editors

DC power distribution systems are currently applied in many industrial applications, such as telecom, aerospace, automobile, and so on, as well as in data centres, and, more recently, in DC microgrids. In these systems, most of the units are connected to the DC buses using power converters, which play a significant role in the system dynamics. In order to estimate the system behaviour and its stability, power converter models able to represent all of their operating conditions are required. In this Special Issue, we invite papers that describe the most recent and advanced modelling techniques for power converters in DC power distribution systems in any application field. The topics of interest in this Special Issue include, but are not limited to, the following: Advanced small-signal modelling techniques; Stability analysis at system level; Black-box modelling techniques; Modelling techniques for bidirectional converters; Modelling battery chargers/dischargers; Modelling protection strategies for power converters; Monitoring strategies for DC distribution systems and Modelling the effect of communication systems.

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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.

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