YOUR PROJECT TITLE HERE

A PROJECT REPORT

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE AWARD OF THE DEGREE OF

BACHELOR OF TECHNOLOGY

IN

MATHEMATICS AND COMPUTING

Submitted by:

STUDENT ONE (2K2X/XX/XXX)

STUDENT TWO (2K2X/XX/XXX)

STUDENT THREE (2K2X/XX/XXX)

Under the Supervision of

Dr./Mr./Ms. SUPERVISOR NAME

DEPARTMENT OF APPLIED MATHEMATICS

DELHI TECHNOLOGICAL UNIVERSITY

(Formerly Delhi College of Engineering)

Bawana Road, Delhi–110042

MAY, 2026

DELHI TECHNOLOGICAL UNIVERSITY

(Formerly Delhi College of Engineering)

Bawana Road, Delhi–110042

CANDIDATE'S DECLARATION

We, **STUDENT ONE, STUDENT TWO, STUDENT THREE**, Roll No(s). **2K2X/XX/XXX, 2K2X/XX/XXX, 2K2X/XX/XXX**, students of **B.Tech.** (MATHEMATICS AND COMPUTING), hereby declare that the project report entitled:

"YOUR PROJECT TITLE HERE"

submitted by us to the **Department of Applied Mathematics**, Delhi Technological University, Delhi in partial fulfillment of the requirement for the award of the degree of **Bachelor of Technology**, is original and not copied from any source without proper citation. This work has not previously formed the basis for the award of any Degree, Diploma, Associateship, Fellowship or other similar title or recognition.

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Status of paper: Accepted
Paper ID: XXX

Place: Delhi **Student(s) Signature**

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DEPARTMENT OF APPLIED MATHEMATICS
DELHI TECHNOLOGICAL UNIVERSITY
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CERTIFICATE

I hereby certify that the Project Report entitled

"YOUR PROJECT TITLE HERE"

submitted by **STUDENT ONE, STUDENT TWO, STUDENT THREE**, Roll No(s). **2K2X/XX/XXX, 2K2X/XX/XXX, 2K2X/XX/XXX** to the **Department of Applied Mathematics**, Delhi Technological University, Delhi in partial fulfillment of the requirement for the award of the degree of **Bachelor of Technology in MATHEMATICS AND COMPUTING**, is a record of the project work carried out by the students under my supervision. To the best of my knowledge this work has not been submitted in part or in full for any Degree or Diploma to this University or elsewhere.

Place: Delhi
Date: _____

(Dr./Mr./Ms. SUPERVISOR NAME)
SUPERVISOR
Assistant Professor
Department of Applied Mathematics
Delhi Technological University

ABSTRACT

Write your abstract here. The abstract should be an essay-type narration not exceeding two pages, outlining the work presented, the methodology used for tackling it, and a summary of the findings. It should be typed in double line spacing, font style Times New Roman, Font Size 12.

Keywords: keyword1, keyword2, keyword3, keyword4, keyword5.

ACKNOWLEDGEMENT

We express our sincere gratitude to **Dr./Mr./Ms. SUPERVISOR NAME**, Assistant Professor, Department of Applied Mathematics, Delhi Technological University, for their invaluable guidance, constant encouragement, and insightful suggestions throughout this project.

We are thankful to the Head of Department of Applied Mathematics, DTU, and all faculty members for providing the necessary infrastructure and computational resources.

Finally, we express our heartfelt gratitude to our families for their unwavering moral support throughout the course of this project.

STUDENT ONE

STUDENT TWO
STUDENT THREE

Contents

List of Figures

List of Tables

LIST OF SYMBOLS, ABBREVIATIONS AND NOMENCLATURE

Symbol/Abbrev.	Meaning
AI	Artificial Intelligence
CNN	Convolutional Neural Network
DTU	Delhi Technological University
GPU	Graphics Processing Unit
$\sigma(\cdot)$	Sigmoid activation function

CHAPTER 1

INTRODUCTION

1.1 General

Write your general introduction here. Establish the importance of the problem with statistics and real-world context [1].

1.2 Background

Provide relevant background here.

1.3 Motivation

Explain what motivated this specific work and what problem it solves.

1.4 Objectives of the Project

The specific objectives of this project are:

1. First objective.
2. Second objective.
3. Third objective.
4. Fourth objective.

1.5 Organization of the Dissertation

The remainder of this report is structured as follows:

- **Chapter 2** presents a comprehensive literature review.
- **Chapter 3** describes the proposed methodology.

- **Chapter 4** covers the experimental setup.
- **Chapter 5** presents results and analysis.
- **Chapter 6** provides discussion and limitations.
- **Chapter 7** concludes the report.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter surveys the existing literature relevant to this project, covering: (1) [area 1], (2) [area 2], and (3) [area 3].

2.2 [First Topic Area]

2.2.1 [Sub-topic 1]

Discuss related work here [2]. Note key results and limitations.

2.2.2 [Sub-topic 2]

Discuss more related work here [3].

Table 2.1: Summary of related work in [your area].

Method	Year	Dataset	Metric 1	Metric 2
Method A [1]	2020	Dataset X	0.XXX	0.XXX
Method B [2]	2021	Dataset X	0.XXX	0.XXX
Method C [3]	2022	Dataset X	0.XXX	0.XXX
Ours	20XX	Dataset X	**0.XXX**	**0.XXX**

2.3 [Second Topic Area]

Discuss second area of related work.

2.4 Gap Analysis

The literature review reveals the following gaps that this project addresses:

1. **Gap 1:** Description of gap 1.
2. **Gap 2:** Description of gap 2.
3. **Gap 3:** Description of gap 3.

CHAPTER 3

METHODOLOGY

3.1 Architecture/System Overview

Your system/architecture has X components operating at Y parameters. The complete pipeline is illustrated in Figure 3.1.

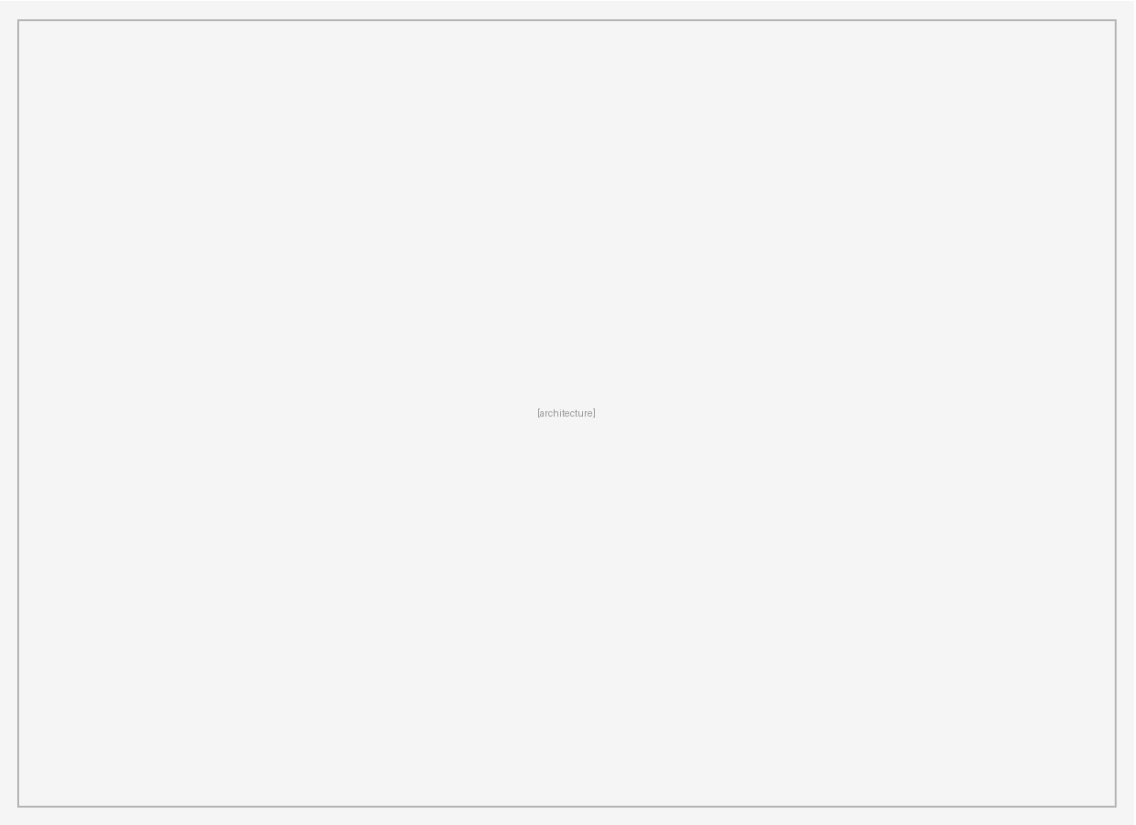

Figure 3.1: [Your system/architecture name] pipeline. [Brief description of what each component does.]

Table 3.1: [System name] processing stages and their purpose.

Stage	Component	Purpose
1	Component A	Purpose of A
2	Component B	Purpose of B
3	Component C	Purpose of C

3.2 [Component 1]

Describe your first component here. The mathematical formulation is:

$$y = f(x;\theta) \tag{3.1}$$

where x is the input, θ are the learnable parameters, and $f(\cdot)$ denotes [describe the function].

3.3 [Component 2]

Describe your second component. Use sub-equations if needed:

$$Z = \text{Operation1}(X_{\text{in}}) \tag{3.2}$$
$$H = \text{Operation2}(Z) \tag{3.3}$$
$$X_{\text{out}} = \text{Normalise}(X_{\text{in}} + H) \tag{3.4}$$

3.4 Loss Function / Objective

The total objective combines [N] terms:

$$\mathscr{L} = \mathscr{L}_1 + \alpha\mathscr{L}_2 + \beta\mathscr{L}_3 \tag{3.5}$$

Table 3.2: Loss function components and their motivation.

Term	Weight	Purpose
$\mathscr{L}_1$	1.0	Description of loss term 1
$\mathscr{L}_2$	α	Description of loss term 2
$\mathscr{L}_3$	β	Description of loss term 3

CHAPTER 4

EXPERIMENTAL SETUP

4.1 Datasets

4.1.1 [Dataset 1 Name]

[Dataset 1] [4] contains X samples from [source]. It is used for [purpose].

4.1.2 [Dataset 2 Name]

[Dataset 2] [5] comprises Y samples from [source].

4.1.3 Data Split

Table 4.1: Dataset split for training, validation, and evaluation.

Dataset	Total	Train	Val	Test	Role
Dataset 1	1,000	800	100	100	Train + Test
Dataset 2	612	489	61	62	Train + Test
Dataset 3	196	0	0	196	Test only

4.2 Evaluation Metrics

Table 4.2: Evaluation metrics used in this project.

Metric	Formula	Interpretation
Metric 1 (↑)	Formula	What it measures
Metric 2 (↑)	Formula	What it measures
Metric 3 (↓)	Formula	What it measures

4.3 Implementation Details

Table 4.3: Full implementation configuration.

Configuration	Value
Hardware	[GPU model, VRAM]
Framework	[PyTorch/TensorFlow version]
Input resolution	[X × Y px]
Batch size	[N]
Optimiser	[Adam/AdamW/SGD]
Learning Rate	[value]
Weight decay	[value]
LR scheduler	[type and parameters]
Max epochs	[N]
Best checkpoint	Epoch [N] (val [metric] = [value])
Global seed	42

4.4 Data Augmentation

Table 4.4: Data augmentation techniques applied during training.

Technique	Purpose
Horizontal / Vertical Flip	Symmetry invariance
Random Rotation	Orientation variation
Colour Jitter	Lighting variation

CHAPTER 5

RESULTS AND ANALYSIS

5.1 Comparison with State of the Art

Table 5.1: Comparison with state of the art. **Bold**: best. Underline: second best. '—': not evaluated.

Method	Year	Metric 1 ↑	Metric 2 ↓
Baseline A [1]	2020	0.XXX	XX.XX
Baseline B [2]	2021	0.XXX	XX.XX
Baseline C [3]	2022	0.XXX	XX.XX
Ours	20XX	**0.XXX**	**XX.XX**

5.2 Full Metric Results

Table 5.2: Full metrics on all evaluation datasets.

Dataset	Metric 1	Metric 2	Metric 3	Metric 4	Metric 5
Dataset 1	0.XXX	0.XXX	XX.XX	0.XXX	0.XXX
Dataset 2	0.XXX	0.XXX	XX.XX	0.XXX	0.XXX

5.3 Qualitative Results

Figure 5.1 shows representative predictions on [dataset name].

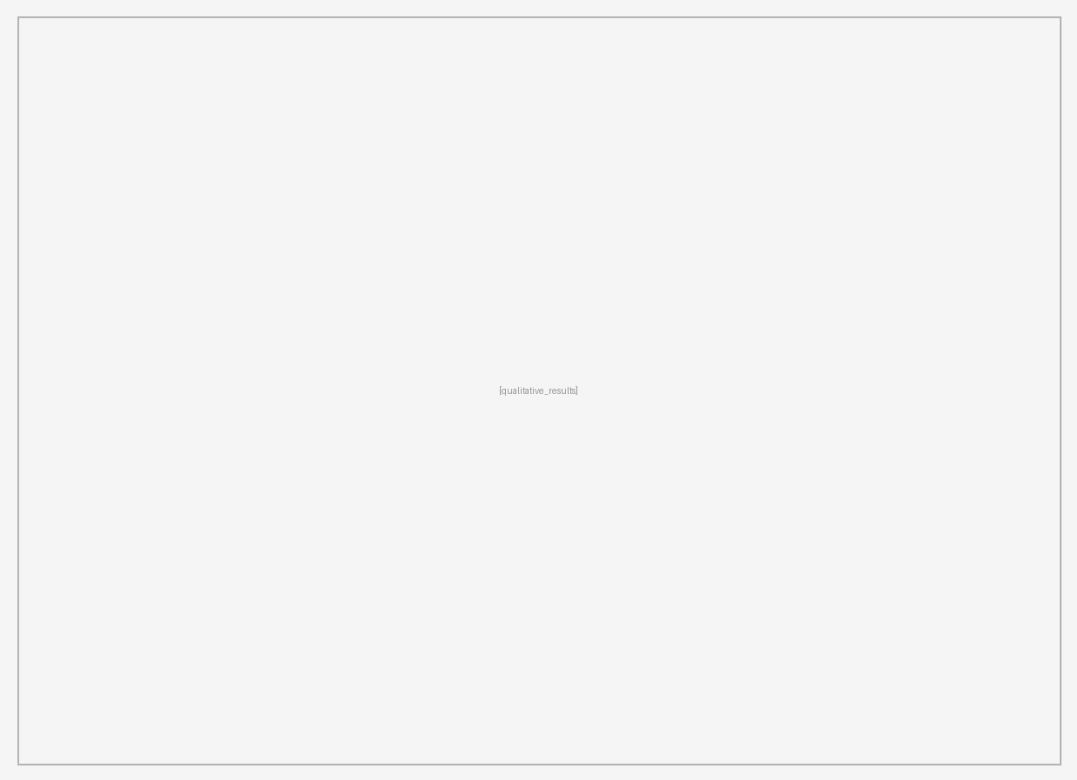

Figure 5.1: [Description of what is shown in each row/column. Note which rows are success cases and which are failure cases.]

Key observations:

vation about success cases

ses — always include this

5.4 Training Dynamics

Training converged at epoch [N] via early stopping. Training loss fell from [X] to [Y] ([Z]% reduction). The validation–training loss gap held at [range], confirming no meaningful overfitting.

CHAPTER 6

DISCUSSION

6.1 Interpretation of Results

[Your method] achieves [result] because [reason]. The key insight is [core technical insight that explains the improvement].

6.2 Ablation Study

Table 6.1 presents the ablation study where each component is added one at a time under identical training conditions.

Table 6.1: Ablation study. All rows: identical training protocol.

Configuration	Metric 1 ↑	Metric 2 ↑	Metric 3 ↓
R1: Baseline	0.XXX	0.XXX	XX.XX
R2: + Component A	0.XXX	0.XXX	XX.XX
R3: + Component B	0.XXX	0.XXX	XX.XX
R4: + Component C (Full)	**0.XXX**	**0.XXX**	**XX.XX**

6.3 Limitations

1. **Limitation 1:** Description and why it exists.
2. **Limitation 2:** Description and why it exists.
3. **Limitation 3:** Description and why it exists.

6.4 Future Directions

1. Future direction 1.

2. Future direction 2.

3. Future direction 3.

CHAPTER 7

CONCLUSION

This project presented [your method], a [brief description].

The three principal contributions of this work are:

1. **Contribution 1:** Description.
2. **Contribution 2:** Description with key result.
3. **Contribution 3:** Description.

These findings [broader impact statement].

BIBLIOGRAPHY

[1] A. Author and B. Author, "Title of the paper," *Journal Name*, vol. X, no. Y, pp. Z–ZZ, 2020.

[2] A. Author, B. Author, and C. Author, "Title of the paper," in *Proc. CONFERENCE NAME*, pp. Z–ZZ, 2021.

[3] A. Author and B. Author, "Title of the paper," in *Proc. CONFERENCE NAME*, pp. Z–ZZ, 2022.

[4] A. Author et al., "Dataset paper title," in *Proc. CONFERENCE*, pp. Z–ZZ, 2020.

[5] A. Author et al., "Dataset paper title," *Journal Name*, vol. X, no. Y, pp. Z–ZZ, 2021.

CHAPTER A

LIST OF PUBLICATIONS

1. **STUDENT ONE, STUDENT TWO, STUDENT THREE, Dr./Mr./Ms. SUPERVISOR NAME**, "Your Paper Title," *Accepted at Conference Name (Scopus-indexed)*, Paper ID: XXX, Month DD-DD, 20XX.

CHAPTER B

RESEARCH PAPER ACCEPTANCE PROOF

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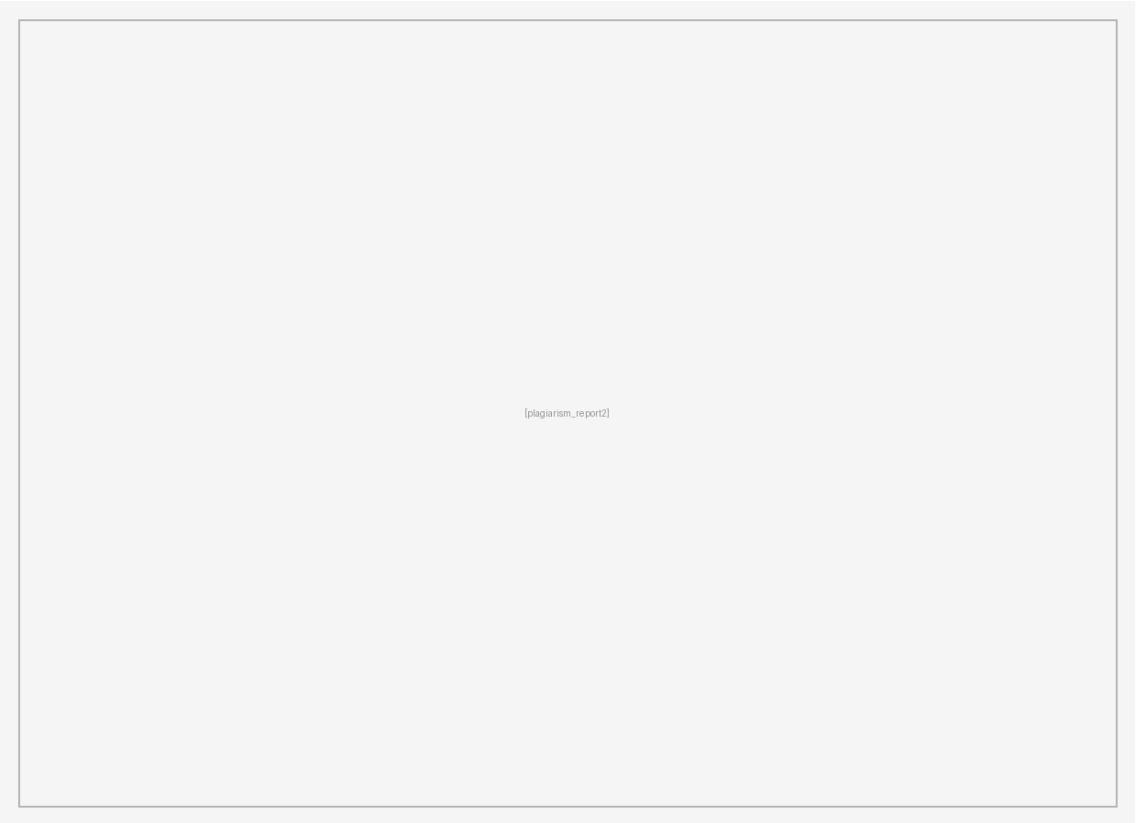
CHAPTER E

PLAGIARISM REPORT



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