Title of the Report

Report submitted in partial fulfillment of the

requirements for the degree of

B. Tech

in

Computer Science and Engineering

Submitted By

Mr. Abhishek Panda

(Registration Number: xxxxxxxxxxx)

July, 2025

Department of Computer Science and Engineering

Government College of Engineering Kalahandi, Bhawanipatna

July 05, 2023

Declaration

I, Abhishek Pandey, Registration Number xxxxxxxxxhereby declare that this Report entitled, "*Title of the Dissertation*" presents my own study and work carried out as a B. Tech student of GCEK Bhawanipatna, to the best of my knowledge, contains no material which is directly copied from another person. Any contribution made to this research by others, with whom I have worked at GCEK Bhawanipatna or elsewhere, is explicitly acknowledged in the dissertation. Works of other authors cited in this dissertation have been duly acknowledged under the sections "Reference" or "Bibliography".

I am fully aware that in case of any non-compliance detected in future, the degree awarded to me may be withdrawn on the basis of the present report.

January 05, 2023   Abhishek Panda

GCEK Bhawanipatna   Regd. Number xxxxxxxxx

July 05, 2023

Certificate of Examination

Registration Number: xxxxxxx

Name: Abhishek Panda

Title of Report: xxxxxxxxx

We the below signed, after checking the report mentioned above and the official record book (s) of the student, hereby state our approval of the report submitted in partial fulfillment of the requirements of the degree of *Bachelo*r *of Technology in Computer Science and   Engineering* at *Government College of Engineering Kalahandi, Bhawanipatna.* We are satisfied with the quality, correctness, and content of the report.

<table>
<tr><td>_____
Prof.xxxxxxxxx
Supervisor</td><td>_____
Prof.xxxxxxxxx
Seminar InCharge</td></tr>
<tr><td>e</td><td>_____
Prof.xxxxxxxxx
Head of the Department</td></tr>
</table>

Acknowledgment

This section shows the essence of the student's journey during the course of the study or work and the role of other individuals in shaping his/her academic life. Acknowledgments are non-consequential in that a student is not evaluated on them. An acknowledgment has typically three sections —

• Reflection: Narration of the student's journey through his/her research career.

• Thanking: Expression of gratitude to those who have helped in the student's journey.

• Announcement: Accepting responsibility for the work and/or dedication of the dissertation to someone. This in fact is a repeat of declaration and dedication pages.

July 05, 2023   Abhishek Panda

GCEK Bhawanipatna   Regd. Number xxxxxxxxx

Abstract

Write the abstract of the ror dissertation followed by 3 to 7 keywords or phrases. An abstract is a micro dissertation. Both the dissertation and abstract should answer the following few questions —

- What was done?
- Why was it done?
- How was it done?
- What was found?
- What is the significance of the findings?

In the abstract section, one should answer the above questions in short paragraphs. The total length of the abstract should typically be limited to two pages.

Mention 3 to 7 keywords, phrases, or index terms in ***bold-italics*** separated by semicolons. These words should be carefully chosen in a manner that they convey sufficient informationon what the dissertation is all about. These words help other researchers to search and findyour work.

Keywords: KW1; KW2; KW3; KW4; KW5.

Contents

List of Abbreviations

Abbreviations should be alphabetically written

Abbreviation	Description
AGC	Automatic Generation Control
AHCM	Agglomerative Hierarchical Clustering Method
CAISO	California Independent System Operator
CONOPT	Continuous Nonlinear Optimizer

List of Symbols

Symbols should be alphabetically written

Symbol	Nomenclature	Unit (MKS/CGS)
A	Area	m^2
ν	Frequency	Hz, s^{-1}

List of Figures

List of Tables

Introduction

1.1 Introduction

A treatise advancing a new point of view resulting from research is one of the compulsory requirements of an academic degree of GCEK, Bhawanipatna. Undergraduate students submit a project report in support of their candidature for B.Tech. degree.

This document is intended to provide a guideline to students in the preparation of their report or dissertations. A report or dissertation is expected to have ethical standards and uniform format with readability.

1.2 Report Arrangement

Each report must be arranged in the following serial order. Optional pages may not be included.

i. **Title Page**

   The title page includes the title of the report followed by submission month- year, department, degree, author's name, and supervisors' names. Include this page in the pre-text page count, but do not place a page number on it. The font size of the title should be in between 20- 24 depending on the length of the title.

ii. **Declaration by Student**

   The student is expected to declare that the work and ideas in his/her report or dissertation are all his/her own study and should not copy directly form any other sources. Student should put any material or content by modification by him/her . Due credit should be given to the original source in reference section with proper citation. Include this page in the pre-text page count, but do not place a page number on it. A sample declaration is included.

iii. **Certificate of Examination**

   Include this page in the pre-text page count, but do not place a page number on it.

iv. **Supervisor's Certificate**

Samples are given; appropriate sample may be used depending on the number of supervisor or PIC Seminar. Include this page in the pre-text page count, but do not place a page number on it.

v. **Acknowledgment** [Optional]

Include this page in the pre-text page count, but do not place a page number on it.

vi. **Abstract**

Abstract followed by three to seven keywords/phrases should be written in this section in no more than two pages. One may follow single line spacing in this section. Include this page in the pre-text page count, but do not place a page number on it.

vii. **Contents**

Begin placing the page numbers at the bottom of this page, counting all preceding pages except the cover page. This counting should continue up to the page precedingthe first page of the first chapter. Numbers should be in lower case Roman numerals. The content pages should be generated automatically with the aid of software used for report preparation.

viii. **List of Abbreviations** [Optional]

This section should be generated automatically with the aid of software used for report preparation. Continue the page numbering with lower case Roman numerals.

ix. **List of Symbols** [Optional]

This section should be generated automatically with the aid of software used for dissertation   preparation.

This section should be generated automatically with the aid of software used for dissertation preparation.

x.   **List of Tables** [Optional]

This section should be generated automatically with the aid of software used for dissertation preparation.

xi.   **Chapters**

All pages from the first page of the report should be numbered consecutively in Arabic numerals, beginning with numeral "1".

xii.   **References**

References may be in one of the two commonly used styles: (a) numbered in sequence following the order of appearance, or (b) author and year of publication arranged alphabetically, depicting on the style used in the dominant journal in your field.

Please give names of ALL authors, surname first, title, name of journal, volume (bold), page numbers (start - end), and year of publication. Do not use "et al" in this section. You may use "*et al.*" while referring to article in the main text.

This section should be generated automatically with the aid of software used for report or dissertation preparation. There should be only one "Reference" section in a report or dissertation and should be placed after the Conclusion Chapter and before Appendices, if any. Continue page numbering with Arabic numerals

1.3 Report or Dissertation Layout

Students are advised to adhere to following points while writing their report.

a) **Institute logo**

It is a matter of pride to print the Institute logo in the dissertation. The printed logo should be contained in a square of 25mm each side. Students are advised to use high resolution logo. A logo is provided in the dissertation writing template.

b) Font

The entire report or dissertation must be written using only a single font including all the texts inside graphs, figures, block diagrams, *etc*. While writing captions of tables and figures, the font size should be decreased by one point. Similarly, the font size of bibliography and index should also be lessened by a point. Students are advised to use the following in the body text —

serif fonts like Times New Roman (TNR) of size 12pt

or

sans-serif fonts like Arial of size 11pt.

Needless to say that the use of font should be uniform throughout. Headings, Titles *etc.* should use fonts as given below in Table 1.1.

Table 1.1: Font sizes to be used in the dissertation

Item	Arial	TNR	Justification
Main Text	11 normal	12 normal	Justified
Sub-sub Heading	11 bold	12 bold	Left
Sub Heading	13 bold	14 bold	Left
Heading#	16 bold	17 bold	Left
Chapter Title	22 bold	24 bold	Center
Chapter Number	16 bold	17 bold	Left

#Add serial number with one decimal place.

c) Table and Figure

All tables, figures, and other such illustrations referenced in the text should be numbered for unique identification. The number format should be *p.q* with *p* signifying the chapter number where the illustration appears and *q* denoting the serial number of that illustration in the chapter *p*. The serial number should be set to 1 at the beginning of a new chapter. A table caption should be placed at the top of the table, and a figure caption should be placed at the bottom of the figure. The caption should
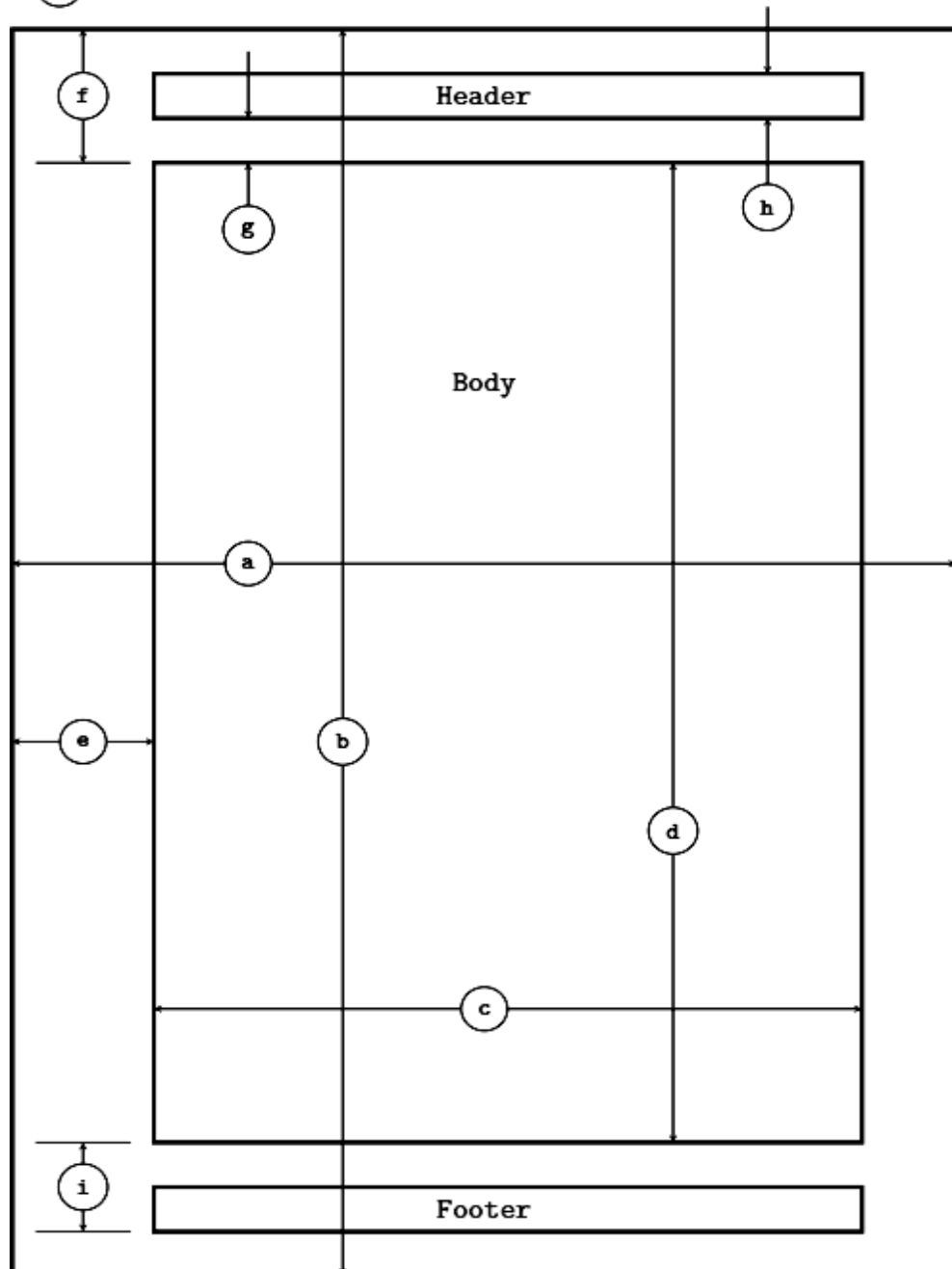
Figure 1.2: Page size and margin follow the unique number *p.q*. The size of the font in the caption of tables and figures should be one less than the text font size.

d) References

"References" should be treated as the last chapter and placed at the end of the report or dissertation. It should not be numbered like other chapters. Texts within the references should have single spacing. The size of the font may be reduced by a point or two. Journal article [1, 2], Patent [3, 4], book [5, 6], conference

article [7, 8], online 7 resource [9, 10], Ph.D. dissertation [11, 12] are usually referred in the text. Some samples of various bibliographic styles are included in this guideline for illustration. You are advised to follow one reference format of any dominant journal of your field.

1.4 Contents

In the text of the report or dissertation, each topic should begin on a fresh page. They should also be designated in the Table of Contents along with other major sections of each chapter. The page numbers listed on the Table of Contents must correlate with the beginning of each section or chapter. All texts should be written with 1.5-spacing. Each chapter should begin with a chapter number in Arabic numerals (font size: Times New Roman 17 points or Arial16 points, Bold) followed by the chapter title in bold face of size 24 points in Times New Roman font or 22 points in Arial font.

The first level section should have number of format *a.b*, where the number *a* is an Arabic number denoting the chapter number and *b* is also an Arabic number starting from 1 and counting up for each section. For example 3.1, 4.2, or 1.5, *etc*. The section title should follow the section number. Both the title and number should be in the bold face of size 17points in Times New Roman font or 16 points in Arial font.

The second level section should have number of format *a. b. c*, where *c* is an Arabic number. For example 3.1.1, 4.2.1, or 1.5.2 *etc*. The sub-section title in bold letters should follow the number in bold. The font size should be 14 points Times New Roman or 13 points Arial. Except when it is commonly followed in your field, it is suggested not to give serial number beyond *a.b* stage, *i.e.* serializing like *a.b.c* is discouraged. The third level section should have no number. The sub-sub-section title should be in bold letters. The font size should be 12 points Times New Roman or 11 points Arial.

Literature Review

2.1 Introduction

The "Literature Review" is a very useful section of Indian theses. This section should citemost of the publications in the field including all related past work done. Several common mistakes found in recent theses from our country should be avoided. Some theses reproduce, albeit using the author's own language, a large amount of textbook information. While for the sake of readability some basic ideas of the field may be articulated, it is certainly improper to reproduce large sections of text books. A reader is expected to have prior knowledge of the general field. Authors sometimes summarise articles in serial order but neither bring out the link between one article and its following one, nor bring out the relation the article in question has with the main title of the report or thesis.

Materials and Methodologies

3.1 Introduction

Experimental research in several research fields, in the experiments, plus the processing techniques.

3.1.2 Sub-Sections as per the requirement

4.1 Introduction

4.2 Results & Discussion

The section and subsections of these chapters will be as per the requirement of the research work done and should be in line with the research papers published or communicated by the scholar first author.

5.1 Advantages & Dis Advantages

6.1 Results , Discussion and Comparison

The section and subsections of this section will be as per the requirement of the project work done and should be in line with the research papers published or communicated by the student.

7.1 Results

7.2 Discussion

The section and subsections of these chapters will be as per the requirement of the research work done and should be in line with the research papers published or communicated by the scholar first author.

Conclusion & Future Scope of the Work

8. Conclusion

The conclusion is one of the most important chapters of the dissertation and often it is one of the most badly written chapters. The student is expected to make a clear and concise statement of the original contributions made in the dissertation. The links between the key ideas spread across the chapters should be briefed in this chapter. Leave a positive impression with the examiner. One must remember not to claim those findings that have neither been proven nor corroborated in the dissertation.

8.1 Future Scope of the Work

This is not the end of the road. Narrate the way the research can be furthered.

9. References

[1]

[2]

[3]