

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

Shirodkar, Aditya; Banavath, Satish Naik; **Yadav, Neelesh; Chub, Andrii**; Mandrioli, Riccardo 2025 IEEE 19th International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG) 2025 / 5 p <https://doi.org/10.1109/CPE-POWERENG63314.2025.11027280>

Analysis of design requirements and optimization possibilities of partial power converter for photovoltaic string applications in DC microgrids

Chub, Andrii; Hassanpour, Naser; Yadav, Neelesh; Jalakas, Tanel; Blinov, Andrei; Vinnikov, Dmitri IEEE Access 2024 / p. 14605-14619 <https://doi.org/10.1109/ACCESS.2024.3354375> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Control of multiport partial power converters for PV-battery systems integration in DC microgrids

Yadav, Neelesh; Mitra, Tuhin; Makkieh, Ahmad; Chub, Andrii 2025 IEEE Seventh International Conference on DC Microgrids (ICDCM) 2025 / 6 p <https://doi.org/10.1109/ICDCM63994.2025.11144705>

Energy management implementation approach for droop-controlled residential DC nanogrids

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High-efficiency partial power converter for integration of second-life battery energy storage systems in DC microgrids

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A hybrid modulation approach for step-up/ down partial power converter with improved MPPT efficiency around zero partiality

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Improved maximum power point tracking algorithm for step-up/down partial power converters operating around zero partiality

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Maximum power point tracking algorithm for step-up/down partial power converters with improved performance around zero partiality

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Multiport current fed push/pull partial power converter for battery integration in DC microgrid

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Performance evaluation of step-up /down partial power converters based on current-fed DC-DC topologies

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Performance evaluation of step-up/down partial power converters based on current-fed DC-DC topologies

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Protection of bidirectional Step-Up/Down partial power converter against short circuit and open circuit faults and mode transition issues

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Three-port current fed push/pull partial power converter for integration of PV/battery systems in DC microgrids

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