# ABSTRACT

One of the companies operating in the logistics sector is PT. RAF Cahaya Lestari. The main focus of this company is to provide services in the form of logistics transport trucks along with manpower in the form of drivers. The issue experienced by the company is the occurrence of accidents involving drivers during the delivery of goods, which possibly originate from the driver's working hours and suboptimal delivery routes.

The aim of this final research project is to minimize the level of accidents caused by drivers by designing driver work hour schedules and determining optimal routes for delivery. This research intends to redesign the driver's delivery schedule.

For the selected route, which is a route with a distance exceeding 168.6 km, there are 7 data samples that exceed 168.6 km. The reason for selecting a route with a distance greater than 168.6 km is because, in accordance with the principle that longer distances result in longer travel times. Therefore, a route exceeding a distance of 168.6 km was chosen. The strengths and weaknesses of the proposed route design are as follows. The advantage of the route is that it starts from the nearest factories/companies, which helps minimize the travel distance. On the other hand, a drawback of the proposed route design is that the delivery of goods must follow the sequence of the chosen route. If there are companies requesting additional deliveries, they would have to wait in accordance with the sequence of the delivery route.

The nearest neighbor heuristic method is employed to determine delivery routes starting from the shortest, and then proceeding to arrange subsequent routes based on distance matrices. Additionally, the design of the driver's schedule is accomplished using the Greedy Algorithm method, which involves an approach to problem-solving by seeking maximum value at each step. The obtained results consist of the creation of optimal routes and the design of driver schedules that can be implemented to reduce the experienced accident rates.

***Keywords— Nearest Neighbour Heuristic,Greedy Algorithm, driver***