ECONOMIC DISPATCH OF GENERATED POWER WITH MODIFIED LAMBDA-ITERATION METHOD

This thesis is submitted in partial fulfillment of the requirements for the award of Bachelor of Engineering (Power)

MOHAMMAD DZUL HAFIZIN BIN MOHD NOOR

Faculty of Electrical Engineering

Universiti Teknologi Mara

JANUARY 2015

ACKNOWLEDGMENT

In the process of completing of this thesis, I would like to express my appreciation to my final year project supervisor, Prof. Madya Bibi Norasiqin Binti Sheikh Rahimullah for her guidance and advice.

My appreciation also extended to my family and friends who gave me supports throughout the process in completing my thesis.

ABSTRACT

Economic dispatch is a procedure to determine the optimal output from the electricity generation facilities in order to fulfill the demand. The objective is to minimize generation cost of the system while satisfying the constraints. In this study, the economic load dispatch problem is solved using modified Lambda-iteration method. The proposed method is tested on six generation unit system and the results show that this method can solve economic dispatch problem with satisfactory results.

TABLE OF CONTENTS

CHAPTER	TITLE	PAGE
	Title Cover	1
	Acknowledgment	2
	Abstract	3
	Table Of Contents	4
1	Project Overview	6
1	Problem Statement	7
1	Objectives & Scope of work	8
1	Thesis Organization	9
2	Introduction Literature Review	10
2	Solving Economic Dispatch	11
2	Thermal Power Plan	14
2	Economic Dispatch	17
2	Cost Function & Constraint	19
2	Economic Dispatch Problem Formulation	21
2	Modified Lambda Iteration Method	24
3	Introduction for methodology & flowchart	25
3	Matlab Application and Matlab Overview	28
3	Matlab System	30

3	Application of Matlab function	31
4	Result and discussion	34
4	Conclusion	41
4	Future Development	42
	Reference	43