

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>

Adaptive virtual inertia-damping system based on model predictive control for low-inertia microgrids

Fawzy, Asmaa; **Bakeer, Abualkasim Ahmed Ali; Magdy, Gaber**; Atawi, Ibrahim E.; Roshdy, Mohamed IEEE Access 2021 / p. 109718 - 109731 <https://doi.org/10.1109/ACCESS.2021.3101887> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Aggregator based coordinated Transactive Energy trading between Microgrids

Crasta, Cletus J.; Mishra, Sambeet; Agabus, Hannes; Palu, Ivo 2020 International Conference on Smart Grids and Energy Systems (SGES) 2020 <https://doi.org/10.1109/SGES51519.2020.00166>

Aggregator coordinated transactive energy trading for microgrids

Crasta, Cletus J. 21st International Symposium "Topical problems in the field of electrical and power engineering. Doctoral school of energy and geotechnology. III" : Pärnu, Estonia, June 15-18, 2022 2022 / p. 105-106 : ill https://www.ester.ee/record=b5504019*est

An information modeling method for electric micro grids

Korõtko, Tarmo 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. 205-208 : ill

Analysis of black start strategies for microgrids with renewable distributed generation

Armstorfer, Andreas; Biechl, Helmut; **Rosin, Argo** IECON 2019 - 45th Annual Conference of the IEEE Industrial Electronics Society : proceedings 2019 / p. 2121-2125 : ill <https://doi.org/10.1109/IECON.2019.8926631> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

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>

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 microgrid configuration effects on energy efficiency

Peterson, Kristjan; Ahmadihangar, Roya; Shabbir, Noman; Vinnal, Toomas 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/>

Analysis of protection and control functions of low voltage part of substation for smart grid applications

Mägi, Marek; Peterson, Kristjan; Pettai, Elmo PQ2012 : 8th International Conference : 2012 Electric Power Quality and Supply Reliability : June 11-13, 2012, Tartu, Estonia : conference proceedings 2012 / p. 297-304 : ill <https://ieeexplore.ieee.org/document/6256243>

Application of neural-network based variable fractional order PID controllers for load frequency control in isolated microgrids

Belikov, Juri; Nosrati, Komeil; **Škiparev, Vjatseslav; Tepljakov, Aleksei; Petlenkov, Eduard**; Levron, Yoash Power system frequency control : modeling and advances. 1st Ed 2023 / p. 203-216 : ill <https://www.elsevier.com/books/power-system-frequency-control/mishra/978-0-443-18426-0>

Applied machine learning methods in microgrid simulations

Häring, Tobias 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. 151-152 : ill https://www.ester.ee/record=b5291755*est

Bidding strategy of a microgrid considering risk interdependence between electricity and carbon markets

Yan, Yuan; Lin, Zihan; **Wen, Fushuan; Palu, Ivo** 2019 IEEE Power & Energy Society General Meeting (PESGM) 2019 / 5 p. : ill <https://doi.org/10.1109/PESGM40551.2019.8974139>

Bidirectional DC circuit breaker with improved performance during commissioning and reclosing

Pogulaguntla, Aditya; Raghavendra I, Venkata; Banavath, Satish Naik; **Chub, Andrii**; Sreekanth, Thamballa; Krishnamoorthy, Harish Sarma 24th European Conference on Power Electronics and Applications (EPE'22 ECCE Europe) 2022 / p. P1-P9 <https://ieeexplore.ieee.org/document/9907667>

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 power electronic interface for nearly-zero energy buildings

Roasto, Indrek; Jalakas, Tanel; Rosin, Argo 2018 20th European Conference on Power Electronics and Applications (EPE'18 ECCE Europe) : Riga, Latvia, 17-21 September 2018 2018 / p. 2456-2464 : ill <https://ieeexplore.ieee.org/document/8515405>

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>

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](#)

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](#)

A chameleon algorithm for solving economic dispatch problem in microgrid system

Zahraoui, Younes; Alhamrouni, Ibrahim; Mekhilef, Saad; **Korötko, Tarmo;** Jusoh, Awang; Sutikno, Tole Bulletin of electrical engineering and informatics 2023 / p. 1982-1992 <https://doi.org/10.11591/eei.v12i4.4700>

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](#)

Comparison of the impact of different household occupancies on load matching algorithms

Häring, Tobias; Ahmadihangar, Roya; Rosin, Argo; Biechl, Helmuth; **Korötko, Tarmo** 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 / 6 p. : ill <https://doi.org/10.1109/PQ.2019.8818270>

Constrained intelligent frequency control in an AC Microgrid : an Online reinforcement learning based PID tuning approach

Nosrati, Komeil; Tepljakov, Aleksei; Petlenkov, Eduard; Škiparev, Vjatseslav; Belikov, Juri; Levron, Yoash 2023 IEEE Power & Energy Society General Meeting (PESGM) 2023 / 5 p. : ill <https://doi.org/10.1109/PESGM52003.2023.10252482>

Control of an uninterruptible power supply in a DC microgrid system

Palamar, Andriy; Karpinsky, Mykola 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. 80-84 : ill

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

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

Control system for a diesel generator and UPS based microgrid

Palamar, Andriy; Pettai, Elmo; Beldjajev, Viktor Scientific journal of Riga Technical University. Serija 4, Power and electrical engineering 2010 / p. 47-52 : ill

Cooperative control of flywheel energy storage system and diesel generator for frequency regulation of microgrids using digital FIR filters

Faraji, M.; Mahdavi, Mohammad Saeed; **Gharehpetian, Gevork B.; Ahmadihangar, Roya; Rosin, Argo** 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 6 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227448>

Coordinated PI-based frequency deviation control of isolated hybrid microgrid : an online multi-agent tuning approach via reinforcement learning

Nosrati, Komeil; Tepljakov, Aleksei; Petlenkov, Eduard; Levron, Yoash; **Škiparev, Vjatseslav; Belikov, Juri** 2022 IEEE PES Innovative Smart Grid Technologies Conference Europe (ISGT-Europe) : proceedings 2022 / p. 1-5 : ill <https://doi.org/10.1109/ISGT-Europe54678.2022.9960311>

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](#)

A cyber attack taxonomy for microgrid systems

Bahsi, Hayrettdin; Dola, Henry Ochieng; Khalil, Shaymaa Mamdouh; Korötko, Tarmo 2022 17th Annual System of Systems Engineering Conference (SOSE) 2022 / p. 324-331 <https://doi.org/10.1109/SOSE55472.2022.9812642>

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 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](#)

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

Carvalho, Edivan Laercio; Sidorova, Aleksandra; Blinov, Andrei; Chub, Andrii; Vinnikov, Dmitri IEEE transactions on industrial electronics 2024 / 11 p <https://doi.org/10.1109/TIE.2023.3331125>

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 of experimental microgrid in Tallinn University of Technology

Peterson, Kristjan 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. 101-102 : ill

Development of prosumer logical structure and object modeling

Korötko, Tarmo; Rosin, Argo; Ahmadiyahangar, Roya 2019 IEEE 13th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) : [proceedings] 2019 / 6 p. : ill <https://doi.org/10.1109/CPE.2019.8862390>

Digital twins for designing energy management systems for microgrids: Implementation example based on TalTech Campulse project

Korötko, Tarmo; Zahraoui, Younes; Rosin, Argo; Agabus, Hannes 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 6 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227475>

Dynamic modeling of networks, microgrids, and renewable sources in the dq0 reference frame : a survey

Baimel, Dmitry; Belikov, Juri; Guerrero, Joseph M.; Levron, Yoash IEEE Access 2017 / p. 21323-21335 : ill <http://dx.doi.org/10.1109/ACCESS.2017.2758523>

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

Carvalho, Edivan Laercio; Blinov, Andrei; Chub, Andrii; Vinnikov, Dmitri IECON 2023- 49th Annual Conference of the IEEE Industrial Electronics Society 2023 / 6 p <https://doi.org/10.1109/IECON51785.2023.10312056>

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>

Effectiveness analysis of microgrid modules

Peterson, Kristjan 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. 146-148 : ill

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 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>

Energy efficient behavior modeling for demand side recommender system in solar microgrid applications using multi-agent reinforcement learning model

Onile, Abiodun Emmanuel; Belikov, Juri; Levron, Yoash; Petlenkov, Eduard Sustainable cities and society 2023 / art. 104392, 20 p. : ill <https://doi.org/10.1016/j.scs.2023.104392>

Energy management of an isolated microgrid : a practical case

Ghasemi-Marzbali, Ali; **Ahmadihangar, Roya**; Gouran Orimi, Sina; Shafiei, Mohammad; **Häring, Tobias; Rosin, Argo** IECON 2021 – 47th Annual Conference of the IEEE Industrial Electronics Society, 13-16 October 2021, Toronto, ON, Canada 2021 / 6 p. : ill <https://doi.org/10.1109/IECON48115.2021.9589801> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Energy scheduling of battery storage systems in micro grids

Armstorfer, Andreas; Biechl, Helmut; **Rosin, Argo** Scientific Journal of Riga Technical University. Electrical, control and communication engineering 2017 / p. 27-33 : ill <https://doi.org/10.1515/ecce-2017-0004>

Energy storage expansion planning in microgrid

Ahmadihangar, Roya; Baharvandi, Amir; Rosin, Argo; Häring, Tobias; Azizi, Elnaz; Korötko, Tarmo; Shabbir, Noman Proceedings : 2020 IEEE 14th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) : Online - Setúbal, Portugal, 08 - 10 July, 2020 2020 / p. 433-437 <https://doi.org/10.1109/CPE-POWERENG48600.2020.9161502>

Enhancing grid-forming converters control in hybrid AC/DC microgrids using bidirectional virtual inertia support

Bakeer, Abualkasim Ahmed Ali; Chub, Andrii; Abid, Abderahmane; Zaid, Sherif A.; Alghamdi, T. A. H.; Salama, Hossam S. Processes 2024 / art. 139 <https://doi.org/10.3390/pr12010139> <https://www.mdpi.com/2227-9717/12/1/139/html>

Experimental prototype of high-efficiency wind turbine based on Magnus effect

Lukin, Aleksandr; Demidova, Galina; Lukichev, Dmitry; Rassölkin, Anton; Kallaste, Ants; Vaimann, Toomas; Belahcen, Anouar 2020 27th International Workshop on Electric Drives: MPEI Department of Electric Drives 90th Anniversary (IWED), Moscow, Russia, January 27-30, 2020 2020 / 6 p <https://doi.org/10.1109/IWED48848.2020.9069565>

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 <https://doi.org/10.1109/TIE.2023.3337493>

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

Senanayaka, Jagath; Khang, Huynh Van; **Vaimann, Toomas; Rassölkin, 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; **Rassölkin, 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 energy supply in deep North Regions: the case study of Yakutia remote community (Russia)

Trashchenkov, Sergei; **Astapov, Victor; Kull, Karl** 2019 Electric Power Quality and Supply Reliability Conference (PQ) & 2019 Symposium on Electrical Engineering and Mechatronics (SEEM), Kärdla, Estonia, June 12-15, 2019 : proceedings 2019 / 6 p. : ill <https://doi.org/10.1109/PQ.2019.8818238>

Flexibility enhancement of hybrid microgrids using optimal H^∞ filtering-based fuzzy control of UIPC

Zolfaghari, Mahdi; **Ahmadihangar, Roya**; Gharehpetian, Gevork B.; **Häring, Tobias; Rosin, Argo** Proceedings : 2020 IEEE 14th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) : Online - Setúbal, Portugal, 08 - 10 July, 2020 2020 / p. 451-455 <https://doi.org/10.1109/CPE-POWERENG48600.2020.9161545>

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>

Flywheel model for microgrid simulation

Plaum, Freddy 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. 157-158 : ill https://www.ester.ee/record=b5291755*est

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](#)

Fuzzy logic control application in DC-link voltage control of the energy router

Najafzadeh, Mahdiyyeh 20th International Symposium "Topical problems in the field of electrical and power engineering. Doctoral school of energy and geotechnology. III" : Tallinn, Estonia, September 8-10, 2021 2022 / p. 59-60 : ill

https://www.ester.ee/record=b5457278*est

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](#)

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>

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

Sidorov, Vadim 21st International Symposium "Topical problems in the field of electrical and power engineering. Doctoral school of energy and geotechnology. III" : Pärnu, Estonia, June 15-18, 2022 2022 / p. 59-60 : ill https://www.ester.ee/record=b5504019*est

Hybrid energy storage lifetime-oriented control strategy in islanded microgrids : a real time simulation case study

Häring, Tobias; Link, Luca; Rosin, Argo; Biechl, Helmuth 2022 IEEE 7th International Energy Conference (ENERGYCON) 2022

<https://doi.org/10.1109/ENERGYCON53164.2022.9830437>

Impact of load matching algorithms on the battery capacity with different household occupancies

Häring, Tobias; Ahmadiyahangar, Roya; Rosin, Argo; Biechl, Helmuth IECON 2019 - 45th Annual Conference of the IEEE

Industrial Electronics Society : proceedings 2019 / p. 2541-2547 <https://doi.org/10.1109/IECON.2019.8927495> [Conference proceedings at Scopus](#) [Article at Scopus](#) [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>

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 I

<https://doi.org/10.1109/COMPEL53829.2022.9830023>

Info-gap-based optimization of microgrids integrated with power, cooling and hydrogen generation units

Mahmoudnezhad, Fayeze; Mirzaei, Mohammad Amin; Plaum, Freddy; Ahmadiyahangar, Roya; Kilter, Jako; Rosin, Argo

2022 IEEE 16th International Conference on Compatibility, Power Electronics, and Power Engineering (CPE-POWERENG) 2022 / 7 I

<https://doi.org/10.1109/CPE-POWERENG54966.2022.9880860>

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>

Integration of electric vehicles with microgrid

Kõivastik, Ivar 7th International Conference-workshop Compatibility and Power Electronics : CPE 2011 : Tallinn, Estonia, June 3, 2011 : student forum 2011 / p. 44-47 : ill

Intelligent transformer : possibilities and challenges

Beldjajev, Viktor; Roasto, Indrek; Lehtla, Tõnu Scientific journal of Riga Technical University. Serija 4, Power and electrical engineering 2011 / p. 95-100 : ill

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

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

Lifetime-oriented control strategies for hybrid energy storage systems in an islanded microgrid

Cinay, Nazli; Häring, Tobias; Rosin, Argo; Korötko, Tarmo; Ahmadiyahangar, Roya; Biechl, Helmuth 2021 22nd IEEE

International Conference on Industrial Technology (ICIT) : proceedings 2021 / p. 1-6 <https://doi.org/10.1109/ICIT46573.2021.9453617>
[Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Machine learning approach for flexibility characterisation of residential space heating

Häring, Tobias; Ahmadihangar, Roya; Rosin, Argo; Biechl, Helmuth IECON 2021 - 47th Annual Conference of the IEEE Industrial Electronics Society, Toronto, Canada, Oct. 13-16, 2021 2021 / 6 p. : ill <https://doi.org/10.1109/IECON48115.2021.9589216>
[Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Market mechanisms and trading in microgrid local electricity markets : a comprehensive review

Zahraoui, Younes; Korötko, Tarmo; Rosin, Argo; Agabus, Hannes Energies 2023 / art. 2145, 52 p. : ill <https://doi.org/10.3390/en16052145>

Mathematical modeling and analysis of a battery energy storage system for microgrids = Mikrovõrkude energiasalvestussüsteemi matemaatilise modelleerimine ja analüüs

Rahmoun, Ahmad 2017 <https://digi.lib.ttu.ee/i/?9116>

Mathematical modeling and control strategies for islanded microgrids = Saartalitluses mikrovõrkude matemaatilise modelleerimine ja juhtimisstrateegiad

Armstorfer, Andreas 2022 <https://doi.org/10.23658/taltech.71/2022> <https://digikogu.taltech.ee/et/Item/077a5b65-1320-40ac-b105-607deaa9a900> https://www.ester.ee/record=b5528446*est

Mathematical modeling and evaluation of a microgrid demonstrator in island mode

Armstorfer, Andreas; Beg, Nauman; Rahmoun, Ahmad; Rosin, Argo; Biechl, Helmuth NEIS 2017 Conference on Sustainable Energy Supply and Energy Storage Systems : Hamburg, 21 – 22 September 2017 2018 / p. 39-44 : ill <https://neis-conference.com/wordpress/wp-content/uploads/2018/03/Tagungsband-NEIS-2017.pdf> <https://ieeexplore.ieee.org/document/8421809>

Mathematical modeling and stability analysis of a microgrid in island operation

Beg, Nauman; Armstorfer, Andreas; Rosin, Argo; Biechl, Helmuth 2018 International Conference on Smart Energy Systems and Technologies (SEST), 10-12 September, 2018, Seville, Spain : conference proceedings 2018 / 6 p. : ill <https://doi.org/10.1109/SEST.2018.8495694>

Microgrid for the Department of Electrical Drives and Power Electronics

Palamar, Andriy; Pettai, Elmo 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. 54-61

Microgrid for TUT Power Engineering Building

Peterson, Kristjan 7th International Conference-workshop Compatibility and Power Electronics : CPE 2011 : Tallinn, Estonia, June 3, 2011 : student forum 2011 / p. 54-57 : ill

Microgrid oriented modeling of space heating system based on neural networks

Häring, Tobias; Kull, Tuule Mall; Ahmadihangar, Roya; Rosin, Argo; Thalfeldt, Martin; Biechl, Helmuth Journal of building engineering 2021 / art. 103150, 12 p. : ill <https://doi.org/10.1016/j.jobe.2021.103150> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Microgrid pilot in Tartu establishes model for community energy cooperative [Online resource]

Alvela, Ain news.err.ee 2022 [Microgrid pilot in Tartu establishes model for community energy cooperative](#)

Microgrids performance challenges

Kazakov, Aleksei; Janson, Kuno; Vaimann, Toomas 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. 42-46 : ill

Mikrovõrk võimaldab energiakasutust tõhusamalt juhtida

Alvela, Ain TööstusEST 2024 / lk. 26-29 : ill https://www.ester.ee/record=b4481084*est

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

Škiparev, Vjatcheslav; 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>

A multi-agent system approach for optimal microgrid expansion planning under uncertainty

Mishra, Sambeet; Bordin, Chiara; Tomasgard, Asgeir; Palu, Ivo International journal of electrical power & energy systems 2019 / p. 696-709 : ill <https://doi.org/10.1016/j.ijepes.2019.01.044> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Multifunctional energy router for residential applications = Multifunktsionaalne energiaruuter eramutele

Najafzadeh, Mahdiyyeh 2022 <https://doi.org/10.23658/taltech.25/2022> <https://digikogu.taltech.ee/et/Item/6914b8ca-7ca5-49d1-868a->

[a6de9192f8b4 https://www.eester.ee/record=b5501867*est](https://www.eester.ee/record=b5501867*est)

Multi-port i-AFE converter for grid-interactive buildings: design requirements and efficiency evaluation

Carvalho, 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>

Multiport interface converter with an energy storage for nanogrids

Roasto, Indrek; Rosin, Argo; Jalakas, Tanel IECON 2018 - 44th Annual Conference of the IEEE Industrial Electronics Society : proceedings 2018 / p. 6088–6093 : ill <https://doi.org/10.1109/IECON.2018.8591104>

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

Mashinchi Maheri, Hamed; Saadatizadeh, Zahra; Chavoshpour Heris, Pedram; Babaei, Ebrahim; 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 <https://doi.org/10.1109/RTUCON53541.2021.9711590>

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>

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 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>

Numerical demonstration of a transactive energy trading model for microgrids

Crasta, Cletus J.; Mishra, Sambeet; Agabus, Hannes; Palu, Ivo; Wen, Fushuan IET renewable power generation 2022 / p. 792-806 <https://doi.org/10.1049/rpg2.12431> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Nutikas mikrovõrk annab alakasutatud tänavavalgustustaristule uue elu

Alvela, Ain novaator.err.ee 2023 [Nutikas mikrovõrk annab alakasutatud tänavavalgustustaristule uue elu](#)

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](#)

Optimal energy management of grid-connected multi-microgrid systems considering demand-side flexibility : a two-stage multi-objective approach

Karimi, Hamid; Gharehpetian, Gevork B.; **Ahmadihangar, Roya; Rosin, Argo** Electric power systems research 2023 / art. 108902
<https://doi.org/10.1016/j.epsr.2022.108902>

Optimal operation of multi-energy microgrids in presence of hydrogen fueling stations and electric vehicle lots

Mahmoudnezhad, Fayeze 21st International Symposium "Topical problems in the field of electrical and power engineering. Doctoral school of energy and geotechnology. III" : Pärnu, Estonia, June 15-18, 2022 2022 / p. 109-110 : ill
https://www.eester.ee/record=b5504019*est

Optimal scheduling of HVACs in islanded residential microgrids to reduce BESS size considering effect of discharge duration on voltage and capacity of battery cells

Sanjareh, Mehrdad Bagheri; Nazari, Mohammad Hassan; Gharehpetian, Gevork B.; **Ahmadihangar, Roya; Rosin, Argo** Sustainable Energy, Grids and Networks 2021 / art. 100424 <https://doi.org/10.1016/j.segan.2020.100424> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Optimal ultra-local model control integrated with load frequency control of renewable energy sources based microgrids

Bakeer, Abualkasim Ahmed Ali; Magdy, Gaber; **Chub, Andrii;** Jurado, Francisco; Rihan, Mahmoud Energies 2022 / art. 9177
<https://doi.org/10.3390/en15239177> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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 reliability enhancing methods for energy router for residential application

Rahimpour, Saeed 20th International Symposium "Topical problems in the field of electrical and power engineering. Doctoral school of energy and geotechnology. III" : Tallinn, Estonia, September 8-10, 2021 2021 / p. 51-52 : ill https://www.eester.ee/record=b5457278*est

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>

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 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 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 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.eester.ee/record=b5502078*est

Power smoothing in smart buildings using flywheel energy storage

Plaum, Freddy; Häring, Tobias; Ahmadiyahangar, Roya; Rosin, Argo Proceedings : 2020 IEEE 14th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) : Online - Setúbal, Portugal, 08 - 10 July, 2020 2020 / p. 473-477 <https://doi.org/10.1109/CPE-POWERENG48600.2020.9161458>

Profit maximization by integrating demand response in multiple VPPs optimal scheduling

Asim Amin, M.; Suleman, Ahmad; Korōtko, Tarmo; Aziz, Saddam; Naseer, Muhammad Usman; Ahmad, Nisar 2022 International Conference on Electrical Engineering and Sustainable Technologies (ICEEST), 14th-15th December, 2022, Lahore, Pakistan : proceedings 2022 / 6 p <https://doi.org/10.1109/ICEEST56292.2022.10077867>

Provision of ancillary services of a nanogrid in grid connected mode

Helguero Cruz, Jorge Luis; Rosin, Argo; Biechl, Helmuth 2019 Electric Power Quality and Supply Reliability Conference (PQ) & 2019 Symposium on Electrical Engineering and Mechatronics (SEEM), Kärdla, Estonia, June 12-15, 2019 : proceedings 2019 / 4 p. : ill <https://doi.org/10.1109/PQ.2019.8818255>

Quasi-Z source T-type power converter for PV based commercial and industrial nanogrids with active functions strategy

Barrero-Gonzalez, Fermin; Roncero-Clemente, Carlos; Milanes-Montero, Maria Isabel; Gonzalez-Romera, Eva; Romero-Cadaval, Enrique; Husev, Oleksandr Electronics 2020 / art. 1233, 18 p. : ill <https://doi.org/10.3390/electronics9081233> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Reactive power sharing and voltage control for islanded microgrids at low voltage level

Helguero Cruz, Jorge Luis; Hutter, T.; Armstorfer, Andreas; Rosin, Argo; Biechl, Helmuth 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. 133-137 : ill http://ise.elnet.ee/record=b2950045~S2*est

Real-time optimal power management for a hybrid energy storage system with battery thermal consideration and DC microgrid current estimation capability

Farrokhi, Ehsan; Ghoreishy, Hoda; Ahmadiyahangar, Roya Electrical Engineering 2024 <https://doi.org/10.1007/s00202-024-02243-9>

Recent contributions, future prospects and limitations of interlinking converter control in hybrid AC/DC microgrids

Najafzadeh, Mahdiyyeh; Ahmadiyahangar, Roya; Husev, Oleksandr; Roasto, Indrek; Jalakas, Tanel; Blinov, Andrei IEEE Access 2021 / art. 9312595, p. 7960–7984 <https://doi.org/10.1109/ACCESS.2020.3049023> [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, Vjatšeslav; 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>

Research and development of electricity auction for microgrids = Mikrovõrkude elektrioksjoni uurimine ja väljatöötamine

Korõtko, Tarmo 2019 <https://digi.lib.ttu.ee/i/?12306>

Research and development of energy storage control strategies for residential area microgrids = Energiasalvestite juhtimisstrateegiate uurimine ja arendamine elamupiirkondade mikrovõrkudele

Häring, Tobias 2022 <https://doi.org/10.23658/taltech.21/2022> <https://digikogu.taltech.ee/et/Item/f8a267fc-bc0b-43be-80d0-b10d151d4174> https://www.eester.ee/record=b5499801*est

A review of communication protocols and control strategies in DC microgrids : an experimental validation focus

Veliz, Antonio; Rizzo, Sebastian; Restrepo, Carlos; Rivera, Marco; Garces-Ruiz, Alejandro; **Chub, Andrii**; Gonzalez-Castano, Catalina; Flores-Bahamonde, Freddy 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 6 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227442>

A review on realtime simulation and analysis methods of microgrids

Ahmadihangar, Roya; Rosin, Argo; Nabavi Niaki, Ali; **Palu, Ivo; Korõtko, Tarmo** International transactions on electrical energy systems 2019 / art. e12106, 16 p. : ill <https://doi.org/10.1002/2050-7038.12106> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Review on the control strategies of hybrid nanogrid

Najafzadeh, Mahdiyyeh 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. 143-144 : ill https://www.eester.ee/record=b5291755*est

Salvestiga mikrovõrk edendab hajustootmist : [TTÜ energeetikateaduskonna doktorandi Tarmo Korõtko sõnul]

Feldmann, Mati TööstusEST 2016 / lk. 20-23 : ill

Search algorithm development for novel electricity auction in microgrids

Korõtko, Tarmo; Rosin, Argo 59th Annual International Scientific Conference on Power and Electrical Engineering : November 12, 13, 2018, Riga Technical University (RTUON) : conference proceedings 2018 / 6 p. : ill <https://doi.org/10.1109/RTUON.2018.8659820>

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>

Smart transformer universal operation

Ko, Youngjong; **Chub, Andrii**; Costa, Levy; Andresen, Markus; Liserre, Marco 2018 IEEE Applied Power Electronics Conference and Exposition (APEC 2018), San Antonio, Texas, USA, 4-8 March 2018 2018 / p. 1609-1616 : ill <https://doi.org/10.1109/APEC.2018.8341232>

Stability and eigenvalue sensitivity analysis of a BESS model in a microgrid

Rahmoun, Ahmad; Beg, Nauman; **Rosin, Argo; Biechl, Helmuth** 2018 IEEE International Energy Conference (ENERGYCON 2018) : Limassol, Cyprus 3-7 June 2018 2018 / p. 342-347 : ill <http://dx.doi.org/10.1109/ENERGYCON.2018.8398792>

Stability and eigenvalue sensitivity analysis of a BESS model in a microgrid 4 Author(s)

Rahmoun, Ahmad; Beg, Nauman; **Rosin, Argo; Biechl, Helmuth** 2018 5th IEEE International Energy Conference (ENERGYCON), Limassol, Cyprus, June 3-7, 2018 : proceedings 2018 / 6 p.: ill <https://doi.org/10.1109/ENERGYCON.2018.8398792>

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

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

Stability issues with network impedances and its mitigation in islanded microgrids

Beg, Nauman; Biechl, Helmuth; **Rosin, Argo** NEIS 2019 : Conference on Sustainable Energy Supply and Energy Storage Systems Hamburg, 19-20 September, 2019 2019 / p. 189-194 <https://10times.com/neis-germany> <https://www.vde-verlag.de/buecher/565152/neis-2019.html>

Stochastic energy management for Battery Storage System-based microgrid considering different forecasting models

Zahraoui, Younes; Korõtko, Tarmo; **Rosin, Argo; Ahmadihangar, Roya** 2023 IEEE 17th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2023 / 6 p <https://doi.org/10.1109/CPE-POWERENG58103.2023.10227451>

Superconducting energy storage technology-based synthetic inertia system control to enhance frequency dynamic performance in microgrids with high renewable penetration

Magdy, Gaber; **Bakeer, Abualkasim Ahmed Ali**; Alhasheem, Mohammed Protection and Control of Modern Power Systems 2021 / Art. 36 <https://doi.org/10.1186/s41601-021-00212-z> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

TalTechi teadlased töötasid välja avatud platvormi energiavoogude juhtimiseks

digi.geenius.ee 2024 [TalTechi teadlased töötasid välja avatud platvormi energiavoogude juhtimiseks](#)

Teadlane: tulevikus võiks elamute vahel tekkida elektri mikrovõrk = Ученый: в будущем между жилыми домами может возникнуть микросеть электроэнергии

Kalamees, Targo Elamu 2022 / lk. 12-15 : fot. ; c. 35-37 : фот https://www.ester.ee/record=b1072137*est

Threat modeling of cyber-physical systems - a case study of a microgrid system

Khalil, Shaymaa Mamdouh; Bahsi, Hayretudin; Dola, Henry Ochieng; Korõtko, Tarmo; McLaughlin, Kieran; **Kotkas, Vahur** Computers & Security 2023 / art. 102950, 16 p. : ill <https://doi.org/10.1016/j.cose.2022.102950>

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>

Towards modern electricity grids

Pikner, Rando 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. 113-116 : ill

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](#)

Verification of machine learning modelling strategy in microgrid simulations

Häring, Tobias 20th International Symposium "Topical problems in the field of electrical and power engineering. Doctoral school of energy and geotechnology. III" : Tallinn, Estonia, September 8-10, 2021 2021 / p. 79-80 : ill https://www.ester.ee/record=b5457278*est

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>

Virtual inertia control methods in islanded microgrids

Škiparev, Vjatšeslav; 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, Vjatšeslav; 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>

Virtual inertia control of microgrids using deep reinforcement learning methods = Mikrovõrkude virtuaalse inertsii juhtimine sügava stiimulõppe meetoditega

Škiparev, Vjatšeslav 2023 <https://doi.org/10.23658/taltech.37/2023> <https://digikogu.taltech.ee/et/Item/6d924a63-2390-4324-bf1c-00b24111605e> https://www.ester.ee/record=b5571224*est

Voltage and reactive power control in islanded microgrids without communication link

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

Voltage source operation of the energy-router based on model predictive control

Roasto, Indrek; Husev, Oleksandr; Najafzadeh, Mahdiyyeh; Jalakas, Tanel; Rodriguez, Jose Energies 2019 / art. 1892, 15 p. . ill <https://doi.org/10.3390/en12101892> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Väljakutsed energeetikas : [avatud platvorm energiavoogude juhtimiseks]

Korõtko, Tarmo Tehnikamaailm 2024 / lk. 74-75 : fot https://www.ester.ee/record=b1073050*est

Ученый: в будущем между домами может возникнуть микросеть электроэнергии [Online resource]

Trell, Kristel Elamu : Eesti Korterühistute Liidu infoleht : [vene keeles] 2022 / C. 35-37 https://www.ester.ee/record=b2735076*est

