عنوان مقاله:

Determining the Pattern of MV Overhead Line Failure Rate Using Poisson Regression

محل انتشار:

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خلاصه مقاله:

Improving reliability of the distribution system has necessitated the inclusion of considering precise assumptions in reliability study. Analytical methods of reliability assessment use constant reliability parameters which are not appropriate for real power distribution components and can give misleading guidance in designing and planning the distribution system. In this paper, Poisson process is used to analyze a failure history of overhead medium voltage feeders to determine their failure rate pattern. Through this method, some descriptive graphical techniques are used to evaluate the time varying failure rate. The functionality of this technique is tested on a four-year failure data of 38 overhead MV feeders of West Tehran Province Power Distribution Company. The results show that failure rate of overhead MV feeders are not constant, and an annual cyclic pattern with increasing linear trend exists in failure's data.

کلمات کلیدی:

failure rate; distibution overhead line; Poisson regression;

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