Alwan, Faris Mahdi; **Baharum, Adam**; **Hasson, Saad Talib**
The p.d.f fitting to time between failure for high power stations. (English) Zbl 1264.90067
Appl. Math. Sci., Ruse 6, No. 125-128, 6327-6339 (2012).

Summary: Reliability is one of the essential factors that affects the performance of power stations. The current study deals with step down station transformers that transform electricity from 33000 KV to 11000 KV. The process of the fitting model requires data collection and analysis for use in estimating the parameters required to ascertain the suitable probability distributions. In the present paper, we determined the distribution fitting to time between failure (*TBF*). The model data were collected from ten stations from an electricity distribution company in Iraq. This paper describes the distribution fitting for one station based on failure data collection, calculated TBF, plotted the histogram for TBF, and matched the plot on the continuous distributions' functions. After conducting data analysis, the most valid distribution was found to be the Exponential distribution.

MSC:

90B25 Reliability, availability, maintenance, inspection in operations research

Keywords:

reliability function; hazard function; failure rate; distribution fitting

Full Text: Link