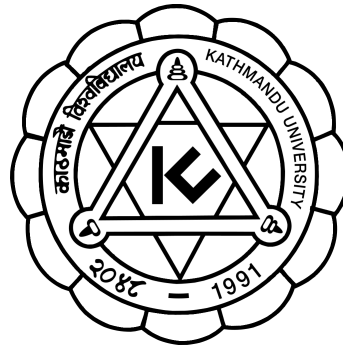


**KATHMANDU UNIVERSITY**  
**SCHOOL OF ENGINEERING**  
**DEPARTMENT OF MECHANICAL ENGINEERING**

THESIS / DISSERTATION ON



THESIS TITLE

In partial fulfillment of the requirements for the  
Bachelor / Master / Master by Research / PhD in Mechanical Engineering

Full Name [Registration Number]

Month Year

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## **PREFACE**

Describe where and when the research was conducted, its academic context, and any collaboration or funding relevant to the work.

## **ACKNOWLEDGMENTS**

Replace this text with your acknowledgments. Recognize your supervisors, research collaborators, technical staff, funding organizations, and others who contributed to your research. Include any required disclosures in wording appropriate to your own work.

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| 2.1 | Illustrative method description; replace with your study details. . . . . | 3  |
| A.1 | Illustrative supporting material; no research data are reported. . . . .  | 11 |

## ABSTRACT

Replace this text with a concise summary of the research problem, objectives, methods, principal results, and conclusions. State the contribution of your work and its practical or scholarly significance. Write the abstract after the main chapters are complete so that it accurately reflects the thesis.

**Keywords:** keyword one; keyword two; keyword three

## LIST OF ABBREVIATIONS

|     |                               |
|-----|-------------------------------|
| CAD | Computer-Aided Design         |
| KE  | Kinetic Energy                |
| SI  | International System of Units |

*Note: Please mention in alphabetical order, first English letters/ symbols, then Greek letters / symbols in alphabetical order.*

## LIST OF SYMBOLS

### Latin symbols

|     |               |                      |
|-----|---------------|----------------------|
| $d$ | Distance      | [m]                  |
| $t$ | Time          | [s]                  |
| $v$ | Average speed | [m s <sup>-1</sup> ] |

### Greek symbols

|          |       |       |
|----------|-------|-------|
| $\alpha$ | Angle | [rad] |
|----------|-------|-------|

*Note: Please mention in alphabetical order, first English letters/ symbols, then Greek letters / symbols in alphabetical order.*

<Dedication text>

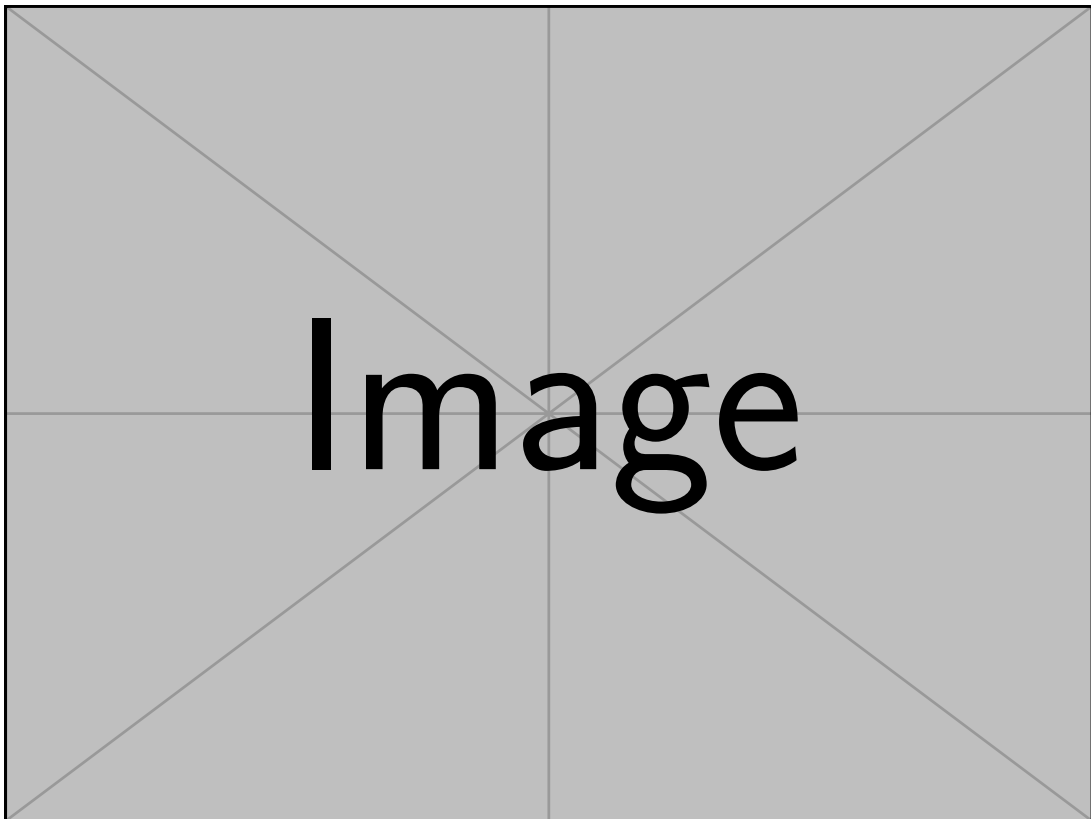
# CHAPTER 1: INTRODUCTION

## 1.1 Background

Write a brief background of the research problem, including the context and motivation for the study.

Use citations for claims that rely on published work; for example, this sentence demonstrates a numbered citation [1]. Another proper citation [2].

Use a descriptive caption and refer to every figure in the text. Figure 1.1 demonstrates a figure.



**Figure 1.1:** Dummy caption. Replace this figure with your own.

## 1.2 Objectives

State your research questions and the specific objectives used to answer them.

- (i) Objective 1
- (ii) Objective 2

## 1.3 Scope and Limitations

State your research scope and limitations.

- (i) Scope1 1
- (ii) Limitation 1

## **1.4 Thesis Organization**

Chapter 2 reviews the relevant literature. Chapter 3 describes the methods, followed by results in Chapter 4 and discussion in Chapter 5. Chapters 6 and 7 present the conclusions and future work. Appendix A illustrates how to include supporting material.

## CHAPTER 2: LITERATURE REVIEW

Replace this text with a critical review of relevant research. Organize the review around themes, methods, or research questions, and explain how prior work informs your study. The bibliography entries supplied with this template are fictional formatting examples and must be replaced [1, 3].

### 2.1 Topic 1

Write a paragraph about the first topic.

Write second paragraph about the first topic.

Use a descriptive caption and refer to every table in the text. Table 2.1 demonstrates a table. Table A.1 in Appendix A provides additional table referencing.

**Table 2.1:** Illustrative method description; replace with your study details.

| Item      | Description                           |
|-----------|---------------------------------------|
| Input     | Describe the data or materials        |
| Procedure | Describe the processing or experiment |
| Output    | Describe the recorded quantities      |

### 2.2 Topic 2

Write a paragraph about the second topic.

Write second paragraph about the second topic.

## CHAPTER 3: METHODOLOGY

Describe the research design, materials or data, procedures, and analysis methods. Provide enough detail for another researcher to understand and, where appropriate, reproduce the work. Replace all examples below with material relevant to your study.

### 3.1 Topic 1

Write a paragraph about the first topic.

Write second paragraph about the first topic.

A simple equation illustrates mathematical notation and automatic numbering:

$$x(t) = x_0 + vt. \tag{3.1}$$

In Equation 3.1,  $x(t)$  is position,  $x_0$  is initial position,  $v$  is constant velocity, and  $t$  is elapsed time. Format quantities consistently, for example 1 m and 2 s; the corresponding velocity unit is  $\text{m s}^{-1}$ . These values demonstrate typesetting only and do not report research measurements.

### 3.2 Topic 2

Write a paragraph about the second topic.

Write second paragraph about the second topic.

## **CHAPTER 4: RESULTS**

Present the findings of your study in a clear sequence tied to the objectives in Section 1.2. Replace this paragraph with your verified results. Include appropriately labeled tables, figures, and uncertainty estimates where relevant. The formatting examples in Chapter 3 contain no research results.

### **4.1 Topic 1**

Write a paragraph about the first topic.

Write second paragraph about the first topic.

## 4.2 Topic 2

This page (and everything inside this environment) will be in landscape mode. Perfect for wide tables or large figures!

## **CHAPTER 5: DISCUSSION**

Interpret the results presented in Chapter 4. Explain how they address the research questions, compare them with relevant published work, and discuss alternative explanations. State the limitations of the study and their implications for the conclusions.

## **CHAPTER 6: CONCLUSIONS**

Summarize the answers to the research questions and the contributions supported by your findings. Tie each conclusion to the objectives in Section 1.2 and avoid introducing new results in this chapter.

## **CHAPTER 7: FUTURE WORK**

Describe specific extensions or improvements that follow from the study's findings and limitations. Explain what each proposed step could resolve and which additional data, methods, or resources would be needed.

- Future Work 1
- Future Work 2
- Future Work 3

## REFERENCES

- [1] A. Example, *Illustrative Book Title*. Example City: Fictional Example Publisher, 2000, illustrative placeholder; replace with a real source.
- [2] B. S. Thapa, B. Thapa, and O. G. Dahlhaug, "Empirical modelling of sediment erosion in francis turbines," *Energy*, vol. 41, no. 1, pp. 386–391, 2012, 23rd International Conference on Efficiency, Cost, Optimization, Simulation and Environmental Impact of Energy Systems, ECOS 2010. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/S0360544212001806>
- [3] B. Example and C. Sample, "Illustrative article title," *Fictional Journal of Examples*, vol. 1, no. 1, pp. 1–2, 2001, illustrative placeholder; replace with a real source.

## APPENDICES

### Appendix A: Supplementary Data

Replace this appendix with supporting data, detailed calculations, or other material that is useful but would interrupt the main argument. Table A.1 demonstrates appendix table numbering.

**Table A.1:** Illustrative supporting material; no research data are reported.

| Identifier | Description                      |
|------------|----------------------------------|
| Example A  | Replace with a supporting record |
| Example B  | Replace with a supporting record |

## **Appendix B: Supplementary Methods**

Replace this appendix with additional procedures, questionnaires, code excerpts, or derivations needed to support Chapter 3. Remove this appendix if it is unnecessary, and update the corresponding `\input` command in the main file.