Abstract

The problem of finding the optimal path in MANET is a well known problem due to the mobility of its nodes. Optimal routing is associated with the total cost reduction of a path. The main goal of this paper is to consider the problem of path optimization between the sender and receiver in a dynamic network. A new adaptive algorithm based on genetic techniques is proposed to find out the Optimal Path in dynamic nature problem. Genetic algorithm provides the solution of optimal path using the technique which is inspired by the natural process that is initial population, selection, crossover and mutation. The proposed algorithm used a repair function to cure all the infeasible chromosomes. The quality of solutions and rate of
convergence is enhanced by performing the crossover and mutation function on the initial population. Even though path optimization algorithms are already well established, but the researchers are still trying to find the alternative methods to optimize the paths in a dynamic network. One such alternative is to use genetic algorithm. The first section of this paper explain the introduction, second explains the genetic operator used in algorithm, third is about the proposed algorithm, fourth about the proposed work and last fifth section have the conclusion of this paper.

References

- Samir R. Das, Charles E. Perkins and Elizabeth M. Royer, "Performance Comparison of Two On-demand Routing Protocols for Ad Hoc Networks".

Index Terms

Computer Science

Advances In Computer

Application

Keywords
Optimization of Route in a Network using Genetic Algorithm

Crossover  Mutation  Manet  Selection