

FINAL YEAR PROJECT REPORT

CNC DESKTOP MACHINING CENTER

(PROTOTYPE)



Submitted by

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DEPARTMENT OF INDUSTRIAL ENGINEERING

SCHOOL OF SCIENCE AND TECHNOLOGY

**UNIVERSITY OF MANAGEMENT AND TECHNOLOGY,
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(PROTOTYPE)



Submitted by

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For partial fulfillment of the prerequisites

For the award of degree of

BACHELOR OF SCIENCE IN INDUSTRIAL ENGINEERING

APPROVED BY

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February 2015

Certificate

It is certified that **Haseeb Anwar** has done project named as “**CNC DESKTOP MACHINING CENTER (PROTOTYPE)**” for the award of Bachelor of Industrial Engineering from University of Management and Technology under my supervision. The report is based on results of original work, student studied the project by himself and the contents of the report do not form the basis for the award of any other degree to the candidate from this Institution.

.....

SUPERVISOR

Date/...../.....

ORIGINALITY STATEMENT

I hereby declare that this piece of work is my own submission. It does not include data that has been published or written by someone in the past. Or which was submitted for the grant of any degree from any Institute. Where used the data is due acknowledged. Any input or help that was made to the research by others with whom I worked at University of Management and Technology or someplace else, is explicitly acknowledged in the report. It is also declared that the content of this report is the product of my own work except to the extents that help from others in the project design and beginning or in style, presentation and linguistic expression is acknowledged.

Signature

Date/...../.....

DEDICATION

This thesis done by me is dedicated to my Family, Friends and Teachers. A special thanks to my parents who have always encouraged and helped me in every turn and stage of my life. I will always appreciate all they have done for helping me develop technology skills.

With special thanks this work is dedicated to my advisor **Nauman Munir** and especially **Miss Rafia Qayyum** for being there with me throughout the entire work. They have been my driving force to reach to milestone which I never thought would accomplish without their kind help.

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ABSTRACT

This final year project describes the design and development of computer numeric control. For this purpose, I used driver board, Motors and software to control this machines hardware. In this report details of the design criteria of hardware, principle of operation as well as the testing and verification of the systems are presented.

While performing this project my main focus was on gaining an improved understanding of machining and the different factors that contribute to part quality. For this purpose, primary machine shop skills had to be acquired that provided me an opportunity to mill and drill a class of components to specified dimensions. Before I started for each component, a detailed drawing was created that was helpful in shaping and constructing all the components.

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