# APPLICATION OF PATTERN SEARCH METHOD TO ECONOMIC LOAD DISPATCH WITH VALVE POINT LOADING

Thesis is represented in partial fulfillment for the award of the Bachelor of
Electrical Engineering (Hons)
UNIVERSITI TEKNOLOGI MARA

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# ACKNOWLEDGEMENT

In the name of Allah, the most Beneficent and Merciful, with the deepest gratefulness to Allah who has given me His blessing and this full of strength in order to complete this final year project.

First and foremost, most honored gratitude to my project supervisor PM Bibi Norasiqin Sheikh Rahimullah for her guidelines, supervision and assistance throughout this project.

Herein, I also would like to emphasize this thankfulness to my family members especially my husband, for his precious advices, encouragement and continuous moral supports for the completion of my study in UiTM. Special thanks to all my children for their understanding and endurance for all this time.

Last but not least, I would like to dedicate this thankfulness to all my friends, lecturers, and staffs that has been very helpful during finishing this project in various ways.

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# ABSTRACT

This study presents the application of Pattern Search (PS) method in Economic Dispatch (ED) problem. ED is used to optimize the fuel cost of electric energy while at the same time allocate the demand between available generation unit. The optimization of ED in power system is implemented through Optimization Toolbox in Matlab and PS technique is used as solver. In this study, PS algorithm was developed to give an optimal power output of generating unit and minimize the fuel cost. The algorithm was tested on 3 generating unit systems and 13 generating unit systems. The results obtained from the case study have been achieved using Matlab 7.8 and then compared with the results reported in the literature.

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