

Active power electronic transformer as a power conditioner for nonlinear loads [Electronic resource]

Roasto, Indrek; Romero-Cadaval, Enrique; Martins, Joao; **Jalakas, Tanel** CPE 2013 : 2013 International Conference on Compatibility and Power Electronics (CPE) : June 5-7, 2013, Ljubljana, Slovenia : conference proceedings 2013 / p. 63-68 : ill [CD-ROM]

Active power electronic transformer based on modular building blocks

Roasto, Indrek; Romero-Cadaval, Enrique; Martins, Joao Proceedings : IECON 2013 - 39th Annual Conference of the IEEE Industrial Electronics Society : Austria Center Vienna, Vienna, Austria, 10-14 November, 2013 2013 / p. 5922-5927 : ill <https://doi.org/10.1109/IECON.2013.6700106> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

A battery cell balancing method with linear mode bypass current control

Gallardo-Lozano, Javier; Romero-Cadaval, Enrique; **Jalakas, Tanel**; **Hõimoja, Hardi** BEC 2014 : 2014 14th Biennial Baltic Electronics Conference : proceedings of the 14th Biennial Baltic Electronics Conference : Tallinn University of Technology, October 6-8, 2014, Tallinn, Estonia 2014 / p. 245-248 : ill

Battery technologies in electric vehicles : improvements in electric battery packs

Mohseni, Parham; **Husev, Oleksandr**; **Vinnikov, Dmitri**; Strzelecki, Ryszard; Romero-Cadaval, Enrique; Tokarski, Igor IEEE industrial electronics magazine 2023 / p. 55-65 <https://doi.org/10.1109/MIE.2023.3252265> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Buck-boost unfolder 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>

Carrier based modulation with capacitor balancing for three-level neutral-point-clamped qZS inverter

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Carrier level-shifted based control method for the PWM 3L-T-Type qZS inverter with capacitor imbalance compensation

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Husev, Oleksandr; Roncero-Clemente, Carlos; **Stepenko, Serhii**; **Vinnikov, Dmitri**; Romero-Cadaval, Enrique 15th International Power Electronics and Motion Control Conference, EPE-PEMC 2012 ECCE Europe, Novi Sad, Serbia 2012 / p. DS1b.21-1-DS1b.21-6 : ill <https://ieeexplore.ieee.org/document/6397221>

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

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Comparison of three MPPT algorithms for three-level neutral-point-clamped qZ-Source inverter [Electronic resource]

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Controlling a battery energy storage system to support residential photovoltaic installations

Fernao Pires, Vitor; Martins, Joao; Roncero-Clemente, Carlos; Romero-Cadaval, Enrique; **Husev, Oleksandr** 2017 IEEE International Symposium on Industrial Electronics (ISIE) : Edinburgh International Conference Centre, Edinburgh, Scotland, United Kingdom, 19-21 June, 2017 : proceedings 2017 / p. 1769-1774 : ill <https://doi.org/10.1109/ISIE.2017.8001516>

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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**; Milanés-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>

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Grid-connected PV system based on a single-phase three-level qZS inverter

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Grid-connected single-phase 3L-T-type qZS inverter for renewable energy

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Hybrid FEA-Simulink modelling of permanent magnet assisted synchronous reluctance motor with unbalanced magnet flux

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Interleaved single-phase quasi-Z-source inverter with special modulation technique

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Isolated high-frequency link PFC rectifier with high step-down factor and reduced energy circulation

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Low-power Wind Generation grid-connected system with MPPT and PC control

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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

Novel space vector pulse width modulation strategies for single-phase three-level NPC impedance-source inverters

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Operation strategy and shoot-through indirect control method for three-phase Z-source inverters

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Output filter design for grid connected single phase three-level quasi-Z-source inverter [Electronic resource]

Husev, Oleksandr; Stepenko, Serhii; Roncero-Clemente, Carlos; **Vinnikov, Dmitri;** Romero-Cadaval, Enrique CPE 2013 : 2013 International Conference on Compatibility and Power Electronics (CPE) : June 5-7, 2013, Ljubljana, Slovenia : conference proceedings 2013 / p. 46-51 : ill [CD-ROM]

Output voltage control system for a three-level neutral-point clamped quasi-Z-source inverter

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Overview of advanced functionalities for residential photovoltaic inverter connected to the grid

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An overview of the functions of smart grids associated with virtual power plants including cybersecurity measures

Alvi, Anas Abdullah; Romero-Cadaval, Enrique; González-Romera, Eva; Hassan, Jamil; **Vinnikov, Dmitri** Technological innovation for connected cyber physical spaces : 14th IFIP WG 5.5/SOCOLNET Doctoral Conference on Computing, Electrical and Industrial Systems, DoCEIS 2023, Caparica, Portugal, July 5-7, 2023 : proceedings 2023 / p. 95 - 107 https://doi.org/10.1007/978-3-031-36007-7_7 [Conference Proceedings at Scopus](#) [Article at Scopus](#)

P and Q control strategy for single phase Z/qZ source inverter based on d-q frame

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Passive power decoupling approach for three-level single-phase impedance source inverter based on resonant and PID controllers

Makovenko, Elena; Husev, Oleksandr; Zakis, Janis; Roncero-Clemente, Carlos; Romero-Cadaval, Enrique; **Vinnikov, Dmitri** 2017 11th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG 2017) : Cadiz, Spain, 4-6 April 2017 2017 / p. 516-521 : ill <https://doi.org/10.1109/CPE.2017.7915225>

Performance evaluation of a three-phase PV power plant under unbalanced conditions with islanding detection reliability test

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Power converter interfaces for electrochemical energy storage systems - a review

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Power Electronic Systems for Efficient and Sustainable Energy Supply

2019 https://www.mdpi.com/journal/energies/special_issues/power_electronic_systems_for_eses

PV-battery assisted three-level T-Type inverter for AC residential nanogrid realized with small-scale HIL units

Gutierrez-Escalona, Javier; **Roncero-Clemente, Carlos;** Gonzalez-Romera, Eva; Milanes-Montero, Maria Isabel; Husev, Oleksandr; Romero-Cadaval, Enrique IEEE Access 2023 / p. 48007 - 48021 <https://doi.org/10.1109/ACCESS.2023.3276235> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

PWM for single phase 3L Z/qZ-Source inverter with balanced power losses

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