APPLICATION OF ANALYTIC HIERARCHY PROCESS TO DETERMINING A PRIORI DISTRIBUTION OF ERROR-FREE RUNNING TIME FOR HIGH-RELIABILITY COMPONENTS

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ABSTRACT

We have considered the approach to determining a priori distribution of error-free running time for high-reliability components by the method of paired comparisons useful for the increase of their reliability indicators. The fuzzy variables are introduced. The degrees of membership of these fuzzy variables are interpreted as subjective probability of finding the error-free running time in different time intervals. The method of recording the expert evaluation accuracy has been suggested.

Keywords: AHP, priori distribution, error-free running time, high-reliability components, expert evaluation accuracy

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