ABSTRACT

This module consists of a uncontrolled rectifier circuit, buck converter circuit, and three phase inverter circuit as drive three phase induction motor. The module is a source of nets connected three phase rectifier circuit is governed by its three phase variac output from 0 to 200 Vdc. Then the DC output rectifier circuit connected to the buck converter circuit, so that output DC use as input the inverter three phase which result voltage 0 to 100 Vac. The inverter output voltage to run a three phase induction motor. Switching technique is used for triggering the inverter MOSFETs is PWM (Pulse Width Modulated) voltage switching mode with 180 ° conduction. The PWM signal generation is controlled through the microcontroller ATmega 8535. From the test results obtained that % error in the three phase inverter output voltage of 26.47% duty cycle to 50% and 11.11% for the 70% duty cycle.

Keyword: Buck Converter circuit, PWM Analog circuit, and 3 Phase Inverter circuit