

Abstract:

Nowadays, rapid technological change influences the dependability of industrial components by the phenomenon of “obsolescence.” The technological obsolescence of a unit is characterized by the existence of a new-generation unit possessing identical functionalities, but with improved performances. The industrial firms seek to optimally replace the old-generation units by maximizing the number of replaced items, in order to deal with obsolescence of the plant. This paper presents the applicability of a flexible model for thirty components, using a modern bio-inspired and evolutionary computational algorithm called “Cuckoo Optimization Algorithm (COA)”.