

This paper describes how soft computing technology as Genetic Algorithms (GAs) can be applied for path planning of an Autonomous Mobile Robot (AMR). GAs are search algorithms based on the mechanics of natural genetics. They combine survival of the fittest among string structures with a structured yet randomized information exchange to form a search algorithm with some of the innovative flair of human search. The proposed GA approach has an advantage of adaptivity such that the GA works perfectly even if an environment is unknown. . These environments were randomly generated . While randomized, GAs are no simple random walk. They efficiently exploit historical information to speculate on new search points (sub path positions) with expected improved performance. We measure the number of generations of candidates. The coding of GA is to affect label 0 for free cell and 1 for hazardous cell. This way of work is very useful later if the substring is inherited to new generations by genetic operators. The objective is to find a feasible and flexible path from initial area source to destination target area, flexible because the user can change the position of obstacles it has no effect since the environment is unknown. This robust method can deal a wide number of environments and gives to our robot the autonomous decision of how to avoid obstacles and how to attend the target. More, the path planning procedure covers the environments structure and the propagate distances through free space from the source position. For any starting point within the environment representing the initial position of the mobile robot, the shortest path to the goal is traced. The results gotten of the GA on randomly generated terrains are very satisfactory and promising