**EVEREST ENGINEERING COLLEGE**

**(AFFILIATED TO POKHARA UNIVERSITY)**

**SANEPA, LALITPUR**

****

**A MINOR PROJECT ON**

**“ELECTRICITY BILLING SYSTEM”**

**SUBMITTED BY**

**NABIN KUMAR BAMMA [18120047]**

**RABIN KUMAR MANDEL [18120061]**

**SANTOSH CHAPIGAIN [18120076]**

**SUSIL KUMAR SHRESTHA [18120091]**

**SUBMITTED TO**

**DEPARTMENT OF INFORMATION AND TECHNOLOGY ENGINEERING**

**EVEREST ENGINEERING COLLEGE**

**SANEPA, LALITPUR**

**SEPTEMPER, 2020**

**ELECTRICITY BILLING SYSTEM**

**Submitted by**

**NABIN KUMAR BAMMA [18120047]**

**RABIN KUMAR MANDEL [18120061]**

**SANTOSH CHAPIGAIN [18120076]**

**SUSIL KUMAR SHRESTHA [18120091]**

**A MINOR PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE DEGREE OF BACHELO IN INFORMATION AND TECHNOLOGY ENGINEERING**

**Submitted to**

**Department of Information and Technology Engineering**

**Everest Engineering College**

**Sanepa, Lalitpur**

**September,2020**

**COPYRIGHT**

The author has agreed that the library, Everest Engineering and management Collage, may make this report freely available for inspection. Moreover the author has agreed that permission for extensive copying of this project report for scholarly purpose may be granted by the lecturers, who supervised the project works recorded herein or, in their absence, by the Head of Department wherein the project report was done. It is understood that the recognition will be given to the author of the report and to the Department of Computer and Electronics, EEMC in any use of the material of this project report. Copying or publication or other use of this report for financial gain without approval of the Department and author’s written permission is prohibited. Request for permission to copy or to make any other use of the material in this report in whole or in part should be addressed to:

Head

Department of IT, Computer and Electronics Engineering

Everest Engineering College

Sanepa, Lalitpur

Nepal

*(Use college’s letter pad for this page)*

**CERTIFICATE**

The undersigned certify that they have read and recommended to the Department of Electronics and Computer Engineering for acceptance, a project report entitled “Title of Project”, submitted by Name of Student(s) in partial fulfillment of the requirement for the Bachelor’s degree in Electronics and Communication / computerEngineering.

**Supervisor:**

...................................

Name of Supervisor

Designation

**External Examiner:**

...................................

Name of External examiner

Designation

(Use college’s letter pad for this page)

**ACCEPTANCE**

The project report entitled “Title of project”, submitted by Name of Student(s) in partialfulfillment of the requirement for the Bachelor’s degree in Electronics and CommunicationEngineering has been accepted as a bonafide record of work independently carried out by thegroup in the department.

……………………………..

Name of Principal

**Principal**

Everest Engineering College,

Sanepa, Lalitpur

……………………………..

Name of HOD

**Head of the Department**

Department of Electronics and Computer Engineering,

Everest Engineering College,

Sanepa, Lalitpur

# ACKNOWLEDGEMENT

(Acknowledge the persons who have helped you during the completion of the activities of theproject.)

# ABSTRACT

An abstract is the Summary of your proposal ………… ……………… …………… ………………… ………………… ……………… ………………… ……… ……… ……… ………………… ………… ……… ………… ……… …… ……… …….. ……….. …………. ………… ………… ……. …….. ……….. ……………………………. …………………………….. ……………… ……………. ………………….. ……………………. …………………… ……… ………….. …………. ……………… ………………… .

**Key Words:**

**TABLE OF CONTENTS**

[ACKNOWLEDGEMENT i](#_Toc43272062)

[ABSTRACT ii](#_Toc43272063)

[LIST OF FIGURES v](#_Toc43272064)

[LIST OF TABLES vi](#_Toc43272065)

[LIST OF ABBREVIATION vii](#_Toc43272066)

[CHAPTER 1: INTRODUCTION 1](#_Toc43272067)

[1.1 Background 1](#_Toc43272068)

[1.2 Problem Statement 1](#_Toc43272069)

[1.3 Objectives 1](#_Toc43272070)

[1.4 Applications 1](#_Toc43272071)

[1.5 Project Features 1](#_Toc43272072)

[1.6 Feasibility Analysis 1](#_Toc43272073)

[1.6.1 Economic Feasibility 1](#_Toc43272074)

[1.6.2 Technical Feasibility 1](#_Toc43272075)

[1.6.3 Operational Feasibility 2](#_Toc43272076)

[1.7 System Requirement 2](#_Toc43272077)

[1.7.1 Software Requirement 2](#_Toc43272078)

[1.7.2 Hardware Requirement 2](#_Toc43272079)

[1.8 Overview of report (summary) 2](#_Toc43272080)

[CHAPTER 2: LITERATURE REVIEW 3](#_Toc43272081)

[CHAPTER 3: METHODOLOGY 4](#_Toc43272082)

[3.1 Introduction 4](#_Toc43272083)

[3.2 Hardware and software requirement 4](#_Toc43272084)

[3.3 System analysis and design 4](#_Toc43272085)

[3.4 Project block diagram 4](#_Toc43272086)

[3.5 Working principle 4](#_Toc43272087)

[3.6 Implementation 4](#_Toc43272088)

[3.7 Problem encountered 4](#_Toc43272089)

[CHAPTER 4: RESULT CONCLUSION AND RECOMENDATION 5](#_Toc43272090)

[4.1 Results and Analysis 5](#_Toc43272091)

[4.2 Limitations 5](#_Toc43272092)

[4.3 Conclusion 5](#_Toc43272093)

[4.4 Future scope and Recommendation 5](#_Toc43272094)

[REFERENCES 6](#_Toc43272095)

[APPENDICES 7](#_Toc43272096)

# LIST OF FIGURES

**FIGURE PAGE**

Figure 1.1: -------------------------------------------------------------------------- 2

Figure 1.2: --------------------------------------------------------------------------- 3

Figure 2.1: --------------------------------------------------------------------------- 7

….

# LIST OF TABLES

**TABLE PAGE**

Table 1.1: ---------------------------------------------------------------------------- 2

Table 1.2: ---------------------------------------------------------------------------- 3

Table 2.1: ---------------------------------------------------------------------------- 7

# LIST OF ABBREVIATION

(Abbreviation should in alphabetical order)

# INTRODUCTION

## Background

## Problem Statement

## Objectives

## Applications

## Project Features

## Feasibility Analysis

### Economic Feasibility

### Technical Feasibility

### Operational Feasibility

**1.6.4 Time Feasibility**

## System Requirement

### Software Requirement

### Hardware Requirement

## Overview of report (summary)

# LITERATURE REVIEW

In Literature review, include what you have studied related to ur project. Previous works done…….. Also include reference for the words you have taken from other literatures.

# METHODOLOGY

## Introduction

## Hardware and software requirement

## System analysis and design

(ER, Use-case, Activity diagram for CMP)

(Circuit Diagram for ELX)

## Project block diagram

(Block or Flow chart for CMP)

## Working principle

(Description of whole process i.e. block diagram or process)

## Implementation

## Problem encountered

# RESULT CONCLUSION AND RECOMENDATION

## Results and Analysis

## Limitations

## Conclusion

## Future scope and Recommendation

# REFERENCES

[1] M. Naor and A. Shamir, "Visual cryptography", *Eurocrypt* 1994, *Lecture Notes in Computer Science*, vol.950, pp. 1-12, Springer-Verlag, 1994

[2] Z. Zhou, G. R. Arce and G. Di Crescenzo,  "Halftone visual cryptography",  *IEEE Trans. Image Process.*,  vol. 15,  no. 8,  pp.2441-2453, 2006

[3] Z. M. Wang, G. R. Arce, and G. Di Crescenzo, “Halftone visual cryptography via direct binary search”, Proc. EUSIPCO’06, Florence, Italy, Sep. 2006

[4] T. M. Alkharobi, A. K. Alvi, “New Algorithm For Halftone Image Visual Cryptography”, *IEEE 2004*

[5] Y.-C. Hou, “Visual cryptography for color images”, *Pattern Recognition*, vol. 36, iss. 7, pp. 1619–1629, 2003

[6] M. Nakajima and Y. Yamaguchi, “Extended visual cryptography for natural images,” *Proc. WSCG Conf. 2002*, pp. 303–412, 2002

[7] Y.-C. Zeng and C.-H. Tsai "Controllable transparency image sharing scheme for grayscale and color images with unexpanded size", *Signal and Information Processing Association Annual Summit and Conference (APSIPA), 2013 Asia-Pacif*, pp. 1-4, 2013

# APPENDICES