

**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, Ibrahem 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.esther.ee/record=b5504019\\*est](https://www.esther.ee/record=b5504019*est)

**An information modeling method for electric micro grids**  
**Korótko, 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, Helmuth; 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, Neelash; 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; Ahmadiahangar, 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, Vjatšeslav; 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.esther.ee/record=b5291755\\*est](https://www.esther.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** Salma 24th European Conference on Power Electronics and Applications (EPE'22 ECCE Europe) 2022 / p. P1-P9 <https://ieeexplore.ieee.org/document/9907667>

**Bidirectional isolated hexemode 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; Korõtko, 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; Ahmadiahangar, 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; Ahmadiahangar, Roya; Rosin, Argo; Biechl, Helmut; Korõtko, Tarmo** 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.2019.8818270>**Constrained intelligent frequency control in an AC Microgrid : an Online reinforcement learning based PID tuning approach****Nosrati, Komeil; Tepljakov, Aleksei; Petlenkov, Eduard; Škiparev, Vjatšeslav; 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.; Ahmadiahangar, 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, Vjatšeslav; 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, Hayretdin; Dola, Henry Ochieng; Khalil, Shaymaa Mamdouh; Korõtko, 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 I. <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**

**Korõtko, Tarmo; Rosin, Argo; Ahmadiahangar, 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**

**Korõtko, 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; Ahmadiahangar, 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, Helmuth; 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; Korõtko, 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, Abderrahmane; 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/htm>

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

**Lukin, Aleksandr; Demidova, Galina; Lukichev, Dmitry; Rassõlkin, 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; 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 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 $H_{\infty}$ 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.esther.ee/record=b5291755\\*est](https://www.esther.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, Mahdiyeh 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.estet.ee/record=b5457278\\*est](https://www.estet.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.estet.ee/record=b5504019\\*est](https://www.estet.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, Helmut 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; Ahmadiahangar, Roya; Rosin, Argo; Biechl, Helmut IECN 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 l  
<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; Ahmadiahangar, Roya; Kilter, Jako; Rosin, Argo 2022 IEEE 16th International Conference on Compatibility, Power Electronics, and Power Engineering (CPE-POWERENG) 2022 / 7 l  
<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**  
Köivistik, 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; Korõtko, Tarmo; Ahmadiahangar, Roya; Biechl, Helmut 2021 22nd IEEE

**Machine learning approach for flexibility characterisation of residential space heating**

**Häring, Tobias; Ahmadiahangar, 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; Korõtko, 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 matemaatiline modelleerimine ja analüüs**

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

**Mathematical modeling and control strategies for islanded microgrids = Saartalitluses mikrovõrkude matemaatiline modelleerimine ja juhtmisstrateegiad**

**Armstorfer, Andreas** 2022 <https://doi.org/10.23658/taltech.71/2022> <https://digikogu.taltech.ee/et/item/077a5b65-1320-40ac-b105-607deaa9a900> [https://www.esther.ee/record=b5528446\\*est](https://www.esther.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; Ahmadiahangar, 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 töhusamalt juhtida**

Alvela, Ain TööstusEST 2024 / lk. 26-29 : ill [https://www.esther.ee/record=b4481084\\*est](https://www.esther.ee/record=b4481084*est)

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

**Skiparev, Vjatšeslav; 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; Tomsgard, 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 = Multifunktionsaalne 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.esther.ee/record=b5501867\\*est](https://www.esther.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 Maher, Hamed; Saadatizadeh, Zahra; Chavoshipour 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.; Ahmadiahangar, 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 tänavavalguststaristule uue elu**  
Alvela, Ain novaator.err.ee 2023 [Nutikas mikrovõrk annab alakasutatud tänavavalguststaristule uue elu](#)

**Operation and design of series-resonant current-source full-bridge dc-dc converter**  
Verbytskyi, levgen; Blinov, Andrei; Vinnikov, Dmitri; Peftitsis, 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.; Ahmadiahangar, 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.esther.ee/record=b5504019\\*est](https://www.esther.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.; Ahmadiahangar, 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

**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.ester.ee/record=b5457278\\*est](https://www.ester.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 päikeseelektrijaamadele**

**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](https://www.ester.ee/record=b5502078*est)

**Power smoothing in smart buildings using flywheel energy storage**

**Plaum, Freddy; Häring, Tobias; Ahmadiahangar, 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; **Korõtko, 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, Fermín; Roncero-Clemente, Carlos; Milanes-Montero, María 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](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**

Farrokh, Ehsan; Ghoreishy, Hoda; **Ahmadihangar, 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; Ahmadihangar, 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**

**Skiparev, Vjatšeslav; 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/l/?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.esther.ee/record=b5499801\\*est](https://www.esther.ee/record=b5499801*est)

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

**Veliz, Antonio; Riff, 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, Mahdiyeh** 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.esther.ee/record=b5291755\\*est](https://www.esther.ee/record=b5291755*est)

## **Salvestiga mikrovõrk edendab hajustootmist : [TTÜ ergeetikateaduskonna doktorandi Tarmo Korõtko sõnul]**

Feldmann, Mati TööstusEST 2016 / lk. 20-23 : ill [https://artiklid.elnet.ee/record=b2756749\\*est](https://artiklid.elnet.ee/record=b2756749*est)

## **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 (RTUCON) : conference proceedings 2018 / 6 p. : ill <https://doi.org/10.1109/RTUCON.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**  
digigeenius.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 : foto [https://www.estr.ee/record=b1072137\\*est](https://www.estr.ee/record=b1072137*est)

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

Khalil, Shaymaa Mamdouh; Bahsi, Hayretdin; 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.estr.ee/record=b5457278\\*est](https://www.estr.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 inertsijuhtimine sügava stiimulõkke 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.estr.ee/record=b5571224\\*est](https://www.estr.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.estr.ee/record=b1073050\\*est](https://www.estr.ee/record=b1073050*est)

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

Trell, Kristel Elamu : Eesti Korteriühistute Liidu infoleht : [vene keeles] 2022 / C. 35-37 [https://www.estr.ee/record=b2735076\\*est](https://www.estr.ee/record=b2735076*est)

