ABSTRACT

In a campus area needed an internal transportation for connect the campus building to another with long distance. Therefore, the design of Campus Car Transport is a solution to overcome these problems.

The transporter designed to have a special line. In this design uses two robot cars will traverse a path that has three terminals and an intersection in the middle of the track. To manage the queue and the conditions that should be done in order to avoid a car collision , it would require an artificial intelligence that is implemented in the car. The algorithm used to determine the condition of the car is fuzzy logic.

To get a decision, input values provided by the sensor will be fuzzification to get the value of membership. The membership value will be used in the fuzzy rules to determine the condition of the car. Then the conditions that have been found will be defuzzification and its value will be sent by the server to the robot car. After testing using 10 scenarios of the cars position, fuzzy logic system can solve 9 of 10 cars testing scenarios to avoid a collision.

Keyword :Fuzzy logic, Car, Artificial intelligence