

## عنوان مقاله:

Autonomous Control of Inverter-Interfaced Distributed Generation Units for Power Quality Enhancement in Islanded MicroGrids

## محل انتشار:

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## خلاصه مقاله:

Due to the expansion in utilizing distributed generations (DGs) in power systems, microgrids (MGs) have become of a particular importance. On the other hand, the increase in the use of nonlinear loads at distribution voltage levels has turned the voltage and current harmonics into the most common power quality disturbances in these systems. In this paper, a decentralized control approach based on local control of DG units is proposed for power quality enhancement in islanded MGs. In this approach, the MG voltage harmonic compensation is carried out in a selective way, and in order to fundamental power control and nonlinear load sharing among DG units, a novel structure is used for the virtual impedance. The proper performance of the proposed approach in improving the power quality of MGs has been verified by the simulation results in MATLAB software

## کلمات کلیدی:

Autonomous Control, Voltage Harmonic Compensation, Islanded Microgrids, Virtual Impedance, Nonlinear Load Sharing

## لینک ثابت مقاله در پایگاه سیویلیکا:

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