BUSITEMA UNIVERSITY

FACULTY OF ENGINEERING

DEPARTMENT OF COMPUTER ENGINEERING

FINAL YEAR PROJECT REPORT

TITLE: AUTOMATIC DRIVER LICENSE VERIFICATION AND ROAD ACCESS SYSTEM

BY:

TUMURAMYE DOREEN

BU/UG/2014/150

Email: tumuramye.doreen@gmail.com

TEL.: +256-781-141547

FACULTY SUPERVISOR: Mr. BWIRE FELIX

Project proposal submitted to the department of computer engineering in partial fulfillment of the requirements for the award of the degree of BSc. Computer Engineering of Busitema University

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DECLARATION

I hereby declare that this project report is based on my original research work except for work where citations and quotations have been duly acknowledged. It has not been presented with any of its contents at any institute of higher learning for an academic reward.

……

TUMURAMYE DOREEN

BU/UG/2014/150

APPROVAL

This is to certify that the project report under title "**An automatic driver license verification and road access system**" has been done under my supervision and is now ready for examination.

……..

Mr. BWIRE FELIX

Date: ……

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ABSTRACT

Documents of many types are susceptible to tampering, alteration and counterfeiting, hence those of great importance require verification. Among these are national identity cards, voter's cards, ATM cards, driver license among others. The focus in this study is the driver's license which is defined as an official document permitting a specific individual to operate one or more types of motorized vehicles, such as a motorcycle, car, truck, or bus on public roads. There are various verification methods for documents but most of these do not verify driver licenses.

Currently, Uganda Police has to deploy traffic officers on roads, who put check points where the police officer stops the moving vehicle using his/her hand, requests for the driver's license which he/she manually looks at checking for the expiry date, holder's name which he/she confirms by asking the driver and finally at times compares the face. This method is tedious, inaccurate (susceptible to errors), requires more traffic officers to be deployed to do the work and is corruptible.

Despite the various improvements in this method like heavy traffic police deployment, the challenges still prevail, therefore, the implementation of an automatic driver's license verification and access system will be handy in dealing with the challenges at hand.

The main objective of this project is to design and develop a system that will perform automatic verification of driver's license and allow access to roads that will be used by Uganda police since the current method being used in verification has challenges which this developed project can deal with.

LIST OF ACRONYMS

EPC	Electronic Product Code
ID	Identification
IT	Information and Technology
LAN	Local Area Network
PCB	Printed Circuit Board
RF	Radio Frequency
SD	Secure Digital
RFID	Radio Frequency Identification
Wi-Fi	Wireless Fidelity
IC	Integrated Circuit
URA	Uganda Revenue Authority

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CHAPTER ONE:
INTRODUCTION

1.0 INTRODUCTION

This chapter gives us a brief background of the project being proposed, the objectives of the study, gives the significance of the study and finally defines the boundaries of the project under proposal.

1.1 BACKGROUND

Documents of many types are susceptible to tampering, alteration and counterfeiting[1], hence those of great importance require verification. Among these are national identity cards, voter's cards, ATM cards, driver license among others. The focus in this study is the driver's license which is defined as an official document permitting a specific individual to operate one or more types of motorized vehicles, such as a motorcycle, car, truck, or bus on public roads [4]. There are various verification methods for documents but most of these do not verify driver licenses.

Driver licenses are issued by authorized bodies in the different countries and in Uganda the body authorized to issue driving permits is Face Technologies in conjunction with Uganda Revenue Authority (URA). These licenses contain information about the holder's details including the name and photograph/finger print of the bearer, the dates of issue, the permit class, the expiry date, the bearer's birth date and a barcode number. While driving on road, every driver is expected to have a valid driver's license since in Uganda, it is among the traffic rules that, it is illegal to drive any motor vehicle without a valid driver's license[2].

It has also been noted that accidents on the road are most times caused by unlicensed drivers who drive on the road especially high ways [3], hence need for a verification system to verify the validity of the permit. Currently, Traffic police under Uganda Police uses a manual method of putting road blocks where traffic officers stand and stop drivers by waving their hands. When stopped the officer requests for the license card from the driver which he/she checks for the requirements (the expiry date, holder's name which he/she confirms by asking the driver and finally at times compares the face) of a valid driver license for verification [4]. If it meets the requirements, then the driver is allowed to continue driving on the road otherwise he/she is

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