

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 / p. 157227-157246 <https://doi.org/10.1109/ACCESS.2024.3486382> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

Husev, Oleksandr; Matiushkin, Oleksandr; Roncero-Clemente, Carlos; **Vinnikov, Dmitri**; Chopyk, Vasiliy 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

Husev, Oleksandr; Matiushkin, Oleksandr; Vinnikov, Dmitri; Roncero, Carlos; Romero-Cadaval, Enrique; **Kütt, Lauri** IECON 2018 - 44th Annual Conference of the IEEE Industrial Electronics Society : proceedings 2018 / p. 6116-6121 : ill <https://doi.org/10.1109/IECON.2018.8592899>

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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Matiushkin, Oleksandr; Husev, Oleksandr; Tytelmaier, Kostiantyn; Kroics, Kaspars; Veligorskyi, Oleksandr; Zakis, Janis Technological Innovation for Smart Systems : 8th IFIP WG 5.5/SOCOLNET Advanced Doctoral Conference on Computing, Electrical and Industrial Systems, DoCEIS 2017, Costa de Caparica, Portugal, May 3–5, 2017 : proceedings 2017 / p. 409-418 http://dx.doi.org/10.1007/978-3-319-56077-9_40

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

Afshari, Hossein; Husev, Oleksandr; Vinnikov, Dmitri; Matiushkin, Oleksandr; Vosoughi Kurdkandi, Naser 2022 IEEE 63th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCon): conference proceedings 2022 / p. 1-6 <https://doi.org/10.1109/RTUCon56726.2022.9978855>

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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Design of LCL-filter for grid-connected buck-boost inverter based on unfolding circuit

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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 family of single-stage buck-boost inverters based on unfolding circuit

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

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A novel single-phase common-grounded converter based on switched-capacitor

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Novel single-stage buck-boost inverter with unfolding circuit

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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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Research development of bidirectional DC-DC/AC converter

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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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