



**A STUDY TO SEEK THE POSSIBILITY TO IMPLEMENT FLEXIBLE
MANUFACTURING SYSTEM (FMS) IN A SMALL LOCAL PLASTIC COMPANY**

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**A thesis submitted in partial fulfillment of the requirement for the award of Diploma in
Mechanical Engineering (Automotive)**

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APRIL 2002

ACKNOWLEDGEMENT

Firstly, we thank ALLAH S.W.T for giving us the strength and the hope to complete this project.

We also would like to express our sincere gratitude and appreciation to our project supervisor, Mrs. Nor Hayati Binti Saad for her continue support, generous guidance, help patience and encouragement in the duration of the thesis preparation until its completion.

Our most grateful thanks to our lovely family for their encouragement make us feel intensive to complete this project.

Lastly, we would like to extend our heartiest thanks to our entire classmate and others who had given assistance especially for their effort, support and directly or indirectly ideas for complementing our project.

May ALLAH bless with you all.

ABSTRACT

Our project is about Flexible Manufacturing System. Flexible Manufacturing System is a method of production system to achieve flexibility in manufacturing process, which can increase productivity, quality and coincide the lead-time of the process. We are excited to know much more about Flexible Manufacturing System. Beside that, we also want to study the process sequence of a product by using plastic injection moulding process. Therefore we have made an industrial visit to a company, USRA TAMPI Sdn. Bhd. lots of information we got during the visit especially about the production system, process flow of injection moulding process, layout of production and types of product were produced. In assisting our research we used a set of questionnaires. This questionnaire used to seek the possibility to implement Flexible Manufacturing System (FMS) in the company. Beside that, we also do desk research about production system. By the research we got more information and knowledge about Flexible Manufacturing System.

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CHAPTER I

INTRODUCTION

1.1 Background of Project

Competition in production research, caused the born of sophisticated production system. The systems are like Just In Time (JIT) system, Material Requirement Production (MRP) system, KANBAN system and Flexible Manufacturing System (FMS).

Amongst these systems, Flexible Manufacturing System is the one, which are interested by many production houses to look for. It is because FMS raises more productivity and quality at the right lead-time. Follow the development of this system; we are interested to study the benefits of this system, which applied greatly in the developed countries. Furthermore, we also would like to determine the possible to implement Flexible Manufacturing System (FMS) in certain selected company.

To attain our motive, we decide to do an industrial visit. We choose plastic factory, which located at section 16 Shah Alam for our research. The company name is USRA TAMPI Sdn. Bhd.

USRA TAMPI Sdn. Bhd. is a company, which produces a plastic product for automotive industries by using injection-moulding process. Among the product they had produce are cover under car, front grill, audio system casing and other interior part of car. The company is a vendor for proton and offered a booking for other automotive part companies.

USRA TAMPI Sdn. Bhd. Have about 500 workers which working at two or three period of shift. The factory used semi-auto production system. So they need more workers to cover their production process.