

In order to improve the static and dynamic responses of three-phase grid-connected inverter systems, this paper proposes a composite control consisting of a PI control and a repetitive control.

To damp these harmonics, this paper proposes a novel control strategy in which inverter output current is regulated by PI controller and grid current is controlled by repetitive controller (RC) for three-phase grid ...

Abstract--Grid-connected inverters (GCI) are widely used to feed power from renewable energy distributed generators into smarter grids. Repetitive control (RC) enables such inverters to inject high quality ...

In this article, a novel control method of the grid-connected inverter (GCI) based on the off-policy integral reinforcement learning (IRL) method is presented to solve two-stage three-phase photovoltaic (TTP) ...

The conventional repetitive control (CRC) cannot obtain ideal control performance when a large number of renewable energy are connected to the new power system.

In this paper, an improved proportional and repetitive control strategy is proposed, which allows grid-connected inverters to adapt to a wider range of impedance changes in the grid, and can operate stably ...

This article proposes a unified control for such inverters with current control, voltage control, and power control loops, including the PLL impact on a b c - d q transformations as the building blocks.

RC cooperates with a discrete state feedback controller. An innovative approach to tuning is proposed in which parameters of the repetitive, as well as the state feedback controller, are selected as a ...

This paper discusses the design of a repetitive feedback controller for a grid-connected two-level three-phase voltage-source inverter connected between a DC source and the grid through an LCL filter.

Web: <https://anaelenaartistapmu.es>