

## عنوان مقاله:

A Novel DG-Grid Interface Control Strategy for active power Injection management and Power Quality Improvement

## محل انتشار:

بیست و ششمین کنفرانس بین المللی برق (سال: 1390)

تعداد صفحات اصل مقاله: 9

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## خلاصه مقاله:

Power electronic based interfaces must be used to connect majority of modern Distributed Generation (DG) sources to the local grid or AC loads. In this study, a control strategy of DG-Grid interface for active power injection management, harmonic as well as unbalance and reactive currents mitigation is introduced. The active power management, which is the main task of the controller, is achieved through the dcomponent of the DG current, using synchronous rotating frame. The compensation signal is generated by Double Complex-ADaptive LInear NEuron (Double C-ADALINE). Modeling and simulation of a DG interface with the control system is given under MATLAB software environment to investigate the performance of the suggested technique. The simulation results indicate that the proposed control strategy delivers an excellent performance when is used to control a 3-leg inverter, to manage the transferring DG active power, as well as harmonic and unbalance currents compensation, and power factor .improvement in a test distribution network

## کلمات کلیدی:

DG-Grid Interface, Control Strategy, Double Complex-ADALINE, synchronous rotating frame, Power Quality

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/137028>

