

# **NATIONAL INSTITUTE OF TECHNOLOGY CALICUT**

## **ACADEMIC SECTION**

### *GUIDELINES FOR PREPARATION AND SUBMISSION OF MTech THESIS*

#### **1. NO OF COPIES TO BE SUBMITTED TO THE DEPARTMENT**

A minimum of four copies of the thesis (only one guide, add one each for additional guides, if required) is to be submitted to the Department. One copy will be returned to the student after signature of guide and Head of Department. One copy each will be given to the guide(s).. The corrections, if any, suggested by the examiners at the time of viva voce examination will have to be incorporated in the thesis before final submission. A soft copy on good quality CD will have to be submitted to the Digital Library through guide incorporating all the corrections.

#### **2.STRUCTURE OF THE THESIS.**

*Facing page:* The title of the thesis, author, department, month and year of submission along with the emblem of the Institute will be included on the first cover. This may be made in special quality paper like plastic coated paper. (See sample)

*Inner cover:* contents can be same as that of the front cover, but on ordinary A4 size paper.

Three main parts of the thesis can be easily identified. These include the preliminary part, body of the thesis, and reference and appendices (if any) as the concluding or final part. The order of these items is as given below.

#### **PRELIMINARY PART**

Acknowledgements, if any  
Declaration by the author  
Certificate from supervisor  
Contents  
Abstract  
List of symbols, if any  
List of figures, if any  
List of tables, if any  
List of abbreviations, if any

#### **BODY OF THE THESIS**

##### **Chapter I INTRODUCTION**

Motivation and Overview  
Literature Survey

## Chapter II

.....

.....

## Chapter N: CONCLUSIONS AND SUGGESTIONS FOR FURTHER WORK

### CONCLUDING PART

References

Bibliography (if any)

Appendix or Appendices

### Title page

This may be like: Title / Author / "A thesis submitted in partial fulfillment for the award of the degree of Master of Technology in..... Engineering (.....) to the National Institute of Technology Calicut" along with the year and month of submission.

*See sample cover page.*

### Acknowledgements

The author of the thesis can acknowledge the help and guidance received from different persons in this section. The wording should be formal rather than flowery or exaggerated as it is to be considered only as a method of recording the help received rather than a way of pleasing some one who has helped. Any financial support received from funding agencies in the preparation of the thesis should be definitely stated here.

**Declaration** (by the scholar submitting the thesis) – *see specimen*

The wording required is of a standard form as given below.

*"I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which has been accepted for the award of any other degree or diploma of the university or other institute of higher learning, except where due acknowledgment has been made in the text.*

**(signature/name/date)"**

**Certificate** (in standard form by the thesis supervisor(s)- *see specimen given later*)

*This is to certify that the thesis entitled .....  
..... submitted by Sri/Smt/Ms..... to the National  
Institute of Technology Calicut towards partial fulfillment of the requirements for the award  
of the degree of Master of Technology in ..... Engineering  
(.....) is a bona fide record of the work carried out by him/her  
under my/our supervision and guidance.*

*Signed by Thesis Supervisor(s) with name(s) and date*

*Place*

*Date*

## **Contents**

The contents should list the chapter headings, sections and subsections of the different chapters along with page numbers of each. It should be possible to get a complete picture of the thesis by looking at the contents. While the contents cannot be as brief as listing only the chapter headings, it need not be as elaborate as to list all paragraph titles within subsections. It is preferable to include the chapter, section and subsection headings only in the contents with appropriate page numbers.

## **Abstract**

This part of the thesis will be the most widely published and most read because it will be published in Dissertation Abstracts International. It is best written towards the end, but not at the very last minute because you will probably need several drafts. It should be a distillation of the thesis: a concise description of the problem(s) addressed and your method of solving it/them, your results and conclusions. An abstract must be self-contained. Usually they do not contain references. When a reference is necessary, its details should be included in the text of the abstract. The number of words may be limited to 1000 not exceeding two pages of spacing 1.5 and font type Times New Roman with size 11.

## **List of symbols**

List the Greek symbols first English letters next, lower case letters and upper case letters in this order. Each group should be arranged in alphabetic order.

## **List of figures**

List the number and captions of the figures with page numbers here.

## **List of tables**

List the number and titles of the tables with page numbers

## **List of abbreviations**

List the abbreviations, particularly those that are not very common , in alphabetical order.

## **Page numbering**

The preliminary parts are numbered in *roman numerals* (i, ii, etc). The first page of the first chapter (Introduction) onwards will be numbered in *Arabic* numerals 1 2 3 etc at the bottom, centered.

## **Numbering sections, subsections, equations, figures etc**

A word on numbering scheme used in the thesis is in order. It is common practice to use decimal numbering in the thesis. If the chapter number is 2, the section numbers will be 2.1, 2.2, 2.3 etc. The subsections in section 2.2 will be numbered as 2.2.1, 2.2.2 etc. Unless essential, it is not necessary to use numbers to lower levels than three stages. Headings of paragraphs below the subsections may be bold faced and in sentence case.

Similarly, it is useful and convenient to number the figures also chapter-wise. The figures in chapter 4 will be numbered Fig.4.1, Fig 4.2 etc. This helps you in assembling the figures and putting it in proper order. Similarly, the tables are also numbered as Table 4.1 Table 4.2 etc. All figures and tables should have proper captions. Usually the figure captions are written *below the figure* and table captions *on top of the table*. All figures should have proper description by legends, title of the axes and any other information to make the figures self-explanatory. Figures in colour are not essential, but if it is essential, can be given. If used, all copies submitted should have figures in colour.

The same numbering scheme can be used for equations also. Only thing to be remembered is that references to the figures are made like Fig 4.2 and equations as Eqn(5.8) and tables as Table 3.8. If there are some appendices, these can be numbered as A1, A2, A3 etc. The equations in these appendices can be numbered as (A1.1), (A2.3) etc.

References can be numbered as 1, 2, 3 etc in the order in which they are referred to in the body of the thesis. A typical reference in the body of the thesis will appear as “as stated in [ 3 ] or in [3 ] – [5] “etc. An alternate way as mentioned in some journals is to arrange the references in the alphabetical order of the names of authors in which case the reference in the body of the thesis looks like “as mentioned in (Adam and Eve 1946)”. However, for

uniformity and brevity, the first method (like the one followed in IEEE journals) is to be used.

Bibliography contains material that were useful for the preparation of the thesis in a general way and is not directly referred to in the thesis. IT is not essential, but will be of immense help for a student who tries to read and understand the contents of the thesis.

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*. If there are more than three authors, it is enough to mention the name of the first author followed by *.et.al* (meaning *and others*)

Example:

Benjamin Kuo and Martin Luther: An overview of chaotic systems, International Journal of Control, Vol. 21, No 3, March 2004, pp 341-349.

Or

Rober Franklin *et. al.* : An overview of chaotic systems, International Journal of Control, Vol. 21, No 3, March 2004, pp 341-349.

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.

Example:

Mahalanabis A K, Prasad S, Mohandas K P : Adaptive Deconvolution of Seismic Data, IEEE International Conference on Computers Circuits and Signal Processing, Indian Institute of Science, Bangalore, Dec 1998, pp 1025-1029

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.

Example

Griffths and Manuel: Introduction to Neuro-fuzzy Systems, Prentice Hall Inc, Edition 2, 1998.

## **Appendices**

If there is material that if included in the body of the thesis would break up the flow of reading or bore the reader unbearably, it is better to include it as an appendix. Some items which are typically included in appendices are: major derivations or theoretical developments, important and original computer programs, data files that are too large to be represented simply in the results chapters, pictures or diagrams of results which are not important enough to keep in the main text etc.

### Suggested Font sizes

Details	Font Type	Font size	Spacing
<i>Facing page (cover and first page) - see sample page for details</i>	Times New Roman	14pt bold capitals	Centered (Adjustable spacing)
<i>Chapter headings with chapter number on top</i>	Times New Roman	14pt bold capitals	Centered
<i>Section headings</i>	Times New Roman	12pt bold capitals	Left adjusted
<i>Subsection headings</i>	Times New Roman	12pt. sentence case	Left adjusted
<i>Paragraph headings</i>	Times New Roman	12pt. bold sentence case	Left adjusted
<i>Body of thesis</i>	Times New Roman	12 pt	Adjusted on both left and right and with 1.5 spacing for text and double spacing for equations
<i>Margins</i>	Left Margin	1.5 inch	To accommodate binding area
	Right Margin	1.25 inch	
	Top	2.0inch	On pages on which chapter begins
		1.0 inch	Other pages
	Bottom	1.25 inch	

### FACING COVER PAGE & Inner First Page

Title of the thesis: Centered capital letters font Times New Roman bold 14 point

*A THESIS* : Font New Roman Size 12 Capital bold

*Submitted by* : Font New Roman Size 12 lower case italics

Name of the scholar submitting the thesis: Font New Roman Size 14 Capital Bold

*In partial fulfillment for the award of the degree of* : New Roman Italics Size 12

*Master of Technology in ..... Engineering ( ..... ).....*

: New Roman Capital Bold Size 12

Emblem of Institute (at least 1.6 inch height and 1.33 inch width)

Details of Department and Institute (Times New Roman Font Size 12) as given below:

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NIT CAMPUS PO KERALA INDIA 673601

Month and Year

# NEW TECHNIQUES FOR EEG ANALYSIS UNDER SPECIAL STIMULATION

A THESIS  
*Submitted by*

**RAMESHKUMAR K K**

*In partial fulfillment for the award of the Degree of*

**MASTER OF TECHNOLOGY  
IN  
ELECTRICAL ENGINEERING  
(Instrumentation and Control Systems)**

Under the guidance of  
**Dr K P MOHANDAS**



**DEPARTMENT OF ELECTRICAL ENGINEERING  
NATIONAL INSTITUTE OF TECHNOLOGY CALICUT  
NIT CAMPUS PO, CALICUT  
KERALA, INDIA 673601**

**MAY 2007**

(\* matter in colour is to be changed suitably)

## DECLARATION

*"I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which has been accepted for the award of any other degree or diploma of the university or other institute of higher learning, except where due acknowledgment has been made in the text.*

**Place:**

**Signature**

**Date**

**Name:**

**Reg.No**



## CERTIFICATE

*This is to certify that the thesis entitled:*

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*.....Engineering (.....*

*.....) is a bona fide record of the work carried out by*

*him/her under my /our supervision and guidance.*

*Signed by Thesis Supervisor(s) with name(s) and date*

*Place*

*Date*

*Signature of Head of the Department*

*(Office seal)*