

A SINGLE PHASE GRID INTER TIE PWM INVERTER

This thesis is presented in partial fulfillment for the award of the

Bachelor of Electrical Engineering (Honours)

UNIVERSITI TEKNOLOGI MARA

(NOVEMBER 2006)



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ACKNOWLEDGEMENT

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

In the name of ALLAH, the Most Gracious and the Most Merciful

All praises be to ALLAH SWT for all bless and strength he has given me during the completion of this final year project.

First of all, I would like to give my special thanks to my dearest supervisor, Dr Ahmad Maliki Omar who has encouraged me with great ideas, opinion, valuable guidance and support in order for me to complete this study successfully. Thanks for your commitment and your patience in conducting and consulting me.

I want to take this opportunity to express my deepest gratitude to my parents, En _____ and _____ and all siblings for their tender love and support. Without them I would have no enthusiasm to go further.

I would like to convey my gratitude to all friends, my housemate, my course mate and also other individual that has contribute directly or indirectly towards the completion of this study. Sincerely, I would like to say thank to all of you and may God bless you.

NOVEMBER, 2006

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ABSTRACT

This project presents the modeling, analysis and design of a Pulse Width Modulation (PWM) to be connected between a DC source which is supplied from a photovoltaic (PV) array and the AC grid. The objective is to show that by using peripheral interface controller (PIC) to generate PWM signal, converter can transfer the DC energy from PV array to AC grid. PIC is used as a main controller to control the switching activities of the main switching devices. Prior to the circuit construction, the model of a single phase DC to AC inverter is simulated by using PSIM software.

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