Reliability and Performance Analysis of a Retrial K-out-of-n:G System with Warm and Cold Standbys Using Stochastic Petri Nets

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ABSTRACT

This presentation analyzes a retrial K-out-of-n:G repairable system with warm and cold standbys using Stochastic Petri Nets. The model captures component failures, repairs, and standby mode transitions. Key performance measures such as availability and reliability are derived to evaluate system dependability and compare the effects of different standby strategies.