Abstract

Reliability has vital significance to engineers and designers in a safety system. Consequently, failures free operation of components or sub-systems is of their key concern. To assess the reliability of such systems quantitatively, failure data of the components or sub-systems is essentially required. In general, such data is either not pre-recorded or present in linguistic form (good, bad etc). For quantitative evaluation of reliability the usual probabilistic considerations seems to be inadequate. Therefore, in this paper, conventional fault tree analysis (FTA) approach integrated with fuzzy theory has been used to evaluate the reliability of a fire detector system using fuzzy failure possibilities of components (or sub-systems).

References

Fuzzy Reliability Evaluation of a Fire Detector System

- Nikolaos, L. 2007. Fault trees, ISTE.

Index Terms

Computer Science Fuzzy Systems

Keywords

Fire Detector System Fault Tree Fuzzy Failures Fuzzy Numbers Fta And Reliability