

GUIDELINES ON THE PREPARATION OF A THESIS

OBJECTIVE

A thesis is a documentation of a research student's work—a record of the original research done by the student. It provides information on the student's research work to the future researchers. The Institute is committed to preserve a paper copy of the student's thesis for archiving and cataloging it in the Central Library, making it available to others for academic purpose, uploading it on to the IIT intranet, and disseminating its abstract in both print and electronic forms.

Institute-wide standardization, readability, conformance to ethical norms, and durability are the four overriding criteria for an acceptable form of a thesis. The objective of this document is to provide a set of guidelines that help a research student to prepare the thesis to satisfy the above-mentioned criteria.

FEATURES

1. The final copy of the thesis has to contain all the modifications/corrections suggested by the examiners and the members of the Viva-Voce Board and is to be submitted after the student successfully defends the thesis in the viva-voce examination.
2. The thesis has to contain a *copyright notice*.
3. The thesis has to include a *declaration* by the student to the effect that he/she has not resorted to any unethical practice while carrying out the research work and preparing the thesis.
4. The *contribution* (to knowledge) of the research student must be explicit in the Introduction chapter of the thesis.
5. The thesis has to include a *certificate of approval*. The certificate remains unsigned at the time of initial submission of the thesis but is to be signed by the members of the Viva-Voce Board when the thesis is finally submitted after the Viva.

PRODUCTION

Thesis Size

6. A thesis should have between 150 and 200 pages (not considering the prefacing materials of the thesis that are paginated in small Roman numerals; see the section on Page Numbering).

Tips to reduce the size of the thesis

- Use single line spacing for certain types of text (See the section on Line Spacing).
- Do not unnecessarily repeat definitions and texts.
- Be precise in your description, conclusions, and interpretations.
- Do not leave blank space on a page after a table or a figure; fill it with some text.
- Do not give all the data in the thesis in tabular form. Give only sample data, a summary of data, and a graphical presentation of the main trend and fluctuation of the data, and include a CD, containing all the data, in a closed pocket at the inner side of the back page of the thesis (see the section on Non-Paper Material).
- Do not give the complete computer program listing; describe its flow of logic and its other distinguishing features instead. Include a CD, containing the program listing, in a closed pocket at the inner side of the back page of the thesis (see the section on Non-Paper Material).

Paper Quality

7. The copy of the thesis to be submitted to the Central Library should be durable. To achieve durability, paper should be acid-neutral or acid-free, as designated on the package. It is now available in the market as thesis-quality paper and weighs 85 GSM (grams per square meter) or more. Other copies of the thesis may have bond paper (that usually weighs 80 GSM).
8. If the thesis is printed on both sides, the paper should be sufficiently thick to be opaque enough so that while reading, the print on the backside should not be visible in normal lighting conditions.

Paper Size

9. The standard size of paper of a thesis is 21.5 cm (8½ inch) wide and 28 cm (11 inch) long.
10. Oversized figures and tables, if any, should be reduced to fit with the size of the thesis but the reduction should not be so drastic as to impair the clarity of their contents. One may also fold these pages to fit with the thesis size.

Single-Sided vs. Double-Sided Printing

11. The copies of the thesis at the time of initial submission to the Institute should be printed on both sides.
12. The final copy of the thesis to be submitted to the Central Library should be printed on one side of the paper. However, double-sided printing may be done if the paper is opaque enough not to impair readability on the other side in normal lighting conditions.
13. Often, in a double-sided thesis, a figure appears on one side of a sheet of paper with its back side kept blank.
14. In a double-sided thesis, a new chapter always starts on an odd-numbered page. Therefore, if a chapter ends on an odd-numbered page, its back side has to be kept blank so that the next chapter can start on an odd-numbered page.

Non-Paper Material

15. Digital or magnetic materials, such as CDs and DVDs, may be included in the thesis. They have to be given in a closed pocket in the back cover page of the thesis. It should be borne in mind that their formats may become obsolete due to rapid change in technology, making it impossible for the Central Library to guarantee their preservation and use.
16. All non-paper materials, as above, must have a label each indicating the name of the student, the date of submission, and the copyright notice.

Page Numbering

17. Page numbers for the prefacing materials of the thesis shall be in small Roman numerals and should be centered at the bottom of the pages.
18. Page numbers for the body of the thesis should be in Arabic numerals and should be centered at the bottom of the pages. The pagination should start with the first page of Chapter 1 and should continue throughout the text (including tables, figures, and appendices)
19. In a double-sided thesis, each side of a sheet of paper should be counted as a page, even if the back side of a sheet of paper is blank.
20. In a double-sided thesis, the odd-numbered pages are always on the right and even-numbered pages are always on the left.

Binding

21. The initial copies of the thesis submitted for examination have to be softbound and printed on both sides.

The final approved copies of the thesis, after the incorporation of the Examiners' comments, if any, are to be submitted after the viva-voce examination. They have to be hardbound and printed preferably on one side. These copies should have, on their spines, the abbreviated title of the thesis, the name of the scholar, and the year of submission of the final version of the thesis.

FORMAT FOR THE THESIS

The following guidelines are provided to format the thesis for easy readability.

Font

22. The preferred font size of the text in the thesis is 12 point, but in no case should it be less than 11-point. The minimum font size of materials within a table or a figure can be 8 point, however.
23. The preferred font type is Times New Roman.

Margins

24. A margin of 3.75 cm (1½ inch) is to be given on the binding edge while on the other sides it is to be 2.5 cm (1 inch). The text of the thesis, including headings, figures, tables, and notes, but excluding page numbers, must be accommodated within the page area.

Line Spacing

25. The line spacing in the main text must be between one-and-a-half and two. Single line spacing should be given for quotations, abstract, declaration, thesis approval, figure captions, table titles, figure legends, footnotes, and references.
26. The equations, tables, figures, and quotations should be set off from the main text with adequate space (not less than the normal line spacing adopted for the main text).
27. Two consecutive paragraphs should be separated by a spacing which must be larger than the line spacing adopted for the text.

THE PREFERATORY MATERIALS

Title of the Thesis

28. The title of the thesis should remain same as that given in the synopsis. If it has to be changed then the consent of the DSC and the permission of the Dean (PGS & R) are required prior to the submission of the thesis.
29. After the submission of the final copies of the thesis, researchers around the world can have electronic access to the abstract of a thesis (internationally) and to the thesis (locally through the IIT intranet). Search engines use the words of the title (and other keywords) to locate their contents. Use of formulas, symbols, Greek letters, etc., should be substituted by their word equivalents, because they do not appear on most computer keyboards.

Cover Page

30. Cover page should contain the title of the thesis and the name of the candidate, and nothing else. In the copies of the thesis that are submitted to the Institute, the cover page should not contain any other figure, map, equation, or drawing.

See Sample Page 1 for details.

31. The spine of the thesis (when finally submitted after the Viva-Voce Examination) should be provided with an abbreviated title of the thesis, the name of the scholar, and the year of submission of the final copy of the thesis.

First Inner Page

32. The first inner page should be similar to the cover page but should contain a few additional items. This page will not only bear the title of the thesis and the candidate's name, but also the name of the degree for which the thesis is submitted, the name of the Institute, month and year of submission of the thesis, and the copyright notice.

33. The copyright notice shall consist of the following:

- a. The encircled symbol "C" ©
- b. The year of the award of the degree
- c. The name of the owner of the copyright
- d. The words "All rights reserved"

Example:

© 2008 Rakesh K. Sharma. All rights reserved.

See Sample Page 2 for details.

Approval of the Viva-Voce Board

34. Each final copy of the thesis should have a page for certificate of approval bearing the original signatures of the members of the viva-voce board (the supervisor(s), the members of the DSC, and the external examiner). This page remains unsigned in the copy to be submitted initially.

See Sample Page 3 for details.

Certificate by the Supervisor(s)

35. Supervisors certify that the thesis is a record of bona fide work done under their supervision and that they consider the work worthy of submission to the Institute for the award of the degree of PhD.

See Sample Page 4 for details.

In case of two supervisors hailing from two different academic units or from two organizations (including one from the Institute), the letterhead will be of the department where the student is registered.

Declaration by the Student

36. The student has to give a declaration to the effect that the data used for the work, the work depicted in the thesis, and the written material contained in the thesis are not copied from others and that due permission has been taken from, and due credit has been given to, the sources whenever they are used.

See Sample Page 5 for details.

Curriculum Vita

37. The curriculum vita of the scholar should be limited preferably to one page.
38. It should contain basic information about the scholar such as name, qualifications, experience, and a list of publications made out of the thesis.
39. It should not contain the scholar's photograph.

Acknowledgements

40. Acknowledgements should be limited preferably to one page.

Contents

41. Prefatory materials, chapter numbers, chapter names, section numbers, section headings, subsection numbers, and subsection headings, along with the corresponding page numbers, should be given in the Contents.

See Sample Page 6 for details.

List of Symbols and Abbreviations

42. All the symbols and abbreviations used in the thesis are to be given here along with their definitions and units of measurement (if applicable) and full forms.

Abstract

43. The abstract of the thesis should be limited to 350 words (a requirement for its inclusion in the Dissertation Abstracts International).
44. A list of keywords should follow the abstract.

BODY OF THE THESIS

45. The thesis should be written in either British or American English, not in a mixed mode. However, because of increasing acceptance of both styles and blurring of the distinction between the two, what is important is that consistency should be maintained all throughout the text.

Note:

Indian authors often use both styles without knowing whether the style they follow while writing is American or British. Also many American words are increasingly included in British English Dictionaries (such as Oxford or Cambridge Dictionaries). Furthermore, there are subtle differences in the British and American styles with regard to punctuation, abbreviations, quotations, etc., which are increasingly accepted by the proponents of both styles, and hence the distinction between them has blurred over the years.

46. Each chapter should be numbered in Arabic numerals and should be written as Chapter 1, Chapter 2, etc., and should be followed by its title (e.g., Introduction, etc.). The chapter title shall be printed bold and in 14-point font.
47. Figures, tables, graphs shall be positioned within the body of the text immediately after citation and should not be positioned separately. (See “Guidelines for Tables and Figures”.)
48. Units should be in SI format. (See *Guidelines on International System of Units*)

References

- 49. Author-date style of referencing is preferred for a PhD thesis of the Institute.
- 50. Individual department's guidelines may be followed alternatively.
- 51. Irrespective of the style adopted, the reference details must include the titles of the publications.

Appendices

- 52. Each appendix will be numbered (e.g., Appendix A, Appendix B, etc.).
- 53. It will also have a title.
- 54. Appendices will be listed in the Contents.

**THE TITLE OF THE THESIS
SHALL LOOK LIKE THIS TITLE**

(The title is in Times New Roman Font with 16-point size, Bold, one-and-a-half line spacing)

Pradeep Sengupta

(Candidate's name in Times New Roman, 12-point and Bold Italics)

**THE TITLE OF THE THESIS IN THE SECOND PAGE
SHALL LOOK EXACTLY LIKE THIS TITLE**

(4 lines gap) - 'Times New Roman' – 12-point size – Bold – Italics - centered

***Thesis submitted to the
Indian Institute of Technology, Kharagpur
For award of the degree***

(1 line gap) - 'Times New Roman' – 12-point size – Bold – Italics - centered

of

(1 line gap) - 'Times New Roman' – 14-point size – Bold - centered

Doctor of Philosophy

(1 line gap) - 'Times New Roman' – 12-point size – Bold – Italics - centered

by

(1 line gap) - 'Times New Roman' – 14-point size – Bold - centered

Pradeep Sengupta

(2 lines gap) - 'Times New Roman' – 12-point size – centered

Under the guidance of

(1 line gap) – 'Times New Roman' – 12-point size – Bold - centered

Prof. Nirmal Dasgupta

(LOGO)

(1 line gap) - 'Times New Roman' – 14-point size – Bold - centered

**DEPARTMENT OF CIVIL ENGINEERING
INDIAN INSTITUTE OF TECHNOLOGY KHARAGPUR
DECEMBER 2009**

Sample Page 3

APPROVAL OF THE VIVA-VOCE BOARD

DD/MM/YR

Certified that the thesis entitled THE TITLE OF THE THESIS submitted by NAME OF THE STUDENT to the Indian Institute of Technology, Kharagpur, for the award of the degree Doctor of Philosophy has been accepted by the external examiners and that the student has successfully defended the thesis in the viva-voce examination held today.

(Member of the DSC)

(Member of the DSC)

(Member of the DSC)

(Supervisor)

(Supervisor)

(External Examiner)

(Chairman)

Sample Page 4

(The certificate is to be printed on the Departmental Letter-Head)

CERTIFICATE

This is to certify that the thesis entitled **The Title of the Thesis**, submitted by **The Name of the Scholar** to Indian Institute of Technology, Kharagpur, is a record of bona fide research work under my (our) supervision and we consider it worthy of consideration for the award of the degree of Doctor of Philosophy of the Institute.

Supervisor

Supervisor

Date:

Sample Page 5

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(s).
- b. The work has not been submitted to any other Institute for any degree or diploma.
- c. I have followed the guidelines provided by the Institute in writing the thesis.
- d. I have conformed to the norms and guidelines given in the Ethical Code of Conduct of the Institute.
- e. 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.
- f. 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.

Signature of the Student

Sample Page 6

CONTENTS

Title Page		i
Certificate of Approval		ii
(Unsigned in the initially submitted copies and signed in the final copies)		
Certificate		iii
Acknowledgements		iv
Declaration		v
List of Symbols and Abbreviations		vi
Abstract		vii
Contents		viii
Chapter 1	Introduction	1
	1.1 Section	
	1.2 Section	
	1.3 Section	
Chapter 2	Literature Review (This chapter may be merged with Chapter.1, if necessary)	
	2.1 Section	
	2.2 Section	
Chapter 3	Theoretical Study	
Chapter 4	Experimental Study (If applicable)	
Chapter 5	Results and Discussions	
Chapter 6	Conclusions and Future Scope of Study	
References		
Appendix A	Title of Appendix A	
Appendix B	Title of Appendix B	
Appendix C	Title of Appendix C	