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GO Deliver – Multi-Objective Optimization in Courier Services

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Abstract

Courier services play a vital role in our day to day activities. In the era of globalization urgent documents are sent through courier services. Customers tend to rely on the courier services that it will give a fast and a safety delivery. It is a known fact that most customers choose the cost-effective courier service provider. GO Deliver will meet all these requirements and it will produce cost effective, fast and a safety delivery to the packages which needs to be transported. In most of the courier services there aren't many options to select between cost. GO Deliver will allow the user to prioritize the requirement as high, medium and low for the time, cost and safety and will produce the best solution. Also, it will allow the user to customize the factors according to the need. Existing courier services lack in producing the above features. Therefore, the need to efficient the current courier services will be a necessity. It will facilitate the customers as well as the courier service providers. Package delivery is containing several steps until it reaches the final destination. It is impossible to carry all the steps manually as there are several steps and calculations. As there are many drawbacks in existing systems an approach called Multi-Objective Optimization was introduced to solve this problem by applying optimization algorithm to produce a better solution. Therefore, a Multi-Objective Optimization in courier services called GO Deliver is proposed, which will produce a fast, cost-optimal and shortest path for the courier needs.

Subject Descriptors:

- **Theory of Computation** ~ Optimization with randomized search heuristics
- **Computing methodologies** ~ Optimization algorithms
- **Machine learning** ~ Genetic programming
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- **Social and professional topics** ~ Pricing and resource allocation

Key words:

Shortest path, Multi objective Optimization, Genetic algorithm, Artificial Intelligence