DESIGNING AND CONSTRUCTING OF AUTOMATED GUIDED VEHICLE FOR INDUSTRIAL USE WITH ELECTRO HYDRAULIC BRAKING

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, it 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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ABSTRACT

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The main objective of this thesis is to design and construct the automated guided vehicle (AGV) for industrial purpose. Therefore, the rigidity and stable construction is a mandatory for an industrial use. The location the center of gravity is pre-determined before the designing frame and structure. The electro-hydraulic is implemented in this work. The electro-hydraulic is used for emergency purpose. The main controller of the electro-hydraulic brake is linear actuator. H-Bridge logic is used as the control for the linear actuator. The result of this thesis is that the AGV have a rigid and mechanically stable with the implementation of electro hydraulic braking. AGV braking mechanism can decelerate and stop the AGV from moving with a maximum speed 0.5 m/s. There are some recommendations such as wheel assembly design, braking mounting modification and simplify chassis design.

Keywords: AGV, Braking, Electro-Hydraulic, Industrial Standard

DEDICATION

I dedicate this thesis work for God, Jesus Christ and my family.

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