## عنوان مقاله:
A UPFC Based on Matrix Converter

## محل انتشار:
اولین کنفرانس بین المللی الکترونیک قدرت و سیستم های درایو (سال: 1388)

تعداد صفحات اصل مقاله: 6

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## خلاصه مقاله:
The main concept of unified power flow controller (UPFC) is based on back to back connection of two inverters with a common capacitor dc link. This capacitor brings about several disadvantages such as affecting the reliability of UPFC. This paper proposes a new topology for UPFC based on matrix converter. This configuration is combination of nine 4-quadrant switches and not any storage element. Main advantages of proposed topology are reduction of number of switches, low cost and size of UPFC. This operation of UPFC is tested and simulated on a single machine infinite bus (SMIB) using space vector modulation (SVM) technique. The UPFC is supposed to be operated on automatic power .flow control mode

## کلمات کلیدی:
Matrix Converter, UPFC, FACTS Devices, SVM