Secondary Voltage Controller for Microgrid

Furthermore, DMPC has been used for all DG units as secondary controller, to achieve voltage and frequency regulation. This approach takes advantage of distributed architecture with ...

Managing frequency, voltage, and power dynamics in microgrids under varying conditions, however, poses significant challenges. This paper proposes an adaptive, data-driven secondary control ...

It is crucial to develop reliable and scalable control algorithms to achieve appropriate coordinated operation among the microgrid DERs, which is the main purpose of this paper. As is ...

This paper proposes a robust distributed secondary control strategy for AC microgrids (MGs) that ensures voltage and frequency regulation within a predefined time limit, while effectively mitigating ...

This paper mainly addresses the problem of voltage and frequency regulation as well as active power sharing in islanded AC microgrid (MG) under hybrid cyber-attacks by adopting the adaptive ...

To address this issue, in this paper, we propose a two-stage reinforcement learning secondary control method for DC microgrids, which can effectively suppress the bus voltage ...

MICROGRIDS d en-ergy resources (DERs), which can operate in both grid-connected and islanded modes. Compared with traditional fossil-fuel-based power grids, they have the advantages of fast ...

Abstract--In this paper, we address the problem of frequency and voltage control in microgrids in which generators and loads are interfaced via grid-forming (GFM) inverters.

This paper proposes consensus-based distributed secondary control for proper current sharing between converters and voltage regulation for the critical bus in DC islanded microgrids.

This paper presents an adaptive voltage controller for secondary control (SC) of standalone AC microgrid systems, adaptive parametric estimation features inherent in Model ...

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