



GUIDELINES FOR THESIS PREPARATION

Introduction

Purpose of this document is to list the general and specific requirements governing thesis preparation including guidelines for structuring the contents.

1. Thesis Submission

To have the thesis examined, the number of thesis copies to be submitted to the Dean of Research & Development should correspond to the number of thesis supervisors plus four copies (Department, Library, Dean-R&D and External Examiner) for a Ph.D. degree student. Besides various existing requirements for thesis submission such as submission of a list of examiners, additional copies of synopsis/abstract, and payment of thesis examination fees, students and their thesis supervisors should ensure that the guidelines have been adhered to.

While submitting the thesis, every student is required to provide Dean of R&D, a signed checklist in the following format.

Statement of Thesis Preparation

1. Thesis title:
2. Degree for which the thesis is submitted:
3. Thesis Guidelines was referred to for preparing the thesis.
4. Specifications regarding thesis format have been closely followed and certified by the guide and Head of Department.
5. The contents of the thesis have been organized based on the guidelines.
6. The thesis has been prepared without resorting to plagiarism.
7. All sources used have been cited appropriately.
8. The thesis has not been submitted elsewhere for a degree.

(Signature of the student)

Name:

Roll No.:

Department:

2. Specifications for Thesis Format

2.1 Preparation of Manuscript and Copies

- a. The thesis needs to be prepared using a standard text processing software and must be printed in black text (color for images, if necessary) using a laser printer or letter quality printer in standard typeface (Times New Roman).
- b. The thesis must be printed or photocopied on both sides of white paper. All copies of thesis pages must be clear, sharp and even, with uniform size and uniformly spaced characters, lines and margins on every page of good quality white paper of 75 gsm or more.

- c. Thesis should be free from typographical errors. The thesis must be certified by a faculty from English department.

2.2 Size and Margins

- a. A4 is the recommended thesis size.
- b. The top, bottom and right side margins should be 25 mm, whereas the left side margin should be 38 mm for both textual and non-textual (e.g., figures, tables) pages.
- c. Mirror margins should be used for both side printing.
- d. Content should not extend beyond the bottom margin except for completing a footnote, last line of chapter/subdivision, or figure/table caption.
- e. A sub-head at the bottom of the page should have at least two full lines of content below it. If the sub-head is too short to allow this, it should begin on the next page.
- f. All tables and figures should conform to the same requirements as text. Color may be used for figures. If tables and figures are large, they may be reduced to the standard size (provided the reduced area is not less than 50% of the original) and /or folded just once to flush with the thesis margin.
- g. Students should also submit the thesis in soft form (PDF) for storage & archival and for uploading in *shodhganga*.

2.3 Page Numbering

- a. Beginning with the first page of the text in the thesis (chapter 1), all pages should be numbered consecutively and consistently in Arabic numerals through the appendices.
- b. Page numbers prior to Chapter 1 should be in lower case Roman numerals. The title page is considered to be page (i) but the number is not printed.
- c. Each chapter to be started on odd page number only. Leave a page blank to make this happen, if necessary.
- d. All page numbers should be placed without punctuation in the bottom center, 12 mm from the bottom edge.
- e. Multi-Volume Thesis - A thesis may be in two or more volumes, if required. The volume separation should come at the end(s) of major division(s). The preliminary pages prior to Chapter 1 are contained only in Volume I, except the title page.

2.5 Line Spacing

- a. The general text of the manuscript should be in 1.5-line spacing.
- b. Long tables, quotations, footnotes, multi-line captions and bibliographic entries (references) should be in single spacing, with text size in 11 points.

2.6 Tables, Figures and Equations

- a. All tables (tabulated data) and figures (charts, graphs, maps, images, diagrams, etc.) should be prepared, wherever possible, on the same paper used to type the text and conform to the specifications outlined earlier. They should be inserted as close to the textual reference as possible.
- b. All figures title to be placed below the figure. Proper acknowledgement is necessary, if taken from any source.
- c. All tables title to be placed above the table.
- d. Tables, figures and equations should be numbered sequentially using Arabic numerals. They are referred to in the body of the text capitalizing the first letter of the word and number, as for instance, Table 17, Figure 24, Equation (33), or Table 5.3, Figure 3.11, Equation (4.16), etc.

- e. If tables and figures are of only half a page or less, they may appear on the same page as text but separated above and below by double line spacing. Font size for text should be the same as for the general text.
- f. Good quality Line Drawings/figures must be drawn using standard software that provides vector rather than bit-map graphics. Figures must be scalable.
- g. Images, Photographs, etc. must be scanned in resolution exceeding 200dpi with 256 grayscales for the monochrome images and 24 bit per pixel for the color images.

2.7 Binding

The student should submit the copies of the thesis in fully bound form (soft cover) for Ph.D. Once the thesis is accepted, it is the student's responsibility to get it properly bound before depositing the required number of copies with the Library and the Department concerned. The front cover of the bound copy should be the same as the title page of the thesis. The front cover should have printing on the side to include the author's name, abbreviated thesis title (optional), degree, department, and the year.

3. Guidelines for Structuring Contents

3.1 Sequence of Contents

The following sequence for the thesis organization should be followed:

- Title Page
- Dedication (optional)
- Declaration
- Certificate
- Acknowledgements
- Abstract
- Contents
- List of Figures
- List of Tables
- List of Symbols and Abbreviations
- Chapter 1
- Chapter 2
- Chapter 3
- Chapter XX
- Conclusions and Scope for future work
- Publications out of the thesis
 - (i) References
 - (ii) Bibliography (if available)
 - (iii) Appendices
 - (iv) Curriculum Vitae of the Scholar

All the headings are centered (without punctuation) 25mm down the top edge of the page. The subsequent type-setting begins four spaces below the heading.

3.2 Reference Format

References should be alphabetically arranged. If same author reference appear, chronological order should be taken. All cited references in the text should be present in reference section. Additional references, which are not cited in the text, may find place in bibliography. References should be arranged in hanging style.

- a. For referencing an article in a scientific journal, the suggested format should contain the following information:

- authors, title, name of journal, volume number, page numbers and year.
- b. For referencing an article published in a book, the suggested format should contain, authors, the title of the book, editors, publisher, year, page number of the article in the book being referred to.
 - c. For referencing a thesis, the suggested format should contain, author, the title of thesis, where thesis was submitted or awarded, year.

A few examples of formats of references are given below and the student should be consistent in following the style.

Journals

- Exner, H.E. (1979). Physical and Chemical Nature of Cemented Carbides, *International Metals Review*, 24, 149-173.
- Spriggs, G. E. (1970). The Importance of Atmosphere Control in Hard Metal Production, *Powder Metallurgy*, 13 (26), 369-393.

Conference Proceedings

- Fischmeister, H. F. (1982). Development and Present Status of the Science and Technology of Hard Materials, *Science of Hard Materials*, R.K. Viswanadham, D.J. Rowcliffe, and J. Gurland (eds.), Plenum Press, New York, NY, USA, 1-45.
- Baek, W. H, Hong, M. H, Lee, S and Chung, D T. (1995). A Study on the Shear Localization Behavior of Tungsten Heavy Alloy, *Tungsten and Refractory Metals*, A. Bose and R.J. Dowding (eds.), Metal Powder Industries Federation, Princeton, NJ, USA, 463-471.

Books

- German R. M. (1994). Powder Injection Molding, Metal Powder Industries Federation, Princeton, NJ, USA, 1990.

Thesis

- Johnson, J. L. (1994). Densification, Microstructural Evolution, and Thermal Properties of Liquid Phase Sintered Composites, Ph.D. Thesis, The Pennsylvania State University, University Park, PA, USA.

Technical Reports

- Zukas, E.G, Rogers, P. S. Z and Rogers, R. G. (1992). Experimental Evidence for Spheroid Growth Mechanisms in the Liquid Phase Sintered Tungsten Based Composites.

Patents

- Oenning, V and Clark, I. S. R. (1991). Tungsten skeleton structure fabrication method, U. S. Patent No. 4988386.

Journals in Non-English Language

- Weihong, L and Xiuren, T. (1988). Tungsten Matrix in Cu-W Contact Materials by Impregnation Process, *Powder Metallurgy Technology*, 6 (8), 1-4. (in Chinese)

3.3 Appendix or Appendices

Supplementary illustrative material, original data, and quotations, too lengthy for inclusion in the text or which is not immediately essential to an understanding of the subject, can be presented in Appendix or Appendices (as Appendix A, Appendix B, etc.)

Each appendix with its title should be listed separately in the table of contents. Likewise, tables and figures contained in the Appendices are to be included in the lists of tables and figures, respectively.

Conclusions

The guidance here lists only the basic requirements for preparing the thesis. A sample copy of the preliminaries, chapters etc. are also included in this document. Over and above the points listed, a thesis should be reader-friendly in both its appearance and presentation. Several aspects of thesis preparation, particularly style of writing and presentation, have not been discussed in detail. The student should follow appropriate ideas from standard literature of his/her area of research, and adopt a uniform style and format throughout the thesis, such as in the structural divisions/subdivisions of the thesis, in the mode of citing references and footnotes in the text, in using dimensions, units and notations, and in preparing tables and figures, etc.

<Title of the thesis – all caps - Times New Roman 15 font size>

A THESIS

submitted by

<Name of the student – Times New Roman – 15 font size>

for the award of the degree

of

DOCTOR OF PHILOSOPHY

Under the guidance of

<Name of the Guide – Times New Roman – 15 font size>



<Name of the Department – All Caps – Times New Roman – 12 Font size>

**VIGNAN'S FOUNDATION FOR SCIENCE, TECHNOLOGY AND RESEARCH
(Deemed to be University), VADLAMUDI
GUNTUR – 522 213 ANDHRA PRADESH, INDIA**

<Month Year – Times New Roam – 15 Font Size>

*Dedicated
to
<candidate's choice!>*

DECLARATION

I certify that

- a. The work contained in the thesis is original and has been done by myself under the general supervision of my supervisor.
- b. I have followed the guidelines provided by the Institute in writing the thesis.
- c. I have conformed to the norms and guidelines given in the Ethical Code of Conduct of the Institute.
- d. Whenever I have used materials (data, theoretical analysis, and text) from other sources, I have given due credit to them by citing them in the text of the thesis and giving their details in the references.
- e. Whenever I have quoted written materials from other sources, I have put them under quotation marks and given due credit to the sources by citing them and giving required details in the references.
- f. The thesis has been subjected to plagiarism check using a professional software and found to be within the limits specified by the University.
- g. The work has not been submitted to any other Institute for any degree or diploma.

(<Name of the student>)

CERTIFICATE

This is to certify that the thesis entitled <**Title of the thesis – Times New Roman – 12 Font size – all caps**> submitted by <**Name of the students - Times New Roman – 12 Font size – all caps**> to the Vignan's Foundation for Science, Technology and Research (Deemed to be University), Vadlamudi, Guntur for the award of the degree of **Doctor of Philosophy** is a bonafide record of the research work done by him under my supervision. The contents of this thesis, in full or in parts, have not been submitted to any other Institute or University for the award of any degree or diploma.

<**Name of the guide - -TNR-font 12 size**>
Research Guide
Professor, Dept. of <Name of the department>
VFSTR (Deemed to be University), Andhra Pradesh, India

Place: Guntur
Date: xx June 2016

<**Name of the Co-guide - -TNR-font 12 size**>
Research Guide
Professor, Dept. of <Name of the department>
VFSTR (Deemed to be University), Andhra Pradesh, India
(if co-guide is available)

Place: Guntur
Date: xx June 2016

ACKNOWLEDGEMENT

I would like to acknowledge my deep sense of gratitude to my supervisor _____ Department of _____, Vignan's Foundation for Science, Technology and Research (Deemed to be University), Vadlamudi, Guntur, for his constant valuable guidance and encouragement. He gladly accepted all the pains in going through my work again and again and gave me opportunity to learn essential research skills. This thesis would not have been possible without his insightful and critical suggestions, his active participation in constructing right models and a very supportive attitude. I will always remain grateful to him for giving direction to my life.

I express my sincere thanks to _____, Vice Chancellor, _____, Head of the Department of _____ for providing the necessary facilities for carrying out the research work. I would like to thank the doctoral committee panel, _____, _____, _____ for providing me with their suggestions.

I would like to express my heartiest thanks to my colleague _____ for valuable comments, suggestions and discussions. I am grateful to _____ for his uncountable help during the hardware implementation in cadence Lab despite of his numerous duties and busy schedule.

I would like to acknowledge the support of my parents and my sisters for their continuing support and encouragement.

<Name of the candidate>

(This is just a sample only. The candidate is free to include his acknowledgement)

ABSTRACT

<Title of the thesis – Times New Roman – 14 font size – all caps>

<Brief description of the work – Times New Roman – 12 Font Size> Not to be more than 1.5 pages. A sample is given below:

Surface topography of cylinder liner surface plays a major role in determining friction, wear, lubrication and sealing tightness of the piston assembly which in turn affects the running performance, emissions and longevity of the automotive engines. The cylinder liner surfaces can be considered as engineered surfaces as the ‘run-in’ engine surface behaviour is generated during the manufacturing stage itself using a three-stage honing process. Plateau honing process is used to generate different layers of surface geometric structure with deep valleys which are meant for oil retention and relatively smooth surface geometry on the top that serves as the bearing contact for the piston ring sliding. The cross hatched honing angle generated on the surface as a consequence of the honing process mechanics is also a tribologically significant parameter. The resultant surfaces are currently characterized using multiple surface topographical parameters such as Abbott-Firestone curve parameters namely reduced peak height (R_{pk}), core roughness depth (R_k), reduced valley depth (R_{vk}), material ratio at the peak zone (Mr_1) and material ratio at the valley zone (Mr_2) and honing angle.

KEYWORDS: <Times New Roman – 12 Font Size – minimum 4 key words>

CONTENTS

TITLE PAGE	i
DEDICATION	iii
DECLARATION	v
CERTIFICATE	vii
ACKNOWLEDGEMENTS	ix
ABSTRACT	xiii
CONTENTS	xvii
LIST OF TABLES	xxiii
LIST OF FIGURES	xxvii
LIST OF SYMBOLS AND ABBREVIATIONS	xxxi

CHAPTER I: <Heading – TNR – 12 Font Size – All Caps>

1	Introduction	1
1.1	<Sub Heading – TNR – 12 Font Size – Capitalize each word>	1
1.2	<Sub Heading – TNR – 12 Font Size – Capitalize each word>	2
1.3	<Sub Heading – TNR – 12 Font Size – Capitalize each word>	2
1.4	<Sub Heading – TNR – 12 Font Size – Capitalize each word>	3
1.5	Summary	4

CHAPTER II: <Heading – TNR – 12 Font Size – All Caps>

2	Introduction	7
2.1	<Sub Heading – TNR – 12 Font Size – Capitalize each word>	7
2.1	<Sub Heading – TNR – 12 Font Size – Capitalize each word>	8
2.2.1	<Sub-sub Heading – TNR – 12 Font Size – Sentence case>	8
2.2.2	<Sub-sub Heading – TNR – 12 Font Size – Sentence case>	9
2.2.3	<Sub-sub Heading – TNR – 12 Font Size – Sentence case>	10
2.2.4	<Sub-sub Heading – TNR – 12 Font Size – Sentence case>	12
2.3	<Sub Heading – TNR – 12 Font Size – Capitalize each word>	14
2.4	Summary	15

CHAPTER III: <Heading – TNR – 12 Font Size – All Caps>

3	Introduction	17
3.1	<Sub Heading – TNR – 12 Font Size – Capitalize each word>	17
3.2	<Sub Heading – TNR – 12 Font Size – Capitalize each word>	20
3.2.1	<Sub-sub Heading – TNR – 12 Font Size – Sentence case>	20
3.2.2	<Sub-sub Heading – TNR – 12 Font Size – Sentence case>	22
3.3	<Sub Heading – TNR – 12 Font Size – Capitalize each word>	25

3.3.1 <Sub-sub Heading – TNR – 12 Font Size – Sentence case>	25
3.3.2 <Sub-sub Heading – TNR – 12 Font Size – Sentence case>	29
3.3.3 <Sub-sub Heading – TNR – 12 Font Size – Sentence case>	31
3.4 Summary	32
<hr/>	
CHAPTER X: <Heading – TNR – 12 Font Size – All Caps>	
X Introduction	101
X.1 <Sub Heading – TNR – 12 Font Size – Capitalize each word>	101
X.2 <Sub Heading – TNR – 12 Font Size – Capitalize each word>	105
X.2.1 <Sub-sub Heading – TNR – 12 Font Size – Sentence case>	109
X.2.2 <Sub-sub Heading – TNR – 12 Font Size – Sentence case>	110
X.3 <Sub Heading – TNR – 12 Font Size – Capitalize each word>	115
X.2.1 <Sub-sub Heading – TNR – 12 Font Size – Sentence case>	115
X.2.2 <Sub-sub Heading – TNR – 12 Font Size – Sentence case>	118
X.4 Summary	120
<hr/>	
CHAPTER XXX: CONCLUSIONS AND SCOPE FOR FUTURE WORK	181
REFERENCES	187
BIBLIOGRAPHY	197
<hr/>	
APPENDICES	
A <Title of the Appendix – TNR – 12 Font Size-Sentence case>	201
B <Title of the Appendix – TNR – 12 Font Size-Sentence case>	203
C <Title of the Appendix – TNR – 12 Font Size-Sentence case>	205
<hr/>	
PUBLICATIONS FROM THE THESIS	207
CURRICULUM VITAE	209

LIST OF TABLES

Table No	Title	Page No
2.1	<Table Name – TNR – 12 Font Size>	15
3.1	<Table Name – TNR – 12 Font Size>	25
4.1	<Table Name – TNR – 12 Font Size>	45
4.2	<Table Name – TNR – 12 Font Size>	54
4.3	<Table Name – TNR – 12 Font Size>	69

LIST OF FIGURES

Figure No	Title	Page No
2.1	<Title of the figure – TNR – 12 Font size>	15
2.2	<Title of the figure – TNR – 12 Font size>	25
3.1	<Title of the figure – TNR – 12 Font size>	45
3.2	<Title of the figure – TNR – 12 Font size>	55
4.1	<Title of the figure – TNR – 12 Font size>	78
4.2	<Title of the figure – TNR – 12 Font size>	85
4.3	<Title of the figure – TNR – 12 Font size>	98

LIST OF SYMBOLS AND ABBREVIATIONS

°	Degree
ω	Angular Velocity, rad/s
s	Second
σ	Horizontal Stress, N/m ²
CC	Current Conveyor
CC-CDBA	Current controlled Current Differencing Buffered Amplifier
CCCDTA	Current controlled Current Differencing Transconductance Amplifier
CCII	Second-Generation Current Conveyor
CDBA	Current Differencing Buffered Amplifier
CDTA	Current Differencing Transconductance Amplifier

(this is sample only)

CHAPTER I

INTRODUCTION

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1.X Thesis Objectives

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1.XX Organization of Thesis

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CHAPTER II

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CHAPTER XX

CONCLUSIONS AND SCOPE FOR FUTURE WORK

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1.X Major Findings from the thesis

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1.XX Scope for Future Work

<text matter in times new roman font – 12 size>

REFERENCES

<All references to be formatted as shown below examples. All references need to be mentioned in the text. It should be arranged alphabetically.>

- Nevin, A. (1990). The changing of teacher education special education. *Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children*, 13(3-4), 147-148.
- Priya, P and Ramamoorthy, B. (2006), Roughness Estimation of Inclined Surfaces Using Artificial Intelligence, *18th IMEKO World Congress, Metrology for Sustainable Development*, Rio de Janeiro, Brazil.
- Priya, P and Ramamoorthy, B. (2006), Surface Roughness Assessment of Inclined Components Using Machine Vision and Adaptive Neuro Fuzzy Inference System, *22nd AIMTDR Conference*, IIT Roorkee, INDIA, pp 163-168.
- Priya, P and Ramamoorthy, B. (2006). Surface Roughness Analysis of Inclined Components Using Machine Vision, *International Conference on Global Manufacturing and Innovation (GMI-2006)*, CIT Coimbatore, INDIA.

BIBLIOGRAPHY

<All bibliography to be formatted as shown below examples. They need not be mentioned in the text. It should be arranged alphabetically.>

- Baek, W.H., Hong, M. H., Lee, S and Chung, D. T. (1995). A Study on the Shear Localization Behavior of Tungsten Heavy Alloy, *Tungsten and Refractory Metals*, A. Bose and R.J. Dowding (eds.), Metal Powder Industries Federation, Princeton, NJ, USA, 463-471.
- German, R. M. (1994). Powder Injection Moulding, Metal Powder Industries Federation, Princeton, NJ, USA, 1990.
- Spriggs, G. E. (1970). The Importance of Atmosphere Control in Hard Metal Production, *Powder Metallurgy*, 13 (26), 369-393.
- Zukas, E. G., Rogers, P. G. Z and Rogers, R. S. (1972). Experimental Evidence for Spheroid Growth Mechanisms in the Liquid Phase Sintered Tungsten Based Composites.

APPENDIX A

<Table/data in TNR Font – 12 size>

SPECIFICATIONS OF TRACTOR AND IMPLEMENTS

A1. Major specifications of the selected tractor

Parameter	Specification
Model	E 3.342, Water cooled
Operation cycle	Three cylinder, 4 stroke
Rated power, hp	47 (35 kW)
Speed at rated power, rpm	2200
Maximum torque at engine, kg-m	18 at 1400-1600 rpm
Bore and stroke, mm	110 x 120
Displacement, cc	3420
Steering type	Bevel pinion with sector gears
No of forward speeds	Ten
No of reverse speeds	Two
Mass of tractor without ballast, kg	1890
Seat	Adjustable, parallelogram suspension

A2. Major specifications of the selected implements

Parameter	Specification
MB Plough	
Type of Implement	Mounted type
No. of plough bottom	2
Width of cut, mm	400
Depth of operation, mm	180
Weight of implement, kg	215
Disk harrow	
Type of Implement	Mounted type
No. of gang	02
No. of disk per gang	07
Width of cut, mm	240
Diameter of disc, mm	510
Depth of operation, mm	90
Weight of implement, kg	285
Rotavator	
Type of Implement	Mounted type
No. of Tynes	30
Type of rotary Blade	L shape
Width of cut, m	1.3
Weight of implement, kg	260

PUBLICATIONS BASED ON THIS RESEARCH WORK

Refereed International Journal:

- Priya, P and Ramamoorthy, B. (2007). The Influence of Component Inclination on Surface Finish Evaluation Using Digital Image Processing, *International Journal of Machine Tools and Manufacture*, 47, 570-579.

International Conference:

- Priya, P and Ramamoorthy, B. (2006), Surface Roughness Analysis of Inclined Components Using Machine Vision, *International Conference on Global Manufacturing and Innovation (GMI-2006)*, CIT Coimbatore, INDIA.
- Priya, P and Ramamoorthy, B. (2006), Roughness Estimation of Inclined Surfaces Using Artificial Intelligence, 18th *IMEKO World Congress*, Metrology for Sustainable Development, Rio de Janeiro, Brazil.

(Published / accepted papers only should be mentioned here)