Working title

PROJECT IN Communication Systems   
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Subtitle

Pierre Fleitz



**KTH ROYAL INSTITUTE OF TECHNOLOGY  
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Working title

Subtitle

Pierre Fleitz

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IK2553 Project Report

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Abstract

Short problem statement

Why is this problem worthwhilet? (i.e., Why is the problem both significant and of suitable degree of difficulty to be worth a candidate/master’s degree?)

What should others be able to after your project - which could **not** be done before your project. (This is your goal.)

Keywords

Sammanfattning

Nyckelord

Acknowledgments

I would like to thank Professor Gerald Q. Maguire Jr. for having written this draft of this template on 2014.06.03.

Stockholm, Month Year  
Author’s name

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List of acronyms and abbreviations

|  |  |
| --- | --- |
|  |  |
|  |  |
|  |  |
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|  |  |
|  |  |
|  |  |
|  |  |
| ICT | Information and Communication Technology |
|  |  |
|  |  |
|  |  |
|  |  |
| WWW | World Wide Web |

# Introduction

This chapter describes the specific problem that this project addresses, the context of the problem, the goals of this project, and outlines the structure of this report.

Give a general introduction to the area. (Remember to use appropriate references in this and all other sections.)

## Background

Set the problem context for your project. (Give detailed background information in Chapter 2.)

Sometimes it is useful to insert a system diagram here so that the reader knows what are the different elements and their relationship to each other. This also introduces the names/terms/… that you are going to use throughout your project (be consistent). This figure will also help you later delimit what you are going to do and what others have done or will do.

As one can find in RFC 1235 [1] multicast is useful for xxxx[[1]](#footnote-1).

The first paragraph after a heading is not indented, all of the subsequent paragraphs have their first line indented.

## Problem definition

Longer problem statement

## Purpose

State the purpose of your **project**.

Describe who benefits and how they benefit if you achieve your goals. Include *anticipated* ethical, sustainability, social issues, etc. related to your project. (Return to these in your reflections in Section 6.4.)

## Goals

State the goal/goals of this project.

The goal of this project is XXX. This has been divided into the following three sub-goals:

1. Subgoal #1
2. Subgoal #2
3. Subgoal #3

## Research Methodology

Introduce your choice of methodology and method – and the reason why you chose them. Contrast them with and explain why you did not choose other methodologies or methods. (The details of the actual methodology and method you have chosen will be given in Chapter 3.)

## Delimitations

Describe the boundary/limits of your project and what you are explicitly **not** going to do. This will help you bound your efforts – as you have clearly defined what is **out of the scope** of this project.

## Structure of the report

Chapter 2 presents relevant background information about xxx. Chapter 3 presents the methodology and method used to solve the problem. …

# Background

This chapter provides basic background information about xxx. Additionally, this chapter describes xxx. The chapter also describes related work xxxx.

What does a reader (another x student -- where x is your study line) need to know to understand your report?

What have others already done? (This is the “related work”.)

## Major background area#1

There are xxx characteristics that distinguish *yyy* from other information and communication technology (ICT) system, as shown in Figure 2‑1. Table 2.1 summarizes these characteristics.

MC900083195[1]

Figure ‑: Lots of stars (Inspired by Figure x.y on page z of [xxx])

|  |  |
| --- | --- |
| Characteristics | Description |
| xxx |  |
| yyyy |  |
|  |  |

Table .1: *XXX* characteristics

### Subarea #1.#1Working title

### Subarea *#1.#2*

## Major background area#2

## Related work

### Major related work #1

### Major related work #2

…

### Major related work #n

### Minor related work #1

…

### Minor related work #n

## Summary

It is nice to bring this chapter to a close with a summary. For example, you might include a table that summarizes the ideas of others and the advantages and disadvantages of each – so that later you can compare your solution to each of these. This will also help guide you in defining the metrics that you will use for your evaluation.

# Methodology

What scientific or engineering methodology are you going to use and why have you chosen this method. What other methods did you consider and why did you reject them.

What are your goals? (What should you be able to do as a result of your solution - which could not be done well before you started?)

What you are going to do? How? Why? For example, if you have implemented an artifact what did you do and why? How will your evaluate it.

The purpose of this chapter is to provide an overview of the research method used in this project. Section 3.1 describes the research process. Section 3.2 details the research paradigm. Section 3.3 focuses on the data collection techniques used for this research. Section 3.4 describes the experimental design. Section 3.5 explains the techniques used to evaluate the reliability and validity of the data collected. Section 3.6 describes the method used for the data analysis. Finally, Section 3.7 describes the framework selected to evaluate xxx.

## Research Process

Figure 3.1 shows the steps conducted in order to carry out this research.

C:\Documents and Settings\Gerald Maguire\Local Settings\Temporary Internet Files\Content.IE5\2XCDIHAD\MC900056797[1].wmf

Figure .1: Research Process

## Research Paradigm

## Data Collection

(This should also show that you are aware of the social and ethical concerns that *might* be relevant to your data collection method.)

### Sampling

### Sample Size

### Target Population

## Experimental design/Planned Measurements

### Test environment/test bed/model

Describe everything that someone else would need to reproduce your test environment/test bed/model/… .

### Hardware/Software to be used

…

## Assessing reliability and validity of the data collected

### Reliability

How will you know if your results are reliable?

### Validity

How will you know if your results are valid?

## Planned Data Analysis

### Data Analysis Technique

### Software Tools

## Evaluation framework

# [What you did – Choose your own chapter title to describe this]

What you have done? How did you do it? What design decisions did you make?

How did what you did help you to meet your goals?

## Hardware/Software design …/Model/Simulation model & parameters/…

Figure 4‑1 shows a simple icon for a home page. The time to access this page when served will be quantified in a series of experiments. The configurations that have been tested in the test bed are listed ini Table 4‑1.

Figure ‑: Home page

Table ‑: Configurations tested

|  |  |
| --- | --- |
| Configuration | Description |

|  |  |
| --- | --- |
| 1 | Simple test with one server |
| 2 | Test with 4 servers |

## Implementation …/Modeling/Simulation/…

# Analysis

How you are going to evaluate what you have done? What are your metrics?

Analysis of your data and proposed solution

Does this meet the goals which you had when you started?

In this chapter, we present the results and discuss them.

## Major results

Some statistics of the delay measurements are shown in Table 5‑1.

The delay has been computed from the time the GET request is received until the response is sent.

|  |  |  |
| --- | --- | --- |
| Configuration | Average delay (ns) | Median delay (ns) |
| 1 | 467.35 | 450.10 |
| 2 | 1687.5 | 901.23 |

Table ‑: Delay measurement statistics

## Reliability Analysis

## Validity Analysis

## Discussion

# Conclusions and Future work

<<Add text to introduce the subsections of this chapter.>>

## Conclusions

Did you meet your goals?

What insights have you gained?

What suggestions can you give to others working in this area?

If you had it to do again, what would you have done differently?

## Limitations

What did you find that limited your efforts? What are the limitations of your results?

## Future work

What you have left undone?

What are the next obvious things to be done?

What hints can you give to the next person who is going to follow up upon your work?

## Reflections

What are the relevant economic, social, environmental, and ethical aspects of your work?

References

<< Let Zotero or other tool fill this in for you. I suggest an extended version of the IEEE style – to include URLs, DOIs, ISBNs, etc. – to make it easier for your reader to find them. This will make life easier for your opponents and examiner.>>

[1] J. Ioannidis and G. Maguire, ‘Coherent File Distribution Protocol’, *Internet Request for Comments*, vol. RFC 1235 (Experimental), June 1991, Available at http://www.rfc-editor.org/rfc/rfc1235.txt.

Appendix A: xxx

Appendix B: Detailed results

TRITA-ICT-EX-2015:xx

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1. An example of the placement of a footnote. [↑](#footnote-ref-1)