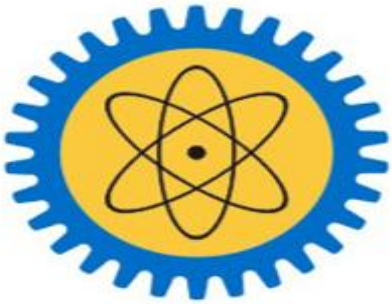

BUSITEMA UNIVERSITY

Pursuing Excellence

FACULTY OF ENGINEERING

DEPARTMENT OF COMPUTER ENGINEERING

FINAL YEAR PROJECT REPORT

TOPIC: GAS LEAKAGE DETECTION, WARNING AND STOPPAGE SYSTEM

by

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A final Year Project Report Submitted to the Department of Computer Engineering in Partial Fulfillment for the Award of Bachelor of Computer Engineering Degree of Busitema University

2019/2020

DECLARATION

I **EJOKU BENARD**, hereby declare that this project is completely based on my research work except for citations and quotations which have been specifically acknowledged. It has not been submitted to any other examining body or academic institution for any academic award.

Signature ..... Date .....

Bachelor of Computer Engineering,
Department of Computer Engineering
Busitema University.

APPROVAL

This is to certify that the developed project titled “Gas leakage detection, warning and stoppage system” has been done under my supervision and is now ready for examination.

Signature.……...

Date.……...

Dr. Ocen Gilbert Gilibrays

Department of Computer Engineering
Faculty of Engineering
Busitema University.

DEDICATION

I dedicate my sincere gratitude to my parents Mrs. AKUKO SHEBAH and Mr. ETIEKU EMMANUEL for their inexhaustible love, support, and courage in the preparation of this report. I am extremely grateful for numerous suggestions and complimentary opinions received on this report.

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I would like to thank the almighty God for letting me through my studies and make this report a reality.

LIST OF ACRONYMS

GSM	Global System for Mobile Communications
SMS	short message service
LED	Light Emitting Diode
A.C	Alternating Current
IC	Integrated Circuit
LCD	Liquid crystal display

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ABSTRACT

Butane gas is highly inflammable and can burn even at some distance from the source of leakage. One of the preventive methods to stop accident associated with the gas leakage is to install a gas leakage detection kit at a gas supply unit and where gas is being used. The aim of this project is to present a design that automatically detects, warns and stops the gas supply in the gas supply unit. In particular a gas sensor has been used which has high sensitivity for butane (C_4H_{10}). Gas leakage detection, warning and stoppage system consists of GSM (Global System for mobile communications) module, which warns by sending SMS to the authorized user. This project therefore developed hardware and software sub components for the gas leakage detection, warning and stoppage system.

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