



NATIONAL OPEN UNIVERSITY OF NIGERIA
PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY JABI, ABUJA
FACULTY OF SCIENCES
DEPARTMENT OF COMPUTER SCIENCE

**GUIDELINES FOR PREPARING AND PRESENTING PROJECTS FOR BOTH
UNDERGRADUATES AND POSTGRADUATES IN THE DEPARTMENT OF
COMPUTER SCIENCE**

This guide is aimed to serve as a tool for counseling students on research project writing. It is equally intended to help undergraduates and postgraduates enrolled in programmes in the Department of Computer Science, prepare and present their projects while conforming to the approved formats.

The guidelines are summarised and presented in three parts, namely: Part A, Part B and Part C.

i. Part A

Part A guides students through the general procedure for undertaking a research project and presenting their work.

ii. Part B

Part B provides a brief description of each of the main components of a project. It describes the conventions that should govern the preparation and presentation of the content of the report.

iii. Part C

Finally, Part C provides the general structure of the entire project.



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iii. Part C

Finally, Part C provides the general structure of the entire project.

3.0 Project Proposal

Before embarking on a project, both the student and the supervisor must have a brief meeting (physically or virtually), in order to ensure that the student possesses the capacity and resources to carry out the project work. For this reason, the Department recommends that a student should submit alongside his/her project topic, a corresponding project proposal. The project proposal should be brief (4-5pages), comprising of the outer title page as well as the main project proposal.

Details of the project proposal are as provided in the subsequent sections.

3.1. Title Page

This should include the provisional title and personal information. The provisional title should be clear and informative. It should indicate the area of study as well as the proposed approach. Basically, the provisional title should not be more than 10 – 15 words. The personal information should include personal details, such as: the Name, Matriculation number, Programme, Department, Faculty and University

3.2. The Main Project Proposal

The main project proposal should comprise of the introduction, review of related literature, proposed methodology and references.

i. Introduction

The introduction should include a brief overview of the research topic, the foundational principles, benefits and challenges. The researcher should provide a broad foundation for the problem that led to the study, highlighting the statement of the problem, the aim and objectives as well as the significance of the study.

ii. Review of Related Literature

This entails reviewing 10-15 existing works that are recent (not more than 5 – 8 years old) and which are related to the research topic. The review should provide an overview of what has been done, and what is yet to be done. Hence, the gap

identified in existing literature is a reflection of what has not been done. Ultimately, the research gap gives rise to a clear statement of the problem.

iii. Proposed Methodology

In this section, the methodology to be adopted is specified. A justification of the choice of methodology proposed is equally presented. Hence, the researcher should give valid reasons why the methodology should be employed.

iv. References:

The researcher is expected to prepare a list of books, journals, proceedings, manuals etc. cited in the course of preparing the project proposal. The approved style for referencing is the American Psychological Association (APA) referencing style. The reference should be done alphabetically based on the name of authors.

4.0 Consultation with the Supervisor

The student must consult with his/her Supervisor to seek clarifications, report on completed work or problems encountered, etc. Unless the student meets the minimum consultation period, which is at least 4 - 5 months, the Supervisor cannot give approval for the student to submit a project report. A report not approved by the Supervisor is a nullity and should neither be submitted nor defended.

The Department will not condone cases where students present already completed projects to their supervisors within 2 - 3 months. Hence, the moment a supervisor detects that a student is presenting a work done by someone else; the supervisor must reject the work, as well as caution the student. Students should be properly guided on the implications of 'plagiarism'. Any student who is discovered to have cheated by submitting a copied work, will "Fail" and that student's project will be graded as "F". Subsequently, the student will have to re-register the course and start the project report writing from scratch.

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5.0 Project Report Submission

Only Students approved by their Supervisors, in writing, should submit their project. Hence, Supervisors ought to ensure that students sign the attestation page. Supervisors should equally sign their own segment.

6.0 Soft Binding

All students for either project defence or moderation should submit spiral bound copies of their work, alongside CDs containing soft copies of their work, to their Study Centres. After the moderation or in the case of an MSc. the defence, students should effect the necessary corrections before proceeding to bind and submit the hard copies of their bound work. Consequently, Study Centres are to cross-check and ensure that all the recommended corrections are effected by the student, before re-submission.

7.0 Project Defence

In line with the mandate of the National Universities Commission, a student for an Academic Master's degree programme shall carry out research in a relevant area of specialisation and submit an acceptable project, which must be defended before a panel of external and internal examiners. The project defence is an oral examination. This exercise offers students the opportunity to demonstrate their skills and knowledge as well as ownership of their work. It also exposes them to the rudiments of public presentation, which is needed for their prospective career.

In view of the foregoing, all students enrolled in MSc Information Technology, will be required to defend their project work before a panel of Examiners comprising of both internal and external examiners. Each student must ensure that, prior to the commencement of the project defence; their software (application software developed, slides for presentation) is fully setup and running on the system to be used for the project defence. The presentation platform will be PowerPoint. No form of manual writing will be condoned. Furthermore, a supervisor is required to be present while his/her student is defending their project work. Any student that fails to appear after submitting his/her work, shall be treated as absent from that examination.

PART B

1.0 Project Report: Technical specification

Content structure

The project report shall comprise of two main sections: sections 1 and 2. These two sections shall comprise of the following elements in the order listed:

1. Preliminary Pages

- a. Cover Page
- b. Title page
- c. Approval
- d. Certification
- e. Dedication
- f. Acknowledgments
- g. Abstract
- h. Table of Contents
- i. List of Figures
- j. List of Tables
- k. List of Abbreviations

Each of the elements of the preliminary pages is briefly described for better comprehension.

a. Cover Page: White blank sheet

b. Title page: The title page should contain the following details"

- i. Approved Title of the project report, all capitalized at the upper part of the page
 - ii. Full name of the author,
 - iii. Degree
- c. Approval: After the oral defence or as the case may be, project moderation the approval page shall be endorsed. This page shall bear a signed statement by the

candidate's supervisor, HOD, External Examiner and Dean of Faculty indicating endorsement by the Department

- d. Certification: Prior to and after the project defence and moderation exercise, Supervisor(s) must certify that the research work and preparation of project reports were carried out under their supervision.
- e. Dedication: This is optional. Therefore, the author may, if he/ she wishes, dedicate his/her work to any person(s) or corporate body.
- f. Acknowledgments: The author shall acknowledge in his/her own words the support provided by others in the course of carrying out the research work and the preparation of the project report.
- g. Abstract: This is a summary of the entire work. The abstract should be a one paragraph summary and should not be more than 250 words. It must be single-spaced and must not be italicised. Ultimately, the abstract shall contain the following:
 - (i) A brief statement of general objectives of the research work.
 - (ii) A brief statement of research methodology used (principal only) including method of data analysis.
 - (iii) Summary of specific findings
- h. Table of Contents: This shall contain a list of all major parts of the project report recorded in the order of presentation.
 - i. List of Figures: This shall contain a complete list of figures such as graphs, diagrams, map etc. in the order in which they appear in project report.
 - j. List of Tables: This shall contain a complete list of tables in the order in which they appear in the project report. The serial number, title and page on which a table appears shall be given in that order.

- k. List of Abbreviations: This entails listing all the abbreviations alongside the corresponding meaning of these abbreviations
2. Main Body
The main body of the project, for both undergraduate and postgraduates shall be 5 chapters.
- Chapter 1: Introduction**
- 1.0 **Introduction**
 - Provide the background information on the project work, how and/or why it came to be a matter that is meaningful or useful to work on.
 - 1.1 **Statement of problem**
 - Briefly state the exact problem solved in the project work.
 - 1.2 **Objectives**
 - List precisely the achievements of the project. These must be verifiable by the Panel. In other words, these objectives must be SMART:
 - i. Specific
 - ii. Measurable
 - iii. Achievable
 - iv. Realistic and
 - v. Time Bound
 - 1.3 **Significance of the study**
 - Tell the use of your project work to humanity, e.g., that it demonstrates the feasibility of using HTML for numerical computation.

Chapter 2: Literature Review

Present the theory of the topic explaining its core or major concepts.

The literature review equally entails reviewing 10-15 existing works that are recent (not more than 5 – 8 years old) and which are related to the research topic. The review should provide a summary of what has been done (related works from books, journals, technical reports, web pages, published manuals, magazines, newspapers, etc. may be cited). The researcher should highlight what is yet to be done. Hence, the gap identified in existing literature is a reflection of what has not been done. Ultimately, the research gap gives rise to a clear statement of the problem.

Chapter 3: Research Methodology

System Analysis and Design

Design of the Solution through a Methodology or Model

Present an analysis and design of the system. The researcher should state the system analysis and design methodology used. More recent and operative methodologies are preferred.

Chapter 4: System Implementation and Testing

Present the architecture of the software you developed, development environment, deployment platform used and a few screenshots of demos.

Chapter 5: Conclusion and Recommendation

This chapter presents an overview of the work. Note that this section must match your objectives as stated in Chapter 1 ,

References

Include an entry for each published work cited in the text. Include references for only cited works. That APA referencing style shall be adopted by all students of the Department

Appendices

Place here useful material, e.g., program source code, large tables or figures, long mathematical derivations, questionnaires, that would be awkward or distracting if it appeared in the body of the project report.

General Format of Report

Total size: At least 50 pages (word processed)

Paper size: A4

Cover: Hard back, black, gold lettering in Arial font, size 30, single spaced.

Colours: Apart from the lettering on the front cover, *only black and white* colours are allowed in the report.

Approved Colours for Hard Cover Bound Project:

- i. Undergraduate-Sky Blue
- ii. PGD- Navy Blue
- iii. Masters- Black

PART C

Generally, projects in the fields of Computer Science and Information Technology can be broadly classified into application based and research-based and projects. Thus, the outline for project writing shall be based on the type of research work being undertaken.

Find attached for your reference, the outline for the application-based project as well as the research-based project

Outline for Application-Based Projects

The project report shall be structured as follows:

Cover Page

Title page

Approval

Certification

Dedication

Acknowledgments

Abstract

Table of Contents

List of Figures

List of Tables

List of Abbreviations

Chapter 1: Introduction

1.0 Introduction

1.1 Background of the study

1.2 Statement of the problem

1.3 Aim of the project

1.4 Specific objectives

1.5 Scope of the project

- 1.6 Significance of the study**
- 1.7 Definition of terms**
- 1.8 Organisation of the project**

Chapter 2: Literature Review

- 2.0 Review of Related Literature**
- 2.1 Summary of Reviewed Related Works**

Chapter 3: Systems Analysis and Design

- 3.0 Analysis of the existing system**
- 3.1 Limitations of the existing system**
- 3.2 Design of the proposed system**
 - 3.2.1 Input Design**
 - 3.2.2 Output Design**
 - 3.2.3 Database Design**
- 3.3 Data Dictionary**
- 3.4 System Algorithm**
- 3.5 Use Case Diagram**

Chapter 4: System Implementation and Testing

- 4.0 System Implementation**
- 4.1 System Requirements**
- 4.2 Hardware Requirements**
- 4.3 Software Requirements**
- 4.4 Choice of development environment.**
- 4.5 Implementation Architecture.**
- 4.6 System Testing and Evaluation**
- 4.7 Software Testing**
- 4.8 System Change over**
- 4.9 Documentation**
- 4.10 User Manual**
- 4.11 Source code listing (attach as named appendix)**

Chapter 5: Summary and Conclusion

- 5.0 Summary.**
- 5.1 Conclusion**

5.2 Recommendations

5.3 Contributions to Knowledge (for MSc Students)

5.4 Future Research

References(APA style)

Appendix A: Source code

Appendix B: Any other relevant document

Outline for Research-Based Projects

The project report shall be structured as follows:

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Chapter 2: Literature Review

2.0 Review of Related Literature

2.1 Summary of Reviewed Related Works

Chapter 3: Research Methodology

3.1 Research Design

3.2 Population

3.3 Sampling Procedure/Sample Size

3.4 Research Instrument Development

3.5 Validity and Reliability Criteria

3.6 Procedure for Data Collection

3.7 Data Analysis Procedure

Chapter 4: Results and Discussion of findings

4.1 Presentation of Results

4.2 Discussion on Findings

Chapter 5: Summary and Conclusion

5.0 Summary.

5.1 Conclusion

5.2 Recommendations

5.3 Contributions to Knowledge (for MSc Students)

5.4 Future Research

References(APA style)

Appendix: Any relevant document