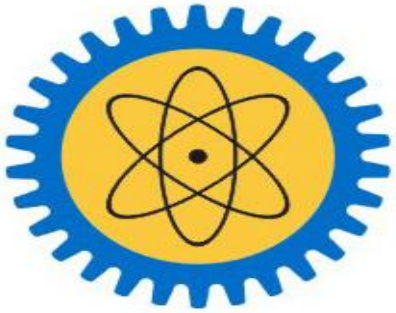

BUSITEMA UNIVERSITY

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FACULTY OF ENGINEERING

DEPARTMENT OF COMPUTER ENGINEERING

A CHILD SPEECH DEVELOPMENT AND WALKING AID SYSTEM.

A FINAL YEAR PROJECT REPORT

By;

NAGASHA ELIZABETH

BU/UG/2016/1721

SUPERVISOR: DR. OCEN GILBERT

A project proposal report submitted to the Department of Computer Engineering in partial fulfilment of the requirement of the award of a Bachelor's Degree in Computer Engineering of Busitema University.

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ABSTRACT.

A Child Speech Development and Aid System was designed, developed and tested to reduce in children developmental delays that is; improve walking and speech development even in the absence of care takers. The system is implemented on an Arduino board with an ultrasonic sensor to detect obstacles. This is mounted on top of a movable system which has a soft seat with two leg holes where the baby stands for him to be able to move. The system also has a speaker that outputs baby sounds initially stored on a ScanDisk card which help the baby in speech development.

The entire system is able to move by the help of Direct Current motors which are connected to the wheels. The system can be started or stopped by the help of the mobile application which is connected to the system via a Bluetooth connection. The application also notifies the care taker incase the system gets faulty.

DECLARATION

I **ELIZABETH NAGASHA** Reg.No **BU/UG/2016/1721** hereby declare that this project report is my original work except where explicit citation has been made and it has not been presented to any Institution of higher learning for any academic award.

Signature .....

Date .....

APPROVAL

This is to certify that the project titled “A Child Speech Development And Walking System” has been done under my supervision and is now ready for examination.

Name: Dr. OCEN GILBERT

Signature .....

Date: .....

ACKNOWLEDGEMENT

I thank the Almighty God for the gift of life, knowledge, wisdom, understanding and guidance for without Him, I would not have been able to accomplish this project. Am greatly thankful to my supervisor Mr. Ocen Gilbert for helping me through the project preparation.

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And to my amazing parents, l will forever be in your debt for the opportunity you have given me to attain this education.

l lastly thank my fellow students who offered me help throughout the preparation of this project report.

LIST OF ABBREVIATIONS

DC Direct Current

ID identification

PCB Printed Circuit Board

SD ScanDisk

SPI Serial Peripheral Interface

TF TransFlash

LIST OF FIGURES.

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