

DEVELOPMENT OF INTEGRATION BETWEEN MANUFACTURING
EXECUTION SYSTEM AND ENTERPRISE RESOURCE PLANNING: A CASE
STUDY IN ASSEMBLY OF CAR TOYS

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 concept of lean manufacturing has become the world's recognized methodology in order to compete among industries. Nowadays, the lean concept has been used to fully integrate the lower level with the upper level in manufacturing companies. By using the system development life cycle methodology, this research is going to develop a prototype of a computer technology to integrate Manufacturing Execution Systems (MES) and Enterprise Resource Planning (ERP). The number of product count and the total time to finish certain amounts of products are going to be collected by the MES. The other data from the shop floor is going to be collected to the ERP system. The ERP system consists of warehouse, purchasing, finance, and additionally the supplier. The ERP system is going in sequence starting from the warehouse until the supplier and going back to the warehouse again. Once the system is fully finalized, the system is going to be tested and findings are going to be collected. The result from the testing is the system has been successfully fulfilled based on the system design and requirement. As expected, the system shows the real time of information in the shop floor and the enterprise level.

Keywords: Lean Manufacturing, Manufacturing Execution Systems, Enterprise Resource Planning.



DEDICATION

I dedicate this thesis work

To my parents and family who have supported me since the beginning

To my lectures and advisors who have guided me through the whole 4 years.



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