

# **SPEED CONTROL OF TWO QUADRANT DRIVE USING MODEL ORDER REDUCTION TECHNIQUE**

**This thesis is presented in partial fulfillment for the award of the  
Bachelor of Engineering (Hons) Electrical  
UNIVERSITI TEKNOLOGI MARA  
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## ACKNOWLEDGEMENT

Alhamdulillah and all praises to Allah because of His guidance and grace, I'm able to complete my project. This project is speed control of two quadrant drive using model order reduction technique.

I would like to thank and give my high appreciation to my supervisor Dr. Farid Abidin for his guidance, support and advices in completing this project. I also want to thank to my beloved parents, my friends and all the people who give their contribution, support and help to complete this project and for sharing their knowledge on how to solve the problems.

Also thank to the coordinator final year project Dr. Muhamad Nabil Hidayat and Faculty of Electrical that give the information and guide the students in completing the project.

Lastly, I want to thanks to all friends of Electrical Engineering and the individual who have been involved in completing this project.

## **ABSTRACT**

DC Motor control means direction and speed control of a DC motor. It is very popular until now due to useful speed range, the ability to control to desired speed and also high efficiency in operating. In this thesis a two quadrant DC motor drive is simulated by using Matlab Simulink software. Separately excited DC motor is designed and complete DC drive mechanism achieved. The chopper receives signal from controller and gives variable voltage. The designing of current and speed controller is carried out. Finer controller gain value for the dc drive is obtained for after the proposed technique model order reduction method applied. The model of the drive, the design of the devices and some experimental results are shown and clearly explained.

## TABLE OF CONTENTS

CONTENT	PAGE
ACKNOWLEDGMENT .....	ii
ABSTRACT.....	iii
TABLE OF CONTENT.....	iv
LIST OF FIGURES.....	vi
LIST OF ABBREVIATIONS.....	vii
 <b>CHAPTER 1: INTRODUCTION</b>	
1.1 Introduction.....	1
1.2 Problem Statement.....	2
1.3 Objectives.....	3
1.4 Scope of Work.....	3
 <b>CHAPTER 2: LITERATURE REVIEW AND BACKGROUND DETAILS</b>	
2.1 Separately Excited DC Motor.....	4
2.2 Chopper.....	8
2.2.1 Two Quadrant Chopper.....	10
2.3 Proportional Integral Controller.....	11
2.3.1 Current Controller.....	12
2.3.2 Speed Controller.....	12
2.4 Model Order Reduction.....	13
2.5 Previous Research.....	14
2.5.1 DC Motor Control Using Chopper .....	14
2.5.2 A Simple Two Quadrant DC Motor Controller.....	15

## **CHAPTER 3: METHODOLOGY**

3.1 Project Work Flow.....	16
3.2 System Flowchart .....	20
3.3 Designing Current Controller.....	22
3.4 Designing Speed Controller.....	24
3.5 Model Order reduction Method.....	26

## **CHAPTER 4: RESULT AND DISCUSSION**

4.1 Result.....	31
4.2 Simulation.....	31
4.3 Discussion.....	37

## **CHAPTER 5: CONCLUSION**

5.1 Conclusion.....	38
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## **CHAPTER 6: RECOMMENDATION**

5.1 Recommendation for Future Work.....	39
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<b>REFERENCES.....</b>	<b>40</b>
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<b>APPENDICES.....</b>	<b>48</b>
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