



**STUDY ABOUT THE ENERGY CONSUMPTION IN
MOULDING MACHINE.**

**FAIRUZ IZWAN BIN MAT JAH
(2006882182)**

**BACHELOR ENGINEERING (HONS)
(MECHANICAL)
UNIVERSITI TEKNOLOGI MARA (UiTM)
APRIL 2009**

“I declared that this thesis is the result of my own work except the ideas and summaries which I have clarified their sources. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any degree.”

Signature : 

Date : *11/5/09*

FAIRUZ IZWAN BIN MAT JAH

UiTM No. : 2006882182

TABLE OF CONTENTS

	CONTENTS	PAGE
	PAGE TITLE	
	ACKNOWLEDGEMENT	ii
	ABSTRACT	iii
	TABLE OF CONTENTS	iv
	LIST OF TABLES	viii
	LIST OF FIGURES	ix
CHAPTER	1 INTRODUCTION	
	1.1 Project Overview	1
	1.2 Company profile	2
	1.3 Problem Statement	3
	1.4 The Objectives of the Study	4
	1.5 Scope of the Study	4
	1.6 Significance of Study	4
	1.7 Methods and Approach	5
CHAPTER	2 LITERATURE REVIEW	6
	2.1 Heat Transfer	7
	2.2 Energy Management in Industry	7
	2.3 Energy Saving	8
	2.4 Catia Software	8

ACNOWLEDGEMENT

A gratefull thanks to Allah s.w.t because of Allah s.w.t blessing, lastly i have finished my final year project thesis.

Thanks to my lecturer supervisor PUAN AZIANTI BINTI ISMAIL because she had assisted and teach me until the thesis is complete. Thanks to her also because she willing to share the experience and knowledge with me. She also always be patient with me. Without the cooperation and hard work from her, this thesis will not be completed and success. Thanks again to my beloved supervisor.

EN. ROSLAN ABDUL MUTALIB is my supervisor during my industrial training at Toshiba Electronic Malaysia. Thanks a lot to him because of his knowledges that he gave to me, I got alot of knowledegas and experiences of the real working environment. I had learned how to survive in the real industry and how to be a successful engineer ing my future.

Thanks to all my friends that help me to complete my thesis by giving the idea sand suggestions. Finally, I would like to express my sincere gratitude and warmest thanks to my beloved family for their assistance and support. Without them, the completion of this thesis might be difficult to achieve.

Hopefully, this study will benefit everyone in this area of interest. For those who are not mentioned here, I thank u all again. Wassalam.

Thank You...

ABSTRACT

The study is focusing on reducing the energy consumption for molding machine. Machine like molding machine that has large open area that dissipated heat and make the energy loss in its surrounding. There are some negative effects that occur not only in terms of the energy consumption but in terms of uncomfortable in working. The operators that handle the machine feel uncomfortable working condition due to high temperature. There are some methods to reduce the electric consumption in the molding machine. Reducing the velocity of exhaust fan in molding machine will make the heater at the molding machine use less electric power because the temperature inside the machine will not decrease quickly. From the equation of volume flow rate, the opening area in molding machine can be reduced because the velocity of exhaust fan has been reduced. The new designed of opening area in the molding machine can reduce the heat dissipated in the department area and makes operator feel more comfortable when working with lower temperature in the opening area. This reduction in electric consumption will save the company cost and will increase the profit to the company