



# **CHHATTISGARH SWAMI VIVEKANAND TECHNICAL UNIVERSITY, BHILAI**

## **MANUAL FOR THESIS WRITING**

North Park Avenue, Sector- 8, Bhilai (C.G.) – 490 009  
Ph. No. : 0788-2261311, Fax No. : 0788 – 2261311, Website : [www.csvtu.ac.in](http://www.csvtu.ac.in) ,  
E-mail : [registrar@csvtu.ac.in](mailto:registrar@csvtu.ac.in)

## FOREWORD

Research & Development work constitutes a major element of Teaching Learning Process in post graduate studies. In this respect the presentation of R & D work carried out by students needs to be made systematically and clearly.

In absence of any standard format a candidate is likely to adopt casual approach for preparation of the report of the work, there by depriving one self to earn the full credit.

Considering the above, the University constituted a committee consisting of the following for preparing a document displaying standards for Thesis Writing.

- |   |                  |
|---|------------------|
| 1. Dr M K Kowar, Dean of Faculty, Principal, BIT, Durg          | Chairman         |
| 2. Dr P B Deshmukh, Dean of Faculty, Director, SSCET, Bhilai    | Member           |
| 3. Dr Piyushkant Pandey, Dean of Faculty, Prof & HOD, BIT, Durg | Member           |
| 4. Dr Arun Arora, Dean of Faculty, Prof & HOD, BIT, Durg        | Member           |
| 5. Dr B S Chandrakar, Consultant, CSVTU, Bhilai                 | Member Secretary |

The Committee has very meticulously prepared and drafted the Manual in the following pages.

I congratulate all the members of the committee for completing the work successfully, I believe that the Manual will prove to be an effective instrument for achieving quality in P.G. studies.

**(Dr. B. K. Sthapak)**  
**Vice Chancellor**  
**CSVТУ, Bhilai**

## **I. GENERAL GUIDE LINES**

1. This thesis style be called as “Chhattisgarh Swami Vivekanand Technical University, manual of Style for Thesis Writing.
2. This shall come into force from the academic session 2008-09
3. Ensure that the thesis meets all the standards of a scholarly writing. The entire work is divided into suitable chapters, sections, sub-sections.
4. Ensure that objectives, scope, limitations of research, general conclusions, specific conclusions, specific contributions and future scope of work are clearly spelt out in the thesis.
5. The thesis must be written in English and be word processed on single side of paper. The numbers of pages should not exceed 200.
6. Ensure that all figures, tables have suitable numbers consistently followed throughout the thesis document. Be sure to give caption to each table/figure and they are cited in the text. Mention data sources below the Tables/Figures if any. Figures should be made as self-explanatory as possible.
7. Format of quoting references, Caption of figures, Equation numbers, heading of the tables should be followed consistently in the thesis.
8. Use only standard abbreviations. Avoid abbreviations in the title. The full term for which an abbreviation stands should precede its first use in the text except in case of measurement units. The measurement units if any shall be followed consistently.
9. Maintain the uniformity in writing the Thesis.
10. Master thesis will be bound in bound green hard cover and Ph. D. in maroon red hard cover. (after the Vive)

## **II. THESIS FORMAT**

Thesis Title Page (Outer Cover) as per the format given in Annexure I (should be printed in Golden colour on a black background)

- Thesis Title Page (Inner Cover) as per the format given in Annexure II (should be printed in Black on white background)
- Certificate from Supervisor as the format in Annexure III
- Certificate from the candidate (Annexure – III)
- Certificate from Supervisor (Annexure – IV)
- Acknowledgements
- Table of Contents (Annexure – V)
- Abstract
- List of Tables
- List of Figures
- List of Abbreviations/Symbols
- Chapters
- Conclusions
- Specific Contributions
- Future Scope of Work
- References
- Appendices
- List of Publications

- Reprints of at least two important research papers published in journals and reprints of abstract of other research papers relevant to the topic of research.

### **III COMPONENTS OF THESIS**

#### **Preliminary Pages**

The preliminary pages must include the title page, the certificates, acknowledgements, abstract and table of contents. Dedications should not be given.

- a) **Title page**  
The title page must be printed exactly in accordance with the sample.
- b) **Certificates**  
Declaration from the candidate and the Certificate from Supervisor and head of the Approved Place of research to be placed as per the Annexure – III and Annexure - IV
- c) **Acknowledgement**  
Acknowledgements should be brief (a single page). This should follow the title page and page containing the certificate from supervisor. Care should be taken to avoid the social obligations in this section. All those who rendered the help in technical matters should be duly acknowledged.
- d) **Abstract**  
One page abstract should be included. The abstract should normally include the following information: (1) a statement of the problem the research sets out to resolve; (2) the methodology used; (3) the major findings.
- e) **Table of contents**  
Except the title page, certificates, acknowledgements and abstract, all other major divisions of the thesis/dissertation should be listed in the table of contents. These division and sub-divisions, if any, must agree in wording and style with the text.
- f) **List of Figures**  
This page should contain the list of figures with their captions and figures numbers. The caption and figure numbers must match with the body as has been cited in the text.
- g) **List of tables**  
This page should contain the list of tables with their headings as mentioned in the main body of the thesis.
- h) **List of abbreviations/Symbols/Glossary of terms**  
These pages are optional. If it is felt that the number of abbreviations, symbols and new terminologies are large in number, they may be put in these pages.

- i) Text**  
The detailed organization of the text will vary with theses in different subjects, but a consistent style must be followed. In general, the text should be divided into the following:  
(i) Introduction, (ii) Review of Literature, (iii) Methodology, (iv) Analysis (v) Results and Discussion, (vi) Summary & Conclusion (vi) References.  
The text of the thesis may also include certain materials such as illustrations, tables, photographs, chemical and mathematical formulae and footnotes.
- j) Tables**  
Tables should be self-explanatory. Headings and the column/row entries should be clearly related. Tables less than half a page should be preceded or followed by the text. All tables should be numbered with Arabic numerals, consecutively throughout the thesis. The table numbers should start with the chapter number in which the table has been placed (Example: Tables in chapter 2 should bear the numbers like: 2.1, 2.2, 2.3 etc.)
- k) Formulae/Equation/Expressions**  
Mathematical Formulae/Equation/Expressions should be carefully made out by computer. They should not be included in text lines, but should be placed in the proper position with a tab from left margin and in between lines of text. They must bear a number started with the number of chapter in which placed (Example: Equation in chapter 5 should bear the numbers like 5.1, 5.2, 5.3 etc.). The equations numbers should be right aligned and are to be put within parenthesis.
- l) Illustrations/Figures/Image/Photograph**  
Illustrations used in the thesis must appear in all the copies. Illustrative materials may be line drawings, photographs, graphs, block diagram, flowchart etc. Illustrations may be inserted wherever needed in the text, numbered in Arabic numerals typed on a thesis paper below the illustration. The illustrations must be prepared using computer. The size of illustrations could be reduced photographically. The figure numbers should start with the chapter number in which the figure has been placed (Example: Figures in chapter 2 should bear the numbers like: 2.1, 2.2, 2.3 etc.). In case colour of the figure/illustration/image/photograph is important, colour prints may be added.
- m) Paper to be used**  
The original thesis/dissertation as well as the photocopies should be prepared on a good quality white bond paper of A 4 size. All pages must have 1.5" margin on the left and 1" on the right and on the top and bottom, with no gutter.
- n) Typing**  
The general text of the manuscript should be typed in 1.5-space and tables/long quotations/foot notes/Abstract in single space. The general text should be typed using 11-font size with Times New Roman. The heading of an article to be typed in font size 12 (Times New Roman) with all Uppercase Letters whereas sub articles should be in font size 12 (Times New Roman) in small caps style. Normally the thesis is to be typed in black ink.

**o) Pagination**

Certificates of approval, title page, acknowledgements and abstract etc. should not be given any page number. For text, Arabic numerals are used beginning with the first page of the text, i.e., Introduction and continued throughout the rest of the thesis/dissertation including the figures, tables and references. Suppress the page number in first page of each chapter. The page number is to be put as footer on the right bottom corner of each page with the same font and same size of the text.

## **IV ABOUT THE CHAPTERS**

**a. Introduction**

A student should explain briefly the purpose of study of the problem involved, justifications for research work, scope of the study and its limitation, the specific objectives of the research work must be mentioned here. It should be brief, precise and pertinent to the research work undertaken.

**b. Review of Literature**

This should include brief history and present status of the problem as evidenced by documented literature on similar or closely related problem. The findings of various investigators should be critically examined and interpreted in the light of objectives of the thesis problem. Relevant reference should only be cited. The source of information could be given as footnote at the bottom of the page on which matter is initiated for unpublished reference.

**c. Methodology**

This part of thesis should present the variables involved in the study techniques and materials in brief. The details of techniques and equipment employed in the investigation should be clearly stated. In the case of special experimental setups their assembly component details and theoretical consideration to design/proof/theory should be described.

**d. Analysis**

Mathematical techniques adopted for analysis of the problem should be clearly spelled out. In case of the use of software tools the corresponding algorithms should be suitably indicated with the help of annexures.

**e. Results and Discussion**

Under this, the data from experiments/investigations should be presented in complied tabulated form augmented with graphical of specific trend or behaviors of different variables or important observations made. Results any be divided into various sub heads. In presentation care should be taken to avoid repetition. Outstanding points which are important in the table or graph should be indicated. The level of significance should be indicated by certain symbols in footnotes to the table. All measurement should be in metric system on of lengthy and inconvenient sized tables should be avoided.

Discussion section should consider difference and implications of the experiment, it should present the perceptiveness and creatively of the researcher and writer and his final comments.

This is a critical part where art imagination should be shown by writer about range and depth of significance of study.

The discussion section ties the result of the study to both theory and application by pulling together the theoretical background, literature review, potential significance for application and results of the study. One important function of discussion sections is to summarize the findings of the study in the form of conclusions. If the study has been setup to test specific hypothesis along with ancillary findings and should be integrated and interpreted. Discussion should be related to objectives and assumptions made at the start of experiment. Attempt to prove or substantiate a point should be considered and findings of earlier worker should be cited. The explanation should be based on work done by other workers or author himself giving over all conclusion of the study.

**f. Summary & Conclusions**

The Summary should include the gist of the work carried out. It should display the salient features of the work. The conclusions should be explicit and may as well include the suggestion for the further work in the area.

**g. References**

References to journal papers should contain the *name of the author(s), title of the paper, name of the journal, volume number, issue number, particular pages (pp) and year of publication*. Similarly conference papers should mention the *name of author(s), title of the paper, name of the conference, place in which the conference was held and date, month and year of the conference* along with *the page numbers of the paper in the proceedings* of the conference. References to books should contain *name of the author, title of the book, name of the publisher, edition number, and year of publication*. If possible ISBN Number also can be quoted.

The style in which the references are to be quoted in the text is shown in Annexure-VI.

**<Title of the Thesis>**

*(Font: Arial, Size:16, Bold)*

**A thesis submitted to**

*(Font: Arial, Size: 12, Bold)*

**Chhattisgarh Swami Vivekanand Technical University**

**Bhilai (India)**

*(Font: Arial, Size: 14, Bold)*

**for fulfilment of the award of degree**

*(Font: Arial, Size: 12, Bold)*

**DOCTOR OF PHILOSOPHY**

*(Font: Arial, Size: 14, Bold)*

**In**

*(Font: Arial, Size: 12, Bold)*

**<Name of the Faculty>**

*(Font: Arial, Size: 14, Bold)*

**By**

*(Font: Arial, Size: 12, Bold, Italic)*

**< Name of the Student>**

*(Font: Arial, Size: 14, Bold)*

**Enrollment No.: < >**

*(Font: Arial, Size: 12, Bold)*

**<Month><Year>**

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**<Title of the Thesis>**

*(Font: Arial, Size:16, Bold)*

**A thesis submitted to**

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**Chhattisgarh Swami Vivekanand Technical University**

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**DOCTOR OF PHILOSOPHY**

*(Font: Arial, Size: 14, Bold)*

**In**

*(Font: Arial, Size: 12, Bold)*

**<Name of the Faculty>**

*(Font: Arial, Size: 14, Bold)*

***By***

*(Font: Arial, Size: 12, Bold, Italic)*

**< Name of the Student>**

*(Font: Arial, Size: 14, Bold)*

**Enrollment No.: < >**

*(Font: Arial, Size: 12, Bold)*

**<Month><Year>**

*(Font: Arial, Size: 14)*

**D E C L A R A T I O N B Y T H E C A N D I D A T E**

I the undersigned solemnly declare that the report of the thesis work entitled

**<Title of the Thesis>**

is based on my own work carried out during the course of my study under the supervision of  
<Name of the supervisor/s>.

I assert that the statements made and conclusions drawn are an outcome of my research work. I further declare that to the best of my knowledge and belief the report does not contain any part of any work which has been submitted for the award of PhD degree or any other degree/diploma/certificate in this University or any other University of India or abroad.

\_\_\_\_\_  
(Signature of the Candidate)

Name of the Candidate

Enrollment No.:

**C E R T I F I C A T E O F T H E S U P E R V I S O R / S**

This is to certify that the work incorporated in the thesis

**<Title of the Thesis>**

is a record of research work carried out <Name of the student> bearing Enrollment No.: .....  
under my/our guidance and supervision for the award of Degree of Doctor of Philosophy in the  
faculty of <Name of the faculty> of Chhattisgarh Swami Vivekanand Technical University,  
Bhilai (C.G.), India.

To the best of my knowledge and belief the thesis

- i)* Embodies the work of the candidate him/herself,
- ii)* Has duly been completed,
- iii)* Fulfils the requirement of the Ordinance relating to the PhD degree of the  
University and
- iv)* Is up to the desired standard both in respect of contents and language for  
being referred to the examiners.

\_\_\_\_\_  
(Signature of the Supervisor)

\_\_\_\_\_  
(Signature of the Supervisor)

\_\_\_\_\_  
(Signature of the Supervisor)

Forwarded to Chhattisgarh Swami Vivekanand Technical University  
Bhilai

\_\_\_\_\_  
(Signature of the Head of the Approved Place of Research)

(Seal of the Approved Place of Research)

**Table of Contents (Sample Format)**

|   |            |
|---|------------|
| <b>Abstract</b>   | <b>i</b>   |
| <b>List of Tables</b>   | <b>ii</b>  |
| <b>List of Figures</b>  | <b>iii</b> |
| <b>List of Abbreviations/Symbols</b>                              | <b>iv</b>  |
| <b>Chapter 1 Introduction</b>                                     | <b>1</b>   |
| 1.1 What is Thesis and Why Write One?                             | 2          |
| 1.2 Differences between the Undergraduate and Postgraduate Theses | 3          |
| <b>Chapter 2 Review of Literature</b>                             | <b>5</b>   |
| 2.1 Rationale for Structure                                       | 6          |
| 2.1.1 The Hypothesis Underpins the Thesis                         | 7          |
| 2.1.2 Does an Engineering Thesis Need a Hypothesis?               | 8          |
| 2.2 Thesis Structure at CSVTU                                     | 9          |
| 2.3 Conclusion  | 10         |
| <b>Chapter 3</b>  | <b>12</b>  |
| 3.1 Begin at the Beginning: Keep Records                          | 13         |
| 3.2 Write with the Reader in Mind                                 | 15         |
| 3.3 Think-Plan-Write-Revise                                       | 16         |
| 3.3.1 Attikiouzel's Aphorisms                                     | 17         |
| 3.3.2 Lindsay's Laws  | 18         |
| 3.3.3 Hartmann's Hints  | 19         |
| 3.4 Cobbling Together your First Draft                            | 20         |
| 3.5 The Experimental Chapters                                     | 21         |
| 3.6 Conclusion  | 22         |
| <b>References</b>   | <b>25</b>  |

## References (Sample Format)

### **Citation from journals:**

- [X] G. D. Gopen and J. A. Swan, "The Science of Scientific Writing", *J. of American Scientist*, vol. 78, pp. 550–558, 1990.
- [Y] C. H. Lee and Y. K. Lee, "An Adaptive Digital Image Watermarking Technique for Copyright Protection," *IEEE Trans. on Consumer Electronics*, Vol. 45, No. 4, pp. 1005-1015, November 1999.

### **Citation from proceedings of conferences/Seminars/Workshops:**

- [A] C. K. Yang, D. C. Wu, C. S. Huang, "A study of Robust Watermarking Using Block Based and Determinant Concept," *Proceedings of 2001 IPPR Conf. On CVGIP*, Kending, Taiwan, pp.201-209, 2001
- [D] R. G. van Schyndel, A. Z. Tirkel, and C. F. Osborne, "A digital watermark," *Proc. IEEE Int. Conference on Image Processing*, vol. 2, pp. 86- 90, 1994.
- [F] D. Smith (Ed.), "Information Overload," Second International Workshop, IH'98, Portland, Oregon, USA, April 1998, Proceedings. Lecture Notes in Computer Science, vol. 1525, Springer-Verlag (1998)

### **Citation from Technical report:**

- [AA] Caulkin, S. (Ed.). (1990). Drucker, Ohmae, Porter & Peters. Management briefings. (Management Guides. Special report No.1202). London: The Economist.
- [BC] I. M. Boier Martin and D. C. Marinescu, Graphics for Macromolecular Crystallography and Electron Microscopy, Technical Report, Department of Computer Sciences, Purdue University, CSD TR-96-009, 1996.

### **Citation from Patent:**

- [DD] A. Sibbald, "Method and Apparatus for Fingerprint Characterization and Recognition using Auto-correlation Pattern", U S Patent 5633947, 1994.

### **Citation from Thesis:**

- [B] D. Kundur, "*Multiresolution Digital Watermarking: Algorithms and Implications for Multimedia Signals*," Ph.D. Thesis, University of Toronto, 1999.

### **Citation from Books:**

- [Z] D. Thompson, ed., *The Concise Oxford Dictionary of Current English*. Oxford, UK: Oxford University Press, 9th ed., 1995, ISBN No.: 0987654.
- [XY] D. Lindsay, *A Guide to Scientific Writing*, Melbourne, Chapter 2, Australia: Addison Wesley Longman Australia, 2nd ed., 1997, ISBN No.: 12345678.
- [ZZ] H. White. "Economic Prediction using Neural Networks: The case of IBM Daily Stock Returns". In *Neural Networks in Finance and Investing*, chapter18, pages 315–328. Probus Publishing Company, 1993, ISBN No.: 987789987.

### **Citation from Website:**

- [F] Anonymous, unZign, "Tool for Evaluating a Variety of Watermarks", <http://altern.org/watermark/>, (23<sup>rd</sup> September 1997)
- [BB] Publication of the University of Geneva (on digital watermarking): <[http://cuiwww.unige.ch/~vision/Publications/watermarking\\_publications.html](http://cuiwww.unige.ch/~vision/Publications/watermarking_publications.html)> (Browsing Date: 4<sup>th</sup> January 2006)
- [AB] ADEC (1999). ADEC Distance Education Consortium. [On-line]. Available: <http://www.adec.edu/> [2000, January 17].

**Common Abbreviations those can be used while referencing:**

|        |               |
|--------|---------------|
| J.     | Journal       |
| Sc.    | Science       |
| Tech.  | Technology    |
| Trans. | Transactions  |
| Vol.   | Volume        |
| No.    | Number        |
| pp.    | Page Pointing |
| Ch.    | Chapter       |
| ed.    | Editor        |
| Jan.   | January       |
| Feb.   | February      |
| Mar.   | March         |
| Apr.   | April         |
| Jun.   | June          |
| Jul.   | July          |
| Aug.   | August        |
| Sept.  | September     |
| Oct.   | October       |
| Nov.   | November      |
| Dec.   | December      |