

Sep 28, 2021 · In the photovoltaic inverter grid-connected power generation system, the output power of photovoltaic panels is affected by illumination ...

Nov 1, 2021 · This paper proposes an adaptive finite control set model predictive control (FCS-MPC) scheme for three-phase inverters connected to distorted grid with fewer voltage ...

Feb 23, 2023 · This paper proposes an algorithmically driven approach for designing the adaptive controller for a grid-connected DC/AC inverter. The controller consists of two adaptive IIR ...

Oct 17, 2023 · By establishing and analyzing the virtual rotor rotation model, an adaptive control algorithm of inertia and damping is proposed from the ...

Jan 1, 2025 · System description The single-phase grid-tied inverter is the research object of this paper. As depicted in Fig. 2, U_{dc} represents the DC-link voltage, i represents the grid ...

Nov 1, 2022 · The development of a two-stage cascaded control strategy for a single-phase grid-connected inverter with an LCL filter based on inverter-side current ...

Apr 1, 2023 · Resonance related to the LCL-filter grid-connected inverter (GCI) is one of the most challenging issues in power electronics. Active damping is a widely used methodology to ...

Aug 7, 2025 · This paper introduces a robust and adaptive control framework that integrates a Proportional-Integral-Derivative (PID) controller with the bio-inspired Grey Wolf Optimization ...

Jan 21, 2025 · In order to enhance the adaptability of grid-connected inverters under these abnormal conditions, this research systematically summarizes and concludes a series of ...

Sep 5, 2025 · Abstract: This article presents a novel adaptive inverse model predictive control (IMPC) algorithm for grid-connected inverters that operates effectively across different filter ...

May 1, 2024 · This paper addresses a comprehensive review on various adaptive grid-following inverter control schemes developed for enhancing the power quality in r...

May 1, 2021 · In this paper, an adaptive critic design (ACD) approach is proposed to control the phase and voltage of a grid-connected virtual synchronous generator...

Nov 27, 2020 · In this thesis, the grid-connected inverter is configured to adaptively re-adjust its own control parameters based on the real-time ...

Web: <https://bladesport.co.za>