

An ultrafast EV charging station demonstrator [Electronic resource]

Hõimoja, Hardi; Rufer, Alfred; Dziechciaruk, Grzegorz; Vezzini, Andrea SPEEDAM 2012 : Sorrento (Italy) - June 20-22, 2012 : 21st edition of the International Symposium on Power Electronics, Electrical drives, Automation and Motion 2012 / p. 1390-1395 : ill [CD-ROM] <https://ieeexplore.ieee.org/document/6264617>

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/>

Assessment of autonomous power supply system for light sensor of illumination measurement testbench

Tetervenok, Oleg; Galkin, Ilja; **Armas, Jelena** Riga Technical University 53rd International Scientific Conference dedicated to the 150th anniversary and The 1st Congress of World Engineers and Riga Polytechnical Institute : RTU Alumni, Paper 10 of Subsection of Power Electronic Converters and Applications 2012 / 6 p. : ill

Assessment of mixed energy storage system considering high spatial resolution data from a real PV installation

Rogowski, Szymon; Hasan, Sayeed; Chub, Andrii; Sibinski, Maciej 2024 19th Biennial Baltic Electronics Conference (BEC) 2024 / 6 p <https://doi.org/10.1109/BEC61458.2024.10737964> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Autonomous power supply system for light sensor of illumination measurement test bench

Tetervenok, Oleg; Galkin, Ilja; **Armas, Jelena** Scientific Journal of Riga Technical University. Electrical, control and communication engineering 2012 / p. 30-35 : ill

Battery size optimization with customer PV installations and domestic load profile

Shabbir, Noman; Kütt, Lauri; Astapov, Victor; Jawad, Muhammad; Allik, Alo; **Husev, Oleksandr** IEEE Access 2022 / p. 13012-13025 : ill <https://doi.org/10.1109/ACCESS.2022.3147977> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Construction of nonlinear feedback strategies for energy storage systems : a stochastic dynamic programming approach

Chowdhury, Nilanjan Roy; Baimel, Dmitry; **Belikov, Juri**; Levron, Yoash 2021 IEEE Madrid PowerTech 2021 / 6 p <https://doi.org/10.1109/PowerTech46648.2021.9494819>

Current harmonics of EV chargers and effects of diversity to charging load current distortions in distribution networks

Kütt, Lauri; Saarijärvi, Eero; Lehtonen, Matti; **Mölder, Heigo; Niitsoo, Jaan** 2013 International Conference on Connected Vehicles and Expo (ICCVE) : proceedings : Las Vegas, Nevada, USA, 2-6 December 2013 2013 / p. 726-731 : ill <https://ieeexplore.ieee.org/document/6799884>

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

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

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>

Energy storage facilities impact on flexibility of active distribution networks: stochastic approach

Alipour, Manijeh; Gharehpetian, Gevork B.; **Ahmadihangar, Roya; Rosin, Argo; Kilter, Jako** Electric power systems research 2022 / art. 108645 <https://doi.org/10.1016/j.epsr.2022.108645> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

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

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

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

Energy supply and storage optimization for mixed-type buildings

Rikkas, Elina Rebecka; Lahdelma, Risto Energy 2021 / art. 120839 <https://doi.org/10.1016/j.energy.2021.120839>

The European Smart Readiness Indicator (SRI) for buildings - in the making, get involved!

Litiu, Andrei; Derjanecz, Anita; **Kurnitski, Jarek** The REHVA European HVAC journal 2018 / p. 47-52 : ill <https://www.rehva.eu/rehva-journal/detail/06-2018>

Experimental verification of light electric vehicle charger multiport topology

Jalakas, Tanel; Zakis, Janis 2015 9th International Conference on Compatibility and Power Electronics (CPE) : proceedings : Faculty of Science and Technology (FCT), Caparica, Lisbon, Portugal, 24-26 June, 2015 / p. 415-418 : ill <http://dx.doi.org/10.1109/CPE.2015.7231111>

Experimental verification of novel bi-directional qZSI based DC/DC converter for short term energy storage systems [Electronic resource]

Zakis, Janis; Vinnikov, Dmitri; Roasto, Indrek; Ribickis, Leonids International Conference on Renewable Energies and Power Quality (ICREPQ'11) : Las Palmas de Gran Canaria (Spain), 13th to 15th April 2011 / [5] p. : ill. [CD-ROM] <https://www.icrepq.com/icrepq%2711/550-zakis.pdf>

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

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

Full soft-switching bidirectional isolated current-fed dual inductor push-pull DC-DC converter for battery energy storage applications [Online resource]

Kosenko, Roman; Zakis, Janis; Blinov, Andrei; Chub, Andrii; Veligorskyi, Oleksandr 2016 57th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCon) : October 13, 14, 2016 : conference proceedings 2016 / [8] p. : ill <https://doi.org/10.1109/RTUCon.2016.7763138>

FYPsim : evaluation tool for solar-based energy harvesting for WSNs

Ahmed, Faisal; Le Moullec, Yannick; Annus, Paul International journal of bioelectromagnetism 2015 / p. 75-86 : ill

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

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

Impacts of grid-scale battery systems on power system operation, case of Baltic region

Ahmadihangar, Roya; Plaum, Freddy; Häring, Tobias; Drovtar, Imre; Korötko, Tarmo; Rosin, Argo IET Smart Grid 2024 / p. 101-119 <https://doi.org/10.1049/stg2.12142>

Minimal energy storage required for stability of low inertia distributed sources

Fahima, Aviad; Ofir, Ron; Levron, Yoash; **Belikov, Juri** 2018 5th IEEE International Energy Conference (ENERGYCON), Limassol, Cyprus, June 3-7, 2018 : proceedings 2018 / 5 p. : ill <https://doi.org/10.1109/ENERGYCON.2018.8398775>

Modelling of consumption shares for small wind energy prosumers

Annuk, Andres; Yaïci, Wahiba; **Blinov, Andrei;** Märss, Mairo; Trashchenkov, Sergei; Miidla, Peep Symmetry 2021 / art. 647 <https://doi.org/10.3390/sym13040647> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Multiport DC/DC converters for renewable energy systems : general topologies and control methods

Andrijanoviš, Anna Riga Technical University 53rd International Scientific Conference dedicated to the 150th anniversary and The 1st Congress of World Engineers and Riga Polytechnical Institute : RTU Alumni, Paper 18 of Subsection of Power Electronic Converters and Applications 2012 / 6 p. : ill

Multiport DC/DC converters for renewable energy systems : general topologies and control methods

Andrijanoviš, Anna Riga Technical University 53rd International Scientific Conference dedicated to the 150th anniversary and the 1st Congress of World Engineers and Riga Polytechnical Institute/RTU Alumni : 11-12 October 2012, Riga, Latvia : [abstracts] 2012 / p. 121 : ill

New DC/DC converter for electrolyser interfacing with stand-alone renewable energy system

Blinov, Andrei; Andrijanoviš, Anna Riga Technical University 53rd International Scientific Conference dedicated to the 150th anniversary and the 1st Congress of World Engineers and Riga Polytechnical Institute/RTU Alumni : 11-12 October 2012, Riga, Latvia : [abstracts] 2012 / p. 123 : ill <https://intapi.sciendo.com/pdf/10.2478/v10314-012-0004-1>

New DC/DC converter for electrolyser interfacing with stand-alone renewable energy system

Blinov, Andrei; Andrijanoviš, Anna Riga Technical University 53rd International Scientific Conference dedicated to the 150th

anniversary and The 1st Congress of World Engineers and Riga Polytechnical Institute : RTU Alumni, Paper 23 of Subsection of Power Electronic Converters and Applications 2012 / 6 p. : ill <https://intapi.sciendo.com/pdf/10.2478/v10314-012-0004-1>

New DC/DC converter for electrolyser interfacing with stand-alone renewable energy system

Blinov, Andrei; Andrijanovičs, Anna Scientific Journal of Riga Technical University. Electrical, control and communication engineering 2012 / p. 24-29 : ill <https://intapi.sciendo.com/pdf/10.2478/v10314-012-0004-1>

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

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

An optimal control method for storage systems with ramp constraints, based on an on-going trimming process

Zargari, Noa; Ofir, Ron; Chowdhury, Nilanjan Roy; **Belikov, Juri**; Levron, Yoash IEEE Transactions on Control Systems Technology 2023 / p. 493-496 <https://doi.org/10.1109/TCST.2022.3169906> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Optimal control of energy storage devices based on Pontryagin's minimum principle and the shortest path method

Zargari, Noa; Levron, Yoash; **Belikov, Juri** Proceedings of 2019 IEEE PES : Innovative Smart Grid Technologies Europe : (ISGT-Europe), Bucharest Romania, 29 September – 2 October, 2019 2019 / 5 p <https://doi.org/10.1109/ISGTEurope.2019.8905748>

Optimal supercapacitor energy storage system sizing for traction substations

Sirmelis, Ugis; **Zakis, Janis**; Grigans, Linards 2015 IEEE 5th International Conference on Power Engineering, Energy and Electrical Drives (POWERENG) : proceedings : May 11-13, 2015, Riga, Latvia 2015 / p. 592-595 : ill <http://dx.doi.org/10.1109/PowerEng.2015.7266383>

Optimizing building hybrid energy systems for demand response marketplace operation

Savolainen, Rebecka; Einolander, Johannes; Lahdelma, Risto Journal of Energy Storage 2024 / art. 114108 <https://doi.org/10.1016/j.est.2024.114108>

Optimizing EV driving-recharge time ratio a under limited grid connection

Tsimomeny, M.; **Hõimoja, Hardi** 7th IET International Conference on Power Electronics, Machines and Drives (PEMD 2014) : Manchester, United Kingdom, 8–10 April 2014. Vol. 2 2014 / p. 903-908 : ill

Overview of bidirectional unfolding converters for battery energy storage systems

Bubovich, Alexander; Vorobyov, Maxim; Galkin, Ilja; **Blinov, Andrei**; Giannakis, Andreas 2022 IEEE 13th International Symposium on Power Electronics for Distributed Generation Systems (PEDG) 2022 / 7 p <https://doi.org/10.1109/PEDG54999.2022.9923093>

A Pathway to Circular Economy-Converting Li-Ion Battery Recycling Waste into Graphite/rGO Composite Electrocatalysts for Zinc–Air Batteries

Praats, Reio; Sainio, Jani; Vikberg, Milla; Klemettinen, Lassi; Wilson, Benjamin P.; Lundström, Mari; Kruusenberg, Ivar; Liivand, Kerli Batteries 2025 / art. 165, 18 p. : ill <https://doi.org/10.3390/batteries11040165>

Power interfaces and storage selection for an ultrafast EV charging station

Hõimoja, Hardi; Vasiladiotis, M.; Rufer, A. PEMD 2012 : Power Electronics, Machines and Drives : 27-29 March 2012, University Bristol, UK : [proceedings] 2012 / 6 p. : ill

A qualitative control approach to reduce energy costs of hybrid energy systems : utilizing energy price and weather data

Taebnia, Mehdi; Heikkilä, Marko; **Kurnitski, Jarek** Energies 2020 / art. 1401, 17 p. : ill <https://doi.org/10.3390/en13061401> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A review of optimal control methods for energy storage systems - energy trading, energy balancing and electric vehicles

Machlev, Ram; Zargari, Noa; Chowdhury, N; **Belikov, Juri**; Levron, Yoash Journal of energy storage 2020 / art. 101787, 16 p <https://doi.org/10.1016/j.est.2020.101787> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Single-phase power electronics transformer with active functions for smart grid

Minambres-Marcos, Victor; **Roasto, Indrek**; Romero-Cadaval, Enrique; Strzelecki, Ryszard; Barrero-Gonzalez, Fermin 2015 9th International Conference on Compatibility and Power Electronics (CPE) : proceedings : Faculty of Science and Technology (FCT), Caparica, Lisbon, Portugal, 24-26 June, 2015 2015 / p. 528-533 : ill <http://dx.doi.org/10.1109/CPE.2015.7231131>

Soft-switching current-FED flyback converter with natural clamping for low voltage battery energy storage applications

Kosenko, Roman; Vinnikov, Dmitri Technological Innovation for Smart Systems : 8th IFIP WG 5.5/SOCOLNET Advanced Doctoral Conference on Computing, Electrical and Industrial Systems, DoCEIS 2017, Costa de Caparica, Portugal, May 3–5, 2017 : proceedings 2017 / p. 429–436 https://doi.org/10.1007/978-3-319-56077-9_42 [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Solid electrolytes for fluoride ion batteries : ionic conductivity in polycrystalline tysonite-type fluorides

Rongeat, Carine; Reddy, M. Anji; **Witter, Raiker**; Fichtner, Maximilian ACS applied materials and interfaces ACS applied materials & interfaces 2014 / p. 2103-2110 : ill <https://doi.org/10.1021/am4052188> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Storage for grid deferral : the case of Israel

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

3D alumina-graphene hybrid nanofibers as a binder-free cathode for rechargeable LiIS batteries

Taleb, Masoud; Ivanov, Roman; Hussainova, Irina Modern Materials and Manufacturing 2019 : 12th International DAAAM Baltic Conference and 27th International Baltic Conference BALTMATTRIB 2019. Selected, peer reviewed papers from the conference Modern Materials and Manufacturing 2019 (MMM 2019), April 24-26, 2019, Tallinn, Estonia 2019 / p. 191-196 : ill <https://www.scientific.net/KEM.799.191> https://www.ester.ee/record=b5235278*est <https://doi.org/10.4028/www.scientific.net/KEM.799.191> [Conference proceeding at Scopus](#) [Article at Scopus](#)

Use of hydrogen and AI as an opportunities to increase energy autarky and create business more sustainable

Krzos, G.; Piwoni-Krzeszowska, E.; Kowalski, J.; **Prause, Gunnar Klaus** Procedia computer science 2023 / p. 3276-3285 <https://doi.org/10.1016/j.procs.2023.10.321> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Utility-scale energy storage systems : a comprehensive review of their applications, challenges, and future directions

Luo, Wensheng; Stynski, Sebastian; **Chub, Andrii**; Franquelo, Leopoldo G.; Malinowski, Mariusz; **Vinnikov, Dmitri** IEEE industrial electronics magazine 2021 / p. 17-27 <https://doi.org/10.1109/MIE.2020.3026169> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Utility-scale energy storage systems : converters and control

Stynski, Sebastian; Luo, Wensheng; **Chub, Andrii; Vinnikov, Dmitri** IEEE industrial electronics magazine 2020 / p. 32-52 <https://doi.org/10.1109/MIE.2020.3011655> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Value stream mapping for evaluation of load scheduling possibilities in a district heating plant

Melsas, Raivo; Rosin, Argo; Drovtar, Imre Transactions on environment and electrical engineering 2016 / p. 62-67 : ill <http://dx.doi.org/10.22149/teee.v1i3.34>

Value stream mapping for evaluation of load scheduling possibilities in a district heating plant [Electronic resource]

Melsas, Raivo; Rosin, Argo; Drovtar, Imre 2016 IEEE 16th International Conference on Environment and Electrical Engineering (EEEIC) : 7-10 June 2016, Florence, Italy : conference proceedings 2016 / [6] p. : ill. [CD-ROM] <https://doi.org/10.1109/EEEIC.2016.7555696>

Wind park cost efficiency increase through direct cooperation with demand side response provider [Online resource]

Melsas, Raivo; Rosin, Argo; Drovtar, Imre 2016 57th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) : October 13, 14, 2016 : conference proceedings 2016 / [5] p. : ill <https://doi.org/10.1109/RTUCON.2016.7763119>

Voltage balancing circuit for modular step-down DC/DC converter

Uljans, Austris; **Zakis, Janis** 2015 56th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) 2015 / p. 329-332 : ill