

Back-to-back energy router based on common-ground inverters

Azizi, Mohammadreza; **Rahimpour, Saeed**; **Husev, Oleksandr**; **Veligorskyi, Oleksandr** 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / p. 1-6 <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227480>

Bidirectional SSCB for residential DC microgrids with reduced voltage and current stress during fault interruption

Aditya, P.; Banavath, Satish Naik; Lidozzi, Alessandro; **Chub, Andrii**; **Vinnikov, Dmitri** 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 6 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227379>

Clustering and outlier analysis for key performance indicators in battery energy storage systems applications

Zequera, Rolando Antonio Gilbert; **Rassölkin, Anton**; **Vaimann, Toomas**; **Kallaste, Ants** 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 6 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227417>

A comparison between three-phase conventional two-stage ac-dc and single-stage matrix converter approaches

Mohseni, Parham; **Emiliani, Pietro**; **Husev, Oleksandr**; **Vinnikov, Dmitri**; **Mackay, Laurens** 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 6 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227438>

Comparison of decoupling control strategies for multiple active bridge DC-DC converter

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Cooperative control of flywheel energy storage system and diesel generator for frequency regulation of microgrids using digital FIR filters

Faraji, M.; Mahdavi, Mohammad Saeed; **Gharehpetian, Gevork B.**; **Ahmadihangar, Roya**; **Rosin, Argo** 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 6 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227448>

DC fast charging of electric vehicles : a review on architecture and power conversion technology

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Design of an additively manufactured polymer composite electrical machine

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Digital twins for designing energy management systems for microgrids: Implementation example based on TalTech Campulse project

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Effects of voltage transients on the DC droop control in residential nanogrids

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Energy storage and forecasting error impact analysis in photovoltaic equipped residential nano-grids

Hokmabad, Hossein Nouroollahi; **Husev, Oleksandr**; **Belikov, Juri**; **Vinnikov, Dmitri**; **Petlenkov, Eduard** 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 6 p. <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227406>

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Evaluation of dual-active bridge converter for DC energy buildings

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Exploratory data analysis for demand-side flexibility quantification

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FCS-model predictive control of a quadratic buck converter for more efficient data centers

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Feasibility study of universal power electronics interface operation in 350 V and 700 V residential DC microgrids

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Maximum power point tracking algorithm for step-up/down partial power converters with improved performance around zero partiality

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A novel isolated Buck-Boost DC-DC converter with wide range of voltage regulations

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Operation of the step-up/down bidirectional partial power converter near zero series voltage

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Optimized energy scheduling of residential DC building: Case of Nordic climate

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Output voltage regulation of isolated PV-vonnected boost converters with variable loads using converted hysteresis sliding mode controller

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Performance analysis of protection methods in residential DC microgrids

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Predictive control for isolated matrix rectifier without current distortion at sector boundary

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Reliability assessment of photovoltaic Buck-Boost microconverter for Estonian climate conditions

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Sliding mode control based on super twisting algorithm for single-stage on-board charger

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Stochastic energy management for Battery Storage System-based microgrid considering different forecasting models

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A three-level voltage-source gate driver for SiC MOSFETs in synchronous rectification mode

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Three-phase four wire high-frequency link converter for residential DC grids

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Vehicle energy management system: a survey

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Wide output voltage range isolated buck-boost PFC converter with reconfigurable rectifier

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