

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

Yadav, Vinod Kumar; Chub, Andrii 2025 IEEE Seventh International Conference on DC Microgrids (ICDCM) 2025 / 6 p

<https://ieeexplore.ieee.org/document/11144731> <https://doi.org/10.1109/ICDCM63994.2025.11144731>

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>

Applications of game theory to design and operation of modern power systems: a comprehensive review

Navon, Aviad; Yosef, Gefen Ben; Machlev, Ram; Shapira, Shmuel; Chowdhury, Nilanjan Roy; **Belikov, Juri**; Orda, Ariel; Levron, Yoash Energies 2020 / art. 3982, 34 p <https://doi.org/10.3390/en13153982> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Assessing energy generation and consumption patterns in times of crisis : COVID-19 as a case study

Ofir, Ron; Zargari, Noa; Levron, Yoash; **Belikov, Juri** 2021 IEEE Madrid PowerTech 2021 / 6 I

<https://doi.org/10.1109/PowerTech46648.2021.9494753>

Battery storage technologies for electrical applications : impact in stand-alone photovoltaic systems

Akinyele, Daniel; **Belikov, Juri**; Levron, Yoash Energies 2017 / art. 1760, 39 p. : ill <https://doi.org/10.3390/en10111760> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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](#)

Challenges of microgrids in remote communities: a STEEP model application

Akinyele, Daniel; **Belikov, Juri**; Levron, Yoash Energies 2018 / art. 432, 35 p. : ill <https://doi.org/10.3390/en11020432> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metric at WOS](#) [Article at WOS](#)

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 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](#)

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

Congestion control strategies for increased renewable penetration of photovoltaic in LV distribution networks

Shabbir, Noman; Kütt, Lauri; Astapov, Victor; Husev, Oleksandr; Ahmadiyahangar, Roya; Wen, Fushuan; Kull, Karl Energy reports 2022 / p. 217-223 <https://doi.org/10.1016/j.egy.2022.10.184> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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 scheduling of electric vehicles and electrical storage systems in smart homes using a novel decision vector and AHP method

Ailou, Masoud; Gharehpetian, Gevork B.; **Ahmadiyahangar, Roya; Rosin, Argo**; Anvari-Moghaddam, Amjad Sustainability (Switzerland) 2022 / Art. 11773 <https://doi.org/10.3390/su141811773> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Decision support tools for wind and solar farm site selection in Isfahan Province, Iran

Barzehkar, Mojtaba; Parnell, Kevin Ellis; Mobarghaee Dinan, Naghmeh; Brodie, Graham Clean technologies and environmental policy 2021 / p. 1179–1195 <https://doi.org/10.1007/s10098-020-01978-w> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#)

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>

Determining the optimal directions of investment in regional renewable energy development

Sotnyk, Iryna; Kurbatova, Tetiana; Romaniuk, Yaroslavna; Prokopenko, Olha; Gonchar, Viktoriya; **Prause, Gunnar Klaus**; Sapiński, Aleksander Energies 2022 / art. 3646 <https://doi.org/10.3390/en15103646> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Development of realtime co-simulation platform harnessing consumer energy flexibility through an aggregator to provide grid support

Shabbir, Noman; Ahamadihangar, R; Rosin, Argo; Kilter, Jako; Martins, Joao IEEE Transactions on Consumer Electronics 2024 / p. 6641-6652 <https://doi.org/10.1109/TCE.2024.3470241> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Dilemma in Estonian renewable energy policy : do state subsidies meet public preferences?

Ehrlich, Üllas; Roodi, Margot International journal of energy 2013 / p. 59-65

"Discount" - the renewable energy production impact on electricity price

Ulm, Lauri; Koduver, Hardi; Palu, Ivo 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
<https://doi.org/10.1109/RTUCON51174.2020.9316611>

Distributed price-based power management for multibuses DC nanogrids EEMS

Carvalho da Silva, Edivan Laercio; Bellinaso, Lucas V.; Cardoso, Rafael; Michels, Leandro IEEE journal of emerging and selected topics in power electronics 2022 / p. 5509-5521 <https://doi.org/10.1109/JESTPE.2022.3152101> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Dynamic modeling and stability analysis of power networks using DQ0 transformations with a unified reference frame

Belikov, Juri; Levron, Yoash Proceedings of the Estonian Academy of Sciences 2018 / p. 368-377 : ill
http://www.kirj.ee/public/proceedings_pdf/2018/issue_4/proc-2018-4-368-377.pdf <https://doi.org/10.3176/proc.2018.67.4.05> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Economical feasibility of off-grid hybrid power supply for Estonian remote areas. Part 1 : hybrid components sizing

Bolgov, Viktor; Laanetu, Margus PQ2016 : the 10th International Conference 2016 Electric Power Quality and Supply Reliability Conference (PQ) : August 29-31, 2016, Tallinn, Estonia : proceedings 2016 / p. 179-186 : ill <https://doi.org/10.1109/PQ.2016.7724110>

Economical feasibility of off-grid hybrid power supply for Estonian remote areas. Part 2 : determination of breakeven grid extension distances

Bolgov, Viktor; Janson, Kuno PQ2016 : the 10th International Conference 2016 Electric Power Quality and Supply Reliability Conference (PQ) : August 29-31, 2016, Tallinn, Estonia : proceedings 2016 / p. 187-192 : ill <https://doi.org/10.1109/PQ.2016.7724111>

Educating the energy informatics specialist : opportunities and challenges in light of research and industrial trends

Bordin, Chiara; **Mishra, Sambeet**; Safari, Amir; Eliassen, Frank SN Applied Sciences 2021 / art. 674 <https://doi.org/10.1007/s42452-021-04610-8> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effects of economic shocks on power systems: {COVID-19} as a case study

Navon, Aviad; Orda, Ariel; Levron, Yoash; **Belikov, Juri** 2021 IEEE PES Innovative Smart Grid Technologies Europe (ISGT-Europe), 8-21 October, 2021 : proceedings 2021 / 5 p. : ill <https://doi.org/10.1109/ISGTEurope52324.2021.9640021>

Effects of the COVID-19 pandemic on energy systems and electric power grids — a review of the challenges ahead

Navon, Aviad; Machlev, Ram; Carmon, David; **Onile, Abiodun Emmanuel**; **Belikov, Juri**; Levron, Yoash Energies 2021 / art. 1056, 14 p. : ill <https://doi.org/10.3390/en14041056> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Energy security assessment of emerging economies under global and local challenges

Sotnyk, Iryna; Kurbatova, Tetiana; Kubatko, Oleksandr; Prokopenko, Olha; **Prause, Gunnar Klaus**; Kovalenko, Yevhen; Trypolska, Galyna; Pysmenna, Uliana Energies 2021 / art. 5860, 20 p. : ill <https://doi.org/10.3390/en14185860>

Enhancing innovation activities in the transition process towards renewable energy municipalities

Gerstlberger, Wolfgang Dieter; Da Mota Pedrosa, Alex; Cantner, Uwe; Kesting, Tobias International journal of innovation and sustainable development 2022 / p. 224-243 <https://doi.org/10.1504/IJSD.2022.121813> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Enhancing PV hosting capacity and mitigating congestion in distribution networks with deep learning based PV forecasting and battery management

Shabbir, Noman; Kütt, Lauri; Astapov, Victor; Daniel, Kamran; Jawad, Muhammad; **Husev, Oleksandr; Rosin, Argo;** Martins, Joao Applied energy 2024 / art. 123770 <https://doi.org/10.1016/j.apenergy.2024.123770> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Envisioning energy futures through visual images: What would a commons-based energy system look like?

Kostakis, Vasileios; Giotitsas, Christos; Kitsikopoulos, Dimitris Energy research & social science 2024 / art. 103771 <https://doi.org/10.1016/j.erss.2024.103771> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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>

Factors affecting the improvement of district heating. Case studies of Estonia and Serbia

Rušeljuk, Pavel; Volkova, Anna; Lukic, Nebojša; **Lepiksaar, Kertu;** Nikolic, Novak; Nešovic, Aleksandar; **Siirde, Andres** Environmental and Climate Technologies 2021 / p. 521–533 <https://doi.org/10.2478/rtuct-2020-0121> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Fault tolerant control of a grid-connected microgrid with high penetration of renewable energy

Senanayaka, Jagath; Khang, Huynh Van; **Vaimann, Toomas; Rassõlkin, Anton** 24th International Conference on Electrical Machines and Systems (ICEMS) 2021 / p. 938-943 <https://doi.org/10.23919/ICEMS52562.2021.9634364>

Fault-tolerant control of a grid-connected bipolar DC microgrid with high penetration of intermittent renewable energy

Senanayaka, Jagath; Khang, Huynh Van; **Rassõlkin, Anton; Vaimann, Toomas;** Zakis, Janis; Pomarnacki, Raimondas IECON 2022 - 48th Annual Conference of the IEEE Industrial Electronics Society 2022 / p. 1-6 <https://doi.org/10.1109/IECON49645.2022.9968572> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Feasibility study of a local power supply system for sparsely populated areas in Estonia

Vaimann, Toomas; Rassõlkin, Anton; Kallaste, Ants; Märss, Maido Agronomy research 2016 / p. 1720-1729 : ill http://www.ester.ee/record=b1787401*est [Journal metrics at Scopus](#) [Article at Scopus](#)

Features extraction of wind ramp events from a virtual wind park

Mishra, Sambeet; Ören, Esin; Bordin, Chiara; **Wen, Fushuan; Palu, Ivo** Energy reports 2020 / p. 237–249 <https://doi.org/10.1016/j.egyr.2020.08.047> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Financial evaluation of using off-grid as an alternative to the traditional power line construction

Mere, Tarmo; Hamburg, Arvi; Hõbejõgi, Tiit; Laidre, Marti; **Valtin, Juhan** Przegląd elektrotechniczny = Electrical review 2016 / p. 206-210 : ill

Forecasting PV energy generation using transformer-based architectures: A comparative study of Lag-Llama, TFT, and DeepAR

Amjad, Furqan; Korõtko, Tarmo; Rosin, Argo 2024 IEEE 65th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) 2024 / 6 p <https://doi.org/10.1109/RTUCON62997.2024.10830763>

Formation and characterization of stable TiO₂/Cu_xO-based solar cells

Wisz, Grzegorz; Sawicka-Chudy, Paulina; **Sibinski, Maciej;** Yavorskyi, Rostyslav; Łabuz, Mirosław; Płoch, Dariusz; Bester, Mariusz Materials 2023 / art. 5683, 15 p. : ill <https://doi.org/10.3390/ma16165683> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Frequency stability of the Israeli power grid with high penetration of renewable sources and energy storage systems

Ben Yosef, Gefen; Navon, Aviad; Poliak, Olga; Etzion, Naomi; Gal, Nurit; **Belikov, Juri; Levron, Yoash** Energy reports 2021 / p. 6148–6161 : ill <https://doi.org/10.1016/j.egyr.2021.09.057> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Fused hybrid linkers for metal–organic framework-derived bifunctional oxygen electrocatalysts

Ping, Kefeng; Braschinsky, Alan; **Alam, Mahboob; Bhadoria, Rohit; Mikli, Valdek; Mere, Arvo;** Aruväli, Jaan; Paiste, Pääm; Vlassov, Sergei; Kook, Mati; Rähn, Mihkel; Sammelselg, Väino; Tammeveski, Kaido; Kongi, Nadežda; **Starkov, Pavel** ACS Applied Energy Materials 2020 / p. 152–157 : ill <https://doi.org/10.1021/acsaem.9b02039> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Fused hybrid linkers for metal–organic frameworks-derived bifunctional oxygen electrocatalysts : [version 1.0] [Online resource]

Ping, Kefeng; Braschinsky, Alan; **Alam, Mahboob**; **Bhadoria, Rohit**; **Mikli, Valdek**; **Mere, Arvo**; **Starkov, Pavel** ChemRxiv 2019 / 10 p., S16 p. : ill <https://doi.org/10.26434/chemrxiv.7687358>

Fused hybrid linkers for metal–organic frameworks-derived bifunctional oxygen electrocatalysts : [version 2.0] [Online resource]

Ping, Kefeng; Braschinsky, Alan; **Alam, Mahboob**; **Bhadoria, Rohit**; **Mikli, Valdek**; **Mere, Arvo**; **Starkov, Pavel** ChemRxiv 2019 / 10 p., S17 p. : ill <https://doi.org/10.26434/chemrxiv.7687358.v2>

Greenhouse gas emission reduction perspectives in the Baltic States in frames of EU energy and climate policy

Roos, Inge; **Soosaar, Sulev**; **Volkova, Anna**; Streimikene, Dalia Renewable & sustainable energy reviews 2012 / p. 2133-2146 : ill <https://www.sciencedirect.com/science/article/pii/S1364032112000147>

Growth rate of solar thermal systems in Baltic States : slow but steady wins the race?

Valančius, Rokas; Borodinecs, Anatolijs; **Kalamees, Targo**; Fokaides, Paris; Jurelionis, Andrius; Jonynas, Rolandas Energy Sources, Part B: Economics, Planning and Policy 2020 / p. 423 - 435 <https://doi.org/10.1080/15567249.2020.1813844> [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](#)

How expensive is it to support renewable energy in Estonia?

Lumiste, Rünno Baltic journal of European studies 2012 / p. 26-42 https://artiklid.elnet.ee/record=b2537505*est

A hybrid Genetic Algorithm and Monte Carlo simulation approach to predict hourly energy consumption and generation by a cluster of Net Zero Energy Buildings

Garshasbi, Samira; **Kurnitski, Jarek**; Mohammadi, Yousef Applied energy 2016 / p. 626-637 : ill <https://doi.org/10.1016/j.apenergy.2016.07.033> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Impact of investments and R&D costs in renewable energy technologies on companies' profitability indicators: assessment and forecast

Prokopenko, Olha; Kurbatova, Tetiana; Khalilova, Marina; Zerkal, Anastasiia; **Prause, Gunnar Klaus**; Binda, Jacek; Berdiyrov, Temur; Klapkiv, Yuriy; Sanetra-Pólgrabi, Sabina; Komarnitskyi, Igor Energies 2023 / art. 1021, 17 p. : ill <https://doi.org/10.3390/en16031021> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Improved fractional open circuit voltage MPPT methods for PV systems

Baimel, Dmitry; Tapuchi, Saad; Levron, Yoash; **Belikov, Juri** Electronics 2019 / art. 321 <https://doi.org/10.3390/electronics8030321> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Improving dynamic stability of deregulated power system

Rouhani, Seyed Hossein; **Ahmadihangar, Roya**; **Häring, Tobias**; **Rosin, Argo** 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 <https://doi.org/10.1109/RTUCON51174.2020.9316618>

Innovative synergy CCUS and renewable energy project offshore Baltic using CO2 emissions from the cement industry

Šogenov, Kazbulat; **Šogenova, Alla** Proceedings of the 15th Greenhouse Gas Control Technologies Conference 15-18 March 2021 2021 / 11 p.: ill <https://ssrn.com/abstract=3812387>

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>

Managing Green Transformation of Baltic Sea Ports : Challenges and Drivers for Energy Saving and Renewable Energy Actions

Toomeoja, Eliise; **Gülmez, Secil**; **Tapaninen, Ulla Pirita** International Association of Maritime Economist-IAME 2025 2025 / 18 p

Marine trade-offs : comparing the benefits of off-shore wind farms and marine protected areas

Karlõševa, Aljona; Nõmmann, Sulev; **Nõmmann, Tea** Energy economics 2016 / p. 127-134 : ill <http://dx.doi.org/10.1016/j.eneco.2015.12.022>

Methodology for defining of eligible capacity for wood fuel based cogeneration plants in small towns in Estonia

Volkova, Anna; **Hlebnikov, Aleksandr**; **Siirde, Andres** Journal of energy and power engineering 2011 / p. 481-489 : ill

MIMO reinforcement learning based approach for frequency support in microgrids with high renewable energy penetration

Skiparev, Vjatseslav; Belikov, Juri; Petlenkov, Eduard 2021 IEEE Power & Energy Society General Meeting (PESGM), 26-29 July 2021 2021 / 5 p. : ill <https://doi.org/10.1109/PESGM46819.2021.9637942>

Minimal output impedance required for stability of grid-supporting inverters

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

MPC-based optimal control of battery management system in residential application

Tammaru, T.; Hokmabad, Hossein Nourollahi; Levron, Yoash; **Belikov, Juri** IEEE PES Innovative Smart Grid Technologies Conference Europe (ISGT Europe 2024) : proceedings 2024 / 5 p <https://doi.org/10.1109/ISGTEUROPE62998.2024.10863121>

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](#)

Navigation risk assessment criteria for offshore wind farms in Estonia

Zaitseva-Pärnaste, Inga; Keskküla, Pärtel; Süsmalainen, Kert Proceedings of the 35TH PIANC WORLD CONGRESS 2024 / p. 1113-1118 <https://pianc.app.box.com/s/6jd0ipzbhbi0kw1gpzhamnx7g6s43r07>

Pathway analysis of a zero-emission transition in the Nordic-Baltic region

Lund, Peter D.; Skytte, Klaus; Bolwig, Simon; Bolkesjö, Torjus Folsland; **Koduvere, Hardi** Energies 2019 / art. 3337, 20 p. : ill
<https://doi.org/10.3390/en12173337> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [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 evaluation of a three-phase PV power plant under unbalanced conditions with islanding detection reliability test

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

Photovoltaic energy yield improvement in two-stage solar microinverters

Chub, Andrii; Vinnikov, Dmitri; Stepenko, Serhii; Liivik, Elizaveta; Blaabjerg, Frede 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 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>

PMSG based residential wind turbines : possibilities and challenges

Bisenieks, Lauris; **Vinnikov, Dmitri**; Galkin, Ilja 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](#)

Potential of utilization of renewable energy technologies in Gulf countries

Basha, J. Sadik; Jafary, Tahereh; Vasudevan, Ranjit; **Hussain, Abrar** Sustainability 2021 / art. 10261, 29 p. : ill
<https://doi.org/10.3390/su131810261> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Predictive analytics beyond time series : predicting series of events extracted from time series data

Mishra, Sambeet; Bordin, Chiara; **Taharaguchi, Kota**; Purkayastha, Adri Wind Energy 2022 / p. 1596-1609
<https://doi.org/10.1002/we.2760> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A qualitative control approach to reduce energy costs of hybrid energy systems : utilizing energy price and weather data
Taebnia, Mehdi; Heikkilä, Marko; **Kurnitski, Jarek** Energies 2020 / art. 1401, 17 p. : ill <https://doi.org/10.3390/en13061401> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Readiness of small energy markets and electric power grids to global health crises: Lessons from the COVID-19 pandemic

Carmon, David; Navon, Aviad; Machlev, Ram; **Belikov, Juri**; Levron, Yoash IEEE Access 2020 / art. 9139437, p. 127234–127243
<https://doi.org/10.1109/ACCESS.2020.3008929> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Reinforcement learning based approach for virtual inertia control in microgrids with renewable energy sources
Škiparev, Vjatseslav; Belikov, Juri; Petlenkov, Eduard Proceedings of 2020 IEEE PES Innovative Smart Grid Technologies Europe (ISGT-Europe), 26-28 October, 2020 2020 / p. 1020-1024 <https://doi.org/10.1109/ISGT-Europe47291.2020.9248777>

Reinforcement learning based MIMO controller for virtual inertia control in isolated microgrids
Škiparev, Vjatseslav; Belikov, Juri; Petlenkov, Eduard; Levron, Yoash 2022 IEEE PES Innovative Smart Grid Technologies Conference Europe (ISGT-Europe) : proceedings 2022 / art. 184786, 5 p. : ill <https://doi.org/10.1109/ISGT-Europe54678.2022.9960447>

Renewable electricity in Estonia - discrepancy between state subsidies and private demand
Roodi, Margot; Ehrlich, Üllas Recent advances in energy and environmental management : [proceedings of the EE'13, GES'13, EMC'13, URES'13 : Rhodes Island, Greece, July 16-19, 2013] 2013 / p. 66-71 : ill

Responsible sourcing for energy transitions : discussing academic narratives of responsible sourcing through the lens of natural resources justice
Kügerl, Marie-Theres; **Hitch, Michael William**; Gugerell, Katharina Journal of environmental management 2023 / p. 116711, 15 p. : ill
<https://doi.org/10.1016/j.jenvman.2022.116711>

Review of technical solutions addressing voltage and operational challenges in a distribution grid with high penetration of intermittent RES
Astapov, Victor; Shabbir, Noman; Rosin, Argo; Kütt, Lauri; Maask, Vahur; Tiismus, Hans Energy reports 2025 / p. 1738-1760
<https://doi.org/10.1016/j.egy.2025.08.019>

Short-term PV energy generation forecasting using deep learning
Shabbir, Noman; Ahmadihangar, Roya; Rosin, Argo; Astapov, Victor; Kilter, Jako Telematique 2022
<https://www.provinciajournal.com/index.php/telematique/article/view/813>

Shungite-derived graphene as a carbon support for bifunctional oxygen electrocatalysts
Kazimova, Nargiz; **Ping, Kefeng; Alam, Mahboob; Danilson, Mati**; Merisalu, Maido; Aruväli, Jaan; Paiste, Päärn; Käärik, Maike; **Mikli, Valdek**; Leis, Jaan; Tammeveski, Kaido; **Starkov, Pavel**; Kongi, Nadežda Journal of catalysis 2021 / p. 178–187
<https://doi.org/10.1016/j.jcat.2021.01.004> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [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>

A sparse minimal-order dynamic model of power networks based on DQ0 signals
Belikov, Juri; Levron, Yoash IEEE transactions on power systems 2018 / p. 1059-1067 : ill
<https://doi.org/10.1109/TPWRS.2017.2702746> [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>

Storage for grid deferral : the case of Israel
Gal, Nurit; Navon, Aviad; Ben Yosef, Gefen; Levron, Yoash; **Belikov, Juri** 2021 IEEE PES Innovative Smart Grid Technologies Europe (ISGT-Europe), 8-21 October, 2021 : proceedings 2021 / 5 p <https://doi.org/10.1109/ISGTEurope52324.2021.9639938>

A tabulated sizing method for the early stage design of geothermal energy piles including thermal storage
Ferrantelli, Andrea; Fadejev, Jevgeni; Kurnitski, Jarek Energy and buildings 2020 / art. 110178
<https://doi.org/10.1016/j.enbuild.2020.110178> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Techno-economic analysis of hydrogen buffers for distributed energy systems [Electronic resource]

Andrijanoviš, Anna; Beldjajev, Viktor SPEEDAM 2012 : Sorrento (Italy) - June 20-22, 2012 : 21st edition of the International Symposium on Power Electronics, Electrical drives, Automation and Motion 2012 / p. 1401-1406 : ill [CD-ROM]
<https://ieeexplore.ieee.org/document/6264583>

The analysis of biodegradable waste as renewable resource for alternative energy production in Estonia

Blonskaja, Viktoria Ekologija 2014 / p. 27-37 : ill <https://doi.org/10.6001/ekologija.v60i2.2912> [Journal metrics at Scopus](#) [Article at Scopus](#)

The preliminary research of sea water district heating and cooling for Tallinn coastal area

Hani, Allan; Kõiv, Teet-Andrus Smart grid and renewable energy 2012 / p. 246-252 : ill
https://www.scirp.org/pdf/sgre20120300011_19171139.pdf

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](#)

A tutorial on dynamics and control of power systems with distributed and renewable energy sources based on the DQ0 transformation

Levron, Yoash; **Belikov, Juri**; Baimel, Dmitry Applied sciences 2018 / art. 1661, 48 p. : ill <https://doi.org/10.3390/app8091661> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A user interface tool for ramping behavior analysis of renewable energy

Mishra, Sambeet; Palu, Ivo PQ2016 : the 10th International Conference 2016 Electric Power Quality and Supply Reliability Conference (PQ) : August 29-31, 2016, Tallinn, Estonia : proceedings 2016 / p. 175-178 : ill <https://doi.org/10.1109/PQ.2016.7724109>

Using common household thermal storages to support the PV- and battery system in nearly zero energy buildings in off-grid mode

Häring, Tobias; Rosin, Argo; Biechl, Helmuth Sustainable energy technologies and assessments 2019 / p. 12-24 : ill
<https://doi.org/10.1016/j.seta.2019.05.014> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Wind and Solar energy optimal integration

Ulm, Lauri; Palu, Ivo; Mishra, Sambeet 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/RTUCON48111.2019.8982369>

Virtual inertia control methods in islanded microgrids

Škiparev, Vjatsjeslav; Machlev, Ram; Chowdhury, Nilanjan Roy; Levron, Yoash; **Petlenkov, Eduard**; Belikov, Juri Energies 2021 / art. 1562, 20 p. : ill <https://doi.org/10.3390/en14061562> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Virtual inertia control of isolated microgrids using an NN-based VFOPID controller

Škiparev, Vjatsjeslav; Nosrati, Komeil; Tepljakov, Aleksei; Petlenkov, Eduard; Levron, Yoash; **Belikov, Juri**; Guerrero, Joseph M. IEEE Transactions on sustainable energy 2023 / p. 1558-1568 <https://doi.org/10.1109/TSTE.2023.3237922> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Технико-экономическое обоснование автономной системы электроснабжения на примере Псковской области

Bandurin, Ivan; Shchelikalın, Vyacheslav; Smirnova, Anastasia; **Rassõlkin, Anton; Kallaste, Ants; Vaimann, Toomas** Вестник Псковского государственного университета. Технические науки 2016 / с. 100-109