عنوان مقاله:

Multiple DG placement in distribution systems including different loads models using a heuristic algorithm

محل انتشار:

ششمین کنگره ملی تازه های مهندسی برق و کامپیوتر ایران با نگاه کاربردی بر انرژی های نو (سال: 1398)

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خلاصه مقاله:

In this paper, a heuristic algorithm, names Weight Improved Particle Swarm Optimization has been proposed for optimal allocation of multiple DGs with different load models like residential, industrial and commercial loads in the distribution system. The main objective of the present work is power loss reduction, voltage profile improvement and power line flow relieving considering the equality and inequality constraints. The performance of the proposed algorithm is tested on IEEE 33- bus distribution system for the placement of single and multiple DG units. The result shows that using the proposed algorithm is efficient for finding the optimal location and sizing of the DG units in orderto the minimization of power losses and relieving the power line flow in the distribution system. Furthermore, the system voltage profile improves and all of the buses kept within permissible limits

کلمات کلیدی:

Multiple DG, Optimal placement, WIPSO algorithm, Power losses, Voltage profile, Different load models

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