

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
KRISHNA INSTITUTE OF ENGINEERING AND TECHNOLOGY GHAZIABAD,
UTTAR PRADESH, INDIA 201206

PROJECT GUIDELINES

As a part of the curriculum, the students are required to submit projects during their final year. The following guidelines are required to be followed by the students.

TEXT PROCESSING INFORMATION

It is important to note that type format of all reports should be uniform. So there is a need to follow some guidelines on typesetting and other aspects. Some of such guidelines are given below.

1. The original copy shall be typed on 75 or 80 gr./m² white paper. All photocopies shall be run on the same grade of paper. Size of paper shall be 210 x 297 mm, i.e. **A4**.
2. Only Near Letter Quality or sharper dot matrix printer or Laser printer and Ink Jet printer and electrical typewriter outputs are acceptable. In case of dot matrix printers or a typewriter, black ribbon must be used and replenished as frequently as necessary to maintain clear and high contrast constant density copy throughout the report.
3. As a character font, one should use Times, Times Roman, Courier, Geneva, Helvetica or equivalent which are available in most word processors. The font size must be 12 point in the text and at least 8 point in the figures. However, if a typewriter is used, then typing must be done on an electric typewriter and with an Elite, Pica, or Letter Gothic typeface, and preferably with a carbon film ribbon to avoid a fading effect.
4. Whenever titles and headings are to be centered the centering shall be such that 112 mm. from the left edge of the paper or 98 mm. for the right edge of the paper is the center point of the title or heading.
5. Margins of pages shall conform to the following specifications.
 - a. Left margin - 3 1/2 cm. from edge of paper.
 - b. Right margin - 2 cm. from edge of paper.
 - c. Top margin - 3 1/2. from edge of paper.
 - d. Bottom margin - 2 cm. from edge of paper.

The above margins shall be observed on charts, graphs, tables, and drawings. Folded papers will not be accepted unless there is absolutely no other way for the material to be presented.

Spacing of the text material shall be 1.5 with the following exceptions:

- a. Footnotes - single spacing
- b. Long biographical quotes - single spacing
- c. Extensive quotations - single spacing and indented eight (8) spaces relative to the text material.

Headings used in the report shall conform to the following rules:

- a. Chapter Headings - CHAPTER 1, CHAPTER 2, CHAPTER 3 etc. .

- (1) Must begin a new page and be centered using the Font Size 18 with Bold Fold. Omit period at the end of the heading.
- (2) Must be typed in upper case letters.
- (3) Chapter headings are to be titled names that reflect content of the text that follows.
- (4) It should be centered and Font Size to be used is 18 with Bold Face.
- (5) Must be typed in upper case letters.
- (6) Provide 3 blank lines after the chapter name.

- b. Second Headings - 2.1, 2.2, 2.3, etc.

- (1) Must be towards left margin and be typed in capital and lower case letters; i.e., the first letter of each word except conjunctions, prepositions, and articles must be a capital letter. Omit period at the end of heading.
- (2) The letter designation of the heading shall be followed by a period and two blank spaces.
- (3) Must be three spaces below preceding text and two spaces ahead of succeeding text.
- (4) Font Size to be used is 14 with Bold Face.
- (5) In case it is found that first line of the succeeding text starts from the next page, then this heading should start from the next page using page break.

- c. First sub-headings - 2.2.1, 2.2.2 , etc.

- (1) Must be typed on separate lines beginning at the left margin line of the text, but need not begin a new page.
- (2) Must be typed in capital and lower case letters except conjunctions, prepositions, and articles.

- (3) The number designation of the heading shall be followed by a period and two spaces. Omit period at the end of the heading.
 - (4) Must be separated from the succeeding text by three spaces.
 - (5) Font Size to be used is 12 with Bold Face.
 - (6) In case it is found that first line of the succeeding text starts from the next page, then this sub-heading should start from the next page using page break.
- d. Second sub-headings- 2.2.1.1, 2.2.1.2 etc.. (second sub-headings should be avoided if possible)
- (1) Must be typed on the same line as the text it introduces beginning at the left margin line of the text.
 - (2) Must be typed in capital and lower case letters except conjunctions, prepositions, and articles.
 - (3) Must be followed by a period at the end of the heading and must be underscored by a line.
 - (4) The letter designation shall be followed by a period and two spaces.
 - (5) Font Size to be used is 12.
 - (6) In case it is found that first line of the succeeding text starts from the next page, then this second sub-heading should start from the next page using page break.

Figures and Tables

Ideally, every result claimed in the text should be documented with data, usually data presented in tables or figures. If there are no data provided to support a given statement of result or observation, one should consider adding more data, or deleting the unsupported "observation." Examine figure(s) or table(s) pertaining to the result(s).

Author should assess whether:

1. the data support the textual statement
2. the data contradict the textual statement
3. the data are insufficient to prove

The actual figures and tables should be embedded/inserted in the text, generally on the page following the page where the figure/table is first cited in the text. All figures should be numbered and cited consecutively in the text as Figure 2.1, Figure 2.2, to indicate the first and second figures in Chapter 2 respectively. Similarly it is the case with tables such as Table 3.1, Table 3.2, etc.

A caption for each figure and table is to be given with proper citation about reference, data sources, etc. and by highlighting the key findings. One should include an index figure (map) showing and naming all locations discussed in the report.

Author is always encouraged to make his own figures, including cartoons, schematics or sketches that illustrate the derived processes. He should see all his figures keeping in mind that:

1. Each figure is self-explanatory.
2. Axes of figures are labeled and the units, if used, are indicated.
3. Uncertainty are shown in data with error bars.
4. If the data are fitted by a curve, its goodness of fit should be determined.
5. Junk data must be eliminated.
6. Non-data ink must be eliminated.
7. Redundant data ink must be eliminated.
8. An effort has to be made to increase data density by eliminating non-data bearing space.
9. Whether data is sparse set that could better be expressed as a table.
10. Whether the figure distorts the data in any way.

Pagination and Paragraphs

Each page in the report or dissertation is expected to bear a number. Only one side of the paper may be used. The following plan should be used exclusively:

a. The preliminary section, including the title page; copyright page, if any; foreword, preface, or acknowledgements; table of contents; etc., should be numbered, using lower case Roman Numerals, e.g., i, ii, iii, etc. The title page counts as Page i, but the number does not appear. The sequence of the preliminary section is as follows:

Title Page	Page i - number does not appear
Declaration.....	Page ii
Certificate.....	Page iii
Acknowledgements.....	Page iv
Abstract	Page v
Table of Contents	Page vi
List of Tables.....	Page vii
List of Figures.....	Page viii
List of Symbols	Page ix

Size of Thesis

There is no limit on the number of pages to be used in the report. But it should be complete in all respect. However it is expected that the number of pages in the report will not exceed 100 pages of typed matter reckoned from the First page of Chapter 1 to the last page of the Appendix.

Binding Specifications

Beside the supervisor's and personal copies, two copies of the project report should be bound in light Blue color (Matt finish) hard rexin binding with golden engraved letters. Ensure that the side face of thickness of the thesis should have the surname of the students, and month of submission at top and bottom edge respectively.

Number of Copies

Two hardcopies (one for supervisor, one for departmental library) along with softcopy of the thesis are to be submitted before the due date to the Department.

In writing the abstract, one should avoid the following things.

1. Any technical term that most readers do not understand should be avoided.
2. Any abbreviation or acronym that is not commonly used should be avoided.
3. Abstracts should not contain a bibliography or citations.
4. Abstracts should not contain any tables or graphs.
5. Abstracts must give only minimal reference to any earlier work.
6. Abstract should only include procedures done by the group.
7. One should not put acknowledgements in the abstract.

FORMAT OF COVER PAGE (Hard Bound)

TITLE OF PROJECT REPORT

by

Names of Students (Roll No)

Department of

Name of Institute

Address of Institute

Month, Year

(Example of Title Page)

TITLE OF THE PROJECT

by

Full Name (Roll No.)

Submitted to the Department of <Department's Name>

in partial fulfillment of the requirements

for the degree of

Bachelor of Technology

in

<Discipline>

<Institute's Logo>

<Institute Name>

Dr. A.P.J. Abdul Kalam Technical University, U.P., Lucknow.

<Month, Year>

(Example)

TABLE OF CONTENTS

	Page
DECLARATION	ii
CERTIFICATE	iii
ACKNOWLEDGEMENTS	iv
ABSTRACT	v
LIST OF TABLES.....	vii
LIST OF FIGURES.....	viii
LIST OF SYMBOLS	ix
LIST OF ABBREVIATIONS	x
CHAPTER 1 (INTRODUCTION, BACKGROUND OF THE PROBLEM, STATEMENT OF PROBLEM etc.).....	1
1.1.	5
1.2.	8
CHAPTER 2 (OTHER MAIN HEADING)	13
3.1.	15
3.2.	17
3.2.1.	19
3.2.2.	20
3.2.2.1.	21
3.2.2.2.	22
3.3.	23
CHAPTER 4 (OTHER MAIN HEADING)	30
4.1.	36
4.2.	39
CHAPTER 5 (CONCLUSIONS)	40
APPENDIX A	45
APPENDIX B	47
REFERENCES... ..	49

(Example of Certificate)

CERTIFICATE

This is to certify that Project Report entitled “.....
.....” which is submitted by
in partial fulfillment of the requirement for the award of degree B. Tech. in Department of
..... of Dr. A.P.J. Abdul Kalam Technical University, U.P.,
Lucknow., is a record of the candidate own work carried out by him under my/our
supervision. The matter embodied in this thesis is original and has not been submitted for the
award of any other degree.

Date:

Supervisor

(Example of Declaration)

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 to a substantial extent 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

Roll No.

Date

(Example of Acknowledgement)

ACKNOWLEDGEMENT

It gives us a great sense of pleasure to present the report of the B. Tech Project undertaken during B. Tech. Final Year. We owe special debt of gratitude to our guide/guides Professor, Department of Electrical & Electronics Engineering, Krishna Institute of Engineering & Technology, Ghaziabad for his constant support and guidance throughout the course of our work. His sincerity, thoroughness and perseverance have been a constant source of inspiration for us. It is only his cognizant efforts that our endeavors have seen light of the day.

We also take the opportunity to acknowledge the contribution of Professor N K Gupta, Head, Department of Electrical & Electronics Engineering, Krishna Institute of Engineering & Technology, Ghaziabad for his full support and assistance during the development of the project.

We also do not like to miss the opportunity to acknowledge the contribution of all faculty members of the department for their kind assistance and cooperation during the development of our project. Last but not the least, we acknowledge our friends for their contribution in the completion of the project.

Signature:

Name :

Roll No.:

Date :

Signature:

Name :

Roll No.:

Date :

(Example of Abstract)

ABSTRACT

The abstract is to be in fully-justified italicized text, at the top of the left-hand column as it is here, below the author information. Use the word "Abstract" as the title, in 12-point Times, boldface type, centered relative to the column, initially capitalized. The abstract is to be in 10-point, single-spaced type, and may be up to 3 in. (7.62 cm) long. Leave two blank lines after the abstract, then begin the main text. All manuscripts must be in English.

An Abstract is required for every paper; it should succinctly summarize the reason for the work, the main findings, and the conclusions of the study. The abstract should be no longer than 250 words. Do not include artwork, tables, elaborate equations or references to other parts of the paper or to the reference listing at the end. The reason is that the Abstract should be understandable in itself to be suitable for storage in textual information retrieval systems.

CHAPTER 1
INTRODUCTION

(Example)

LIST OF SYMBOLS

$[x]$	Integer value of x.
\neq	Not Equal
\in	Belongs to
€	Euro- A Currency
$-$	Optical distance
$-o$	Optical thickness or optical half thickness

(Example)

LIST OF ABBREVIATIONS

AAM	Active Appearance Model
ICA	Independent Component Analysis
ISC	Increment Sign Correlation
PCA	Principal Component Analysis
ROC	Receiver Operating Characteristics

(Example of **References using the Numeric System**)

REFERNCES

Examples of Journal Article referencing:

1. Drucker, D. C., "Photoelastic Separation of Principal Stresses by Oblique Incidence", *Journal of Applied Mechanics*, Vol. 65, pp. 156-160, 1943.
2. Maiers, J., and Sherif, Y. S. , "Application of Fuzzy Set Theory," *IEEE Transactions on Systems, Man, and Cybernetics*, Vol. SMC-15, No.1, pp. 41-48, 1985.

Example of Book referencing:

3. Doe, N., *Control System Principles*, New York: John Wiley, 1999.

Example of Referencing of an Article in a Book:

4. Hwang, C. J., "Rule-based Process Control," in E. Kumarmangalam and L. A. Zadeh (Eds.), *Approximate Reasoning in Intelligent Systems, Decision and Control*, pp. 145-158, Oxford: Pergamon Press, 1987.

Example of referencing of a B. Tech. Report:

5. Nayak, T., "Application of Neural Networks to Nuclear Reactors," M.Sc. Report, G.B. Technical University, 2005.

Example of referencing of a Ph. D. Dissertation:

6. Muskîn, H. L., "Development of A Knowledge-Based System for a Nuclear Power Plant," Ph.D. Dissertation, G. B. Technical University, 2003.

Example of referencing of a Conference Paper :

7. Lokhande, R., Arya, K. V., and Gupta, P., "Identification of Parameters and Restoration of Motion Blurred Images", *Proceedings of the 2006 ACM Symposium on Applied Computing (SAC 2006)*, pp. 89-95, Dijon, France, April 2- 7, 2006.

Example of referencing of a Paper presented at Conference but not Published :

8. Lokhande, R., and Gupta, P., "Identification of Parameters of Motion Images", presented at 5th International Conference on Cyber Systems, New Delhi, India, April 12- 17, 2004

Example of referencing of a Report [Technical, Internal, or Memoranda]: :

9. Das, A. R., Murthy D., and Badrinath J., A Comparison of Different Biometrics Traits, RSRE Memorandum No. 4157, RSRE Malvern, 2001.

Example of referencing of a Manual

10. Bell Telephone Laboratories Technical Staff, Transmission System for Communications, Bell Telephone Laboratories, 1995.

Example of referencing of a Class Note

11. "Signal integrity and interconnects for high-speed applications," class notes for ECE 497-JS, Department of Electrical and Computer Engineering, University of Illinois at Urbana-Champaign, Winter 1997.

Example of referencing of a Private Communication

12. Banerjee, T., (Private Communication), 1998

Example of referencing of an Article from Internet

13. Biometrics Group, Indian Institute of Technology Kanpur, "Multimodal Biometrics System," December 2006, <http://www.cse.iitk.ac.in/users/biometrics.html>
14. Gupta, P. (pg@iitk.ac.in), "Biometrics System," Usenet post to sci.electronics.design, July 4, 2007.

Example of referencing of an Article from Catalog

15. Catalog No. MWM-1, Microwave Components, M. W. Microwave Corp., Brooklyn, NY

Example of referencing of an Article from Application Note

16. Hewlett-Packard, Appl. Note 935, pp. 25-29.

Example of referencing of an Article from Application Note

17. Kar, K. and Majumder, D., "Fuzzy Controller Component," U. S. Patent 23,160,040, December 21, 2006.