

عنوان مقاله:

Reliability Analysis of Three Elements in Series and Parallel Systems under Timevarying Fuzzy Failure Rate

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خلاصه مقاله:

Reliability is the most important performance issue in engineering design process but in the real world problems, there are limitations for using conventional reliability. Fuzzy logic has proved to be effective in expressing uncertainties in different fields, including engineering reliability. In this paper, for both series and parallel systems composed of three identical or different elements, the reliability has been analyzed using the fuzzy concepts and some characteristics such as the mean time to failure have been evaluated, taking in our account that all the operating units have increasable time varying failure rates with fuzzy triangular membership functions. This paper includes a numerical example to illustrate the model and validate the analytical results

کلمات کلیدی:

Reliability Analysis, Mean Time to Failure, Time-varying Fuzzy Failure Rates, Parallel System, Series System

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