

**DEPARTMENT OF COMPUTER SCIENCE**  
**AKWA IBOM STATE UNIVERSITY**

**LAYOUT OF FINAL YEAR PROJECT**  
*2019/2020 ACADEMIC SESSION*

**HARD COVER OF PROJECT**

**COLOUR:**Turquoise Blue, **FONT COLOUR:**Metallic Yellow,**NO. OF COPIES:**Four

## FOREWORD

Always have it at the back of your mind that COMPUTER SCIENCE is the study of how devices accept data as INPUT, takes such data through some pre-defined PROCESSING, and delivers OUTPUT of the processed data as meaningful information. So endeavour to identify a problem in the society or, preferably, your community for which you can attempt to use your knowledge and skills in computing to propose a solution that meets any of the following requirements:

- Matches what is available in extant literature but is:
  - Different in approach
  - Different in type of tools used
  - Different in the kind of programming languages
- Surpasses what is available in extant literature in any of the following ways:
  - Accepts a different kind of input
  - Accepts more inputs
  - Accepts higher quality inputs
  - Processes data more thoroughly
  - Processes data faster
  - Processes data more efficiently
  - Outputs more information
  - Outputs higher quality information
  - Outputs information more efficiently, etc.
- Entirely novel from what is available in extant literature
  - Novel conceptualization of a problem
  - Novel approach to proposing a solution
  - Novel proposed solution

**PROJECT TOPIC**

**REASEARCH PROJECT**

**BY**

**STUDENT NAME (SURNAME FIRST)**

***MATRIC. NUMBER***

**SUBMITTED TO**

**DEPARTMENT OF COMPUTER SCOENCE**

**FACULTY OF PHYSICAL SCIENCES**

**AKWA IBOM STATE UNIVERSITY**

**IKOT AKPADEN, MKPAT ENIN LGA**

**AKWA IBOM STATE, NIGERIA.**

**MONTH, YEAR**

**PROJECT TOPIC**

**RESEARCH PROJECT**

**BY**

**STUDENT NAME (SURNAME FIRST)**

***MATRIC. NUMBER***

**SUBMITTED TO**

**DEPARTMENT OF COMPUTER SCIENCE**

**FACULTY OF PHYSICAL SCIENCES**

**AKWA IBOM STATE UNIVERSITY**

**IKOT AKPADEN MKPAT ENIN LGA**

**AKWA IBOM STATE, NIGERIA.**

Impartial fulfillment of the requirements for the award of Bachelor of Science  
(B. Sc.) degree in Computer Science

**MONTH, YEAR**

## **CERTIFICATION**

Certification is like an oath against plagiarism. It must be on a separate page and signed only by the student. It must contain the following declarations:

- “This work has not been presented elsewhere for the award of a degree ...”
- “Except as referenced, this is an original work by me”

Your certification must include space for signature and date.

## **APPROVAL PAGE**

It must contain the following:

- “This work has been approved by the Department of Computer Science, Faculty of Physical Sciences, as a document of the department by:”

You must include space for the following signatories (and in the order specified):

- Project Supervisor
- Head of Department
- External Examiner

## **DEDICATION**

The work may be dedicated to your loved one(s) or The Almighty God; but not to both. If you are dedicating to your loved one(s), mention their names or nicknames.

## **ACKNOWLEDGEMENT**

You must acknowledge all those who contributed significantly to the success of the work (and in the order specified below).

- Academic support
- Financial support

- Emotional support
- Spiritual support
- The Almighty God

## **ABSTRACT**

An abstract an overview or summary of the work you have done. The recommended length is 160 words. It must contain the following:

- Objectives of the study
- Research Methodology used
- Results (how successful)
- Tools used, e.g. programming languages, hardware components, etc.

## **TABLE OF CONTENTS**

Your Table of Contents does not need to have leader lines meant to guide the eye from an item in the list to the corresponding page number.

## **LIST OF FIGURES**

All figures (if any) in the project should be listed here alongside their corresponding page numbers. Example:

Fig. 1.1: Flowchart of FPS	8
Fig. 2.3: Architecture of FPS	28
Fig. 3.1: Sequence Diagram of FPS	35

## **LIST OF TABLES**

All tables (if any) in the project should be listed here alongside their corresponding page numbers. Example:

Table 1: Summary of Literature Review	7
Table 2: Comparison of Existing and Proposed System	18
Table 3: Database Schema of Proposed System	43

## **CHAPTER ONE**

### **BACKGROUND OF STUDY**

#### **1.0 INTRODUCTION**

Introduce what the chapter intends to discuss.

#### **1.1 BACKGROUND OF THE PROBLEM YOU HAVE IDENTIFIED**

Describe the background of the problem you have identified in the society. Your description must attempt to answer the following questions:

- What is the problem?
- Why is it a problem?
- When is it a problem?
- Who is affected by this problem?
- How does this problem impact the society socially and economically?

#### **1.2 STATEMENT OF THE PROBLEM**

Define the problem in the society you want to solve in one sentence.

#### **1.3 AIM AND OBJECTIVES**

- 1.3.1 Aim
  - State what you intend to do to solve the problem you have identified and defined.
- 1.3.2 Objective
  - Must answer the problem statement – i.e., how you want to go about solving the problem
  - Objective must include system design, system development and system implementation

#### 1.4 SIGNIFICANCE OF THE STUDY

#### 1.5 SCOPE OF THE STUDY

#### 1.6 LIMITATION OF THE STUDY

#### 1.7 DEFINITION OF TERMS

- Only terms peculiar to the work and any unconventional abbreviation/acronyms.

### **CHAPTER TWO**

#### **LITERATURE REVIEW**

Discuss how others in related research have conceptualized the identified problem and attempted to proffer a solution. Also discuss what you think is the missing gap in the ideas contained in related research which you think, if added, will help solve the identified problem better or more efficiently. Attempt to cover the following your discussion.

#### 2.0 INTRODUCTION

#### 2.1 GENERAL OVERVIEW

#### 2.2 RELATED LITERATURE

#### 2.3 SUMMARY OF RELATED LITERATURE

### **CHAPTER THREE**

#### **SYSTEM ANALYSIS AND METHODOLOGY**

State the need to change from the solution(s) proposed in your related literature to your proposed system. Attempt to cover the following in your discussion.

#### 3.0 INTRODUCTION

#### 3.1 ANALYSIS OF THE EXISTING SYSTEM



- 3.1.1 Advantages of the Existing System
- 3.1.2 Problems of the Existing System

### 3.2 ANALYSIS OF THE PROPOSED SYSTEM

- 3.1.1 Advantages of the Proposed System
- 3.1.2 Justification of the Proposed System

### 3.3 RESEARCH METHODOLOGY

- Research methodology details the scientific approach used by others to attempt to proffer a solution to problems quite similar to the one you are tackling.
- Your chosen research methodology must contain methods for arriving at solutions to each of your stated objectives
- The methods you specify should cover system design, system development and system implementation
  - You must specify the algorithm for system implementation
  - You must specify the programming language (or model) for implementing the algorithm
- 3.3.1 Justification of the Research Methodology

### 3.4 PROPOSED SYSTEM ARCHITECTURE

- 3.4.1 Justification of the Proposed System

## **CHAPTER FOUR**

### **SYSTEM DESIGN AND IMPLEMENTATION**

#### 4.0 INTRODUCTION

#### 4.1 SYSTEM DESIGN

- Must specify relevant UML diagrams (e.g., Sequence diagram)
- Must specify microcontroller design (where appropriate)

#### 4.2 SYSTEM REQUIREMENTS

#### 4.3 JUSTIFICATION OF THE PROGRAMMING LANGUAGE

#### 4.4 SYSTEM IMPLEMENTATION

#### 4.5 TESTING / EVALUATION OF SYSTEM

- Must evaluate the implementation or simulate the model with test parameters
- Where possible, develop a model of the conventional system and compare with your proposed model using some test parameters.

#### 4.6 DISCUSSION OF RESULTS

### **CHAPTER FIVE**

#### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

##### 5.0 INTRODUCTION

##### 5.1 SUMMARY

##### 5.2 REVIEW OF ACHIEVEMENTS

##### 5.3 CONCLUSION

##### 5.4 CONTRIBUTION / AREAS OF APPLICATION OF THE WORK

##### 5.5 RECOMMENDATIONS

##### 5.6 SUGGESTIONS FOR FUTURE RESEARCH

### **REFERENCES**

Give a comprehensive list all the sources of ideas you relied upon for your conceptualization of the identified problem, as well as the formulation of your proposed solution.

## **APPENDICES**

- Appendix A – Program Listing
- Appendix B – Screen Shots

## **FORMATTING OF TEXT**

Font Size	14
Font Type	Times New Roman
Font Color	Black
Line Spacing	1.5
Page Margin	Top: 1.0, Bottom: 1.0, Left: 1.5, Right: 1.0
Alignment	Justify
Headings and Sub- headings:	Bold.
Page Numbering:	Footer (Bottom Centre)
<ul style="list-style-type: none"><li>• Certification Page to List of Tables should be in Roman Numerals</li><li>• From Chapter 1 to Appendices should be in Roman Figure</li></ul>	

## **HEADINGS AND FORMAT**

Headings in text.

(i) Chapter: the main chapter and section headings should be capitalized and written centrally at the top of the first (number) page of the chapter. The main chapter should not be underlined.

(ii) Sub-headings: these should not be capitalized but shall appear as marginal headings. It should be in small letters with initial capitalized (i.e. first letter of word).

(iii) Numbering of list should be ordered using a, b, c, ... . Example:

- a) Apple
  - i. Apple juice
  - ii. Apple flavour
- b) Ball
- c) Cat

(iv) An appropriate label must appear at the bottom of each figure in the text.

(v) An appropriate heading must appear at the top of each table in the text.

## REFERENCES

References are list of all sources referred to in the main text. All the references listed must be cited in the main text. Two references styles are usually used for referencing. They are the APA (American Psychological Association) and MLA (Modern Language Association). However, the APA reference style is adopted for use in the Department of Computer Science and the acceptable way of listing the reference made in texts in the list of reference for various types of publications normally cited are as follows:

## JOURNAL

(a) George, N. J., Akpan, A. O. and Umoh, A. A. (2013). Preliminary geophysical investigations to delineate the groundwater conducted zone in the coasted region of Akwa Ibom State, Southern Nigeria, around the Gulf of Guinea. *Int. J. Geosciences*, 4(1), 108 -115.

(b) Nathaniel, E. U., Beloff, N. and George, N. J. (2013). Instantaneous frequency and wave identification in magnetosheath using fewspatial points. *Chin. Phys. B*, 22(8), 576-580.

## BOOKS

(a) Telford, W. W., Geldart, I. P., Sheriff, R. E., and Keys, D. A. (1990). Applied Geophysics, New York: Cambridge University Press, 770pp.

(b) Kearey, P. and Brooks, M. (1991). An Introduction to Geophysical Exploration. London: Blackwell Scientific Publication, 254pp.

### **PROCEEDINGS**

Hottel, H. C and Whillier, A.(1958). Evaluation of flat-plate collector performance, proceedings, conference on the use of solar energy, Vol.2, No.1 pp74. University of Arizona press.

### **CONFERENCE PAPER**

Okinawa, V. I., George N. J., and Ilori, A. O (2011). Refraction microtremor (REMI) method: A viable tool for identifying the causes of road failures in Nigeria institution of physics held at Ile-Ife; Osun State, Nigeria, 11<sup>th</sup> -15<sup>th</sup> October, 2011.

### **ONLINE OFFICIAL PUBLICATION(WEBSITE OR INTERNET)**

Wills, J.(2000). Muddy Waters: Enviromental effects of drilling waste discharge. Retrieved May 29, 2012, from <http://blog.apastyle.org/apastyle/>

### **REFERENCE TECHNIQUE.**

The reference techniques to be adopted in the text are of the from

(1) work by one author.

....(Emenike, 2001)

(11) works by two authors

(Ogheneivwe and Osazuwa, 2000)

(111) works by more than two authors

....(Akpan *et al.*, 2013)(et al should be in italic)

### **NOTE:**

a) References should be arranged in alphabetical order in the reference section irrespective of the type of publication.

b) The recommended number of journal articles per each chapter is as follows:

a. Chapter 1 -  $5 \pm 2$

b. Chapter 2 -  $10 \pm 2$

c. Chapter 3 -  $5 \pm 2$

d. Chapter 4 -  $5 \pm 2$

e. Chapter 5 - 0

TOTAL =  $25 \pm 8$

c) Two conference papers count as one journal article.

d) Textbooks do not count in research work.