

## عنوان مقاله:

A Hybrid Active Power Filter with a New Control Strategy Used in 25-kV Electrified Railway Systems for Power Quality Improvement

## محل انتشار:

دومین کنفرانس بین المللی پیشرفتهای اخیر در مهندسی راه آهن (سال: 1388)

تعداد صفحات اصل مقاله: 7

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## خلاصه مقاله:

This paper proposes a hybrid active power filter to minimize the harmonic voltage components along a railway traction feeder. It is shown that the filter is effective in both compensating the pantograph voltage form factor, and providing reactive power to maintain the feeder voltage. The active power filter is controlled by a hysteresis current regulation strategy, mitigating low-order voltage harmonic distortion as well as maintaining its RMS voltage along the feeder. The presented theoretical concepts have been confirmed in simulation (by MATLAB/Simulink) using a model traction system and the effectiveness and robustness of the proposed hybrid compensation scheme have been proved

## کلمات کلیدی:

Railway systems, hybrid active power filter, power quality, harmonics, traction systems

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/92070>

