عنوان مقاله:

Reliability analysis of a warm standby series-parallel system with different switches and bi-uncertain lifetimes

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خلاصه مقاله:

The reliability of a warm standby series-parallel system without adequate samples is studied based on the uncertainty theory. It is assumed that the lifetimes of system elements follow independent uncertainty distributions with uncertain parameters. Three different switch models, including absolutely reliable mode, discrete mode and continuous mode, are developed for the warm standby series-parallel system. Besides, the cold standby series-parallel system is discussed as a special case. The reliability function and mean time to failure of each developed model are analyzed. A numerical example for the system with different switches is implemented to illustrate the application and efficiency of the proposed models.

کلمات کلیدی:

Uncertainty theory, bi-uncertain variable, warm standby system, reliability, mean time to failure

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