

Comparative study of possible implementations of the flexible power electronic interface for wide-range high step-up applications in DC microgrid

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Dc leakage current in isolated grid-connected dc nanogrid - origins and elimination methods

Azizi, Mohammadreza; **Husev, Oleksandr;** Veligorskyi, Oleksandr; Turzvnski, Marek; Strzelecki, Ryszard 2024 IEEE 18th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2024 / 6 p <https://doi.org/10.1109/CPE-POWERENG60842.2024.10604426>

DC-ready flyback-based micro-converter

Afshari, Hossein; Husev, Oleksandr; Matiushkin, Oleksandr; Vinnikov, Dmitri; Roncero-Clemente, Carlos 2024 IEEE 18th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2024 / 6 p <https://doi.org/10.1109/CPE-POWERENG60842.2024.10604344>

Dead-beat-based model predictive current control for the dual-purpose dc-dc/ac PWM modular power converter

Roncero-Clemente, Carlos; Escalona, Javier-Gutierrez; Pires, V. Fernao; **Matiushkin, Oleksandr;** Milanes-Montero, Maria Isabel; Romero-Cadaval, Enrique 2024 IEEE 18th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2024 / 6 p <https://doi.org/10.1109/CPE-POWERENG60842.2024.10604328>

An economical optimization for the participation of a residential microgrid in flexibility markets providing ancillary services

Alvi, Anas Abdullah; Gonzalez-Romera, Eva; Romero-Cadaval, Enrique; **Vinnikov, Dmitri;** Milanes-Montero, Maria Isabel; Barrero-Gonzalez, Fermin 2024 IEEE 18th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2024 / 6 p <https://doi.org/10.1109/CPE-POWERENG60842.2024.10604394>

Enhanced switched impedance inverter with tapped inductor

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Estimation of peak voltage value and its occurrence timing upon non-sinusoidal supply voltage

Daniel, Kamran; Kütt, Lauri; Iqbal, Muhammad Naveed; **Shabbir, Noman; Jarkovoi, Marek** 2024 IEEE 18th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2024 / p. 1-6 <https://doi.org/10.1109/CPE-POWERENG60842.2024.10604412>

Feasibility study of a DC house connected to a conventional AC distribution network

Hokmabad, Hossein Nouroollahi; Shabir, Noman; Astapov, Victor; Petlenkov, Eduard; Husev, Oleksandr; Belikov, Yuri 2024 IEEE 18th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2024 / 6 p <https://doi.org/10.1109/CPE-POWERENG60842.2024.10604419>

A full bridge series-series resonant IPT system optimized for charging electric vehicle batteries across an extensive range

Kishan, Dharavath; Vinod, Marupuru; **Chub, Andrii** 2024 IEEE 18th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2024 / 6 p <https://doi.org/10.1109/CPE-POWERENG60842.2024.10604397>

Implementation of MPPT hill climbing technique for forward based DC-DC converter

Matiushkin, Oleksandr; Husev, Oleksandr; Romero-Cadaval, Enrique; Roncero-Clemente, Carlos 2024 IEEE 18th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2024 / 6 p <https://doi.org/10.1109/CPE-POWERENG60842.2024.10604422>

Model-free deep reinforcement learning-based current control for the dual-purpose dc-dc/ac power converter

Gutierrez-Escalona, Javier; Roncero-Clemente, Carlos; **Husev, Oleksandr; Matiushkin, Oleksandr;** Barrero-Gonzalez, Fermin; Gonzalez-Romera, Eva 2024 IEEE 18th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2024 / 6 p <https://doi.org/10.1109/CPE-POWERENG60842.2024.10604305>

Multiport current fed push/pull partial power converter for battery integration in DC microgrid

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Power optimized PV microinstallation in the field condition tests

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Protection of bidirectional Step-Up/Down partial power converter against short circuit and open circuit faults and mode transition issues

Hassanpour, Naser; Chub, Andrii; Blinov, Andrei; Yadav, Neelesh; Hasan, Sayeed; Vinnikov, Dmitri 2024 IEEE 18th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2024 / 6 p <https://doi.org/10.1109/CPE-POWERENG60842.2024.10604315>

Resonant DC transformer for grid-interactive energy efficient buildings

Carvalho da Silva, Edivan Laercio; Blinov, Andrei; Chub, Andrii; Rathore, Akshay Kumar; Vinnikov, Dmitri 2024 IEEE 18th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2024 / 6 p <https://doi.org/10.1109/CPE-POWERENG60842.2024.10604353>

Review and outlook of isolated capacitive coupling based converters

Pourjafar, Saeed; Husev, Oleksandr; Roncero-Clemente, Carlos 2024 IEEE 18th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2024 / 6 p. <https://doi.org/10.1109/CPE-POWERENG60842.2024.10604421>

Series-parallel resonant current-source DC-DC converter with wide output voltage range

Blinov, Andrei; Carvalho da Silva, Edivan Laercio; Verbytskyi, Ievgen; Vinnikov, Dmitri 2024 IEEE 18th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2024 / 6 p <https://doi.org/10.1109/CPE-POWERENG60842.2024.10604346>

Short-term residential DC load forecasting using extreme gradient boost (XgBoost) algorithm

Shabbir, Noman; Husev, Oleksandr; Daniel, Kamran; Jawad, Muhammad; Rosin, Argo; Martins, Joao 2024 IEEE 18th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2024 / 6 p <https://doi.org/10.1109/CPE-POWERENG60842.2024.10604392>

Study of battery energy storage operation in droop-controlled residential DC nanogrid

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Thermal management experience in GaN-based DC-DC converter

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