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FACULTY OF ENGINERING

BUSITEMA UNIVERSITY

FACULTY OF ENGINEERING

DEPARTMENT OF COMPUTER ENGINEERING

FINAL YEAR PROJECT REPORT

Topic: AN ALCOHOL-BASED HAND SANITIZER DETECTION SYSTEM BY

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BU/UP/2019/1383

AND

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BU/UP/2019/2657

Supervisor: MR. MUGWANYA PATRICK

*submitted to Busitema university faculty of engineering department of computer engineering in partial fulfillment of the requirement of the award of diploma in industrial electronics and electrical engineering***.**

DECLARATION

We **CHEBET EDDY AND OKEJU CHARLES**, hereby declare that this report, written in partial fulfillment of the requirement of the award of a Diploma in industrial electronics and electrical engineering at Busitema University, is our very own authentic work and the content of this document has never been submitted before to the Department of Computer Engineering of Busitema University and any another institution of higher education.

Signature...……

Date……

CHEBET EDDY

Signature...……

Date……

OKEJU CHARLES

APPROVAL

The proposal was done under the guidance of the instructors and supervision of our supervisor from the Department of Computer Engineering and therefore we forward it to department with the approval of the supervisor: **Mr. Mugwanya Patrick**

Signature…….

Date……

DEDICATION

We dedicate all our efforts and struggles of educational life to our **project supervisor Mr. Mugwanya Patrick** and everyone that has always supported us in different ways to make sure that we are what we are today.

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 MUGWANYA PATRICK** for his guidance, class mates and friends for their practical help and prayers during the synthesis of the work. May the Almighty God bless you in all your endeavors.

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ABSTRACT

The main objective of the project was to design and develop an alcohol-based hand sanitizer detection system. There is no system which can detect whether someone has sanitized or not. However, much sanitizing is a must to curb the spread of the disease, in some instance, people do not get sanitized especially during entry to a building. Therefore, it is necessary to design a system that can detect if someone has sanitized before entering a building. The implementation process was successful and the project worked. This project will help in various places, more so in buildings, used to check whether someone has sanitized or not.

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1.Chapter one

1.0 Introduction.

The world is currently faced with a pandemic of Coronavirus Disease (COVID-19), a new virus that spreads so fast through droplet infection especially in crowded places and causes illness. It is spread from person to person through sneezing or coughing (droplet infection), human to human contact and contact with contaminated surfaces.

1.1. Signs and symptoms of COVID-19 include:

Fever

Running Nose (flu)

Cough

General Weakness

Difficulty in breathing if the patient develops pneumonia

At this time, there are no specific vaccines or treatments for COVID-19. However, there are many ongoing clinical trials evaluating potential treatments.

The world health organization (WHO) recommend the following prevention measures

Clean your hands often. Use soap and water, or an alcohol-based hand rub/ sanitizer.

Maintain a safe distance from anyone who is coughing or sneezing.

Wear a mask when physical distancing is not possible.

Don't touch your eyes, nose or mouth.

Cover your nose and mouth with your bent elbow or a tissue when you cough or sneeze.

Stay home if you feel unwell.

If you have a fever, cough and difficulty breathing, seek medical attention.

As per the WHO prevention measures, an alcohol-based hand rub is mandatory to curb the spread of corona virus.

Therefore, the aim of this project is to design an alcohol-based hand sanitizer detection system.