

Draft GUIDELINES FOR PREPARATION OF THESIS FOR PhD



RAJASTHAN TECHNICAL UNIVERSITY, KOTA

2014

Guidelines for preparation of Thesis

Preamble

While utmost attention must be paid to the content of the thesis, which is being submitted in partial fulfillment of the requirements of the Ph.D. degree, it is imperative that a standard format be prescribed. The same format shall also be followed in preparation of the soft copy (single file in pdf form) which shall be submitted to the University Library. A candidate initially needs to submit five hard copies of the thesis in soft binding form for evaluation of the thesis, along with its soft copy (single file in pdf form).

1. Organisation of the Thesis

This thesis shall be presented in a number of chapters, starting with Introduction and ending with Summary and Conclusions. Each of the other chapters will have a precise title reflecting the contents of the chapter. A chapter can be subdivided into *sections*, *subsections* and *subsubsection* so as to present the content discretely and with due emphasis. When the work comprises two or more mutually independent investigations, the thesis may be divided into two or more parts, each with an appropriate title. However, the numbering of chapters will be continuous right through, for example Part 1 may comprise Chapters 2 to 5, Part Two, Chapters 6 to 9.

1.1 Introduction

The title of **Chapter 1** shall be Introduction. It shall justify and highlight the problem posed, define the topic and explain the aim and scope of the work presented in the thesis. It may also highlight the significant contributions from the investigation.

1.2 Review of Literature

This shall normally form Chapter 2 and shall present a critical appraisal of the previous work published in the literature pertaining to the topic of the investigation. The extent and emphasis of the chapter shall depend on the nature of the investigation.

1.3 Report on the present investigation

The reporting on the investigation shall be presented in one or more chapters with appropriate chapter titles.

- Due importance shall be given to experimental setups, procedures adopted, techniques developed, methodologies developed and adopted.
- While important derivations/formulae should normally be presented in the text of these chapters, extensive and long treatments, copious details and tedious information, detailed results in tabular and graphical forms may be presented in Appendices. Representative data in table and figures may, however, be included in appropriate chapters.
- Figures and tables should be presented immediately following their first mention in the text. Short tables and figures (say, less than half the writing area of the page) should be presented within the text, while large table and figures may be presented on separate pages.
- Equations should form separate lines with appropriate paragraph separation above and below the equation line, with equation numbers flushed to the right.
- Summary/conclusion of each chapter may be provided at the end of the chapter.

1.4 Results and Discussions

This shall form the penultimate chapter of the thesis and shall include a thorough evaluation of the investigation carried out and bring out the contributions from the study. The discussion shall logically lead to inferences and conclusions as well as scope for possible further future work.

1.5 Summary and Conclusions

This will be the final chapter of the thesis. A brief report of the work carried out shall form the first part of the Chapter. Conclusions derived from the logical analysis presented in the Results and Discussions Chapter shall be presented and clearly enumerated, each point stated separately. Scope for future work should be stated lucidly in the last part of the chapter.

1.6 Appendix

Detailed information, lengthy derivations, raw experimental observations etc. are to be presented in the separate appendices, which shall be numbered in Roman Capitals (e.g. “Appendix IV”). Since reference can be drawn to published/unpublished literature in the appendices, these should precede the “Literature Cited” section.

1.7 References/ Bibliography

This should follow the Appendices, if any, otherwise the Summary and Conclusions chapter. The candidates shall follow the style of citation and style of listing in one of the standard journals in the subject area consistently throughout his/her thesis, for example, IEEE in the Department of Electrical Engineering. However, the names of all the authors along with their initials and the full title of the article/monogram/book etc. have to be given in addition to the journals/publishers, volume, number, pages(s) and year of publication. Citation from websites should include the names(s) of author(s) (including the initials), full title of the article, website reference and when last accessed. Reference to personal communications, similarly, shall include the author, title of the communication (if any) and date of receipt.

1.8 Publications by the candidate

Articles, technical notes etc. on the topic of the thesis published by the candidate must listed after the references/bibliography section. Entry of this section must also be included in the table of contents. Here the candidates should also include reprints of his/her publications to fulfill the requirements of PhD ordinance O.14.1.

1.9 Candidate’s Profile

Brief profile of the candidate may be given on the last page of thesis.

2 Thesis Format

2.1 Paper

2.1.1 Quality

The thesis shall be printed/xeroxed on both side of white bond paper, whiteness 95% or above, weight 90 gram or more per square meter.

2.1.2 Size

The size of the paper shall be standard A 4; height 297 mm, width 210 mm.

2.1.3 Type Setting, Text Processing and Printing

The text shall be printed employing laser printer, the text having been processed using a standard text processor. The standard font shall be Times New Roman of 12 pts with 1.5 line spacing.

2.1.4 Page Format

The Printed Sheets shall have the following written area and margins:

- Top Margin 30 mm
- Bottom Margin 22 mm

- Footer 3 mm

- Foot Separation 10 mm

- Text Height 245 mm

- Text Width 160 mm

Left and Right Margins

- Single sided/odd number page (in double sided printing)
 - Left Margin 30mm

- Right Margin 20 mm
- Double sided even numbered page
 - Left Margin 20mm
 - Right Margin 30mm

2.1.5 Pagination

Page numbering in the text of the thesis shall be HinduArabic numerals at the center of the footer. But when the candidate opts for header style the page number shall appear at the right and left top corner for the odd and even number pages, respectively.

Page number “1” for the first page of the Introduction chapter shall not appear in print, only the second page will bear the number “2”.

The subsequent chapters shall begin on a fresh page (fresh odd number page in case of double sided printing). When header style is chosen the first page of each chapter will not have the header and the page number shall be printed at the center of the footer.

Pagination for pages before the Introduction chapter shall be in lower case Roman numerals, e.g., “iv”.

2.1.6 Paragraph format

Vertical space between paragraphs shall be about 2.5 line spacing.

The first line of each paragraph should normally be indented by five characters or 12mm. A candidate may, however, choose not to indent if (s) he has provided sufficient paragraph separation.

A paragraph should normally comprise more than one line. A single line of a paragraph shall not be left at the top or bottom of a page (that is, no windows or orphans should be left)

The word at the right end of the first line of a page or paragraph should, as far as possible, not be hyphenated.

2.2 Chapter and Section Format

2.2.1 Chapter

Each chapter shall begin on a fresh page odd number page with an additional top margin of about 75mm. Chapter number (in HinduArabic) and title shall be printed at the center of the line in 6mm font size (18pt) in bold face using both upper and lower case (all capitals or small capitals shall not be used). A vertical gap of about 25mm shall be left between the Chapter number and Chapter title lines and between chapter title line and the first paragraph.

2.2.2 Sections and Subsections

A chapter can be divided into Sections, Subsections and SubsubSections so as to present different concepts separately. Sections and subsections can be numbered using decimal points, e.g. 2.2 for the second section in Chapter 2 and 2.3.4 for the fourth Subsection in third Section of Chapter 2. Chapters, Sections and Subsections shall be included in the contents with page numbers flushed to the right. Further subsections need not be numbered or included in the contents.

The Section and SubSection titles along with their numbers in 5 and 4mm (16 and 14pt) fonts, respectively, in bold face shall be flushed to the left (not centered) with 15 mm space above and below these lines.

In further subdivisions character size of 3 and 3.5 with bold face, small caps, all caps and italics may be used for the titles flushed left or centered. These shall not feature in the contents.

2.2.3 Table / Figure Format

As far as possible tables and figures should be presented in portrait style. Small size table and figures (less than half of writing area of a page) should be incorporated within the text, while larger ones may be presented on separate pages. Table and figures shall be numbered chapter wise. For example, the fourth figure in chapter 5 will bear the number Figure 5.4 or Fig 5.4

Table number and title will be placed above the table while the figure number and caption will be located below the figure. Reference for Table and Figures reproduced from elsewhere shall be cited in the last and separate line in the table and figure caption, e.g. (after McGregor[12]).

Coloured graph/figure/photo/tables, if any, should not be photocopied in black and white.

3 Auxiliary Format

3.1 Binding

The evaluation copies of the thesis may be spiral bound or soft bound. The final hard bound copies to be submitted after the viva-voice examination will be accepted during the submission of thesis with the following colour specification:

Ph.D. Thesis Black with golden embossing of letters

3.2 Front Covers

The front covers shall contain the following details:

- Full title of thesis in 6 mm 22 point's size font properly centered and positioned at the top.
- Full name of the candidate in 4.5 mm 15 point's size font properly centered at the middle of the page.
- A 40 mm dia replica of the University emblem followed by the Name of the University Department/University Center/Research Center, name of the University and the year of submission, each in a separate line and properly centered and located at the bottom of page.

3.2.1 Lettering

All lettering shall be embossed in gold.

3.2.2 Bound back

The degree, the name of the candidate and the year of submission shall also be embossed on the bound (side) in gold.

3.3 Blank Sheets

In addition to the white sheets (binding requirement) two white sheets shall be put at the beginning and the end of the thesis.

3.4 Title Sheet

This shall be the first printed page of the thesis and shall contain the submission statement: the Thesis/Dissertation/project Report submitted in partial fulfillment of the requirements of the Degree Ph.D., the name and Roll No. of the candidate, name(s) of the Supervisor and Co-supervisor(s) (if any), (Name of the University Department/University Center/Research Center), name of the university and year of submission.

Sample copy of the 'Title Sheet' is appended (**Specimen 'A'**)

3.5 Copyright notice

The Ph.D. thesis must contain the following copyright certificate in the beginning of the thesis, on backside of the title sheet on the left side:

© RAJASTHAN TECHNICAL UNIVERSITY KOTA, 20.. (Year)
ALL RIGHTS RESERVED

3.6 Dedication Sheet

If the candidate so desires(s) he may dedicate his/her thesis, which statement shall follow the title page. If included, this shall form the page 1 of the auxiliary sheets but shall not have a page number.

3.7 Approval Sheet

In the absence of a dedication sheet this will form the first page and in that case shall not have a page number. Otherwise, this will bear the number three in Roman lower case “iii” at the center of the footer. The top line shall be :

1. Thesis Approval for Ph.D.

The Approval Sheets are to be included only in the hard bound copies which are submitted after the successful Ph.D. viva voce examination.

A sample copy of the Approval Sheet is appended (**Specimen `B'**).

The soft copy of the thesis needed for University library should have scanned image duly signed approval sheet.

3.8 A Declaration of Academic Honesty and Integrity

A declaration of Academic honesty and integrity is required to be included along with every thesis/dissertation/report after the approval sheet. The format of this declaration is given in **Specimen `C'** attached.

The soft copy of the thesis needed for University library should have scanned image duly signed candidate’s declaration.

3.9 Acknowledgements

The acknowledgments by the candidate, signed by him/her with date, should be given before abstract.

3.10 Abstract

3.10.1 For University Library

The 500 word abstract shall highlight the important features of the thesis. Abstract along with the key words for search purpose shall be given in the electronic version to be submitted to the Library for inclusion in the website.

3.10.2 For thesis

The abstract shall highlight the important features of the thesis, the layout of the thesis giving a brief chapterwise description of the work and the key words.

3.11 Contents

The contents shall follow the Abstract and shall enlist the titles of the chapters, section and subsection using decimal notation, as in the text, with corresponding page number against them, flushed to the right.

3.11.1 List of Figures and Tables

Two separate lists of Figure captions and Table titles along with their numbers and corresponding page numbers against them shall follow the Contents.

3.12 Abbreviation Notation and Nomenclature

A complete and comprehensive list of all abbreviations, notations and nomenclature including Greek alphabets with subscripts and superscripts shall be provided after the list of tables and figures. (As far as possible, generally accepted symbols and notation should be used).

Auxiliary page from dedication (if any) to abbreviations shall be numbered using Roman numerals in lower case, while the text starting from the Introduction shall be in HinduArabic. (The first pages in the both the cases shall not bear a page number).

4. Overall order of thesis

Title page
Copyright notice (back of title page)
Dedication Sheet (optional)
Approval Sheet
Candidate's Declaration
Acknowledgements
Abstract
Contents
List of Figures and Tables
Abbreviation Notation and Nomenclature
Chapter 1: Introduction
Chapter 2:
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Chapter _ : Summary and Conclusions
Appendix
References/ Bibliography
Publications by the candidate
Candidate's Profile

(Title of Thesis)

Submitted in partial fulfillment of the requirements

of the degree of

Doctor of Philosophy

by

(Name of the Student)

(Enrolment No. _____)

Supervisor (s):



(University Department of/University Center/Research Center)

RAJASTHAN TECHNICAL UNIVERSITY, KOTA

(Month Year)

Thesis Approval for Doctor of Philosophy

This thesis entitled (Title.....) by (Candidate Name.....) (Enrolment No....) submitted to the (University Department of/University Center/Research Center), Rajasthan Technical University Kota is approved for the award of degree of Doctor of Philosophy.

Examiners

Supervisor (s)

Chairman DRC

Date : _____

Place : _____

Candidate's Declaration

I hereby certify that the work, which is being presented in the thesis, entitled in partial fulfillment of the requirement for the award of the Degree of Doctor of Philosophy, carried under the supervision of Professor/Dr., and submitted to the (University Department of/University Center/Research Center), Rajasthan Technical University Kota, represents my ideas in my own words and where others' ideas or words have been included, I have adequately cited and referenced the original sources. The work presented in this thesis as not been submitted elsewhere for the award of any other degree of diploma from any Institutions. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in my submission. I understand that any violation of the above will be cause for disciplinary action by the University and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

(Signature)

(Name of the student)

(Roll No.)

Date: _____

This is to certify that the above statement made by (Candidate Name.....) (Enrolment No....) is correct to the best of my knowledge.

Date: _____

(Research Supervisor (s))
(University Department of/University Center/Research Center)