#### BEANT COLLEFE OF ENGINEERING AND TECHNOLOGY GURDASPUR

#### Format for M.Tech Thesis synopsis

Title page:

- 1. Name of Student and PTU registration No cum Roll No
- 2. Present official Address with E-mail, telephone No
- 3. Branch<sup>1</sup> (indicate F.T./P.T.)
- 4. Year of Admission
- 5. Number of subjects passed till date
- 6. Proposed Topic:
- Introduction (should not exceed 3 pages including Figs.)
- Brief Literature survey (should not exceed 3 pages)
- Problem formulation: Need and significance of proposed research work (should not exceed 1page)

Objectives (should not exceed 1 page)

Methodology/ Planning of work (should not exceed 2 pages)

Facilities required for proposed work

Proposed Place of work

<sup>1</sup> F.T. = Full-time, P.T. = Part-time

#### **RULES AND REGULATIONS FOR SYNOPSIS**

- 1. All the students are required to submit their synopsis in prescribed format to I/C M.Tech. (CSE).
- 2. Students will be given date and time for presentation of synopsis in front of RDC.
- 3. After approval from the RDC, the candidate may start his/her thesis work.

## **GUIDELINES FOR M. Tech THESIS**

1. The thesis shall be computer typed (English- British, Font -Times Roman, Size-12 point) and printed on A4 size paper.

2. The thesis shall be hard bound with cover page in light green colour. The name of the candidate, degree (specifying the specialization), year of submission, name of the University including college name shall be printed in black on the cover [Refer sample sheet (outer cover)]

3. The thesis shall be typed on one side only with double space with a margin 3.5 cm on the left, 2.5 cm on the top, and 1.25 cm on the right and at bottom.

4. In the thesis, the title page [Refer sample sheet (inner cover)] should be given first then the Certificate by the candidate and the supervisor(s) in sequence, followed by an abstract of the thesis (not exceeding 1500 words). This should be followed by the acknowledgment, list of figures/list of tables, notations/nomenclature, and then contents with page no.s

5. In the body of the text, a reference should be indicated giving author name and year of publication in parenthesis such as (Singh and Shan, 2002).

6. The reference should be given at the end of the Thesis in alphabetical order indicating:

- i). The authors name and his initials
- ii). The title of the paper and name of the journal
- iii). The name of the book and the publisher
- iv) The number of the volume, page numbers, and the year of publication
- v) standard abbreviation may be used in the names of the journals

For Example:

1. Singh, S. and Shan, H. S. (2002) "Development of Magneto Abrasive Flow Machining Process", International Journal of Machine Tools & Manufacturing, vol. 42, 2, 2002, pp. 953-959.

2. Laroiya, S.C. and Adithan, M. (1994), "Precision Machining of Advanced Ceremics" Proceeding of the International Conference on Advanced Manufacturing Technology (ICMAT -94), 29-30 August 1994. University Teknoloi Malaysia, Johor Bahru, Malaysia, pp 203-210.

3. Adithan, M. and Gupta, A.B. (1996), Â"Manufacturing TechnologyÂ", New Age, International Publishers, New Delhi.

7. The diagrams should be printed on a light/white background, Tabular matter should be clearly arranged. Decimal point may be indicated by full stop (.). The caption for Figure must be given at the BOTTOM of the Fig. and Caption for the Table must be given at the TOP of the Table.

8. The graphs should be combined for the same parameters for proper comparison. Single graph should be avoided as far as possible.

9. Conclusions must not exceed more than two pages.

10. The thesis must consist of following chapters

Chapter 1-Introduction

Chapter 2-Literature Review

Chapter 3- Present work

(It can span in two to three sub chapters depending on the type and volume of the work)

Chapter 4- Result and Discussion

Chapter 5-Conclusions and future scope

References

Appendix or Annexure-I, II, III (if any)

Sample sheet (outer cover)

# DESIGN AND IMPLIMENTATION OF A NETWORK TOOL

(24pt.)

THESIS (14pt.)

## SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE

#### AWARD OF THE DEGREE OF (12pt.)

#### MASTER OF TECHNOLOGY

(Computer Science & Engineering (14pt.)

SUBMITTED BY

RAJINDER KUMAR (14pt)

April 2012

PTU Logo

PUNJAB TECHNICAL UNIVERSITY

JALANDHAR, INDIA (14pt.)

Sample sheet (inner title page)

## DESIGN AND IMPLIMENTATION OF A NETWORK TOOL

THESIS

### SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE OF

#### MASTER OF TECHNOLOGY

(Computer Science & Engineering)

Submitted by

#### RAJINDER KUMAR

Name of the College

April 2012

PTU Logo

PUNJAB TECHNICAL UNIVERSITY

JALANDHAR, INDIA (14pt.)

Sample sheet -declaration

#### BEANT COLLEGE OF ENGINEERING AND TECHNOLOGY, GURDASPUR

#### CANDIDATE'S DECLARATION

I hereby certify that the work which is being presented in the thesis entitled "TITLE " by "NAME OF THE STUDENT" in partial fulfillment of requirements for the award of degree of M.Tech. (Branch) submitted in the Department of (Branch) at NAME OF THE INSTITUTE under PUNJAB TECHNICAL UNIVERSITY, JALANDHAR is an authentic record of my own work carried out during a period from \_\_\_\_\_\_ to \_\_\_\_\_under the supervision of NAME OF SUPERVISOR(S). The matter presented in this thesis has not been submitted by me in any other University / Institute for the award of M.Tech Degree.

Signature of the Student

This is to certify that the above statement made by the candidate is correct to the best of my/our knowledge

Signature of the SUPERVISOR (S)

The M.Tech Viva –Voce Examination of (NAME OF CANDIDATE) has been held on \_\_\_\_\_\_ and accepted

Signature of Supervisor(s) Signature of External Examiner

Signature of H.O.D.

#### ACKNOWLEDGEMENT

I would like to place on record my deep sense of gratitude to Prof. Arpinder Singh, Dept. of Computer Science and Engineering, BCET, Gurdaspur, India for his generous guidance, help and useful suggestions.

I express my sincere gratitude to Prof. S.K. Gupta, Dept. of Computer Science and Engineering, BCET, Gurdaspur, India, for his stimulating guidance, continuous encouragement and supervision throughout the course of present work.

I also wish to extend my thanks to Prof. Rajeev Bedi, Dr. R.C. Gangwar, Prof. Ajay Dogra and other colleagues for attending my seminars and for their insightful comments and constructive suggestions to improve the quality of this research work.

I am extremely thankful to Dr. Dial Chand, Principal, BCET, Gurdaspur, for providing me infrastructural facilities to work in, without which this work would not have been possible.

#### **RAJINDER KUMAR**

#### CONTENTS

Page No.

Candidate's Declaration	i
Abstract	ii
Acknowledgement	viii
List of Figures	xvi
List of Tables	xxii
Nomenclature	xxvi
Chapter 1 : INTRODUCTION	1

1.1 Non-Traditional Machining 1

1.2 AFM Process Principle 4

1.3 AFM Technology 6

1.4 AFM Applications 8

Chapter 2 : LITERATURE REVIEW	14
2.1 AFM Process Parameters	14
2.1.1 Media Flow Volume and Extrusion Pressure	15
2.1.2 Media Flow Rate	16
2.1.3 Media Viscosity	17
2.1.4 Number of Cycles	18
2.1.5 Abrasive Grain Size and Concentration	18

	2.1.6 Material and Geometrical Features of Workpiece	19
	2.1.7 Rheology of Carrier Media	21
	2.1.8 Initial Surface Condition	23
2.2 Moc	deling of AFM	24
	2.2.1 Stochastic Modeling	24
	2.2.2. Analytical Modeling	25

#### **RULES AND REGULATIONS**

#### M.Tech Thesis (Part – Time) PROGRAMME

#### July 2012

#### R.1: AREAS OF SPECIALIZATION

Specific areas (thesis topics) will be decided by the departments

(a) based on faculty research interests,

OR

(b) based on mutual interest/interdisciplinary

OR

(c) based on areas of other sponsored research projects.

R.2: M.Tech. Supervisor/Guide

2.1 All faculty members of the Institute holding M.Tech./Doctorate degree are eligible to guide M. Tech scholars.

2.2 No Guide shall have more than three M.Tech scholars. However I/C M.Tech. can have four M.Tech. Scholars. The Guide can take subsequent candidates after submission of Synopsis.

R.3: Synopsis of Thesis

3.1 Research scholars are required to give, prior to submission of synopsis, one Seminar talk.

R.4: Thesis Submission

4.1 The research scholars are required to present his/her M.Tech research work in front of the RDC before the final submission of the thesis.

4.2 The candidate can submit his/her Thesis work not before six months from the date of approval of his synopsis by RDC.

#### AND

4.3 The research scholars is required to publish at least two papers in Referred Journals having some impact factor before the final submission of the thesis.

### <u>Note:-</u>

It is kind attention to all the students kindly give following information to Mr. Arpinder Singh (I/C M.Tech. CSE).

- Name of Guide.
- Name of Topic with synopsis.