Project Report Structure & Contents Guideline

Outline

- Introduction
- Components of the Project Report
- Report Format
- Other Points to Note on Writing Report

Introduction

- Students should not copy large sections of books and/or reports.
- By copying, the change in writing style and the way information is presented can be easily detected.
- Students will be penalised for copying.
- Whenever values of short passages have been quoted, the full reference should be given.
- Students will be penalised for not referencing previous work.
- Ensure the report is presentable, free from grammatical and spelling errors.

Components of the Project Report

- The essential components of the content of the final year project should include the items listed on the following slides.
- They should also be arranged in the top-down order as listed.
- The report usually should not exceed 80 pages.

Report Format

- The report should be written using the third person and in the past tense. For example, do not use "I" or "you" in the report.
- **Font**
  - - Times New Roman, 12 points, 1.5 line spacing.
  - - Applies to ALL, including figure caption, table caption, chapter headings, subheadings, and citations.
  - - Exceptions: Header, Footer, Footnote, Words in Figure/Table, font size should be within 10 to 11 points.
  - - Colour: black.
  - - Citing references in text: refer to the citation style “Harvard Style Referencing” in https://www.youtube.com/watch?v=krL0ZjiLAGI
- Language
  - - British English

Report Format

- **Printing**
  - Single side.
- **Paper**
  - A4 size, 80g paper.
- **Header**
  - Align left: chapter number and title.
- **Footer**
  - Align right: page number.

Report Format

- **Page Numbers**
  - - Align right at the Footer.
  - - Title, Declaration of Originality, Acknowledgements, Abstract, Table of Contents and Listing – pages are numbered using small Roman numeric (i, ii, iii, etc).
    - Note even though the Title Page is numbered i, the number is not to be printed on the page.
  - - Chapters and Bibliography – pages are numbered 1, 2, 3, etc.
  - - Appendices – pages are numbered A-1, A-2, etc for Appendix A, B-1, B-2, etc for Appendix B and etc.

Report Format

- **Margins**
  - - Left (1.5 inches) except the Front Cover (1.2 inches)
  - - Right (1 inch)
  - - Header/Footer (0.5/0.4 inch)
  - - Top/Bottom (1 inch)

- **Table of Contents**
  - - Must be auto generated
  - - Should show up to level 3

Report Format

- **Tables/Figures**
  - - Should include table (figure) caption immediately above the table for tables and below the figure for figures.
  - - Number the tables and figures sequentially, with respect to the chapter or section of a chapter.
    - To be consistent, use either one format, not both.
    - - For example, Table 2-2 is the second table of chapter 2.
    - - For example, Table 4-2-6 is the sixth table of section 2 of chapter 4
- **Citation**
  - – Use Harvard standard citation (please refer to Appendix F).
- **Bibliography**
  - – Use Harvard standard citation (please refer to Appendix F).
- **Binding**
  - – The title page should be put immediately after the front cover
  - - Other contents should follow as listed on slide 60

Report Format

Printed Copies

Students will submit two (2) printed copies of their report on the final viva oral presentation.

- These copies will be corrected (minor corrections) and handed back to the students to effect the changes and submit one final copy

Components

- Cover page
- Title
- Declaration of originality
- Acknowledgements
- Abstract
- Table of Contents
- List of Figures
- List of Tables
- List of Symbols
- List of abbreviations
- Chapters

1. Front Cover

- Same content as the Title Page of Proposal
- The format (font type, size, capitalization and the sentences arrangement) must be strictly adhered to.
- No changes to the report format are allowed.
- Any discrepancy will result in the rejection of the report

Title

- The title should be captured as agreed by your supervisor

Declaration of Originality

DECLARATION OF ORIGINALITY

I declare that this report entitled "**METHODOLOGY, CONCEPT AND DESIGN OF A 2-MICRON CMOS DIGITAL BASED TEACHING CHIP USING FULL-CUSTOM DESIGN STYLE**" is my own work except as cited in the references. The report has not been accepted for any degree and is not being submitted concurrently in candidature for any degree or other award.

Signature : _____

Name : _____

Date : _____

Acknowledgements

Abstract

- Maximum 1 page.
- Usually it is limited to between 200 and 300 words.
- It should state the field of study, problem definition, methodology and techniques adopted, research process, results obtained and conclusion of the project work.
- Highlight the novelties if there is any.

Table of Contents

- It should list all the chapters and their corresponding sections and subsections found in the report
- Must be auto-generated and updated after every change in the document

List of Figures

- It should list all the figures and their corresponding page numbers found in the report.

List of tables

- It should list all the tables and their corresponding page numbers found in the report.

List of Symbols

- It should list all the symbols found in the report and their corresponding meanings.

List of abbreviations

- It should list all the abbreviations found in the report and their corresponding meanings

Chapters

- Each chapter should begin on a new page.
- Within a chapter, separate the information pertaining to the chapter into sections and subsections.
- Each chapter must begin with an introduction and end with a chapter summary.
- The following is a general guideline on the arrangement of chapters and what to be included as part of each chapter.

Chapter One - Introduction

- Introduction
- Problem statement.
- Background and motivation.
- Aim and Objectives.
- Significance of Project
- Project Scope
- Project Outline
- Project Timeline
- Conclusion

Chapter Two – Literature Review

- Introduction
- Explain how you conducted the review
- Highlight and compare proposed study with previous work.
- Identify important research gaps
- Conclusion

Chapter Three - Methodology

- Introduction
- Software Development Methodology
  - Justification for chosen methodologies
- Tools used
- Conclusion

Chapter Four – System Analysis and Design

- Introduction
- Requirements Analysis
  - Functional Requirements
  - Non-Functional Requirements
- Feasibility study
- System/Model Diagrams (if applicable)
  - Use Case Diagram
  - Class Diagram
  - Sequence Diagram
  - Flowchart Diagram
- Interface or Dashboard Design
- Conclusion

Chapter Four – System Analysis and Design

- All development projects should have this chapter.
- System analysis involves requirement specification (functional and non-functional requirements), feasibility study
- System design describes in detail how the project is developed.
  - One thing to keep in mind when writing this bit is to provide all the necessary information so someone who reads this chapter could rebuild your system.
  - Give top-down system design diagrams (i.e. system flowchart, design block diagram, etc.).
  - Explain the functionality (and any other detail) of each block in diagrams.

Chapter Four Example

- If your project is about writing an Android application for time management, then you should mention the system flow diagram, how your program is written, such as the classes and methods used in the program, the database for keeping information, the SQL for creating the database, how to compile the program, and how to upload the program to a phone

Chapter Four – Example 2

- if you are building a moving robot, then you should mention how the physical robot is built, the parts or components required, talk about the design of the program that controls the robot, how to program the microcontroller, such as the steps to compile and upload the program to the microcontroller, how the sensors, servers, wires are connected, provide a schematic diagram that illustrates the connection of all the components, and how to operate the robot.

Chapter 5 - Implementation and Testing

- Introduction
- Model or System Functionality
- Model or System Testing
- System upgrade and maintenance
- Conclusion

Chapter Six - Conclusion

- Introduction
- Review of Project Objectives
- Challenges and Limitations
- Future Work and Recommendations
- Conclusion

Chapter Six - Conclusion

- Project Review, Discussions and Conclusions: what has been achieved, relate to Objectives, problems encountered, personal insight into the total research experience
- Highlight any novelties and contributions the project has achieved.
- Future Work: indicate improvements / further developments that can be made

References

- It should list all the reference materials used for the project
- Harvard style should be used for all in-text and reference list sources.

Appendices

- The appendices are supplementary materials that are too lengthy to be included or may not suite well in the main part of your document.
- The following is a guideline on the arrangement of appendices and what may be included as part of the appendices.
  - Specifications, data sheets and drawings of equipment or components used.
  - Data used for analysis.
  - Survey sheets.
  - Charts and data tables.
  - Lengthy mathematical derivations.
  - Code
  - etc.

Literature Review Guidelines

Outline

- What is literature review?
- What is the purpose of a literature review?
- Conducting a literature review
- Literature review tips

What is Literature Review?

- A literature review is a piece of academic writing demonstrating knowledge and understanding of the academic literature on a specific topic placed in context.
- A literature review also includes a critical evaluation of the material; this is why it is called a literature review rather than a literature report.
- It is a process of reviewing the literature, as well as a form of writing.
- the two main objectives of a literature review are firstly
  - the **content** covering existing research, theories and evidence, and secondly
  - your **own critical evaluation and discussion** of this content.

What is the purpose of a literature review?

> *“…your task is to build an argument, not a library.”*
>
> *— Rudestam, K.E. and Newton, R.R. (1992)*
> *Surviving your dissertation: A comprehensive guide to content and process. California: Sage, p49.*

Purpose of a literature review

- Conducting a literature review establishes your familiarity with and understanding of current research in a particular field before carrying out a new investigation.
- After doing a literature review, you should know what research has already been done and be able to identify what is unknown within your topic.
  - This includes related software
- When doing and writing a literature review, it is good practice to:
  - summarise and analyse previous research and theories;
  - identify areas of controversy and contested claims;
  - highlight any gaps that may exist in research to date.

Conducting a literature review

- Focusing on different aspects of your literature review can be useful to help plan, develop, refine and write it.
- You can use and adapt the tips and prompt questions (on the next slides) at different points in the process of researching and writing your review.
- These are suggestions to get you thinking and writing.

Literature review – top tips

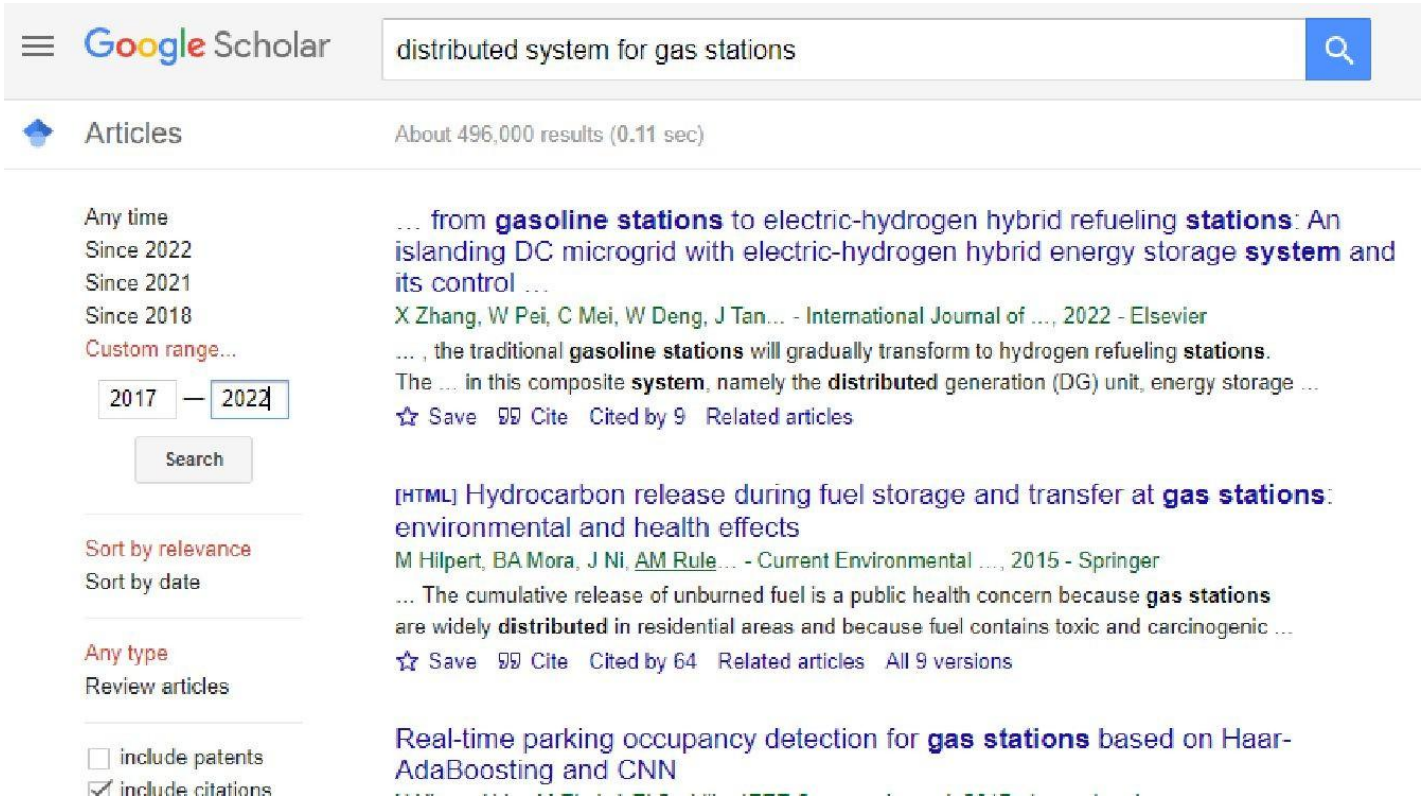
Tip 1

1 Try experimenting with different search terms when using online search tools

Make use of search functions that allow you to specify a date range e.g. the year you would like to begin from.

- Online search tools to use include
- Google Scholar
- http://nustlibrary.nust.ac.zw/ - eResources
- Example search terms for gas station project:
  - Fault tolerant system for gas stations
  - Distributed systems for gas stations
  - *You can even use your full title as a search term*

Google Scholar



Tip 2

2 Always keep an accurate record of all of the sources that you use for your bibliography/reference list.

Use Mendeley as your reference manager to keep track of your sources of reference

https://www.youtube.com/watch?v=OzFHGFnAM2Q

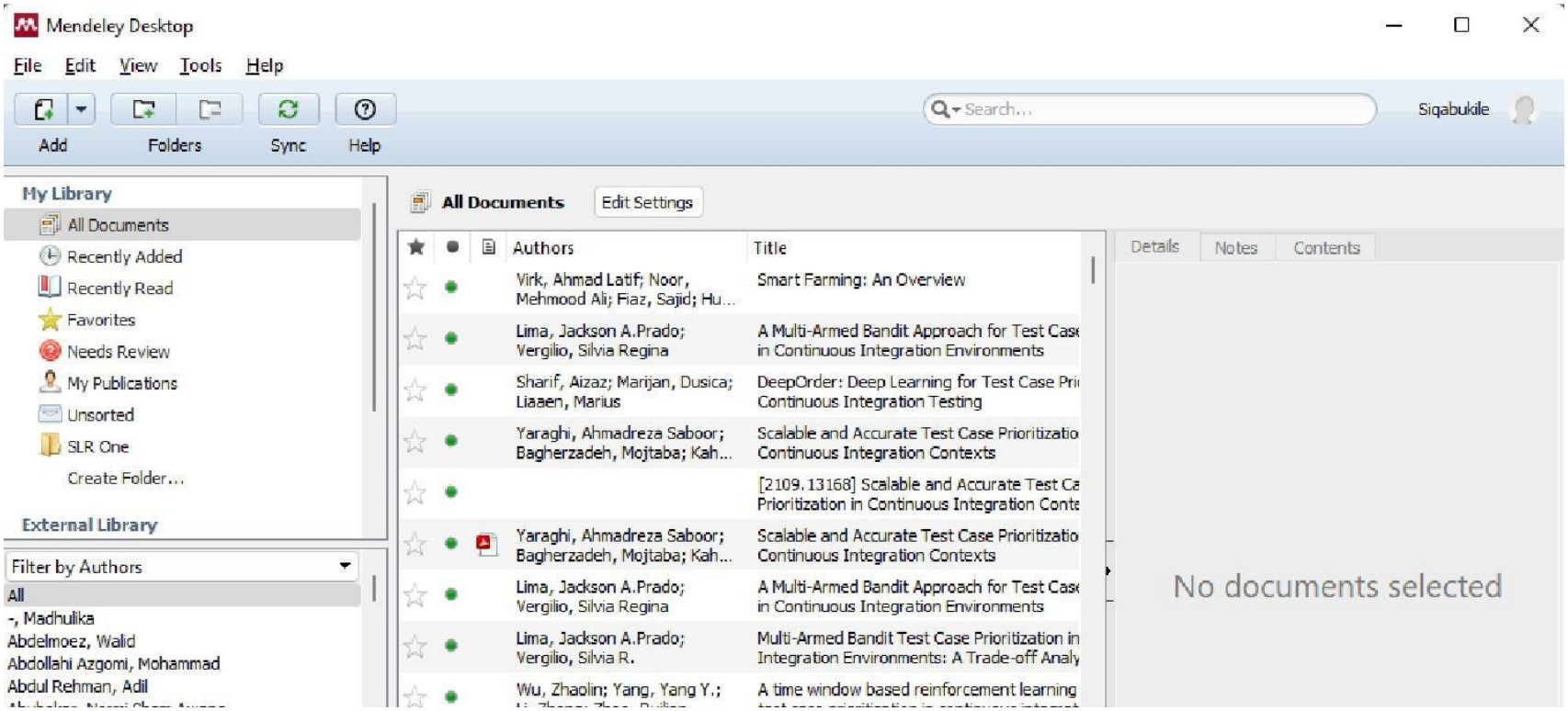
Follow link to learn more about Mendeley

Download all your relevant papers and keep them in Mendeley

Download from the NUST library

You can also use https://sci-hub.se/

Mendeley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SLR One
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Abdelmoez, Walid
Abdollahi Azgomi, Mohammad
Abdul Rehman, Adil
All Documents
Edit Settings
Authors
Title
Virk, Ahmad Latif; Noor, Mehmood Ali; Fiaz, Sajid; Hu...
Smart Farming: An Overview
Lima, Jackson A.Prado; Vergilio, Silvia Regina
A Multi-Armed Bandit Approach for Test Case in Continuous Integration Environments
Sharif, Aizaz; Marijan, Dusica; Liaaen, Marius
DeepOrder: Deep Learning for Test Case Pri Continuous Integration Testing
Yaraghi, Ahmadreza Saboor; Bagherzadeh, Mojtaba; Kah...
Scalable and Accurate Test Case Prioritizatio Continuous Integration Contexts
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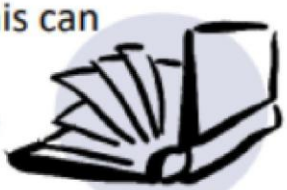
A Multi-Armed Bandit Approach for Test Case in Continuous Integration Environments
Lima, Jackson A.Prado; Vergilio, Silvia R.
Multi-Armed Bandit Test Case Prioritization in Integration Environments: A Trade-off Analy
Wu, Zhaolin; Yang, Yang Y.;
A time window based reinforcement learning
Details
Notes
Contents
No documents selected

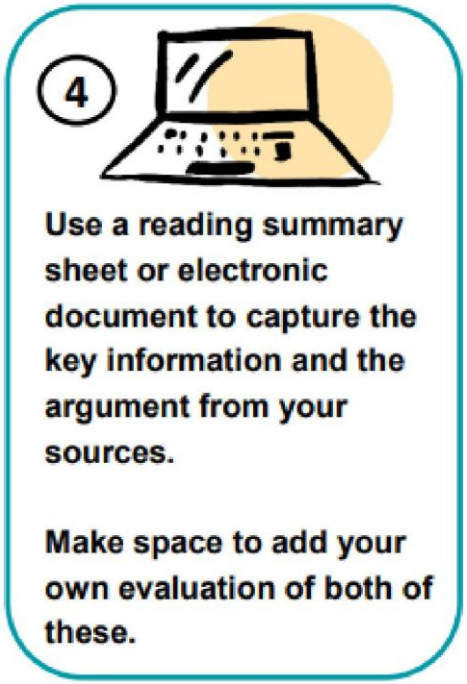
Tip 3

3 Make use of the bibliography in the journal articles or textbooks that you are reading as this can help you to increase the breadth of your literature review.



Refer to the references of the articles you are using

Tip 4



Create a summary/table to capture important points from each of your sources

Include your own evaluation

Demonstrating your knowledge and familiarity in your subject/topic

- What are the significant and established themes of your subject/topic?
- What are the relevant sources? Why?
- Are they reliable sources? Why?
- What are the recent developments? Are they significant? Why?
- What are the appropriate methods of research?

Tip 4 Example

Publication Title	Author (s)	Year	Type of system (real-time, fault-tolerant, embedded, distributed)	Country	Publication Avenue (Conference/Journal)	Database (IEEE, ACM/ SpringerLink)	Type of Research	Research Method	Study Summary	techniques/technologies	Author Conclusion	Personal Evaluation

Tip 5

Create a logical structure for your literature review and the way you have approached it.

This structure could be chronological or thematic or another form more suitable for your investigation.

Structuring your literature review

What are the main themes of your project?

What order do you need to use to explain this to someone else?

What is the scope of your project? (And what is not - important to consider in the planning stages.)

Tip 6

Your critical analysis

What are the strengths of the themes of your chosen topic?

- What evidence have you found that supports this?

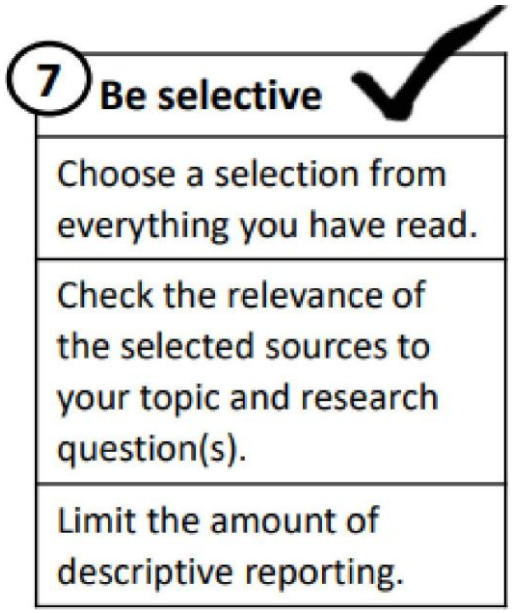
Where are the gaps or weak areas in the literature?

- What are they?

Are there areas of controversy?

- What are they?

Tip 7


7
Be selective
Choose a selection from everything you have read.
Check the relevance of the selected sources to your topic and research question(s).
Limit the amount of descriptive reporting.

Tip 8

8 Make a summary of the key elements of your review.

- You can refer to this as you carry out your own research investigation.
- You can revisit and check how it contributes to your line of reasoning, overall argument and conclusions.

Summarising your thoughts

What do you think?

- Why do you think that? (Based on the evidence you have gathered.)

How does your project/research question link into this?

- Why does it need to be undertaken? (Try to give an explicit statement for your reader).

What are the most appropriate research methods to use and why?