

Aasta teadlane: alalisvool aitab parandada hoone energiatõhusust 18 protsenti

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About possibility of improvement of energetic characteristics of two-stage DC/DC converter with separated commutation

Ivakhno, Volodymyr; Zamaruev, Vladimir; Lastovka, A.; **Blinov, Andrei; Vinnikov, Dmitri** Технічна електродинаміка 2011 / p. 88-92
: ill

Accelerated global MPPT for multimode series resonant DC-DC converter

Sidorov, Vadim; Chub, Andrii; Vinnikov, Dmitri 2021 IEEE 15th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) : Florence, Italy, 14-16 July 2021 2021 <https://doi.org/10.1109/CPE-POWERENG50821.2021.9501077>

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>

Active clamped dual current-fed bidirectional DC-DC converter for wide voltage range applications

Chauhan, Sachin; Blinov, Andrei; Chub, Andrii; Vinnikov, Dmitri 2024 IEEE 65th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) 2024 / 7 p <https://doi.org/10.1109/RTUCON62997.2024.10830838>

Active front end converters with voltage balancing capability

Verbytskyi, Ievgen; Blinov, Andrei; Chub, Andrii; Vinnikov, Dmitri; Kyselova, Anna 2024 IEEE 65th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) 2024 / 5 p
<https://doi.org/10.1109/RTUCON62997.2024.10830902>

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>

Address from General Chairman

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. 3

Address from main organizers

Vinnikov, Dmitri; Liivik, Elizaveta 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. [3]
https://www.ester.ee/record=b5183874*est

Address from main organizers

Vinnikov, Dmitri; Liivik, Elizaveta 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. [3]
https://www.ester.ee/record=b5291755*est

Advanced course of power electronics : laboratory works

Jalakas, Tanel; Vodovozov, Valery; Vinnikov, Dmitri 2008 https://www.ester.ee/record=b2375135*est

Air-core coupled inductor based modular solid-state circuit breaker with reduced components for DC buildings

Pogulaguntla, Aditya; Dsa, Daniel; Yagna, Griddaluru Venkata; Banavath, Satish Naik; **Carvalho da Silva, Edivan Laercio; Chub, Andrii; Vinnikov, Dmitri** IEEE journal of emerging and selected topics in power electronics 2024 / 12 p
<https://doi.org/10.1109/JESTPE.2024.3485735>

Akadeemik Dmitri Vinnikov : jõuelektronika on võtmetehnoloogia energia- ja rohepöörde väljakutsetes

Vinnikov, Dmitri Eesti Teaduste Akadeemia sõnas ja pildis 2021 2022 / lk. 25-30 : ill https://www.ester.ee/record=b5054043*est

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 improved high-power DC/DC converter for distributed power Generation [Electronic resource]

Vinnikov, Dmitri; Roasto, Indrek; Jalakas, Tanel EPQU'09 : 10th International Conference on Electrical Power Quality and Utilisation : 15-17 September 2009, Lodz, Poland 2009 / [6] p. [CD-ROM]

An improved high-voltage IGBT-based half-bridge converter for railway applications

Vinnikov, Dmitri; Laugis, Juhan Fourth International Conference and Exhibition on Ecological Vehicles & Renewable Energies : March 26-29, 2009, Monaco : one-page abstract proceeding 2009 / [1] p

An improved high-voltage IGBT-based half-bridge DC/DC converter for railway applications

Vinnikov, Dmitri; Laugis, Juhan COMPEL : The international journal for computation and mathematics in electrical and electronic engineering 2011 / p. 280-299 : ill <https://www.emerald.com/insight/content/doi/10.1108/03321641111091566/full/html>

An improved interface converter for a medium-power wind-hydrogen system

Vinnikov, Dmitri; Hõimoja, Hardi; Andrijanovičs, Anna; Roasto, Indrek; Lehtla, Tõnu; Klytta, Marius 2nd International Conference on Clean Electrical Power Renewable Energy Resources Impact : Capri (Italy) June 9-11, 2009 2009 / p. 426-432 : ill <https://ieeexplore.ieee.org/document/5212019>

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 and design of 3.3 kV IGBT based three-level DC/DC converter with high-frequency isolation and current doubler rectifier

Vinnikov, Dmitri; Jalakas, Tanel; Roasto, Indrek Scientific journal of Riga Technical University. Serija 4, Power and electrical engineering 2009 / p. 97-102 : ill

Analysis and design of ultracapacitor-boosted back-up power supply for tramcars [Electronic resource]

Hõimoja, Hardi; Vinnikov, Dmitri; Jalakas, Tanel EUROCON 2009 : International IEEE Conference devoted to the 150-anniversary of Alexander S. Popov : May 18-23, 2009 Saint Petersburg, Russia 2009 / p. 598-604 [CD-ROM] <https://ieeexplore.ieee.org/document/5167691>

Analysis and evaluation of PWM and PSM shoot-through control methods for voltage-fed qZSI based DC/DC converters

Roasto, Indrek; Vinnikov, Dmitri EPE-PEMC 2010 : 14th International Power Electronics and Motion Control Conference : 6-8 September 2010, Ohrid, Republic of Macedonia 2010 / p. T3-100 - T3-105

Analysis and static mode optimization of simultaneous inductive and capacitive coupled wireless power transfer system

Shevchenko, Viktor; Pakhaliuk, Bohdan; Husev, Oleksandr; Vinnikov, Dmitri; Strzelecki, Ryszard; Khomenko, Maksym 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 / 5 p <https://doi.org/10.1109/RTUCON60080.2023.10413112>

Analysis of battery charger topologies for an electric vehicle

Jalakas, Tanel; Roasto, Indrek; Vinnikov, Dmitri BEC 2012 : 2012 13th Biennial Baltic Electronics Conference : proceedings of the 13th Biennial Baltic Electronics Conference : October 3-5, 2012, Tallinn, Estonia 2012 / p. 223-226 : ill

Analysis of capacitor-related mid-voltage point shift problems in high-voltage half-bridge DC/DC converters

Roasto, Indrek; Vinnikov, Dmitri; Lehtla, Tõnu Proceedings of 2008 IEEE 39th Annual Power Electronics Specialists Conference : PESC 2008 : Rhodes, Greece, 15-19 June 2008 2008 / p. 3619-3622

Analysis of capacitor-related mid-voltage point shift problems in high-voltage half-bridge DC/DC converters

Roasto, Indrek; Vinnikov, Dmitri; Lehtla, Tõnu PESC 08 : 39th IEEE Annual Power Electronics Specialists Conference : Rhodes, Greece, 15-19 June 2008 : book of one page paper summaries 2008 / p. 573 <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=4592517>

Analysis of cost function composition based on the horizon time prediction of an indirect MPC current control in single-phase grid-connected PV inverters

Pimentel, Sergio Pires; Husev, Oleksandr; Vinnikov, Dmitri; Stepenko, Serhii 2019 IEEE 60th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON), 7-9 October 2019 : conference proceedings 2019 / 6 p. : ill <https://doi.org/10.1109/RTUCON48111.2019.8982377>

Analysis of current doubler rectifier based high frequency isolation stage for intelligent transformer [Electronic resource]

Beldjajev, Viktor; Roasto, Indrek; Vinnikov, Dmitri CPE 2011 : 7th International Conference-Workshop Compatibility and Power Electronics : June 1-3, 2011, Tallinn, Estonia : conference guide 2011 / p. 336-341 [CD-ROM]

Analysis of design requirements and optimization possibilities of partial power converter for photovoltaic string applications in DC microgrids

Chub, Andrii; Hassanpour, Naser; Yadav, Neelesh; Jalakas, Tanel; Blinov, Andrei; Vinnikov, Dmitri IEEE Access 2024 / p. 14605-14619 <https://doi.org/10.1109/ACCESS.2024.3354375> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Analysis of drawbacks and reconst[r]uction problems of the R2-type train

Laugis, Juhan; Vinnikov, Dmitri; Boiko, Vitali The 7th Biennial Conference on Electronics and Microsystem Technology "Baltic Electronics Conference" : BEC 2000 : October 8 - 11, 2000, Tallinn, Estonia : conference proceedings 2000 / p. 355-358 : ill

Analysis of holdup time for DC grid-forming isolated active front-end converters

Carvalho da Silva, Edivan Laercio; Blinov, Andrei; Chub, Andrii; Vinnikov, Dmitri IECON 2022 - 48th Annual Conference of the IEEE Industrial Electronics Society 2022 / p. 1-6 <https://doi.org/10.1109/IECON49645.2022.9969075> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Analysis of implementation possibilities and benefits of three-level half-bridge NPC topology in static auxiliary converters for rolling stock [Electronic resource]

Vinnikov, Dmitri; Jalakas, Tanel; Roasto, Indrek POWERENG 2009 : 2nd International Conference on Power Engineering, Energy and Electrical Drives : 18-20 March, 2009, Lisbon, Portugal 2009 / p. 587-592 : ill. [CD-ROM]
<https://ieeexplore.ieee.org/document/4915180>

Analysis of operating modes of the novel isolated interface converter for PMSG based wind turbines

Bisenieks, Lauris; Vinnikov, Dmitri; Zakis, Janis POWERENG2011 : proceedings of the 2011 International Conference on Power Engineering, Energy and Electrical Drives : Torremolinos (Málaga), Spain, May 11-13, 2011 / [8] p.: ill
<https://ieeexplore.ieee.org/document/6036538>

Analysis of operating modes of the step-up DC/DC converter with a commutating LC-filter

Zakis, Janis; Rankis, Ivars; Vinnikov, Dmitri Технічна електродинаміка 2011 / p. 87-92 : ill
<https://ortus.rtu.lv/science/en/publications/11242>

Analysis of oscillation suppression methods in the AC-AC stage of high frequency link converters

Korkh, Oleksandr; 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 / 5 p. : ill
<https://doi.org/10.1109/RTUCON48111.2019.8982259>

Analysis of state of the art and development trends in soft-switched half-bridge DC/DC converters

Egorov, Mikhail; Vinnikov, Dmitri; Vodovozov, Valery 6th International Symposium "Topical Problems in the Field of Electrical and Power Engineering" : Doctoral School of Energy and Geotechnology : [Kuressaare, January 12-17, 2009] 2009 / p. 49-54 : ill

Analysis of state-of-the-art converter topologies for interfacing of hydrogen buffer with renewable energy systems

Andrijanovičs, Anna; Steiks, Ingars; Zakis, Janis; Vinnikov, Dmitri Scientific journal of Riga Technical University. Serija 4, Power and electrical engineering 2011 / p. 87-94 : ill <https://ui.adsabs.harvard.edu/abs/2011SJRP...29...87A/abstract>

Analysis of switching conditions of IGBTs in modified sine wave qZSIs operated with different shoot-through control methods

Vinnikov, Dmitri; Roasto, Indrek; Zakis, Janis; Ott, Silver; Jalakas, Tanel Elektronika ir elektrotehnika = Electronics and electrical engineering 2011 / p. 45-50 : ill
https://www.researchgate.net/publication/269779178_Analysis_of_Switching_Conditions_of_IGBTs_in_Modified_Sine_Wave_qZSIs_Operated_with_Different_Shoot-Through_Control_Methods

Analysis of switching properties of different high voltage IGBTs operating under hard-switching conditions

Blinov, Andrei; Jalakas, Tanel; Vinnikov, Dmitri; Laugis, Juhan 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. 323-326 : ill

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 and control of bidirectional T-type converter in hybrid bipolar AC/DC microgrid

Sassonker Elkayam, Moria; Vinnikov, Dmitri 2025 IEEE Seventh International Conference on DC Microgrids (ICDCM) 2025 / 5 p
<https://doi.org/10.1109/ICDCM63994.2025.11144720>

Application of boundary conduction mode control in galvanically isolated buck-boost converter

Mashinchi Maheri, Hamed; Vinnikov, Dmitri; Chub, Andrii 3rd International Conference on Smart Grid and Renewable Energy (SGRE) 2022 / p. 1-6 <https://doi.org/10.1109/SGRE53517.2022.9774105>

Application of cycle skipping modulation in buck-boost photovoltaic microconverters

Maheri, Hamed Mashinchi; Vinnikov, Dmitri; Chub, Andrii; Sidorov, Vadim; Galkin, Ilja IEEE transactions on industry applications 2022 / p. 4804-4815 <https://doi.org/10.1109/TIA.2022.3163083> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Application of ultracapacitors in low-voltage power supply systems of light rail vehicles

Hõimoja, Hardi; Vinnikov, Dmitri; Strzelecki, Ryszard The 2009 World Congress on Electronics and Electrical Engineering : WCEEENG'09 : April 6-9, 2009, Cairo, Egypt 2009 / [5] p

Asymmetric snubberless current-fed full-bridge isolated DC-DC converters

Kosenko, Roman; Blinov, Andrei; Vinnikov, Dmitri; Chub, Andrii Scientific Journal of Riga Technical University. Electrical, control and communication engineering 2018 / p. 5-11 : ill <https://doi.org/10.2478/ecce-2018-0001>

Asymmetrical PWM control of galvanically isolated impedance-source series resonant DC-DC converters

Vinnikov, Dmitri; Zakis, Janis; Chub, Andrii; Liivik, Elizaveta 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. 341-346 : ill <https://doi.org/10.1109/CPE.2016.7544211>

Asymmetrical quasi-Z-source half-bridge DC-DC converters

Vinnikov, Dmitri; Chub, Andrii; Liivik, Liisa 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. 369-372 : ill <http://dx.doi.org/10.1109/CPE.2015.7231103>

Automotive applications of ultracapacitors

Boiko, Vitali; Vinnikov, Dmitri; Liivik, Liisa Summer Seminar on Nordic Network for Multi Disciplinary Optimised Electric Drives 2002 / ? p

Auxiliary power converter for a tram

Vinnikov, Dmitri; Lehtla, Madis Summer Seminar on Nordic Network for Multi Disciplinary Optimised Electric Drives 2002 / ? p

Auxiliary power supplies for the light rail vehicles : research and development

Vinnikov, Dmitri 2009 <https://www.amazon.com/AUXILIARY-POWER-SUPPLIES-LIGHT-VEHICLES/dp/3838303695>

Auxiliary voltage converter for Tallinn trams: stages of development

Vinnikov, Dmitri Symposium "Topical Problems of Education in the Field of Electrical and Power Engineering" : Kuressaare, Estonia, January 19-24, 2004 2004 / p. 62-65 : 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](#)

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>

Bidirectional DC-DC converter for modular residential battery energy storage systems

Chub, Andrii; Vinnikov, Dmitri; Kosenko, Roman; Liivik, Liisa; Galkin, Ilja IEEE transactions on industrial electronics 2020 / p. 1944-1955 : ill <https://doi.org/10.1109/TIE.2019.2902828> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Bidirectional isolated current source DAB converter with extended ZVS/ZCS range and reduced energy circulation for storage applications

Blinov, Andrei; Kosenko, Roman; Vinnikov, Dmitri; Parsa, Leila IEEE transactions on industrial electronics 2020 / p. 10552-10563 <https://doi.org/10.1109/TIE.2019.2958291> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Bidirectional isolated current-fed soft-switching secondary-modulated DC-DC converters = Isoleeritud kahesuunalised voolutoitelised pehmelülituse ja sekundaarmodulatsiooniga alalisvoolumuundurid

Kosenko, Roman 2019 <https://digi.lib.ttu.ee/?11237>

Bidirectional isolated hexamode DC-DC converter

Sidorov, Vadim; Chub, Andrii; Vinnikov, Dmitri IEEE transactions on power electronics 2022 / p. 12264-12278 <https://doi.org/10.1109/TPEL.2022.3170229> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

Bidirectional soft switching current source DC-DC converter for residential DC microgrids

Blinov, Andrei; Kosenko, Roman; Chub, Andrii; Vinnikov, Dmitri IECON 2018 - 44th Annual Conference of the IEEE Industrial Electronics Society : proceedings 2018 / p. 6059-6064 : ill <https://doi.org/10.1109/IECON.2018.8591103>

Bidirectional soft-switching dc-dc converter for battery energy storage systems

Blinov, Andrei; Kosenko, Roman; Chub, Andrii; Vinnikov, Dmitri IET power electronics 2018 / p. 2000-2009 : ill <https://doi.org/10.1049/iet-pel.2018.5054> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Bidirectional SSCB for residential DC microgrids with reduced voltage and current stress during fault interruption

Aditya, P.; Banavath, Satish Naik; Lidozzi, Alessandro; **Chub, Andrii; Vinnikov, Dmitri** 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 6 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227379>

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

Husev, Oleksandr; Matiushkin, Oleksandr; Roncero-Clemente, Carlos; **Vinnikov, Dmitri;** Chopyk, Vasiliy Energies 2019 / art. 3505, 14 p. : ill <https://doi.org/10.3390/en12183505> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Bidirectional wide voltage range series-parallel resonant buck-boost DC-DC converter

Blinov, Andrei; Chub, Andrii; Vinnikov, Dmitri 2024 IEEE 21st International Power Electronics and Motion Control Conference (PEMC) 2024 / 5 p <https://doi.org/10.1109/PEMC61721.2024.10726369>

Black start and fault tolerant operation of isolated matrix converter for DC microgrids

Emiliani, Pietro; Blinov, Andrei; Chub, Andrii; de Carne, Giovanni; **Vinnikov, Dmitri** IECON 2022 - 48th Annual Conference of the IEEE Industrial Electronics Society 2022 / 5 p <https://doi.org/10.1109/IECON49645.2022.9968735> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Boost half-bridge DC-DC converter with reconfigurable rectifier for ultra-wide input voltage range applications

Vinnikov, Dmitri; Chub, Andrii; Liivik, Elizaveta; Blaabjerg, Frede; Siwakoti, Yam P. 2018 IEEE Applied Power Electronics Conference and Exposition (APEC 2018), San Antonio, Texas, USA, 4-8 March 2018 2018 / p. 1528-1532 : ill <https://doi.org/10.1109/APEC.2018.8341219> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Buck-boost resonant Z-source parital power converter

Abdelrahim Abdelghafour, Omar Mohamed; Chub, Andrii; Blinov, Andrei; Vinnikov, Dmitri 3rd International Conference on Smart Grid and Renewable Energy (SGRE) 2022 / p. 1-6 <https://doi.org/10.1109/SGRE53517.2022.9774095>

Buck-boost unfoldr 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

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>

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 [http://www.midem-drustvo.si/Journal%20papers/MIDEM_44\(2014\)3p224.pdf](http://www.midem-drustvo.si/Journal%20papers/MIDEM_44(2014)3p224.pdf) [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

CCM and DCM operation analysis of cascaded quasi-z-source inverter

Vinnikov, Dmitri; Roasto, Indrek; Strzelecki, Ryszard; Adamowicz, Marek Proceedings of IEEE International Symposium on Industrial Electronics : ISIE'2011 : 27-30 June 2011, Gdansk, Poland 2011 / p. 159-164 : ill

CCM operation analysis of the single-phase three-level quasi-Z-source inverter

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>

Characterisation of 1200 V RB-IGBTs with different irradiation levels under hard and soft switching conditions

Blinov, Andrei; Korkh, Oleksandr; Vinnikov, Dmitri; Waind, Peter 2018 20th European Conference on Power Electronics and Applications (EPE'18 ECCE Europe) : Riga, Latvia, 17-21 September 2018 2018 / p. 1382-1391 : ill <https://ieeexplore.ieee.org/document/8515535>

Characterisation of 1200 V reverse-blocking IGBTs for naturally commutated HF-link inverter

Zinchenko, Denys; **Korkh, Oleksandr; Blinov, Andrei**; Waind, Peter; **Vinnikov, Dmitri** 2019 IEEE 2nd Ukraine Conference on Electrical and Computer Engineering : UKRCON-2019 : conference proceedings 2019 / p. 382-387 : ill
<https://doi.org/10.1109/UKRCON.2019.8879900>

Clustering-based penalty signal design for flexibility utilization

Rosin, Argo; Ahmadihangar, Roya; Azizi, Elnaz; Sahoo, Subham; **Vinnikov, Dmitri**; Blaabjerg, Frede; Dragicevic, Tomislav; Bolouki, Sadegh IEEE Access 2020 / p. 208850-208860 <https://doi.org/10.1109/ACCESS.2020.3038822> [Journal metrics at Scopus](#)
[Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

CM voltage compensator for DC/DC converters [Electronic resource]

Smolenski, Robert; Jarnut, Marcin; Bojarski, Jacek; **Blinov, Andrei; Vinnikov, Dmitri** CPE 2013 : 2013 International Conference on Compatibility and Power Electronics (CPE) : June 5-7, 2013, Ljubljana, Slovenia : conference proceedings 2013 / p. 264-268 : ill [CD-ROM] <https://ieeexplore.ieee.org/document/6601167>

Code development of a DSP-FPGA based control platform for power electronics applications

Minambres-Marcos, Victor; **Roasto, Indrek**; Szczepankowski, P.; Romero-Cadaval, Enrique; **Vinnikov, Dmitri**; Barrero-Gonzalez, Fermin 2015 IEEE International Conference on Industrial Technology (ICIT 2015) : Seville, Spain, 17-19 March 2015 2015 / p. 2890-2895 : ill <https://doi.org/10.1109/ICIT.2015.7125524> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

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>

Common-ground energy router structure with enhanced reliability and protection = Ühise nulljuhtmega suurendatud töökindluse ja kaitsega energiaruuter

Rahimpour, Saeed 2024 <https://doi.org/10.23658/taltech.45/2024> https://www.ester.ee/record=b5694226*est
<https://digikogu.taltech.ee/et/Item/520b18fc-f0a8-4a08-ade8-d3b890d253ff>

Common-mode voltage analysis and reduction for the quasi-Z-source inverter with a split inductor

Liu, Wenjie; Yang, Yongheng; Kerekes, Tamas; **Liivik, Elizaveta; Vinnikov, Dmitri**; Blaabjerg, Frede Applied sciences 2020 / art. 8713, 13 p. : ill <https://doi.org/10.3390/app10238713> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Compact design of a power circuit for a dual-output voltage converter

Vinnikov, Dmitri; Lehtla, Tõnu BEC 2004 : proceedings of the 9th Biennial Baltic Electronics Conference : October 3-6, 2004, Tallinn, Estonia 2004 / p. 333-336 : ill

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 high power density bidirectional DC-DC converters for portable energy storage applications

Tytelmaier, Kostiantyn; Zakis, Janis; **Husev, Oleksandr; Vinnikov, Dmitri** Elektronika ir elektrotehnika = Electronics and electrical engineering 2018 / p. 33-41 : ill <https://doi.org/10.5755/j01.eie.24.6.22287> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Comparative evaluation of a DAB converter and SRC for DC buildings application

Carvalho da Silva, Edivan Laercio; Chub, Andrii; Blinov, Andrei; Banavath, Satish Naik; **Vinnikov, Dmitri** 2024 IEEE 21st International Power Electronics and Motion Control Conference (PEMC) 2024 / 6 p <https://doi.org/10.1109/PEMC61721.2024.10726346>

Comparative evaluation of common-ground converters for dual-purpose application

Hemmati Shahsavari, Tala; Rahimpour, Saeed; Vosoughi Kurdkandi, Naser; Fesenko, Artem; **Matiushkin, Oleksandr; Husev, Oleksandr; Vinnikov, Dmitri** Energies 2023 / art. 2977 <https://doi.org/10.3390/en16072977> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Comparative evaluation of dual-purpose converters suitable for application in dc and ac grids

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

Comparative evaluation of isolated dc-dc converters for low power applications

Azizi, Mohammadreza; Husev, Oleksandr; Vinnikov, Dmitri; Veligorskyi, Oleksandr 2022 IEEE 20th International Power Electronics and Motion Control Conference (PEMC) : Brasov, Romania, 25-28 Sept. 2022 : proceedings 2022 / p. 7-12
<https://doi.org/10.1109/PEMC51159.2022.9962944>

Comparative review of long-term energy storage technologies for renewable energy systems

Andrijanovič, Anna; Hõimoja, Hardi; Vinnikov, Dmitri Elektronika ir elektrotehnika = Electronics and electrical engineering 2012 / p. 21-26 : ill

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

Comparative study of possible implementations of the flexible power electronic interface for wide-range high step-up applications in DC microgrid

Khan, Salman; Chub, Andrii; Vinnikov, Dmitri; Kasper, Matthias; Deboy, Gerald 2024 IEEE 18th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2024 / 6 p <https://doi.org/10.1109/CPE-POWERENG60842.2024.10604370>

Comparative study of rectifier topologies for quasi-Z-source derived push-pull converter

Chub, Andrii; Husev, Oleksandr; Vinnikov, Dmitri Elektronika ir elektrotehnika = Electronics and electrical engineering 2014 / p. 29-34 : ill <https://doi.org/10.5755/j01.eee.20.6.7264> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

Husev, Oleksandr; Matiushkin, Oleksandr; Vinnikov, Dmitri; Vosoughi Kurdkandi, Naser; Kouro, Samir Annual IEEE Conference on Applied Power Electronics Conference and Exposition (APEC) 2022 / p. 58-63 <https://doi.org/10.1109/APEC43599.2022.9773553> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

A comparison between three-phase conventional two-stage ac-dc and single-stage matrix converter approaches

Mohseni, Parham; Emiliani, Pietro; Husev, Oleksandr; Vinnikov, Dmitri; Mackay, Laurens 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 6 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227438>

Comparison of 2- and 3-level Half-Bridge DC/DC converters for high-voltage high-power applications

Vinnikov, Dmitri; Strzelecki, Ryszard Przegląd elektrotechniczny = Electrical review 2009 / 10, p. 217-221 https://www.researchgate.net/publication/283654804_Comparison_of_2-and_3-level_half-bridge_DCDC_converters_for_high-voltage_high-power_applications

A comparison of a discrete-time PI and an indirect MPC current controllers for a single-phase grid-connected inverter operating with distorted grid and significant computation feedback delay

Pimentel, Sergio Pires; Husev, Oleksandr; Vinnikov, Dmitri; Stepenko, Serhii; Kütt, Lauri; Rodriguez, Jose 2019 IEEE 15th Brazilian Power Electronics Conference and 5th IEEE Southern Power Electronics Conference (COBEP/SPEC) 2019 / 6 p.: ill <https://doi.org/10.1109/COBEP/SPEC44138.2019.9065396>

Comparison of control methods for high-voltage high-power three-level half-bridge DC/DC converters [Electronic resource]

Roasto, Indrek; Vinnikov, Dmitri; Galkin, Ilja 6th International Conference-Workshop Compatibility and Power Electronics : May 20-22, 2009 : CPE 2009 : conference proceedings 2009 / p. 258-264 : ill. [CD-ROM] https://www.researchgate.net/publication/241160163_Comparison_of_control_methods_for_high-voltage_high-power_three-level_half-bridge_DCDC_converters

Comparison of different microcontroller development boards for power electronics applications

Roasto, Indrek; Vinnikov, Dmitri; Lehtla, Tõnu 5th International Symposium "Topical Problems in the Field of Electrical and Power Engineering". Doctoral School of Energy and Geotechnology : Kuressaare, January 14-19, 2008 2008 / p. 103-107 : ill

Comparison of full power and partial power buck-boost DC-DC converters for residential battery energy storage applications

Hassanpour, Naser; Chub, Andrii; Blinov, Andrei; Vinnikov, Dmitri 2022 IEEE 16th International Conference on Compatibility, Power Electronics, and Power Engineering (CPE-POWERENG) 2022 / 6 p <https://doi.org/10.1109/CPE-POWERENG54966.2022.9880862>

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> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Comparison of interface converter topologies for small- or medium-power wind-hydrogen systems

Andriyanovits, Anna; Vinnikov, Dmitri; Hõimoja, Hardi; Klytta, Marius 6th International Symposium "Topical Problems in the Field of Electrical and Power Engineering" : Doctoral School of Energy and Geotechnology : [Kuressaare, January 12-17, 2009] 2009 / p. 122-127 : ill

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 (N+1) redundancy and fault tolerance approaches in single-stage series-connected isolated MVAC to LVDC converters

Bakeer, Abualkasim Ahmed Ali; Chub, Andrii; Blinov, Andrei; Bayhan, Sertac; **Vinnikov, Dmitri** 2023 International Conference on Clean Electrical Power (ICCEP) 2023 / p. 469-474 : ill <https://doi.org/10.1109/ICCEP57914.2023.10247478>

Comparison of performance of phase-shift and asymmetrical pulse width modulation techniques for the novel galvanically isolated buck-boost dc-dc converter for photovoltaic applications

Vinnikov, Dmitri; Chub, Andrii; Kosenko, Roman; Zakis, Janis; Liivik, Elizaveta IEEE journal of emerging and selected topics in power electronics 2017 / p. 624-637 : ill <https://doi.org/10.1109/JESTPE.2016.2631628> [Journal metrics at Scopus](#) [Article at Scopus](#)
[Journal metrics at WOS](#) [Article at WOS](#)

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 soft switching methods of DC-AC full bridge high-frequency link converter

Korkh, Oleksandr; Blinov, Andrei; Kosenko, Roman; 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.2018.8659898>

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] <https://ieeexplore.ieee.org/document/6601133>

Comparison of three-phase isolated DC/DC converters with Z- and quasi-Z-source inverters

Egorov, Mikhail; Vinnikov, Dmitri; Strzelecki, Ryszard; Adamowicz, Marek 7th International Symposium "Topical Problems in the Field of Electrical and Power Engineering" : Doctoral School of Energy and Geotechnology. II : [Narva-Jõesuu, Estonia, 16.06-19.06.2009] 2009 / p. 9-14 : ill

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](#)

Comprehensive comparison of grid-connected flyback-based microinverter with primary and secondary side decoupling approach

Afshari, Hossein; Husev, Oleksandr; Matiushkin, Oleksandr; Pourjafar, Saeed; Kurdkandi, Naser Vosoughi; **Vinnikov, Dmitri** IEEE transactions on industry applications 2024 / p. 9080-9089 <https://doi.org/10.1109/TIA.2024.3452069>

A comprehensive review on DC fast charging stations for electric vehicles: standards, power conversion technologies, architectures, energy management, and cybersecurity

Arena, Gabriele; **Chub, Andrii;** Lukianov, Mykola; Strzelecki, Ryszard; **Vinnikov, Dmitri;** de Carne, Giovanni IEEE open journal of power electronics 2024 / p. 1573-1611 <https://doi.org/10.1109/OJPEL.2024.3466936>

Concept of wireless low-voltage DC socket for the residential house application

Shevchenko, Viktor; Husev, Oleksandr; Pakhaliuk, Bohdan; Vinnikov, Dmitri; Strzelecki, Ryszard IEEE Access 2024 / p. 143226-143236 <https://doi.org/10.1109/ACCESS.2024.3471691>

Control basics of a flywheel-powered uninterruptible motor drive

Hõimoja, Hardi; Vinnikov, Dmitri; Rosin, Argo BEC 2008 : 2008 International Biennial Baltic Electronics Conference : proceedings of the 11th Biennial Baltic Electronics Conference : Tallinn University of Technology : October 6-8, 2008, Tallinn, Estonia 2008 / p. 289-292 : ill

Control methodology of the rolling stock auxiliary power supply

Roasto, Indrek; Vinnikov, Dmitri 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. 122-125 : ill

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

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>

Control system simulation of a 40kW half-bridge isolated DC/DC converter [Electronic resource]

Roasto, Indrek; Vinnikov, Dmitri EPE 2007 : 12th European Conference on Power Electronics and Applications : 2-5 September 2007, Aalborg, Denmark 2007 / [10] p. [CD-ROM] <https://ieeexplore.ieee.org/document/4417224>

Cooling methods for high voltage IGBTs

Blinov, Andrei; Vinnikov, Dmitri 6th International Symposium "Topical Problems in the Field of Electrical and Power Engineering" : Doctoral School of Energy and Geotechnology : [Kuressaare, January 12-17, 2009] 2009 / p. 134-139 : ill

Cooling methods for high-power electronic systems

Blinov, Andrei; Vinnikov, Dmitri; Lehtla, Tõnu Scientific journal of Riga Technical University. Serija 4, Power and electrical engineering 2011 / p. 79-86 : ill

Cost-effective piggyback forward dc-dc converter

Matiushkin, Oleksandr; Husev, Oleksandr; Afshari, Hossein; Vinnikov, Dmitri; Strzelecki, Ryszard 2024 IEEE Applied Power Electronics Conference and Exposition (APEC) 2024 / p. 2106-2111 <https://doi.org/10.1109/APEC48139.2024.10509355> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

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-fed dual inductor push-pull partial power converter

Abdelrahim Abdelghafour, Omar Mohamed; Vinnikov, Dmitri; Chub, Andrii; Blinov, Andrei 2022 IEEE 20th International Power Electronics and Motion Control Conference (PEMC) : Brasov, Romania, 25-28 Sept. 2022 : proceedings 2022 / p. 327-332 <https://doi.org/10.1109/PEMC51159.2022.9962937>

Current-fed partial power converter for photovoltaic applications in DC microgrids

Jalakas, Tanel; Kosenko, Roman; Chub, Andrii; Vinnikov, Dmitri; Blinov, Andrei IECON 2021 – 47th Annual Conference of the IEEE Industrial Electronics Society 2021 / p. 1-5 : ill <https://doi.org/10.1109/IECON48115.2021.9589899> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Day-ahead PV output power forecasting utilizing boosting recursive lightGBM-LSTM framework

Hokmabad, Hossein Nouroollahi; Husev, Oleksandr; Vinnikov, Dmitri; Belikov, Juri; Petlenkov, Eduard IEEE PES Innovative Smart Grid Technologies Conference Europe (ISGT Europe 2023) : proceedings 2023 / 5 p <https://doi.org/10.1109/ISGTEUROPE56780.2023.10408090>

DC droop control strategies and tuning principles

Roasto, Indrek; Blinov, Andrei; Vinnikov, Dmitri; Mackay, Laurens; **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 <https://doi.org/10.1109/RTUCON60080.2023.10412947>

DC fast charging of electric vehicles : a review on architecture and power conversion technology

Arena, Gabriele; **Emiliani, Pietro; Chub, Andrii; Vinnikov, Dmitri**; de Carne, Giovanni 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 6 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227492>

DC grid interface converter based on three-phase isolated matrix topology with phase-shift modulation

Emiliani, Pietro; Blinov, Andrei; Chub, Andrii; de Carne, Giovanni; **Vinnikov, Dmitri** 2022 IEEE 13th International Symposium on Power Electronics for Distributed Generation Systems (PEDG) 2022 / 6 l. <https://doi.org/10.1109/PEDG54999.2022.9923256>

DC integration of residential photovoltaic systems : a survey

Abdelrahim Abdelghafour, Omar Mohamed; Chub, Andrii; Vinnikov, Dmitri; Blinov, Andrei IEEE Access 2022 / p. 66974-66991 <https://doi.org/10.1109/ACCESS.2022.3185788> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

DC microgrid: state of art, driving force, challenges and perspectives

Husev, Oleksandr; Vinnikov, Dmitri Power Systems Research and Operation : Selected Problems III 2024 / p. 149-190
https://doi.org/10.1007/978-3-031-44772-3_8 [Article collection metrics at Scopus](#) [Article at Scopus](#)

DC nano grid control in the residential energy router with the presence of constant power loads

Najafzadeh, Mahdiyyeh; Vinnikov, Dmitri; Husev, Oleksandr; Roasto, Indrek 2022 IEEE 7th International Energy Conference (ENERGYCON) 2022 / p. 1-6 <https://doi.org/10.1109/ENERGYCON53164.2022.9830523>

DC-DC перетворювач з широким діапазоном забезпечення режиму природної комутації в нулях напруги

Blinov, Andrei; Vinnikov, Dmitri; Ivakhno, Volodymyr; Zamaruev, Volodymyr; Styslo, Bogdan Вісник НТУ "Харківський політехнічний інститут". Серія: Електричні машини та електромеханічне перетворення енергії = Bulletin of the NTU "Kharkiv Polytechnic Institute". Series: Electrical Machines and Electromechanical Energy Conversion 2019 / с. 14-19 : іл
<https://doi.org/10.20998/2409-9295.2019.20.02>

DC-link capacitor minimization in residential energy router through battery utilization

Najafzadeh, Mahdiyyeh; Vinnikov, Dmitri; Husev, Oleksandr; Jalakas, Tanel; Roasto, Indrek 2021 IEEE 15th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) : Florence, Italy, 14-16 July 2021 2021 / p. 1-6 : ill <https://doi.org/10.1109/CPE-POWERENG50821.2021>

DC-ready flyback-based micro-converter

Afshari, Hossein; Husev, Oleksandr; Matiushkin, Oleksandr; Vinnikov, Dmitri; Roncero-Clemente, Carlos 2024 IEEE 18th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2024 / 6 p
<https://doi.org/10.1109/CPE-POWERENG60842.2024.10604344>

DC-ready photovoltaic solar converter

Matiushkin, Oleksandr; Husev, Oleksandr; Vinnikov, Dmitri; Kurnitski, Jarek PCIM Europe 2023 : Conference proceedings 2023 / 7 p <https://doi.org/10.30420/566091094> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Decentralized control of a UPS systems operating in parallel

Strzelecki, Ryszard; Vinnikov, Dmitri BEC 2008 : 2008 International Biennial Baltic Electronics Conference : proceedings of the 11th Biennial Baltic Electronics Conference : Tallinn University of Technology : October 6-8, 2008, Tallinn, Estonia 2008 / p. 297-300 : ill

Design and analysis of a DC solid-state circuit breaker for residential energy router application

Rahimpour, Saeed; Husev, Oleksandr; Vinnikov, Dmitri Energies 2022 / art. 9434 <https://doi.org/10.3390/en15249434> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Design and development challenges of power electronics converters for the rolling stock

Jalakas, Tanel; Vinnikov, Dmitri; Laugis, Juhan Intelligent Technologies in Logistics and Mechatronics Systems : ITELMS'2008 : proceedings of the 3rd International Workshop : May 22-23, 2008, Panevežys, Lithuania 2008 / p. 17-22 : ill

Design and development of 3.3 kV IGBT based three-level DC/DC converter

Vinnikov, Dmitri; Roasto, Indrek Electrical engineering research report 2009 / [6] p

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 development of the middle-frequency isolation transformer for the high-voltage DC/DC converter [Electronic resource]

Vinnikov, Dmitri; Lehtla, Tõnu; Strzelecki, Ryszard; Galkin, Ilja The 4th International Scientific Conference of The Military Technical College [Korby El-Kobbah, Cairo, Egypt] : 27-29 May 2008. Proceedings of the 6th ICEENG Conference : 27-29 May, 2008 2008 / p. EE045 [CD-ROM] https://iceeng.journals.ekb.eg/article_34344_6860ebd9ad2e69cac2e12bfe8d5546c.pdf

Design and development of three-level half-bridge NPC converter with dual 3.3 kV IGBT modules

Jalakas, Tanel; Vinnikov, Dmitri; Roasto, Indrek 6th International Symposium "Topical Problems in the Field of Electrical and Power Engineering" : Doctoral School of Energy and Geotechnology : [Kuressaare, January 12-17, 2009] 2009 / p. 43-48 : ill

Design and discretization of multi-resonant current controllers

Elkayam, Moria Sassonker; Vinnikov, Dmitri 2024 19th Conference on Ph.D Research in Microelectronics and Electronics (PRIME) 2024 / 4 p <https://doi.org/10.1109/PRIME61930.2024.10559737>

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

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

Design 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 considerations of dual-active bridge DC grid-forming converter for DC buildings

Carvalho da Silva, Edivan Laercio; Sidorova, Aleksandra; Blinov, Andrei; Chub, Andrii; Vinnikov, Dmitri IEEE transactions on industrial electronics 2024 / p. 10601-10611 <https://doi.org/10.1109/TIE.2023.3331125>

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 guidelines of new step-up DC/DC converter for fuel cell powered distributed generation systems

Zakis, Janis; Vinnikov, Dmitri; Roasto, Indrek; Strzelecki, Ryszard 8th International Symposium "Topical Problems in the Field of Electrical and Power Engineering" : Doctoral School of Energy and Geotechnology. II : [Pärnu, January 11-16, 2010 : proceedings] 2010 / p. 33-41 : ill

Design issues of redundant protection and supervision system for the special purpose power converters [Electronic resource]

Vinnikov, Dmitri; Roasto, Indrek; Vodovozov, Valery International Conference on Renewable Energies and Power Quality : ICREPQ'09 : Valencia, Spain, 15th to 17th April 2009 2009 / [6] p. [CD-ROM] <https://www.icrepq.com/ICREPQ%2709/356-vinnikov.pdf>

Design issues of SSCBs for residential DC microgrid

Jalakas, Tanel; Chub, Andrii; Roasto, Indrek; Vinnikov, Dmitri 2024 IEEE 65th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) 2024 / 6 p <https://doi.org/10.1109/RTUCON62997.2024.10830826>

Design of high frequency transformer for isolated bridge-type PFC converter

Zinchenko, Denys; Blinov, Andrei; Vinnikov, Dmitri; Ormison, Andres 2020 IEEE 4th International Conference on Intelligent Energy and Power Systems (IEPS), 06.07.2020 - 10.07.2020, Istanbul, Turkey 2020 / 8 p. : ill <https://doi.org/10.1109/IEPS51250.2020.9263134>

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 multiphase single-switch impedance-source converters

Chub, Andrii; Vinnikov, Dmitri; Liivik, Liisa; Jalakas, Tanel; Blinov, Andrei IECON 2018 - 44th Annual Conference of the IEEE Industrial Electronics Society : proceedings 2018 / p. 3718-3724 : ill <https://doi.org/10.1109/IECON.2018.8591361>

Design of solid state circuit breaker

Jalakas, Tanel; Chub, Andrii; Roasto, Indrek; Vinnikov, Dmitri 2022 IEEE 63th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON): conference proceedings 2022 / p. 1-5 <https://doi.org/10.1109/RTUCON56726.2022.9978903>

Development and application of energy producing solar pavement in Estonia

Jalakas, Tanel; Chub, Andrii; Vinnikov, Dmitri; Spalatu, Nicolae; Gudkova, Viktoria; Krunks, Malle; Mere, Arvo; Lahi, Allan 2022 IEEE 63th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON): conference proceedings 2022 / 5 p. : ill <https://doi.org/10.1109/RTUCON56726.2022.9978908>

Development and verification of control and protection algorithms for the special purpose high power converters

Roasto, Indrek; Vinnikov, Dmitri; Vodovozov, Valery Intelligent Technologies in Logistics and Mechatronics Systems : ITELMS'2008 : proceedings of the 3rd International Workshop : May 22-23, 2008, Panevėžys, Lithuania 2008 / p. 23-27 : ill

Development of 50-kW isolated DC/DC converter with high-voltage IGBTs

Vinnikov, Dmitri; Jalakas, Tanel; Laugis, Juhan Przegląd elektrotechniczny 2007 / p. 103-107

Development of 50-kW isolated DC/DC converter with high-voltage IGBTs [Electronic resource]

Jalakas, Tanel; Vinnikov, Dmitri; Laugis, Juhan Proceedings of 5th International Conference 2007 : Compatibility in Power

Electronics : 29 May - 1 June 2007, Gdynia, Poland 2007 / [6] p. [CD-ROM]

Development of a power electronics controller with RISC-V based core for security-critical applications

Swakath, S. U.; Kshirsagar, Abhijit; Kondepu, Koteswararao; Banavath, Satish Naik; **Chub, Andrii; Vinnikov, Dmitri** 2022 IEEE 63th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON): conference proceedings 2022 / p. 1-5 <https://doi.org/10.1109/RTUCON56726.2022.9978737>

Development of auxiliary power supplies for the 3.0 kV DC rolling stock

Vinnikov, Dmitri; Laugis, Juhan; Jalakas, Tanel ISIE2007 : 2007 IEEE International Symposium on Industrial Electronics : June 4-7, 2007, Vigo, Spain : abstract book 2007 / p. 61 <https://ieeexplore.ieee.org/document/4374624>

Development of auxiliary power supplies for the 3.0 kV DC rolling stock [Electronic resource]

Vinnikov, Dmitri; Laugis, Juhan; Jalakas, Tanel ISIE2007 : 2007 IEEE International Symposium on Industrial Electronics : June 4-7, 2007, Vigo, Spain 2007 / p. 359-364 [CD-ROM] <https://ieeexplore.ieee.org/document/4374624>

Development of auxiliary power supply for tram

Vinnikov, Dmitri; Lehtla, Madis BEC 2002 : proceedings of the 8th Biennial Baltic Electronics Conference : October 6-9, 2002, Tallinn, Estonia 2002 / p. 389-390 : ill

Digital control strategy for interleaved quasi-Z-source inverter with 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

Digital current mode control algorithms for high-power half-bridge DC/DC converters

Roasto, Indrek; Vinnikov, Dmitri; Jalakas, Tanel; Strzelecki, Ryszard Przegląd elektrotechniczny 2011 / p. 180-186 : ill
<http://www.red.pe.org.pl/articles/2011/8/36.pdf>

Distorted grid and significant computation feedback delay

Pimentel, Sergio Pires; **Husev, Oleksandr; Vinnikov, Dmitri; Stepenko, Serhii; Kütt, Lauri**; Rodriguez, Jose 2019 IEEE 15th Brazilian Power Electronics Conference and 5th IEEE Southern Power Electronics Conference (COBEP/SPEC 2019) Santos, Brazil, 1-4 December 2019 / p. 1481-1486 <http://toc.proceedings.com/52923webtoc.pdf>

Distributed energy systems : design, modeling, and control

2022 <https://www.taylorfrancis.com/books/edit/10.1201/9781003229124/distributed-energy-systems-ashutosh-giri-sabha-rai-arya-dmitri-vinnikov>

Dmitri Vinnikov, tehnika- ja arvutiteadused [Võrguväljaanne]

Vinnikov, Dmitri Eesti Teaduste Akadeemia : Youtube kanal 2021 / video [Dmitri Vinnikov, tehnika- ja arvutiteadused](#)

Doctoral School of Energy and Geotechnology II : closing conference of the project : Pärnu, Estonia, January 12-17, 2015

2015 https://www.ester.ee/record=b4448632*est

Droop control implementation in bidirectional step-up/down Partial power converter for battery energy storage applications

Hassanpour, Naser; Chub, Andrii; Blinov, Andrei; Vinnikov, Dmitri 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/RTUCON60080.2023.10413064>

Droop control with incorporated dead zone for indirect energy management in DC nanogrids

Roasto, Indrek; Blinov, Andrei; Vinnikov, Dmitri 2024 IEEE 21st International Power Electronics and Motion Control Conference (PEMC) 2024 / 6 p <https://doi.org/10.1109/PEMC61721.2024.10726394>

Dual-Mode magnetically integrated photovoltaic microconverter with adaptive mode change and global maximum power point tracking

Mashinchi Maheri, Hamed; Vinnikov, Dmitri; Chub, Andrii; Korkh, Oleksandr; Rosin, Argo; Babaei, Ebrahim IET renewable power generation 2021 / p. 86-98 <https://doi.org/10.1049/rpg2.12007> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Dual-purpose converters for DC or AC grid as energy transition solution : perspectives and challenges

Husev, Oleksandr; Vinnikov, Dmitri; Kouro, Samir; Blaabjerg, Frede; Roncero-Clemente, Carlos IEEE industrial electronics magazine 2023 <https://doi.org/10.1109/MIE.2022.3230219>

Dynamic behaviour of qZS-based bi-directional DC/DC converter in supercapacitor charging mode [Electronic resource]

Zakis, Janis; Vinnikov, Dmitri; Husev, Oleksandr; Rankis, Ivars SPEEDAM 2012 : Sorrento (Italy) - June 20-22, 2012 : 21st edition of the International Symposium on Power Electronics, Electrical drives, Automation and Motion 2012 / p. 764-768 : ill [CD-ROM] <https://ieeexplore.ieee.org/document/6264554>

Dynamic positioning system for the multifunctional vessel EVA-316

Subarev, Kirill; Vinnikov, Dmitri; Laugis, Juhan 8th International Workshop on Research and Education in Mechatronics 2007 : 14-15 June 2007, Tallinn, Estonia 2007 / p. 142-145 : ill

Dynamic reconfiguration for wide output voltage range isolated buck-boost PFC converter

Verbytskyi, Ievgen; Nadeem, Mohammad Mahad; Blinov, Andrei; Carvalho da Silva, Edivan Laercio; Chub, Andrii; Vinnikov, Dmitri 2023 IEEE 8th Southern Power Electronics Conference and 17th Brazilian Power Electronics Conference (SPEC/COBEP) 2023 / 5 p. : ill <https://doi.org/10.1109/SPEC56436.2023.10407792>

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; Milanes-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>

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
<https://doi.org/10.1109/TPEL.2016.2577418> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Eesti elektriraudtee kontaktvõrgu seisund ja väljavaated

Boiko, Vitali; Vinnikov, Dmitri Elektriala 2004 / 1, lk. 24-25 : ill

Eesti teadlaste nutikad minuundurid hoogustavad energiapööõret

Vinnikov, Dmitri; Chub, Andrii novaator.err.ee 2024 [Eesti teadlaste nutikad minuundurid hoogustavad energiapööõret](#)

Effect of droop control curves on the efficiency of dual-active bridge converters

Carvalho da Silva, Edivan Laercio; Blinov, Andrei; Chub, Andrii; Vinnikov, Dmitri IECON 2023- 49th Annual Conference of the IEEE Industrial Electronics Society IECON Proceedings (Industrial Electronics Conference) 2023 / 6 p
<https://doi.org/10.1109/IECON51785.2023.10312056> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Effect of mission profile resolution on photovoltaic energy yield prediction in Python and MATLAB

Bakeer, Abualkasim Ahmed Ali; Chub, Andrii; Vinnikov, Dmitri; Blaabjerg, Frede 2021 IEEE 15th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2021 / 5 p. : ill <https://doi.org/10.1109/CPE-POWERENG50821.2021.9501222>

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>

Effects of voltage transients on the DC droop control in residential nanogrids

Roasto, Indrek; Blinov, Andrei; Vinnikov, Dmitri; Jalakas, Tanel 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 5 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227464>

Efficiency improvement from topology modification of the single-switch isolated quasi-Z-source DC-DC converter [Online resource]

Liivik, Elizaveta; Chub, Andrii; Vinnikov, Dmitri 2016 57th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) : October 13, 14, 2016 : conference proceedings 2016 / [7] p. : ill
<https://doi.org/10.1109/RTUCON.2016.7763118>

Efficiency improvement of step-up series resonant DC-DC converter in buck operating mode

Sidorov, Vadim; Chub, Andrii; Vinnikov, Dmitri 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/RTUCON51174.2020.9316574>

Efficiency optimization of the high-power isolated DC/DC converters through THD and losses reduction in isolation transformers [Electronic resource]

Vinnikov, Dmitri; Bolgov, Viktor International Conference on Renewable Energies and Power Quality : ICREPQ'09 : Valencia, Spain, 15th to 17th April, 2009 2009 / [7] p. : ill. [CD-ROM]
https://www.researchgate.net/publication/237808470_Efficiency_Optimization_of_the_High-Power_Isolated_DCDC_Converters_through_THD_and_Losses_Reduction_in_Isolation_Transformers

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](#)

An efficient non-inverting buck-boost converter with improved step up/down ability

Abdelrahim Abdelghafour, Omar Mohamed; Chub, Andrii; Blinov, Andrei; Vinnikov, Dmitri; Pefitsis, Dimosthenis *Energies* 2022 / art. 4550 <https://doi.org/10.3390/en15134550> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Electric power management and control in DC buildings—state-of-the-art and emerging technologies

Blinov, Andrei; Roasto, Indrek; Chub, Andrii; Emiliani, Pietro; Vinnikov, Dmitri *Power Quality : Infrastructures and Control* 2023 / p. 67-96 https://doi.org/10.1007/978-981-19-7956-9_3

Electric vehicle fast charger high voltage input multiport converter topology analysis [Electronic resource]

Jalakas, Tanel; Roasto, Indrek; Vinnikov, Dmitri *CPE 2013 : 2013 International Conference on Compatibility and Power Electronics (CPE)* : June 5-7, 2013, Ljubljana, Slovenia : conference proceedings 2013 / p. 326-331 : ill [CD-ROM]

An electrolytic capacitor-less multiple-output LED driver with a universal input voltage

Awad, Khaled; Abdelrahim Abdelghafour, Omar Mohamed; Gaafar, Mahmoud A.; Orabi, Mohamed; **Chub, Andrii; Blinov, Andrei; Vinnikov, Dmitri** 2022 *IEEE 7th International Energy Conference (ENERGYCON)* 2022 / 6 l. <https://doi.org/10.1109/ENERGYCON53164.2022.9830255>

Electronic systems of motor drive

Vodovozov, Valery; Vinnikov, Dmitri 2008 http://www.ester.ee/record=b2384912*est

Electronics and semiconductor engineering : laboratory works

Jalakas, Tanel; Vodovozov, Valery; Vinnikov, Dmitri 2008 https://www.ester.ee/record=b2373748*est

Elektersõidukite sisetoiteallikaist

Vinnikov, Dmitri *Elektriala* 2002 / 1, lk. 12-13 : ill

Elektrijamite elektroonsed süsteemid

Vodovozov, Valery; Vinnikov, Dmitri; Jansikene, Raik 2008 http://www.ester.ee/record=b2384926*est

Elektrirongide ER1 ja ER2 veoajami energiavoogude analüüs

Vinnikov, Dmitri; Boiko, Vitali *Elektriala* 2005 / 1, lk. 28-29 : ill

An embedded half-bridge Γ -Z-source inverter with reduced voltage stress on capacitors

Mashinchi Maheri, Hamed; Vinnikov, Dmitri; Nozadian, Mohsen Hasan Babayi; Shokati Asl, Elias; Babaei, Ebrahim; **Chub, Andrii** *Energies* 2021 / art. 6433, 21 p. : ill <https://doi.org/10.3390/en14196433> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

EMC considerations on PCB design for a high-power converter control system [Electronic resource]

Roasto, Indrek; Vinnikov, Dmitri; Klytta, Marius *Proceedings of 5th International Conference 2007 : Compatibility in Power Electronics* : 29 May - 1 June 2007, Gdynia, Poland 2007 / [4] p. [CD-ROM] <https://ieeexplore.ieee.org/document/4296544>

Emerging converter topologies and control for grid connected photovoltaic systems

2021 <https://doi.org/10.3390/books978-3-03943-910-2>

EMI problems of the high frequency 3-phase rectifier

Vinnikov, Dmitri; Lehtla, Tõnu; Joller, Jüri 3rd International Scientific Workshop "Compatibility in Power Electronics" (CPE 2003) : Gdansk-Zielona Gora, Poland, 28-30 May, 2003 2003 / p. 159-161

Energiasäästu võimalustest Eesti elektrilises ühistranspordis

Vinnikov, Dmitri *Elektriala* 2000 / 1, lk. 12-13: ill https://artiklid.elnet.ee/record=b1003229*est

Energiat tootev teekatend nüüd ka Eestis

Jalakas, Tanel; Chub, Andrii; Vinnikov, Dmitri; Spalatu, Nicolae; Gudkova, Viktoria; **Krunks, Malle; Mere, Arvo; Lahi, Allan;** Lindvest, Andre *Elektriala* 2023 / lk. 14-16 : portr., fot https://www.ester.ee/record=b1240496*est

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 <https://doi.org/10.1109/ICDCM63994.2025.11144665>

Energy storage and forecasting error impact analysis in photovoltaic equipped residential nano-grids

Hokmabad, Hossein Nouroollahi; Husev, Oleksandr; Belikov, Juri; Vinnikov, Dmitri; Petlenkov, Eduard 2023 *IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG)* 2023 / 6 p. <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227406>

Energy storage for 1500 V photovoltaic systems : A comparative reliability analysis of DC-and AC-Coupling

He, Jinkui; Yang, Yongheng; **Vinnikov, Dmitri** Emerging converter topologies and control for grid connected photovoltaic systems 2021 / p. 323-338 : ill <https://doi.org/10.3390/books978-3-03943-910-2>

Energy storage for 1500 V photovoltaic systems : A comparative reliability analysis of DC-and AC-Coupling

He, Jinkui; Yang, Yongheng; **Vinnikov, Dmitri** Energies 2020 / art. 3355, 16 p. : ill <https://doi.org/10.3390/en13133355> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [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>

Energy-efficient high-voltage switch based on parallel connection of IGBT and IGCT [Electronic resource]

Blinov, Andrei; Vinnikov, Dmitri; Ivakhno, Volodymyr CPE 2011 : 7th International Conference-Workshop Compatibility and Power Electronics : June 1-3, 2011, Tallinn, Estonia : conference guide 2011 / p. 360-364 [CD-ROM] https://www.researchgate.net/publication/252015928_Energy-efficient_high-voltage_switch_based_on_parallel_connection_of_IGBT_and_IGCT

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>

Envisioning the future renewable and resilient energy grids – a power grid revolution enabled by renewables, energy storage, and energy electronics

Peng, Fang Zheng; Liu, Chen-Ching; Li, Yuan; Jain, Akshay Kumar; **Vinnikov, Dmitri** IEEE journal of emerging and selected topics in industrial electronics 2024 / p. 8-26 <https://doi.org/10.1109/JESTIE.2023.3343291>

EV battery charging converters with wide output DC voltage range

Nadeem, Mohammad Mahad; Blinov, Andrei; Vinnikov, Dmitri 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/RTUCON60080.2023.10412960>

Evaluation of different high-voltage switch solutions for high-power converters used in rolling stock [Electronic resource]

Vinnikov, Dmitri; Laugis, Juhan; Jalakas, Tanel ISIE08 : 2008 IEEE International Symposium on Industrial Electronics : 30 June - 2 July 2008, Cambridge, United Kingdom 2008 / p. 214-219 : ill. [CD-ROM] <https://ieeexplore.ieee.org/document/4677124>

Evaluation of different loss calculation methods for high-voltage IGBT-s under small load conditions

Jalakas, Tanel; Vinnikov, Dmitri; Laugis, Juhan EPE-PEMC 2008 : 2008 13th International Power Electronics and Motion Control Conference : 1-3 September 2008, Poznan, Poland : abstracts 2008 / p. 50 <https://ieeexplore.ieee.org/document/4635442>

Evaluation of different loss calculation methods for high-voltage IGBT-s under small load conditions [Electronic resource]

Jalakas, Tanel; Vinnikov, Dmitri; Laugis, Juhan EPE-PEMC 2008 : 2008 13th International Power Electronics and Motion Control Conference : 1-3 September 2008, Poznan, Poland : proceedings 2008 / p. 1286-1290 : ill. [CD-ROM] <https://ieeexplore.ieee.org/document/4635442>

Evaluation of dual-active bridge converter for DC energy buildings

Carvalho da Silva, Edivan Laercio; Blinov, Andrei; Sidorova, Aleksandra; Chub, Andrii; Vinnikov, Dmitri 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 6 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227460>

Evaluative analysis of 2- and 3-level DC/DC converters for high-voltage high-power applications [Electronic resource]

Vinnikov, Dmitri; Egorov, Mikhail; Strzelecki, Ryszard 6th International Conference-Workshop Compatibility and Power Electronics : May 20-22, 2009 : CPE 2009 : conference proceedings 2009 / p. 432-437 [CD-ROM]

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 analysis of the dynamic performance of Si, GaAs and SiC diodes

Blinov, Andrei; Vinnikov, Dmitri; Rang, Toomas BEC 2012 : 2012 13th Biennial Baltic Electronics Conference : proceedings of the 13th Biennial Baltic Electronics Conference : October 3-5, 2012, Tallinn, Estonia 2012 / p. 49-52 : ill

Experimental analysis of wide input voltage range qZS-derived push-pull DC/DC converter for PMSG-based wind turbines
Blinov, Andrei; Vinnikov, Dmitri; Husev, Oleksandr; Chub, Andrii PCIM Europe 2013 : International Exhibition and Conference for Power Electronics, Intelligent Motion, Renewable Energy and Energy Management, Nuremberg, 14.-16. May 2013 : proceedings 2013 / p. 1435-1444 : 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 efficiency and thermal parameters evaluation in Full-SiC Quasi-Z-Source inverter
Pimentel, Sergio Pires; Husev, Oleksandr; Vinnikov, Dmitri; Pires Pimentel, Sergio; Prystupa, Anatoliy 2019 IEEE 60th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON), 7-9 October 2019 : conference proceedings 2019 / 6 p. : ill <https://doi.org/10.1109/RTUCON48111.2019.8982288>

Experimental performance validation of Z-source DC circuit breaker for high impedance faults
Pogulaguntla, Aditya; Naik Banavath, Satish; Chub, Andrii; Vinnikov, Dmitri; Singh, Rajendra 2024 IEEE Sixth International Conference on DC Microgrids (ICDCM) 2024 / 5 p <https://doi.org/10.1109/ICDCM60322.2024.10664702>

Experimental results of parallel active filter implementation in nonideal power grid
Husev, Oleksandr; Blinov, Andrei; Vinnikov, Dmitri Technological Innovation for Value Creation : third IFIP WG 5.5/SOCOLNET Doctoral Conference on Computing, Electrical and Industrial Systems, DoCEIS 2012, Costa de Caparica, Portugal, February 27-29, 2012 : proceedings 2012 / p. 291-298 : ill https://link.springer.com/chapter/10.1007/978-3-642-28255-3_32

Experimental study of high step-up quasi-Z-source DC-DC converter with synchronous rectification
Liivik, Liisa; Chub, Andrii; Vinnikov, Dmitri; Zakis, Janis 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. 409-414 : ill <http://dx.doi.org/10.1109/CPE.2015.7231110>

Experimental study of new integrated DC/DC converter for hydrogen-based energy storage
Vinnikov, Dmitri; Andrijanovič, Anna; Roasto, Indrek; Jalakas, Tanel 2011 10th International Conference on Environment and Electrical Engineering (EEEIC), 8-11 May 2011, Rome, Italy : conference proceedings 2011 / [4 p.] : ill
<https://ieeexplore.ieee.org/document/5874667>

Experimental study of shoot-through control methods for qZSI-based DC/DC converters [Electronic resource]
Roasto, Indrek; Vinnikov, Dmitri; Jalakas, Tanel; Zakis, Janis; Ott, Silver SPEEDAM 2010 : International Symposium on Power Electronics, Electrical Drives, Automation and Motion : Pisa, Italy, 14th-16th June, 2010 : proceedings 2010 / p. 29-34 : [CD-ROM]
<https://ieeexplore.ieee.org/document/5542046>

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

Experimental verification of DC/DC converter with full-bridge active rectifier
Blinov, Andrei; Ivakhno, Volodymyr; Zamaruev, Vladimir; Vinnikov, Dmitri; Husev, Oleksandr IECON 2012 : 38th Annual Conference of the IEEE Industrial Electronics Society : Industrial Electronics for Sustainable Development 2012 / p. 5179-5184 : ill
<https://ieeexplore.ieee.org/document/6389549>

Experimental verification of novel bi-directional qZSI based DC/DC converter for short term energy storage systems [Electronic resource]
Zakis, Janis; Vinnikov, Dmitri; Roasto, Indrek; Ribickis, Leonids International Conference on Renewable Energies and Power Quality (ICREPQ'11) : Las Palmas de Gran Canaria (Spain), 13th to 15th April 2011 2011 / [5] p. : ill. [CD-ROM]
<https://www.icrepq.com/icrepq%2711/550-zakis.pdf>

Extended boost quasi-Z-source inverters : possibilities and challenges
Vinnikov, Dmitri; Roasto, Indrek; Jalakas, Tanel; Ott, Silver Elektronika ir elektrotechnika = Electronics and electrical engineering 2011 / p. 51-56 : ill https://www.researchgate.net/publication/229042778_Extended_Boost_Quasi-Z-Source_Inverters_Possibilities_and_Challenges

Extended ZVS-On/ZCS-Off range for CF-DAB converter under DCM operation for residential energy storage systems
Carvalho da Silva, Edivan Laercio; Cardoso, Rafael; Felipe, Carla Aparecida; Stein, Carlos Marcelo De Oliveira; Bellinaso, Lucas Vizzotto; Michels, Leandro; Vinnikov, Dmitri IEEE Access 2023 / p. 119231-119243 <https://doi.org/10.1109/ACCESS.2023.3327219> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A family of bidirectional solid-state circuit breakers with increased safety in DC microgrids

Rahimpour, Saeed; Husev, Oleksandr; Vinnikov, Dmitri IEEE transactions on industrial electronics 2023 / p. 10919-10929
<https://doi.org/10.1109/TIE.2023.3337493>

Fault detection and protection system for the power converters with high-voltage IGBTs [Electronic resource]

Vinnikov, Dmitri; Roasto, Indrek; Lehtla, Tõnu ICECS 2008 : The 15th IEEE International Conference on Electronics, Circuits and Systems : August 31 - September 3, 2008, Malta 2008 / p. 922-925 : ill. [CD-ROM] <https://ieeexplore.ieee.org/document/4675005>

Fault diagnosis of output-side diode-bridge in isolated DC-DC series resonant converter

Bakeer, Abualkasim Ahmed Ali; Chub, Andrii; Vinnikov, Dmitri 2022 IEEE 7th International Energy Conference (ENERGYCON) 2022 <https://doi.org/10.1109/ENERGYCON53164.2022.9830339>

Fault management techniques to enhance the reliability of power electronic converters : an overview

Rahimpour, Saeed; Husev, Oleksandr; Vinnikov, Dmitri; Vosoughi Kurdkandi, Naser; Tarzamani, Hadi IEEE Access 2023 / p. 13432-13446 <https://doi.org/10.1109/ACCESS.2023.3242918> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Fault-tolerant approach for photovoltaic module-level power electronic applications

Vinnikov, Dmitri; Chub, Andrii; Korkh, Oleksandr; Malinowski, Mariusz 2020 IEEE 14th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) : proceedings 2020 / p. 438-444 : ill <https://doi.org/10.1109/CPE-POWERENG48600.2020.9161599>

Fault-tolerant bidirectional series resonant DC-DC converter with minimum number of components

Vinnikov, Dmitri; Chub, Andrii; Korkh, Oleksandr; Malinowski, Mariusz 2019 IEEE Energy Conversion Congress and Exposition, ECCE, 2019-09-29 - 2019-10-03, Baltimore, MD, USA 2019 / p. 1359-1363 <https://doi.org/10.1109/ECCE.2019.8912292>

Fault-tolerant galvanically isolated DC/DC converters with zero redundancy = Null-iiasusega veatolerantsed galvaanilise isolatsiooniga alalispingemuundurid

Bakeer, Abualkasim Ahmed Ali 2023 <https://doi.org/10.23658/taltech.18/2023> <https://digikogu.taltech.ee/et/Item/a9433801-e32e-4f98-af87-454e414646f4> https://www.ester.ee/record=b5558648*est

Fault-tolerant soft-switching current-fed DC-DC converter

Zinchenko, Denys; Kosenko, Roman; Blinov, Andrei; Vinnikov, Dmitri 2019 IEEE 2nd Ukraine Conference on Electrical and Computer Engineering : UKRCON-2019 : conference proceedings 2019 / p. 437-440 : ill <https://doi.org/10.1109/UKRCON.2019.8879973>

Feasibility study of 200 kW half-bridge and full-bridge DC/DC converters with 6.5 kV IGBTs

Vinnikov, Dmitri; Lehtla, Madis 19th International Symposium on Power Electronics, Electrical Drives, Automation and Motion : Speedam 2008 : Ischia (Italy), June 11th-13th, 2008 : conference proceedings 2008 / p. 1537-1541 : ill. [CD-ROM] <https://ieeexplore.ieee.org/document/4581238>

Feasibility study of flexible systems for reactive power compensation

Zakis, Janis; Vinnikov, Dmitri; Laugis, Juhan; Rankis, Ivars Технічна електродинаміка 2010 / 2, p. 16-21 : ill <https://ortus.rtu.lv/science/en/publications/11210>

Feasibility study of half- and full-bridge isolated DC/DC converters in high-voltage high-power applications

Vinnikov, Dmitri; Jalakas, Tanel; Egorov, Mikhail EPE-PEMC 2008 : 2008 13th International Power Electronics and Motion Control Conference : 1-3 September 2008, Poznan, Poland : abstracts 2008 / p. 49 <https://ieeexplore.ieee.org/document/4635441/similar#similar>

Feasibility study of half- and full-bridge isolated DC/DC converters in high-voltage high-power applications [Electronic resource]

Vinnikov, Dmitri; Jalakas, Tanel; Egorov, Mikhail EPE-PEMC 2008 : 2008 13th International Power Electronics and Motion Control Conference : 1-3 September 2008, Poznan, Poland : proceedings 2008 / p. 1271-1277 : ill. [CD-ROM] <https://ieeexplore.ieee.org/document/4635441/similar#similar>

Feasibility study of interleaving approach for Quasi-Z-Source inverter

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

Feasibility study of Si and SiC MOSFETs in high-gain DC/DC converter for renewable energy applications

Blinov, Andrei; Chub, Andrii; Vinnikov, Dmitri; Rang, Toomas Proceedings : IECON 2013 - 39th Annual Conference of the IEEE Industrial Electronics Society : Austria Center Vienna, Vienna, Austria, 10-14 November, 2013 2013 / p. 5975-5978 : ill <https://doi.org/10.1109/IECON.2013.6700115> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

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

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

Roncero-Clemente, Carlos; **Husev, Oleksandr; Matiushkin, Oleksandr**; Gutierrez-Escalona, Javier; Barrero-Gonzalez, Fermin; **Vinnikov, Dmitri**; Strzelecki, Ryszard IEEE journal of emerging and selected topics in power electronics 2024 / p. 1348-1358
<https://doi.org/10.1109/JESTPE.2023.3247960>

Feasibility study of universal power electronics interface operation in 350 V and 700 V residential DC microgrids

Sidorov, Vadim; Chub, Andrii; Vinnikov, Dmitri 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 7 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227441>

Feed drive of a lathe

Egorov, Mikhail; Vinnikov, Dmitri; Vodovozov, Valery 5th International Symposium "Topical Problems in the Field of Electrical and Power Engineering". Doctoral School of Energy and Geotechnology : Kuressaare, January 14-19, 2008 2008 / p. 163-169 : ill

Flexibility investigation of price-responsive batteries in the microgrids cluster

Ahmadihangar, Roya; Azizi, Elnaz; Subham, Sahoo; **Häring, Tobias; Rosin, Argo; Vinnikov, Dmitri**; Dragicevic, Tomislav; Blaabjerg, Frede Proceedings : 2020 IEEE 14th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) : Online - Setúbal, Portugal, 08 - 10 July, 2020 2020 / p. 456-461 : ill <https://doi.org/10.1109/CPE-POWERENG48600.2020.9161667>

Flexible models of electric motor drives

Vodovozov, Valery; Vinnikov, Dmitri Технічна електродинаміка 2008 / 3, с. 89-91

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
<https://doi.org/10.6113/JPE.2015.15.2.299> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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 http://www.ester.ee/record=b3050698*est

FPGA control of the neutral point clamped quasi-Z-source inverter

Stepenko, Serhii; Husev, Oleksandr; Vinnikov, Dmitri; Ivanets, Sergey BEC 2012 : 2012 13th Biennial Baltic Electronics Conference : proceedings of the 13th Biennial Baltic Electronics Conference : October 3-5, 2012, Tallinn, Estonia 2012 / p. 263-266 : ill

Front-end active rectifier for grid-connected PMSG based wind turbines

Husev, Oleksandr; Bisenieks, Lauris; Vinnikov, Dmitri Вісник Чернігівського державного технологічного університету. Серія "Технічні науки" = Journal of Chernigiv State Technological University 2011 / p. 132-138 : ill

Full soft-switching high step-up DC-DC converter for photovoltaic applications

Blinov, Andrei; Vinnikov, Dmitri; Ivakhno, Volodymyr 2014 16th European Conference on Power Electronics and Applications (EPE'14-ECCE Europe) : Lappeenranta, Finland, 26-28 August 2014. Vol. 4 2014 / p. 2951-2957 : ill

Full-bridge fault-tolerant isolated DC-DC converters : overview of technologies and application challenges

Bakeer, Abualkasim Ahmed Ali; Chub, Andrii; Vinnikov, Dmitri IEEE Power Electronics Magazine 2022 / p. 45-55
<https://doi.org/10.1109/MPEL.2022.3196565> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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 <https://doi.org/10.1109/TIE.2015.2455522> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Galvanically isolated quasi-Z-source DC-DC converters with combined energy transfer for renewable energy sources integration

Chub, Andrii; Vinnikov, Dmitri; Jalakas, Tanel 2015 IEEE International Conference on Industrial Technology (ICIT 2015) : Seville, Spain, 17-19 March 2015 2015 / p. 2896-2900 : ill <https://doi.org/10.1109/ICIT.2015.7125525> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Global MPPT for interleaved buck-boost DC-DC converter

Matiushkin, Oleksandr; Husev, Oleksandr; Fesenko, Artem; **Vinnikov, Dmitri** 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 / 7 p. : ill <https://doi.org/10.1109/RTUCON51174.2020.9316589>

Grid integration of DC buildings : standards, requirements and power converter topologies

Carvalho da Silva, Edivan Laercio; Blinov, Andrei; Chub, Andrii; Emiliani, Pietro; de Carne, Giovanni; **Vinnikov, Dmitri** IEEE open journal of power electronics 2022 / p. 798-823 <https://doi.org/10.1109/OJPEL.2022.3217741> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Grid reactive power compensation by using electric vehicles

Gallardo-Lozano, Javier; Romero-Cadaval, Enrique; Minambres-Marcos, Victor; **Vinnikov, Dmitri; Jalakas, Tanel; Hõimoja, Hardi** PQ2014 : the 9th International 2014 Electric Power Quality and Supply Reliability Conference (PQ) : June 11-13, 2014, Rakvere, Estonia : proceedings 2014 / p. 19-24 : 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 photovoltaic systems : an overview of recent research and emerging PV converter technology

Kouro, Samir; Leon, Jose I.; **Vinnikov, Dmitri;** Franquelo, Leopoldo G. IEEE industrial electronics magazine 2015 / p. 47-61 : ill <https://doi.org/10.1109/MIE.2014.2376976> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

Roncero-Clemente, Carlos; Romero-Cadaval, Enrique; **Husev, Oleksandr; Vinnikov, Dmitri;** Stepenko, Serhii Proceedings : IECON 2013 - 39th Annual Conference of the IEEE Industrial Electronics Society : Austria Center Vienna, Vienna, Austria, 10-14 November, 2013 2013 / p. 5979-5984 : ill <https://doi.org/10.1109/IECON.2013.6700116> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Grid-forming operation of energy-router based on model predictive control with improved dynamic performance

Najafzadeh, Mahdiyyeh; Strzelecka, Natalia; **Husev, Oleksandr; Roasto, Indrek;** Nassereddine, Kawsar; **Vinnikov, Dmitri;** Strzelecki, Ryszard Energies 2022 / 14 p. : ill <https://doi.org/10.3390/en15114010> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Half-bridge trans-Z-source inverter with high boost factor

Mashinchi Maheri, Hamed; Shokati Asl, Elias; Babaei, Ebrahim; Sabahi, Mehran; Vinnikov, Dmitri IECON 2021 – 47th Annual Conference of the IEEE Industrial Electronics Society 2021 / p. 1-6 : ill <https://doi.org/10.1109/IECON48115.2021.9589525> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

High gain DC-AC high-frequency link inverter with improved quasi-resonant modulation

Blinov, Andrei; Korkh, Oleksandr; Chub, Andrii; Vinnikov, Dmitri; Pefitsis, Dimosthenis; Norrga, Staffan; Galkin, Ilja IEEE transactions on industrial electronics 2022 / p. 1465-1476 : ill <https://doi.org/10.1109/TIE.2021.3060657> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A high step-up non-isolated dc-dc converter with low voltage stress across transistor

Pourjafar, Saeed; Hemmati Shahsavari, Tala; Hashemzadeh, Seyed Majid; **Husev, Oleksandr; Matiushkin, Oleksandr; Vinnikov, Dmitri** IEEE transactions on industrial electronics 2024 / p. 15755-15767 <https://doi.org/10.1109/TIE.2024.3383025>

High-efficiency partial power converter for integration of second-life battery energy storage systems in DC microgrids

Hassanpour, Naser; Chub, Andrii; Yadav, Neelesh; Blinov, Andrei; Vinnikov, Dmitri IEEE Open Journal of the Industrial Electronics Society 2024 / 15 p <https://doi.org/10.1109/OJIES.2024.3389466>

High-efficiency quad-mode parallel PV power optimizer for DC microgrids

Sidorov, Vadim; Chub, Andrii; Vinnikov, Dmitri IEEE transactions on industry applications 2023 / p. 1002-1012 <https://doi.org/10.1109/TIA.2022.3208879> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

High-efficiency single-stage onboard charger for electrical vehicles

Zinchenko, Denys; Blinov, Andrei; Chub, Andrii; Vinnikov, Dmitri; Verbytskyi, Ievgen; Bayhan, Sertac IEEE Transactions on Vehicular Technology 2021 / p. 12581-12592 : ill <https://doi.org/10.1109/TVT.2021.3118392> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

High-frequency split-bobbin transformer design with adjustable leakage inductance

Rahman, Showrov; Sidorov, Vadim; Chub, Andrii; Vinnikov, Dmitri 2021 IEEE 62nd International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON), 15-17 Nov. 2021 : conference proceedings 2021 / p. 1-5 : ill <https://doi.org/10.1109/RTUCON53541.2021.9711708>

High-performance buck-boost partial power quasi-Z-source series resonance converter

Abdelrahim Abdelghafour, Omar Mohamed; Chub, Andrii; Mashinchi Maheri, Hamed; Blinov, Andrei; Vinnikov, Dmitri IEEE

Access 2022 / p. 13017-130189 <https://doi.org/10.1109/ACCESS.2022.3225751> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

High-performance quasi-Z-source series resonant DC-DC converter for photovoltaic module-level power electronics applications

Vinnikov, Dmitri; Chub, Andrii; Liivik, Elizaveta; Roasto, Indrek IEEE transactions on power electronics 2017 / p. 3634-3650 : ill

<https://doi.org/10.1109/TPEL.2016.2591726> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

High-voltage auxiliary power supply with the simplified power circuit topology for the DC trains [Electronic resource]

Vinnikov, Dmitri; Laugis, Juhan Proceedings of the 9th International Conference "Electrical Power Quality and Utilisation" :

EPQU'2007 : Barcelona, Spain, October 9-11, 2007 2007 / [6] p. [CD-ROM] <https://ieeexplore.ieee.org/document/4424227>

High-voltage half-bridge IGBT inverter [Electronic resource]

Vinnikov, Dmitri; Laugis, Juhan Proceedings of 16th International Conference on Electrical Drives and Power Electronics

EDPE'2007 : The High Tatras (Slovakia), 24-26 September, 2007 2007 / [6] p. [CD-ROM]

High-voltage IGBT based converters for rolling stock : possibilities and challenges

Roasto, Indrek; Jalakas, Tanel; Vinnikov, Dmitri 2011 <https://www.amazon.com/HIGH-VOLTAGE-BASED-CONVERTERS-ROLLING-STOCK/dp/3843391211>

High-voltage switch realization possibilities for the 3.0 kV DC fed voltage converters

Vinnikov, Dmitri ELECO'2007 : 5th International Conference on Electrical and Electronics Engineering : 5-9 December 2007, Bursa, Turkey 2007 / ? p

Hybrid DC-DC converters with topology morphing control and post-fault operation capability

Vinnikov, Dmitri; Chub, Andrii; Korkh, Oleksandr; Blinov, Andrei; Liivik, Elizaveta Electrimacs 2019 : Selected Papers, Vol. 1

2020 / p. 433-445 https://doi.org/10.1007/978-3-030-37161-6_33 [Conference proceeding at Scopus](#) [Article at Scopus](#)

Hybrid IGBT-IGCT switch

Blinov, Andrei; Vinnikov, Dmitri; Ivakhno, Volodymyr; Zamaruev, Vladimir Przegląd elektrotechniczny = Electrical review 2012 / p.

12-15 : ill https://www.researchgate.net/publication/290550726_Hybrid_IGBT-IGCT_Switch

Hybrid IGBT-IGCT switch

Blinov, Andrei; Vinnikov, Dmitri 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. 161-164 : ill

Hybrid low-power Wind Generation and PV grid-connected system with HPC, PC and MPPT control

Rosa, Carlos; **Vinnikov, Dmitri;** Romero-Cadaval, Enrique; Pires, Vitor; Martins, Joao Proceedings : 2014 IEEE 23rd International Symposium on Industrial Electronics (ISIE) : Grand Cevahir Hotel and Convention Center, Istanbul, Turkey, 01-04 June, 2014 2014 / p. 2024-2029 : ill

A hybrid modulation approach for step-up/ down partial power converter with improved MPPT efficiency around zero partiality

Yadav, Neelesh; Chub, Andrii; Hassanpour, Naser; Blinov, Andrei; Vinnikov, Dmitri; Galkin, Ilya IEEE transactions on industry applications 2025 <https://doi.org/10.1109/TIA.2025.3525607>

Hybrid residual current device and solid state circuit breaker for residential DC microgrids

Jalakas, Tanel; Chub, Andrii; Roasto, Indrek; Vinnikov, Dmitri 2024 19th Biennial Baltic Electronics Conference (BEC) 2024 / 5

p <https://doi.org/10.1109/BEC61458.2024.10737970> [Article at Scopus](#) [Conference proceedings at Scopus](#) [Article at WOS](#)

A hydrogen technology as buffer for stabilization of wind power generation

Andrijanovičš, Anna; Egorov, Mikhail; Lehtla, Madis; Vinnikov, Dmitri 8th International Symposium "Topical Problems in the Field of Electrical and Power Engineering" : Doctoral School of Energy and Geotechnology. II : [Pärnu, January 11-16, 2010 :

proceedings] 2010 / p. 62-70 : ill https://www.ester.ee/record=b2549033*est

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 <https://doi.org/10.1002/cta.2106> [Journal metrics at Scopus](#) [Article at Scopus](#)

[Journal metrics at WOS](#) [Article at WOS](#)

IEEE Industrial Electronics Society students and young professionals just after the pandemic time [students and young professionals news]

Jasinski, Marek; Turzynski, Marek; Vinnikov, Dmitri; Chub, Andrii IEEE industrial electronics magazine 2022 / p. 89-100

<https://doi.org/10.1109/MIE.2022.3212247>

Impact of component losses on the voltage boost properties and efficiency of the QZS-converter family

Roasto, Indrek; Vinnikov, Dmitri COMPEL : The international journal for computation and mathematics in electrical and electronic engineering 2012 / p. 1945-1963 : ill <https://www.emerald.com/insight/content/doi/10.1108/03321641211267227/full/html>

Impact of component losses on the voltage boost properties and efficiency of the qZS-converter family [Electronic resource]

Vinnikov, Dmitri; Roasto, Indrek CPE 2011 : 7th International Conference-Workshop Compatibility and Power Electronics : June 1-3, 2011, Tallinn, Estonia : conference guide 2011 / p. 303-308 [CD-ROM]
https://www.researchgate.net/publication/241185271_Impact_of_component_losses_on_the_voltage_boost_properties_and_efficiency_of_the_QZS-converter_family

Impact of transformer turns ratio on the power losses and efficiency of the wide range isolated buck-boost converter for photovoltaic applications

Mashinchi Maheri, Hamed; Vinnikov, Dmitri; Chub, Andrii; Sidorov, Vadim; Liivik, Elizaveta Energies 2020 / art. 5645, 21 p
<https://doi.org/10.3390/en13215645> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Impedance-source DC solid-state circuit breakers : an overview

Rahimpour, Saeed; Husev, Oleksandr; Vinnikov, Dmitri 2022 International Symposium on Power Electronics, Electrical Drives, Automation and Motion (SPEEDAM) 2022 / p. 186-191 <https://doi.org/10.1109/SPEEDAM53979.2022.9842138>

Impedance-source galvanically isolated DC/DC converters : state of the art and future challenges

Liivik, Liisa; Chub, Andrii; Vinnikov, Dmitri 2014 55th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) : proceedings 2014 / p. 67-74 : ill

Impedance-source inverter-based high-power DC/DC converter for fuel cell applications

Egorov, Mikhail; Vinnikov, Dmitri; Strzelecki, Ryszard; Adamowicz, Marek 8 IEEE International Conference on Environment and Electrical Engineering : Karpacz, Poland, 10-13.May 2009 2009 / p. 57-60 : ill <http://eeeic.org/proc/papers/109.pdf>

Implementation issues of droop controlled DC nanogrids: State of charge management of battery energy storage and impact of sensor gain tolerance

Hasan, Sayeed; Chub, Andrii; Blinov, Andrei; Vinnikov, Dmitri 2024 IEEE 65th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) 2024 / 6 p <https://doi.org/10.1109/RTUCON62997.2024.10830832>

Implementation of burst control based on sigma-delta modulation in low-cost microcontroller

Sidorov, Vadim; Chub, Andrii; Vinnikov, Dmitri IEEE Workshop on Computers in Power Electronics 2022 / 6 p
<https://doi.org/10.1109/COMPEL53829.2022.9830023>

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> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Implementation of high-voltage IGBTs in power electronic converters for the rolling stock

Vinnikov, Dmitri; Laugis, Juhan; Frolov, S.; Matvejev, J. Технічна електродинаміка 2007 / 4, p. 109-114 : ill

Implementation possibilities of hybrid IGBT-IGCT switches in three-level NPC inverters

Blinov, Andrei; Vinnikov, Dmitri; Ivakhno, Volodymyr; Zamaruev, Vladimir COMPEL : the international journal for computation and mathematics in electrical and electronic engineering 2012 / p. 1917-1930 : ill <https://www.semanticscholar.org/paper/Implementation-possibilities-of-hybrid-IGBT%E2%80%90IGCT-in-Blinov-Vinnikov/c57ac29d7993543a1dcb4370fe7bf7a1fe44597c>

Implementation possibilities of SMD capacitors for high power applications

Zakis, Janis; Vinnikov, Dmitri Scientific Journal of Riga Technical University. Electrical, control and communication engineering 2012 / p. 18-23 : ill <https://intapi.sciendo.com/pdf/10.2478/v10314-012-0003-2>

Implementation possibilities of SMD capacitors for high power applications

Zakis, Janis; 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, Paper 31 of Subsection of Power Electronic Converters and Applications 2012 / 6 p. : ill <https://intapi.sciendo.com/pdf/10.2478/v10314-012-0003-2>

Implementation possibilities of SMD capacitors for high power applications

Zakis, Janis; 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. 128 : ill <https://intapi.sciendo.com/pdf/10.2478/v10314-012-0003-2>

Improved maximum power point tracking algorithm for step-up/down partial power converters operating around zero

partiality

Yadav, Neelesh; Hassanpour, Naser; Chub, Andrii; Blinov, Andrei; Vinnikov, Dmitri IEEE journal of emerging and selected topics in power electronics 2024 / p. 1984-1994 <https://doi.org/10.1109/JESTPE.2024.3354843>

Improved modulation method for full-bridge AC-DC HF-link converter

Blinov, Andrei; Korkh, Oleksandr; Chub, Andrii; Vinnikov, Dmitri 2020 IEEE International Conference on Industrial Technology, Buenos Aires Institute of Technology (ITBA) Buenos Aires, Argentina, 26-28 February, 2020 : proceedings 2020 / p. 1173-1177 : ill <https://doi.org/10.1109/ICIT45562.2020.9067128> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

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

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>

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

Pires Pimentel, Sergio; Husev, Oleksandr; Vinnikov, Dmitri; Roncero-Clemente, Carlos; 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.2018.8659840>

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](#)

Industrial and technological applications of power electronics systems

2021 <https://doi.org/10.3390/books978-3-0365-0823-8>

Influence of slot wedge material on permanent magnet losses in a traction motor with tooth coil windings

Lindh, Pia; Vaimann, Toomas; Kallaste, Ants; Pyrhönen, Juha; Vinnikov, Dmitri; Naumanen, Ville International journal of applied electromagnetics and mechanics 2013 / p. 227-236 : ill <https://doi.org/10.3233/JAE-131659> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Influence of specific requirements on the design of auxiliary power supply for a light rail vehicle

Vinnikov, Dmitri; Lehtla, Tõnu 2nd International Symposium "Topical Problems of Education in the Field of Electrical and Power Engineering" : Kuressaare, Estonia, January 17-22, 2005 2005 / p. 93-97 : ill

Influence of wedge material on losses of a traction motor with tooth-coil windings

Lindh, Pia; Pyrhönen, Juha; Ponomarev, P.; Vinnikov, Dmitri Proceedings IECON 2013 - 39th Annual Conference of the IEEE Industrial Electronics Society : Austria Center Vienna, Vienna, Austria, 10-14 November, 2013 2013 / p. 2941-2946 : ill <https://doi.org/10.1109/IECON.2013.6699598> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Input source identification algorithm For isolated buck-boost DC-DC converter

Sidorov, Vadim; Chub, Andrii; Vinnikov, Dmitri IEEE Workshop on Computers in Power Electronics 2022 / 6 p <https://doi.org/10.1109/COMPEL53829.2022.9829973>

Input voltage range extension methods in the series-resonant DC-DC converters

Chub, Andrii; Vinnikov, Dmitri; Lai, Jih-Sheng 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. 1493-1499 <http://toc.proceedings.com/52923webtoc.pdf>

Input-parallel output-series cascading possibilities of single-switch galvanically isolated quasi-Z-source DC-DC converters

Liivik, Elizaveta; Chub, Andrii; Vinnikov, Dmitri 2016 2nd International Conference on Intelligent Energy and Power Systems (IEPS) : Kyiv, Ukraine, June 7-11, 2016 : conference proceedings 2016 / [6] p. : ill <https://doi.org/10.1109/IEPS.2016.7521873>

Input-parallel output-series connection of isolated quasi-Z-source DC-DC converters

Chub, Andrii; Husev, Oleksandr; Vinnikov, Dmitri PQ2014 : the 9th International 2014 Electric Power Quality and Supply Reliability Conference (PQ) : June 11-13, 2014, Rakvere, Estonia : proceedings 2014 / p. 277-284 : ill

Interinstitutional activity in professional training in power electronics

Vodovozov, Valery; Vinnikov, Dmitri; Laugis, Juhan; Lehtla, Tõnu Технічна електродинаміка 2008 / 7, с. 58-61 : ил <https://ieeexplore.ieee.org/document/4581146>

Vodovozov, Valery; Vinnikov, Dmitri; Laugis, Juhan; Lehtla, Tõnu 19th International Symposium on Power Electronics, Electrical Drives, Automation and Motion : Speedam 2008 : Ischia (Italy), June 11th-13th, 2008 : conference proceedings 2008 / p. 492-495 : ill. [CD-ROM] <https://ieeexplore.ieee.org/document/4581146>

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>

Vinnikov, Dmitri; Bolgov, Viktor Przegląd elektrotechniczny = Electrical review 2009 / 10, p. 222-227 : ill
https://www.researchgate.net/publication/291967052_Interlock_Delay_Time_and_its_Influence_on_the_Operability_and_Efficiency_of_High-Power_DCDC_Converters

Jalakas, Tanel; Vinnikov, Dmitri; Lehtla, Tõnu; Bolgov, Viktor 6th International Conference-Workshop Compatibility and Power Electronics : May 20-22, 2009 : CPE 2009 : conference proceedings 2009 / p. 438-443 [CD-ROM]

Jalakas, Tanel; Vinnikov, Dmitri; Lehtla, Tõnu; Bolgov, Viktor 2009 Compatibility and Power Electronics CPE 2009 : 6th International Conference-Workshop 2009 / p. 438-443 : ill. [CD-ROM]

Vinnikov, Dmitri 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. 241-244 : ill

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>

Blinov, Andrei; Vinnikov, Dmitri; Romero-Cadaval, Enrique; Martins, João F.; Pefitis, Dimosthenis IEEE journal of emerging and selected topics in industrial electronics 2022 / p. 788-796 <https://doi.org/10.1109/JESTIE.2021.3126226>

Korkh, Oleksandr 2021 https://www.ester.ee/record=b5395693*est <https://digikogu.taltech.ee/et/Item/34baf9fc-42aa-45ce-b071-3b8886c7903e> <https://doi.org/10.23658/taltech.4/2021>

Arvamus, kultuur: [ajalehe Postimees lisa] 2022 / lk. 10 <https://dea.digar.ee/article/ak/2022/04/02/7.1> "Jõuelektroonika on võtmetehnoloogia energia- ja rohepöörde ülesannetes"

Vinnikov, Dmitri Sirp 2024 / lk. 30 : fot <https://www.sirp.ee/jouelektroonika-teeb-energiapoorde-voimalikuks-ja-elu-paremaks/>

Laugis, Juhan; Lehtla, Tõnu; Joller, Jüri; Rosin, Argo; Vinnikov, Dmitri; Lehtla, Madis 2008
http://www.eester.ee/record=b2394445*est

Juurak, Raivo; **Vinnikov, Dmitri; Lehtla, Madis** Õpetajate Leht 2010 / 5. märts, lk. 7 : fot https://artiklid.elnet.ee/record=b1962215*est

Roasto, Indrek; Vinnikov, Dmitri; Lehtla, Tõnu EPE-PEMC 2008 : 2008 13th International Power Electronics and Motion Control Conference : 1-3 September 2008, Poznan, Poland : abstracts 2008 / p. 77-78 <https://ieeexplore.ieee.org/document/4635561>

Roasto, Indrek; Vinnikov, Dmitri; Lehtla, Tõnu EPE-PEMC 2008 : 2008 13th International Power Electronics and Motion Control Conference : 1-3 September 2008, Poznan, Poland : proceedings 2008 / p. 2034-2037 : ill. [CD-ROM]
<https://ieeexplore.ieee.org/document/4635561>

Jalakas, Tanel; Vinnikov, Dmitri; Vodovozov, Valery 5th International Symposium "Topical Problems in the Field of Electrical and Power Engineering". Doctoral School of Energy and Geotechnology : Kuressaare, January 14-19, 2008 2008 / p. 149-154 : ill

Leveraging the machine learning techniques for demand-side flexibility - a comprehensive review

Shahid, Arqum; Ahmadihangar, Roya; Rosin, Argo; Blinov, Andrei; Korotko, Tarmo; Vinnikov, Dmitri Electric power systems research 2025 / art. 111185 <https://doi.org/10.1016/j.epsr.2024.111185>

Light load operation of 6,5 kV 200 A IGBTs in half-bridge configuration [Electronic resource]

Jalakas, Tanel; Vinnikov, Dmitri; Laugis, Juhan 19th International Symposium on Power Electronics, Electrical Drives, Automation and Motion : Speedam 2008 : Ischia (Italy), June 11th-13th, 2008 : conference proceedings 2008 / p. 1373-1378 : ill. [CD-ROM] https://www.researchgate.net/publication/4357162_Light_Load_Operation_of_65_kV_200_A_IGBTs_in_Half-Bridge_Configuration

Light-load efficiency improvement of galvanically isolated quasi-Z-source DC-DC converter for photovoltaic applications

Mashinchi Maheri, Hamed; Chub, Andrii; Vinnikov, Dmitri 2020 IEEE 21st Workshop on Control and Modeling for Power Electronics (COMPEL), Aalborg, Denmark, November 9-12, 2020 2020 / 6 p <https://doi.org/10.1109/COMPEL49091.2020.9265800>

Load leveling and loss minimization in tram systems - possibilities and challenges

Vinnikov, Dmitri; Hõimoja, Hardi; Rosin, Argo; Egorov, Mikhail Технічна електродинаміка 2009 / Тематический выпуск: Силова електроніка та енергоефективність. 1, с. 83-88 : ill

Loss calculation methods of half-bridge square-wave inverters

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

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/2011SJURP..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>

Low-power home PV systems with MPPT and PC control modes [Electronic resource]

Rosa, Carlos; Vinnikov, Dmitri; Romero-Cadaval, Enrique; Pires, Vitor; Martins, Joao CPE 2013 : 2013 International Conference on Compatibility and Power Electronics (CPE) : June 5-7, 2013, Ljubljana, Slovenia : conference proceedings 2013 / p. 58-62 : ill [CD-ROM]

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

Rosa, Carlos; Vinnikov, Dmitri; Romero-Cadaval, Enrique; Pires, Vitor; 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. 5991-5996 : ill <https://doi.org/10.1109/IECON.2013.6700118> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Madis Lehtla - uus tehnikateaduste doktor

Vinnikov, Dmitri Elektriala 2006 / lk. 17

Magnetically integrated high step-up resonant DC-DC converter for distributed photovoltaic systems

Vinnikov, Dmitri; Chub, Andrii; Liivik, Elizaveta; Blaabjerg, Frede 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. 7691-7697 : ill <https://doi.org/10.1109/IECON.2017.8217348>

Magnetically integrated multiport converter for energy management in DC-powered buildings

Carvalho da Silva, Edivan Laercio; Chub, Andrii; Blinov, Andrei; Banavath, Satish Naik; Vinnikov, Dmitri Eletrônica de Potência 2024 / art. 202445 <https://doi.org/10.18618/REP.e202445%20%20>

Mathematical models of cascaded quasi-impedance source converter

Vinnikov, Dmitri; Roasto, Indrek; Zakis, Janis Технічна електродинаміка 2010 / 1, p. 59-64 : ill <https://ortus.rtu.lv/science/lv/publications/11212>

Maximizing energy harvest of the impedance source PV Microconverter under partial shading conditions

Vinnikov, Dmitri; Chub, Andrii; Liivik, Elizaveta; Blaabjerg, Frede; Kouro, Samir CPE-POWERENG 2018 : Conference program : 12th IEEE International Conference on Compatibility, Power Electronics and Power Engineering, 10-12 April, 2018, Doha, Qatar 2018 / 7 p.: ill <https://indd.adobe.com/view/bdbda104-4e24-4d7b-88b1-f84ccfd20748> <https://doi.org/10.1109/CPE.2018.8372556>

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>

Maximum power point tracking algorithm for step-up/down partial power converters with improved performance around zero partiality

Yadav, Neelesh; Chub, Andrii; Hassanpour, Naser; Blinov, Andrei; Vinnikov, Dmitri 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 6 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227506>

Method for improvement of electromagnetic rail brake performance for light rail vehicles

Hõimoja, Hardi; Laugis, Juhan; Vinnikov, Dmitri Intelligent Technologies in Logistics and Mechatronics Systems : ITELMS'2009 : proceedings of the 4th International Conference : June 04-05, 2009, Panevėžys, Lithuania 2009 / p. 7-12 : ill

Middle-frequency isolation transformer design issues for the high-voltage DC/DC converter

Vinnikov, Dmitri; Laugis, Juhan; Galkin, Ilja Proceedings of 2008 IEEE 39th Annual Power Electronics Specialists Conference : PESC 2008 : Rhodes, Greece, 15-19 June 2008 2008 / p. 1930-1936 <https://ieeexplore.ieee.org/document/4592226>

Middle-frequency isolation transformer design issues for the high-voltage DC/DC converter

Vinnikov, Dmitri; Laugis, Juhan; Galkin, Ilja PESC 08 : 39th IEEE Annual Power Electronics Specialists Conference : Rhodes, Greece, 15-19 June 2008 : book of one page paper summaries 2008 / p. 304 : ill <https://ieeexplore.ieee.org/document/4592226>

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 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 Electrical and Computer Engineering : UKRCON-2019 : conference proceedings 2019 / p. 431-436 : ill <https://doi.org/10.1109/UKRCON.2019.8879870>

Model predictive control of a single-stage flying inductor based buck-boost grid-connected common-ground inverter

Rahimpour, Saeed; Matiushkin, Oleksandr; Kurdkandi, Naser Vosoughi; Najafzadeh, Mahdiyyeh; Husev, Oleksandr; Vinnikov, Dmitri 2021 IEEE 62nd International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) 2021 / p. 1-6 <https://doi.org/10.1109/RTUCON53541.2021.9711711>

Model-based diagnosis of power converters

Vodovozov, Valery; Raud, Zoja; Vinnikov, Dmitri Технічна електродинаміка 2009 / Тематический выпуск: Силова електроніка та енергоефективність. 2, с. 38-43

Modeling, analysis, and implementations of charging systems for vehicle electrification

Vinnikov, Dmitri; Blinov, Andrei; Rathore, Akshay Kumar Vehicle electrification in modern power grids : Disruptive perspectives on power electronics technologies and control challenges 2024 / p. 75-99 <https://doi.org/10.1016/B978-0-443-13969-7.00004-7>

Modernisation of trams in Estonia

Laugis, Juhan; Lehtla, Tõnu; Pettai, Elmo; Joller, Jüri; Rosin, Argo; Lehtla, Madis; Vinnikov, Dmitri The 6-th International Conference on Unconventional Electromechanical and Electrical Systems : UEES'04. Vol. 2 of 3 2004 / p. 561-564

Modernization of electrical transport systems in Estonia

Laugis, Juhan; Lehtla, Tõnu; Joller, Jüri; Boiko, Vitali; Vinnikov, Dmitri; Lehtla, Madis 10th International Power Electronics and Motion Control Conference : EPE-PEMC 2002, Cavtat & Dubrovnik : 9-11 September 2002, Cavtat & Dubrovnik, Croatia 2002

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 Q-Z-Source DC Circuit Breaker for Next-Generation Electric Aircrafts

Aditya, P.; Venkata Raghavendra, I.; Banavath, Satish Naik; **Chub, Andrii; Song, Xiaoping; Vinnikov, Dmitri; Wang, Fred** 2023 IEEE Applied Power Electronics Conference and Exposition (APEC) 2023 / p. 1049-1056 <https://doi.org/10.1109/APEC43580.2023.10131532> [Conference proceedings at Scopus](#) [Article at Scopus](#) [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

Modular MV naturally balanced converter with high-frequency isolation and no DC-Link capacitor for EV fast charging
Blinov, Andrei; Chub, Andrii; Guler, Naki; Bayhan, Sertac; Parsa, Leila; **Vinnikov, Dmitri** IEEE Transactions on Transportation Electrification 2024 / 9 p <https://doi.org/10.1109/TTE.2024.3399329>

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](#)

MPPT performance enhancement of low-cost PV microconverters
Vinnikov, Dmitri; Chub, Andrii; Korkh, Oleksandr; Liivik, Elizaveta; Blaabjerg, Frede; Kouro, Samir Solar energy 2019 / p. 156-166 : ill <https://doi.org/10.1016/j.solener.2019.05.024> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Multicell-type current regulator based on Cuk converter for resistance welding
Verbytskyi, Ievgen; Bondarenko, Oleksandr; **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 / [6] p. : ill <https://doi.org/10.1109/RTUCON.2017.8124844>

Multi-mode quasi-Z-source series resonant DC/DC converter for wide input voltage range applications
Vinnikov, Dmitri; Chub, Andrii; Roasto, Indrek; Liivik, Liisa Applied Power Electronics Conference and Exposition : APEC 2016 : Long Beach Convention & Entertainment Center, March 20-24, 2016 2016 / p. 2533-2539 : ill <https://doi.org/10.1109/APEC.2016.7468221> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Multiphase galvanically isolated impedance-source DC-DC converter for residential renewable energy applications
Vinnikov, Dmitri; Chub, Andrii; Liivik, Elizaveta 2017 IEEE International Symposium on Industrial Electronics (ISIE) : Edinburgh International Conference Centre, Edinburgh, Scotland, United Kingdom, 19-21 June, 2017 : proceedings 2017 / p. 1775-1780 : ill <https://doi.org/10.1109/ISIE.2017.8001517>

Multiphase quasi-z-source DC-DC converters for residential distributed generation systems
Chub, Andrii; Vinnikov, Dmitri; Liivik, Elizaveta; Jalakas, Tanel IEEE transactions on industrial electronics 2018 / p. 8361-8371 : ill <https://doi.org/10.1109/TIE.2018.2801860> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Multiport converter with integrated energy storage for hydrogen buffer interfacing with renewable energy systems [Electronic resource]
Andrijanovitš, Anna; Blinov, Andrei; Husev, Oleksandr; Vinnikov, Dmitri 2012 IEEE International Conference on Industrial Technology : proceedings CD 2012 / p. 235-240 : ill [CD-ROM] <https://ieeexplore.ieee.org/document/6209943>

Multiport DC/DC converters for interfacing of hydrogen buffer with wind turbine
Andrijanovitš, Anna; Vinnikov, Dmitri 9th International Symposium "Topical problems in the field of electrical and power engineering". Doctoral school of energy and geotechnology. II : Pärnu, Estonia, June 14-19, 2010 2010 / p. 95-99 : ill

Multi-port i-AFE converter for grid-interactive buildings: design requirements and efficiency evaluation
Carvalho da Silva, Edivan Laercio; Blinov, Andrei; Chub, Andrii; Galkin, Ilya; Vinnikov, Dmitri 2023 IEEE 8th Southern Power Electronics Conference and 17th Brazilian Power Electronics Conference (SPEC/COBEP) 2023 / 5 p <https://doi.org/10.1109/SPEC56436.2023.10408230>

Neuro-fuzzy control system for active filter with load adaptation [Electronic resource]
Husev, Oleksandr; Ivanets, Sergey; **Vinnikov, Dmitri** CPE 2011 : 7th International Conference-Workshop Compatibility and Power Electronics : June 1-3, 2011, Tallinn, Estonia : conference guide 2011 / p. 28-33 [CD-ROM] <https://ieeexplore.ieee.org/document/5942202>

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/547db91f89adecec7c854cc3e4b811934890b7a6>

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

Three-level neutral-point-clamped quasi-Z-source inverter with maximum power point tracking for photovoltaic systems
Roncero-Clemente, Carlos; Stepenko, Serhii; **Husev, Oleksandr;** Minambres-Marcos, Víctor; Romero-Cadaval, Enrique; **Vinnikov, Dmitri** Technological innovation for the Internet of things : 4th IFIP WG 5.5/SOCOLNET Doctoral Conference on Computing, Electrical

and Industrial Systems : DoCEIS 2013 : Costa de Caparica, Portugal, April 15-17, 2013 : proceedings 2013 / p. 334-342
https://doi.org/10.1007/978-3-642-37291-9_36 https://link.springer.com/chapter/10.1007/978-3-642-37291-9_36 [Article collection metrics at Scopus](#) [Article at Scopus](#)

New active clamp circuit for current-fed galvanically isolated DC/DC converters [Electronic resource]

Zakis, Janis; Vinnikov, Dmitri; Kolosov, Valery; Vasechko, Evgen CPE 2013 : 2013 International Conference on Compatibility and Power Electronics (CPE) : June 5-7, 2013, Ljubljana, Slovenia : conference proceedings 2013 / p. 353-358 : ill [CD-ROM]

New bi-directional DC/DC converter for supercapacitor interfacing in high-power applications

Vinnikov, Dmitri; Roasto, Indrek; Zakis, Janis EPE-PEMC 2010 : 14th International Power Electronics and Motion Control Conference : 6-8 September 2010, Ohrid, Republic of Macedonia 2010 / p. T11-38 - T11-43 : ill
https://www.researchgate.net/publication/224184374_New_bi-directional_DCDC_converter_for_supercapacitor_interfacing_in_high-power_applications

New bidirectional multiport DC/DC converter for interfacing of hydrogen buffer with wind turbines

Andrijanovič, Anna; Vinnikov, Dmitri 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. 85-90 : ill

New converter for interfacing PMSG based small-scale wind turbine with residential power network [Electronic resource]

Bisenieks, Lauris; Vinnikov, Dmitri; Galkin, Ilja CPE 2011 : 7th International Conference-Workshop Compatibility and Power Electronics : June 1-3, 2011, Tallinn, Estonia : conference guide 2011 / p. 354-359 [CD-ROM]
<https://ieeexplore.ieee.org/abstract/document/5942260>

New converter topologies for integration of hydrogen based long-term energy storages to renewable energy systems = Uued muundurite topoloogiad vesinikul põhinevate energiasalvestite integreerimiseks taastuenergiastüsteemidesse

Andrijanovič, Anna 2013 http://www.ester.ee/record=b2946972*est

A new coupled-inductor-based buck/boost DC/DC converter with soft switching for DC microgrid applications

Maheri, Hamed Mashinchi; Heris, Pedram Chavoshpour; Saadatizadeh, Zahra; Babaei, Ebrahim; Vinnikov, Dmitri IEEE 15th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2021 / p. 1-6
<https://doi.org/10.1109/CPE-POWERENG50821.2021.9501195>

A new flying capacitor-based buck-boost converter for dual-purpose applications

Hemmati Shahsavari, Tala; Vosoughi Kurdkandi, Naser; Husev, Oleksandr; Babaei, Ebrahim; Sabahi, Mehran; Khoshkbar-Sadigh, Arash; Vinnikov, Dmitri IEEE journal of emerging and selected topics in industrial electronics 2023 / p. 447-459
<https://doi.org/10.1109/JESTIE.2023.3238322>

New fuel cell power conditioning system for supplying dedicated loads

Vinnikov, Dmitri; Roasto, Indrek; Jalakas, Tanel; Lehtla, Tõnu; Laugis, Juhan 2010 9th International Conference on Environment and Electrical Engineering : Prague, Czech Republic, 16-19 May 2010 2010 / p. 341-344 : ill
<https://ieeexplore.ieee.org/document/5489939>

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

Marangalu, Milad Ghavipanjeh; Mashinchi 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>

A new high step-up switched-capacitor/inductor based DC-DC converter

Mashinchi Maheri, Hamed; Saadatizadeh, Zahra; Chavoshpour Heris, Pedram; Babaei, Ebrahim; Vinnikov, Dmitri IEEE 62nd International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON), 15-17 Nov. 2021 : conference proceedings 2021 / p. 1-5 <https://doi.org/10.1109/RTUCON53541.2021.9711590>

New high-gain non-inverting buck-boost converter

Abdelrahim Abdelghafour, Omar Mohamed; Chub, Andrii; Blinov, Andrei; Vinnikov, Dmitri IECON 2021 – 47th Annual Conference of the IEEE Industrial Electronics Society 2021 / p. 1-6 : ill <https://doi.org/10.1109/IECON48115.2021.9590003> [Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

New high-gain step-up DC/DC converter for a fuel cell interfacing in hydrogen buffer

Vinnikov, Dmitri; Husev, Oleksandr; Andrijanovič, Anna; Roasto, Indrek Технічна електродинаміка 2011 / p. 93-100 : ill

New high-gain step-up DC/DC converter with high-frequency isolation

Vinnikov, Dmitri; Zakis, Janis; Husev, Oleksandr; Strzelecki, Ryszard 2012 Twenty-Seventh Annual IEEE Applied Power Electronics Conference and Exposition (APEC), Orlando (FL), USA, 5-9 Feb. 2012 2012 / p. 1204-1209 : ill
<https://ieeexplore.ieee.org/document/6165972>

A new high-power DC/DC converter for residential fuel cell power systems [Electronic resource]

Vinnikov, Dmitri; Jalakas, Tanel; Roasto, Indrek 11th Spanish Portuguese Conference on Electrical Engineering (11CHLIE) : 1-4

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 <https://doi.org/10.1109/APEC.2014.6803544> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

New integrated converter for hydrogen buffer interfacing in distributed energy systems [Electronic resource]

Vinnikov, Dmitri; Andrijanovič, Anna; Roasto, Indrek; Lehtla, Tõnu International Conference on Renewable Energies and Power Quality (ICREPQ'11) : Las Palmas de Gran Canaria (Spain), 13th to 15th April 2011 2011 / [6] p. : ill. [CD-ROM] https://www.researchgate.net/publication/316913371_New_integrated_converter_for_hydrogen_buffer_interfacing_in_distributed_energy_systems

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>

New isolated converter for interfacing PMSG based wind turbine with distribution network

Bisenieks, Lauris; Vinnikov, Dmitri; Galkin, Ilja 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. 100-107 : ill

New isolated interface converter for grid-connected PMSG based wind turbines

Bisenieks, Lauris; Vinnikov, Dmitri; Galkin, Ilja 2011 10th International Conference on Environment and Electrical Engineering (EEEIC), 8-11 May 2011, Rome, Italy : conference proceedings 2011 / p. 869-872 : ill <https://www.semanticscholar.org/paper/New-isolated-interface-converter-for-grid-connected-Bisenieks-Vinnikov/cac34f4cd26e3b2bb3306ab7c542bf6fc75dd48b>

New isolated interface converter for PMSG based variable speed wind turbines

Vinnikov, Dmitri; Bisenieks, Lauris; Galkin, Ilja Przegląd elektrotechniczny = Electrical review 2012 / p. 75-80 : ill https://alephfiles.rtu.lv/TUA01/000042552_e.pdf

A new master-slave based centralized control method for an AC microgrid with multiple distributed energy resources

Habibnia, Saba; Mahdavi, Mohammad Saeed; Gharehpetian, Gevork B.; Ahmadihangar, Roya; Rosin, Argo; Vinnikov, Dmitri IEEE 13th International Symposium on Power Electronics for Distributed Generation Systems (PEDG) 2022 / 6 p. <https://doi.org/10.1109/PEDG54999.2022.9923216>

New Method for Stabilization of Wind Power Generation Using Energy Storage Technology

Andrijanovič, Anna; Egorov, Mikhail; Lehtla, Tõnu; Vinnikov, Dmitri Agronomy research 2010 / S1, p. 12-24 : ill

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

New shoot-through control methods for qZSI-based DC/DC converters

Roasto, Indrek; Vinnikov, Dmitri; Zakis, Janis; Husev, Oleksandr IEEE transactions on industrial informatics 2013 / p. 640-647 : ill <https://doi.org/10.1109/TII.2012.2224353> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A New Single Source Five-Level Common Ground Switched Capacitor based Inverter

Hemmati Shahsavari, Tala; Husev, Oleksandr; Babaei, Ebrahim; Sabahi, Mehran; **Vinnikov, Dmitri;** Khoshkbar-Sadigh, Arash 2022 IEEE 7th International Energy Conference (ENERGYCON) 2022 <https://doi.org/10.1109/ENERGYCON53164.2022.9830422>

A new single-phase flying inductor-based common grounded converter for dual-purpose application

Husev, Oleksandr; Vosoughi Kurdkandi, Naser; Marangalu, Milad Ghavipanjeh; **Vinnikov, Dmitri;** Hosseini, Seyed Hossein IEEE transactions on industrial electronics 2023 / p. 7913-7923 <https://doi.org/10.1109/TIE.2022.3215832> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

New step-up DC/DC converter for fuel cell powered distributed generation systems: some design guidelines

Vinnikov, Dmitri; Strzelecki, Ryszard; Zakis, Janis; **Roasto, Indrek** Przegląd elektrotechniczny 2010 / 8, p. 245-252 <https://www.semanticscholar.org/paper/New-Step-Up-DC-DC-Converter-for-Fuel-Cell-Powered-Vinnikov-Roasto/00d1f7e78e0fe0d6e2a114c0515e6eb5eb196f4e>

New step-up DC/DC converter with high-frequency isolation

Vinnikov, Dmitri; Roasto, Indrek; Jalakas, Tanel IECON 2009 : 35th Annual Conference of the IEEE Industrial Electronics Society : Porto, Portugal, 3-5 November 2009 : preprint proceedings 2009 / p. 667-672 : ill <https://ieeexplore.ieee.org/document/5415000>

New step-up DC/DC converter with high-frequency isolation

Vinnikov, Dmitri; Roasto, Indrek; Jalakas, Tanel IECON 2009 : 35th Annual Conference of the IEEE Industrial Electronics Society. ICELIE 2009 : 3rd IEEE International Conference on E-learning in Industrial Electronics : Porto, Portugal, 3-5 November 2009 : abstracts 2009 / p. 280 <https://ieeexplore.ieee.org/document/5415000>

New voltage mode control method for the quasi-Z-source-based isolated DC/DC converters [Electronic resource]

Roasto, Indrek; Vinnikov, Dmitri 2012 IEEE International Conference on Industrial Technology : proceedings CD 2012 / p. 655-660 : ill [CD-ROM] <https://ieeexplore.ieee.org/document/6210011>

Non-shoot-through mode behavior of DC/DC converters with a quasi Z source inverter

Jalakas, Tanel; Roasto, Indrek; Vinnikov, Dmitri 15th International Power Electronics and Motion Control Conference, EPE-PEMC 2012 ECCE Europe, Novi Sad, Serbia 2012 / 4 p. : ill <https://ieeexplore.ieee.org/document/6397204>

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

Husev, Oleksandr; Matiushkin, Oleksandr; Vinnikov, Dmitri; Roncero-Clemente, Carlos; Kouro, Samir IEEE transactions on industrial electronics 2022 / p. 4329-4341 : ill <https://doi.org/10.1109/TIE.2021.3086436> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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 droop control strategy for indirect battery management in DC nanogrids

Roasto, Indrek; Vinnikov, Dmitri; Blinov, Andrei Proceedings of the Estonian Academy of Sciences 2024 / p. 345-355 <https://doi.org/10.3176/proc.2024.4.03>

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>

A novel extendable high gain step up DC-DC converter

Mashinchhi Maheri, Hamed; Salehi Vala, Sama; Basit Mirza, Abdul; Babaei, Ebrahim; Vinnikov, Dmitri 2021 IEEE 62nd International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUON): conference proceedings 2021 / p. 1-6 <https://doi.org/10.1109/RTUON53541.2021.9711745>

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 quasi-Z-source DC/DC converters derived from current-fed push-pull converters

Chub, Andrii; Husev, Oleksandr; Vinnikov, Dmitri; Blaabjerg, Frede 2014 16th European Conference on Power Electronics and Applications (EPE'14-ECCE Europe) : Lappeenranta, Finland, 26-28 August 2014. Vol. 4 2014 / p. 3175-3184 : ill

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> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

Husev, Oleksandr; Matiushkin, Oleksandr; Roncero-Clemente, Carlos; Blaabjerg, Frede; Vinnikov, Dmitri IEEE transactions on power electronics 2019 / p. 7662-7676 : ill <https://doi.org/10.1109/TPEL.2018.2879776> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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](#)

A novel high-voltage half-bridge converter with phase-shifted active rectifier [Electronic resource]

Blinov, Andrei; Ivakhno, Volodymyr; Zamaruev, Vladimir; **Vinnikov, Dmitri; Husev, Oleksandr** 2012 IEEE International Conference on Industrial Technology : proceedings CD 2012 / p. 967-970 : ill [CD-ROM] <https://ieeexplore.ieee.org/document/6210062>

A novel hysteresis power point optimizer for distributed solar power generation

Veligorskiy, Oleksandr; **Husev, Oleksandr; Kosenko, Roman; Vinnikov, Dmitri** Scientific Journal of Riga Technical University. Electrical, control and communication engineering 2018 / p. 12-22 : ill <https://doi.org/10.2478/ecce-2018-0002>

A novel isolated Buck-Boost DC-DC converter with wide range of voltage regulations

Afshari, Hossein; Husev, Oleksandr; Vinnikov, Dmitri 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 6 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227443>

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

Pourjafar, Saeed; Mohseni, Parham; Matiushkin, Oleksandr; Husev, Oleksandr; Vinnikov, Dmitri 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/RTUCON60080.2023.10413102>

Novel isolated power conditioning unit for micro wind turbine applications

Chub, Andrii; Husev, Oleksandr; Blinov, Andrei; Vinnikov, Dmitri IEEE transactions on industrial electronics 2017 / p. 5984-5993 : ill <https://doi.org/10.1109/TIE.2016.2645890> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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 / p. 431-436 : ill <https://doi.org/10.1109/CPE.2018.8372557>

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

Kurdkandi, Naser Vosoughi; **Husev, Oleksandr; Matiushkin, Oleksandr; Vinnikov, Dmitri;** Gao, Wei; Chunting, Chris Mi IEEE transactions on power electronics 2024 / p. 16201-16216 <https://doi.org/10.1109/TPEL.2024.3444769>

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](#)

Novel universal power electronic interface for integration of pv modules and battery energy storages in residential DC microgrids

Sidorov, Vadim; Chub, Andrii; Vinnikov, Dmitri; Lindvest, Andre IEEE Access 2023 / p. 30845-30858 <https://doi.org/10.1109/ACCESS.2023.3260640> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Operation and design of series-resonant current-source full-bridge dc-dc converter

Verbytskyi, Ievgen; **Blinov, Andrei; Vinnikov, Dmitri;** Pefitsis, Dimosthenis IECON 2021 – 47th Annual Conference of the IEEE Industrial Electronics Society 2021 / 6 p <https://doi.org/10.1109/IECON48115.2021.9589548> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Operation of the step-up/down bidirectional partial power converter near zero series voltage

Hassanpour, Naser; Chub, Andrii; Blinov, Andrei; 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-POWERENG58103.2023.10227425>

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 / p. 467-472 : ill <https://doi.org/10.1109/CPE-POWERENG48600.2020.9161683>

Optimal tuning of resonant and repetitive based controller for single-phase buck-boost inverter with unfolding circuit

Husev, Oleksandr; Belikov, Juri; Matiushkin, Oleksandr; Vinnikov, Dmitri; Ahmadiyahangar, Roya; Vosoughi Kurdkandi, Naser IEEE journal of emerging and selected topics in industrial electronics 2022 / p. 954-965 <https://doi.org/10.1109/JESTIE.2021.3121190>

Optimization and Design of Planar Transformer for the High Frequency Link Converter

Korkh, Oleksandr; Blinov, Andrei; Vinnikov, Dmitri; Shevchenko, Viktor 2020 IEEE 11th International Symposium on Power Electronics for Distributed Generation Systems (PEDG), 28 Sept.-1 Oct. 2020, Dubrovnik, Croatia 2020 / p. 615-620

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](#)

Optimized energy scheduling of residential DC building: Case of Nordic climate

Sidorova, Aleksandra; **Blinov, Andrei**; **Ahmadihangar, Roya**; **Vinnikov, Dmitri**; **Võsa, Karl-Villem**; **Kurnitski, Jarek** 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 7 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227437>

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 filter for the high-voltage DC/DC converter

Müür, Margus; **Vinnikov, Dmitri** 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. 118-121 : ill

Output rectifier for the high-voltage high-frequency isolated DC/DC converter

Jalakas, Tanel; **Vinnikov, Dmitri**; **Laugis, Juhan** Scientific proceedings of Riga Technical University. Serija 4, Power and electrical engineering 2007 / p. 84-95 : ill

Output rectifier for the high-voltage high-frequency isolated DC/DC converter

Roasto, Indrek; **Vinnikov, Dmitri**; Klytta, Marius Scientific proceedings of Riga Technical University. Serija 4, Power and electrical engineering 2007 / p. 75-83 : ill

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

Roncero-Clemente, Carlos; **Husev, Oleksandr**; **Stepenko, Serhii**; Romero-Cadaval, Enrique; **Vinnikov, Dmitri** Przegląd elektrotechniczny = Electrical review 2013 / p. 76-80 : ill <http://pe.org.pl/articles/2013/5/16.pdf> [Journal metrics at Scopus](#) [Article at Scopus](#)

Overcoming EMI problems in the high-power high-frequency DC/DC converters - a case study

Vinnikov, Dmitri; **Laugis, Juhan** Технічна електродинаміка 2006 / 5, p. 33-37 : ill

An overview and comprehensive comparative evaluation of constant-frequency voltage buck control methods for series resonant DC–DC converters

Sidorov, Vadim; **Chub, Andrii**; **Vinnikov, Dmitri**; **Bakeer, Abualkasim Ahmed Ali** IEEE Open Journal of the Industrial Electronics Society 2021 / p. 65 - 79 <https://doi.org/10.1109/OJIES.2020.3048003> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

An overview of lifetime management of power electronic converters

Rahimpour, Saeed; **Tarzamni, Hadi**; **Vosoughi Kurdkandi, Naser**; **Husev, Oleksandr**; **Vinnikov, Dmitri**; Tahami, Farzad IEEE Access 2022 / p. 109688-109711 <https://doi.org/10.1109/ACCESS.2022.3214320> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Overview of single-stage isolated AC-DC topologies for interfacing DC and AC grids

Carvalho da Silva, Edivan Laercio; **Blinov, Andrei**; **Chub, Andrii**; **Vinnikov, Dmitri** IEEE 13th International Symposium on Power Electronics for Distributed Generation Systems (PEDG) 2022 / 6 p. <https://doi.org/10.1109/PEDG54999.2022.9923249>

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](#)

An overview of wide-voltage range isolated DC-DC converters

Khan, Salman; **Chub, Andrii**; **Vinnikov, Dmitri** 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/RTUCON60080.2023.10413144>

Overvoltages in an inverter-fed AC motor system with long cable

Vinnikov, Dmitri; **Lehtla, Tõnu** 4th International Workshop CPE 2005 : Compatibility in Power Electronics : Fifth International

Overvoltages in an inverter-fed AC motor system with long cable [Electronic resource]

Vinnikov, Dmitri; Lehtla, Tõnu Proceedings of 4th International Workshop CPE 2005 : Compatibility in Power Electronics : Fifth International Research and Educational Colloquium on Electronics : 1-3 June 2005, Gdynia, Poland 2005 / [5] p. : ill. [CD-ROM]

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

Roncero-Clemente, Carlos; Romero-Cadaval, Enrique; **Husev, Oleksandr; Vinnikov, Dmitri** Proceedings : 2014 IEEE 23rd International Symposium on Industrial Electronics (ISIE) : Grand Cevahir Hotel and Convention Center, Istanbul, Turkey, 01-04 June, 2014 2014 / p. 2048-2053 : ill

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](#)

P3R : partial power postregulated gridforming converter for prosumer DC buildings

Carvalho da Silva, Edivan Laercio; Chub, Andrii; Hassanpour, Naser; Blinov, Andrei; Rathore, Akshay Kumar; **Vinnikov, Dmitri** IEEE transactions on industrial electronics 2025 / p. 1628-1637 <https://doi.org/10.1109/TIE.2024.3423358>

Partial buck-boost resonant power converter for residential PV applications

Abdelrahim Abdelghafour, Omar Mohamed; 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 modular structure of a SEPIC based DC/DC converter

Chub, Andrii; Husev, Oleksandr; Vinnikov, Dmitri 2014 IEEE International Conference on Intelligent Energy and Power Systems (IEPS) : conference proceedings : June 2-6, 2014, Kyiv, Ukraine 2014 / p. 81-85 : ill

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>

PCB design impact on GaN-Based converter operation

Husev, Oleksandr; Jalakas, Tanel; Vinnikov, Dmitri; Vosoughi Kurdkandi, Naser; Persson, Eric 2023 IEEE Applied Power Electronics Conference and Exposition (APEC), 19-23 March 2023 : proceedings 2023 / p. 640-650 <https://doi.org/10.1109/APEC43580.2023.10131547> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Performance analysis of protection methods in residential DC microgrids

Jalakas, Tanel; Banavath, Satish Naik; **Chub, Andrii; Roasto, Indrek; Vinnikov, Dmitri** 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 6 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227388>

Performance benchmarking of Si and GaN MOSFETs in isolated buck-boost DC-DC converter

Mashinchi Maheri, Hamed; Vinnikov, Dmitri; Rahman, Showrov 2021 IEEE 62nd International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON), 15-17 Nov. 2021 : conference proceedings 2021 / p. 1-6 : ill <https://doi.org/10.1109/RTUCON53541.2021.9711696>

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 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>

Performance evaluation of step-up /down partial power converters based on current-fed DC-DC topologies

Yadav, Neelesh; Hassanpour, Naser; Chub, Andrii; Blinov, Andrei; Vinnikov, Dmitri; Galkin, Ilya; Abdelrahim Abdelghafour, Omar Mohamed IEEE transactions on industry applications 2024 / p. 7111-7124 <https://doi.org/10.1109/TIA.2024.3413050>

Performance evaluation of step-up/down current-source partial power converters for PV applications

Abdelrahim Abdelghafour, Omar Mohamed; Chub, Andrii; Blinov, Andrei; Vinnikov, Dmitri 2022 IEEE 63th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON): conference proceedings 2022 / 5 p <https://doi.org/10.1109/RTUCON56726.2022.9978890>

Performance evaluation of step-up/down partial power converters based on current-fed DC-DC topologies

Yadav, Neelesh; Hassanpour, Naser; Chub, Andrii; Blinov, Andrei; Vinnikov, Dmitri; Galkin, Ilya; Abdelrahim Abdelghafour, Omar Mohamed IEEE transactions on industry applications 2024 / p. 7111-7124 : ill <https://doi.org/10.1109/TIA.2024.3413050> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Performance evaluation of the universal photovoltaic string converter during the operation in DC microgrid environment

Matiushkin, Oleksandr; Vinnikov, Dmitri; Husev, Oleksandr IECON 2021 – 47th Annual Conference of the IEEE Industrial Electronics Society, 2021 2021 / p. 1-6 : ill <https://doi.org/10.1109/IECON48115.2021.9589473> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Performance improvement method for the voltage-fed qZSI with continuous input current

Vinnikov, Dmitri; Roasto, Indrek; Strzelecki, Ryszard; Adamowicz, Marek MELECON 2010 : the 15th IEEE Mediterranean Electrotechnical Conference : 25th-28th April 2010, Malta : book of abstracts 2010 / p. 135 <https://ieeexplore.ieee.org/document/5476229>

Performance improvement of PWM control methods for voltage step-down in series resonant DC–DC converters

Sidorov, Vadim; Chub, Andrii; Vinnikov, Dmitri Energies 2020 / art. en13174569 ; 18 p <https://doi.org/10.3390/en13174569> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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 microconverter with integrated sub-modular power optimizer

Maheri, Hamed Mashinchi; Chub, Andrii; Vinnikov, Dmitri; Blinov, Andrei IEEE 15th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2021 / p. 1-6 <https://doi.org/10.1109/CPE-POWERENG50821.2021.9501179>

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 string converter with universal compatibility with AC and DC microgrids = Alalis- ja vahelduvvoolu mikrovõrkudega ühilduv universaalne muundur päikese-elektrijaamadele

Matiushkin, Oleksandr 2022 <https://doi.org/10.23658/taltech.27/2022> <https://digikogu.taltech.ee/et/item/b818b684-924e-4fda-b414-fe8b7adba165> https://www.ester.ee/record=b5502078*est

PMSG based residential wind turbines : possibilities and challenges

Bisenieks, Lauris; **Vinnikov, Dmitri;** Galkin, Ilya Agronomy research 2013 / p. 295-306 : ill https://www.academia.edu/83733935/PMSG_based_residential_wind_turbines_possibilities_and_challenges [Journal metrics at Scopus](#) [Article at Scopus](#)

Possibilities and limitations of liquid cooling systems for high power converters

Blinov, Andrei; Vinnikov, Dmitri 7th International Symposium "Topical Problems in the Field of Electrical and Power Engineering" : Doctoral School of Energy and Geotechnology. II : [Narva-Jõesuu, Estonia, 16.06-19.06.2009] 2009 / p. 20-25 : ill

Power converter interfaces for electrochemical energy storage systems - a review

Fernao Pires, Vitor; Romero-Cadaval, Enrique; **Vinnikov, Dmitri; Roasto, Indrek;** Martins, Joao Energy conversion and management 2014 / p. 453-475 : ill <https://doi.org/10.1016/j.enconman.2014.05.003> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Power Electronic Systems for Efficient and Sustainable Energy Supply

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

Power electronics : laboratory works

Jalakas, Tanel; Vodovozov, Valery; Vinnikov, Dmitri 2008 http://www.ester.ee/record=b2373811*est

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>

Practical design guidelines of qZSI based step-up DC/DC converter

Zakis, Janis; Vinnikov, Dmitri; Roasto, Indrek; Jalakas, Tanel Scientific journal of Riga Technical University. Serija 4, Power and electrical engineering 2010 / p. 107-114 : ill

https://www.researchgate.net/publication/258448386_Practical_Design_Guidelines_of_qZSI_Based_Step-Up_DCDC_Converter

Prediction of semiconductor losses in a high-power high-voltage DC/DC converter

Jalakas, Tanel; Vinnikov, Dmitri 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. 114-117 : 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/CSEEPES.2020.01310> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Predictive control for isolated matrix rectifier without current distortion at sector boundary

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 / 6 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227405>

Preface

Shkarlet, Serhiy; Morozov, Anatoliy; Palagin, Alexander; **Vinnikov, Dmitri**; Stoianov, Nikolai; Zhelezniak, Mark; Kazymyr, Volodymyr Mathematical Modeling and Simulation of Systems : Selected Papers of 16th International Scientific-practical Conference, MODS, 2021 June 28–July 01, Chernihiv, Ukraine 2022 / p. ix-x <https://doi.org/10.1051/mmnp/2018041> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Preface

Shkarlet, Serhiy; Palagin, Alexander; Morozov, Anatoliy; **Vinnikov, Dmitri**; Stoianov, Nikolai; Zhelezniak, Mark; Kazymyr, Volodymyr Mathematical Modeling and Simulation of Systems : Selected Papers of 17th International Conference, MODS, November 14-16, 2022, Chernihiv, Ukraine 2023 / p. v-vi <https://link.springer.com/book/10.1007/978-3-031-30251-0> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Preface

Kazymyr, Volodymyr; Morozov, Anatoliy; Palagin, Alexander; Shkarlet, Serhiy; Stoianov, Nikolai; **Vinnikov, Dmitri**; Zhelezniak, Mark Mathematical Modeling and Simulation of Systems : Selected Papers of 18th International Conference, MODS, November 13-15, 2023, Chernihiv, Ukraine 2024 / p. v-vi <https://link.springer.com/book/10.1007/978-3-031-67348-1> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Preface to "Industrial and Technological Applications of Power Electronics Systems"

Strzelecki, Ryszard; **Demidova, Galina; Vinnikov, Dmitri** Industrial and Technological Applications of Power Electronics Systems 2021 / p. ix <https://doi.org/10.3390/books978-3-0365-0823-8>

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>

Protection and common mode voltage of The Push-Pull Partial Power Converter

Abdelrahim Abdelghafour, Omar Mohamed; Vinnikov, Dmitri; Chub, Andrii; Blinov, Andrei IEEE Conference on Power Electronics and Renewable Energy : Luxor, Egypt, February, 19-21, 2023 2023 <https://doi.org/10.1109/CPERE56564.2023.10119636>

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>

Protection of bidirectional Step-Up/Down partial power converter against short circuit and open circuit faults and mode transition issues

Hassanpour, Naser; Chub, Andrii; Blinov, Andrei; Yadav, Neelesh; Hasan, Sayeed; Vinnikov, Dmitri 2024 IEEE 18th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2024 / 6 p <https://doi.org/10.1109/CPE-POWERENG60842.2024.10604315>

qZS-based soft-switching DC/DC converter with a series resonant LC circuit

Vinnikov, Dmitri; Zakis, Janis; Liivik, Liisa; Rankis, Ivars Энергосбережение, энергетика, энергоаудит = Energy saving, power engineering, energy audit 2013 / p. 42-50 : ill

QZS-based soft-switching DC/DC converter with a series resonant LC circuit [Electronic resource]

Vinnikov, Dmitri; Zakis, Janis; Liivik, Liisa; Rankis, Ivars Международная Научно-Техническая Конференция "Силовая Электроника и Энергоэффективность" : 23-27.IX 2013, Алушта, Крым 2013 / [3] p. : ill [CD-ROM]

QZSI DC/DC converters in input-series output-parallel connection for distributed generation [Electronic resource]

Martinez, C.; **Jalakas, Tanel; Vinnikov, Dmitri;** Lazaro, A.; Barrado, A. SPEEDAM 2012 : Sorrento (Italy) - June 20-22, 2012 : 21st edition of the International Symposium on Power Electronics, Electrical drives, Automation and Motion 2012 / p. 952-957 : ill [CD-ROM] <https://ieeexplore.ieee.org/document/6264536>

Quadratic boost A-source impedance network

Siwakoti, Yam P.; **Blaabjerg, Frede; Chub, Andrii; Vinnikov, Dmitri** ECCE 2016 : IEEE Energy Conversion Congress & Expo : September 18-22, Milwaukee, WI : proceedings 2016 / [6] p. : ill <https://doi.org/10.1109/ECCE.2016.7855374>

Quasi single-stage three-phase filterless converter for EV charging applications

Blinov, Andrei; Zinchenko, Denys; Rabkowski, Jacek; Wrona, Grzegorz; **Vinnikov, Dmitri** IEEE Open Journal of Power Electronics 2022 / p. 51-60 : ill <https://doi.org/10.1109/OJPEL.2021.3134460> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Quasi-Z-source half-bridge DC-DC converter for photovoltaic applications

Vinnikov, Dmitri; Chub, Andrii; Husev, Oleksandr; Zakis, Janis 2015 IEEE International Conference on Industrial Technology (ICIT 2015) : Seville, Spain, 17-19 March 2015 2015 / p. 2935-2940 : ill <https://doi.org/10.1109/ICIT.2015.7125531> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

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

Quasi-Z-source-based isolated DC/DC converters for distributed power generation

Vinnikov, Dmitri; Roasto, Indrek IEEE transactions on industrial electronics 2011 / p. 192-201 : ill <https://ieeexplore.ieee.org/document/5409567>

Reactive power control for bidirectional isolated high-frequency link converter

Emiliani, Pietro; Blinov, Andrei; Pefitsis, Dimosthenis; Giannakis, Andreas; **Vinnikov, Dmitri** 2022 International Symposium on Power Electronics, Electrical Drives, Automation and Motion (SPEEDAM) 2022 / p. 372-376 <https://doi.org/10.1109/SPEEDAM53979.2022.9842131>

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](#)

Regenerative passive snubber circuit for high-frequency link converters

Blinov, Andrei; Verbytskyi, Ievgen; Pefitsis, Dimosthenis; **Vinnikov, Dmitri** IEEE journal of emerging and selected topics in industrial electronics 2022 / p. 252 - 257 <https://doi.org/10.1109/JESTIE.2021.3066897>

Reliability assessment of photovoltaic Buck-Boost microconverter for Estonian climate conditions

Bakeer, Abualkasim Ahmed Ali; Chub, Andrii; Vinnikov, Dmitri 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 6 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227505>

Reliability evaluation of an impedance-source PV microconverter

Shen, Yanfeng; **Liivik, Elizaveta;** Blaabjerg, Frede; **Vinnikov, Dmitri;** Wang, Huai; **Chub, Andrii** 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. 108-110 : ill http://ise.elnet.ee/record=b2950026~S2*est

Reliability evaluation of an impedance-source PV microconverter

Shen, Yanfeng; **Liivik, Elizaveta;** Blaabjerg, Frede; **Vinnikov, Dmitri;** Wang, Huai; **Chub, Andrii** 2018 IEEE Applied Power Electronics Conference and Exposition (APEC 2018), San Antonio, Texas, USA, 4-8 March 2018 2018 / p. 1104-1108 : ill <https://doi.org/10.1109/APEC.2018.8341154> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Reliability evaluation of the universal power electronic interface converter for PV applications

Khan, Salman; Chub, Andrii; Vinnikov, Dmitri; Kasper, Matthias; Deboy, Gerald 2024 IEEE 21st International Power Electronics and Motion Control Conference (PEMC) 2024 / 8 p <https://doi.org/10.1109/PEMC61721.2024.10726360>

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

Reliability study of input side capacitors in impedance-source PV microconverters

Liivik, Elizaveta; Vinnikov, Dmitri; Chub, Andrii; Shen, Yanfeng IECON 2019 - 45th Annual Conference of the IEEE Industrial Electronics Society : proceedings 2019 / p. 5026–5032 : ill <https://doi.org/10.1109/IECON.2019.8927173> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Research and development of digital control systems and algorithms for high power, high voltage isolated DC/DC converters = Võimsate kõrgepingeliste alalisvoolumuundurite arvjuhtimissüsteemide ja -algoritmide uurimine ning väljatöötamine

Roasto, Indrek 2009 https://www.ester.ee/record=b2557768*est

Research and development of high-power high-voltage DC/DC converters = Võimsate kõrgepingeliste alalispingemuundurite uurimine ja vältimine

Jalakas, Tanel 2010 https://www.ester.ee/record=b2607120*est

Research and development of voltage converter for trams

Vinnikov, Dmitri; Lehtla, Madis; Joller, Jüri; Laugis, Juhan Power and Electrical Engineering International Scientific Conference 2002 / ? p

Research and development of voltage converters based on 6,5 kV IGBTs

Jalakas, Tanel; Roasto, Indrek; Müür, Margus; Vinnikov, Dmitri; Laugis, Juhan International Youth Conference on Energetics IYCE-2007 : 31 May - 02 June, 2007, Budapest, Hungary : program & abstracts 2007 / p. 153-154 : ill

Research of switching properties and performance improvement methods of high-voltage IGBT based DC/DC converters = Kõrgepingelistel IGBT transistoridel põhinevate alalispingemuundurite lülitusomaduste ja jõudluse suuredamise meetodite uurimine

Blinov, Andrei 2012 http://www.ester.ee/record=b2856034*est

Research, design and implementation of auxiliary power supplies for the light rail vehicles

Vinnikov, Dmitri; Lehtla, Tõnu 2005 https://www.ester.ee/record=b2097496*est

Research, design and implementation of galvanically isolated impedance-source DC-DC converters = Galvaaniliselt isoleeritud impedantsallikaga alalispingemuundurite uurimine, süntees ja rakendamine

Chub, Andrii 2016 <http://digi.lib.ttu.ee/ii/?6209> https://www.ester.ee/record=b4601191*est

Resonant DC transformer for grid-interactive energy efficient buildings

Carvalho da Silva, Edivan Laercio; Blinov, Andrei; Chub, Andrii; Rathore, Akshay Kumar; **Vinnikov, Dmitri** 2024 IEEE 18th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2024 / 6 p <https://doi.org/10.1109/CPE-POWERENG60842.2024.10604353>

Reverse power flow control possibilities of galvanically isolated impedance-source DC-DC converters

Chub, Andrii; Vinnikov, Dmitri; Liivik, Elizaveta 2017 11th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG 2017) : Cadiz, Spain, 4-6 April 2017 2017 / p. 522-527 : ill <https://doi.org/10.1109/CPE.2017.7915226>

A review of galvanically isolated impedance-source DC-DC converters

Chub, Andrii; Vinnikov, Dmitri; Blaabjerg, Frede; Peng, Fang Zheng IEEE transactions on power electronics 2016 / p. 2808-2828 : ill <https://doi.org/10.1109/TPEL.2015.2453128> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A review of hybrid converter topologies

Afshari, Hossein; Husev, Oleksandr; Matiushkin, Oleksandr; Vinnikov, Dmitri Energies 2022 / art. 9341 <https://doi.org/10.3390/en15249341> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Review of isolated matrix inverters : topologies, modulation methods and applications

Korkh, Oleksandr; Blinov, Andrei; Vinnikov, Dmitri; Chub, Andrii Energies 2020 / art. 2394, 30 p. : ill <https://doi.org/10.3390/en13092394> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Review of possible DC-DC converter-topologies for tram's auxiliary power supply

Vinnikov, Dmitri; Lehtla, Tõnu EPE-PEMC 2004 : 11th International Power Electronics and Motion Control Conference : 2-4 September 2004, Riga, Latvia : proceedings. Vol. 6 of 7, Mechatronics, industrial drive systems, power electronics and drives in transport, EMC and design of PE systems 2004 / p. 6-176 - 6-179 : ill

Selection of the duty cycle variation range and its influence on the efficiency and operability of high-power converters operating at wide input voltage swing

Vinnikov, Dmitri; Roasto, Indrek; Jalakas, Tanel 7th International Symposium "Topical Problems in the Field of Electrical and

Power Engineering" : Doctoral School of Energy and Geotechnology. II : [Narva-Jõesuu, Estonia, 16.06-19.06.2009] 2009 / p. 26-31 : ill

Self-healing photovoltaic microconverter with zero redundancy and accurate low-cost fault detection

Bakeer, Abualkasim Ahmed Ali; Chub, Andrii; Vinnikov, Dmitri IEEE transactions on industrial electronics 2024 / p. 646-656
<https://doi.org/10.1109/TIE.2023.3250836>

Semiconductor power loss reduction and efficiency improvement techniques for the galvanically isolated quasi-Z-source DC-DC converters = Galvaaniliselt isoleeritud kvaasiimpedantsallikaga alalispingemuunduri pooljuhtide võimsuskao vähendamine ja kasuteguri suurendamine

Liivik, Liisa 2015 https://www.ester.ee/record=b4484169*est

Series buck-boost partial power converter based on the push-pull converter

Abdelrahim Abdelghafour, Omar Mohamed; Chub, Andrii; Blinov, Andrei; Vinnikov, Dmitri IECON 2022 : 48th Annual Conference of the IEEE Industrial Electronics Society : 17-20 Oct. 2022 2022 / code. 184962
<https://doi.org/10.1109/IECON49645.2022.9968574> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

A series partial power converter based on dual active bridge converter for residential battery energy storage system

Hassanpour, Naser; Blinov, Andrei; Chub, Andrii; Vinnikov, Dmitri; Abdelrahim Abdelghafour, Omar Mohamed 2021 IEEE 62nd International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON), 15-17 Nov. 2021 : conference proceedings 2021 / p. 1-6 : ill <https://doi.org/10.1109/RTUCON53541.2021.9711725>

Series resonant DC-DC converter with an AC-switch-based full-bridge boost rectifier

Bakeer, Abualkasim Ahmed Ali; Chub, Andrii; Vinnikov, Dmitri Annual IEEE Conference on Applied Power Electronics Conference and Exposition (APEC) 2021 / p. 1985-1990 <https://doi.org/10.1109/APEC42165.2021.9487113> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Series resonant DC-DC converter with single-switch full-bridge boost rectifier operating at fixed switching frequency

Bakeer, Abualkasim Ahmed Ali; Chub, Andrii; Vinnikov, Dmitri 2020 IEEE 11th International Symposium on Power Electronics for Distributed Generation Systems (PEDG), 28 Sept.-1 Oct. 2020, Dubrovnik, Croatia 2020 / p. 270-275
<https://doi.org/10.1109/PEDG48541.2020.9244438>

Series-parallel resonant current-source DC-DC converter with wide output voltage range

Blinov, Andrei; Carvalho da Silva, Edivan Laercio; Verbytskyi, Ievgen; Vinnikov, Dmitri 2024 IEEE 18th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2024 / 6 p <https://doi.org/10.1109/CPE-POWERENG60842.2024.10604346>

Series-resonant DC-DC interface converter for battery integration into DC microgrids

Sidorov, Vadim; Chub, Andrii; Vinnikov, Dmitri 2022 IEEE 20th International Power Electronics and Motion Control Conference (PEMC) : Brasov, Romania, 25-28 Sept. 2022 : proceedings 2022 / p. 307-310 <https://doi.org/10.1109/PEMC51159.2022.9962929>

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

Vinnikov, Dmitri; Liivik, Elizaveta 2018 http://www.ester.ee/record=b4763182*est

Shade-tolerant photovoltaic microinverter with time adaptive seamless P-V curve sweep MPPT [Electronic resource]

Vinnikov, Dmitri; Kosenko, Roman; Chub, Andrii; Liivik, Elizaveta 19th European Conference on Power Electronics and Application : EPE'17 ECCE Europe : September 11-14, 2017, Warsaw, Poland 2017 / p. P1-P7 : ill. [USB]
<https://doi.org/10.23919/EPE17ECCEEurope.2017.8099366>

Sheppard-Taylor isolated high boost DC-DC converter

Chub, Andrii; Siwakoti, Yam P.; Vinnikov, Dmitri; Blaabjerg, Frede Thirty Second Annual IEEE Applied Power Electronics Conference and Exposition (APEC 2017) : March 26-30, 2017, Tampa, Florida 2017 / p. 1695-1699 : ill
<https://doi.org/10.1109/APEC.2017.7930927> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Short-circuit fault detection and remedial in full-bridge rectifier of series resonant DC-DC converter based on inductor voltage signature

Bakeer, Abualkasim Ahmed Ali; Chub, Andrii; Vinnikov, Dmitri 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/RTUCON51174.2020.9316482>

SiC и GaAs диоды в устройствах силовой электроники

Blinov, Andrei; Vinnikov, Dmitri; Rang, Toomas Технічна електродинаміка : тематичний випуск : силова електроніка та енергоефективність 2012 / с. 42-46 : ил

Simplified digital average current mode control algorithm for half- or full-bridge isolated DC/DC converters

Roasto, Indrek; Vinnikov, Dmitri IECON 2009 : 35th Annual Conference of the IEEE Industrial Electronics Society : Porto, Portugal,

Simplified digital average current mode control algorithm for half- or full-bridge isolated DC/DC converters

Roasto, Indrek; Vinnikov, Dmitri IECON 2009 : 35th Annual Conference of the IEEE Industrial Electronics Society. ICEIE 2009 : 3rd IEEE International Conference on E-learning in Industrial Electronics : Porto, Portugal, 3-5 November 2009 : abstracts 2009 / p. 166

A simplified peak current mode control algorithm for special purpose high voltage IGBT converters

Roasto, Indrek; Vinnikov, Dmitri; Lehtla, Tõnu; Auväärt, Aivar BEC 2008 : 2008 International Biennial Baltic Electronics Conference : proceedings of the 11th Biennial Baltic Electronics Conference : Tallinn University of Technology : October 6-8, 2008, Tallinn, Estonia 2008 / p. 305-308 : ill

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 of grid connected three-level neutral-point-clamped qZS inverter using PSCAD

Roncero-Clemente, Carlos; Romero-Cadaval, Enrique; **Husev, Oleksandr; Vinnikov, Dmitri**; Stepenko, Serhii Scientific Journal of Riga Technical University. Electrical, control and communication engineering 2013 / p. 14-19 : ill

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, Paper 14 of Subsection of Power Electronic Converters and Applications 2012 / 7 p. : ill

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, Latvia : [abstracts] 2012 / p. 120 : ill
<https://intapi.sciendo.com/pdf/10.2478/v10314-012-0002-3>

Simulation study of high step-up quasi-Z-source DC-DC converter with synchronous rectification

Liivik, Liisa; Vinnikov, Dmitri; Zakis, Janis 2014 55th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCon) : proceedings 2014 / p. 34-37 : ill

Simulation study of nonlinear PI-controller with quasi-Z-source derived push-pull converter

Chub, Andrii; Husev, Oleksandr; Vinnikov, Dmitri Scientific Journal of Riga Technical University. Electrical, control and communication engineering 2013 / p. 26-31 : 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 <https://doi.org/10.1109/ICIT.2015.7125533> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

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 <https://doi.org/10.1049/iet-pel.2013.0904> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Single-phase qZS-based PV inverter with integrated battery storage for distributed energy generation

Husev, Oleksandr; Makovenko, Elena; Vinnikov, Dmitri; Jalakas, Tanel 2018 IEEE 12th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG 2018) : Doha, Qatar, 10-12 April 2018 2018 / p. 508-513 : ill <https://doi.org/10.1109/CPE.2018.8372570>

Single-phase string solar qZS-based inverter: example of multi-objective optimization design

Husev, Oleksandr; Vinnikov, Dmitri; Roncero-Clemente, Carlos; **Chub, Andrii**; Romero-Cadaval, Enrique IEEE transactions on industry applications 2021 / p. 3120-3130 : ill <https://doi.org/10.1109/TIA.2020.3034292> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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-phase three-level quasi-Z-source inverter with a new boost modulation technique

Husev, Oleksandr; Stepenko, Serhii; Roncero-Clemente, Carlos; Romero-Cadaval, Enrique; **Vinnikov, Dmitri** IECON 2012 : 38th Annual Conference of the IEEE Industrial Electronics Society : Industrial Electronics for Sustainable Development 2012 / p. 5852-5857 : ill <https://doi.org/10.1109/IECON.2012.6389127> <https://ieeexplore.ieee.org/document/6389127>

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](#)

Single-stage series-connected isolated converters for MVAC to DC applications

Blinov, Andrei; **Chub, Andrii**; **Vinnikov, Dmitri**; Bayhan, Sertac Workshop on Smart Grid and Renewable Energy (SGRE) 2022 / 4 p <https://doi.org/10.1109/SGRE53517.2022.9774185>

Single-switch galvanically isolated quasi-Z-source DC-DC converter

Chub, Andrii; **Vinnikov, Dmitri** 2015 IEEE 5th International Conference on Power Engineering, Energy and Electrical Drives (POWERENG) : proceedings : May 11-13, 2015, Riga, Latvia 2015 / p. 582-586 : ill <http://dx.doi.org/10.1109/PowerEng.2015.7266381>

Single-switch galvanically isolated step-up DC-DC converter for residential photovoltaic applications [Online resource]

Vinnikov, Dmitri; **Chub, Andrii**; **Liivik, Elizaveta** Proceedings of the IECON2016 - 42nd Annual Conference of the Industrial Electronics Society : Florence (Italy), October 24-27, 2016 2016 / p. 6578-6582 : ill <https://doi.org/10.1109/IECON.2016.7793776> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Single-switch impedance-source galvanically isolated DC-DC converter with combined energy transfer

Chub, Andrii; **Vinnikov, Dmitri**; Babaei, Ebrahim; **Liivik, Elizaveta**; **Korkh, Oleksandr**; Kouro, Samir 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.2018.8659851>

6.5 kV IGBT switch realization possibilities and their feasibility study for high-power applications

Vinnikov, Dmitri; **Laugis, Juhan**; Strzelecki, Ryszard; **Egorov, Mikhail** The 4th International Scientific Conference of The Military Technical College [Korby El-Kobbah, Cairo, Egypt] : 27-29 May 2008. Proceedings of the 6th ICEENG Conference : 27-29 May, 2008 2008 / p. EE051 [CD-ROM] https://iceeng.journals.ekb.eg/article_34406.html

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 http://www.ester.ee/record=b4650094*est

Sliding mode control based on super twisting algorithm for single-stage on-board charger

Guler, Naki; Komurcugil, Hasan; Bayhan, Sertac; **Vinnikov, Dmitri**; **Blinov, Andrei** 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 6 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227481>

Small signal model of the buck-boost bidirectional DC-AC converter based on unfolding circuit

Matiushkin, Oleksandr; **Husev, Oleksandr**; **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 / 6 p <https://doi.org/10.1109/RTUCON48111.2019.8982329>

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>

Snubberless boost full-bridge converters: analysis of soft switching performance and limitations

Blinov, Andrei; **Kosenko, Roman**; **Chub, Andrii**; **Vinnikov, Dmitri** International journal of circuit theory and applications 2019 / p. 1–25 : ill <https://doi.org/10.1002/cta.2626> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Soft start algorithm for a droop controlled dc nanogrid

Roasto, Indrek; **Blinov, Andrei**; **Vinnikov, Dmitri** 2022 18th Biennial Baltic Electronics Conference (BEC) 2022 / 6 l. <https://doi.org/10.1109/BEC56180.2022.9935608>

Soft start and protection of bidirectional buck-boost partial power converter

Hassanpour, Naser; **Blinov, Andrei**; **Chub, Andrii**; **Vinnikov, Dmitri** 3rd International Conference on Smart Grid and Renewable

Soft switching bidirectional step-up/down partial power converter with reduced components stress

Hassanpour, Naser; Chub, Andrii; Blinov, Andrei; Vinnikov, Dmitri IEEE transactions on power electronics 2023 / p. 14166-14177 <https://doi.org/10.1109/TPEL.2023.3289061> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Soft-start procedure for DC microgrid fed by PWM-controlled DAB converter

Carvalho, Edivan Laercio; Blinov, Andrei; 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-POWERENG63314.2025.11027167>

Soft-switching capability analysis of a qZSI-based DC/DC converter

Zakis, Janis; Vinnikov, Dmitri; Roasto, Indrek 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. 301-304 : ill

Soft-switching current-FED flyback converter with natural clamping for low voltage battery energy storage applications

Kosenko, Roman; Vinnikov, Dmitri Technological Innovation for Smart Systems : 8th IFIP WG 5.5/SOCOLNET Advanced Doctoral Conference on Computing, Electrical and Industrial Systems, DoCEIS 2017, Costa de Caparica, Portugal, May 3-5, 2017 : proceedings 2017 / p. 429-436 https://doi.org/10.1007/978-3-319-56077-9_42 [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

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

Blinov, Andrei; Korkh, Oleksandr; Vinnikov, Dmitri; Galkin, Ilja; Norrga, Staffan IECON 2019 - 45th Annual Conference of the IEEE Industrial Electronics Society : proceedings 2019 / p. 4417-4422 : ill <https://doi.org/10.1109/IECON2019.8927186> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

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](#)

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>

Solving EMI problems of a high-frequency DC-DC converter

Vinnikov, Dmitri The 4th Research Symposium of Young Scientists : Actual Problems of Electrical Drives and Industry Automation : Tallinn, Estonia, May 17-21, 2003 2003 / p. 69-72 : ill

Some design consideration for the 6.5 Kv IGBT-based half-bridge DC/DC converter

Vinnikov, Dmitri The Brazilian journal of power electronics = Revista electronica de potencia 2008 / 2, p. 55-60 <https://sobraep.org.br/artigo/some-design-considerations-for-the-6-5-kv-igbt-based-half-bridge-dc-dc-converter/>

Some design considerations for coupled inductors for integrated buck-boost converters

Zakis, Janis; Vinnikov, Dmitri; Bisenieks, Lauris POWERENG2011 : proceedings of the 2011 International Conference on Power Engineering, Energy and Electrical Drives : Torremolinos (Málaga), Spain, May 11-13, 2011 2011 / [6] p. : ill <https://ieeexplore.ieee.org/abstract/document/6036465>

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 potencia 2009 / 4, p. 297-304 <https://sobraep.org.br/site/uploads/2018/06/rvol14no4p15.pdf>

Some design considerations for the 6.5 kV IGBT-based half-bridge DC/DC converter

Vinnikov, Dmitri 9th Brazilian Power Electronics Conference : COBEP2007 : Blumenau, Brasil : book of abstracts 2007 / p. 966-971 <https://sobraep.org.br/artigo/some-design-considerations-for-the-6-5-kv-igbt-based-half-bridge-dc-dc-converter/>

Stability analysis of the quasi-Z-source DC/DC converter based on small signal model [Electronic resource]

Husev, Oleksandr; Vinnikov, Dmitri; Roasto, Indrek SPEEDAM 2012 : Sorrento (Italy) - June 20-22, 2012 : 21st edition of the International Symposium on Power Electronics, Electrical drives, Automation and Motion 2012 / p. 298-303 : ill [CD-ROM] <https://ieeexplore.ieee.org/document/6264524>

A standard-based software infrastructure to support weather forecasting in distributed energy systems [Electronic resource]

Oliviera-Lima, Jose A.; Delgado-Gomes, Vasco; Martins, Joao; Lima, Celso; 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. 36-39 : ill [CD-ROM]

Starting of a diesel engine by help of ultracapacitors

Boiko, Vitali; Vinnikov, Dmitri; Joller, Jüri BEC 2002 : proceedings of the 8th Biennial Baltic Electronics Conference : October 6-9, 2002, Tallinn, Estonia 2002 / p. 405-406 : ill

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 and development trends of smart control systems for high voltage DC/DC converters

Roasto, Indrek; Vinnikov, Dmitri; Lehtla, Tõnu 6th International Symposium "Topical Problems in the Field of Electrical and Power Engineering" : Doctoral School of Energy and Geotechnology : [Kuressaare, January 12-17, 2009] 2009 / p. 36-42 : ill

State-of-the-art activity recognition and prediction techniques applicable to the home energy management system

Hokmabad, Hossein Nouroollahi; **Belikov, Juri; Husev, Oleksandr; Vinnikov, Dmitri** 2022 IEEE 7th International Energy Conference (ENERGYCON) 2022 / art. 181231 : ill <https://doi.org/10.1109/ENERGYCON53164.2022.9830154>

Steady state analysis of the galvanically isolated DC/DC converter with a commutating LC filter [Electronic resource]

Zakis, Janis; Vinnikov, Dmitri; Rankis, Ivars 2012 IEEE International Conference on Industrial Technology : proceedings CD 2012 / p. 838-843 : ill [CD-ROM] <https://ieeexplore.ieee.org/document/6210041>

Steady-state analysis of qZS-derived push-pull DC/DC converter with wide input voltage regulation range [Electronic resource]

Husev, Oleksandr; Blinov, Andrei; Vinnikov, Dmitri; Chub, Andrii CPE 2013 : 2013 International Conference on Compatibility and Power Electronics (CPE) : June 5-7, 2013, Ljubljana, Slovenia : conference proceedings 2013 / p. 320-325 : ill [CD-ROM]

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

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

Step-up DC/DC converters with cascaded quasi-Z-source network

Vinnikov, Dmitri; Roasto, Indrek; Strzelecki, Ryszard; Adamowicz, Marek IEEE transactions on industrial electronics 2012 / p. 3727-3736 : ill <https://ieeexplore.ieee.org/document/6096410>

Step-Up series resonant DC-DC converter with bidirectional-switch-based boost rectifier for wide input voltage range photovoltaic applications

Bakeer, Abualkasim Ahmed Ali; Chub, Andrii; Vinnikov, Dmitri Energies 2020 / Art. 3747 <https://doi.org/10.3390/en13143747>
[Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Step-Up series-resonant DC-DC converter with switched mode rectifier operating at fixed switching frequency

Chub, Andrii; Bakeer, Abualkasim Ahmed Ali; Vinnikov, Dmitri 2020 IEEE 11th International Symposium on Power Electronics for Distributed Generation Systems (PEDG), 28 Sept.-1 Oct. 2020, Dubrovnik, Croatia 2020 / p. 597-601
<https://doi.org/10.1109/PEDG48541.2020.9244312>

Step-up/down partial power converter with enhanced MPPT efficiency around zero partiality

Yadav, Neelesh; Chub, Andrii; Hassanpour, Naser; Blinov, Andrei; Vinnikov, Dmitri 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/RTUCON60080.2023.10412980>

Students & young professionals of the IEEE Industrial Electronics Society (IES) at the 24th IEEE International Conference on Industrial Technology 2023: It is also a strategic priority of IES for the next decade! [Students and Young Professionals News]

Vinnikov, Dmitri IEEE industrial electronics magazine 2023 / p. 103-104 <https://doi.org/10.1109/MIE.2023.3297351>

Study of battery energy storage operation in droop-controlled residential DC nanogrid

Hasan, Sayeed; Chub, Andrii; Vinnikov, Dmitri; Blinov, Andrei 2024 IEEE 18th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2024 / 5 p <https://doi.org/10.1109/CPE-POWERENG60842.2024.10604364>

Study of MOSFET post-fault operation in fault-tolerant DC-DC converters

Bakeer, Abualkasim Ahmed Ali; Chub, Andrii; Vinnikov, Dmitri 2022 IEEE 7th International Energy Conference (ENERGYCON) 2022 / Code 181231, 5 p <https://doi.org/10.1109/ENERGYCON53164.2022.9830216>

Study of operating conditions of 3,3 kV dual IGBT modules in three-level neutral point clamped inverters

Blinov, Andrei; Jalakas, Tanel; Vinnikov, Dmitri Технічна електродинаміка 2010 / 1, p. 135-140 : ill

Study of performance improvement methods for 6.5kV IGBT based two-level half-bridge converters

Blinov, Andrei; Vinnikov, Dmitri; Ivakhno, Volodymyr Технічна електродинаміка 2011 / p. 56-62 : ill

Study of simple MPPT converter topologies for grid integration of photovoltaic systems

Zakis, Janis; Vinnikov, Dmitri Scientific journal of Riga Technical University. Serija 4, Power and electrical engineering 2011 / p. 67-72 : ill

https://www.researchgate.net/publication/258547430_Study_of_Simple_MPPT_Converter_Topologies_for_Grid_Integration_of_Photovoltaic_Systems

Study on power losses of the full soft-switching current-fed DC/DC converter with Si and GaN devices

Chub, Andrii; Rabkowski, Jacek; Blinov, Andrei; Vinnikov, Dmitri IECON 2015 - Yokohama : 41st Annual Conference of the IEEE Industrial Electronics Society : November 9-12, 2015, Pacifico Yokohama, Yokohama, Japan 2015 / p. 13-18

Super twisting sliding mode control strategy for input series output parallel converters

Guler, Naki; Bayhan, Sertac; Fesli, Ugur; Blinov, Andrei; Vinnikov, Dmitri IEEE Access 2023 / p. 107394-107403

<https://doi.org/10.1109/ACCESS.2023.3320178> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Supply for the auxiliary systems in the rail vehicle

Lehtla, Madis; Vinnikov, Dmitri Actual Problems of Electrical Drives and Industry Automation : the 3rd Research Symposium of Young Scientists : Tallinn, Estonia, May 19-26, 2001 2001 / p. 68-70 : ill

Survey of loss minimization methods in tram systems [Electronic resource]

Hõimoja, Hardi; Vinnikov, Dmitri; Lehtla, Madis; Rosin, Argo; Zakis, Janis SPEEDAM 2010 : International Symposium on Power Electronics, Electrical Drives, Automation and Motion : Pisa, Italy, 14th-16th June, 2010 : proceedings 2010 / p. 1356-1361 : [CD-ROM] <https://ieeexplore.ieee.org/document/5544863>

Survey of topology morphing control techniques for performance enhancement of galvanically isolated DC-DC converters

Sidorov, Vadim; Chub, Andrii; Vinnikov, Dmitri; Peng, Fang Zheng IEEE Open Journal of the Industrial Electronics Society 2022 / p. 751-777 : ill <https://doi.org/10.1109/OJIES.2022.3225265> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Switched inductor quasi-Z-source based back-to-back converter for variable speed wind turbines with PMSG

Bisenieks, Lauris; Vinnikov, Dmitri; Ott, Silver Elektronika ir elektrotehnika = Electronics and electrical engineering 2011 / p. 61-66 : ill https://www.researchgate.net/publication/267991247_Switched_Inductor_Quasi-Z-Source_Based_Back-to-Back_Converter_for_Variable_Speed_Wind_Turbines_with_PMSG

Switch-off behaviour of 6.5 kV IGBT modules in two-level voltage source inverter

Blinov, Andrei; Jalakas, Tanel; Vinnikov, Dmitri; Janson, Kuno Scientific journal of Riga Technical University. Serija 4, Power and electrical engineering 2010 / p. 121-126 : ill https://www.researchgate.net/publication/258448388_Switch-Off_Behaviour_of_65_kV_IGBT_Modules_in_Two-Level_Voltage_Source_Inverter

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

Zero-current switching impedance-source DC-DC converter

Korkh, Oleksandr; Blinov, Andrei; Chub, Andrii; Vinnikov, Dmitri IECON 2019 - 45th Annual Conference of the IEEE Industrial Electronics Society : proceedings 2019 / p. 5051-5056 <https://doi.org/10.1109/IECON.2019.8927614> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Zero-redundancy fault-tolerant resonant dual active bridge converter for more electric aircrafts

Chub, Andrii; Buticchi, Giampaolo; Sidorov, Vadim; Vinnikov, Dmitri 2022 IEEE 13th International Symposium on Power Electronics for Distributed Generation Systems (PEDG) 2022 / 6 I. <https://doi.org/10.1109/PEDG54999.2022.9923154>

Tagasi tulevikku: alalisvoolu tagasitulek energiapöörde ajastul

Vinnikov, Dmitri; Roasto, Indrek postimees.ee 2025 <https://arvamus.postimees.ee/8268032/dmitri-vinnikov-indrek-roasto-tagasi-tulevikku-alalisvoolu-tagasitulek-energiapoorde-ajastul>

Tallinn University of Technology : [department of electrical drives and power electronics, faculty of power engineering]

Vinnikov, Dmitri The ECPE network : member companies and competence centres 2012 / p. 138 : ill

TalTechi aasta teadlane Dmitri Vinnikov tegutseb selle nimel, et rohepöörde saaks teha praktiliselt ja mõistlike kuludega

Vinnikov, Dmitri digi.geenius.ee 2023 [TalTechi aasta teadlane Dmitri Vinnikov tegutseb selle nimel, et rohepöörde saaks teha praktiliselt ja mõistlike kuludega](#)

TalTechi aasta teadlane Dmitri Vinnikov: „Seda eriala õppides avanevad noore inimese ees uskumatud töövõimalused!“
Alvela, Ain toostusuudised.ee 2023 [TalTechi aasta teadlane Dmitri Vinnikov: „Seda eriala õppides avanevad noore inimese ees uskumatud töövõimalused!“](#)

Teaduspreemia tehnikateaduste alal uurimuste tsükli "Uudsed alalispingemuundurid taastuvenergeetikas" eest : Dmitri Vinnikov, Tanel Jalakas, Indrek Roasto
Vinnikov, Dmitri; Jalakas, Tanel; Roasto, Indrek Eesti Vabariigi teaduspreemiad 2014 2014 / lk. 64-74 : fot., ill

Thermal management experience in GaN-based DC-DC converter

Mohseni, Parham; Husev, Oleksandr; Vinnikov, Dmitri 2024 IEEE 18th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2024 / 6 p <https://doi.org/10.1109/CPE-POWERENG60842.2024.10604322>

13th International Symposium "Topical Problems in the Field of Electrical and Power Engineering." Doctoral School of Energy and Geotechnology II : in memoriam of professor Juhan Laugis : Pärnu, Estonia, January 14-19, 2013
2013 http://www.ester.ee/record=b2925939*est

Three-level half-bridge ZVS DC/DC converter for electrolyzer integration with renewable energy systems

Andrijanovič, Anna; Vinnikov, Dmitri; Roasto, Indrek; Blinov, Andrei 2011 10th International Conference on Environment and Electrical Engineering (EEEIC), 8-11 May 2011, Rome, Italy : conference proceedings 2011 / [4 p.] : 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 <https://doi.org/10.1016/j.epsr.2015.08.018> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Three-mode reconfigurable rectifier for DC-DC converters with wide input voltage range

Chub, Andrii; Vinnikov, Dmitri; Kouro, Samir; Malinowski, Mariusz IECON 2019 - 45th Annual Conference of the IEEE Industrial Electronics Society : proceedings 2019 / p. 4429-4435 <https://doi.org/10.1109/IECON.2019.8926994> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Three-phase bidirectional isolated AC-DC matrix-converter with full soft-switching range

Carvalho da Silva, Edivan Laercio; Blinov, Andrei; Emiliani, Pietro; Chub, Andrii; Vinnikov, Dmitri IEEE Access 2023 / p. 119270-119283 <https://doi.org/10.1109/ACCESS.2023.3327224> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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>

A three-phase unfolding-based PFC topology with two inductors for electric vehicles battery charging

Mohseni, Parham; Husev, Oleksandr; Vinnikov, Dmitri; Matiushkin, Oleksandr; Vosoughi Kurdkandi, Naser 2023 IEEE 64th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON), Riga, Latvia, October 9-11, 2023 : conference proceedings 2023 / 6 p <https://doi.org/10.1109/RTUCON60080.2023.10413182>

Three-port flyback converter for photovoltaic module integration in bipolar DC microgrids

Chub, Andrii; Zinchenko, Denys; Vinnikov, Dmitri; Blinov, Andrei 2020 IEEE International Conference on Industrial Technology, Buenos Aires Institute of Technology (ITBA) Buenos Aires, Argentina, 26-28 February, 2020 : proceedings 2020 / p. 909-914 <https://doi.org/10.1109/ICIT45562.2020.9067237> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Title: Models of the qZ-Converters

Vinnikov, Dmitri; Strzelecki, Ryszard Przegląd elektrotechniczny 2010 / 6, p. 80-84

Topological review of quasi-switched boost inverters

Barath, Jayakumar Geetha Nataraj; Soundarajan, 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](#)

Topology morphing control of low-cost PV microconverters

Mashinchi Maheri, Hamed; Vinnikov, Dmitri; Chub, Andrii; Sidorov, Vadim 2021 IEEE 19th International Power Electronics and Motion Control Conference (PEMC), 25-29 April 2021, Gliwice, Poland : proceedings 2021
<https://doi.org/10.1109/PEMC48073.2021.9432496>

Topology morphing control with soft transients for multimode series resonant DC-DC converter

Sidorov, Vadim; Chub, Andrii; Vinnikov, Dmitri 2021 IEEE 22nd International Conference of Young Professionals in Electron Devices and Materials (EDM) 2021 / p. 331-336 <https://doi.org/10.1109/EDM52169.2021.9507621>

Topology-morphing photovoltaic microconverter with wide MPPT voltage window and post-fault operation capability

Vinnikov, Dmitri; Chub, Andrii; Zinchenko, Denys; Sidorov, Vadim IEEE Access 2020 / art. 9171332, p. 153941-153955 : ill
<https://doi.org/10.1109/ACCESS.2020.3017805> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Tracking of MPP for three-level neutral-point clamped qZ-source off-grid inverter in solar applications

Roncero-Clemente, Carlos; **Husev, Oleksandr**; Minambres-Marcos, Victor; Romero-Cadaval, Enrique; Stepenko, Serhii; **Vinnikov, Dmitri** Journal of microelectronics, electronic components and materials 2013 / p. 212-221 : ill
https://www.researchgate.net/publication/259495902_Tracking_of_MPP_for_three-level_neutral-point_clamped_qZ-source_off-grid_inverter_in_solar_applications

Traction and control of light rail vehicles

Laugis, Juhan; Lehtla, Tõnu; Joller, Jüri; Rosin, Argo; Vinnikov, Dmitri; Lehtla, Madis 2008
http://www.ester.ee/record=b2394449*est

Transactive energy : power electronics challenges

Martins, João F.; Romero-Cadaval, Enrique; **Vinnikov, Dmitri**; Malinowski, Mariusz IEEE Power Electronics Magazine 2022 / p. 20-32 <https://doi.org/10.1109/MPEL.2022.3140981> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Transient analysis of high-voltage half-bridge inverter during freewheeling states

Blinov, Andrei; Jalakas, Tanel; Vinnikov, Dmitri; Janson, Kuno 9th International Symposium "Topical problems in the field of electrical and power engineering". Doctoral school of energy and geotechnology. II : Pärnu, Estonia, June 14-19, 2010 2010 / p. 8-11 : ill

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>

TTÜ elektriikajamite ja jõuelektronika instituut moderniseeris BLRT kraana

Vinnikov, Dmitri; Boiko, Vitali Mente et Manu 2005 / 5. mai, lk. 3 : fot https://www.ester.ee/record=b1242496*est

Two-stage quasi-Z-source network based step-up DC/DC converter

Vinnikov, Dmitri; Roasto, Indrek; Strzelecki, Ryszard; Adamowicz, Marek ISIE 2010 : IEEE International Symposium on Industrial Electronics : Bari, Italy, 4-7 July 2010 2010 / p. 1143-1148 : ill <https://ieeexplore.ieee.org/document/5636562>

Ultracapacitors as an innovative teaching topic in Tallinn University of Technology [Electronic resource]

Roasto, Indrek; Vinnikov, Dmitri; Lehtla, Tõnu 19th International Symposium on Power Electronics, Electrical Drives, Automation and Motion : Speedam 2008 : Ischia (Italy), June 11th-13th, 2008 : conference proceedings 2008 / p. 475-480 : ill. [CD-ROM]
<https://www.semanticscholar.org/paper/Ultracapacitors-as-an-innovative-teaching-topic-in-Roasto-Vinnikov/d858917563c7de2fc0ffe1b30c5b39cd08a078db>

Ultra-High gain modified SCLN based DC-DC converter with reduced device current stress

Sahoo, Gyana Manjari; Banavath, Satish Naik; **Chub, Andrii; Vinnikov, Dmitri** 2022 IEEE 63th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON): conference proceedings 2022
<https://doi.org/10.1109/RTUCON56726.2022.9978808>

Ultrawide voltage gain range microconverter for integration of silicon and thin-film photovoltaic modules in DC microgrids

Chub, Andrii; Vinnikov, Dmitri; Korkh, Oleksandr; Malinowski, Mariusz; Kouro, Samir IEEE transactions on power electronics 2021 / p. 13763-13778 <https://doi.org/10.1109/TPEL.2021.3084918> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Universal galvanically isolated DC-DC converters with topology morphing control = Universaalsed topoloogiat muutva juhtimisega galvaaniliselt isoleeritud alalispingemuundurid

Sidorov, Vadim 2023 <https://doi.org/10.23658/taltech.17/2023> <https://digikogu.taltech.ee/et/Item/96dbe736-5976-431c-ae55-7fc2d4ead55e> https://www.ester.ee/record=b5558654*est

Use of ultracapacitors modules in ICE starting system

Boiko, Vitali; Vinnikov, Dmitri; Joller, Jüri Power and Electrical Engineering International Scientific Conference 2002 / ? p

Using electric vehicles to enhance power supply resilience of buildings during emergencies and critical situations

Carvalho da Silva, Edivan Laercio; Chub, Andrii; Blinov, Andrei; Vinnikov, Dmitri; Kyselova, Anna 2024 IEEE 65th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) 2024 / 6 p <https://doi.org/10.1109/RTUCON62997.2024.10830812>

Utility-scale energy storage systems : a comprehensive review of their applications, challenges, and future directions

Luo, Wensheng; Stynski, Sebastian; **Chub, Andrii;** Franquelo, Leopoldo G.; Malinowski, Mariusz; **Vinnikov, Dmitri** IEEE industrial electronics magazine 2021 / p. 17-27 <https://doi.org/10.1109/MIE.2020.3026169> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Utility-scale energy storage systems : converters and control

Stynski, Sebastian; Luo, Wensheng; **Chub, Andrii; Vinnikov, Dmitri** IEEE industrial electronics magazine 2020 / p. 32-52 <https://doi.org/10.1109/MIE.2020.3011655> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Uudsed alalispingemuundurid taastuenergeetikas

Vinnikov, Dmitri; Jalakas, Tanel; Roasto, Indrek Teadusmõtte Eestis (X). Tehnikateadused. 3 : [artiklikogumik] 2019 / lk. 216-226 : ill., fot https://www.ester.ee/record=b5208765*est

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](#)

Wear-out failure analysis of solar optiverter operating with 60- and 72-cell Si crystalline PV modules

Liivik, Liisa; Chub, Andrii; Sangwongwanich, Ariya; Shen, Yanfeng; **Vinnikov, Dmitri;** Blaabjerg, Frede IECON 2018 - 44th Annual Conference of the IEEE Industrial Electronics Society : proceedings 2018 / p. 6134-6140 : ill <https://doi.org/10.1109/IECON.2018.8592925>

Versatile laboratory tools for advanced course of power electronics

Jalakas, Tanel; Vinnikov, Dmitri; Roasto, Indrek; Raud, Zoja; Egorov, Mikhail BEC 2008 : 2008 International Biennial Baltic Electronics Conference : proceedings of the 11th Biennial Baltic Electronics Conference : Tallinn University of Technology : October 6-8, 2008, Tallinn, Estonia 2008 / p. 277-280 : ill

Versatile power electronic building block for residential DC microgrids

Vinnikov, Dmitri; Chub, Andrii; Kosenko, Roman; Liivik, Elizaveta 2018 International Symposium on Power Electronics, Electrical Drives, Automation and Motion (SPEEDAM 2018) : Amalfi, Italy, 20-22 June 2018 2018 / p. 735-741 : ill <https://doi.org/10.1109/SPEEDAM.2018.8445317>

Wide input voltage range high step-up DC-DC vonverter with fault-tolerant operation capability

Vinnikov, Dmitri; Chub, Andrii; Korkh, Oleksandr; Kouro, Samir 2019 IEEE International Conference on Industrial Technology, ICIT 2019 : Melbourne, Australia, 13-15 February 2019 : proceedings 2019 / p. 1099-1104 : ill <https://doi.org/10.1109/ICIT.2019.8755040> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Wide input voltage range operation of the series resonant DC-DC converter with bridgeless boost rectifier

Bakeer, Abualkasim Ahmed Ali; Chub, Andrii; Vinnikov, Dmitri; Rosin, Argo Energies 2020 / p. 4220-4237 <https://doi.org/10.3390/en13164220> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Wide input voltage range photovoltaic microconverter with reconfigurable buck-boost switching stage

Chub, Andrii; Vinnikov, Dmitri; Kosenko, Roman; Liivik, Elizaveta IEEE transactions on industrial electronics 2017 / p. 5974-5983 : ill <https://doi.org/10.1109/TIE.2016.2645891> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Wide output voltage range isolated buck-boost PFC converter with reconfigurable rectifier

Verbytskyi, Ievgen; Nadeem, Mohammad Mahad; Blinov, Andrei; Chub, Andrii; Vinnikov, Dmitri 2023 IEEE 17th International

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>

Wide-range operation of high step-up DC-DC converters with multimode rectifiers

Chub, Andrii; Vinnikov, Dmitri; Korkh, Oleksandr; Jalakas, Tanel; Demidova, Galina Electronics 2021 / art. 914, 20 p. : ill
<https://doi.org/10.3390/electronics10080914> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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](#)

Wind energy systems [Online resource]

Malinowski, Mariusz; Milczarek, Adam; Vinnikov, Dmitri; Chub, Andrii Power electronic converters and systems : frontiers and applications 2016 / p. 351-394 : ill http://dx.doi.org/10.1049/PBPO074E_ch12 http://www.esteeer.com/record=b4556286*est

Wireless charging station design for electric scooters : case study analysis

Shevchenko, Viktor; Pakhaliuk, Bohdan; Husev, Oleksandr; Vinnikov, Dmitri; Strzelecki, Ryszard Energies 2024 / art. 2472
<https://doi.org/10.3390/en17112472> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Voltage control tuning of a single-phase grid-Connected 3L qZS-based inverter for PV application

Pires Pimentel, Sergio; Husev, Oleksandr; Vinnikov, Dmitri; Roncero-Clemente, Carlos; Makovenko, Elena 2018 IEEE 38th International Conference on Electronics and Nanotechnology (ELNANO 2018) : Kyiv, Ukraine, 24-26 April 2018 2018 / p. 692–698 : ill
<https://doi.org/10.1109/ELNANO.2018.8477438>

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 <https://doi.org/10.6113/JPE.2015.15.1.278> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Voltage gain extension techniques for high step-up galvanically isolated DC-DC converters

Vinnikov, Dmitri; Chub, Andrii; Korkh, Oleksandr; Liivik, Elizaveta; Blinov, Andrei 2020 IEEE International Conference on Industrial Technology, Buenos Aires Institute of Technology (ITBA) Buenos Aires, Argentina, 26-28 February, 2020 : proceedings 2020 / p. 1021-1027 : ill <https://doi.org/10.1109/ICIT45562.2020.9067115> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Ülilokondensaatorid

Vinnikov, Dmitri Elektriala 2002 / 4, lk. 18-19

Анализ возможности замены автомобильной аккумуляторной батареи на ультраконденсаторы

Vinnikov, Dmitri; Boiko, Vitali; Laugis, Juhan Международная научно-техническая конференция "Состояние и перспективы развития электротехнологии" (XI Бенардосовские чтения) : Иваново, 2003 2003 / [7] с

Двухтактный квази-импедансный повышающий DC/DC преобразователь

Vinnikov, Dmitri; Husev, Oleksandr; Blinov, Andrei Технічна електродинаміка : тематичний випуск : силова електроніка та енергоефективність 2012 / с. 36-42 : ил

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 возможностей применения ультраконденсаторов в электросистеме автомобиля

Vinnikov, Dmitri; Boiko, Vitali; Laugis, Juhan Силовая электроника и энергоэффективность : СЭЭ'2003 : Алушта, Украина, 2003 2003 / [4] с

Классификация изолированных DC/DC квази-импедансных преобразователей

Chub, Andrii; Husev, Oleksandr; Vinnikov, Dmitri Вісник Національного Технічного Університету "ХПИ" 2013 / с. 15-21 : ил

Модернизация установки "Universalprüfmaschine Zwick 1435" на Пярнуской лыжной фабрике

Boiko, Vitali; Vinnikov, Dmitri; Laugis, Juhan; Ignatov, S. Automation and Control Technologies-2002 2002 / ? p

О нововведениях в учебном процессе в Институте электропривода и силовой электроники Таллиннского технического университета

Lehtla, Tõnu; Laugis, Juhan; Vinnikov, Dmitri Технічна електродинаміка 2005 / 2, с. 100-103

О результатах многолетнего сотрудничества института электропривода и силовой электроники Таллиннского технического университета с Таллиннским трамвайно-троллейбусным объединением

Vinnikov, Dmitri; Laugis, Juhan; Lehtla, Tõnu; Egorov, Mikhail Материалы Международной конференции : Международное сотрудничество в образовании и науке : Санкт-Петербург, 2-6 июня 2008 года = Proceedings of the International Conference : International Education and Science Cooperation : Saint-Petersburg, June 2-6, 2008 : IESC-2008 2008 / с. 271-279 : ил

Об институте электропривода и силовой электроники

Laugis, Juhan; Vinnikov, Dmitri; Lahtmet, Rain Международная конференция "80 лет отечественной школы электропривода" 2002 / ? р

Об опыте Института электропривода и силовой электроники ТТУ в области модернизации электроподвижного состава Таллиннского трамвайного парка

Vinnikov, Dmitri; Boiko, Vitali; Lehtla, Madis; Rosin, Argo; Laugis, Juhan Технічна електродинаміка 2004 / 3, с. 52-55 : ил

Об опыте проведения курсов повышения квалификации в институте электропривода и силовой электроники Таллиннского технического университета

Boiko, Vitali; Vinnikov, Dmitri International Conference Automation and Control Technologies - 2005 2005 / p. 15-17

Об экспериментальных испытаниях двухтактного квази-импедансного преобразователя постоянного напряжения с полупроводниковыми элементами на основе карбида кремния

Blinov, Andrei; Chub, Andrii; Vinnikov, Dmitri; Husev, Oleksandr Энергосбережение, энергетика, энергоаудит = Energy saving, power engineering, energy audit 2013 / с.51-58 : ил

Об экспериментальных испытаниях двухтактного квази-импедансного преобразователя постоянного напряжения с полупроводниковыми элементами на основе карбида кремния [Компьют. файл]

Blinov, Andrei; Chub, Andrii; Vinnikov, Dmitri; Husev, Oleksandr Международная Научно-Техническая Конференция "Силовая Электроника и Энергоэффективность" : 23-27.IX 2013, Алушта, Крым 2013 / [2] с. : ил [CD-ROM]

Обратимый двухзвенный преобразователь постоянного напряжения с разделенной коммутацией и с неизменным знаком входного и выходного напряжения

Ивахно, В.; Замаруев, В.; Стысю, Б.; Vinnikov, Dmitri; Chub, Andrii; Kosenko, Roman Вісник Національного Технічного Університету "ХПИ" 2015 / с. 402-407 : ил

Порівняння імпедансних ланок для перетворювачів з джерелом напруги

Husev, Oleksandr; Chub, Andrii; Vinnikov, Dmitri Технічна електродинаміка 2015 / с. 25-32 : ил

<https://techne.org.ua/index.php/techne/article/view/926/803> Journal metrics at Scopus Article at Scopus

Разработка и исследование статического преобразователя напряжения для трамвая

Vinnikov, Dmitri Силовая электроника и энергоэффективность : международная научно-техническая конференция (МНТК СЭЭ'2002) 2002 / ? р

Решение задачи измерения скорости в макете привода с векторным управлением

Boiko, Vitali; Vinnikov, Dmitri; Laugis, Juhan Automatika ir valdymo technologijos - 2004 = Automation and Control Technologies - 2004 : proceedings of the International Conference 2004 / p. 43-45

Состояние и тенденции развития электротранспорта в Эстонии

Laugis, Juhan; Lehtla, Tõnu; Vinnikov, Dmitri; Boiko, Vitali Труды III международной (XIV всероссийской) конференции по автоматизированному электроприводу : Нижний Новгород, 12-14 сентября 2001 2001 / с. 243-245

Сравнительный анализ повышающих преобразователей для интеграции фотоэлектрических панелей в сеть

Husev, Oleksandr; Vinnikov, Dmitri; Veligorsky, O. Энергосбережение, энергетика, энергоаудит = Energy saving, power engineering, energy audit 2013 / с. 28-34 : ил

Сравнительный анализ повышающих преобразователей для интеграции фотоэлектрических панелей в сеть [Компьют. файл]

Husev, Oleksandr; Vinnikov, Dmitri; Veligorsky, O. Международная Научно-Техническая Конференция "Силовая Электроника и Энергоэффективность" : 23-27.IX 2013, Алушта, Крым 2013 / [2] с. : ил [CD-ROM]

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

Электролиз как способ аккумуляции избыточной энергии ветроэнергетических установок
Egorov, Mikhail; Vinnikov, Dmitri; Vodovozov, Valery Технічна електродинаміка 2008 / 1, с. 42-47 : ил