## عنوان مقاله:

New ways to protect and recognize the island for DG


## محل انتشار:

کنفرانس بین المللی پژوهش در مهندسی، علوم و تکنولوژی (سال: 1394)

تعداد صفحات اصل مقاله: 12



## نویسندگان:

Seyed Omid Ghafelebashi - *Department of Electrical Engineering, Science and Research Branch, Islamic Azad University, Qazvin, Iran*

majid ghaassemi - *Department of Electrical Engineering, Science and Research Branch, Islamic Azad University,Qazvin, Iran*



## خلاصه مقاله:

Electricity demand has increased pressure on extension of generation and distribution capacity, all around the world. This is an undesirable stage in modern restructured electrical industry which is trying to improve efficiency at the minimum cost. The obvious economical solution is avoiding conventional development and utilizing distributed generation capability which provides nearby consumer with needed power. Using this category of power generators in the grid has various advantages as well as its problems. One of the problems, which is usually caused by distributed generation, is islanding phenomenon. In this study a novel approach is proposed to detect islanding phenomenon for small scaled generators. Experimental results prove its speed and precision in detection of islanding phenomenon. Here, grid will continue its operation by using load shedding. When islanding is detected, special control system designed for DG synchronization is exploited to reconnect DG after fault compensation.



## کلمات کلیدی:

Distributed generation, islanding, small scale generators, voltage protection, frequency protection