

Title: Microgrids under attack

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By combining the secure transmission scheme and the improved secure predictive controller, this study ensures the asymptotic stability of DC microgrids under asynchronous DoS ...

We propose a novel, fully distributed transient-safe and attack-resilient secondary control strategies for AC microgrids that are designed to ensure both safety and resilience against polynomially ...

Initially, we use feedback linearization techniques to address the inherent nonlinear complexities in Distributed Generation (DG) dynamics. Moreover, during voltage regulation, ...

This makes smart microgrids vulnerable to cyber-attacks. Attackers attempt to disrupt microgrid operations by manipulating transmitted data or attacking the physical system.

However, cyber threats challenge microgrids, stemming from their dependence on digital and communication tools. False data injection (FDI) attacks are of particular concern as they can bypass ...

This paper considers a cooperative and adversarial AC microgrid system consisting of cooperative leaders and inverters, as well as adversarial attackers.

This Review surveys the key developments and challenges in securing microgrids against cyber threats, with a focus on microgrid control.

This article presents a novel data-driven methodology designed to enhance the resilience of distributed DC microgrids against various cyber attacks, including Fault Detection and Isolation ...

To this end, this paper studies the quantized fuzzy control of DC microgrids subjected to hybrid attacks, resilient ETM, quantization and mismatching premises. The main contributions are ...

AI-based cyber-attack detection and mitigation in microgrids were summarized, along with a case study where

utilizing such techniques is presented. In addition, learning-based ...

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