ABSTRACT

Expeditionary package delivery is a company engaged in the delivery of packages. Package delivery is carried out by a courier who only relies on regional knowledge from the courier, ignorance of the route of travel can sometimes have an impact on the efficiency and time of the package's arrival to the recipient of the package.

With these problems, this final project aims to provide solutions in solving problems regarding the efficiency of the route taking and package travel time. The process requires user data to be processed in order to produce output in the form of predictions for the ideal route, the data from user input in the form of the coordinates of certain areas with the GPS (Global Positioning System) feature then the data is processed by RPA (Robotic Process Automation) to be able to produce output in the form of taking the ideal route to speed up the process of sending goods for users which can be done via mobile applications.

Based on the test results, an experiment was conducted to determine the best distance and angle for scanning barcodes. In this study, the best distance and angle is at a distance of 10 cm and an angle of 0° with the shortest average time. The results obtained will vary, this can happen because there are additional factors such as light, and the length of time the camera takes to focus. In this study, the application successfully added 100 addresses and stored them in the database.

Keywords: *Package delivery, RPA (Robotic Process automation), mobile applications, GPS (Global Positioning System)*