INTERNSHIP I / DISSERTATION I REPORT

Submitted in partial fulfilment of the requirements for the degree of

M.Tech. Computer Science and Engineering

(Programme specialization)

by

Student name

RegNo

Under the Supervision of

Dr. Project guide name

designation

VIT®
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

SCHOOL OF COMPUTER SCIENCE AND ENGINEERING

Month, Year

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I, **Student name (RegNo)** hereby declare that the thesis entitled **"Thesis title"** submitted to Vellore Institute of Technology (VIT), Vellore for the award of the degree of **Master of Technology in Computer Science and Engineering (Programme specialization)** is a record of bonafide work carried out by me under the supervision of **Dr. Project guide name**, School of Computer Science and Engineering, Vellore Institute of Technology, Vellore.

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ABSTRACT

Summary should be a one page synopsis of the thesis typed with “Times New Roman” font of size 12. Abstract must be typeset with 1.5 line spacing. It is a brief summary of the thesis content. It should be of maximum one page long. It can best describe the problem addressed in the thesis. In summary, it can describe the completed work along with the findings or lessons learned, if any. The keywords mentioned below must be in italics.

Keywords: *Thesis, Dissertation, Degree, Sample Thesis, Literature.*

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Finally, I would like to thank **Vellore Institute of Technology** for providing me with infrastructural facilities, a flexible choice and for supporting my research and execution related to the dissertation work.

Place: Vellore, **Student name (RegNo)**

Date: dd-mm-yyyy

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Chapter 1

INTRODUCTION

1.1 Overview

1.2 Objectives

The format for typing Chapter headings, section headings and sub-section headings are explained by the following illustrative examples.

Chapter Heading Example

Chapter heading: Chapter 1 INTRODUCTION

Section Heading Example

Section heading: 1.1 Outline of Thesis

Subsection Heading Example

Sub-section heading: 1.1.1 Literature review

Sub-subsection Heading Example

Sub-subsection heading: 1.1.1.1 Synthetic aperture radars on satellites

The word **Chapter** without punctuation should be centered 50 mm down from the top of the page. Two spaces below, the title of the chapter should be typed in capital letters. Moreover, the title should be center aligned. The text should commence 2 spaces below this title, the first letter of the text starting 20 mm inside from the left-hand margin. The section and sub-section captions along with their numbering should be left justified. The typed material directly below section or sub-section heading should commence 1.5 space below it [Alishahi et al., 2009], [Hawley, 2004], [Conley and Galenson, 1998], [Doan et al., 2002].

- Chapter number: 14, Regular, Times New Roman, bold

- Chapter Heading Font Size: 16, Regular, Times New Roman, CAPS, bold
- Section Heading Font Size: 14, Times New Roman, Title Case, bold
- Subsection Heading Font Size: 12, Regular, Times New Roman, Sentence case
- Subsubsection Heading Font Size: 12, Regular, Times New Roman, Sentence case

Chapter 2

LITERATURE REVIEW

2.1 Review of Literature

A literature review is a text of a scholarly paper, which contains the current knowledge including substantive findings, as well as theoretical and methodological contributions to a particular topic. Literature reviews are secondary sources, and do not report new or original experimental work. Most often associated with academic-oriented literature, such reviews are found in academic journals, and are not to be confused with book reviews that may also appear in the same publication. Literature reviews are a basis for research in nearly every academic field (Waldron, 2008b).

A narrow-scope literature review may be included as part of a peer-reviewed journal article presenting new research, serving to situate the current study within the body of the relevant literature and to provide context for the reader. In such a case, the review usually precedes the methodology and results sections of the work. Producing a literature review may also be part of graduate and post-graduate student work, including in the preparation of a thesis, dissertation, or a journal article. Literature reviews are also common in a research proposal or prospectus (the document that is approved before a student formally begins a dissertation or thesis) (Doan et al., 2002; Duzdevich et al., 2014; Ganesh et al., 2016).

2.2 Review Types

The main types of literature reviews are: evaluative, exploratory, and instrumental (Duzdevich et al., 2014; Neil and David, 2016).

A fourth type, the systematic review, is often classified separately, but is essentially a literature review focused on a research question, trying to identify, appraise, select and synthesize all high-quality research evidence and arguments relevant to that question. A meta-analysis is typically a systematic review using statistical methods to effectively combine the data used on all selected

studies to produce a more reliable result [Duzdevich et al., 2014], [Mohanaprasad et al., 2017], [Gilbarg and Trudinger, 1977], [Haykin, 2004], [Haykin, 2005], [Knuth, 1986].

2.2.1 Process and Product

Gilbarg and Trudinger (2015) distinguish between the process of reviewing the literature and a product known as a literature review. The process of reviewing the literature is often ongoing and informs many aspects of the empirical research project.

2.3 Page Limit of Review

A careful literature review is usually between 8 to 20 pages. The process of reviewing the literature requires different kinds of activities and ways of thinking. (Duzdevich et al., 2014) and (Kothari, 2004) link the activities of doing a literature review with Benjamin Bloom's revised taxonomy of the cognitive domain (ways of thinking, remembering, understanding, applying, analysing, evaluating, and creating).

Chapter 3

PROBLEM DESCRIPTION

3.1 Problem Description

A critical section that clearly explains the issue or gap your research aims to address. It sets the foundation for the entire study. A strong problem description include

- Context or Background
- The Gap
- Specific problem
- Significance to solve it

3.1.1 Dataset Description

A dataset is a collection of related data that is organized and formatted in a specific structure, typically used for analysis, research, or training machine learning models. Discuss about your dataset and its characteristics.

Chapter 4

PROPOSED APPROACH

Table 4.1: Country list

Country/Area Name	Description	ISO alpha 3 Code	ISO numeric Code
Afghanistan	It is a Country	AFG	004
Aland Islands	It is an Island	ALA	248
Albania	It is a small city	ALB	008
Algeria	It is a Country	DZA	012
American Samoa	It is a Country	ASM	016

Table 4.2: Data units, sources, and dates

Variable	Dates	Units	Source
Nominal Physical Capital Stock	1950-1990	Billions US$	Nehru and Dhareshwar (1993)
Total Population	1950-1990	Billions	Nehru and Dhareshwar (1993)
Nominal GDP	1950-1990	Billions US$	PWT
Real GDP per capita	1950-1990	2005 US$ per capita	PWT

Chapter 5

EXPERIMENTAL SETUP

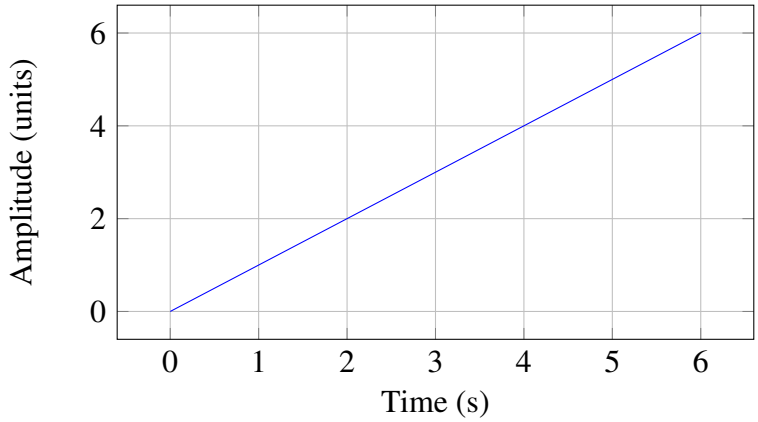

Figure 5.1: Amplitude as a function of time, demonstrating a linear increase.

Figure 5.1 shows a simple example of amplitude varying linearly with time. This kind of plot is useful for illustrating the basic relationship between time and a measured quantity in controlled experiments [Kothari, 2004], [Weste and Harris, 2016], [Ozcan, 2016], [Waldron, 2003], [Maedche and Staab, 2005].

Chapter 6

RESULT ANALYSIS AND DISCUSSION

Figure 6.1: Sample picture of universe

(a) Fruits containing 'A' vitamin

(b) Fruits containing 'C' vitamin

Figure 6.2: Commonly available fruits

Chapter 7

CONCLUSIONS AND FUTURE ENHANCEMENTS

The conclusion will need to have several elements, including:

- A brief summary, just a few paragraphs, of your key findings, related back to what you expected to see (essential);
- The conclusions which you have drawn from your research (essential);
- Why your research is important for researchers and practitioners (essential);
- Recommendations for future research (strongly recommended, verging on essential);
- Recommendations for practitioners (strongly recommended in management and business courses and some other areas, so check with your supervisor whether this will be expected); and a final paragraph rounding off your dissertation or thesis.

In any research-oriented work, references and citations play a crucial role in establishing the credibility and reliability of the study. Citations are used within the main body of the report to acknowledge the original sources of ideas, theories, methodologies, and results that have informed the research. They allow the reader to trace the origin of information, verify claims, and gain deeper insight into the background literature[Waldron, 2003].

References, on the other hand, are listed at the end of the dissertation or thesis. They provide the complete bibliographic details of all the sources cited in the text. A well-structured reference list demonstrates the breadth and depth of the literature consulted during the research process. It also helps future researchers to locate relevant works more efficiently[Kothari, 2004].

In this report, references have been cited in accordance with standard academic practice. Each in-text citation corresponds to a detailed entry in the reference list. Sources include journal papers, conference proceedings, books, technical reports, and reputable online resources. The citation style followed (e.g., IEEE, APA, or any style recommended by the institute) ensures uniformity and consistency throughout the document[Haykin, 2005].

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APPENDICES

Appendix A

'Log' Table

Number	$\log_{10}$(Number)
1	0.0000
2	0.3010
3	0.4771
4	0.6021
5	0.6990
6	0.7782
7	0.8451
8	0.9031
9	0.9542
10	1.0000

Appendix A

SAMPLE CODE

```
/* C or C++ programming **/
#include <iostream>
using namespace std;
int main() {
    int a = 5, b = 10;
    cout << "Before swap: a = " << a << ", b = " << b << endl;
    int temp = a;
    a = b;
    b = temp;
    cout << "After swap: a = " << a << ", b = " << b << endl;
    return 0;
}

/* Java programming **/
public class SwapNumbers {
    public static void main(String[] args) {
        int a = 5, b = 10;
        System.out.println("Before swap: a = " + a + ", b = " + b);
        int temp = a;
        a = b;
        b = temp;
        System.out.println("After swap: a = " + a + ", b = " + b);
    }
}

/* Python programming **/
a = 5
b = 10
print(f"Before swap: a = {a}, b = {b}")
a, b = b, a  # Pythonic swap
print(f"After swap: a = {a}, b = {b}")
```

```
/* Javascript programming **/
let a = 5, b = 10;
console.log(‘Before swap: a = ${a}, b = ${b}‘);
let temp = a;
a = b;
b = temp;
console.log(‘After swap: a = ${a}, b = ${b}‘);
```