

Title of the PROJECT

BITE304L– COURSE PROJECT

Submitted in partial fulfillment of the requirements for the degree of

Bachelor of Information Technology

in

Department of Information Technology

by

Student NAMES

REGISTER NUMBERS



School of Computer Science Engineering and Information Systems[SCORE]

VIT, Vellore

April, 2025

DECLARATION

I hereby declare that the ITA304L - <Course Project> entitled “project title” submitted by me, for the award of the degree of *Bachelor of Information Technology in Department of Information Technology, School of Computer Science Engineering and Information Systems* to VIT is a record of bonafide work carried out by me under the supervision of <Faculty Guide Name, Designation, SCORE, VIT, Vellore>.

I further declare that the work reported in this project has not been submitted and will not be submitted, either in part or in full, for the award of any other degree or diploma in this institute or any other institute or university.

Place: Vellore

Date:

Signature of the Candidate

CERTIFICATE

This is to certify that the **BITE304L- Course Project** entitled “**Project title**” submitted by **Student Name & Reg. No**, SCORE, VIT, for the award of the degree of *Bachelor of Information Technology in the Department of Information Technology provision* during the period, 13. 12. 2024 to 17.04.2025, as per the VIT code of academic and research ethics.

The contents of this report have not been submitted and will not be submitted either in part or in full, for the award of any other degree or diploma in this institute or any other institute or university. The Capstone project fulfills the requirements and regulations of the University and in my opinion meets the necessary standards for submission.

Place: Vellore

Date:

Signature of the VIT-SCORE - Guide

Executive Summary

Summary of the capstone project for one page and not exceeding 200 words

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List of Abbreviations

3GPP	Third Generation Partnership Project
2G	Second Generation
3G	Third Generation
4G	Fourth Generation
AWGN	Additive White Gaussian Noise

AS PER YOUR PROJECT

Symbols and Notations

δf	CFO
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ε	NCFO
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AS PER YOUR PROJECT

CHAPTER 1

INTRODUCTION

Artificial Intelligence (AI) refers to the development of computer systems that can perform tasks typically requiring human intelligence. These tasks range from recognizing speech, understanding natural language, making decisions, solving problems, to even learning from experience. AI encompasses a broad field of study, including machine learning, neural networks, robotics, natural language processing, and computer vision. By mimicking cognitive functions, AI aims to create systems capable of adapting to new information, making predictions, and optimizing processes.

As technology continues to evolve, AI has moved from theoretical concepts to practical applications that are transforming industries. From virtual assistants like Siri and Alexa to self-driving cars, healthcare diagnostics, and personalized recommendations, AI is reshaping how we live, work, and interact with the world around us. Understanding AI is crucial as it increasingly influences our daily lives, presents ethical challenges, and offers unprecedented opportunities for innovation and efficiency.

1.1 Objective

The primary objective of this AI project is to develop a [specific AI system/tool/application] that utilizes machine learning and data analysis techniques to [solve a particular problem or enhance a process]. The project aims to...

1.2 Motivation

An AI-based Traffic Management System aims to optimize the flow of vehicles in urban areas by leveraging machine learning algorithms and real-time data. Utilizing inputs from traffic cameras, sensors, and GPS data, the AI can predict traffic congestion, adjust traffic light timings dynamically, and suggest optimal routes for drivers. This reduces travel time, minimizes fuel consumption, and decreases carbon emissions.

By analyzing historical traffic patterns and integrating with public transportation systems, the AI can provide more accurate traffic forecasts and support city planners in making data-driven infrastructure decisions,

Page Specification:

Left Margin: 1.5 inch

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Font & Size:

Entire report - Font Name: Times New Roman

Font size: 12

Chapter Heading Font size: 14 and CAPS, BOLD

Sub Heading Font size: 12 and No CAPS

Paragraph:

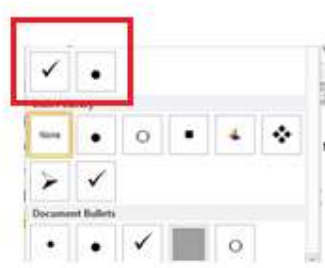
Paragraph Alignment: Justify

Paragraph line Space: 1.5 line space

Paragraph: In every chapter's first paragraph, first line without 1 tab space and continue, in next paragraph with 1 tab space till the end of the chapter.

***For reference check Chapter 1 formatting in this document**

Bullet points: do not use bullet numbering, instead use bullet image, select



*** for types, classifications , you can use bullet numbering (where it is required to mention in numbers)**

Page Numbers:

- ✓ Use roman letters page numbering from cover page to symbols and Notations chapter.
- ✓ For Cover page do not make the page number visible.
- ✓ From page number ii , should be visible before the chapter 1
- ✓ Use numeric page numbers (1, 2,3,..) from **chapter 1. Introduction** till References sections
- ✓ For Appendices, No page numbers required
- ✓ Total Number of pages required: 70 and above (from chapter 1 to reference section)
- ✓ In Appendices: you can add any other sample codes, images, manuals, Readme.txt etc.,)

Figures:

- ✓ Centre the figure, Make it clear and visible, for better view go for portrait format. If the figure is huge in size then go for landscape format for image.
- ✓ In the chapters, figure caption should come below the figure.
- ✓ Figure Caption should be in the Title Case, Times New Roman, 10 pt, and it should be of the Format: **Fig. Chapter Number.Figure Number** Figure Caption.
- ✓ Look at the figure title mentioned below.

Types of Bar Graph

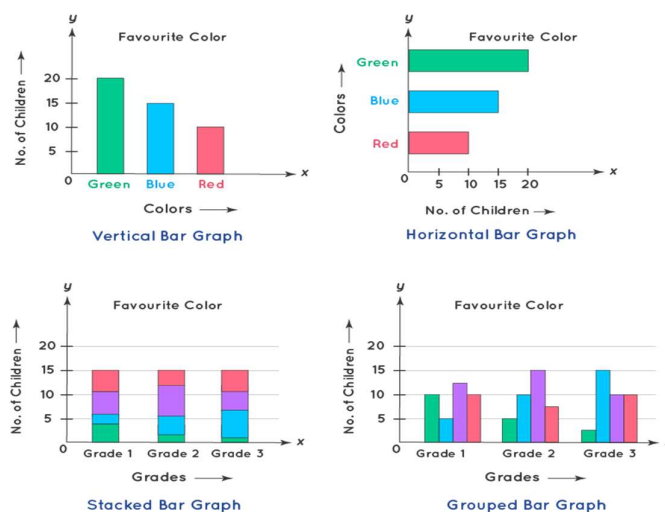


Fig. 2.4 Sample Bar Graph

Tables:

- ✓ **For Tables:** Title of the table should come in the top of the table as follows
- ✓ All the table caption should be in the Title case , Times New Roman, 10Point and it should be of the format: **Table.Chapter Number.Table number** Table Caption

Table 6.1 MI and Deep Learning

Artificial Intelligence	Machine Learning	Deep Learning
AI stands for Artificial Intelligence, and is basically the study/process which enables machines to mimic human behaviour through particular algorithm.	ML stands for Machine Learning, and is the study that uses statistical methods enabling machines to improve with experience.	DL stands for Deep Learning, and is the study that makes use of Neural Networks(similar to neurons present in human brain) to imitate functionality just like a human brain.
AI is the broader family consisting of ML and DL as it's components.	ML is the subset of AI.	DL is the subset of ML.
AI is a computer algorithm which exhibits intelligence through decision making.	ML is an AI algorithm which allows system to learn from data.	DL is a ML algorithm that uses deep(more than one layer) neural networks to analyze data and provide output accordingly.

Equations:

Every equation should be used by relevant tools or symbols in the word editor.

Every equation should be cited as Eqn. 5.2 (Equation. fifth chapter.2 equation)

$$A^2+B^2=C \quad (5.2)$$

When you cite the above equation should cite as follows;

In the Eqn. 5.2 the variable A denotes the parameter of..

CHAPTER 8

SUMMARY

A brief summary of the project findings, expected results. Recommendations

CHAPTER 9

REFERENCES