

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>

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>

DC microgrid: state of art, driving force, challenges and perspectives

Husev, Oleksandr; Vinnikov, Dmitri Power Systems Research and Operation : Selected Problems III 2024 / p. 149-190 https://doi.org/10.1007/978-3-031-44772-3_8 [Article collection metrics at Scopus](#) [Article at Scopus](#)

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>

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>

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>

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](#)

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

Input voltage range extension methods in the series-resonant DC-DC converters

Chub, Andrii; Vinnikov, Dmitri; Lai, Jih-Sheng 2019 IEEE 15th Brazilian Power Electronics Conference and 5th IEEE Southern Power Electronics Conference (COBEP/SPEC 2019) Santos, Brazil, 1-4 December 2019 2019 / p. 1493-1499 <http://toc.proceedings.com/52923webtoc.pdf>

Multiphase quasi-z-source DC-DC converters for residential distributed generation systems

Chub, Andrii; Vinnikov, Dmitri; Liivik, Elizaveta; Jalakas, Tanel IEEE transactions on industrial electronics 2018 / p. 8361-8371 : ill <https://doi.org/10.1109/TIE.2018.2801860> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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>

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>

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>

Study of battery energy storage operation in droop-controlled residential DC nanogrid

Hasan, Sayeed; Chub, Andrii; Vinnikov, Dmitri; Blinov, Andrei 2024 IEEE 18th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2024 / 5 p <https://doi.org/10.1109/CPE-POWERENG60842.2024.10604364>

Three-port flyback converter for photovoltaic module integration in bipolar DC microgrids

Chub, Andrii; Zinchenko, Denys; Vinnikov, Dmitri; Blinov, Andrei 2020 IEEE International Conference on Industrial Technology,

Buenos Aires Institute of Technology (ITBA) Buenos Aires, Argentina, 26-28 February, 2020 : proceedings 2020 / p. 909-914
<https://doi.org/10.1109/ICIT45562.2020.9067237> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

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](#)

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>