VARIABLE FREQUENCY DRIVE TO CONTROL THE SPEED OF A ¼ HP MOTOR

Hafiz Muhammad Hammad Zafar 101519046

Sadam Sarwar 101519187

Ayaz Ahmad Butt 101519188

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Department of Electrical Engineering
In partial fulfillment of the requirements for the degree of
BACHELOR OF SCIENCE IN ELECTRICAL ENGINEERING

University of Management and Technology

C-II Johar Town Lahore

Tel.: +92 42 35212801-10

Dedication

We have dedicated this project and thesis to our beloved parents who encourage us and financially support us in completing this project and also to our respected teacher who help out to complete our project. This project is also dedicated to our university that gives us a platform to show our expertise in the relevant field.

CERTIFICATE OF APPROVAL

It is certified that the final year project's work titled "VARIABLE FREQUENCY DRIVE TO CONTROL THE SPEED OF A ¼ HP MOTOR" is carried out by

Hafiz Muhammad HammadZafar 101519046

SadamSarwar101519187

Ayaz Ahmad Butt101519188

Under the supervision of **Engr. Tabraiz Ahmed Alvi**, at University of Management and Technology, Johar Town Lahore. It is fully adequate, in scope and in quality, as a thesis for the degree of BS of Electrical Engineering.

Supervisor: ----------

Engr. Tabraiz Ahmed Alvi
Dept. of Electrical Engineering
University of Management and Technology, Johar Town Lahore

Chairman: ----------

Engr. Jameel Ahmad
Dept. of Electrical Engineering
University of Management and Technology, Johar Town Lahore

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DECLARATION

It is declared that the work entitled "VARIABLE FREQUENCY DRIVE TO CONTROL THE SPEED OF A ¼ HP MOTOR" presented in this report is an original piece of my own work, except where otherwise acknowledged in text and references. This work has not been submitted in any form for another degree or diploma at any university or other institution for tertiary education and shall not be submitted by me in future for obtaining any degree from this or any other University or Institution.

March, 2015

ABSTRACT

Variable Frequency drive is a drive use to controls the speed of motor. It uses the technique of PWM (pulse width modulation) to control the frequency of a sinusoidal voltage produced by PWM inverter. Frequency drives widely used to control the speed of pumps, conveyer belts, blowers and in centrifuge applications. It plays an important role in industrial applications .VFD is sub divided in to three main parts, RECTIFIERS which converts AC voltage to DC voltage by using bridge circuit, DC link or a link to the DC circuit and INVERTER.

TABLE OF CONTENTS

Chapter 3

Chapter 4

LIST OF FIGURES