

عنوان مقاله:

Planning a Robust Path for Mobile Robots in Dynamic Environment

محل انتشار:

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خلاصه مقاله:

In this paper, we propose a new method for mobile robot path planning in dynamic environment when the trajectories of obstacles are unknown. Our algorithm first utilizes a global approach called clearance based probabilistic roadmap method to find a suitable path and then locally apply evolutionary algorithm to keep the structure of the path when obstacles collide with the path. As a result, the path will act like an elastic band. To reach real time applicability, a light fitness function is proposed compare to other genetic algorithms to reduce the computation time needed for calculating and repairing path. Simulation results show that our method not only can keep the original structure of .path, but also repair operation is done quickly even in the scenes with many obstacles

کلمات کلیدی:

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