A Study of Combining Revised Genetic Algorithms and Google Map on the Vehicle Routing Problem

謝成德、陳郁文

E-mail: 386744@mail.dyu.edu.tw

ABSTRACT

Due to the booming of freight transportation in recent years which promotes the distribution markets in Taiwan, suppliers of products, logistics centers and retailers will form a supply network, whether the logistics center can deliver the goods quickly and correctly is an important factor on the supply chain. The freight companies in the past often depend on driver ’s experience when choosing routes, without a standard route will lead to the happening of problems when delivering sometimes, thus this study adopts heuristic methods in the travelers ’ problems cooperating with algorithm to solve the problem of vehicle route, so as to get a shortcut in a short time to provide route selection of vehicles. This study adopts genetic algorithm and improves the no clone, mating mutation generation directly in it to solve the problem of vehicle route and get the shortcut, so as to save time and cost in transportation, and by combining the GPS positioning of mobile phone to position and mark in Google Maps to provide current location of the vehicle for the supplier and retailer.

Keywords : Traveling Salesman Problem、Genetic Algorithm、Vehicle Routing Problem、Location Monitoring

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