RELIABILITY ANALYSIS OF TWO UNIT STANDBY COPLEX SYSTEM WITH ACTIVATION MODE

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Abstract

This paper deals with the study of a two unit standby system with three modes (operation mode, activation mode and failure) mode. The system consists of two units, operative and standby unit. Whenever the operative unit fails partially or completely, the standby unit takes time for activation and failed unit wait for repair during activation period. When the activated unit starts operation, the fail unit is repaired under the preference to partially failed unit over completely failed unit. The failure and activation rates are constant and assume to follow exponential distribution however repairs follow general time distribution. The system is analyzed by supplementary variable and Laplace transform. The varies measures of reliability has been discussed such as reliability of system MTTF and profit function etc. Some particular cases have been discussed by evaluations.

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