PARTS OF A PAPER

THESIS 1: METHODS OF RESEARCH

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Parts of a Paper

- Preliminaries
- Text/ Body
- References

Manuscript (5 major sections)

- **Introduction**
- **Review of Related Literature**
- **Methodology**
- *Results and Discussion*
- *Summary, Conclusion, and Recommendations*

- Note: If you will mention an idea which is not yours, please always rephrase (not copy paste) and write your source. **To avoid plagiarism.**

CHAPTER 1: THE PROBLEM AND ITS BACKGROUND

- Introduction
- Objectives of the Project
- Significance of the Project
- Scope and Limitation of the Project
- Definition of Terms

Introduction

- Introductory statement of the study.
- Presents a general statement about the study (can be an issue or claim).
- Organizations or beneficiaries can be introduce also.
- Last paragraph contains either the aims or problems that the study would want to achieve.

Introduction

- Tell the story why the study was of interest to the researcher
- How the researcher choose the topic. What inspires him.
- What are the possible credentials that makes the researcher to be qualified in his project.

Objectives of the Project

- General Objective
  - The general objective captures the title of the study (same wordings as the title)
  - Write whether you are developing a device, machine, any similar terms or a process.
  - This is the main topic of the research

- Specific Objective/s
  - Arranged orderly from easy to difficult ones until the general objectives will be met
  - Simply state the first to last step until the general objective is attained
  - Note that each specific objectives have separate conclusions or output

Significance of the Project

- Promotion of value and social relevance
- Contribution to nation building
- Contribution to existing body of knowledge (in the field)
- Continuous improvement of the teaching learning process
- Benefits of the study

Scope and Limitation of the Project

- The scope and limitations of the study are those characteristics of design or methodology that impacted or influenced the interpretation of the findings from your research/project (USC Libraries).
- This is where you enumerate and explain what the study only covers and the reasons why your study needs to be limited to certain extent only.

Scope and Limitation of the Project

- Describes the extent of the study.
- Actual place where the study will be conducted
- Durations of the conduct of the study
- Inclusions of the study
- Area limit (if applicable)

- Contains the explanation of what information or subject is being analysed. It is followed by an explanation of the limitation of the research. Research usually limited in scope by sample size, time and geographic area.

Definition of Terms

- This section lists down terms that are operationally defined and used in this project. This includes specific terms used that may have additional or another meaning from the common definition.

- Key terms of phrases only used in the study
- Brief but clear definitions
- Preferably use OPERATIONAL definitions
- If CONTEXTUAL definitions used, then write referencing (minimal)
- Own words
- Alphabetical Order
- Acronyms must be emphasize.

CHAPTER 2: LITERATURE REVIEW AND FRAMEWORK OF THE PROJECT

- There should have a short introductory statement (1 paragraph) that describes what could be seen in this part.
- Make rephrasing a habit.
- Write only those relevant.
- Get facts/ideas from a reliable source.
- Take note all the references.

Introduction to Literature Review

- Introduction to literature review gives the reader an overview of the overall project topic.
- It also breaks down the overall topic to the essential specific topics that are needed to be reviewed and presented.
- It can also include topics that could be expected by the reader but were excluded and were not reviewed in the project.
- Types of sources used in the review are also discussed here.

Result of Literature Review

- Literature review is not a collection of the original sources or just simply listing them down.
- Process of gathering and analyzing the identified sources and presenting the synthesis

- Interpretation of how the literature supports the intended objective/purpose of the project.

Conclusion and Framework of the Project

- This is where you conclude your literature review focusing on the central theories, concepts, or ideas that you were able to acquire to support your project.
- The conclusion is the basis for crafting the framework of project.
- The framework of the project should be able to present the whole picture of study, from variables/components, their connections and make predictions or expected result based on gathered existing knowledge, observations, and ideas.

EXAMPLE: (IPO Framework)

2.3. Conceptual Framework

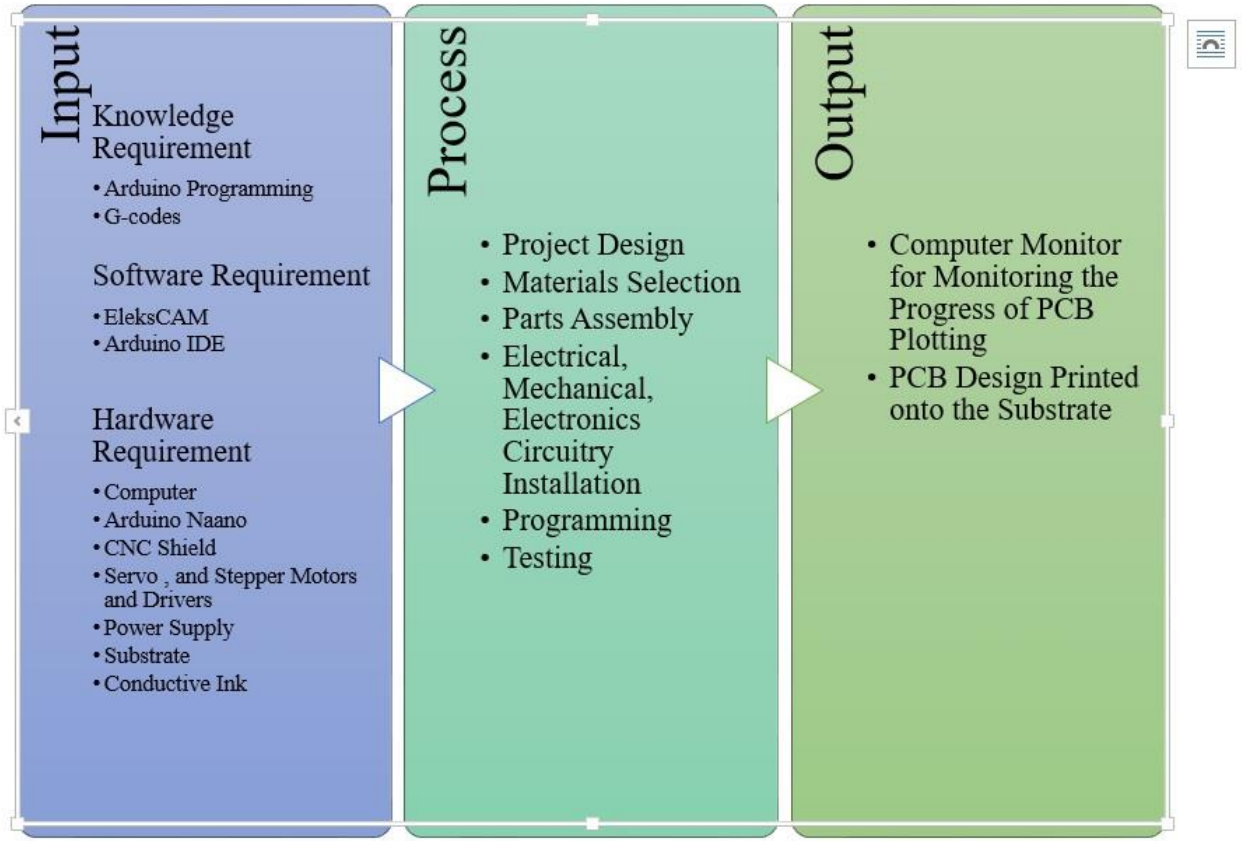

Figure 2.7. IPO Conceptual Framework

Source: NU ECE Thesis Batch 2018-2019

Conclusion and Framework of the Project

- Please be creative in presenting your project framework.
- Case to case basis depends on your proposed project.

Additional Literature Review

- Published Thesis and Articles related to your project.

- Journals
- National Libraries
- Institutional database for research (e.g. IEEE subscriptions from other Universities)

CHAPTER 3: PROJECT DESIGN AND METHODOLOGY

- It discuss how the study was or will be conducted

CHAPTER 3: PROJECT DESIGN AND METHODOLOGY

- PROJECT DESIGN
  - **Industry Standards Used**
  - **Design Constraints**
  - **Design Tradeoffs**

CHAPTER 3: PROJECT DESIGN AND METHODOLOGY

- Project Development and Implementation
- Project Testing and Evaluation

Project Design

- Project design is the first step towards success in any project.
- This is where the project is described in detail and different aspects are defined such as goals, objectives, resources, constraints and trade-offs, deliverables and timeline, testing and evaluation, budget estimates, etc.

Project Design : **Industry Standards Used**

- It is important for design projects and study that standards are used as basis for product or process design and implementation.
- Standards are published documents that establish specifications and procedures designed to ensure the reliability of the materials, products, methods, and/or services people use every day.
- Standards address a range of issues, including but not limited to various protocols that help ensure product functionality and compatibility, facilitate interoperability and support consumer safety and public health.

Project Design: **Design Constraints**

- Design constraints are conditions that are imposed for a certain project to be successful.
- Design constraints help narrow down choices from possible solutions to a problem when creating a project
- The constraints may be in terms of limitations in hardware, software, data, operational procedures, interfaces, or any other part of the system.

Project Design: **Design Tradeoffs**

- No design project offers perfect solution. Although design is a by-product of iterative ideation, brainstorming and pivoting, there is no such thing as perfect solution. Thus, design tradeoffs are unavoidable.
- Design tradeoffs are situations that involves losing one quality or aspect of something in return for gaining another quality or aspect.

Project Design: **Design Tradeoffs**

- Some of the common design constraints/trade-off consideration are reliability, scalability, programmability, compatibility, adaptability, availability, manufacturability and cost.

Project Development and Implementation

- Covers the fabrication/making procedure of the different components such as base assembly, structural assembly, wring assembly and others together with required drawings and dimension.
- Cite **Industry and Professional Standards** that will be the basis of the design and development

Project Testing and Evaluation

- Project testing and evaluation involve the identification of testing method, test apparatus and equipment, step-by-step procedure of the test, data collection methods, performance evaluation, etc.

- Discuss the steps to be followed in the operation of the project including the test required
- Data gathering procedure can also be discussed such as different sources of data or tools of research (testing)
- State the specific names of the tests and the step by step procedure
- Describe the plans and strategies used in unit testing, integration testing and system testing.

Project Testing and Evaluation

- How the method of evaluation will be made
- Qualification settings
- Sets the methods of evaluation to be conducted which includes the preliminary evaluation, performance evaluation and/or the evaluation of acceptability.
- Operational Criteria for effectiveness

References:

- IEEE Format
- Citations is very critical
- 3 years gap- recent periods

  (2019 – Present)

- 2018 will do in a “case to case” basis.

Critical Points to Remember

- Filling up a thesis (capstone design project) with descriptions of tools and technologies that are readily available in books or published literature does not add any value to the thesis.
- You must provide some discussions that demonstrate that you have performed some critical analysis of the subject matter.

Critical Points to Remember

- It is important that you describe how the tools and technologies are being applied to the project you have completed.
- You should include some discussions on evaluation of alternate tools and techniques, provide comparisons and state rationale for choosing the ones you did. (DESIGN TRADE-OFF's)

Critical Points to Remember

- Do not copy and paste diagrams that are blurry.
- Redraw the diagram instead. You should cite references, even if you redraw the diagram, unless you make substantial changes. This guideline applies to all cut-and-paste items, including graphs, and tables.

Critical Points to Remember

- Do not include any art work, such as photographs, that are blurry, or difficult to interpret.
- There must be no plagiarism.

- The similarity index should be **less than 10%.** (In final checking, 20% is OK.) → THESIS 2.
- Rephrasing with citations. Do not copy-paste.

- Similarity Index will be done using any anti-plagiarism software. (e.g. TURNIT-IN)
- NU has a license software for this.

TITLE DEFENSE FORMAT
(Separate Section)

QUESTIONS????? ☺

THANK YOU☺
STAY SAFE!!!