

SINGLE PHASE INVERTER

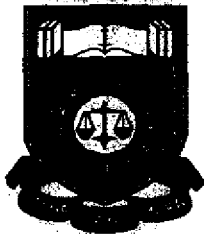
Presented in partial fulfilment for the award of the

Bachelor of Engineering (Hons) (Electrical)

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JUNE 1998

ACKNOWLEDGEMENT

In the name of ALLAH S.W.T., the Most Beneficent, the Most Gracious and the Most Merciful. Thank to you for giving me a good healthy and patience in completing this project and also my studies.

Firstly, I would like to express my gratitude and appreciation to my supervisor, EN. ISMAIL MUSIRIN, for his guidance, encouragement, contribution, advice, ideas and kindness upon completion of this project. He is very much appreciated, especially the patience that he has shown. Also his willingness in reading and amending my thesis time by time. Thank you.

To Puan Aishah, thank you for giving your free time to become the panel of my VIVA.

Last but not least; appreciation goes to my board of family, my friends, lab assistants, lecturers for giving their kindness, ideas, encouragement, support, concern and help.

I believe that without the contribution of the above mentioned, I would not be as I am now. Thank you again. Syukur Alhamdulillah.

ABSTRACT

This paper describes the development of a single phase inverter. The work views how an inverter circuit can be developed from an ordinary system of 12 Vdc in order to produce an ac supply with ratings of 240 Vac and 50 Hz. The developed system earlier consists of three modular circuits such as an oscillator, pre-amplifier and power amplifier.

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Chapter 1

1.0 INTRODUCTION

A major breakthrough occurred in the world's electronic development with the entry of applied science into solid state technology.^[1] The advancement of semiconductor technology has made the electrical appliances and electronic device become smaller and lighter. The same phenomenon is happening to electrical power field.

Inverters have been with the industry in various forms of decades, but in recent years they have become key building blocks in almost endless variety of circuits and systems. Whatever the involvement in electronic or electrical technology might be, it is becoming increasingly difficult to function effectively without a good working knowledge of inverters.^[2]

An inverter is a device, circuit or system that delivers ac power where energized from a source of dc power. It is a reverse process of a rectifier. A rectifier circuit is used to convert ac to dc whereas inverters change dc to ac. Both processes are often effected in a