



**BUSITEMA  
UNIVERSITY**  
*Pursuing Excellence*

**FACULTY OF ENGINEERING**

**DEPARTMENT OF COMPUTER ENGINEERING**

**DIPLOMA IN COMPUTER ENGINEERING**

**ANDROID MOBILE APPLICATION FOR HIV/AIDS SERVICE CENTER  
AWARENESS**

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**A PROJECT REPORT SUBMITTED TO THE DEPARTMENT OF COMPUTER  
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**APPROVAL**

This is to certify that the project report under the title “Android Mobile Application for HIV/AIDS service center awareness” was being done under supervision of:

**Mr. PINYI OTHIENO ERIA**

**SIGNATURE:** ..... 

**DATE:** ..... 01/06/2017 .....

## **DEDICATION**

We humbly dedicate this case study to the enhancement of computer engineering students and Busitema university staff for providing us a conducive study environment. The student's aim to develop a study that is worthy of credit as a diploma reference in the continuing implementation of computer engineering hence the contents of this study should be able to provide data for future researches and studies in the area covered.

We humbly dedicate this report to the following; our parents, our grandparents and our **family members** at large and **relatives** for their un tireless support rendered to us during our study God bless them all.

We finally dedicate this report to our families whose untiring support and assistance have been made possible the fruition of our efforts. To our friends and classmates for the co-operation while conducting study and most of all to the great creator our Almighty God the author of knowledge and wisdom.

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**BE BLESSED ALL**

## **LIST OF ACRONYMS/ABBREVIATIONS**

CPR	Cardio Pulmonary Resuscitation
HIV	human immune-deficiency virus
AIDS	Acquired immune deficiency syndrome
PLHIV	people living with HIV
ANC	Antenatal care
VHT	Village Health Team
HC	Health Centre
API	Application Program Interface
GPS	Global Positioning System
UI	User Interface
iOS	iPhone Operating System
XML	eXtensible Markup Language
W3C	World Wide Web Consortium
WYSIWYG	What You See Is What You Get
PSD	Photoshop Document
SDK	Software Development Kit
SD	Secure Digital Card
AVD	Android Virtual Device
S/W	Software

## **ABSTRACT**

HIV/AIDS can happen to anyone without any prior notice or forewarning. And in some situations they may result in death if they are not handled properly by the victim through continuous testing in the health centers.

This project was therefore aimed at developing an android mobile application that would avail people with knowledge about how to know the nearest health center at any located district and also how to handle situations of emergency and how to prepare beforehand for any situations that may occur.

The project is designed to be installed on any mobile phone or application running on android operating system with an interface that can be easily grasped by any one. The work is arranged mainly in six chapters, Chapter one includes the introduction to the app. This constitutes of the brief background of the study and the over view of the technical areas to cover. Chapter two discusses the literature related to the system, Chapter three illustrates the methodologies used in coming up with the working prototype of the system. Chapter four constitutes of the system design and analysis, chapter five discusses about the implementation and testing of the system and lastly chapter six contains the summary of the work, discussions and recommendations

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## CHAPTER 1

### INTRODUCTION

#### 1.0 BACKGROUND.

HIV stands for human immunodeficiency virus. This is a virus in the group of viruses called retroviruses. HIV destroys cells in the body called CD4 T cells. CD4 T cells are a type of white blood cell (lymphocyte). These are important cells that protect the body against various bacteria, viruses and other germs. HIV actually multiplies within CD4 cells. HIV cannot be destroyed by white blood cells, as it keeps on changing its outer coat, by so protecting it.

AIDS stands for acquired immunodeficiency syndrome. This is a term which covers the range of infections and illnesses which can result from a weakened immune system caused by HIV.

It is important to remember that when you are first infected with HIV you do not have AIDS. There is usually a time lag of several years between first being infected with HIV and subsequently developing infections and other AIDS-related problems. This is because it usually takes several years for the number of CD4 T cells to reduce to a level where your immune system is weakened. There is no guarantee that you will develop AIDS-related problems, even if you become infected with HIV. A CD4 count ranges from 500–1,600 cells/mm<sup>3</sup> in healthy adults/adolescents. Research according to John Hopkins infectious disease experts discovered that the amount of potentially active, dormant forms of HIV hidden in infected immune T cells may actually be 60-fold greater than previously thought. If antiretroviral therapy is interrupted, some poxviruses can reactivate, allowing HIV to make copies of itself and resume infection of other immune cells.

This shows that patients on this medication have to keep on the treatment without interruption and this can be ensured through guidance as one is on this medication and also access the services provided by the doctors with ease.

Early treatment can reduce the chance of this happening even further. HIV is now a treatable medical condition and most treated people remain fit and well.

The HIV/AIDS epidemic presents a disastrous and real threat to our nation, and indeed the entire human race. HIV infection has since spread throughout the country and thousands of thousand people have lost their lives or loved ones.

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