

Artificial Intelligence in the hierarchical control of ac, dc and hybrid ac/dc microgrids – A review

Gutiérrez-Escalona, J.; Roncero-Clemente, C.; Husev, Oleksandr; Matiushkin, Oleksandr; Blaabjerg, Frede IEEE Access 2024 / 20 p <https://doi.org/10.1109/ACCESS.2024.3486382>

Bidirectional twisted single-stage single-phase buck-boost DC-AC converter

Husev, Oleksandr; Matiushkin, Oleksandr; Roncero-Clemente, Carlos; Vinnikov, Dmitri; Chopyk, Vasilii Energies 2019 / art. 3505, 14 p. : ill <https://doi.org/10.3390/en12183505> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Buck-boost unfold inverter as a novel solution for single-phase PV systems

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Capacitive vs Inductive Coupling Based DC-DC Converter Operating in MHz Switching Frequency Range

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Closed-loop control system design for wireless charging of low-voltage EV batteries with time-delay constraints

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Comparative analysis of buck-boost inverters based on unfolding circuit versus H5, H6, HERIC topologies

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Comparative evaluation of common-ground converters for dual-purpose application

Hemmati Shahsavari, Tala; Rahimpour, Saeed; Vosoughi Kurdkandi, Naser; Fesenko, Artem; Matiushkin, Oleksandr; Husev, Oleksandr; Vinnikov, Dmitri Energies 2023 / art. 2977 <https://doi.org/10.3390/en16072977> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Comparative evaluation of dual-purpose converters suitable for application in dc and ac grids

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Comparison of grid-connected flyback-based microinverter with primary and secondary side decoupling approach

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Comprehensive comparison of grid-connected flyback-based microinverter with primary and secondary side decoupling approach

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

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Design and experimental validation of a single-stage PV string inverter with optimal number of interleaved buck-boost cells

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Dual-purpose dc-dc/ac PWM modular power converter as grid-forming unit in a droop-controlled ac nanogrid

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Novel isolated high step-up DC-DC converter with wide input voltage regulation range

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Reactive power injection capability of buck-boost inverter with unfolding circuit

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Reinforcement Learning-based Energy Management Strategy for Flexible Hybrid ac/dc Microgrid

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A review of hybrid converter topologies

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A three-phase unfolding-based PFC topology with two inductors for electric vehicles battery charging

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