عنوان مقاله:

Load Modeling based on Real Data applying PSO Algorithm

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خلاصه مقاله:

Load modeling is one of the most important features in power system operation and stability studies. So far, various methods have been applied based on measuring the relevant load data, and obtaining the load models through the mathematical models. This paper presents a method for load modeling based on processing the recorded data by the measurement equipment with PSO algorithm, which is located in substations. In the proposed method, for improving the accuracy of the load model, some constraints are applied for eliminating the undesirable measured data. These constraints are applicable for any time periods, such as; hourly, daily, seasonally, and annually. Furthermore, a combination of the static and dynamic models is utilized. The performance of the proposed method is tested on two industrial power grids from the west regional electric company (WREC) network, and the results are thoroughly analyzed. The results have shown that the proposed method has an acceptable accuracy for load modeling in comparison with real model of the case study systems.

کلمات کلیدی:

Load modeling, Static Load Model, dynamic load model, Load Model Parameters

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