عنوان مقاله:

Optimal Power Quality Monitor Placement Using GACp Method for Distribution Network

محل انتشار:

بیست و هشتمین کنفرانس بین المللی برق (سال: 1392)

تعداد صفحات اصل مقاله: 8

نویسندگان:

Asadollah Kazemi - *Power Electrical Department Kavosh Institute of Higher Education Mahmood Abad, Iran*

Student Member - *Power Electrical Department Kavosh Institute of Higher Education Mahmood Abad, Iran*

Hajar Raihi - *Power Electrical Department Kavosh Institute of Higher Education Mahmood Abad, Iran*

Azah Mohaamed - *Department of Electrical, Electronic and System Universiti Kebangsaan Malaysia (UKM) Bangi, Malaysia*

خلاصه مقاله:

This paper presents optimal PQM placement based on the GACp method in distribution network. With regards to the optimization problem, the objective function or the fitness function in GA aims to minimize the number of allocated monitors, which is defined as the minimum absolute values of difference between the Mallow's Cp value and the number of variables plus one used in the MVR model for estimating the unmonitored buses. After selected optimal number and placement PQMs, the observability and redundancy are considered base on the MRA matrix and MP vector which can be reduced redundancy using the observability test. The proposed method is compared with previous methods based on the concepts of MRA and sag severity index (SSI) to validate its accuracy on the modified IEEE 69 bus test system

کلمات کلیدی:

Power Quality (PQ) Monitor Placement, Multivariable Regression, Mallow's Cp, Genetic Algorithm, Observability and Redundancy

لینک ثابت مقاله در پایگاه سیویلیکا:

https://civilica.com/doc/250049