Microgrid DC-DC converter control strategy

In response to the challenges posed by the fluctuation and instability of renewable energy generation on the energy management of DC microgrids, this paper proposes a strategy for power ...

This paper comprehensively reviews the latest developments in control techniques in DC microgrids, emphasizing their theoretical foundations, real-world applications, and performance ...

This paper develops a data-driven strategy for identification and voltage control for DC-DC power converters.

In this paper, a hybrid sliding mode and H-infinity control strategy is proposed for enhanced primary and secondary regulation in a DC microgrid feeding a tightly voltage-regulated ...

In light of the above facts, this paper presents a detailed survey on the challenges, configuration, control, and scope of DC microgrid systems. ...

However, the integration of different distributed generations has complicated the control of bus voltage and current. Therefore, several efforts have been made in the research community to ...

To mitigate the bus voltage stability issue in DC microgrid, an innovative intelligent control strategy for buck DC-DC converter with constant power loads (CPLs) via deep reinforcement learning algorithm ...

This article provides a comprehensive review of advanced control strategies for power electronics in microgrid applications, focusing on hierarchical control, droop control, model predictive control ...

While the choice of appropriate bidirectional converter topology is crucial to ensure efficient power transfer between the DC bus and the storage units, choosing the appropriate control strategy is ...

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