Writing a Thesis - Chapter by Chapter

Several web sites deal with the problem of writing theses and give several suggestions for writing a good thesis.

However, it is mandatory that our students are to follow strictly the details given by UniMAP School of PG Studies for writing a thesis.

Arrangement
(A typical UniMAP Ph D/Master Thesis is to have)

1. Title page
2. Permission to use
3. Acknowledgement
4. Certification
5. Declaration
6. Table of contents
7. List of Figures
8. List of Tables
9. List of Abbreviation / acronyms /

10. Abstrak
11. Abstract
12. Chapters
13 Appendix
14 References
15 List of Publications
16 Awards, Certificates

(RADAR , AI, GUI are acronyms;
Conf., Seq., Prof., are Abbreviations)

Title of Thesis

- **Last one to decide.**
- **Should not be very general**
- **Should be brief and also detailed.**
- **Should indicate the most important specific task you have undertaken**
- **No abbreviations or acronyms**
- **Give a few suggestions to your supervisor; he will choose the best.**

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Which to choose

- \# **On Robotic Map-building**
- \# **On Robotic Map-building in an Unknown Area of Impossible Human entry**
- \# **A New Method of Solving the Map-Building Problem**
- \# **Application of Particle Swarm Optimization in Map-building Problems**
- \# **Application of Particle Swarm Optimization in Mapping of objects in an Unknown Area of Impossible Human Entry**

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TABLE CONTENTS

- **Before start writing the thesis, prepare a complete Table of Contents.**
- **Give a catchy title for every chapter ; give titles for every sections and subsections. Titles are to be self explanatory and brief. (Survey, Overview, Guided Tour, Review …)**
- **Prepare all Figures and Tables in a separate file; and decide where exactly each Fig and Table will have to go in the thesis chapters, and sections.**
- **Make brief notes / points for which portions to go in which Section and sub section; make modifications till you are sure that nothing is missed.**
- **Consult your supervisor; prepare the final form of TABLE OF CONTENTS ; Follow this Table of contents while writing.**

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TABLE OF CONTENTS …..

- **Appendixes should have their respective titles.** (eg. Appendix A : MATLAB package for map building)
- **Strictly follow UniMAP guide lines of reference citations and reference listing; consistency is important.**
- **Don't forget to list the publications derived from your thesis; indicate any awards.**

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OTHER LISTINGS

1 List of Figures,

Check page numbers
eg:
(Figure 7.9   Rule Diagram for conveyor rolling   118

Fig 7.9 must appear in page 118

2. List of Tables,

Check page numbers

3. List of Abbreviations and Acronyms:

Bring all abbreviations and Acronyms; nothing to be missed.
Listing is to be of : numerical order and then alphabetical order.

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ABSTRACT

- Most widely read by others; it is a resume' of thesis.
- Published in Abstracts of universities and national and international Abstracts; to be very carefully drafted; error free, no ambiguities.
- Best to write after completing thesis writing.
- The ABSTRACT is to have: Concise description of problem undertaken, necessity, your methodology and your final achievements.
- No references, Figures, Tables to be cited in the ABSTRACT ; No abbreviations; no equations.
- Preferably one page .
- BM version and BI versions are to be <u>identical</u>

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Chapter 1 : Introduction

This should contain:
- **A broader view of the problem undertaken**
- **How does your thesis important in the world of literature ?**
- **What is the motivation of undertaking this work ?**
- **What are the objectives ?**
- **Methodology**
- **Organisation of thesis**

All the above are to be included; This chapter has to be interesting and generally understandable even to those who have only some introduction to the field of research

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Chapter 1: INTRODUCTION ……..

OBJECTIVES:

- Objectives should not be simply listed;
- Every objective and its importance in the research is to be briefly explained.
- Every objective is to be logically placed
- Not too many objectives; about 4-5 are adequate
- Usually, every chapter should meet at least one objective.
- One chapter can meet more than one objectives.

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Chapter 1 : INTRODUCTION

Thesis Organization :

- This should discuss what each chapter is about
- This should be listed with brief coverage.
- Logical placement of chapters are important
- Do not bring results, achievements or your conclusions in the "Thesis Organization".
- Indicate whether any important software package developed, packages used, and video clip attached etc , all at the end of this Section.

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Other Chapters

- **Start with an INTRODUCTION section**
  (This is to indicate the scope, objective, methods adopted, brief description how this chapter is connected to earlier Chapter(s).)

- **End with a CONCLUSION / SUMMARY**
  (This section summarizes and brings important findings, results, limitations and brief description on how the later Chapter is connected).

- **Do not include too many Tables and Figures; also avoid specs tech details of equipment /components used**
  (In such a case, open a few Appendixes to accommodate these)

- **Do not use ' I ' , ' you ' , etc.**
  (I have to tune the neural network to achieve four optimised outputs (active to passive voice)

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OTHER CHAPTERS ……

- **Not too many sub-sections;**
  up to 3 levels are adequate. (eg. 2.1, 2.1.1, 2.1.1.1)

- **Do not leave empty space**
  (Empty space in a thesis page creates a doubt whether some thing is missing. If the Fig or Table is large for the empty space, bring the Fig / Table to next page and bring forward the portions of writing after the Figure/Table to the empty space.)

- **Define all variable and constants in an Equation** **(one of the common mistake done by several students. In addition to defining the variables and constants, you should bring its importance in your write up)**

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OTHER CHAPTERS ……

Very important is the Grammar.

You have to get the help of some websites

eg: www.drgrammar.org

First person has no place:
"I will describe ……..." Do not use.

Avoid self assessment
"My research is a major break through in the area of emotion determination" - Avoid such self assessment.

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Last Chapter: CONCLUSION

■ **Usually of two sections**:
- ■ **Summary:** bring chapter wise concluding remarks;
  indicate whether all objectives have been met;
  descriptions are to be brief and interesting;
  bring important results, research findings, your conclusions
  and finally how your findings have an important place in the
  future literature.
- ■ **Suggestions of Future research:**
  This is to indicate that the research is
  sustained; List and briefly describe possible
  extensions and useful modifications; about 4 future research
  topics will be adequate.

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LIST OF REFERENCES

1. Strictly follow the guide lines given by School of PG Studies in (a) listing references and (b) citing references in the thesis write-up; NO COMPROMISE.

2. This consists of a list of materials that you have used during the writing process. (books, journals, reports, theses, conf proceedings, websites, etc, as published documents; avoid unpublished documents; do not bring materials of other languages not known to you)

3. Another purpose is to provide the information needed to allow a user to find a source.

4. All the references cited in the thesis write-up should appear in the reference listing

5. All the references appear in the list is to be cited at least once in the write-up.

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FINALE

The following can easily spoil your reputation as a good researcher / Thesis writer:

1) **Many grammar, spelling, typo, paging, sentence formulation errors**
2) **Inconsistency in presentation**
3) **Non-legible figures and Tables and equations.**
4) **Not emphasizing your research findings**
5) **Too much of descriptions like a tutorial, that too in un-required areas.**
6) **Feeble analysis, very limited number of experiments,**
7) **Non-indication of real life applications**
8) **No sufficient descriptions about Figures and Tables**
9) **Missing references in the listing; citing wrong references; citing references not listed.**

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Thank you

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