Abstract

It is a challenging task for the blind people to perceive indoor environment information and walk independently. Path planning is a crucial requirement to provide constant assistance for blind people to navigate from one location to another. This paper presents a novel system for path planning to assist blind people for walking through the indoor environment and avoiding the obstacles. The algorithm is based on genetic algorithm and A* algorithm to select the shortest path that achieves the lowest computational time. A comparison among the GA, A* and the new algorithm shows that is faster and shorter than the previous algorithms.

References


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Path planning, grid map, Genetic Algorithm, A Star algorithm, Path guidance.