**CERTIFICATION PAGE**

This is to certify that this project titled “A Smart Home Automation Project Based On The Internet Of Things” by ASOMBA EMMANUEL CHINONSO with registration number 2012364126 was duly carried out under the supervision of Engr. Dr. Adrian Udenze and Engr. Herbert Ejiofor (Technologist) and submitted to the department of Electronics and Computer Engineering, Nnamdi Azikiwe University, Awka, in partial fulfillment of the award of Bachelor in Engineering (B.ENG)

Sign…………………………………… Date………………………… Asomba Emmanuel Chinonso (2012364126)

**APPROVAL Page**

This is to certify that this project was written by ASOMBA EMMANUEL CHINONSO with registration number 2012364126 have been supervised and approved as meeting the requirements for the award of Bachelor in Engineering (B.ENG) in Electronics and Computer Engineering, Nnamdi Azikiwe University, Awka, Nigeria.

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Sign………………………………… Date…………………………. Engr. Prof. C.C. Okezie (Head of Department)

Sign………………………………… Date…………………………… (External Examiner)

**DEDICATION**

To the Almighty God, the Fountain of Knowledge, the source of my inspiration, He who saw me through during every stage of this work, and feed me with Grace constantly to the end, God is Good!

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I will I ever forget the inexhaustible mercies of the living God, who stood by me throughout this project, with His voice saying “you can” even when I doubted myself if I could do this, especially when I had issues with my Ethernet board, almost up a few weeks to my project defence

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**ABSTRACT**

Home automation is the automatic or semi-automatic control and monitoring of household appliances and residential house features like doors, gate and even the windows. this project involves the design and construction of a low cost and flexible home control and monitoring smart home automation system, based on the concept or principles of Internet of Things (IOT), using a software application interface which runs on the android operating System, it also comes voice recognition and voice feedback, an embedded micro-web server, with IP connectivity for accessing and controlling devices and appliances remotely using low cost hardware such as an arduino uno board, and an Ethernet shield. It demonstrates how a multi-purpose smart system can be used to control home appliances, switch ON/OFF lightings via the network (telnet, HTTP request), an embedded micro-web server over a software interface installed on a smart phone, such that the status of all appliances connected to the system can be monitored over the software interface, it also enabled voice commands and voice feedback. the results of this project show how another major world problem i.e. power consumption can be managed, in that user can remotely control appliances in the home at ease, in a way manage electrical bills, with the aid of the these smart devices with little circuitry complexities and components, also how Artificial Intelligent system that make decisions on their own can inculcated into building Home Automation Systems, in other to create more of a user friendly environment and improve user experience.

**TABLE OF CONTENTS**

Project Report i Certification Page ii

Approval Page iii

Dedication iv

Acknowledgement v

Abstract vi

Table of Content vii

List of Tables x

List of Figures xi

**CHAPTER ONE: Introduction** 1

1.1 Background of Study 1

1.2 Problem Statement 3 1.3 Aims and Objectives 3 1.4 Significance of Study 4 1.5 Scope and Limitation Of Work 4 1.6 Project Outline 4

**CHAPTER TWO: Literature Review** 6

2.1 Brief History of Internet of Things 6

2.2 History of Smart Home Automation 8

2.3 Home Automation System 9 2.3.1 Power Line Automation System 10 2.3.2 Wired Home Automation 11 2.3.3 Wireless Home Automation 11

2.4 Home Automation Standard 11

2.4.1 Universal Power Bus(UPB) 11 2.4.2 Insteon 12 2.4.3 Z-Wave 13

2.4.4 Zigbee 16 2.4.5 Wifi 18 2.4.6 Bluetooth 21

2.4.7 X10 Standard 23 2.4.8 Thread 23 2.5 Various Home Automation Implementation Platform 25

**2.5.1 Powerline Communication** 26 **2.5.2 Ethernet** 262.5.3 Bluetooth 27 2.5.4 Infrared 28 2.5.5 GSM 28 2.5.6 Micro-controller 29

2.6 Review of Related Works 30

2.6.1 Summary of Literature Review 32

**CHAPTER THREE Methodology, System Analysis and Design** 33 3.1 Prelimiliary Consideration for Intending Protocol 33 3.2 System Design 34 3.2.1 System Block Diagram 35 3.3 System Requirement 36 3.3.1 Software Requirement 36 3.3.2 Hardware Requirement 36 3.3.3 Development Tools 36

3.3.3.1 MIT App inventor 2 37

3.3.3.2 Netbean IDE 8.1 37

3.3.3.3 Arduino C Complier 38

3.4 System Design Specification 38 3.4.1 Dataflow Diagram 40 3.4.2 Component Diagram 41 3.4.3 Use-Case Diagram 42 3.4.4 Sequence Diagram 43

3.5 Basic Component Description 44 3.5.1 Arduino Uno Board 44

3.5.1.1 Technical Specification of the Arduino UNO 45

3.5.2 The ATmega328P Microcontroller 46

3.5.3 Ethernet Shield 47

**CHAPTER FOUR: Design, Implementation and Testing** 50

4.1 Flow-Chart for the System Design 51

4.1.1 Software Design 52

4.1.2 Smart phone android application (Basic Features) 52 4.2 Micro-web server 54 4.3 Hardware Design and Implementation 55

4.3.1 Programming the arduino micro-controller 56 4.4 Testing Overall System Design 57

4.5 Bill of Engineering Materials and Evaluation (BEME) 61

**CHAPTER FIVE: CONCLUSION & RECOMMENDATION** 62

5.1 Conclusion 62

5.2 Recommendation 62

REFRENCES 64

APPENDIX 1 67

APPENDIX 2 76

APPENDIX 3 79

**LIST OF TABLES**

Table 2.1 Zigbee standards and release 16

table 2.2 Summary of major 802.11 Wi-Fi Standards 19

table 2.3 Bluetooth Standard Releases & Timeline History 21

table 2.4 Thread IOT Standard Key Points 24

TABLE 2.5 Some comparison between the various Home Automation technologies 25

TABLE 4.1 Bill of Engineering Materials and Evaluation (BEME) 61

**LIST OF FIGURES**

Figure 3.1 an overview of the purposed system design 35

Figure 3.2 Data Flow Diagram 40

Figure 3.3 System Component Diagram 41

Figure 3.4 Software system use case diagram 42

Figure 3.5 System Sequence Diagram 43

Figure 3.6 System Sequence Diagram via voice recognition & feedback 43

Figure 3.7 an arduino Uno with its important part highlighted 44

Figure 3.8 Technical Specification of the Arduino Uno 45

Figure 3.9 Features of the ATmega328P 46

Figure 3.10 Ethernet Shield 48

Figure 4.0 Flow-chart for the system design 51

Figure 4.1 Sequence of communication 54

Figure 4.2 Hardware Design and implementation 55

Figure 4.3 When user opens phone application 58

Figure 4.4 when software client is unable to connect 65

Figure 4.5 controlling the various lighting point in the model home 66

Figure 4.6 monitoring home temperature, automated door access into the building via the user smartphone 66

Figure 4.7 showing the voice command devices and appliances control 67