

عنوان مقاله:

Optimal Placement of DG for Loss Reduction and Voltage Improving in Radial Distribution15 BUS Systems

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خلاصه مقاله:

This paper presents the need to operate the power system economically and with optimum levels of voltages has further led to an increase in interest in Distributed Generation. In order to reduce the power losses and to improve the voltage in the distribution system, distributed generators (DGs) are connected to load bus. To reduce the total power losses in the system, the most important process is to identify the proper location for fixing and sizing of DGs. It presents a new methodology using a new population based meta heuristic approach namely Artificial Bee Colony algorithm(ABC) for the placement of Distributed Generators(DG) in the radial distribution systems to reduce the real power losses and to improve the voltage profile ,voltage sag mitigation. The power loss reduction is important factor for utility companies because it is directly proportional to the company benefits in a competitive electricity market, while reaching the better power quality standards is too important as it has vital effect on customer orientation. In this paper an ABC algorithm is developed to gain these goals all together. In order to evaluate sag mitigation capability of the proposed algorithm, voltage in voltage sensitive buses is investigated. An existing network has been chosen as .test network and results are compared with the proposed method in the radial distribution

کلمات کلیدی:

component; Distributed generation; optimal DG placement; Power loss Reduction; Artificial Bee Colony Algorithm; Voltage Sag mitigation

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