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


20. X. Chen, Y. Kong, X. Fang and Q. Wu, "A fast two-stage ACO algorithm for robotic path
38. L. Yu, Z. Wei, Z. Wang, Y. Hu and H. Wang, "Path optimization of AUV based on


Index Terms

Computer Science Information Systems

Keywords

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