# [Your Thesis Title]



## By [Your Name]

Master of Applied Science

Supervised by [Supervisor's Name]

Department of Electrical and Computer Engineering
Queen's University
Kingston, Ontario, Canada
April 2019
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In this works we describe a novel Thesis Template, to be used by students in Electrical & Computer Engineering at Queen's University. This section entails the abstract of the document.

I would like to acknowledge my parents and friends. This thesis, a manifestation of the many sleepless nights, would not have been possible without their support. This section highlights your acknowledgment of individuals whom you believe deserve recognition for their contribution towards making your achievement possible.

The following works is my own and I hereby certify the intellectual content of this thesis is the product of my own work. All references and contributions of other individuals has been cited and sourced appropriately, as defined by the IEEE Citation Reference manual.

This section is your statement of originality. The requirement differs for MASc and PhD, therefore it is recommended your discuss this section with your supervisor]

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## Introduction

#### 1.1 Introduction

• What will this thesis demonstrate?

#### 1.2 Motivation

- What is the motivation to research this subject?
- What impact will your research have on the industry or the world?

The goal of this thesis is to demonstrate a novel methodology, a new generation of technology or an innovative system.

## 1.3 Problem Statement

- Existing Technology
- Limitations of existing technology

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### 1.4 Thesis Contributions

The main contributions of this thesis are as follows:

- We propose a novel methodology for solving a complex problem.
- We have greatly innovated on existing methodologies by using a new technique of our own conception
- We have formulated a new technique which we hope will be the inception of a new generation of technology

#### 1.5 Thesis Outline

The remainder of this thesis is organized as follows: Chapter 2, Background:

Background

Chapter 3, Methods: Methodology

Chapter 4, Results: Experimental Results

Chapter 5, Future Work And Conclusions: Conclusion

## Background

## 2.1 Background

- Broad description of subject
- Some relevant history
- Current implementations in industry
- New & Related Research on the subject

Citations can be included in your manuscript by referencing them. For example, if I wanted to cite XKCD for a comic (as I have in figure B.1), I would just do [2].

# ${\bf Methodology}$

## 3.1 Methodology

• How does you research work?

The following is an example of a table:

Things	Other Things	Last Thing
X		
	X	
		X

Table 3.1: Test Table

The following is an example of a flow diagram:

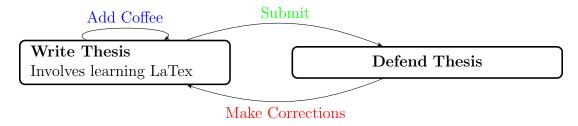


Figure 3.1: A sample flow diagram

NOTE! The syntax for figures is:

\begin{figure}[placement specifier]
... figure contents ...
\end{figure}

See the wikibook on latex figures to see all the possibilities: https://en.wikibooks.org/wiki/LaTeX/Floats,\_Figures\_and\_Captions

NOTE! There is an easier way to make diagrams than by coding them (as is demonstrated by the flow diagram below). See this website: https://www.draw.io/will help you create an diagram easily. All you need to do is insert it in as a .jpg file (see the example insertion of a figure in B.1 (Appendix B)).

# **Experimental Results**

## 4.1 Experimental Results

- $\bullet\,$  Describe the experimental setup (ie. Hardware)
- Describe your experiments
- Describe your results

The following is an example code listing:

Listing 4.1: Test Plot Code

```
import numpy as np
import matplotlib
import matplotlib.pyplot as plt

matplotlib.rc('font', family='serif')
matplotlib.rc('font', serif='Computer_Modern_Roman')
matplotlib.rc('text', usetex=True)
matplotlib.rc('ps', usedistiller='xpdf')

fig = plt.figure()
ax = fig.add_subplot(111)
ax.plot(10*np.random.randn(100), 10*np.random.randn(100), 'o')

plt.savefig('testPlot.png', bbox_inches='tight')
plt.show()
```

## Conclusion

### 5.1 Future Work

- How do you hope to continue work on this topic?
- Are there possible extensions?
- What are some improvements that could be made?

## 5.2 Conclusion

- Restate the problem. State the novel solution.
- Summarize what has been accomplished
- Summarize any limitations
- What worked really well and has a big impact?

## Bibliography

- [1] Big bang warm kitty, soft kitty (sheldon's lullaby sick song) instrumental version lyrics metrolyrics. http://www.metrolyrics.com/warm-kitty-soft-kitty-sheldons-lullaby-sick-song-instrumental-version-lyrics-bhtml?ModPagespeed=noscript. (Accessed on 10/20/2017).
- [2] xkcd: Thesis defense. https://xkcd.com/1403/. (Accessed on 10/20/2017).
- [3] Umberto Eco. How to write a thesis. MIT Press, 2015.
- [4] Brian Paltridge. Thesis and dissertation writing: an examination of published advice and actual practice. *English for Specific Purposes*, 21(2):125–143, 2002.
- [5] Mary Shaw. Writing good software engineering research papers. In Software Engineering, 2003. Proceedings. 25th International Conference on, pages 726–736. IEEE, 2003.

## Appendix A

## Supporting Data

Appendix sections are where you can place large figures, data tables, and spinets of code. Use appendices to your benefit to keep the body of your thesis concise!

The lyrics found below are for your enjoyment, but also serve an important role in demonstrating latex syntax for formating text and in-text citations.

### A.1 Lyrics to Soft Kitty

Soft kitty, warm kitty

Little ball of fur

Happy kitty, sleepy kitty

Purr, purr, purr

This has been brought to you by Sheldon Cooper [1]

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## Appendix B

## Satirical Support

This section provides some comic relief. In addition, it serves as an example of how to insert an image into your thesis with proper caption, label and citation.

## B.1 Advice from XKCD:



THE BEST THESIS DEFENSE IS A GOOD THESIS OFFENSE.

Figure B.1: You must prepare to defend your thesis [2]

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