REACTIVE POWER PLANNING FOR MINIMIZATION LOSS AND VOLTAGE CONTROL USING GENETIC ALGORITHM.

Project Report is presented in partial fulfillment for the award of the

Bachelor of Electrical Engineering [Honours]

UNIVERSITI TEKNOLOGI MARA

UMA BAKI BIN MOHHAMAD
Faculty of Electrical Engineering
UNIVERSITI TEKNOLOGI MARA
40450 Shah Alam
Selangor Darul Ehsan

ACKNOWLEDGEMENT

All praise is to Allah, the almighty, and the merciful. By his will, I able to complete this dissertation in partial fulfillment of the Bachelor in Electrical Engineering. Salam also to Nabi Muhammad S.A.W. his companion and beloved parents.

I wish to express my deep and sincere gratitude to my project supervisor and thanks a lot, Prof. Madya Dr. Hajah Titik Khawa Abdul Rahman for her able supervisor, careful guidance, patience and kind advice which very valuable towards the accomplish my study.

Finally, the most deeply gratitude and appreciation to my beloved family, who gave encouragement, continuous support and assistance, thought the course.

ABSTRACT

Reactive power planning is to maintain node voltage within permissible limits and minimizes transmission losses by rescheduling reactive power flow. The optimal reactive power planning can be performed using various optimization techniques. This project will develop a genetic algorithm optimization technique for reactive power planning in a power system with an objective to control the voltage level at each load bus and to minimize the transmission loss. The methods for the genetic algorithm are evaluated the techniques is tested using 6 buses IEEE test system

LIST OF FIGURE

LIST OF TABLES