

ABSTRACT

Global Optimization methods play an important role to solve real problems. Good algorithm method is not easy to get stuck in a local optimization effectively and efficiently. Today, the Hybrid optimization method has shown the potential to achieve these challenges. In this thesis introduced a method, Hybrid Evolutionary Algorithm Firefly which is a combination of Firefly Algoritm and Differential Evolutionary to improve search optimization on Traveling Salesman Problem. The results showed that HEFA can find the optimum route with 90 accurary% for up to 51 cities and these results prove that HEFA successfully solve TSP problem with good accuracy.

Keywords : *Hybrid Evolutionary Firefly Algorithm, Firefly Algorithm, Travelling Salesman Problem*