



**TRIBHUVAN UNIVERSITY  
INSTITUTE OF ENGINEERING  
THAPATHALI CAMPUS**

**A Major/Minor Project Proposal/Mid-term/Final Report  
On  
ProjectName**

**Submitted By:**

StudentName (RollNumber)  
StudentName (RollNumber)  
StudentName (RollNumber)  
StudentName (RollNumber)

**Submitted To:**

Department of Electronics and Computer Engineering  
Thapathali Campus  
Kathmandu, Nepal

March, 2023



**TRIBHUVAN UNIVERSITY  
INSTITUTE OF ENGINEERING  
THAPATHALI CAMPUS**

**A Major/Minor Project Final/Mid-term/Proposal Report  
On  
ProjectName**

**Submitted By:**

StudentName (RollNumber)  
StudentName (RollNumber)  
StudentName (RollNumber)  
StudentName (RollNumber)

**Submitted To:**

Department of Electronics and Computer Engineering  
Thapathali Campus  
Kathmandu, Nepal

In partial fulfillment for the award of a Bachelor's degree in Electronics, Communication  
and Information Engineering

**Under the Supervision of**  
SupervisorName

March, 2023

## DECLARATION

We hereby declare that the report of the project entitled “ProjectName” which is being submitted to the Department of Electronics and Computer Engineering, IOE, Thapathali Campus, in the partial fulfillment of the requirements for the award of the Degree of Bachelor of Engineering in Electronics, Communication and Information/Computer Engineering, is a bonafide report of the work carried out by us. The materials contained in this report have not been submitted to any University or Institution for the award of any degree and we are the only author of this complete work and no sources other than the listed here have been used in this work

StudentName (RollNumber) \_\_\_\_\_

StudentName (RollNumber) \_\_\_\_\_

StudentName (RollNumber) \_\_\_\_\_

StudentName (RollNumber) \_\_\_\_\_

**DATE:** March, 2023

## **CERTIFICATE OF APPROVAL**

The undersigned certify that they have read, and recommended to the Institute of Engineering for acceptance, a project report entitled '**ProjectName**' submitted by **Student1, Student2, Student3, Student4** in partial fulfillment of the requirements for the Bachelor's Degree in (Electronics, Communication and Information/Computer) Engineering.

---

Supervisor:

Department of Electronics and Computer Engineering  
Institute of Engineering, Thapathali Campus

---

External Examiner:

---

Project Co-ordinator: **Er. Umesh Kanta Ghimire**

Department of Electronics and Computer Engineering  
Institute of Engineering, Thapathali Campus

---

Head of Department: **Er. Kiran Chandra Dahal**

Department of Electronics and Computer Engineering  
Institute of Engineering, Thapathali Campus

**DATE OF APPROVAL:** March, 2023

## **COPYRIGHT**

The authors have agreed that the Library, Department of Electronics and Computer Engineering, Institute of Engineering, Thapathali Campus may make this report freely available for inspection. Moreover, the authors have agreed that permission for extensive copying of this project report for scholarly purpose may be granted by the supervisors who supervised the project work recorded herein or in their absence, by the Head of the Department wherein the project report was done. It is understood that the recognition will be given to the authors of this project and to the Department of Electronics and Computer Engineering, Thapathali Campus, Institute of Engineering in any use of the material of this report. Copying or publication or the other use of this report for financial gain without approval of the Department of Electronics and Computer Engineering, Institute of Engineering, Thapathali Campus and authors' written permission is strictly prohibited.

Request for permission to copy or to make any use of the material in this project in whole or part should be addressed to department of Electronics and Computer Engineering, IOE, Thapathali Campus.

## **ACKNOWLEDGEMENT**

This project is prepared in partial fulfilment of the requirement for for the the bachelor's degree in (Electronics, Communication and Information/Computer) Engineering. We owe our deepest gratitude to the Department of Electronics and Computer Engineering IOE, Thapathali Campus for providing us with an opportunity to work on a major project as a part of our syllabus. We would also like to owe our gratitude to our supervisor, Er. (Supervisor Name), for his/her/their guidance. The experience of working on this project will surely enrich our technical knowledge and also gives experience of working on a project and also develop our team works skills to a great extent.

StudentName        (RollNumber)

StudentName        (RollNumber)

StudentName        (RollNumber)

StudentName        (RollNumber)

## **ABSTRACT**

Write your abstract here

*Keywords: a, b, c*

# TABLE OF CONTENTS

<b>DECLARATION</b>	<b>i</b>
<b>CERTIFICATE OF APPROVAL</b>	<b>ii</b>
<b>COPYRIGHT</b>	<b>iii</b>
<b>ACKNOWLEDGEMENT</b>	<b>iv</b>
<b>ABSTRACT</b>	<b>v</b>
<b>LIST OF FIGURES</b>	<b>viii</b>
<b>LIST OF TABLES</b>	<b>ix</b>
<b>1 LIST OF ABBREVIATIONS</b>	<b>x</b>
<b>LIST OF ABBREVIATIONS</b>	<b>x</b>
<b>2 INTRODUCTION</b>	<b>1</b>
2.1 Background . . . . .	1
2.2 Motivation . . . . .	1
2.3 Objectives . . . . .	1
2.4 Problem statement . . . . .	1
2.5 Scope of Project . . . . .	1
<b>3 LITERATURE REVIEW</b>	<b>2</b>
<b>4 REQUIREMENT ANALYSIS</b>	<b>3</b>
<b>5 SYSTEM ARCHITECTURE AND METHODOLOGY</b>	<b>4</b>
5.1 Theoretical Background . . . . .	4
5.2 Architecture/Algorithms Used for the Project . . . . .	4
5.3 Use Case Diagram . . . . .	4
5.4 Activity Diagram . . . . .	4
5.5 Class Diagram for System . . . . .	4
5.6 Class Diagram for Data . . . . .	4
5.7 Database Schema . . . . .	4
5.8 Sequence Diagram . . . . .	4
5.9 Communication Diagram . . . . .	4
5.10 Data Flow Diagram . . . . .	4
5.11 Deployment Diagram . . . . .	4



<b>6</b>	<b>IMPLEMENTATION DETAILS</b>	<b>5</b>
<b>7</b>	<b>RESULTS AND DISCUSSIONS</b>	<b>6</b>
<b>8</b>	<b>CONCLUSION</b>	<b>7</b>
<b>A</b>	<b>APPENDIX</b>	<b>8</b>
	<b>REFERENCES</b>	<b>9</b>

## List of Figures

## List of Tables

## **1. LIST OF ABBREVIATIONS**

ACF Auto-correlation Function  
AI Artificial Intelligence

## **2. INTRODUCTION**

### **2.1. Background**

### **2.2. Motivation**

Make sure the motivation, scope and problem statement for the project is clear cut and precise

### **2.3. Objectives**

Don't write more than two objectives here

- 1.

- 2.

### **2.4. Problem statement**

### **2.5. Scope of Project**

### **3. LITERATURE REVIEW**

This chapter contains all the existing works that have already been carried out in the field related to your project topic. This chapters tells how much you researched before completing your project. You have to explain each of the works as a separate sub-topic with following details:

- What is the work of existing/researched related topic?
- How it is done? used methods, techniques, technology, algorithms and any new innovations of existing/researched related topic)
- Its importance or applications existing/researched related topic
- drawbacks and limitations existing/researched related topic
- Criticize the work of existing/researched related topic
- Link these criticisms on the existing/researched related topic to the motivation explained in previous chapter.
- Each information should be properly sited.

#### **4. REQUIREMENT ANALYSIS**

Enumerate and describe why and where in your project the hardware components, instruments and software are required.

## **5. SYSTEM ARCHITECTURE AND METHODOLOGY**

This section includes the theoretical background for the project, and description of the architecture and algorithm used in the project. Also, if possible, include the UML diagrams (use case, activity, etc) and explain them in brief if you can.

### **5.1. Theoretical Background**

### **5.2. Architecture/Algorithms Used for the Project**

### **5.3. Use Case Diagram**

### **5.4. Activity Diagram**

### **5.5. Class Diagram for System**

### **5.6. Class Diagram for Data**

### **5.7. Database Schema**

### **5.8. Sequence Diagram**

### **5.9. Communication Diagram**

### **5.10. Data Flow Diagram**

### **5.11. Deployment Diagram**



## **6. IMPLEMENTATION DETAILS**

Describe how the hardware components / instruments & software function in your project. Describe the calibration process required for correct operation of each module. Describe the interfacing technicalities / protocol of each module used in your project. Explain in detail how all components are interconnected to make a functioning system.

## **7. RESULTS AND DISCUSSIONS**

(It contains the results/outputs of your project. The output can be numeric or graphical based. Present the outputs of your project in the form of tables, graphs, charts, figures and explain their behavior. You can also represent or write down the results in tabular form if applicable and analyze that by using graphs or charts. Perform error analysis, comparisons (theory, simulation, practical) and validate your output. Discuss the sources of errors in your project that caused your outputs to deviate from expected values.

## **8. CONCLUSION**

In this project

## **A. APPENDIX**

It may contains the additional topics or data sheets or reference sheets or even user manual. Project Budget (Detailed Breakdown of Costs), Project Timeline (Gantt chart), Circuit Diagrams (Should be Clear and Legible), PCB Designs (Should be Clear and Legible), Module Specifications (Should be brief - Keep only necessary tables and figures), Details of Dataset can be included here.

## References