عنوان مقاله:

Reliability Analysis of Electrical Power Distribution System Considering Operational Environment: A Case Study

محل انتشار:

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خلاصه مقاله:

The Electrical power distribution system is large, complex,and integrated. Failures occur more or less frequently. Theconsequences of failure are high cost of maintenance, increasehealth, environment and safety (HES) risk, and may result anundesirable effect on the power users, etc. Therefore in orderto meet the established availability goals and customersrequirements, it is very important to consider the reliabilityand maintainability of distribution system and its components.Reliability of distribution system is greatly affected by someenvironmental variables such as temperature, humidity, snow,icing, birds and insect activities, etc. Furthermore, powerusers are located in different place with different operationalenvironment. It is means for specific component differentperformance can be expected. Furthermore, in a specificlocation the effects of environment condition can be changeduring the year and need to be considered as time dependentcovariates. Therefore, to establish an appropriatemaintenance policies the effect of these influence factors onreliability of distribution system must be identified andquantified. In this paper the effect of operational environmentsand location on the reliability of electrical power distributionis investigated using proportional hazard model

کلمات کلیدی:

Reliability; Proportional hazard model (PHM); Covariates, power distribution