REDESIGNING LAYOUT AT PT. INKOASKU TO INCREASE PRODUCTIVITY BY USING SYSTEMATIC LAYOUT PLANNING (SLP) METHOD AND DISCRETE EVENT SIMULATION MODEL

By

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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.

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Chairman of the Examination Steering Committee Date

ABSTRACT

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Dr. Ir. Yuki Indrayadi, MME., Co-Advisor

The primary objective of this thesis is to increasing the productivity of passenger cars wheel producing company, PT. INKOASKU by redesigning the layout of the factory. The main problem encountered is that the goods are not produced in single location, causing a considerable hindrance in terms of time and distance, and hence efficiency. Redesigning process will be using SLP method and flow analysis while supported by analysis of Assembly line balancing to optimize the layout. Regarding the evaluation process, ARENA software will be used to simulate and identify the bottleneck in the production process, and comparing the layout alternatives to decide the best layout. The best chosen layout according to the simulation and SLP method that supported with flow analysis and assembly line balancing will be used as the master draft layout that will be proposed to PT. INKOASKU and will be shown in 2D and 3D dimensional layout.

Keywords : Systematic Layout Planning (SLP), assembly line balancing, flow analysis, simulation, productivity

DEDICATION

I dedicate this thesis to my beloved family, and friends for their unconditional love, support, constant helping hands, and companions.

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