Title of dissertation or thesis

by

Full Names and Surname

Submitted in partial fulfilment of the requirements for the degree

Master of Engineering (Electronic Engineering)

in the

Department of Electrical, Electronic and Computer Engineering

Faculty of Engineering, Built Environment and Information Technology

UNIVERSITY OF PRETORIA

June 2017

SUMMARY

Title of dissertation or thesis

by

Full Names And Surname

Supervisor: Prof. A.B. Professor

Department: Electrical, Electronic and Computer Engineering

University: University of Pretoria

Degree: Master of Engineering (Electronic Engineering)

Keywords: Keyword, keyword, keyword, keyword, keyword, keyword, keyword, keyword, keyword, keyword, keyword, keyword

This is EECE Dissertation Template version 2017-06-12 for Microsoft WORD. Summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one summary paragraph one.

Summary paragraph two summary paragraph two summary paragraph two summary paragraph two summary paragraph two summary paragraph two summary paragraph two summary paragraph two summary paragraph two summary paragraph two summary paragraph two summary paragraph two summary paragraph two summary paragraph two summary paragraph two summary paragraph two summary paragraph two summary paragraph two summary paragraph two summary paragraph two summary paragraph two summary paragraph two paragraph two summary paragraph two summary paragraph two summary paragraph two summary paragraph two paragraph two summary paragraph two summary paragraph two summary paragraph two summary paragraph two paragraph two summary paragraph two summary paragraph two summary paragraph two summary paragraph two.

opsomming [opTionAl]

Titel van die verhandeling of proefskrif

deur

Volle name en Van

Studieleier: Prof. A.B. Professor

Departement: Elektriese -, Elektroniese - en Rekenaaringenieurswese

Universiteit: Universiteit van Pretoria

Graad: Magister in Ingenieurswese (Elektroniese Ingenieurswese)

Sleutelwoorde: Sleutelwoord, sleutelwoord, sleutelwoord, sleutelwoord, sleutelwoord, sleutelwoord, sleutelwoord, sleutelwoord, sleutelwoord, sleutelwoord

Opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een opsomming paragraaf een.

Opsomming paragraaf twee opsomming paragraaf twee opsomming paragraaf twee opsomming paragraaf twee opsomming paragraaf twee opsomming paragraaf twee opsomming paragraaf twee opsomming paragraaf twee opsomming paragraaf twee opsomming paragraaf twee opsomming paragraaf twee opsomming paragraaf twee opsomming paragraaf twee opsomming paragraaf twee opsomming paragraaf twee opsomming paragraaf twee opsomming paragraaf twee opsomming paragraaf twee opsomming paragraaf twee opsomming paragraaf twee.

LIST OF ABBREVIATIONS

EMI electromagnetic interference

GPS Global Positioning System

TABLE OF CONTENTS

CHAPTER 1 INTRODUCTION 1

1.1 Problem statement 1

1.1.1 Context of the problem 1

1.1.2 Research gap 1

1.2 Research objective and questions 2

1.3 approach (for illustration this heading continues onto the next line) 2

1.4 Research goals 3

1.5 Research contribution 3

1.6 RESEARCH OUTPUTS 3

1.7 Overview of study 3

CHAPTER 2 Literature study 4

2.1 Chapter objectives 4

2.2 First theme of literature study 4

2.3 Second theme of literature study 4

2.3.1 A subsection 5

2.3.2 A subsection with a long heading that continues from the first onto the second line 5

2.4 Third theme of literature study 5

2.5 More literature study themes 6

2.6 REFERENCING 7

2.7 CHAPTER SUMMARY 7

CHAPTER 3 Methods (for illustra-tion this heading continues onto the next line) 8

CHAPTER 4 Results 9

CHAPTER 5 Discussion 10

CHAPTER 6 Conclusion 11

REFERENCES 13

ADDENDUM A MATERIAL CONSTANTS AND OTHER PARAMETERS 14

# INTRODUCTION

## Problem statement

### Context of the problem

Context of the problem context of the problem context of the problem context of the problem context of the problem context of the problem context of the problem context of the problem context of the problem context of the problem context of the problem context of the problem context of the problem context of the problem context of the problem context of the problem context of the problem context of the problem context of the problem context of the problem.

Context of the problem context of the problem context of the problem context of the problem context of the problem context of the problem context of the problem context of the problem context of the problem context of the problem context of the problem context of the problem context of the problem.

### Research gap

Research gap research gap research gap research gap research gap research gap research gap research gap research gap research gap research gap research gap research gap research gap research gap research gap research gap research gap research gap research gap research gap research gap research gap research gap research gap research gap research gap research gap research gap.

## Research objective and questions

Research objective and questions research objective and questions research objective and questions research objective and questions research objective and questions research objective and questions research objective and questions research objective and questions research objective and questions research objective and questions research objective and questions research objective and questions research objective and questions research objective and questions.

Research objective and questions research objective and questions research objective and questions research objective and questions research objective and questions research objective and questions research objective and questions research objective and questions research objective and questions research objective and questions research objective and questions research objective and questions:

* Is this a research question?
* Is this the second research question?
* Is this the third research question?

Research objective and questions research objective and questions research objective and questions research objective and questions research objective and questions.

## approach (for illustration this heading continues onto the next line)

Paragraph on approach paragraph on approach paragraph on approach paragraph on approach paragraph on approach paragraph on approach paragraph on approach paragraph on approach.

## Research goals

Research goals research goals research goals research goals research goals research goals research goals research goals research goals research goals research goals research goals research goals research goals.

## Research contribution

Research contribution research contribution research contribution research contribution research contribution research contribution research contribution research contribution research contribution.

## RESEARCH OUTPUTS

List all research outputs here (patents, ISI journal papers, international conferences etc.)

## Overview of study

In Chapter 2 a literature study was performed. It was found that…

In Chapter 3 the main research method is discussed.

In Chapter 4 the results obtained, are provided.

In Chapter 5 the results are discussed and main observations provided.

In Chapter 6 some concluding remarks are made.

# Literature study

## Chapter objectives

Chapter objectives chapter objectives chapter objectives chapter objectives chapter objectives chapter objectives chapter objectives chapter objectives chapter objectives chapter objectives chapter objectives chapter objectives chapter objectives chapter objectives chapter objectives chapter objectives chapter objectives chapter objectives chapter objectives chapter objectives chapter objectives chapter objectives.

## First theme of literature study

First theme of literature study first theme of literature study first theme of literature study first theme of literature study first theme of literature study first theme of literature study first theme of literature study first theme of literature study first theme of literature study first theme of literature study.

## Second theme of literature study

Second theme of literature study second theme of literature study second theme of literature study second theme of literature study second theme of literature study second theme of literature study second theme of literature study second theme of literature study second theme of literature study second theme of literature study second theme of literature study second theme of literature study second theme of literature study second theme of literature study.

### A subsection

A subsection a subsection a subsection a subsection a subsection a subsection a subsection a subsection a subsection a subsection a subsection a subsection a subsection a subsection a subsection.

### A subsection with a long heading that continues from the first onto the second line

A subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading.

Equation (2.1) gives the relationship between terminal current *I* and voltage *V*:

 *V = IR* (2.1)

A subsection with a long heading a subsection with a long heading.

## Third theme of literature study

Third theme of literature study third theme of literature study third theme of literature study third theme of literature study third theme of literature study third theme of literature study third theme of literature study third theme of literature study third theme of literature study third theme of literature study.



Figure 2.1. This is a figure caption.

Third theme of literature study third theme of literature study third theme of literature study third theme of literature study.

## More literature study themes

More literature study themes more literature study themes more literature study themes more literature study themes more literature study themes more literature study themes more literature study themes more literature study themes more literature study themes more literature study themes more literature study themes more literature study themes more literature study themes more literature study themes more literature study themes more literature study themes.



 (a) (b)

Figure 2.2. This is the caption for a figure with two sub-figures.

(a) Histogram and tree. (b) Histogram and tree.

Table 2.1 This is a table caption.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column 1** | **Column 2** | **Column 3** | **Column 4** | **Column 5** |
|  |  |  |  |  |
|  |  |  |  |  |

## REFERENCING

In Chapter x …. In Section 2.6 …. In Table 2.1 …. In Figure 2.2 …. In Equation (2.1) … *or* In (2.1) ...

Shannon *et al.* [1] (IEEE format) showed that… or (Shannon, mini-me and Shannonkie, 1948) (Harvard format) showed that ….

## CHAPTER SUMMARY

In this chapter an overview of bla bla bla was provided.

In Section 2.2 the first theme was provided. It was found that…

In Section 2.3 ….. etc. etc.

# Methods (for illustra-tion this heading continues onto the next line)

# Results

# Discussion

# Conclusion

Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document context of the problem.

Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document context of the problem.

Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document context of the problem.

Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document Conclusion to document context of the problem.

# REFERENCES

IEEE style

[1] C. Shannon, “A Mathematical Theory of Communications”, *Bell Systems Technical Journal*, vol. 27, October 1948.

Harvard style

Blamey, P., Arndt, P., Bergeron, F., Bredberg, G., Brimacombe, J., Facer, G., Larky, J., Lindström, B., Nedzelski, J., Peterson, A., Shipp, D., Staller, S., & Whitford, L. (1996). Factors Affecting Auditory Performance of Postlinguistically Deaf Adults Using Cochlear Implants, *Audiology and Neuro-Otology*, **1**(5): 293-306.

# ADDENDUM A MATERIAL CONSTANTS AND OTHER PARAMETERS

## A.1 Example of a section

A.1.1 Example of a subsection

A subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading.

A subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading.

A subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading a subsection with a long heading.