

Active front-end DC grid-forming converter design with power balancing capability

Verbytskyi, Ievgen; Blinov, Andrei; Chub, Andrii; Vinnikov, Dmitri 2025 IEEE Seventh International Conference on DC Microgrids (ICDCM) 2025 / 6 p <https://doi.org/10.1109/ICDCM63994.2025.11144688>

Active redundancy in isolated DC-DC converters: A modular solution for fault tolerance

Shirodkar, Aditya; Banavath, Satish Naik; Yadav, Neelesh; Chub, Andrii; Mandrioli, Riccardo 2025 IEEE 19th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2025 / 5 p <https://doi.org/10.1109/CPE-POWERENG63314.2025.11027280>

Adaptive chaotic class topper optimization to solve Non-convex CHPED problems in power systems

Gupta, Pradeep Kumar; Tuttleberg, Kaur; Kilter, Jako 2024 IEEE PES Innovative Smart Grid Technologies - Asia (ISGT Asia) 2024 / 6 p. <https://doi.org/10.1109/ISGTAsia61245.2024.10876314>

An adaptive class topper optimization for scheduling thermal generation with cubic fuel cost function

Gupta, Pradeep Kumar; Gupta, Anju Kumari; Tuttleberg, Kaur; Kilter, Jako 2025 15th International Conference on Power, Energy, and Electrical Engineering (CPEEE) 2025 / p. 195-199 <https://doi.org/10.1109/CPEEE64598.2025.10987339>

Analysis of a reconfigurable non-isolated DC-DC converter for DC microgrid applications

Yadav, Vinod Kumar; Chub, Andrii 2025 IEEE Seventh International Conference on DC Microgrids (ICDCM) 2025 / 6 p <https://ieeexplore.ieee.org/document/11144731> <https://doi.org/10.1109/ICDCM63994.2025.11144731>

A benchmark of DC-DC converters for DC fast charging stations of electric vehicles

Mathew, Honey Mol; Arena, Gabriele; Chub, Andrii; De Carne, Giovanni; Vinnikov, Dmitri; Lukianov, Mykola 2024 9th IEEE Workshop on the Electronic Grid (eGRID) 2024 / 6 p <https://doi.org/10.1109/eGRID62045.2024.10842879>

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

Pourjafar, Saeed; Mohseni, Parham; Husev, Oleksandr; Strezelecki, Ryszard; Matiushkin, Oleksandr 2025 IEEE Applied Power Electronics Conference and Exposition (APEC) 2025 / p. 2173-2178 <https://doi.org/10.1109/APEC48143.2025.10977156>

Comparative evaluation of the air core magnetic design for MHz+ switching frequency

Matiushkin, Oleksandr; Pakhaliuk, Bohdan; Gutierrez-Escalona, Javier; Romero-Cadaval, Enrique; Husev, Oleksandr; Zakis, Janis 2025 Applied sciences 2025 / art. 8820 <https://doi.org/10.3390/app15168820>

Comparative power quality analysis of right and left shunt UPQC topologies

Kumar, Pradeep; Gupta, Pradeep Kumar 2025 Proceedings of the International Conference on Systems, Control and Automation (ICSCA) 2023) 2025 / p. 607-624 https://doi.org/10.1007/978-981-97-7384-8_52

Comparative Study of Advanced Heatsink Structures for Improved Thermal Performance in Axial Flux Motors

Sarap, Martin; Singh, Shalini; Kallaste, Ants; Qureshi, Ahmed Jawad; Tiismus, Hans; Vaimann, Toomas; Ghahfarokhi, Payam Shams IEEE Access 2025 / p. 100850-100860 <https://doi.org/10.1109/ACCESS.2025.3577289>

Comprehensive Diagnostic Assessment of Inverter Failures in a Utility-Scale Solar Power Plant : A Case Study Based on Field and Laboratory Validation

Kull, Karl; Asad, Bilal; Naseer, Muhammad Usman; Kallaste, Ants; Vaimann, Toomas 2025 Sensors 2025 / art. 3717 <https://doi.org/10.3390/s25123717>

A Comprehensive Study of Partial Discharge Based Extrinsic Aging in Nomex Insulation Films : Modeling, Simulation and Measurement

Choudhary, Maninder; Shafiq, Muhammad; Bhattarai, Abhinav; Kiitam, Ivar; Taklaja, Paul; Palu, Ivo 2025 Electric Power Systems Research 2025 / art. 111663 <https://doi.org/10.1016/j.epsr.2025.111663>

Conducted EMI emission evaluation considerations for test site and in-situ evaluation of DC microgrid supplied power converters

Kütt, Lauri; Daniel, Kamran; Sharma, Hetal; Parker, Martin; Chub, Andrii 2025 IEEE Seventh International Conference on DC Microgrids (ICDCM) 2025 / 5 p <http://doi.org/10.1109/ICDCM63994.2025.11144729>

Control of multiport partial power converters for PV-battery systems integration in DC microgrids

Yadav, Neelesh; Mitra, Tuhin; Makkieh, Ahmad; Chub, Andrii 2025 IEEE Seventh International Conference on DC Microgrids (ICDCM) 2025 / 6 p <http://doi.org/10.1109/ICDCM63994.2025.11144705>

Curved Airgap Topology : A Promising Strategy for Enhancing Axial-Flux Machine Performance Metrics

Naseer, Muhammad Usman; Kallaste, Ants; Vaimann, Toomas; Asad, Bilal 2025 International Conference on the Computation of Electromagnetic Fields (COMPUMAG) 2025

Cycle-skipping technique based on sigma-delta modulation in series resonant DC transformer

Pittala, Lohith Kumar; **Chub, Andrii**; Sidorov, Vadim; **Khan, Salman**; Ricco, Mattia; Mandrioli, Riccardo 2025 IEEE Seventh International Conference on DC Microgrids (ICDCM) 2025 / 5 p <http://ieeexplore.ieee.org/document/11144699>
<https://doi.org/10.1109/ICDCM63994.2025.11144699>

Data-driven quantification and aggregation of demand-side flexibility for symmetrical bidding in energy balancing markets

Shahid, Arqum; Ahmadiyahangar, Roya; Kilter, Jako; Rosin, Argo Electric Power Systems Research 2025 / art. 111823
<https://doi.org/10.1016/j.epr.2025.111823>

Deep Transfer Learning Approach Using Filtered Time-Frequency Representations of Current Signals for Bearing Fault Detection in Induction Machines

El Bouharrouti, Nada; Nemat Saberi, Alireza; Hussain Khan, Muhammad Dayyan; **Kudelina, Karolina; Naseer, Muhammad Usman**; Belahcen, Anouar IET Electric Power Applications 2025 <https://doi.org/10.1049/elp2.70074>

Design and development of solid state circuit breaker with residual current protection for residential prosumer DC microgrids

Jalakas, Tanel; Chub, Andrii; Roasto, Indrek; Vinnikov, Dmitri; Kurnitski, Jarek Proceedings of the Estonian Academy of Sciences 2025 / p. 281-290 <https://doi.org/10.3176/proc.2025.2S.02>

Design and implementation of dual-mode LLC resonant converter for charging 400 V and 800 V onboard plug-in electric vehicles

Vinusha, Bussa; Kalpana, R.; Kishan, Dharavath; **Chub, Andrii** 2025 IEEE 19th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2025 / 6 p <https://doi.org/10.1109/CPE-POWERENG63314.2025.11027270>

Dual-purpose dc-dc/ac PWM modular power converter as dual-output hybrid converter

Roncero-Clemente, Carlos; Gutierrez-Escalona, Javier; **Matiushkin, Oleksandr**; Husev, Oleksandr; Romero-Cadaval, Enrique; Fernao Pires, V. Renewable energy and power quality journal 2025 / p. 183-187 <https://doi.org/10.52152/4563>

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

Roncero-Clemente, Carlos; Escalona, Javier-Gutiérrez; **Matiushkin, Oleksandr**; Pires, V. Fernão; Milanés-Montero, María Isabel; **Romero-Cadaval, Enrique** IECON Proceedings (Industrial Electronics Conference) IECON 2024 - 50th Annual Conference of the IEEE Industrial Electronics Society 2024 / 6 p <https://doi.org/10.1109/IECON55916.2024.10906022> [Conference proceedings at Scopus](#)
[Article at Scopus](#)

Dynamic Time Warping Technique for Condition Monitoring of High Voltage Circuit Breakers

Asefi, Sajjad; Kilter, Jako 2025 15th International Conference on Power, Energy, and Electrical Engineering (CPEEE) 2025 / p. 38-42 <https://doi.org/10.1109/CPEEE64598.2025.10987408>

Effect of Bulk Capacitor on Harmonics of Energy-Efficient Devices

Daniel, Kamran; Kütt, Lauri; Lehtonen, Matti; **Shabbir, Noman**; Iqbal, Muhammad Naveed; Martins, Joao; Simson, Päivo IEEE Access 2025

Effect of parasitic components in voltage drop and design consideration of the switched impedance inverter

Hasan Babayi Nozadian, Mohsen; Vinnikov, Dmitri; Mashinchi Maheri, Hamed IET power electronics 2025 / p. 1-15
<https://doi.org/10.1049/pel2.70024> <https://ietresearch.onlinelibrary.wiley.com/doi/full/10.1049/pel2.70024>

Energy management implementation approach for droop-controlled residential DC nanogrids

Hasan, Sayeed; Chub, Andrii; Yadav, Neelesh; Blinov, Andrei; Kurnitski, Jarek; Vinnikov, Dmitri 2025 IEEE Seventh International Conference on DC Microgrids (ICDCM) 2025 / 5 p <http://doi.org/10.1109/ICDCM63994.2025.11144665>

Energy-efficient autonomous systems - capacity building cross-border educational initiative

Kunicina, Nadezda; Plonis, Darius; Bruzgiene, Rasa; **Rassölkin, Anton** 2025 IEEE 12th Workshop on Advances in Information, Electronic and Electrical Engineering (AIEEE) 2025 / 5 p <https://doi.org/10.1109/AIEEE66149.2025.11050877>

Enhanced control strategy for three-level T-type converters in hybrid power-to-X systems

Sassonker Elkayam, Moria; **Vinnikov, Dmitri** Applied sciences 2025 / art. 2409 <https://doi.org/10.3390/app15052409>

Enhancement of residential PV energy storage system by supercapacitor battery – high spatial resolution data analysis

Rogowski, Szymon; **Hasan, Sayeed; Chub, Andrii; Sibinski, Maciej** Proceedings of the Estonian Academy of Sciences 2025 / p. 269-280 <https://doi.org/10.3176/proc.2025.2S.01>

Evaluating the Power Mismatch Dynamics of Deeply Renovated Apartment Buildings with On-site PV Panels in Estonia

Olayiwola, Tofopefun Nifise; Thalfeldt, Martin; Kuusk, Kalle; Blinov, Andrei Clima 2025 : 15th REHVA HVAC World Congress 2025

Fault detection and protection strategy for multi-terminal HVDC grids using wavelet analysis

Kaur, Jashandeep; Jayasooriya, Manilka; **Iqbal, Muhammad Naveed; Daniel, Kamran; Shabbir, Noman; Peterson, Kristjan** Energies 2025 / art. 1147 <https://doi.org/10.3390/en18051147>

Feasibility Study of Snow Removal from PV Module Using Universal Power Electronic Interface

Chauhan, Sachin; Chub, Andrii; Hasan, Sayeed; Lavrov, Artur; Kurnitski, Jarek; Vinnikov, Dmitri 2025 IEEE Seventh International Conference on DC Microgrids (ICDCM) 2025 / 5 p

From ADAS to Material-Informed Inspection : Review of Hyperspectral Imaging Applications on Mobile Ground Robots

Valme, Daniil; Rassölkin, Anton; Liyanage, Dhanushka Chamara Sensors 2025 / art. 2346 <https://doi.org/10.3390/s25082346>
<https://www.mdpi.com/1424-8220/25/8/2346>

Full SiC three-level T-type quasi-Z source inverter as grid-forming unit in islanded nanogrid

Gutiérrez-Escalona, Javier; Roncero-Clemente, Carlos; **Matiushkin, Oleksandr**; González-Romera, Eva; Pires, V. Fernão; Romero-Cadaval, Enrique IET renewable power generation 2025 / art. e70051 <https://doi.org/10.1049/rpg2.70051>

Holistic cyber-physical approach for the performance evaluation of communication and control systems in DC microgrids

Véliz, Antonio; Contreras, René; Riffo, Sebastián; Restrepo, Carlos; Garcés-Ruiz, Alejandro; **Chub, Andrii**; González-Castaño, Catalina; Flores-Bahamonde, Freddy IEEE journal of emerging and selected topics in power electronics 2025
<https://doi.org/10.1109/JESTPE.2025.3564851> <https://ieeexplore.ieee.org/document/10977842>

Hybrid Attention-Based LSTM and XGBoost Model for Short-Term Residential Load Forecasting

Shabbir, Noman; Shahid, Arqum; Daniel, Kamran; Jawad, M.; Rosin, Argo; Martins, Joao 2025 IEEE the 13th International Conference on Smart Energy Grid Engineering (SEGE 2025) 2025

Integrating Attention-Based LSTM with XGBoost for Improved Residential DC Load Forecasting

Shabbir, Noman; Shahid, Arqum; Daniel, Kamran; Rosin, Argo; Kilter, Jako; Martins, Joao 2025 IEEE International Conference on Energy Technologies for Future Grids (ETFG) 2025

Isolated high step-up current-fed DC-DC converter with low input current ripple and wide full-soft-switching capability

Mohseni, Parham; Pourjafar, Saeed; Matiushkin, Oleksandr; Husev, Oleksandr; Vinnikov, Dmitri IEEE transactions on industry applications 2025 / 11 p <https://doi.org/10.1109/TIA.2025.3544985>

Kolmogorov-Arnold networks for algorithm design in battery energy storage system applications

Zequera, Rolando Antonio Gilbert; Rassölkin, Anton; Vaimann, Toomas; Kallaste, Ants Energy Reports 2025 / p. 2664-2677
<https://doi.org/10.1016/j.egyr.2025.02.002>

Modern training courses increasing awareness of environmental protection

Veg, Lukas; Jelen, M.; **Rassölkin, Anton**; Stępien, M.; Zygmanski, Marcin Przegląd elektrotechniczny = Electrical review 2025 / p. 68-72 <https://doi.org/10.15199/48.2025.05.14> <http://pe.org.pl/articles/2025/5/14.pdf>

Multi-step ahead short-term residential DC load forecasting : A comparative study of NGBoost-based algorithms

Shabbir, Noman; Husev, Oleksandr; Hokmabad, Hossein Nourollahi; Daniel, Kamran; Jawad, Muhammad; Martins, Joao 2025 IEEE Seventh International Conference on DC Microgrids (ICDCM) 2025 / 6 p <https://doi.org/10.1109/ICDCM63994.2025.11144710>

Neuro-fuzzy approach for fault prediction of mechanical bearing faults using vibration analysis

Shirokova, Veroonika; Kudelina, Karolina; Raja, Hadi Ashraf; Rjabtsikov, Viktor; Barashkova, Tatjana; Nutonen, Karle IECON Proceedings (Industrial Electronics Conference) IECON 2024 - 50th Annual Conference of the IEEE Industrial Electronics Society 2024 / p. 1-6 <https://doi.org/10.1109/IECON55916.2024.10905990> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Novel concept of universal AC/DC-DC onboard battery charger for electric vehicles

Mohseni, Parham; Husev, Oleksandr; Vinnikov, Dmitri; Kasper, Matthias; Deboy, Gerald 2025 IEEE Seventh International Conference on DC Microgrids (ICDCM) 2025 / 6 p <https://doi.org/10.1109/ICDCM63994.2025.11144698>

Novel dual-purpose cost-effective forward-based micro-converter

Afshar, Hossein; Husev, Oleksandr; Matiushkin, Oleksandr; Vinnikov, Dmitri 2025 IEEE Seventh International Conference on DC Microgrids (ICDCM) 2025 / 5 p <http://doi.org/10.1109/ICDCM63994.2025.11144743>

Novel Interlinking Converter Approach for Islanded Hybrid Microgrids based on the Modular Dual-Purpose Power Converter

Gutiérrez-Escalona, Javier; Roncero-Clemente, Carlos; **Husev, Oleksandr; Matiushkin, Oleksandr**; Milanés-Montero, María Isabel; Romero-Cadaval, Enrique 2025 International Aegean Conference on Electrical Machines and Power Electronics & International Conference on Optimization of Electrical and Electronic Equipment 2025

An Overview of Autonomous Parking Systems : Strategies, Challenges, and Future Directions

Olmos Medina, Javier Santiago; Maradey Lázaro, Jessica Gissella; **Rassölkin, Anton**; González Acuña, Hernán Sensors 2025 / art.

P3R – Partial power post regulator for DC buildings application

Carvalho, Edivan Laercio; Chub, Andrii; Blinov, Andrei; Rathore, Akshay Kumar; **Vinnikov, Dmitri** IECON Proceedings (Industrial Electronics Conference) IECON 2024 - 50th Annual Conference of the IEEE Industrial Electronics Society 2024 / 6 p <https://doi.org/10.1109/IECON55916.2024.10905720> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Performance analysis of partial power converter in DC microgrid with active front-end converter

Yadav, Neelesh; Hasan, Sayeed; Galkin, Ilya; **Chub, Andrii** 2025 IEEE Seventh International Conference on DC Microgrids (ICDCM) 2025 / 5 p <https://doi.org/10.1109/ICDCM63994.2025.11144718>

Performance comparison of voltage-fed and current-fed series resonant converters for high step-up DC-DC applications

Khan, Salman; Chub, Andrii; Vinnikov, Dmitri 2025 IEEE 19th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2025 / 6 p <https://doi.org/10.1109/CPE-POWERENG63314.2025.11027290>

Performance investigation of active, semi-active and passive suspension using quarter car model

Samaroo, Kyle; Awan, Abdul Waheed; Marimuthu, Siva; Iqbal, Muhammad Naveed; **Daniel, Kamran; Shabbir, Noman** Algorithms 2025 / art. 100 <https://doi.org/10.3390/a18020100>

Performance optimization of a high-speed permanent magnet synchronous motor drive system for formula electric vehicle application

Ibrahim, Mahmoud; Järg, Oskar; Seppago, Raigo; Rassõlkin, Anton Sensors 2025 / art. 3156 <https://doi.org/10.3390/s25103156> <https://www.mdpi.com/1424-8220/25/10/3156>

Possible legal forms for energy communities (EC)

Metsik, Merilin; Eynizada, Narmin; Korõtko, Tarmo 2025 13th International Conference on Smart Grid (icSmartGrid) 2025 / p. 230-237 <https://doi.org/10.1109/icSmartGrid66138.2025.11071819>

Protection and control implementation for bidirectional step-up/down partial power converter for droop-controlled DC microgrids

Yadav, Neelesh; Chub, Andrii; Hassanpour, Naser; Blinov, Andrei; Vinnikov, Dmitri IEEE transactions on industry applications 2025 / 11 p <https://doi.org/10.1109/TIA.2025.3561767>

PV Energy Communities in Residential Apartments : Technical Capacities and Economic Viability

Mutule, Anna; Borscevskis, Olegs; **Astapov, Victor;** Antoskova, Irina; Carroll, Paula; Kairisa, Evita Sustainability 2025

Quantification of corona discharge intensity applied to sphere-plane configurations

Gupta, Pradeep Kumar; Ruiz, Jordi-Roger Riba; **Tuttelberg, Kaur; Kilter, Jako** IEEE Transactions on Dielectrics and Electrical Insulation 2025 <https://doi.org/10.1109/TDEI.2025.3562196>

Reconfigurable three-switch leg multi-port boost inverters with novel modulation schemes for hybrid DC/AC microgrid systems

Reddy, M. Rama Narayana; Reddy, B. Dastagiri; Prabhakaran, Prajof; **Chub, Andrii;** Kouro, Samir IEEE Access 2025 / p. 77124-77146 <https://doi.org/10.1109/ACCESS.2025.3565791> <https://ieeexplore.ieee.org/document/10980297>

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

Gutiérrez-Escalona, Javier; Roncero-Clemente, Carlos; **Husev, Oleksandr; Matiushkin, Oleksandr;** Barrero-González, Fermín; González-Romera, Eva IECON 2024 - 50th Annual Conference of the IEEE Industrial Electronics Society 2025 / 6 p <https://doi.org/10.1109/IECON55916.2024.10905501> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Remote data transfer and comparative performance through PyBaMM and mathematical techniques in battery applications

Zequera, Rolando Antonio Gilbert; Rassõlkin, Anton; Belolipetskaja, Diana 2025 IEEE Seventh International Conference on DC Microgrids (ICDCM) 2025 / 6 p <http://doi.org/10.1109/ICDCM63994.2025.11144690>

Review of technical solutions addressing voltage and operational challenges in a distribution grid with high penetration of intermittent RES

Astapov, Victor; Shabbir, Noman; Rosin, Argo; Kütt, Lauri; Maask, Vahur; Tiismus, Hans Energy reports 2025 / p. 1738-1760 <https://doi.org/10.1016/j.egy.2025.08.019>

Review of the present state, development trends, and advancements of power electronic converters used in robotics

Vodovozov, Valery; Raud, Zoja Energies 2025 / art. 2638 <https://doi.org/10.3390/en18102638>

Review of Trends in the Development of Power Rectifiers used in Robotics

Vodovozov, Valery; Raud, Zoja 2025 IEEE International Conference on Interdisciplinary Approaches in Technology and Management for Social Innovation (IATMSI) 2025 / 6 p. <https://doi.org/10.1109/IATMSI64286.2025.10984733>

A Scoping Review of Energy Consumption in Industrial Robotics

Muru, Johannes; Rassõlkin, Anton Machines 2025 / art. 542 <https://doi.org/10.3390/machines13070542>

Solar PV Generation and Consumption Dataset of an Estonian Residential Dwelling

Hasan, Sayeed; Blinov, Andrei; Chub, Andrii; Vinnikov, Dmitri Scientific Data 2025 / art. 481 <https://doi.org/10.1038/s41597-025-04747-w>

Startup implementation in universal power electronics interface with dual-standard output for DC microgrid applications

Chauhan, Sachin; Khan, Salman; Chub, Andrii; Vinnikov, Dmitri; Wunder, Bernd; Flores-Bahamonde, Freddy 2025 IEEE 19th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2025 / 6 p <https://doi.org/10.1109/CPE-POWERENG63314.2025.11027310>

State-of-the-Art Review of Emerging Trends in Renewable Energy Generation Technologies

Tiismus, Hans; Maask, Vahur; Astapov, Victor; Korõtko, Tarmo; Rosin, Argo IEEE Access 2025 / p. 10820 - 10843 <https://doi.org/10.1109/ACCESS.2025.3528640>

Synthetic Data-Driven Detection of Broken Rotor Bars in Induction Machines Under Adjusted Noise Level

Nuha, Nurjahan Amin; Siddik Injam, Md Tanbir; El Bouharrouti, Nada; Hemeida, Ahmed; Kudelina, Karolina; Naseer, Muhammad Usman; Belahcen, Anouar 2025 IEEE Workshop on Electrical Machines Design, Control and Diagnosis (WEMDCD) 2025 / 6 p <https://doi.org/10.1109/WEMDCD61816.2025.11014141>

Traction powered multiport DC-DC converter for bidirectional EV charging application – HIL simulation results

Lukianov, Mykola; Romero Cadaval, Enrique; Matiushkin, Oleksandr; Strzelecki, Ryszard 19th International Conference on Compatibility, Power Electronics and Power Engineering 2025

Utilizing the fuzzy logic algorithm for cartesian robot control system in conditions of mechanical damage transmission

Dunaeva, Olga; Autsou, Siarhei; Kudelina, Karolina; Roosileht, Mare IECON 2024 - 50th Annual Conference of the IEEE Industrial Electronics Society IECON Proceedings (Industrial Electronics Conference) 2024 / 5 p <https://doi.org/10.1109/IECON55916.2024.10905445> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Wide voltage gain current-fed isolated buck-boost series-resonant DC-DC converter with active clamp for DC microgrid applications

Khan, Salman; Chub, Andrii; Vinnikov, Dmitri; Kasper, Matthias; Deboy, Gerald; Sachin, Chauhan 2025 IEEE Seventh International Conference on DC Microgrids (ICDCM) 2025 / 5 p <https://ieeexplore.ieee.org/document/11144687> <http://doi.org/10.1109/ICDCM63994.2025.11144687>

Wideband frequency response analysis for sensitive condition estimation of machine's turn insulation degradation faults

Sardar, Muhammad Usman; Vaimann, Toomas; Kütt, Lauri; Asad, Bilal; Kallaste, Ants; Land, Raul 2025 IEEE Workshop on Electrical Machines Design, Control and Diagnosis (WEMDCD) 2025 / 6 p <https://doi.org/10.1109/WEMDCD61816.2025.11014207>

Wide-range universal isolated DC-DC converter for EV charging applications

Blinov, Andrei; Chub, Andrii; Vinnikov, Dmitri IECON Proceedings (Industrial Electronics Conference) IECON 2024 - 50th Annual Conference of the IEEE Industrial Electronics Society 2024 / 5 p <https://doi.org/10.1109/IECON55916.2024.10905692> [Conference proceedings at Scopus](#) [Article at Scopus](#)