

### **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>

### **Accuracy analysis of dual active bridge simulations under different integration methods**

Arena, Gabriele; **Vinnikov, Dmitri; Chub, Andrii**; de Carne, Giovanni 2022 AEIT International Annual Conference (AEIT) : October 3-5, 2022 2022 / p. 1-6 <https://doi.org/10.23919/AEIT56783.2022.9951711>

### **Active clamped dual current-fed bidirectional DC-DC converter for wide voltage range applications**

**Chauhan, Sachin; Blinov, Andrei; Chub, Andrii; Vinnikov, Dmitri** 2024 IEEE 65th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) 2024 / 7 p <https://doi.org/10.1109/RTUCON62997.2024.10830838>

### **Active front end converters with voltage balancing capability**

**Verbytskyi, Ievgen; Blinov, Andrei; Chub, Andrii; Vinnikov, Dmitri; Kyselova, Anna** 2024 IEEE 65th International Scientific Conference on Power and Electrical Engineering of Riga Technical University (RTUCON) 2024 / 5 p <https://doi.org/10.1109/RTUCON62997.2024.10830902> [Article at Scopus](#)

### **Active front-end DC grid-forming converter design with power balancing capability**

**Verbytskyi, Ievgen; Blinov, Andrei; Chub, Andrii; Vinnikov, Dmitri** 2025 IEEE Seventh International Conference on DC Microgrids (ICDCM) 2025 / 6 p <https://doi.org/10.1109/ICDCM63994.2025.11144688>

### **Active redundancy in fault tolerance : A modular switch level solution with synchronous switching**

Shirodkar, Aditya; Banavath, Satish Naik; **Chub, Andrii**; Mandrioli, Riccardo; Ricco, Mattia 2025 IEEE Seventh International Conference on DC Microgrids (ICDCM) 2025 / 6 p <https://doi.org/10.1109/ICDCM63994.2025.11144667> [Conference at Scopus](#)

### **Active redundancy in isolated DC-DC converters: A modular solution for fault tolerance**

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### **Air-core coupled inductor based modular solid-state circuit breaker with reduced components for DC buildings**

Pogulaguntla, Aditya; Dsa, Daniel; Yagna, Griddaluru Venkata; Banavath, Satish Naik; **Carvalho da Silva, Edivan Laercio; Chub, Andrii; Vinnikov, Dmitri** IEEE journal of emerging and selected topics in power electronics 2025 / p. 2988-2999 <https://doi.org/10.1109/JESTPE.2024.3485735>

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#### **Design and development of solid state circuit breaker with residual current protection for residential prosumer DC microgrids**

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#### **Design considerations of dual-active bridge DC grid-forming converter for DC buildings**

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#### **Design issues of SSCBs for residential DC microgrid**

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#### **Design of multiphase single-switch impedance-source converters**

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