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FACULTY OF ENGINEERING
DEPARTMENT OF COMPUTER
ENGINEERING**

**DRIVING PERMIT VERIFICATION
SYSTEM**

BY

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JUNE 2016

DECLARATION

I, KUGONZA KATO Reg. No BU/UG/2012/68 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.

Sign.....

Date:

APPROVAL

I certify that the project report entitled “DRIVING PERMIT VERIFICATION SYSTEM” has been drafted under my supervision and is submitted to the board of examiners with my approval.

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Sign:.....

Date:.....

DEDICATION

To my beloved parents, Mr. Kato Erisama and Mrs. Kato Florence. They have always been there for me even when the going seems toughest, I love you all and may the almighty God reward you with unfathomable blessings, Glory be to God Almighty.

ACKNOWLEDGEMENT

My Supervisor, Mr. Matovu Davis who has continuously guided me throughout this project. He has been a parent to me and provided where necessary, may God bless you sir. Not forgetting my father Mr. Kato Erisama, mother Mrs. Kato Florence, My sisters Ms. Kwikiriza Kato Esther, Ms. Kwesiga Kato Edith Ms. Mbabazi Jackline who have provided financially, materially, spiritually until the completion of this project may God bless you. My son Tugume Faithful and daughter, Nassali Destiny Martha who missed my love and care as I was doing this project. I will not forget Busitema University Anglican church community, it has stood with me in prayer and in material provision and it has encouraged me, I am so happy for you people May God bless you. Most important of all, the almighty God, he has worked both indirectly and directly to see to it that I am successful, I will serve you forever.

LIST OF ACRONYMS

URA	Uganda Revenue Authority
TIN	Tax Identification Numbers
UCC	Uganda Communications Commission
PoPI	Protection of Personal Information Act
SQL	Structured Query Language
DFD	Data Flow Diagram
LCD	Liquid crystal Display
CSS	Cascading Style Sheet
Mysql	My standard query Language
IDE	integrated development environment
RDBMS	Random Database management system
.NET	dot net

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ABSTRACT

In Uganda a driving license is a legal document that permits one to drive a motor vehicle on the Road. The 1998 Uganda Traffic and Road Safety Act provides that you require a driving permit to drive any kind of motor vehicle on the road.

Bad driver behaviors can be reduced by ensuring compliance to road safety regulation through proper enforcement of the traffic laws since they are mainly from unlicensed drivers and most of whom have forged driving permits.

To prevent all this, a system which prevents drivers without permits or with fake permits from driving motor vehicles has been developed.

The main objective of this project was to design a driving permit verification system for motor vehicles which checks if a driver is legible to drive a motor vehicle. The system is able to register a driver, his permit and his finger print. Thereafter the system is able to verify if one who wants to drive a car is registered or not and if he is registered, he is able to drive the car and if he is not registered, he is not able to drive a car. And even if he is registered but he is not using his driving permit, he is no able to start the car.

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CHAPTER ONE

1.0 Introduction

1.1. Background of the study

In Uganda a driving license is a legal document that permits one to drive a motor vehicle on the Road [1] . The 1998 Uganda Traffic and Road Safety Act provides that one requires a driving permit to drive any kind of motor vehicle on the road [2].

Very many people violate this which has led to numerous accidents and imprisonment. This has also accounted for about 80 per cent to 95 per cent of the road traffic crashes which have been caused by; reckless driving, over speeding, inconsiderate use of the road and incompetent drivers [3]. In case law [4] Isingoma Asafu, was convicted of two counts. Count 1 was reckless driving contrary to Sections 118 (1) (c) and 65(1) (a) of the Traffic and Road Safety Act 1970. Count 2 was causing bodily harm by reckless driving contrary to Sections 116 (1) and 138(2) (a) of the Traffic Road and Safety Act 1970. The trial Court sentenced the appellant to six months imprisonment; cancellation of the appellants driving permit for three years and disqualification from obtaining any other driving permit for three years on the first count meaning that a person with a driving permit is expected to drive according to the road safety regulations.

Bad driver behaviors can be reduced by ensuring compliance to road safety regulation through proper enforcement of the traffic laws since they are mainly from unlicensed drivers and most of whom have forged driving permits [5].

The road sector is ultimately the most important mode of transportation in Uganda as it carries

97% of freight cargos and 99% of the passenger traffics. As the population rapidly grows, the number of vehicles on the roads has been simultaneously increasing. Between 2000 and 2010, the number of vehicles in Uganda increased from 300,000 to 800,000, along with the number of deaths due to traffic accidents. The number of

road accidents has greatly increased from 19,867 accidents in 2007 to 22,272 accidents in 2011, while the deaths from such incidents rose from 2,597 in 2007 to 3,343 in 2011. Today, Uganda has the second highest rate of road accidents in Africa and the world after Ethiopia. According to the World Health Organization's Global Status Report on Road Safety 2013, Uganda is named among countries with alarmingly high road accident rates. If such trend of traffic accidents continues to increase, the health losses from traffic injuries may be ranked as the second to HIV/AIDS by 2020 majority of the accidents occur in the Kampala Metropolitan area due to the rapid increase in traffic, presence of motor vehicles, population, and especially the use of commercial taxis and motorcycle for business by inexperienced people who even have not been trained and do not have a valid driving permit [6].

According to police information obtained from [7], it has been observed that most of the drivers in the eastern region have been pointed out to be owners of fake driving permits which has increased human error as reckless driving, speeding, vehicles in poor mechanical conditions and drivers without proper driving skills, majority of whom have fake computerized driving permits and therefore they flood traffic and cause accidents," Ms. Nandawula said. Records at the traffic section of Mbale Police indicate that despite government stopping renewal of non-computerized driving permits in August 2009, there are fake drivers who have forged stamps and renewed old permits on their own. Ms. Nandawula said whereas the maximum renewal period for driving permits is three years, crooks have renewed theirs to a period of 10 years outside the law. Mr. Otika said police in Mbale have so far arrested 12 people in connection with forging computerized driving permits and that 10 cases are being handled by Mbale Police, while other cases are being handled at the headquarters in Kampala.

To prevent all this, a system which prevents drivers without valid driving permits or with fake permits from driving motor vehicles has been developed.

1.2 Problem statement

According to the report from the police from Mbale published by daily monitor [7], it has been observed that most of the drivers in the eastern region have been pointed out to be owners of fake driving permits. This has thereafter led to the increase human errors such as reckless driving, over speeding, which have led to accidents in the region. Thus the need to ensure compliance to road safety regulation through proper enforcement of the traffic laws especially on driving licensing system is paramount. Therefore, a new system that does not allow a driver with no driving permit to drive the motor vehicle has been developed.

1.3 Objectives

1.3.1 Main Objective

To design and implement a driving permit verification system for motor vehicle which verifies if one is a legible driver for any motor vehicle.

1.3.2 Specific Objective

- i. To review literature on how drivers with no permit are got and analyze the requirements needed to develop the system.
- ii. To design registration, and driving, modules that are needed to register and verify driving permit information and integrate them.
- iii. To implement the system.
- iv. To test and validate the motor vehicle driving control system.

1.4 Justification

Due to the increase in the number of people who do use fake driving permits, and have increased reckless drivers thus accidents that happen on roads due to inexperienced drivers who intern put the lives of those you are driving, yourself and the surrounding community around you at danger, and also the ways by which traffic policemen to always capture those without driving permits has not been so much efficient because of corruption, and in availability of traffic policemen on every road

and at every part of the road, a system that does not allow a driver with no driving permit to drive the motor vehicle was developed.

1.5 Scope

1.5.1 Technical Scope

The system is network based, it is only able to detect if the driving permit is present and valid, and it does not notify police if the driving permit was invalid.

1.5.2 Geographical scope

The system is to be used in Uganda by all road users who drive motor vehicles.

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