



**BUSITEMA  
UNIVERSITY**  
*Pursuing excellence*

FACULTY OF ENGINEERING

DEPARTMENT OF COMPUTER ENGINEERING

FINAL FACULTY OF ENGINEERING

DEPARTMENT OF COMPUTER ENGINEERING YEAR PROJECT  
REPORT FOR: DIPLOMA FACULTY OF ENGINEERING IN  
ELECTRONICS AND ELECTRICAL ENGINEERING

PROJECT TITLE: PLANT MOISTURE MONITORING SYSTEM

BY

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SUBMITTED AS A PARTIAL FULFILLMENT FOR THE AWARD OF  
A DIPLOMA IN ELECTRONIC AND ELECTRONICS ENGINEERING  
AT BUSITEMA UNIVERSITY

## ABSTRACT

This report contains a brief information on the project that we researched about and got the necessary information to enable us come up with its working circuit.

### Chapter one

contains the historical background of the institute(university) from which our project was done from and also the vision, mission and the administrative structure of the institute/university

### Chapter two

contains the circuit operations, rating of the materials used, materials & tools used, problem statement & solutions, aims & final bill of quantities for the final project, safety precautions.

### Chapter three

contains the objectives, skills obtained, challenges & recommendations plus the conclusions, references and appendices

## ACKNOWLEDGEMENT

Special appreciation is expressed to the almighty god for having given us life, knowledge, strength, and determination for coming up with such a great idea of the project and putting it into use by implementing its circuit and guiding us through this final report

Secondly, we thank our parents for supporting us through our academic careers, our siblings, brothers and relatives for always encouraging us and finally the lecturers who provided us with the relative practical engineering skills and knowledge and at the end of it all present this report

Finally, I thank the almighty God for providing and guiding us throughout the semesters. To my classmates, I thank you for the sincere support and love you gave us. We really appreciate your efforts.


We hereby dedicate our report to the almighty GOD who provided us with the sound mind, health life and necessary help throughout the course

**APPROVAL**

This is to certify that this project of automatic control of lighting using sensors/timers has been carried out under our supervision. Its now ready for submission to the head of department BCT (Busitema University).

BUSITEMA UNIVERSITY PROJECT SUPERVISOR MR.

NAME: ERIC KATABARWA BUTIME



SIGNATURE:

DATE: 31/07/2023.

BUSITEMA UNIVERSITY HEAD OF DEPARTMENT BCT MR.

NAME:

.....  
.....

SIGNATURE: .....DATE:

.....

**DECLARATION**

I KABUTO JOSEPH do declare that this project report was written regarding to the knowledge obtained from my field and is referred for academic's purposes it`s an original report that has never been submitted to any institution of learning

KABUTO JOSEPH

Signature: .....

Date: .....

## ACRONYMS

|     |                           |
|-----|---------------------------|
| MCB | Miniature circuit breaker |
| LED | light emitting diode      |
| KW  | kilo watts                |
| PCB | Printed Circuit Board     |
| IC  | Integrated Circuit        |
| R   | Resistor                  |
| C   | Capacitor                 |

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## Chapter one

### 1.1 Introduction

#### 1.1.0 HISTORICAL BACKGROUND OF BUSITEMA UNIVERSITY

Busitema University is a public University established by statutory instrument No.22, 2007 enacted by parliament on 10th May 2007. The university is a multi-campus model with six campuses namely: Busitema, Nagongera, Mbale, Namasagali, Pallisa and Arapai

The Main campus is located at Busitema, formerly the National college of Agricultural Mechanization which is along Jinja-Tororo high way, 25km south west of Tororo or 183km East of Kampala

Nagongera campus is located along Tororo-Busolwe access road and about 15km west of Tororo.

Namasagali campus is based in Kamuli District at the former Namasagali University.

Arapai Campus is based at the present Arapai National Agriculture College Soroti on Moroto road.

Pallisa Campus is based in Pallisa Town council.

Mbale campus is based at school of hygiene, Mbale and school of clinical officers, Mbale Kampala.