

## عنوان مقاله:

Optimal Placement and Sizing of Distributed Generation in a Radial Distribution System based on New Voltage stability Index Considering Load Growth

## محل انتشار:

چهارمین کنفرانس ملی تحقیقات کاربردی در مهندسی برق، مکانیک، کامپیوتر و فناوری اطلاعات (سال: 1397)

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## خلاصه مقاله:

Load growth in a distribution system is a natural phenomenon. With the increase in load demand and limitation in fossil fuels sources, the power losses of system and instability voltage increases. Distributed generation (DG) on of the best solutions to overcome these difficulties with load growth if they are allocated properly in the distributed system. In this paper, optimal sizing and location of one, two and three DGs are obtained to provide the incremental load, minimization of power losses, maximization of voltage stability margin and satisfy the voltage stability index (VSI). In this paper the charged search systems (CSS) algorithm is applied to determine the optimum size and location with DGs. To demonstrate the effectiveness of the proposed optimization algorithm and VSI, CSS algorithm and proposed VSI are tested for a standard 33 bus radial distributed system for loss minimization and voltage stability margin maximization. The obtained results show that the proposed method is effective and applicable for practical .networks

## کلمات کلیدی:

Distributed generation, Voltage stability index, CSS algorithm, Placement, Loss, Distribution system

## لینک ثابت مقاله در پایگاه سیویلیکا:

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