

# Route Optimization with Fleet Management

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**Abstract.** Finding the best route to deliver is one of the most essential items in a courier service all around the world. Therefore, having a route optimizing and fleet managing system can be very useful for courier service drivers as it helps to provide the dispatchers with a cost-efficient route, prevent unplanned stops, and reduce bottlenecks within the delivery network by avoiding heavy traffic. There are few fleet managing systems around the world but currently, there are no such well-developed systems in Sri Lanka. The aim of this project is to develop a route-optimizing and fleet-managing system using functions that are used in the existing systems while adding new features and advancing some of the existing functions. The cause of this project is to study a problem related to both the Courier Service companies and package deliverers of those corresponding companies in Sri Lanka. Here, the path is adjusted to allow for the quickest delivery of the packages while still taking the optimal route. This helps ensure that all items are delivered promptly. In this project, the created system may be utilized to assist dispatchers in finding economical routes, avoiding traffic, increasing throughput throughout the day, and enabling administrators of delivery companies to effectively manage fleets.

**Keywords:** *fleet management system, route optimization*