

### **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, Vasily 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 unfolded inverter as a novel solution for single-phase PV systems**

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

Shevchenko, Viktor; Pakhaliuk, Bohdan; Zakis, Janis; Veligorskyi, Oleksandr; Luszcz, Jaroslaw; Husev, Oleksandr; Lytvyn, Oksana; Matiushkin, Oleksandr Energies 2021 / art. 3934, 21 p. : ill <https://doi.org/10.3390/en14133934> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

Matiushkin, Oleksandr; Husev, Oleksandr; Vinnikov, Dmitri; Vosoughi Kurdkandi, Naser 2022 International Symposium on Power Electronics, Electrical Drives, Automation and Motion (SPEEDAM) 2022 / p. 547-552 <https://doi.org/10.1109/SPEEDAM53979.2022.9842282>

### **Comparative analysis of qZS-based bidirectional DC-DC converter for storage energy application**

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](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**

Husev, Oleksandr; Matiushkin, Oleksandr; Jalakas, Tanel; Vinnikov, Dmitri; Vosoughi Kurdkandi, Naser IEEE journal of emerging and selected topics in power electronics 2024 / p. 1337-1347 <https://doi.org/10.1109/JESTPE.2023.3243857>

### **Comparative study of the phase-integrated converter as universal power converter**

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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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### **Comprehensive comparison of isolated high step-up dc-dc converters for low power application**

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### **DC-ready flyback-based micro-converter**

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### **DC-ready photovoltaic solar converter**

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### **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>

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

Fesenko, Artem; **Matiushkin, Oleksandr; Husev, Oleksandr; Vinnikov, Dmitri**; Strzelecki, Ryszard; Kołodziejek, Piotr Energies 2021 / art. 2448, p., 17 p. : ill <https://doi.org/10.3390/en14092448> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

**Matiushkin, Oleksandr; Husev, Oleksandr; Vinnikov, Dmitri; Kütt, Lauri** 2019 Electric Power Quality and Supply Reliability Conference (PQ) & 2019 Symposium on Electrical Engineering and Mechatronics (SEEM), Kärdla, Estonia, June 12-15, 2019 : proceedings 2019 / 4 p. : ill <https://doi.org/10.1109/PQ.2019.8818248>

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**Husev, Oleksandr; Matiushkin, Oleksandr; Mohseni, Parham; Canales, Francisco** PCIM Europe 2024 2024 / 10 p <https://doi.org/10.30420/566262111>

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**Stepenko, Serhii; Husev, Oleksandr; Vinnikov, Dmitri**; Fesenko, Artem; **Matiushkin, Oleksandr** Electronics 2020 / art. 277, 11 p. : ill <https://doi.org/10.3390/electronics9020277> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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### **Feasibility study of three-phase modular converter for dual-purpose application in DC and AC microgrids**

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### **Novel concept of solar converter with universal applicability for DC and AC microgrids**

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