FACULTY OF ENGINEERING

DEPARTMENT OF COMPUTER ENGINEERING

WIFI BASED DIGITAL NOTICE BOARD

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BU/UP/2013/195

DECLARATION

I Madunda Wycliff with Reg No BU/UP/2013/195 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

This is to certify that the project report under the title **Wifi Based Digital Notice Board** has been done under my supervision and is now ready for examination.

Mr. Alunyu Andrew Egwar

Department of Computer Engineering

Sign: …….

Date: …….

ACKNOWLEDGEMENT

This project acknowledges to first; our supervisors who have helped me with all needed knowledge and information to accomplish my project goal. I also acknowledge my family for their contribution in all areas. Thanks for your support materially, financially, emotionally and also physically. May the Lord count a mega blessing on your behalf? I also gladly acknowledge the continual effort and support of my friends who contributed greatly for the success of this project being it in terms of advice, financial and technique support throughout the hard period. I never take any support and effort for granted. Thank you very much.

LIST OF ACRONYMS

AC – Alternating Current

COBE – Census of Business Establishments

CT – Current Transducers

DC – Direct Current

ERD- Entity relationship diagram

FK-Foreign key

PK-Primary key

UK-Unique key

ISIC – International Standard Industrial Classification

LCD – Liquid Crystal Display

Wi-Fi- Wireless Fidelity

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ABSTRACT

The main objective of this project was to design and implement a Wi-Fi based digital notice board that displays notices sent to it via Wi-Fi on an LCD. For demonstration purposes, a microcontroller is interfaced with keypad which is used for inputting the network SSID and password, LCD which displays the progress of the system. The microcontroller has been programmed using Arduino, the desktop application in C# using Microsoft visual studio and database programmed in MySQL.

CHAPTER ONE: INTRODUCTION

1.0 Background of Study

Uganda is a country of over 34.6 million people with a literacy rate of over 72.2% of the population above 10years of age [1].According to the Uganda Education Statistical Abstract of 2011 there are over 16,684 primary schools, 273 non-formal training centers, over 4,666 secondary schools and over 164 institutions of higher learning country wide[2]. Of these education levels over 80% of them use the rudimentary soft boards to pin and pass information to the pupils, students and the public[3].

These institutions and organizations use notice boards to convey messages and information. The traditional soft board method of pinning notices is the most common way of passing information in these institutions but it is not the most efficient because it comes with its short comings as highlighted below;

Almost all the institutions face the challenge of stubborn individuals tearing off the pinned notices, littering of the papers to which the notices are printed or written, the people who would like to pin and unpin the notices also find it hectic to go and pin then unpin Furthermore, a lot of paper is used and which is later wasted by the institutions[4]. This in turn leads to a lot of deforestation thus leading to global warming[5].

With all these considered, more effective methods to pass on information have been designed, for example, GSM Based LED Scrolling System, Large screen wireless Notice Display System, Android Phone Speech Recognition Sensed Notice Board Display, Physical Notice Board with Digital Logic and Display, Wireless E-Notice Board Using Wi-Fi and Bluetooth Technology. A careful study of each of these exposes their shortfalls and this led to the proposal of Wifi based digital notice board.

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