HEURISTIC ALGORITHM ON MONTE CARLO FOR CONSTRAINED REDUNDANCY OPTIMIZATION OF COMPLEX SYSTEM

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ABSTRACT

A simple computational procedure has been developed by using Monte Carlo for allocating redundancy among subsystems so as to achieve maximum reliability of a complex systems subjected to multiple constraints which may be linear, non linear separable or non separable. Two examples of linear, non linear separable and non separable constraints with having twenty problems are solved.

KEYWORDS: Active Redundancy, System Reliability, Constraints, Problem Formulation, Monte Carlo Algorithm