



# **GENERAL GUIDELINES FOR PREPARATION OF M.TECH. DISSERTATION**

# **Punjab Engineering College, Chandigarh (Deemed to be University)**

## **LAYOUT**

### ***Font***

- The Dissertation should be written in Indian/British English on A4 size bond paper.
- Font should be Times New Roman 12.
- Same font should be used throughout the dissertation. If necessary, different fonts may be used within the Tables, Figures, and Appendices.
- The Dissertation should be printed on both side of paper.
- Double-spacing should be used in the Abstract and 1.5 spacing in the text of the Dissertation.
- Single spacing is to be used in long Tables, block quotations separated from the text, footnotes, and bibliographical entries.
- Paragraphs are to be indented, or an empty line left between paragraphs.
- Larger size bold type (not more than 18) may be used for the title of the Dissertation and for Chapter headings.
- Reduced type (not less than 9) may be used within Tables, Figures, and Appendices.
- When using numbers in the text, if the first word of a sentence is a number, it should be written in words.

### ***Chapter and Page Layout***

- Each element of the preliminaries (list of Tables, Acknowledgments, etc.), the Reference section, and each Appendix also should begin on a new page.
- Each Chapter should begin on a new page, but sections and subsections should not.
- Avoid typing a heading near the bottom of a page unless there is room for at least two lines of text following the heading.
- A "display" page (a page that shows only the Chapter title) can be placed at the beginning of the Chapter or an Appendix.
- Pages should be numbered at the bottom in the centre, using Arabic numerals (1, 2, 3) beginning with 1 on the first page of the Introduction and continuing consecutively to the end of the manuscript including References.
- The preliminary pages are to be numbered in lower-case Roman numerals, beginning with the declaration page.

### ***Margins***

- A margin of at least 3.0 cm must be left at the top and left side of each page.
- A margin of at least 2.5 cm on the right and bottom is to be used.

### ***Captions and numbering (Tables and Figures)***

- Each Table should carry a number and a title on the top clearly describing the data presented.
- Each Figure/Illustration should also carry a number and caption at the bottom.
- Figures, Graphs, Tables should be embedded in the text of the dissertation, immediately after the first mention of it in the text, on the same page if there is room, or on the following page.
- Captions and titles of Figures and Tables should appear on the same page as the material itself.
- Figures/Illustrations/Tables should be numbered consecutively with Arabic numerals in the order of presentation in the text.

- All Tables and Figures must be referred to in the text by numbers and not by a phrase such as "the following table". Tables or Figures of peripheral importance to the text may be placed in an Appendix.

### ***Appropriate use of headings and subheadings***

- Headings should be distinguished from the surrounding text by a larger font size, a different font, bolding, italics, or a combination of these.
- All headings of the same level should use the same style, and headings at lower levels should be less prominent than those at higher levels.
- All headings should be left aligned, except chapter headings, which may be centered.
- The headings and subheadings can be numbered, if necessary.
- An example is given below:-

Chapter Title:	Times New Roman 16 point, Bold Small caps
Heading for section:	Times New Roman 14 point, Bold Italic
Heading for sub-section:	Times New Roman 12 point, Bold
Heading for part of subsection:	Times New Roman 12 point, Bold Italic

## **FORMAT OF DISSERTATION**

The manuscript consists of three main parts: Preliminaries, Text, and Annexure (s). It is to be arranged in the following sequence:-

### ***Preliminaries***

- Cover Page
- Title Page
- Declarations by Student & Supervisor
- Acknowledgements
- Table of Contents
- List of Figures, Tables or Illustrations
- List of Symbols
- List of Abbreviations (optional)
- Abstract

### ***Text***

### ***References***

### ***Annexure(s)***

## **STRUCTURE OF THE PRELIMINARY PARTS**

### **OUTER COVER AND TITLE PAGE** (as per format given in Appendix I)

- The outer cover of M.Tech. dissertation should be in light blue color with black printing.
- Type the title of the dissertation using capital letters throughout. If it occupies more than one line, double space between lines and arrange it in inverted pyramid form.
- The title page should provide the information in the following order:-
  - Full title of the dissertation
  - Statement- Dissertation submitted by”
  - Candidate’s name
  - Statement: “In partial fulfillment of the requirements for the award of Master of Engineering”
  - Institute Logo

- Department and Institute's name i.e. Punjab Engineering College, Chandigarh (Deemed to be University)
- Year of submission

## **DECLARATION BY CANDIDATE & SUPERVISOR (As per format given in Appendix II)**

The student should make this declaration. The supervisor has to provide a certificate and if Co-supervisor is present, certificate has to be given by the Supervisor and Co- Supervisor.

## **ACKNOWLEDGEMENTS**

The acknowledgement of the dissertation is written in gratitude to all those who were instrumental in bringing the dissertation to fruition. The language used should be formal. Acknowledge those who have assisted technically (including materials, supplies), intellectually (assistance, advice) and financially (for example, funding agency institutional support, travel grants)

## **CONTENTS**

The dissertation must have a table of contents page listing chapter headings, section headings and sub-headings as well as appendices and their corresponding page number.

## **LIST OF FIGURES/TABLES/ILLUSTRATIONS**

A separate list of Figures, Tables, or Illustrations should be included on a separate page immediately following the table of contents.

## **LIST OF FIGURES**

Figure No.	Caption	Page
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## **LIST OF TABLES**

Table No.	Title	Page
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## **LIST OF SYMBOLS**

Symbols	Description
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## **LIST OF ABBREVIATIONS : (optional)**

If a large number of abbreviations are used in the dissertation, which may be unfamiliar to a reader, a list of abbreviations may be useful.

## **ABSTRACT**

- The Abstract is a summary of the contents of the dissertation.
- Citations are generally not included in the synopsis.
- The Abstract should not include internal headings, diagrams or other illustrations.
- Abstract, it must be double-spaced.
- It should be concise, and comprehensive, and should have the following details:-
  - The background
  - Objectives
  - Hypothesis
  - Methods

- Major findings
- Significance/ implication of the findings

## TEXT OF DISSERTATION

- The text of the dissertation is usually divided into chapters with subheadings within the chapters to indicate the orderly progression of topics and their relation to each other.
- All chapter headings should be typed consistently.
- When there are subheadings, each level of heading should be clearly distinguished typographically from the other levels, and the variations should be selected so as to reflect the hierarchy of headings clearly (higher level headings should look more important).
- Always allow at least one extra line of space above subheadings, and preferably below as well.

## REFERENCES

- All publications cited in the dissertation should be presented in a List of References following the text.
- The student is responsible for the accuracy of the References.
- References should follow the Harvard-like format. Citation of References in the text should be given by author's last name (no initials) followed by the year.
  - When two or more citations are given, list them in chronological order.
  - When there are two authors, include both the names, separated by "&"; when there are three or more names, give only the first author followed by "et al."
  - If there are two or more papers by the same author(s) in the same year, identify them by "a", "b", etc. (and be sure to include the identifying letters in the Reference List).
- All references cited in the text (including those included in figure legends and tables) should be listed in the References.
- Start the References on a separate page, and arrange citations in alphabetical order by the first author's last name; do not number the citations.
- List all the authors (do not use "et al." in the reference list). When there are two or more references to the same author(s), list them in chronological order.
- For journal references, the names of authors (last name and initials) should be followed by the date, title of the article, journal name (in italics), volume number and pages (first - last page numbers).
- Reference to electronic material should include author name(s), date, article title, and journal (as above); where volume and/or page numbers are not available, substitute Digital Object Identifier (DOI) number.
- Illustrative examples of entries in a Bibliography or list of References are given below:-

### Journal

*Example:*

Minning S., Eliot C. A., Uhl T. L. & Malone T. R., 2007, EMG analysis of shoulder muscle fatigue during resisted isometric shoulder elevation, *Journal of Electromyography and Kinesiology*, Vol. 17, pp 153–159.

### Book

*Example:*

Pechenik JA, 1987, A short supervisor to writing about biology, *Harper Collins Publishers*, New York.

## **Dissertation**

Smithers RHN, 1997, The mammals of Botswana, DSc dissertation, University of Pretoria.

## **Conference proceedings**

Bourassa S, 1999, Effects of child care on young children, *Proceedings of the third annual meeting of the International Society for Child Psychology, International Society for Child Psychology, Atlanta, Georgia, May 20, 2013* pp. 44-6.

## **Citations from Internet**

The following elements in sequence must be considered: Author (if known), Date of publication/last updated, Title of article or document on website Type of medium [Online], Available from (website), Access date in brackets

Harris P., 2005, Reaching the top of the mountain, [Online], *Oxford University Press: Oxford*, Available: <http://www.netLibrary.com/openbook/093456/html> [Accessed 8 January 2008]

## **Patents**

Author(s) of patent – surname and initials Year of issue, *Title of patent- italicized*, Number of patent including country of issue.

Cookson A.H., 1985, Particle trap for compressed gas insulated transmission system xcxc, *US Patent*, 4554399.

**Appendix I** – Layout of title/cover page

**TITLE OF DISSERTATION**

(Capitals, bold and inverted pyramid form)

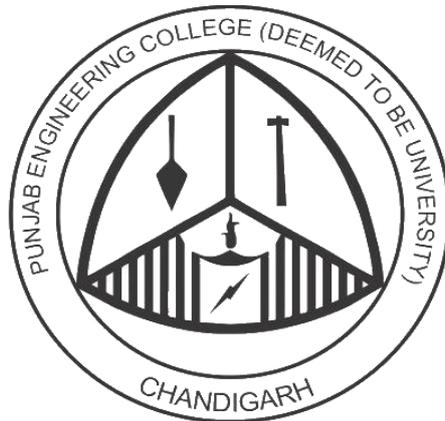
A DISSERTATION SUBMITTED BY

**(NAME)**

IN PARTIAL FULFILMENT OF THE REQUIREMENTS

FOR THE AWARD OF

**MASTERS OF TECHNOLOGY IN PROGRAM NAME DEGREE**



DEPARTMENT OF

**PUNJAB ENGINEERING COLLEGE, CHANDIGARH**

(DEEMED TO BE UNIVERSITY)

CHANDIGARH

YEAR

**Appendix II - Format for declaration by student and Supervisor (Example only)**



**CANDIDATE'S DECLARATION**

I hereby certify that the work which is being presented in the dissertation entitled “**TITLE**” in the partial fulfillment of the requirements for the award of the **Master of Technology** in **Program Name** and submitted in the **Department** of the Punjab Engineering College, Chandigarh (Deemed to be University), Chandigarh, is an authentic record of my own work carried out during the period from **year xyz** to **year abc** under the Supervision of \_\_\_\_\_(name of supervisor, designation and department).

The matter presented in this dissertation has not been submitted by me for the award of any other degree of this or any other University/Institute.

Date: \_\_\_\_\_

**(Candidate Name)**

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

**(Co-Supervisor)**

Associate Professor

Department of .....

Punjab Engineering College, Chandigarh

(Deemed to be University)

Chandigarh – 160012, India

Date:.....

**(Supervisor)**

Assistant Professor

Department of .....

Punjab Engineering College, Chandigarh

(Deemed to be University)

Chandigarh – 160012, India

Date:.....