

CERTIFICATION OF APPROVAL

**DEVELOPMENT AN AGGREGATE PLANNING MODEL FOR DISCRETE
COMPONENT MANUFACTURING:
A CASE STUDY FOR DISC BRAKE**

By

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A project dissertation submitted to
the Mechanical Engineering Programme
Universiti Teknologi PETRONAS
in partial fulfilment of the requirement for the
BACHELOR OF ENGINEERING (Hons)
(MECHANICAL ENGINEERING)

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TRONOH, PERAK

MAY 2012

CERTIFICATION OF ORIGINALITY

This is to certify that I am responsible for the work submitted in this project, that the original work is my own except as specified in the references and acknowledgements, and that the original work contained herein have not been undertaken or done by unspecified sources or persons.

NUR' AISYAH BT MARZUKI

ACKNOWLEDGEMENT

First of all I would like to express my thankfulness to Allah the Almighty who gave me the strengths to face challenges in completing this final report to fulfill the Final Year.

My primary gratitude goes to AP Ir. Dr. Mohd Amin A. Majid, supervisor and lectures from Mechanical Engineering Department of Universiti Teknologi PETRONAS. Their approaches towards my Final Year Project encompass a variety of elements, including skills and vital elements of research project.

I also would like to extend my appreciation to the graduate assistants on their guidance and assist me over my general progress in contributing immensely towards my successful Final Year Project.

Last but not least, a lot of thank you to all, whether directly or indirectly in helping me upon completing my Final Year Project. All the support and guidance is really appreciated. Thank You.

ABSTRACT

This project develops the aggregate planning strategy model for manufacturing of the discrete component by using the spreadsheet excel and linear programming. Forecasting is function to create the future demand. In the case study project, the average forecasting method is applied to forecast the total demand. The models use the forecast demand for analysis the project. The data being use in the forecasting is taken from Malaysia Automotive Association website. The aggregate planning strategies that apply to evaluate the models are the constant workforce and production level strategy. The total number of workers was calculated and estimated using the demand and the cycle time. In this project, the author creates production planning that involve with casting process and machining process. Disc brakes production is used as the case study of this project. The aggregate planning consists of 2 types of models which are model A and model B. For model A, the casting process is subcontracting to third party while machining process is done in house. For model B, both processes are operated in house. The result of each strategy for model A and model B are included.

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