

TITLE

(Subtitle)

A Thesis Proposal

Submitted to the
Department X
of TUM

by
N.N.

Department X (or Y)
TUM

your@email.addresse

Date

Supervisor(s): Prof. Z (and Prof. W)
Their affiliation(s)

1 Introduction

Begin with an overview of the relevant background information to capture the reader's interest. Clearly articulate your research problem in a statement that is both specific and accessible to a general audience. Highlight the importance of your selected topic and your personal drive to conduct research in this area. Formulate a focused research question that narrows the scope of your inquiry and can be thoroughly addressed within the confines of your Master's Thesis. Define your objectives and outline your methodology for responding to the primary research question, which may include a series of sub-questions. Finally, describe the contribution that your thesis aims to make to the field of study.

1.1 Background

This thesis will explore ...

General research context: big picture

1.2 Problem diagnosis and relevance of your work

This research is needed because ...

1.3 Research question /Hypothesis /Thesis statement

This work will ...

The goal of this thesis is to ...

1.4 Approach

Describe the way you plan to answer your research question in this thesis

1.5 Preview on what the readers will find in your Master's Thesis

List main contributions; alternatively, or additionally: preview on chapter structure

2 Literature review

Conduct a systematic analysis of the relevant sources selected from your annotated bibliography. Clarify the guiding criteria behind your selection. Organise the sources according into categories based on a consistently applied set of criteria to reveal similarities and divergences among them. Round up your review by the critical assessment of the sources and clearly articulating your position.

Summarize the state of the art

Provide a critical exposition of existing literature

Supply your interpretation/analysis/stand to it

3 Methods

Describe in big moves the methods you envision to use during your work on the Master's Thesis. Map out the conceptual design of your research and delineate how you plan to collect and document your data. Set your benchmarks for your primary data analysis and assessment. Address advantages and disadvantages the chosen methods entail. Note that the subheadings entered here are not mandatory; they only serve as examples. Use instead meaningful own subheadings relevant to your thesis topic.

3.1 Research Design

3.1.1 Analytical model

I will use the following model for analysis: ...

This model will have the following parameters:

3.1.2 Simulation model

I will have a model to be capable of simulating ...

I will write the simulation model in

I will use this simulation with the following configurations:

3.2 Measures and Sources of Information

I will use the following data in my study: ...

I will collect the data by the following sampling strategy: ...

3.3 Techniques of Analysis

3.3.1 Graphical analysis

I will use the following graphical methods to analyse the results: ...

3.3.2 Numerical analysis

I will use the following numerical methods to analyse the results: ...

3.3.3 Comparative analysis

I will compare and analyse the results obtained by graphical and numerical methods in the previous steps.

3.4 Documentation

After completing the above analysis, I will write up the thesis to document the work I have completed.

3.5 Critique

The method may bear possible defects/pitfalls like ...

I will seek to overcome the problems of the approach by ...

4 Delimitations of the Thesis

Delineate the scope of your Master's Thesis defining your focus and establishing the boundaries of the research to be encompassed. Identify topics that, while potentially related, will not be part of your work and explain your rationale for excluding them.

There are several items related to this work that I will not address, such as ...

5 Thesis Outline

Be aware that the subheadings provided here are not obligatory; they are merely illustrative. Instead, create and use pertinent subheadings that are directly related to the subject of your thesis.

My thesis will contain the following sections: *(insert Outline here)*

Front Matter (4–5 pages)

- Title
- Acknowledgments
- Table of contents
- List of figures and tables
- List of abbreviations/special signs
- Glossary/Notation

Chapter 1: Introduction (6–7 pages)

- Background
- State of the art, current problems
- Research question
- Goals & Non-goals
- Hypothesis
- Approach
- Contributions

Chapter 2: Related work (5–6 pages)

- Main developments of the concept
- Competing schools of idea
- Critical assessment

Chapter 3: Technique implementation and methods (1–2 pages)

- Hardware preparation
- Data collection techniques
- Workloads
- Models – short description

Chapter 3: Analytical model (6–7 pages)

- Specification
- Application

Chapter 4: Simulation model (3–4 pages)

- Specification
- Application

Chapter 5: Results (3–4 pages)

Chapter 6: Analysis of results (5–6 pages)

- Graphical analysis
- Numerical analysis
- Comparative analysis

Chapter 7: Conclusions (1–2 pages)

Appendices (4–5 pages)

References (1–2 pages)

6 Resources

Specify all resources required to execute the project. This may include specialized hardware, software, instrumentation, equipment; access to computational resources, laboratory capacities, test site, proprietary information and research materials; also, the involvement of consultants, student assistants, test persons, etc.

7 Thesis Schedule

Develop a detailed work breakdown structure and define achievable milestones for your project. Be specific: enter exact dates for each phase. It is recommended to attach a timeline or a Gantt-chart to clearly illustrate your schedule.

1. Prepare and familiarise, 2–3 weeks
2. Develop analytical model, 4–5 weeks
3. Set-up simulation models, 2 months
4. Collect data, 2 months
5. Experiment, simulate 2–3 months
6. Analyse, 1–2 months
7. Write thesis. 1–2 months

8 Bibliography

List all publications you have already consulted, including those which you have initially skimmed and might wish to use in your Master's Thesis. Ensure that each entry has a precise and full bibliographical reference, along with your personal annotation explaining the relevance of the source. You have the freedom to select the referencing style, as well as to determine the content and length of each annotation. Below is a placeholder for different text types, which you can replace with actual entries from your own citation management database.

[1] Author 1, Title of Monograph, Year of publication, Publisher, Place of publication.
Annotation (= Short description of article content pointing out its relevance)

[2] Author 2a and 2b, Title, in: Title and Editor of Anthology, Year of publication,
Publisher, Place of publication. Page numbers.
Annotation (= Short description of article content pointing out its relevance)

[3] Author 3 et al., Title, Journal, Issue Number, Month and Year of publication.
Annotation (= Short description of article content pointing out its relevance)

....

9 Appendices

Indicate any potential supplemental work samples or outcomes of your research efforts that go beyond the scope of the thesis.

Beyond the written thesis, some other items will be produced:

- Simulation model
- Raw data
- Interview questions and protocols
- Assessment forms
- Program code
- Etc.