

## عنوان مقاله:

Applying Passivity-Based Control for the DC/DC Converter of PEM Fuel Cell

## محل انتشار:

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

تعداد صفحات اصل مقاله: 6

## نویسندگان:

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Kalantar - Dynamic Model; DC/DC converter; Fuel Cell

## خلاصه مقاله:

FC is a good alternative for using clean energy in most of residential and industrial applications. The FC output voltage changes proportional with current of load. Therefore for providing constant voltage in the output of FC is used DC/DC converter. In this paper, a dynamic model of PEMFC is studied. A boost converter is an interface between the FC and load. The switching model of DC/DC converter considering the losses of elements is introduced. Then a Passivity-Based Control is used for control of converter output. Simulation results show that the proposed method is very accurate in the regulating of output voltage for step changes in the input voltage and load resistance.

## کلمات کلیدی:

Dynamic Model, DC/DC converter, Fuel Cell, Passivity-Based Control

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/152810>

