



**IMPROVEMENT OF SUPPLY AND RETRIEVAL SYSTEM – for D87A  
PRODUCTION LINE**

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“I declared that thesis is the result of my own work except the idea and summaries which I have clarified their sources. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any degree.”

Signed



Date

22 July 2016

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## **ABSTRACT**

Simulation is a tool use to redesign a virtual process or production flow. This simulation has proven to be the one of the most helpful software in predicting the effect of changes to the manufacturing without putting the risk to the real production. Currently, Autokeen Sdn. Bhd. (AKSB) is having some problems with logistic supporting the production line such as long distance movement from one process to another as well as contributed to excessive utilization of forklift, which can lead to accident and higher material handling cost. As a result, too much idle time between processes and many unnecessary movements have been recorded. Thus, initial investigation has been conducted by using Ishikawa diagram. Based on Ishikawa diagram, the critical problems have been identified, and improvement plans have been proposed in which by designing AGV's pathway. The expected result for project is to eliminate the utilization of forklift at assembly line F D87A by replacing with Automated Guided Vehicle (AGV) in order to enhance the efficiency of material handling with low risk by simulating the application of Automated Guided Vehicle (AGV). Subsequently, the return of investment (ROI) has been evaluated.

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