

MAKERERE UNIVERSITY

THESIS TITLE

by

Author's Name B.Sc..., M.Sc....

A Thesis Submitted to the Directorate of Research and Graduate Training in Fulfillment of the Requirements for the Award of the Degree of Doctor of Philosophy of Makerere University

Supervisors

Supervisor's Name

Co-supervisor's Name

Kampala, Uganda

February 28, 2025

 \bigodot Author's Name 2025

ALTERNATIVE TITLE PAGE

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Declaration

I hereby declare that this thesis is my own work and effort and that it has not been submitted anywhere for any award. Where other sources of information have been used, they have been acknowledged.

Signed: _____

Date: _____

Approval

This thesis titled, has been approved by the following supervisors.

Supervisors:

Supervisor's Name

Co-supervisor's Name

Sign:_____ Date:_____

Dedication

To my son, daughter, wife/husband, etc.

Acknowledgements

I would like to express my deepest appreciation to my supervisors, Prof. Supervisor's Name, Dr. Co-supervisor's Name, and Mr. Third Supervisor's Name, whose expertise, understanding, and patience, added considerably to my graduate experience. I also thank them for their encouragement and insightful critiques of my research work.

Additionally, I wish to acknowledge the role of my family for their unwavering support and encouragement throughout my study and through the process of researching and writing this thesis. This accomplishment would not have been possible without them. Thank you.

Lastly, my thanks also go out to my colleagues and the university staff who have been part of my journey. Their continual support has been invaluable.

Abstract

This thesis presents my research on ..., focusing on [briefly describe the core focus of the research]....., etc.

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List of Acronyms

AGIArtificial General IntelligenceAIArtificial IntelligenceMLMachine Learning

Introduction

1.1 Background of the Study

Remember to cite your work [1]. It is as straightforward [1] as this [1].

1.2 Research Motivation

- **1.3** Another Section
- 1.3.1 Subsection Goes Here

1.4 Tables

Tables can be inserted via the normal table and tabular environment as shown in Table 1.1.

| Column 1 | Column 2 | Column 3 | Column 4 |
|----------|----------|----------|----------|
| row 1 | data 1 | data 2 | data 3 |
| row 2 | data 4 | data 5 | data 6 |
| row 3 | data 7 | data 8 | data 9 |

Table 1.1: Caption text

1.5 Research Objectives

1.5.1 Main Objective

The main objective of this research was to [state the main objective clearly].

1.5.2 Specific Objectives

The study...., :

- i. Investigate...
- ii. Design...
- iii. Develop...
- iv. Evaluate....

1.6 Thesis Structure

This thesis is organized as follows: Chapter 2 reviews the literature relevant to [mention the main themes of the literature review]. Chapter 3 describes the methodologies employed in the research. The results are presented in Chapter 4, followed by the discussion. Another chapter is 5. Finally, Chapter 6 concludes the thesis and outlines future research directions.

Literature Review

2.1 Introduction

This chapter reviews the existing literature on [describe the broad topic or field]. It discusses key theories, methodologies, and findings relevant to [your specific research topic].

2.2 Section Goes Here

2.2.1 Subsection Goes Here

2.3 Equations

Equations in LAT_EX can either be inline or on-a-line by itself ("display equations"). For inline equations use the \ldots commands. E.g.: The equation $H\psi = E\psi$ is written via the command $H \ si = E \$.

For display equations (with auto-generated equation numbers) one can use the equation environment as shown in (2.1) or align environment as shown in (2.2):

$$\|\tilde{X}(k)\|^{2} \leq \frac{\sum_{i=1}^{p} \left\|\tilde{Y}_{i}(k)\right\|^{2} + \sum_{j=1}^{q} \left\|\tilde{Z}_{j}(k)\right\|^{2}}{p+q}.$$
(2.1)

where,

$$D_{\mu} = \partial_{\mu} - ig \frac{\lambda^{a}}{2} A^{a}_{\mu}$$

$$F^{a}_{\mu\nu} = \partial_{\mu}A^{a}_{\nu} - \partial_{\nu}A^{a}_{\mu} + gf^{abc}A^{b}_{\mu}A^{a}_{\nu}$$
(2.2)

2.4 Research Gaps

2.5 Conclusion

Conclude with a summary of what is known in the field and what your research will contribute.

Methodology

This chapter describes the research methods used in this thesis. It explains the choice of methodology, the data collection techniques, the analytical tools employed, and the steps taken to ensure the validity and reliability of the research.

3.1 Research Design

Describe the overall research design, including whether it's experimental, correlational, qualitative, quantitative, or mixed methods. Explain why this design is suited for your research objectives.

3.2 Data Collection

3.2.1 Data Sources

Detail the sources of your data.

3.2.2 Long Table

| | | Element 1 | | | Element 2 | |
|------------|--------|-----------------|-----------------|--------|-----------------|-----------------|
| Projectile | Energy | σ_{calc} | σ_{expt} | Energy | σ_{calc} | σ_{expt} |
| Element 3 | 990 A | 1168 | 1547 ± 12 | 780 A | 1166 | 1239 ± 100 |
| Element 4 | 500 A | 961 | 922 ± 10 | 900 A | 1268 | 1092 ± 40 |
| Element 5 | 990 A | 1168 | 1547 ± 12 | 780 A | 1166 | 1239 ± 100 |
| Element 6 | 500 A | 961 | 922 ± 10 | 900 A | 1268 | 1092 ± 40 |

Table 3.1: Tables that are too long to fit, should be written using the "sidewaystable" environment as shown here.

3.2. Data Collection

Results and Discussion

This chapter presents the findings of the research..., etc.

4.1 Presentation of Results

4.1.1 Statistical Analysis

Detail the statistical tests conducted, the results obtained, and the statistical significance of the findings. Use tables, figures, and graphs to illustrate the results clearly.

4.2 Figures

An example of image insertion is shown in Figure 4.1.



Figure 4.1: Caption for the figure.

4.3 Subfigures

An example of sub-figures is shown in Figure 4.2. Its variants are shown in Figures 4.2a, 4.2b and 4.2c.



Figure 4.2: Three subfigures.

4.4 Discussion

4.5 Limitations of the Study

Acknowledge the limitations of your study. Discuss how these limitations might affect the generalizability of the results and what future research could do to address these limitations.

4.6 Conclusion

Summarize the key findings and their implications. Briefly preview the next chapter, which will provide a comprehensive conclusion to the thesis.

Optional Chapter

- 5.1 Introduction
- 5.1.1 Subsection Goes Here

Conclusion

This chapter concludes the thesis by summarizing the main findings, discussing their implications, and suggesting directions for future research. This is how you reference [1].

6.1 Section Goes Here

6.1.1 Subsection Goes Here

References

[1] G. D. Greenwade, "The comprehensive tex archive network (ctan)," *TUGBoat*, vol. 14, no. 3, pp. 342–351, 1993.

Appendix A

Additional Data Tables

A.1 Extended Data Table 1

Provide a detailed table with data related to your experiments or analysis that was too extensive to include in the main chapters.

A.2 Extended Data Table 2

Similar to the previous section, provide another detailed table or set of data that supports your findings but is secondary to your main arguments.

Appendix B

Supplementary Materials

B.1 Code Listings

Include detailed code used in your research. For example:

```
# Python code for data analysis
import pandas as pd
data = pd.read_csv('data.csv')
print(data.describe())
```

B.2 Additional Figures

Provide any additional figures that are relevant to the research but were not critical enough to be included in the main text.