Abstract

The unmanned aerial vehicles (UAV) can be used in various fields such as weather applications, military applications, remote sensing, oceanography etc. There are many problems for UAV to find best and obstacle free path by detecting obstacle and calculate turn. In this paper, a novel method has proposed model for the obstacle free UAV routing by using the multi-factor distances. The proposed model is entirely based upon the UAV turn calculation based shortest path with minimum number of obstacles and turns. The multi-factor distance has been computed which includes the distance between the source and destination, UAV and obstacles, obstacles and obstacles, angle of rotation (Degree of rotation) and other several factors. This proposed model is also sufficient to track the fuel and find best have been obtained in the form of various network parameters of latency of the hurdle detection, energy consumption, load, route persistence comparison. The experimental results have advocated the robustness of the path planning solution for the UAV path planning.

References


Index Terms

Computer Science  Signal Processing

Keywords
UAV Routing, collision avoidance, alternative path planning, collision detection