عنوان مقاله:

A New Obstacle Avoidance Algorithm for Quad rotors Group in the presence of Dynamic and Static Obstacles

محل انتشار:

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خلاصه مقاله:

In this paper a new geometric-based collision avoidance scheme is presented for a group of quad rotor in environment with static and dynamic obstacles. The objective is to consider the full dynamics of the system to design obstacle avoidance controllers for the group of quad rotors. We introduce a method for both moving and non-moving obstacles. The proposed algorithm guide group toward the target in the path which is tangent to obstacle defined safe circle and optimize trajectory for minimized path to target. Due to simulation results, it is independent of the number of agents and applicable for static and dynamic obstacles. Simulation results are presented to validate the designed algorithm.

کلمات کلیدی:

Obstacle Avoidance, flying robot, Geometric Approach, dynamic obstacle, Path planning

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