



**WORK STUDY IN MANUFACTURING WITH VALIDATION USING
QUEST SIMULATION**

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Date 20/10/04

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**The thesis submitted in partial fulfillment of the requirement for the
award of Bachelor Engineering (Hons) Mechanical**

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OCTOBER 2004

ACKNOWLEDGEMENT

With the name of Allah s.w.t, the most Gracious who has given us the strength and ability to complete this report. All perfects praises belongs to Allah s.w.t, Lord of the Universe. May His blessing upon the Prophet Muhammad s.a.w and members of family and companions.

We would like to express our gratitude to Ms Bulan Abdullah as our advisor for the advise, information, guidance and encouragement during the project and the production of the thesis.

We would like to express our gratitude to En.Ibrahim as Human Resource Manager of Sumiputeh Steel Centre Sdn. Bhd. for the permission to undergo the research at the company. En. Zamray Abdullah as Assistant Manager, En. M. Fazil Husin as Production Incharge and En. A. Hadi Kamal A. Rahman as QC Technician for the information and guidance for the project. Staff of Plant 2 Sumiputeh Steel Centre Sdn. Bhd. for the cooperation and support for the project.

We would like to thank Pn. Norhayati Saad for the guidance to the usage of Quest Simulation and En. Zuraidi and En Afzakhairy for the intensive class regarding to Quest Simulation analysis.

Thank you to our parents and family members for moral support and prayers for the achievement of the project and the production of the thesis. To our classmates who

ABSTRACT

Increasing productivity is a big topic in appraising today. The manufacturing industries have to make improvement in order to compete in the competitive world. This project is focusing to increase productivity in manufacturing industry. Time taken at every workstation and during the model change was recorded. Current production is then simulated using Quest Simulation V5R11. The problem occur at the line was identified from the work study and customer quality report from October 2002 until September 2003. To encounter the problems, three ideas of improvement, was proposed and discussed. Selected ideas was simulated using Quest Simulation V5R11 to predict the result of the improvement. Based from the validation, the improvement is expected to increase the production rate by 12.9% compared to initial target 10% and the suggestion of improvement will have no incremental in manufacturing cost, no major changes due to the process and no effect on quality of product.

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CHAPTER 1

INTRODUCTION

Production line rarely performs up to design expectations. Manufacturing managers, schedulers and engineers constantly try to counteract the effects of equipment breakdown, quality problems, line change over and other problems that contribute to low productivity.

Productivity is the ratio of output divided by one or more input. It can be achieved in 2 ways either reduction in input while output remains constants or reduction in output while input remains constants. Increasing productivity means improving efficiency where it does job well with minimum of resources and waste.

Increasing productivity is a big topic in appraising today. The manufacturing industries have to make improvement in order to compete in the competitive world. Because of that, our project is concern to improve productivity in manufacturing by work study.