



**BUSITEMA  
UNIVERSITY**  
*Pursuing excellence*

**FACULTY OF ENGINEERING**

**DEPARTMENT OF COMPUTER AND ELECTRICAL ENGINEERING**

**DIPLOMA OF INDUSTRIAL ELECTRONICS AND ELECTRICAL ENGINEERING**

**FINAL YEAR PROJECT REPORT**

**TOPIC: ELECTRIC DOORBELL WITH LIGHT**

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*A project report submitted to the department of computer engineering as a partial fulfillment of the requirements for the award of a diploma in industrial electronics and electrical engineering.*

## **Abstract**

To clearly understand the world information technology and communication which is the life blood of all human activities, the assimilation of communication technology is of great importance. The development of communication technology in the country makes communication technology easy and pleasant.

And one of the basic building blocks of a communication system is the house electric doorbell with light indicating which serves as inter-call light to ensure proper communication within an office or domestic.

This project aims at building a system when a doorbell rings, the light also flashes such that noise pollution in the sitting room cannot affect the notification of the person outside by people inside the house.

An electric doorbell with light is a signaling device placed near an entry door to a building. When a visitor presses a button the bell with indicating light rings inside the building. In most wired systems, a button on the outside next to the door, located around the height of the doorknob, activates a signaling device (usually bell,) inside the building. This alerts both the deaf and the normal person inside the building. Pressing the electronic bell button, a single-pole, single-throw (SPST) pushbutton switch momentarily closes the doorbell circuit. The function of the indicator is to indicate when someone is pressing the button.

Modern doorbells could be classified into wired and wireless types. In most wired systems, a button, located around the height of the doorknob, activates a signaling device (usually a chime, bell, or buzzer) inside the building. Most signaling devices consist of two solenoids and two flat bars. The flat bars are tuned to two pleasing notes. The flat bars are mounted loosely above and below the solenoids. When the doorbell button is pressed, the first solenoid's plunger strikes the bottom bar. When the button is released, a spring on the plunger pushes the plunger up, causing it to strike the other bar. If the other bell is used, it will activate the other solenoid, which will strike only one bar — typically the bottom bar. More elaborate signaling devices play a short musical electronic tune.

Traditionally, knocking (hitting) the door with the hand serves as a means of signaling attention to the entrance to a building. However, with the invention of electricity, different forms of passing current through mechanical switches to sound-generating devices have replaced the ancient method.

## **ACKNOWLEDGEMENT.**

We acknowledge with great pleasure the department of computer and electrical engineering for the continued support towards the development of this project proposal.

Great thanks to our supervisor Mr.BUTIME ERIC for his guidance, class mates and friends for their practical help and prayers during the work. May the almighty God bless you all in your endeavors.

**DECLARATION**

I OWORI JJIMMY and my partner ODONGO IVAN JOE declare that this project proposal is a work of our research and findings; it has never been submitted to any university for examination to the best of my knowledge.

NAME: OWORI JJIMMY

Signature .....

NAME: ODONGO IVAN JOE

Signature .....

## **DEDICATION**

We dedicate this proposal report to our families, relatives and friends most especially our parents.

**APPROVAL**

This final year project proposal is being submitted for examination with the approval of our supervisor.

SUPERVISOR: Mr. BUTIME ERIC KATABARWA

Signature .....

Date .....

**Table of Contents**

ABSTRACT.....I

ACKNOWLEDGEMENT.....II

DECLARATION.....III

DEDICATION.....IV

APPROVAL.....V

1 CHAPTER ONE INTRODUCTION ..... 7

1.1 BACKGROUND.....9

1.2 problem statement..... 9

1.3 OBJECTIVE OF THE STUDY..... 10

1.31 Main objective ..... 10

1.32 Specific objectives ..... 10

1.4 PURPOSE OF THE STUDY ..... 10

1.5 JUSTIFICATION ..... 10

1.6 SCOPE OF THE STUDY..... 10

1.61 Geographical scope..... 10

1.62 Time scope ..... 10

The project is expected to take a period of five months. .... 10

2 CHAPTER TWO LITERATUR REVIEW ..... 11

2.1 Introduction..... 11

2.2 background of electric doorbell with light..... 11

2.3 working principle of electric doorbell with light ..... 11

2.4 working process of electric doorbell with light ..... 12

2.5 The electric doorbell switch..... 13

2.6 Comparison of Existing projects and our project. .... 13

2.61 Automatic Doorbell with Object Detection ByArduino.....14

2.6.2 Breadboard Circuit Diagram of Automatic Doorbell with object detection by arduino....14

2.7 DESIGN AND CONSTRUCTION OF AN AUTOMATIC TRIGGERED BELL RINGER CIRCUIT.....14

2.8 automatic door bell system using motionsensors.....14

2.92 limitations of existing automatic doorbell projects.....15

3.1 Introductions ..... 27

3.2 Requirement elicitation..... 27

3.21 Literature review ..... 27

3.22 Observations and interviews ..... 27

3.3 System design ..... 27

3.4 Components and requirements..... 27

3.5 Timeline ..... 28

3.6 PROPOSED WORK PLAN ..... 29

CHAPTER FOUR RESULTS AND DISCUSSIONS.....29

CHAPTER FIVE CONCLUSIONS AND RECOMMENDATIONS.....29

5.1CONCLUSIONS.....30

5.2 RECOMMENDATIONS.....31

CAPTER SIX REFERENCES.....33