

**Analysis of the use of supercapacitors and batteries as energy storage elements for off-grid hybrid photovoltaic inverters**

Gonschorowski, E.; Cardoso, Rafael; **Carvalho, Edivan Laercio**; de Oliveira Stein, Carlos Marcelo; Carati, Emerson Giovanni; Denardin, Gustavo Weber; da Costa, Jean Patric 2023 IEEE 8th Southern Power Electronics Conference and 17th Brazilian Power Electronics Conference (SPEC/COBEP) 2023 / 7 p <https://doi.org/10.1109/SPEC56436.2023.10407182>

**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>

**Dynamic reconfiguration for wide output voltage range isolated buck-boost PFC converter**

**Verbytskyi, Ievgen**; Nadeem, Mohammad Mahad; Blinov, Andrei; **Carvalho, Edivan Laercio**; **Chub, Andrii**; **Vinnikov, Dmitri** 2023 IEEE 8th Southern Power Electronics Conference and 17th Brazilian Power Electronics Conference (SPEC/COBEP) 2023 / 5 p. : ill <https://doi.org/10.1109/SPEC56436.2023.10407792>

**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>

**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>

**Three-phase bidirectional isolated AC-DC matrix-converter with full soft-switching range**

**Carvalho, Edivan Laercio**; **Blinov, Andrei**; **Emiliani, Pietro**; **Chub, Andrii**; **Vinnikov, Dmitri** IEEE Access 2023 / p. 119270-119283 <https://doi.org/10.1109/ACCESS.2023.3327224>