

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

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

Cable diagnostics methods for determining degradation caused by renewable energy production

Kiitam, Ivar; Taklaja, Paul; Niitsoo, Jaan; Hyvonen, Petri 2015 IEEE 5th International Conference on Power Engineering, Energy and Electrical Drives (POWERENG) : proceedings : May 11-13, 2015, Riga, Latvia 2015 / p. 220-224 : ill

Comprehensive Diagnostic Assessment of Inverter Failures in a Utility-Scale Solar Power Plant : A Case Study Based on Field and Laboratory Validation

Kull, Karl; Asad, Bilal; Naseer, Muhammad Usman; Kallaste, Ants; Vaimann, Toomas Sensors 2025 / art. 3717 <https://doi.org/10.3390/s25123717>

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](#)

Effects of PV microgeneration on rural LV network voltage quality - harmonics and unbalance

Hürmeýdan, Semih; Rosin, Argo; Vinnal, Toomas PQ2016 : the 10th International Conference 2016 Electric Power Quality and Supply Reliability Conference (PQ) : August 29-31, 2016, Tallinn, Estonia : proceedings 2016 / p. 97-100 : ill <https://doi.org/10.1109/PQ.2016.7724096>

Effects of PV microgeneration on rural LV network voltage quality [Online resource]

Hürmeýdan, Semih; Rosin, Argo; Vinnal, Toomas; Jagomägi, Andri 2016 57th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) : October 13, 14, 2016 : conference proceedings 2016 / [4] p. : ill <https://doi.org/10.1109/RTUCON.2016.7763083>

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

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

Feasibility investigation for residential battery sizing considering EV charging demand

Shabbir, Noman; Kütt, Lauri; Daniel, Kamran; Astapov, Victor; Raja, Hadi Ashraf; Iqbal, Muhammad Naveed; Husev, Oleksandr Sustainability 2022 / art. 1079 <https://doi.org/10.3390/su14031079> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Full soft-switching high step-up current-fed DC-DC converters with reduced conduction losses

Kosenko, Roman; Husev, Oleksandr; Chub, Andrii 2015 IEEE 5th International Conference on Power Engineering, Energy and Electrical Drives (POWERENG) : proceedings : May 11-13, 2015, Riga, Latvia 2015 / p. 170-175 : ill <http://dx.doi.org/10.1109/PowerEng.2015.7266313>

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

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

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

Pires Pimentel, Sergio; Husev, Oleksandr; Vinnikov, Dmitri; Roncero-Clemente, Carlos; **Stepenko, Serhii** 59th Annual International Scientific Conference on Power and Electrical Engineering : November 12, 13, 2018, Riga Technical University (RTUCON) : conference proceedings 2018 / 6 p. : ill <https://doi.org/10.1109/RTUCON.2018.8659840>

Mission profile resolution impacts on the thermal stress and reliability of power devices in PV inverters

Sangwongwanich, Ariya; Zhou, D.; Liivik, Elizaveta; Blaabjerg, Frede Microelectronics reliability 2018 / p. 1003-1007 <https://doi.org/10.1016/j.microrel.2018.06.094>

A novel hysteresis power point optimizer for distributed solar power generation

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

Operation strategy and shoot-through indirect control method for three-phase Z-source inverters

Roncero-Clemente, Carlos; Husev, Oleksandr; Romero-Cadaval, Enrique; **Vinnikov, Dmitri;** Milanes-Montero, Maria Isabel 2015

IEEE 5th International Conference on Power Engineering, Energy and Electrical Drives (POWERENG) : proceedings : May 11-13, 2015, Riga, Latvia 2015 / p. 576-581 : ill <http://dx.doi.org/10.1109/PowerEng.2015.7266380>

Problems in the operating and calculation of payback of photovoltaic systems in buildings

Saikovski, Valeri 2017 IEEE 58th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) : proceedings : Latvia, Riga, 12-13 October, 2017 2017 / [4] p. : ill <https://doi.org/10.1109/RTUCON.2017.8125624>

Simulation study of the grid-connected single-phase impedance-sourced NPC inverter with different control methods

Roncero-Clemente, Carlos; **Husev, Oleksandr**; Romero-Cadaval, Enrique; **Zakis, Janis**; **Vinnikov, Dmitri**; Milanes-Montero, Maria Isabel 2015 IEEE International Conference on Industrial Technology (ICIT 2015) : Seville, Spain, 17-19 March 2015 2015 / p. 2949-2954 : ill <https://doi.org/10.1109/ICIT.2015.7125533> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Study of simple MPPT converter topologies for grid integration of photovoltaic systems

Zakis, Janis; **Vinnikov, Dmitri** Scientific journal of Riga Technical University. Serija 4, Power and electrical engineering 2011 / p. 67-72 : ill https://www.researchgate.net/publication/258547430_Study_of_Simple_MPPT_Converter_Topologies_for_Grid_Integration_of_Photovoltaic_Systems

Three-phase three-level neutral-point-clamped qZ source inverter with active filtering capabilities

Roncero-Clemente, Carlos; **Husev, Oleksandr**; Romero-Cadaval, Enrique; Martins, Joao; **Vinnikov, Dmitri**; Milanes-Montero, Maria Isabel 2015 9th International Conference on Compatibility and Power Electronics (CPE) : proceedings : Faculty of Science and Technology (FCT), Caparica, Lisbon, Portugal, 24-26 June, 2015 2015 / p. 216-220 : ill <http://dx.doi.org/10.1109/CPE.2015.7231075>

Topology morphing control of low-cost PV microconverters

Mashinchi Maheri, Hamed; **Vinnikov, Dmitri**; **Chub, Andrii**; **Sidorov, Vadim** 2021 IEEE 19th International Power Electronics and Motion Control Conference (PEMC), 25-29 April 2021, Gliwice, Poland : proceedings 2021 <https://doi.org/10.1109/PEMC48073.2021.9432496>

Topology-morphing photovoltaic microconverter with wide MPPT voltage window and post-fault operation capability

Vinnikov, Dmitri; **Chub, Andrii**; **Zinchenko, Denys**; **Sidorov, Vadim** IEEE Access 2020 / art. 9171332, p. 153941-153955 : ill <https://doi.org/10.1109/ACCESS.2020.3017805> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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>