

A MPPT control method for full soft-switching high step-up current-fed DC-DC converter

Kosenko, Roman; Roasto, Indrek 2015 56th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) 2015 / p. 199-203 : ill

Accuracy analysis of dual active bridge simulations under different integration methods

Arena, Gabriele; Vinnikov, Dmitri; Chub, Andrii; de Carne, Giovanni 2022 AEIT International Annual Conference (AEIT) : October 3-5, 2022 2022 / p. 1-6 <https://doi.org/10.23919/AEIT56783.2022.9951711>

Alalisvoolu tagasitulek - unistus või reaalsus?

Roasto, Indrek; Vinnikov, Dmitri; Blinov, Andrei; Chub, Andrii; Carvalho da Silva, Edivan Laercio Elektriala 2023 / lk. 22-25 : ill, portr https://www.ester.ee/record=b1240496*est

An indirect model predictive current control (CCS-MPC) for grid-connected single-phase three-level NPC quasi-Z-source PV inverter

Pires Pimentel, Sergio 18th International Symposium "Topical Problems in the Field of Electrical and Power Engineering". Doctoral School of Energy and Geotechnology III : Toila, Estonia, January 14-19, 2019 : [proceedings] 2019 / p. 29-30 : ill https://www.ester.ee/record=b5183874*est

An SVM scheme for three-level quasi-switched boost T-type inverter with Enhanced voltage gain and capacitor voltage balance

Tran, Vinh-Thanh; Nguyen, Minh-Khai; Do, Duc-Tri; Vinnikov, Dmitri IEEE transactions on power electronics 2021 / p. 11499-11508 <https://doi.org/10.1109/TPEL.2021.3071011> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Analysis of broken rotor bar diagnostic techniques for inverter fed induction motor faults

Sardar, Muhammad Usman 22nd International Symposium "Topical Problems in the Field of Electrical and Power Engineering". Doctoral School of Energy and Geotechnology III : Pärnu, Estonia, August 23-26, 2023 2023 / p. 39-40 : ill https://www.ester.ee/record=b5570906*est

Analysis of buck mode realization possibilities in quasi-Z-source DC-DC converters with voltage doubler rectifier

Zakis, Janis; Rankis, Ivars; Liivik, Liisa; Chub, Andrii 2015 IEEE 5th International Conference on Power Engineering, Energy and Electrical Drives (POWERENG) : proceedings : May 11-13, 2015, Riga, Latvia 2015 / p. 570-575 : ill <http://dx.doi.org/10.1109/PowerEng.2015.7266379>

Analysis of the use of supercapacitors and batteries as energy storage elements for off-grid hybrid photovoltaic inverters

Gonschorowski, E.; Cardoso, Rafael; Carvalho, Edivan Laercio; de Oliveira Stein, Carlos Marcelo; Carati, Emerson Giovanni; Denardin, Gustavo Weber; da Costa, Jean Patric 2023 IEEE 8th Southern Power Electronics Conference and 17th Brazilian Power Electronics Conference (SPEC/COBEP) 2023 / 7 p <https://doi.org/10.1109/SPEC56436.2023.10407182>

Analytical and experimental investigation of neutral point clamped quasi-impedance-source inverter

Ott, Silver; Roasto, Indrek; Vinnikov, Dmitri; Lehtla, Tõnu Scientific journal of Riga Technical University. Serija 4, Power and electrical engineering 2011 / p. 113-118 : ill

Analytical comparison between capacitor assisted and diode assisted cascaded quasi-Z-source inverters

Vinnikov, Dmitri; Roasto, Indrek; Jalakas, Tanel; Strzelecki, Ryszard; Adamowicz, Marek Przegląd elektrotechniczny = Electrical review 2012 / p. 212-217 : ill https://www.researchgate.net/publication/290652933_Analytical_comparison_between_capacitor_assisted_and_diode_assisted_cascaded_quasi-Z-source_inverters

Application of hysteresis voltage control for three-level neutral point clamped voltage source inverter

Kolmakov, Nikolay; Bakhovtsev, Igor A.; Jalakas, Tanel 2015 56th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) 2015 / p. 195-198 : ill

Bidirectional operation of the single-phase neutral-point-clamped quasi-Z-source inverter

Husev, Oleksandr; Zakis, Janis; Vinnikov, Dmitri; Savenko, O. 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. 221-224 : ill

Broken rotor bar fault detection of the grid and inverter-fed induction motor by effective attenuation of the fundamental component

Asad, Bilal; Vaimann, Toomas; Belahcen, Anouar; Kallaste, Ants; Rassõlkin, Anton; Iqbal, Muhammad Naveed IET electric power applications 2019 / p. 2005-2014 <https://doi.org/10.1049/iet-epa.2019.0350> [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>

Bus bar test bench development for common 3x3 matrix converter

Sokolovs, Alvis; **Galkin, Ilja; Laugis, Juhan** BEC 2006 : 2006 International Baltic Electronics Conference : Tallinn University of Technology, October 2-4, 2006, Tallinn, Estonia : proceedings of the 10th Biennial Baltic Electronics Conference 2006 / p. 233-236 : ill

Calculation of an inverter-fed asynchronous motor

Perho, J. Тезисы докладов семинара "Новые направления научных исследований в области электромеханики" 1991 / с. 10-14: ill

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

Romero-Cadaval, Enrique; Roncero-Clemente, Carlos; **Husev, Oleksandr; Vinnikov, Dmitri** 2015 9th International Conference on Compatibility and Power Electronics (CPE) : proceedings : Faculty of Science and Technology (FCT), Caparica, Lisbon, Portugal, 24-26 June, 2015 2015 / p. 57-62 : ill <http://dx.doi.org/10.1109/CPE.2015.7231049>

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

Roncero-Clemente, Carlos; Romero-Cadaval, Enrique; Ruiz-Cortes, Mercedes; **Husev, Oleksandr** IEEE transactions on industrial electronics 2018 / p. 8297-8306 : ill <https://doi.org/10.1109/TIE.2018.2814020> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Cascaded quasi-Z-source inverters for renewable energy generation systems

Adamowicz, Marek; Strzelecki, Ryszard; **Vinnikov, Dmitri** Proceedings of 5th International Conference and Exhibition on Ecological Vehicles and Renewable Energies : March 25-28, 2010, Grimaldi Forum, Monaco 2010 / [8] p

CCM and DCM analysis of Quasi-Z-Source derived push-pull DC/DC converter

Chub, Andrii; Husev, Oleksandr; Blinov, Andrei; Vinnikov, Dmitri Journal of microelectronics, electronic components and materials 2014 / p. 224-234 : ill

Class-E inverter: SPICE simulation including parasitic elements

Liberatore, A.; Manetti, S.; Piccirilli, Maria Cristina; Reatti, A. Automation, simulation & measurement : ASM'91 : 3rd biennial conference, Tallinn, October 7-11, 1991. Section S / Tallinn Technical University 1992 / p. 69-75: ill

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](#)

Coil-to-coil efficiency of ISS-compensated inductive wireless power transfer links operating with load-independent output voltage at fixed frequency

Belenky, A.; **Chub, Andrii**; Kuperman, A. 2023 International Conference on Clean Electrical Power (ICCEP) 2023 / p. 617-621 : ill <https://doi.org/10.1109/ICCEP57914.2023.10247404>

Common mode voltage reduction and neutral-point voltage balance for quasi-Z-source three-level neutral-point-clamped inverters

Liu, Wenjie; Yang, Yongheng; Li, Weilin; Zhang, Xiaobin; **Husev, Oleksandr; Vinnikov, Dmitri** International Power Electronics Conference (IPEC-Himeji 2022- ECCE Asia) 2022 / p. 934-939 <https://doi.org/10.23919/IPEC-Himeji2022-ECCE53331.2022.9806905>

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 reliability for string and central inverter PV systems in accordance with the FMECA

Dumnic, Boris; **Liivik, Elizaveta**; Popadic, Bane; Blaabjerg, Frede; Milicevic, Dragan; Katic, Vladimir 2020 IEEE 11th International Symposium on Power Electronics for Distributed Generation Systems (PEDG), 28 Sept.-1 Oct. 2020, Dubrovnik, Croatia 2020 / p. 591-596 <https://doi.org/10.1109/PEDG48541.2020.9244404>

Comparative study of capacitor-assisted extended boost qZSIs operating in continuous conduction mode

Vinnikov, Dmitri; Roasto, Indrek; Jalakas, Tanel BEC 2010 : 2010 12th Biennial Baltic Electronics Conference : proceedings of the 12th Biennial Baltic Electronics Conference : Tallinn University of Technology, October 4-6, 2010, Tallinn, Estonia 2010 / p. 297-300 : ill

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>

Comparison of impedance-source networks for two and multilevel buck-boost inverter applications

Husev, Oleksandr; Blaabjerg, Frede; Roncero-Clemente, Carlos; Romero-Cadaval, Enrique; **Vinnikov, Dmitri**; Siwakoti, Yam P.; Strzelecki, Ryszard IEEE transactions on power electronics 2016 / p. 7564-7579 : ill <https://doi.org/10.1109/TPEL.2016.2569437>

Comparison of isolated boost full bridge converters for power factor correction application

Zinchenko, Denys; **Blinov, Andrei**; **Vinnikov, Dmitri** 2019 IEEE 60th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON), 7-9 October 2019 : conference proceedings 2019 / 7 p. : ill <https://doi.org/10.1109/RTUCON48111.2019.8982361>

Comparison of pulse width modulation methods for a quasi impedance source inverter

Ott, Silver; **Roasto, Indrek**; **Vinnikov, Dmitri** 10th International Symposium "Topical Problems in the Field of Electrical and Power Engineering". Doctoral School of Energy and Geotechnology II 2011 / p. 25-29 : ill

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

Roncero-Clemente, Carlos; **Husev, Oleksandr**; Minambres-Marcos, Victor; **Stepenko, Serhii**; Romero-Cadaval, Enrique; **Vinnikov, Dmitri** CPE 2013 : 2013 International Conference on Compatibility and Power Electronics (CPE) : June 5-7, 2013, Ljubljana, Slovenia : conference proceedings 2013 / p. 80-85 : ill [CD-ROM]

Comprehensive comparative analysis of impedance-source networks for DC and AC application

Husev, Oleksandr; Shults, Tatiana; **Vinnikov, Dmitri**; **Chub, Andrii** Electronics 2019 / 21 p. : ill <https://doi.org/10.3390/electronics8040405> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Comprison of grid-connected microinverter with primary and secondary side decoupling approach

Afshari, Hossein 22nd International Symposium "Topical Problems in the Field of Electrical and Power Engineering". Doctoral School of Energy and Geotechnology III : Pärnu, Estonia, August 23-26, 2023 2023 / p. 57-58 : ill https://www.ester.ee/record=b5570906*est

Control of bidirectional grid-forming inverter for nearly zero energy buildings

Roasto, Indrek; **Jalakas, Tanel**; **Rosin, Argo** 59th Annual International Scientific Conference on Power and Electrical Engineering : November 12, 13, 2018, Riga Technical University (RTUCON) : conference proceedings 2018 / 6 p. : ill <https://doi.org/10.1109/RTUCON.2018.8659848>

Control of DC/AC full bridge inverter

Najafzadeh, Mahdiyyeh 18th International Symposium "Topical Problems in the Field of Electrical and Power Engineering". Doctoral School of Energy and Geotechnology III : Toila, Estonia, January 14-19, 2019 : [proceedings] 2019 / p. 159-160 : ill https://www.ester.ee/record=b5183874*est

Control of quasi-Z-source dc-dc converter by the overlap of active states : new possibilities and limitations

Roasto, Indrek; **Liivik, Liisa**; **Vinnikov, Dmitri** 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. 217-220 : ill

Control scheme of a Three-Phase Three-Level NPC qZ-Source inverter with LCL filter for RES applications

Roncero-Sanches, Pedro; Roncero-Clemente, Carlos; Romero-Cadaval, Enrique; **Husev, Oleksandr**; **Makovenko, Elena** Proceedings of the IECON 2016 - 42nd Annual Conference of the IEEE Industrial Electronics Society : Florence, Italy, October 24-27 2016 2016 / p. 6540-6547 <https://doi.org/10.1109/IECON.2016.7793338>

A control strategy for a grid-connected PV system with unbalanced loads compensation

Fernao Pires, Vitor; **Husev, Oleksandr**; **Vinnikov, Dmitri**; Martins, Joao 2015 9th International Conference on Compatibility and Power Electronics (CPE) : proceedings : Faculty of Science and Technology (FCT), Caparica, Lisbon, Portugal, 24-26 June, 2015 2015 / p. 154-159 : ill <https://doi.org/10.1109/CPE.2015.7231065>

Critical parameter analysis and design of the Quasi-Z-Source inverter

Liu, Wenjie; Yang, Yongheng; **Liivik, Elizaveta**; **Vinnikov, Dmitri**; Blaabjerg, Frede 2019 IEEE 2nd Ukraine Conference on Electrical and Computer Engineering : UKRCON-2019 : conference proceedings 2019 / p. 474-480 : ill <https://doi.org/10.1109/UKRCON.2019.8879831>

Current control strategy of a grid connected three-level neutral-point-clamped qZS inverter

Roncero-Clemente, Carlos; Romero-Cadaval, Enrique; **Husev, Oleksandr**; **Vinnikov, Dmitri**; Stepenko, Serhii 13th International Symposium "Topical Problems in the Field of Electrical and Power Engineering." Doctoral School of Energy and Geotechnology II : Pärnu, Estonia, January 14-19, 2013 2013 / p. 97-101 : ill

Current sensorless control algorithm for single-phase three-level NPC inverter

Suzdalenko, Alexander; **Zakis, Janis**; Steiks, Ingars Scientific Journal of Riga Technical University. Electrical, control and communication engineering 2014 / p. 28-33 : ill

Current sensorless control for half-bridge based AC/DC PFC converter with consideration of conduction losses

Suzdalenko, Alexander; **Chub, Andrii** International journal of circuit theory and applications 2016 / p. 2072-2084 : ill
<http://dx.doi.org/10.1002/cta.2212>

Current source inverter-fed AC-motor drive

Tuusa, Heikki Тезисы докладов семинара "Новые направления научных исследований в области электромеханики" 1991 / с. 20-24.: ил

Design and comparison of three-level three-phase T-source inverters

Shults, Tatiana; Husev, Oleksandr; Blaabjerg, Frede 2015 IEEE 5th International Conference on Power Engineering, Energy and Electrical Drives (POWERENG) : proceedings : May 11-13, 2015, Riga, Latvia 2015 / p. 564-569 : ill
<http://dx.doi.org/10.1109/PowerEng.2015.7266378>

Design and implementation issues of integrated magnetics for quasi-Z-source inverters

Zakis, Janis; Vinnikov, Dmitri ISEF 2011 - XV International Symposium on Electromagnetic Fields in Mechatronics, Electrical and Electronic Engineering : Funchal, Madeira, September 1-3, 2011 2011 / [8] p.: ill

Design for accelerated testing of DC-link capacitors in photovoltaic inverters based on mission profiles

Sangwongwanich, Ariya; Shen, Yanfeng; **Chub, Andrii; Liivik, Elizaveta; Vinnikov, Dmitri; Wang, Huai; Blaabjerg, Frede** IEEE transactions on industry applications 2021 / p. 741-753 <https://doi.org/10.1109/TIA.2020.3030568> [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), Kärda, Estonia, June 12-15, 2019 : proceedings 2019 / 4 p. : ill <https://doi.org/10.1109/PQ.2019.8818248>

Design of three-phase three-level CIC T-source inverter with maximum boost control

Shults, Tatiana; Husev, Oleksandr; Roncero-Clemente, Carlos; Blaabjerg, Frede; Strzelecki, Ryszard IECON 2015 - Yokohama : 41st Annual Conference of the IEEE Industrial Electronics Society : November 9-12, 2015, Pacifico Yokohama, Yokohama, Japan 2015 / p. 004447-004452 : ill <http://dx.doi.org/10.1109/IECON.2015.7392792>

Development of single-loop current sensorless control for bidirectional three-phase PWM rectifier

Suzdalenko, Alexander; **Zakis, Janis; Husev, Oleksandr** 2015 56th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) 2015 / p. 211-214 : ill

Digital control strategy for interleaved quasi-Z-source inverter with active power decoupling

Stepenko, Serhii; Husev, Oleksandr; Pires Pimentel, Sergio; Vinnikov, Dmitri; Roncero-Clemente, Carlos; Makovenko, Elena IECON 2018 - 44th Annual Conference of the IEEE Industrial Electronics Society : proceedings 2018 / p. 3725-3730 : ill

Distributed storage placement policy for minimizing frequency deviations: A combinatorial optimization approach based on enhanced cross-entropy method

Machlev, Ram; Chowdhury, Nilanjan Roy; **Belikov, Juri; Levron, Yoash** International Journal of Electrical Power and Energy Systems 2022 / p. 1-14 : ill <https://doi.org/10.1016/j.ijepes.2021.107332> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Editorial : special issue on impedance-source converter topologies and applications

Vinnikov, Dmitri; Li, Yuan; Abu-Rub, Haitham IEEE transactions on power electronics 2016 / p. 7417-7418
<http://dx.doi.org/10.1109/TPEL.2016.2577418>

Efficiency and loss distribution analysis of the 3L-Active NPC qZS inverter

Roncero-Clemente, Carlos; Romero-Cadaval, Enrique; Fernao Pires, Vitor; **Husev, Oleksandr** 2018 IEEE 12th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG 2018) : Doha, Qatar, 10-12 April 2018 2018 / p. 449-454 : ill <https://doi.org/10.1109/CPE.2018.8372560>

Efficiency study of the single-phase solar qZS-based inverter

Husev, Oleksandr; Stepenko, Serhii; Vinnikov, Dmitri; Roncero, Carlos; Santasheva, Elena; Romero-Cadaval, Enrique IECON 2019 - 45th Annual Conference of the IEEE Industrial Electronics Society : proceedings 2019 / p. 4399-4404
<https://doi.org/10.1109/IECON.2019.8926655> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Energy yield assessment methodology for photovoltaic microinverters

Chub, Andrii; Kosenko, Roman; Korkh, Oleksandr; Vinnikov, Dmitri; Kouro, Samir 2019 IEEE 15th Brazilian Power Electronics Conference and 5th IEEE Southern Power Electronics Conference (COBEP/SPEC 2019) Santos, Brazil, 1-4 December 2019 2019 / p. 1178-1183 : ill <http://toc.proceedings.com/52923webtoc.pdf>

EstLink 1 ja EstLink 2 : sarnased või sootuks erinevad elektriühendused Soomega?

Haug, Reigo; **Kilter, Jako** Inseneria 2014 / lk. 34-35 https://artiklid.elnet.ee/record=b2664996*est

Evaluation of control solution for grid inverter of low power wind turbine for implementation with inexpensive hardware
Galkin, Ilja; **Zakis, Janis** PQ2014 : the 9th International 2014 Electric Power Quality and Supply Reliability Conference (PQ) : June 11-13, 2014, Rakvere, Estonia : proceedings 2014 / p. 297-302 : ill

Evaluation of losses in three-level neutral-point-clamped and T-type quasi-Z-source inverters with modified carrier based modulation method

Ruiz-Cortes, M.; Romero-Cadaval, Enrique; Roncero-Clemente, Carlos; Gonzalez-Romera, Eva; **Husev, Oleksandr** 2017 11th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG 2017) : Cadiz, Spain, 4-6 April 2017 2017 / p. 638-643 : ill <https://doi.org/10.1109/CPE.2017.7915247>

Experimental analysis of extended boost quasi-Z-source inverters

Ott, Silver; Jalakas, Tanel; Roasto, Indrek; Vinnikov, Dmitri 12th International Symposium "Topical Problems in the Field of Electrical and Power Engineering." Doctoral School of Energy and Geotechnology II : Kuressaare, Estonia, June 11-16, 2012 2012 / p. 65-67 : ill

Experimental analysis of extended boost quasi-Z-source inverters

Ott, Silver; Jalakas, Tanel; Vinnikov, Dmitri; Roasto, Indrek BEC 2012 : 2012 13th Biennial Baltic Electronics Conference : proceedings of the 13th Biennial Baltic Electronics Conference : October 3-5, 2012, Tallinn, Estonia 2012 / p. 259-262 : ill

Experimental comparison of two-level full-SiC and three-level Si-SiC quasi-Z-source inverters for PV applications

Stepenko, Serhii; Husev, Oleksandr; Vinnikov, Dmitri; Roncero-Clemente, Carlos; Pires Pimentel, Sergio; Santasheva, Elena Energies 2019 / 2509 : 17 p. : ill <https://doi.org/10.3390/en12132509> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Experimental comparison of two-level full-SiC and three-level Si-SiC quasi-Z-source inverters for PV applications

Stepenko, Serhii; Husev, Oleksandr; Vinnikov, Dmitri; Roncero-Clemente, Carlos; Pimentel, Sergio Pires; Santasheva, Elena Emerging converter topologies and control for grid connected photovoltaic systems 2021 / P. 121-137 : ill <https://doi.org/10.3390/books978-3-03943-910-2>

Experimental evaluation of a new carrier-based modulation method for a three-level T-type quasi-impedance-source inverter

Gutiérrez-Escalona, Javier; Roncero-Clemente, Carlos; Barrero-Gonzalez, Fermin; **Husev, Oleksandr; Gonzalez-Romera, Eva; Milanes-Montero, Maria Isabel** IET power electronics 2022 / p. 337-348 <https://doi.org/10.1049/pel2.12234> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Experimental Investigation of high frequency 3L-NPC qZS inverter for photovoltaic application

Husev, Oleksandr; Stepenko, Serhii; Roncero-Clemente, Carlos; Romero-Cadaval, Enrique; Strzelecki, Ryszard Proceedings : IECON 2013 - 39th Annual Conference of the IEEE Industrial Electronics Society : Austria Center Vienna, Vienna, Austria, 10-14 November, 2013 2013 / p. 5969-5974 : ill

Experimental study of voltage-fed quasi-z-source inverter based isolated DC/DC converter

Vinnikov, Dmitri; Roasto, Indrek; Strzelecki, Ryszard Electrical engineering research report 2009 / [7] p

Feasibility study GaN transistors application in the novel split-coils inductive power transfer system with T-type inverter

Shevchenko, Viktor; Pakhaliuk, Bohdan; **Husev, Oleksandr; Veligorskyi, Oleksandr; Stepins, Deniss; Strzelecki, Ryszard** Industrial and Technological Applications of Power Electronics Systems 2021 / p. 315-330 <https://doi.org/10.3390/en13174535>

Feasibility study GaN transistors application in the novel split-coils inductive power transfer system with T-Type inverter

Shevchenko, Viktor; Pakhaliuk, Bohdan; **Husev, Oleksandr; Veligorskyi, Oleksandr; Stepins, Deniss; Strzelecki, Ryszard** Energies 2020 / art. 4535, 16 p. : ill <https://doi.org/10.3390/en13174535> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Feasibility study of inductor coupling in three-level neutral-point-clamped quasi-Z-source DC/AC converter

Zakis, Janis; Husev, Oleksandr; Strzelecki, Ryszard PQ2014 : the 9th International 2014 Electric Power Quality and Supply Reliability Conference (PQ) : June 11-13, 2014, Rakvere, Estonia : proceedings 2014 / p. 273-276 : ill

Feasibility study of model predictive control for grid-connected twisted buck-boost inverter

Matiushkin, Oleksandr; Husev, Oleksandr; Rodriguez, Jose; Young, Hector; Roasto, Indrek IEEE transactions on industrial electronics 2022 / p. 2488-2499 <https://doi.org/10.1109/TIE.2021.3068663> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Four level inverter's DC bus voltage balancing with 3-Terminal DAB converter

Grabarek, Maciej; Strzelecki, Ryszard; Tomasov, Valentin S.; **Vinnikov, Dmitri** 2016 10th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) : proceedings : Opera Nova's Congress Center, Bydgoszcz, Poland, 29. June - 01. July, 2016 2016 / p. 396-401 : ill <https://doi.org/10.1109/CPE.2016.7544221>

Four novel PWM shoot-through control methods for impedance source DC-DC converters

Vinnikov, Dmitri; Roasto, Indrek; Liivik, Liisa; Blinov, Andrei Journal of power electronics 2015 / p. 299-308 : ill

Galvanically isolated quasi-Z-source DC-DC converter with a novel ZVS and ZCS technique

Husev, Oleksandr; Liivik, Liisa; Blaabjerg, Frede; Chub, Andrii; Vinnikov, Dmitri; Roasto, Indrek IEEE transactions on industrial electronics 2015 / p. 7547-7556 : ill

Grid-connected buck-boost inverter based on unfolding circuit

Matiushkin, Oleksandr; Husev, Oleksandr; Vinnikov, Dmitri; Gordienko, Vyacheslav 59th Annual International Scientific Conference on Power and Electrical Engineering : November 12, 13, 2018, Riga Technical University (RTUCON) : conference proceedings 2018 / 6 p. : ill <https://doi.org/10.1109/RTUCON.2018.8659824>

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

Roncero-Clemente, Carlos; **Husev, Oleksandr**; Ruiz-Cortes, Mercedes; Romero-Cadaval, Enrique; Barrero-Gonzalez, Fermin; Gonzalez-Romera, Eva IECON 2019 - 45th Annual Conference of the IEEE Industrial Electronics Society : proceedings 2019 / p. 5003-5007 : ill <https://doi.org/10.1109/IECON.2019.8926888> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

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

Roncero-Clemente, Carlos; **Husev, Oleksandr**; Barrero-Gonzalez, Fermin; Gonzalez-Romera, Eva; Milanés-Montero, Maria Isabel; Romero-Cadaval, Enrique 2020 IEEE 14th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) : proceedings 2020 / p. 114-119 <https://doi.org/10.1109/CPE-POWERENG48600.2020.9161512>

High-efficiency 312-kVA three-phase inverter using parallel connection of silicon carbide MOSFET power modules

Colmenares, Juan; Pefitsis, Dimosthenis; **Rabkowski, Jacek** IEEE transactions on industry applications 2015 / p. 4664-4676 : ill <http://dx.doi.org/10.1109/TIA.2015.2456422>

High-voltage pulse transformer for IOT modulators

Jalakas, Tanel; Janson, Kuno; Mölder, Heigo; Roasto, Indrek IET electric power applications 2020 / p. 2348-2354 <https://doi.org/10.1049/iet-epa.2019.0877> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Hybrid inverter and control strategy for enabling the PV generation dispatch using extra-low-voltage batteries

Meneghetti, Luiz Henrique; **Carvalho da Silva, Edivan Laercio**; Carati, Emerson Giovani; Denardin, Gustavo Weber; da Costa, Jean Patric; de Oliveira Stein, Carlos Marcelo; Cardoso, Rafael Energies 2022 / art. 7539 <https://doi.org/10.3390/en15207539> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Hysteresis current control with distributed shoot-through states for impedance source inverters

Husev, Oleksandr; Chub, Andrii; Romero-Cadaval, Enrique; Roncero-Clemente, Carlos; **Vinnikov, Dmitri** International journal of circuit theory and applications 2016 / p. 783-797 : ill <http://dx.doi.org/10.1002/cta.2106>

Implementation of global maximum power point tracking in photovoltaic microconverters: A survey of challenges and opportunities

Vinnikov, Dmitri; Chub, Andrii; Kosenko, Roman; **Sidorov, Vadim**; Lindvest, Andre IEEE journal of emerging and selected topics in power electronics 2023 / p. 2259-2280 : ill <https://doi.org/10.1109/JESTPE.2021.3137521>

Improved DC-Link voltage transient response and stability issues in energy router with fuzzy logic control method

Najafzadeh, Mahdiyyeh; Husev, Oleksandr; Roasto, Indrek; Jalakas, Tanel 2020 IEEE 61st International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON), Riga, Latvia, Nov. 5-7, 2020 : conference proceedings 2020 / 6 p. : ill <https://doi.org/10.1109/RTUCON51174.2020.9316477>

Improved switched-inductor quasi-switched-boost inverter with low input current ripple

Chub, Andrii; Liivik, Liisa; Zakis, Janis; Vinnikov, Dmitri 2015 56th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) 2015 / p. 221-226 : ill

Improvements on the carrier-based control method for a three-level T-type, quasi-impedance-source inverter

Barrero-Gonzalez, Fermin; Roncero-Clemente, Carlos; Milanés-Montero, Maria Isabel; **Husev, Oleksandr** Electronics 2019 / art. 677, 12 p. : ill <https://doi.org/10.3390/electronics8060677> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Indirect model predictive control for inverter connected to distorted grid with significant computation delay

Husev, Oleksandr; Pimentel, Sergio Pires; **Vinnikov, Dmitri; Kütt, Lauri**; Rodriguez, Jose IECON 2019 - 45th Annual Conference of the IEEE Industrial Electronics Society : proceedings 2019 / p. 6483-6488 : ill <https://doi.org/10.1109/IECON.2019.8927279>

Inductive bifilar coil based wireless charging system for autonomous electric boat

Pakhaliuk, Bohdan; **Husev, Oleksandr; Shevchenko, Viktor**; Kroics, Kaspars; Stepins, Deniss; Strzelecki, Ryszard IEEE 31st International Symposium on Industrial Electronics (ISIE) 2022 / p. 758-761 <https://doi.org/10.1109/ISIE51582.2022.9831731>

Inductor Current Ripple Analysis and Reduction for Quasi-Z-Source Inverters with An Improved ZSVM6 Strategy

Liu, Wenjie; Yang, Yongheng; Kerekes, Tamas; **Vinnikov, Dmitri**; Blaabjerg, Frede IEEE transactions on power electronics 2021 / p. 7693-7704 <https://doi.org/10.1109/TPEL.2020.3043102> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Interleaved quasi-Z-source inverter with activ power decoupling for kW-scale PV applications

Stepenko, Serhii 18th International Symposium "Topical Problems in the Field of Electrical and Power Engineering". Doctoral School of Energy and Geotechnology III : Toila, Estonia, January 14-19, 2019 : [proceedings] 2019 / p. 71-72 : ill https://www.ester.ee/record=b5183874*est

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

Roncero-Clemente, Carlos; **Husev, Oleksandr**; Stepenko, Serhii; Romero-Cadaval, Enrique; **Vinnikov, Dmitri** 2017 IEEE First Ukraine Conference on Electrical and Computer Engineering (UKRCON) : May 29 - June 2, 2017, Kyiv, Ukraine : conference proceedings 2017 / p. 593-598 : ill <https://doi.org/10.1109/UKRCON.2017.8100310>

Inverters for power systems with renewable sources: basic topologies and purposes

Yamnenko, Iuliia; Tereshchenko, Tetiana; Fedin, Ihor; **Carvalho da Silva, Edivan Laercio**; Kozhushko, Yuliia; Bondarenko, Oleksandr 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 6 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227384>

Investigation of radiated emissions of a galvanically isolated qZS DC-DC converter

Jalakas, Tanel; Jarkovoi, Marek; Roasto, Indrek; **Zakis, Janis**; Garganeev, Alexander 2015 IEEE 5th International Conference on Power Engineering, Energy and Electrical Drives (POWERENG) : proceedings : May 11-13, 2015, Riga, Latvia 2015 / p. 176-181 : ill <http://dx.doi.org/10.1109/PowerEng.2015.7266314>

Kalman-filter based maximum power point tracking for a single-stage grid-connected photovoltaic system

Farrokhi, Ehsan; Ghoreishy, Hoda; **Ahmadihangar, Roya**; **Rosin, Argo** IECON 2021 – 47th Annual Conference of the IEEE Industrial Electronics Society 2021 / Code 173927 <https://doi.org/10.1109/IECON48115.2021.9589653> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Loss calculation methods of half-bridge square-wave inverters

Blinov, Andrei; **Vinnikov, Dmitri**; **Jalakas, Tanel** Elektronika ir elektrotehnika = Electronics and electrical engineering 2011 / p. 9-14 : ill <https://eejournal.ktu.lt/index.php/elt/article/view/604>

Loss reduction method for the isolated qZS-based DC/DC converter

Zakis, Janis; Rankis, Ivars; **Liivik, Liisa** Scientific Journal of Riga Technical University. Electrical, control and communication engineering 2013 / p. 13-18 : ill

Lossless dynamic models of the quasi-Z-source converter family

Vinnikov, Dmitri; Husev, Oleksandr; **Roasto, Indrek** Scientific journal of Riga Technical University. Serija 4, Power and electrical engineering 2011 / p. 73-78 <https://ui.adsabs.harvard.edu/abs/2011SJRP...29...73V/abstract>

Low-cost photovoltaic microinverter with ultra-wide MPPT voltage range

Liivik, Elizaveta; **Chub, Andrii**; **Kosenko, Roman**; **Vinnikov, Dmitri** 2017 6th International Conference on Clean Electrical Power : Renewable Energy Resources Impact : Santa Margherita Ligure, 27-29 June 2017 2017 / p. 46-52 : ill <https://doi.org/10.1109/ICCEP.2017.8004790>

Maximum boost control for interleaved single-phase quasi-Z-source inverter

Roncero-Clemente, Carlos; **Stepenko, Serhii**; **Husev, Oleksandr**; Romero-Cadaval, Enrique; **Vinnikov, Dmitri** IECON 2017 - 43rd Annual Conference of the IEEE Industrial Electronics Society : proceedings : China National Convention Center, Beijing, China, 29. October - 01. November, 2017 2017 / p. 7698-7703 : ill <https://doi.org/10.1109/IECON.2017.8217349>

Minimal output impedance required for stability of grid-supporting inverters

Ofir, Ron; Zargari, Noa; **Belikov, Juri**; Levron, Yoash IEEE transactions on power delivery 2021 / p. 2241-2244 <https://doi.org/10.1109/TPWRD.2021.3071023> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Mission profile-based accelerated testing of DC-link capacitors in photovoltaic inverters

Sangwongwanich, Ariya; Shen, Yanfeng; **Chub, Andrii**; **Liivik, Elizaveta**; **Vinnikov, Dmitri**; Wang, Huai; Blaabjerg, Frede Thirty-Fourth Annual IEEE Applied Power Electronics Conference and Exposition, March 17 – 21, 2019, Anaheim, California 2019 / p. 2833-2840 : ill <https://doi.org/10.1109/APEC.2019.8721794> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Model order reduction of voltage source converters based on the ac side admittance assessment : from EMT to RMS

Grdenic, Goran; Cifuentes-Garcia, Francisco; **Campos, Nathalia de Moraes Dias**; Villella, Fortunato; Beerten, Jef IEEE transactions on power delivery 2023 / p. 56–67 : ill <https://doi.org/10.1109/TPWRD.2022.3179836>

Model predictive control for buck-boost inverter based on unfolding circuit

Matiushkin, Oleksandr; **Husev, Oleksandr**; **Vinnikov, Dmitri**; Roncero-Clemente, Carlos 2019 IEEE 2nd Ukraine Conference on

Model predictive control of novel buck-boost inverter with unfolding circuit

Matiushkin, Oleksandr 18th International Symposium "Topical Problems in the Field of Electrical and Power Engineering". Doctoral School of Energy and Geotechnology III : Toila, Estonia, January 14-19, 2019 : [proceedings] 2019 / p. 155-156 : ill
https://www.ester.ee/record=b5183874*est

Modeling of grid-connected quasi-Z-source series resonant topology based microinverter

Roasto, Indrek; Jalakas, Tanel; Husev, Oleksandr 2016 10th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) : proceedings : Opera Nova's Congress Center, Bydgoszcz, Poland, 29. June - 01. July, 2016 2016 / p. 192-195 : ill <https://doi.org/10.1109/CPE.2016.7544183>

Modelling of transients in IGBT inverter fed AC drives

Lehtla, Tõnu; Kulmar, Lembit Тезисы докладов I международной (XII всероссийской) конференции по автоматизированному электроприводу, 26-28 сентября 1995 г., Санкт-Петербург 1995 / с. 19

Modelling of voltage transients on inverter fed AC induction motor

Lehtla, Tõnu Stockholm Power Tech : International Symposium on Electrical Power Engineering : June 18-22, 1995 : [papers]. Electrical machines and drives 1995 / p. 438-439

Modified DQ control approach for three-phase inverter

Makovenko, Elena; Husev, Oleksandr; Roncero-Clemente, Carlos; Romero-Cadaval, Enrique; Vinnikov, Dmitri 2017 IEEE 58th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) : proceedings : Latvia, Riga, 12-13 October, 2017 2017 / [3] p. : ill <http://dx.doi.org/10.1109/RTUCON.2017.8124800>

Modified high voltage gain soft-switched quasi-switched boost inverter

Abbasi Aghdam Meinagh, Farhad; Babaei, Ebrahim; Vinnikov, Dmitri; Chub, Andrii 2019 IEEE International Conference on Industrial Technology, ICIT 2019 : Melbourne, Australia, 13-15 February 2019 : proceedings 2019 / p. 1087-1092 : ill
<https://doi.org/10.1109/ICIT.2019.8755041>

Modified technique of parameter identification of a permanent magnet synchronous motor with PWM inverter in the presence of dead-time effect and measurement noise

Mamatov, Aleksandr; Lovlin, Sergey; Vaimann, Toomas; Rassõlkin, Anton; Vakulenko, Sergei; Abramian, Andrei Electronics 2019 / art. 1200, 19 p <https://doi.org/10.3390/electronics8101200> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Modular battery charger for light electric vehicles

Blinov, Andrei; Verbytskyi, Ievgen; Zinchenko, Denys; Vinnikov, Dmitri; Galkin, Ilja Energies 2020 / art. 774, 21 p. : ill
<https://doi.org/10.3390/en13040774> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

MPPT and GMPPT Implementation for Buck-Boost Mode Control of quasi-Z-Source Inverter

Husev, Oleksandr; Vinnikov, Dmitri; Roncero-Clemente, Carlos; Blaabjerg, Frede; Strzelecki, Ryszard IEEE transactions on industrial electronics 2022 / p. 11348 - 11358 <https://doi.org/10.1109/TIE.2021.3125658> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Neutral point clamped quasi-impedance-source inverter [Electronic resource]

Ott, Silver; Roasto, Indrek; Vinnikov, Dmitri CPE 2011 : 7th International Conference-Workshop Compatibility and Power Electronics : June 1-3, 2011, Tallinn, Estonia : conference guide 2011 / p. 348-353 [CD-ROM]
<https://www.semanticscholar.org/paper/Neutral-point-clamped-quasi-impedance-source-Ott-Roasto/547db91f89adece7c854cc3e4b811934890b7a6>

Neutral-point-clamped quasi-Z-source inverter with field-programmable gate array based control

Stepenko, Serhii; Husev, Oleksandr; Vinnikov, Dmitri 12th International Symposium "Topical Problems in the Field of Electrical and Power Engineering." Doctoral School of Energy and Geotechnology II : Kuressaare, Estonia, June 11-16, 2012 2012 / p. 76-77 : ill

A new five-level switched capacitor-based grid-connected inverter with common grounded feature

Vosoughi Kurdkandi, Naser; Marangalu, Milad Ghavipanjeh; Islam, Md. Rabiul 2021 IEEE 6th International Conference on Computing, Communication and Automation (ICCCA) 2021 / p. 749-754 <https://doi.org/10.1109/ICCCA52192.2021.9666335>

A new high step-up NPC-based switched-capacitor seven-level grid-tied inverter for PV applications

Marangalu, M.; Mashinch Maheri, Hamed; Vinnikov, Dmitri; Jalakas, Tanel 2023 IEEE 64th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON), Riga, Latvia, October 9-10, 2023 : conference proceedings 2023 / 6 p <https://doi.org/10.1109/RTUCON60080.2023.10413150>

New hysteresis current control for grid connected single-phase three-level quasi-Z-source inverter

Husev, Oleksandr; Vinnikov, Dmitri; Roncero-Clemente, Carlos; Romero-Cadaval, Enrique APEC 2014 : Twenty-Ninth Annual IEEE Applied Power Electronics Conference and Exposition : March 16–20, 2014, Fort Worth Convention Center - Fort Worth, Texas 2014 / p. 1765-1770 : ill

New interleaved single-phase quasi-Z-source inverter with active power decoupling

Stepenko, Serhii; Roncero-Clemente, Carlos; **Husev, Oleksandr; Makovenko, Elena;** Pires Pimentel, Sergio; **Vinnikov, Dmitri** 2018 IEEE 12th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG 2018) : Doha, Qatar, 10-12 April 2018 2018 / p. 437-442 : ill <https://doi.org/10.1109/CPE.2018.8372558>

A new modulated finite control set-model predictive control of quasi-Z-source inverter for PMSM drives

Ahmed, Abdelsalam A.; **Bakeer, Abualkasim Ahmed Ali;** Alhelou, Hassan Haes; Siano, Pierluigi; Mossa, Mahmoud A. Electronics (Switzerland) 2021 / art. 2814 <https://doi.org/10.3390/electronics10222814> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

New modulation technique for three-level quasi-Z-source inverter

Roncero-Clemente, Carlos; Romero-Cadaval, Enrique; **Husev, Oleksandr; Vinnikov, Dmitri** 12th International Symposium "Topical Problems in the Field of Electrical and Power Engineering." Doctoral School of Energy and Geotechnology II : Kuressaare, Estonia, June 11-16, 2012 2012 / p. 68-71 : ill

A new seven-level transformer-less grid-tied inverter with leakage current limitation and voltage boosting feature

Vosoughi Kurdkandi, Naser; Marangalu, Milad Ghavipanjeh; **Husev, Oleksandr;** Aghaie, Amir; Islam, Md. Rabiul; Siwakoti, Yam P.; Muttaqi, Kashem; Hosseini, Seyed Hossein IEEE journal of emerging and selected topics in industrial electronics 2023 / p. 228-241 <https://doi.org/10.1109/JESTIE.2022.3205546>

A new six-level transformer-less grid-connected solar photovoltaic inverter with less leakage current

Vosoughi Kurdkandi, Naser; Marangalu, Milad Ghavipanjeh; Mohammad-salehian, Shamim; Tarzamni, Hadi; Siwakoti, Yam P.; Islam, Md. Rabiul; Muttaqi, Kashem M. IEEE Access 2022 / p. 63736 - 63753: ill <https://doi.org/10.1109/ACCESS.2022.3182240> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Novel approach immune to partial shading for photovoltaic energy harvesting from building integrated PV (BIPV) solar roofs

Chub, Andrii; Korkh, Oleksandr; Kosenko, Roman; Vinnikov, Dmitri 2018 20th European Conference on Power Electronics and Applications (EPE'18 ECCE Europe) : Riga, Latvia, 17-21 September 2018 2018 / p. 2243-2252 : ill <https://ieeexplore.ieee.org/document/8515623>

Novel family of flying inductor-based single-stage buck-boost inverters

Vosoughi Kurdkandi, Naser; Husev, Oleksandr; Matiushkin, Oleksandr; Vinnikov, Dmitri IEEE journal of emerging and selected topics in power electronics 2022 / p. 6020-6032 <https://doi.org/10.1109/JESTPE.2022.3161113> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Novel family of modified qZS buck-boost multilevel inverters with reduced switch count

Husev, Oleksandr; Strzelecki, Ryszard; **Blaabjerg, Frede;** Chopyk, Vasily; **Vinnikov, Dmitri** 2015 9th International Conference on Compatibility and Power Electronics (CPE) : proceedings : Faculty of Science and Technology (FCT), Caparica, Lisbon, Portugal, 24-26 June, 2015 2015 / p. 98-105 : ill <http://dx.doi.org/10.1109/CPE.2015.7231056>

Novel family of single-phase modified impedance-source buck-boost multilevel inverters with reduced switch count

Husev, Oleksandr; Strzelecki, Ryszard; **Blaabjerg, Frede;** Chopyk, Vasily; **Vinnikov, Dmitri** IEEE transactions on power electronics 2016 / p. 7580-7591 : ill <https://doi.org/10.1109/TPEL.2016.2569535>

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

Husev, Oleksandr 18th International Symposium "Topical Problems in the Field of Electrical and Power Engineering". Doctoral School of Energy and Geotechnology III : Toila, Estonia, January 14-19, 2019 : [proceedings] 2019 / p. 39-40 : ill https://www.ester.ee/record=b5183874*est

Novel family of single-stage buck-boost inverters based on unfolding circuit : [conference paper]

Matiushkin, Oleksandr; Husev, Oleksandr 17th International Symposium "Topical Problems in the Field of Electrical and Power Engineering". Doctoral school of energy and geotechnology. III : Kuressaare, Estonia, January 15-20, 2018 2018 / p. 128-129 : ill http://ise.elnet.ee/record=b2950043~S2*est

A novel flying inductor based grid-connected inverter with buck-boost ability

Vosoughi Kurdkandi, Naser; Husev, Oleksandr; Rahimpour, Saeed; Roncero-Clemente, Carlos; **Matiushkin, Oleksandr; Vinnikov, Dmitri** IECON 2022 - 48th Annual Conference of the IEEE Industrial Electronics Society 2022 / 6 p <https://doi.org/10.1109/IECON49645.2022.9968954> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Novel quasi-Z-source derived inverter with unfolding circuit and battery storage

Makovenko, Elena; Husev, Oleksandr; Vinnikov, Dmitri 2018 IEEE 12th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG 2018) : Doha, Qatar, 10-12 April 2018 2018 / p. 431-436 : ill

Novel single-stage buck-boost inverter with unfolding circuit

Matiushkin, Oleksandr; **Husev, Oleksandr**; Strzelecki, Ryszard; Ivanets, Sergey; Fesenko, Artem 2017 IEEE First Ukraine Conference on Electrical and Computer Engineering (UKRCON) : May 29 - June 2, 2017, Kyiv, Ukraine : conference proceedings 2017 / p. 538-543 : ill <https://doi.org/10.1109/UKRCON.2017.8100298>

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

Shults, Tatiana; **Husev, Oleksandr**; Blaabjerg, Frede; Roncero, Carlos; Romero-Cadaval, Enrique; **Vinnikov, Dmitri** IEEE transactions on power electronics 2019 / p. 4820-4830: ill <https://doi.org/10.1109/TPEL.2018.2859194> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

On the design process of a 6-kVA quasi-Z-inverter employing SiC power devices

Zdanowski, Mariusz; Pefitsis, Dimosthenis; Piasecki, Szymon; **Rabkowski, Jacek** IEEE transactions on power electronics 2016 / p. 7499-7508 : ill <https://doi.org/10.1109/TPEL.2016.2527100>

Operation of PSA converter in inverter mode

Janson, Kuno; Järvi, Jaan; Šklovski, Jevgeni; **Vinnal, Toomas** The 4th International Conference Electric Power Quality and Supply Reliability : August 29...31, 2004, Pedase, Estonia : proceedings 2004 / p. 81-86 : ill

Operation possibility of grid connected quasi-Z-source inverter with energy storage and renewable energy generation in wide power range

Kroics, Kaspars; **Zakis, Janis**; Suzdalenko, Alexander; **Husev, Oleksandr**; Tytelmaier, Kostiantyn; Khandakji, Kamal 2017 IEEE First Ukraine Conference on Electrical and Computer Engineering (UKRCON) : May 29 - June 2, 2017, Kyiv, Ukraine : conference proceedings 2017 / p. 564-569 : ill <https://doi.org/10.1109/UKRCON.2017.8100303>

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

Roncero-Clemente, Carlos; **Husev, Oleksandr**; Romero-Cadaval, Enrique; **Vinnikov, Dmitri**; Milanes-Montero, Maria Isabel 2015 IEEE 5th International Conference on Power Engineering, Energy and Electrical Drives (POWERENG) : proceedings : May 11-13, 2015, Riga, Latvia 2015 / p. 576-581 : ill <http://dx.doi.org/10.1109/PowerEng.2015.7266380>

Optimal LCL-filter study for buck-boost inverter based on unfolding circuit

Matiushkin, Oleksandr; **Husev, Oleksandr**; **Vinnikov, Dmitri**; Roncero-Clemente, Carlos Proceedings : 2020 IEEE 14th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) : Online - Setúbal, Portugal, 08 - 10 July, 2020 2020 / p. 467-472 : ill <https://doi.org/10.1109/CPE-POWERENG48600.2020.9161683>

Optimization and implementation of the proportional-resonant controller for grid-connected inverter with significant computation delay

Husev, Oleksandr; Roncero-Clemente, Carlos; **Makovenko, Elena**; Pires Pimentel, Sergio; **Vinnikov, Dmitri**; Martins, Joao IEEE transactions on industrial electronics 2020 / p. 1201 -1211 <https://doi.org/10.1109/TIE.2019.2898616> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Optimization of the inverter size for grid-connected residential wind energy systems with peak shaving

Allik, Alo; **Märss, Maido**; Uiga, Jaanus; Annuk, Andres Renewable energy 2016 / p. 1116-1125 : ill <https://doi.org/10.1016/j.renene.2016.08.016>

Optimized modulation scheme for four-leg quasi Z-source inverter : reducing power loss and improving output quality

Abid, Abderahmane; **Bakeer, Abualkasim Ahmed Ali**; Albalawi, Hani; Zellouma, Laid; Bouzidi, Mansour; Lashab, Abderezak; Rabhi, Boualaga; **Chub, Andrii** IEEE Access 2023 / p. 94125-94137 <https://doi.org/10.1109/ACCESS.2023.3305263>

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]

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

Makovenko, Elena; **Husev, Oleksandr**; Romero-Cadaval, Enrique 17th International Symposium "Topical Problems in the Field of Electrical and Power Engineering". Doctoral school of energy and geotechnology. III : Kuressaare, Estonia, January 15-20, 2018 2018 / p. 99-102 : ill http://ise.elnet.ee/record=b2950024~S2*est

Overview of control methods of DC-AC grid connected converter

Makovenko, Elena; **Husev, Oleksandr** 16th International Symposium "Topical Problems in the Field of Electrical and Power Engineering. Doctoral School of Energy and Geotechnology III" : Pärnu, Estonia, January 16-21, 2017 2017 / p. 69-71 : ill http://www.ester.ee/record=b4650094*est

Overview of impedance source networks for voltage source inverters

Shults, Tatiana; Husev, Oleksandr; Zakis, Janis 2015 16th International Conference of Young Specialists on Micro/Nanotechnologies and Electron Devices (EDM 2015) : Erlagol (Altai Republic), Russia, 29 June-3 July 2015 / p. 514-520 : ill

Partial buck-boost resonant power converter for residential PV applications

Abdel-Rahim, Omar; Chub, Andrii; Blinov, Andrei; Vinnikov, Dmitri 2022 IEEE 7th International Energy Conference (ENERGYCON) 2022 / 5 l. <https://doi.org/10.1109/ENERGYCON53164.2022.9830394>

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 / 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

Alvi, Anas Abdullah; Romero-Cadaval, Enrique; Gonzalez-Romera, Eva; Vinnikov, Dmitri; Hassan, Jamil 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 6 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227391>

Photovoltaic energy yield improvement in two-stage solar microinverters

Chub, Andrii; Vinnikov, Dmitri; Stepenko, Serhii; Liivik, Elizaveta; Blaabjerg, Frede Emerging converter topologies and control for grid connected photovoltaic systems 2021 / p. 197-213 : ill <https://doi.org/10.3390/books978-3-03943-910-2>

Photovoltaic energy yield improvement in two-stage solar microinverters

Chub, Andrii; Vinnikov, Dmitri; Stepenko, Serhii; Liivik, Elizaveta; Blaabjerg, Frede Energies 2019 / art. 3774, 17 p. : ill <https://doi.org/10.3390/en12193774> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Photovoltaic module and submodule level power electronics and control

Spagnuolo, Giovanni; Kouro, Samir; **Vinnikov, Dmitri** IEEE Transactions on Industrial Electronics 2019 / p. 3856 - 3859 <https://doi.org/10.1109/TIE.2018.2883187> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Photovoltaic module characteristic influence on reliability of micro-inverters

Sangwongwanich, Ariya; **Liivik, Elizaveta; Blaabjerg, Frede** 2018 IEEE 12th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG 2018) : Doha, Qatar, 10-12 April 2018 / p. 478-483 : ill <https://doi.org/10.1109/CPE.2018.8372565>

Power loss model and efficiency analysis of the quasi-Z-Source isolated buck-boost converter with wide input voltage and load range

Mashinchi Maheri, Hamed; Vinnikov, Dmitri; Chub, Andrii; Sidorov, Vadim 2020 IEEE 61st International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON), Riga, Latvia, Nov. 5-7, 2020 : conference proceedings 2021 / 8 p. : ill <https://doi.org/10.1109/RTUCON51174.2020.9316587>

Power supply system based on photovoltaic panels and three-level NPC inverter

Shults, Tatiana Doctoral School of Energy and Geotechnology II : closing conference of the project : Pärnu, Estonia, January 12-17, 2015 / p. 154-157 : ill

Predictive control based on ranking multi-objective optimization approaches for a quasi-Z source inverter

Bakeer, Abualkasim Ahmed Ali; Magdy, Gaber; Chub, Andrii; Vinnikov, Dmitri CSEE journal of power and energy systems 2021 / p. 1152-1160 : ill <https://doi.org/10.17775/CSEEJPES.2020.01310> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Problems in the operation of parallel-series converter when using two switch forward inverter

Niilo, Helar; Vaimann, Toomas 7th International Conference-workshop Compatibility and Power Electronics : CPE 2011 : Tallinn, Estonia, June 3, 2011 : student forum 2011 / p. 28-33 : ill

Proportional resonant controller tuning in three-phase four-leg VSI based on particle swarm optimization

Akhtar, Zeeshan; Zhu, Jiebei; **Husev, Oleksandr; Vinnikov, Dmitri; Yu, Lujie** 2021 IEEE 19th International Power Electronics and Motion Control Conference, The Silesian University of Technology Gliwice, Poland, 25 - 29 April, 2021 (PEMC) : proceedings 2021 / p. 851-856 : ill <https://doi.org/10.1109/PEMC48073.2021.9432607>

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

Roncero-Clemente, Carlos; **Husev, Oleksandr; Jalakas, Tanel; Romero-Cadaval, Enrique; Zakis, Janis; Minambres-Marcos, Victor** Elektronika ir elektrotechnika = Electronics and electrical engineering 2014 / p. 71-76 : ill

Päikesega saab kütta tuba ja vett, ilma paneele võrku ühendamata

Quasi-Z source T-type power converter for PV based commercial and industrial nanogrids with active functions strategy
Barrero-Gonzalez, Fermin; Roncero-Clemente, Carlos; Milanes-Montero, Maria Isabel; Gonzalez-Romera, Eva; Romero-Cadaval, Enrique; **Husev, Oleksandr** Electronics 2020 / art. 1233, 18 p. : ill <https://doi.org/10.3390/electronics9081233> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Quasi-Z-source based string inverter for residential photovoltaic application = Kvaasi-impedants tüüpi allikaga muundur kodumajapidamistes kasutatavatele päikesepaneelidele
Santasheva, Elena 2019 <https://digi.lib.ttu.ee/ii/?12312>

Quasi-Z-source inverter based bi-directional DC/DC converter : analysis of experimental results [Electronic resource]
Zakis, Janis; Vinnikov, Dmitri; Roasto, Indrek; Ribickis, Leonids CPE 2011 : 7th International Conference-Workshop Compatibility and Power Electronics : June 1-3, 2011, Tallinn, Estonia : conference guide 2011 / p. 394-399 [CD-ROM]
https://www.researchgate.net/publication/224245116_Quasi-Z-source_inverter_based_bi-directional_DCDC_converter_Analysis_of_experimental_results

Quazi-Z-source based string inverter for residential photovoltaic application
Santasheva, Elena 18th International Symposium "Topical Problems in the Field of Electrical and Power Engineering". Doctoral School of Energy and Geotechnology III : Toila, Estonia, January 14-19, 2019 : [proceedings] 2019 / p. 105-106 : ill https://www.ester.ee/record=b5183874*est

Reactive power injection capability of buck-boost inverter with unfolding circuit
Roncero-Clemente, Carlos; **Husev, Oleksandr; Matiushkin, Oleksandr; Vinnikov, Dmitri;** Blaabjerg, Frede IEEE transactions on power electronics 2022 / p. 11876-11886 <https://doi.org/10.1109/TPEL.2022.3179784> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Reliability analysis and energy yield of string-inverter considering monofacial and bifacial photovoltaic panels
Bouguerra, Sara; Yaiche, Mohamed Redha; Sangwongwanich, Ariya; Blaabjerg, Frede; **Liivik, Elizaveta** 2020 IEEE 11th International Symposium on Power Electronics for Distributed Generation Systems (PEDG), 28 Sept.-1 Oct. 2020, Dubrovnik, Croatia 2020 / p. 199-204 <https://doi.org/10.1109/PEDG48541.2020.9244425>

Reliability analysis of micro-inverters considering PV module variations and degradation rates
Liivik, Elizaveta; Sangwongwanich, Ariya; Blaabjerg, Frede 2018 20th European Conference on Power Electronics and Applications (EPE'18 ECCE Europe) : Riga, Latvia, 17-21 September 2018 2018 / p. 1475-1482 : ill <https://ieeexplore.ieee.org/document/8515325>

Reliability of DC-link capacitors in two-stage micro-inverters under different PV module sizes
Sangwongwanich, Ariya; Shen, Yanfeng; **Chub, Andrii; Liivik, Elizaveta; Vinnikov, Dmitri;** Wang, Huai; Blaabjerg, Frede ICPE 2019 - ECCE Asia : 10th International Conference on Power Electronics - ECCE Asia : "Green World with Power Electronics" : May 27-30, 2019 BEXCO, Busan, Korea 2019 / p. 1867-1872 : ill <https://ieeexplore.ieee.org/xpl/conhome/8786807/proceeding>

Research and development of control methods for low-loss IGBT inverter-fed induction motor drives = Energiatõhusa IGBT transistor-vaheldiga asünkroonajami juhtimismeetodite uurimine ja väljatöötamine
Egorov, Mikhail 2011 <https://digi.lib.ttu.ee/ii/?616>

Resonant and Z-source multilevel inverters
Husev, Oleksandr; Roncero-Clemente, Carlos Multilevel inverters : introduction and emergent topologies 2021 / p. 217-257 <https://doi.org/10.1016/B978-0-12-821668-2.00014-3>

Review of extended boost qZSI topologies for single phase applications
Barath, Jayakumar Geetha Nataraj; Soundarajan, Ayyasamy; **Stepenko, Serhii;** Padmanaban, Sanjeevikumar; Prystupa, Anatoliy; Bolotov, Maksym 2019 IEEE 60th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON), 7-9 October 2019 : conference proceedings 2019 / 8 p. : ill <https://doi.org/10.1109/RTUCON48111.2019.8982342>

Review of novel topologies for PV applications
Makovenko, Elena; Husev, Oleksandr; Roncero-Clemente, Carlos; Romero-Cadaval, Enrique Technological innovation for cyber-physical systems : 7th IFIP WG 5.5/SOCOLNET Advanced Doctoral Conference on Computing, Electrical and Industrial Systems, DoCEIS 2016, Costa de Caparica, Portugal, April 11-13, 2016 : proceedings 2016 / p. 369-377 : ill http://dx.doi.org/10.1007/978-3-319-31165-4_35

Simulation and evaluation of control methods for the rolling stock static auxiliary converter based on three-level NPC inverter topology [Electronic resource]
Roasto, Indrek; Vinnikov, Dmitri; Vodovozov, Valery POWERENG 2009 : 2nd International Conference on Power Engineering, Energy and Electrical Drives : 18-20 March, 2009, Lisbon, Portugal 2009 / p. 593-598 : ill. [CD-ROM]
<https://ieeexplore.ieee.org/document/4915176/similar#similar>

Simulation study of different modulation techniques for three-level quasi-Z-source inverter

Roncero-Clemente, Carlos; Romero-Cadaval, Enrique; **Husev, Oleksandr; Vinnikov, Dmitri** Riga Technical University 53rd International Scientific Conference dedicated to the 150th anniversary and the 1st Congress of World Engineers and Riga Polytechnical Institute/RTU Alumni : 11-12 October 2012, Riga, Latvija : [abstracts] 2012 / p. 120 : ill <https://intapi.sciendo.com/pdf/10.2478/v10314-012-0002-3>

Simulation study of inverter-fed motor drives

Egorov, Mikhail 10th International Symposium "Topical Problems in the Field of Electrical and Power Engineering". Doctoral School of Energy and Geotechnology II : Pärnu, Estonia, January 10-15, 2011 2011 / p. 165-168 : ill

Simulation study of the grid-connected single-phase impedance-sourced NPC inverter with different control methods

Roncero-Clemente, Carlos; **Husev, Oleksandr**; Romero-Cadaval, Enrique; **Zakis, Janis; Vinnikov, Dmitri**; Milanes-Montero, Maria Isabel 2015 IEEE International Conference on Industrial Technology (ICIT 2015) : Seville, Spain, 17-19 March 2015 2015 / p. 2949-2954 : ill

Simulation study of the three-level boost DC-DC converter with full ZVS for PV application

Vorobei, Vasiliy; **Zakis, Janis; Husev, Oleksandr**; Veligorskyi, Oleksandr; Savenko, Oleksandr ICPE 2015 - ECCE Asia : 9th International Conference on Power Electronics - ECCE Asia : "Green World with Power Electronics" : June 1-5, 2015, 63 Convention Center, Seoul, Korea 2015 / p. 2038-2043 : ill <http://dx.doi.org/10.1109/ICPE.2015.7168058>

Single phase three-level neutral-point-clamped quasi-Z-source inverter

Husev, Oleksandr; Roncero-Clemente, Carlos; Romero-Cadaval, Enrique; **Vinnikov, Dmitri**; Stepenko, Serhii IET power electronics 2015 / p. 1-10 : ill

Single-phase 3L PR controlled qZS inverter connected to the distorted grid

Makovenko, Elena; Husev, Oleksandr; Roncero-Clemente, Carlos; Romero-Cadaval, Enrique; **Blaabjerg, Frede** 2016 10th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) : proceedings : Opera Nova's Congress Center, Bydgoszcz, Poland, 29. June - 01. July, 2016 2016 / p. 234-239 : ill <https://doi.org/10.1109/CPE.2016.7544191>

Single-phase three-level qZ-source inverter connected to the grid with battery storage and active power decoupling function

Makovenko, Elena; Husev, Oleksandr; Romero-Cadaval, Enrique; **Vinnikov, Dmitri; Stepenko, Serhii** 59th Annual International Scientific Conference on Power and Electrical Engineering : November 12, 13, 2018, Riga Technical University (RTUCON) : conference proceedings 2018 / 6 p. : ill <https://doi.org/10.1109/RTUCON.2018.8659843>

Single-stage buck-boost inverters: a state-of-the-art survey

Azizi, Mohammadreza; **Husev, Oleksandr; Vinnikov, Dmitri** Energies 2022 / art. 1622 <https://doi.org/10.3390/en15051622> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Sliding mode based control of dual boost inverter for grid connection

Lopez-Caiza, Diana; Flores-Bahamonde, Freddy; Kouro, Samir; Santana, Victor; Müller, Nicolas; **Chub, Andrii** Energies 2019 / art. 4241, 15 p.: ill <https://doi.org/10.3390/en12224241> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Small signal modeling of interleaved quasi-z-source inverter with active power decoupling circuit

Stepenko, Serhii; Husev, Oleksandr; Pires Pimentel, Sergio; Makovenko, Elena; Vinnikov, Dmitri 59th Annual International Scientific Conference on Power and Electrical Engineering : November 12, 13, 2018, Riga Technical University (RTUCON) : conference proceedings 2018 / 6 p. : ill <https://doi.org/10.1109/RTUCON.2018.8659903>

Small signal modeling of interleaved quasi-z-source inverter with active power decoupling circuit

Stepenko, Serhii; Husev, Oleksandr; Pires Pimentel, Sergio; Makovenko, Elena; Vinnikov, Dmitri 59th Annual International Scientific Conference on Power and Electrical Engineering : November 12, 13, 2018, Riga Technical University (RTUCON) : conference proceedings 2018 / 6 p. : ill <https://doi.org/10.1109/RTUCON.2018.8659903>

Soft-switching modulation method for full-bridge DC-AC HF-link inverter

Korkh, Oleksandr 19th International Symposium "Topical problems in the field of electrical and power engineering. Doctoral school of energy and geotechnology. III" : Tartu, Estonia, January 14-17, 2020 2020 / p. 133-134 : ill https://www.ester.ee/record=b5291755*est

Solar optiverter - a novel hybrid approach to the photovoltaic module level power electronics

Vinnikov, Dmitri; Chub, Andrii; Kosenko, Roman; **Korkh, Oleksandr** IEEE transactions on industrial electronics 2019 / p. 3869-3880 <https://doi.org/10.1109/TIE.2018.2850036> [Tehnikaülikooli seade muudab päikesepaneelid märgatavalt tootlikumaks](#) [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Some design considerations for high-power high-voltage DC/DC converter with improved power density and efficiency

Vinnikov, Dmitri The Brazilian journal of power electronics = Revista eletrônica de potência 2009 / 4, p. 297-304 <https://sobraep.org.br/site/uploads/2018/06/rvol14no4p15.pdf>

Space vector modulation with reduced switching losses for motor drive inverters [Electronic resource]

Egorov, Mikhail; Vodovozov, Valery CPE 2011 : 7th International Conference-Workshop Compatibility and Power Electronics : June 1-3, 2011, Tallinn, Estonia : conference guide 2011 / p. 388-393 [CD-ROM] <https://www.semanticscholar.org/paper/Space-vector-modulation-with-reduced-switching-for-Egorov-Vodovozov/89b803db973d2bd7908d7596b234f56665c14d4c>

Stability issues with inverter loads and their control in low inertia islanded microgrids

Beg, Nauman; Biechl, Helmuth; Rosin, Argo 2020 2nd Global Power, Energy and Communication Conference (GPECOM) 2020 IEEE 2nd Global Power, Energy and Communication Conference (GPECOM) :Online Conference, 20-23 October, 2020 : proceedings 2020 / p. 196-201 : ill <https://doi.org/10.1109/GPECOM49333.2020.9247913>

Startup sequence for a grid connected single phase voltage source inverter

Roasto, Indrek; Jalakas, Tanel; Rosin, Argo 2017 IEEE International Symposium on Industrial Electronics (ISIE) : Edinburgh International Conference Centre, Edinburgh, Scotland, United Kingdom, 19-21 June, 2017 : proceedings 2017 / p. 1787-1791 : ill <https://doi.org/10.1109/ISIE.2017.8001519>

Startup strategy for grid connected PV micro inverter

Roasto, Indrek; Jalakas, Tanel BEC 2016 : 2016 15th Biennial Baltic Electronics Conference : proceedings of the 15th Biennial Baltic Electronics Conference : Tallinn University of Technology, October 3-5, 2016, Tallinn, Estonia 2016 / p. 187-190 : ill http://www.ester.ee/record=b2150914*est

Step-up current-source partial power converter for PV systems

Abdel-Rahim, Omar; Chub, Andrii; Blinov, Andrei; Vinnikov, Dmitri; Hassanpour, Naser IEEE 13th International Symposium on Power Electronics for Distributed Generation Systems (PEDG) 2022 / 6 I. <https://doi.org/10.1109/PEDG54999.2022.9923250>

Switched-capacitor current-fed quasi-Z-source inverter

Chub, Andrii; Husev, Oleksandr; Zakis, Janis; Rabkowski, Jacek 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. 229-232 : ill

SVPWM capacitor balancing method for single-phase three-level NPC impedance-source inverters

Shults, Tatiana; Filatova, Alena; Dybko, Maxim; Husev, Oleksandr 2018 19th International Conference of Young Specialists on Micro/Nanotechnologies and Electron Devices (EDM 2018) : Erlagol (Altai Republic), Russia, 29 June - 3 July 2018 2018 / p. 580-584 : ill <http://dx.doi.org/10.1109/EDM.2018.8434962>

SVPWM strategy for single-phase three-level impedance source inverter

Shults, Tatiana; Sidorov, Andrei; Husev, Oleksandr 16th International Symposium "Topical Problems in the Field of Electrical and Power Engineering. Doctoral School of Energy and Geotechnology III" : Pärnu, Estonia, January 16-21, 2017 2017 / p. 144-147 : ill http://www.ester.ee/record=b4650094*est

Sõltuva inverteri väärtuse likvideerimise tingimuste uurimine

Kebja, R.; Treufeldt, Jüri XXXII üliõpilaste teaduslik-tehnilise konverentsi ettekannete teesid : pühendatud V. I. Lenini 110. sünniaastapäevale : 16.-18. aprill 1980 1981 / lk. 402 https://www.ester.ee/record=b1322611*est

Synchronous rectification in quasi-Z-source converters : possibilities and challenges

Liivik, Liisa; Vinnikov, Dmitri; Jalakas, Tanel 2014 IEEE International Conference on Intelligent Energy and Power Systems (IEPS) : conference proceedings : June 2-6, 2014, Kyiv, Ukraine 2014 / p. 32-35 : ill

The quasi-Z-source DC/DC converter with a series resonant circuit

Liivik, Liisa 14th International Symposium "Topical problems in the field of electrical and power engineering. Doctoral school of energy and geotechnology. II" : Pärnu, Estonia, January 13-18, 2014 2014 / p. 135-140 : ill

Three-level single-phase quasi-Z source inverter with active power decoupling circuit

Makovenko, Elena; Husev, Oleksandr; Roncero-Clemente, Carlos; Romero-Cadaval, Enrique; Vinnikov, Dmitri 18th International Conference of Young Specialists on Micro/Nanotechnologies and Electron Devices : proceedings : Erlagol, Altai - 29 June - 3 July, 2017 2017 / p. 497-502 : ill <https://doi.org/10.1109/EDM.2017.7981804>

Three-level three-phase quasi-Z-source neutral-point-clamped inverter with novel modulation technique for photovoltaic application

Husev, Oleksandr; Roncero-Clemente, Carlos; Romero-Cadaval, Enrique; Vinnikov, Dmitri; Jalakas, Tanel Electric power systems research 2016 / p. 10-21 : ill <http://dx.doi.org/10.1016/j.epsr.2015.08.018>

Three-level T-type qZ source inverter as grid-following unit for distributed energy resources

Gutierrez-Escalona, Javier; Roncero-Clemente, Carlos; Husev, Oleksandr; Barrero-Gonzalez, Fermin; Llor, Ana M.; Fernao Pires, Vitor IEEE journal of emerging and selected topics in power electronics 2022 / p. 7772-7785 <https://doi.org/10.1109/JESTPE.2022.3193258> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

3L-T-type qZSI as grid-forming unit in AC microgrid

Gutierrez-Escalona, Javier; Roncero-Clemente, Carlos; Husev, Oleksandr; Pires, Victor; Milanés-Montero, Maria Isabel; Gonzalez-

Three-phase four wire high-frequency link converter for residential DC grids

Emiliani, Pietro; Blinov, Andrei; de Carne, Giovanni; Arena, Gabriele; **Vinnikov, Dmitri** 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 5 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227416>

Three-phase three-level neutral-point-clamped qZ source inverter with active filtering capabilities

Roncero-Clemente, Carlos; **Husev, Oleksandr;** Romero-Cadaval, Enrique; Martins, Joao; **Vinnikov, Dmitri;** Milanes-Montero, Maria Isabel 2015 9th International Conference on Compatibility and Power Electronics (CPE) : proceedings : Faculty of Science and Technology (FCT), Caparica, Lisbon, Portugal, 24-26 June, 2015 2015 / p. 216-220 : ill <http://dx.doi.org/10.1109/CPE.2015.7231075>

Tiratron-vaheldaja

Agur, Ustus; Sillamaa, Hanno; Teearu, Viktor; Plakk, Paul Üliõpilaste teaduslike tööde kogumik. 1 1954 / lk. 4-9 : ill https://www.ester.ee/record=b2180914*est <https://digikogu.taltech.ee/et/Item/3cfa4d25-267d-474a-9dcf-413ccca14de7>

Topological review of quasi-switched boost inverters

Barath, Jayakumar Geetha Nataraj; Soundarrajan, Ayyasamy; Stepenko, Serhii; **Husev, Oleksandr; Vinnikov, Dmitri;** Nguyen, Minh-Khai Electronics 2021 / art. 1485 <https://doi.org/10.3390/electronics10121485> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Transient response analyse of different voltage-fed qZS-family inverters

Ott, Silver; Roasto, Indrek; Vinnikov, Dmitri; Teemets, Raivo 11th International Symposium "Topical Problems in the Field of Electrical and Power Engineering." Doctoral School of Energy and Geotechnology II : Pärnu, Estonia, January 16-21, 2012 2012 / p. 195-199 : ill

Trans-Z-source-like inverter with built-in DC current blocking capacitors [Electronic resource]

Adamowicz, Marek; Guzinski, Jaroslaw; Strzelecka, Natalia; **Vinnikov, Dmitri** CPE 2011 : 7th International Conference-Workshop Compatibility and Power Electronics : June 1-3, 2011, Tallinn, Estonia : conference guide 2011 / p. 137-149 : ill. [CD-ROM] <https://ieeexplore.ieee.org/document/5942221>

Triple-Loop Control Configuration for Grid-Connected LCL-Filtered Inverters Based on Time-Domain Design

Elkayam, Moria Sassonker; Vinnikov, Dmitri 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 6 p. : ill <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227426>

2 switch forward inverter for parallel-series resonance alternating (PSA) converter for supplying electric welding arc

Niilo, Helar; Vaimann, Toomas 10th International Symposium "Topical Problems in the Field of Electrical and Power Engineering". Doctoral School of Energy and Geotechnology II : Pärnu, Estonia, January 10-15, 2011 2011 / p. 140-144 : ill

Uninterruptible power supply in distribution substations auxiliary circuits

Hõimoja, Hardi 4th International Symposium Topical Problems of Education in the Field of Electrical and Power Engineering. Doctoral School of Energy and Geotechnology : Kuressaare, Estonia, January 15-20, 2007 2007 / p. 78-82

Uninterruptible power supply: an optimal passivity-based control scheme

Bakeer, Abualkasim Ahmed Ali; Alhasheem, Mohammed; Elhelw, Hadi M. 2023 IEEE Power and Energy Society Innovative Smart Grid Technologies Conference, ISGT 2023 2023 / art. 187411 <https://doi.org/10.1109/ISGT51731.2023.10066406>

Ways to reduce switching losses in motor drive inverters

Vodovozov, Valery; Lehtla, Tõnu 10th International Symposium "Topical Problems in the Field of Electrical and Power Engineering". Doctoral School of Energy and Geotechnology II : Pärnu, Estonia, January 10-15, 2011 2011 / p. 3-9 : ill

Wear-out failure analysis of an impedance-source PV microinverter based on system-level electrothermal modeling

Shen, Yanfeng; **Chub, Andrii;** Wang, Huai; **Vinnikov, Dmitri; Liivik, Elizaveta;** Blaabjerg, Frede IEEE transactions on industrial electronics 2019 / p. 3914-3927 <https://doi.org/10.1109/TIE.2018.2831643> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Verification of current sensorless control for single-phase NPC multilevel inverter

Suzdalenko, Alexander; **Zakis, Janis;** Steiks, Ingars; Chaiko, Yelena 2015 9th International Conference on Compatibility and Power Electronics (CPE) : proceedings : Faculty of Science and Technology (FCT), Caparica, Lisbon, Portugal, 24-26 June, 2015 2015 / p. 462-466 : ill <http://dx.doi.org/10.1109/CPE.2015.7231119>

Voltage and reactive power control in islanded microgrids without communication link

Armstorfer, Andreas; Biechl, Helmut; **Rosin, Argo** 2020 17th Biennial Baltic electronics conference, Tallinn, Estonia, October 6-8, 2020 : proceedings 2020 / 6 p. : ill <https://doi.org/10.1109/BEC49624.2020.9277253>

Voltage distortion approach for output filter design for off-grid and grid-connected PWM inverters

Husev, Oleksandr; Chub, Andrii; Romero-Cadaval, Enrique; Roncero-Clemente, Carlos; Vinnikov, Dmitri Journal of power electronics 2015 / p. 278-287 : ill

Защита тиристорного преобразователя при опрокидывании инвертора

Lootus, Jaan; Treufeld, Jüri; Tuldava, Toomas Исследование электромагнитных и электромашинных устройств управления и контроля специального назначения 1978 / с. 65-75

Идентификация карты намагничивания вентильно-индукторного электропривода в режиме реального времени

Demidova, Galina Известия СПбГЭТУ "ЛЭТИ" 2021 / с. 69-75 https://izv.etu.ru/assets/files/izvestiya-1_2021-69-75.pdf

Инвертор напряжения на базе запираемых тиристоров

Pikkov, Mihhail Automation, simulation & measurement : ASM'91 : 3rd biennial conference, Tallinn, October 7-11, 1991. Section A. Section M / Tallinn Technical University 1992 / с. 151-155: ил

Инвертор с общим коммутирующим узлом

Irs, Rein; Pikkov, Otto; Šilf, K.; Tomson, Jaan Электромеханика. 3 1970 / с. 17-21 : илл https://www.ester.ee/record=b2189951*est
<https://digikogu.taltech.ee/et/Item/ba0097d6-af8f-4557-96a1-ac545e315074/>

Использование разделенной коммутации в двухзвенных преобразователях постоянного напряжения для снижения динамических потерь силовых полупроводниковых ключей

Sokol, Jevgeni; Blinov, Andrei; Vinnikov, Dmitri Энергосбережение. Энергетика. Энергоаудит 2014 / 55-69 : ил

Исследование защиты зависимого инвертора

Treufeld, Jüri; Harlamov, V. Тезисы докладов XXXI студенческой научно-технической конференции 1980 / с. 66-67
https://www.ester.ee/record=b1319482*est

Исследование и разработка инвертора с общим звеном коммутации для управления асинхронным двигателем

Tomson, Jaan; Irs, Rein; Šadeiko, T. Тиристорный управляемый асинхронный электропривод : (Сборник тезисов докладов к Конференции. 29 янв. - 4 февр. 1968 г.) 1968 / с. 202

Исследование и разработка приборов интегрального исполнения системы тиристор-диод

Krunk, O.; Seleninov, K.; Tarma, Mati Силовые полупроводниковые приборы : сборник статей 1981 / с. 30-34
https://www.ester.ee/record=b1264428*est

Конденсатор-тиристорная система управления трехфазным мостовым инвертором

Irs, Rein; Šilf, K. Электромеханика. 3 1970 / с. 29-32 : илл https://www.ester.ee/record=b2189951*est
<https://digikogu.taltech.ee/et/Item/ba0097d6-af8f-4557-96a1-ac545e315074/>

Особенности применения силовых транзисторов в автономных инверторах напряжения

Pikkov, Mihhail Тезисы докладов Республиканской научно-технической конференции "Современные методы и устройства радиоэлектронного оборудования", посвященной Дню радио. Секция: полупроводниковые приборы 1981 / с. 65
https://www.ester.ee/record=b1310801*est

Система управления инвертором на диодтранзисторных логических элементах

Irs, Rein; Pikkov, Otto; Šilf, K.; Tomson, Jaan; Šadeiko, T. Электромеханика. 3 1970 / с. 23-27 : илл
https://www.ester.ee/record=b2189951*est <https://digikogu.taltech.ee/et/Item/ba0097d6-af8f-4557-96a1-ac545e315074/>

Трёхуровневый квази-импедансный инвертор с новым методом модуляции

Husev, Oleksandr; Stepenko, Serhii; Clemente, C.; Kadaval, E.; Vinnikov, Dmitri Технічна електродинаміка : тематичний випуск : силова електроніка та енергоефективність 2012 / с. 47-52 : ил

Экспериментальное исследование трёхуровневого инвертора напряжения с квази-импедансным звеном на входе

Stepenko, Serhii Энергосбережение, энергетика, энергоаудит = Energy saving, power engineering, energy audit 2013 / с. 74-83 : ил

Экспериментальное исследование трёхуровневого инвертора напряжения с квази-импедансным звеном на входе [Компьют. файл]

Stepenko, Serhii Международная Научно-Техническая Конференция "Силовая Электроника и Энергоэффективность" : 23-27.IX 2013, Алушта, Крым 2013 / [3] с. : ил [CD-ROM]