

Title: DC Microgrid Load Regulation

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Renewable energy sources, energy storage systems, and loads are the basic components of a DC MicroGrid. These components can be better integrated thanks to their DC feature, resulting in ...

This paper delves into the application of robust optimal control theory for voltage regulation in DC microgrids with uncertain ZIP loads. The primary challenge in DC microgrids with ...

In this article, a consensus-based algorithm is presented to achieve proportional power sharing and regulation of weighted geometric mean of bus voltages in dc microgrids with ZIP (constant ...

Abstract-In this paper a novel distributed control algorithm for current sharing and voltage regulation in Direct Current (DC) microgrids is proposed. The DC microgrid is composed of several Distributed ...

In this study, we introduced an enhanced control strategy that integrates a Luenberger observer to improve both load sharing and voltage regulation in islanded DC microgrids.

This article proposes a distributed secondary controller for dc microgrid which achieves both current sharing and voltage regulation by exchanging just one variable per converter.

This review article concluded that further research on control techniques, a standard architecture for DC microgrid, and balance of power between distributed generations (DGs) and the ...

In this paper, we proposed a robust optimal control scheme using an infinite-time optimal approach for voltage stabilization in an islanded DC microgrid with uncertain ZIP load.

Motivated by the increasing interest in DC microgrids, we study the distributed secondary control problem of DC microgrids which aims to simultaneously guarantee load current sharing and ...

This paper examines a secondary control strategy aimed at ensuring accurate power sharing and voltage



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restoration within an islanded DC microgrid supplying a constant power load.

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