# A LaTeX Thesis Template for ENCS Graduate Student from Concordia University

Suo Tan

A Thesis

in

The Department

of

Mechanical and Industrial Engineering

Presented in Partial Fulfillment of the Requirements

for the Degree of

Doctor of Philosophy (Industrial Engineering) at

Concordia University

Montréal, Québec, Canada

November 2015

CONCORDIA UNIVERSITY

School of Graduate Studies

This is to certify that the thesis prepared

By:  **Mr. Suo Tan**

Entitled:  **A LaTeX Thesis Template for ENCS Graduate Student from Concordia University**

and submitted in partial fulfillment of the requirements for the degree of

**Doctor of Philosophy (Industrial Engineering)**

complies with the regulations of this University and meets the accepted standards with respect to originality and quality.

Signed by the Final Examining Committee:

_____ Chair
*Dr. Name of the Chair*

_____ External Examiner
*Dr. Name of External Examiner*

_____ Examiner
*Dr. Name of Examiner One*

_____ Examiner
*Dr. Name of Examiner Two*

_____ Supervisor
*Dr. Yong Zeng*

Approved by     _____
Martin D. Pugh, Chair
Department of Mechanical and Industrial Engineering

_____ 2015          _____
Amir Asif, Dean
Faculty of Engineering and Computer Science

# Abstract

**A LaTeX Thesis Template for ENCS Graduate Student from Concordia University**

**Suo Tan, Ph.D.**

**Concordia University, 2015**

This thesis template has been created to make it easy to prepare your thesis using LaTeX while adhering to the Concordia University Thesis Specifications posted online. The official thesis examples are provided here: http://www.concordia.ca/content/dam/concordia/offices/sgs/docs/handbooks/thesispreparationguide.pdf. The template has been tested with TeXstudio, TeXworks, CTex, and TeXnic under MikTex 2.9, with UTF-8 encoding.

# Acknowledgments

Text of acknowledgments.

# Contents

# List of Figures

# List of Tables

# Chapter 1

# Introduction

Chapter 1 provides a brief summary on some basic LaTeX elements to be used in a thesis. A comprehensive literature review on [your topic] is presented in Chapter 2. Bla bla bla ....

## 1.1 Figure and Table

Text body of the Section 1.1.

### 1.1.1 Figure

A figure example is shown in Figure 1.1.

### 1.1.2 Table

Table 1.1 illustrates a very complex table with figures in its cells.

## 1.2 Itemized examples using list structures in LaTeX

Item list using "itemize" structure are given below:

- Use bold/italic for emphasis, but keep its use to a minimum. Avoid using underlining in your paper.

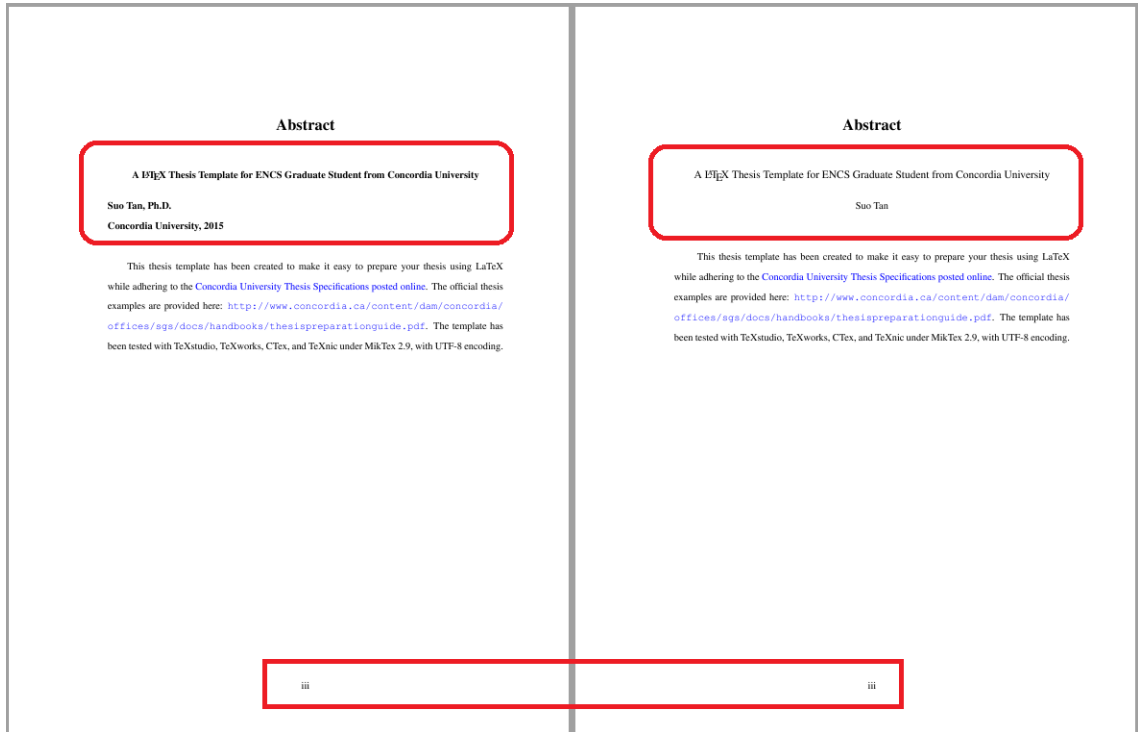- Use a consistent spelling style throughout the paper (US or UK).

Figure 1.1: An illustration of requirement compliance.

Table 1.1: Elements defined for the ROM (Zeng, 2008).

| | Type | Graphic Representation | Description |
|---|---|---|---|
| Object | Object | O | Everything in the universe is an object |
| | Compound Object | O | It is an object that includes at least two objects in it |
| Relation | Constraint Relation | ξ | It is a descriptive, limiting, or particularizing relation of one object to another |
| | Connection | ι | It is to connect two objects that do not constrain each other |
| | Predicate Relation | ρ | It describes an act of an object on another or that describes the states of an object |

- Use double quotes.

- Use %, not percent.

- Do not use ampersands (&) except as part of the official name of an organization or company.

• Keep hyphenation to a minimum. Do not hyphenate 'coordinate' or 'non' words, such as 'nonlinear'.

The following are using "`enumerate`" structure:

(1) For complete or near complete sentences, begin with a capital letter and end with a full stop.

(2) For short phrases, start with lower case letters and end with semicolons.

## 1.3  Algorithm

The pseudo code shown in Algorithm 1 describes the proposed algorithm.

---
**Algorithm 1** Calculate the probability of $G$

---
**Require:** $p \in [0, 1]$, $G$
**Ensure:** None
1: **for** $i = 0 \rightarrow 2^d - 1$ **do**                                                    $\triangleright$ $d$ is an integer
2:   **if** $n(\nu_i) = 0$ **then**
3:     **if** $x < p$ **then**                              $\triangleright$ $x$ is a normal distribution number in the range of $[0, 1]$
4:       Occupy $v_i$ site with probability $p$
5:     **end if**
6:   **end if**
7: **end for**

---

## 1.4  Equation

An equation example is shown in Eq. 1.

$$f(ENC) = \int_0^1 (e^x + x^2) \tag{1}$$

3

## 1.5   Quotations

"It was easier in the beginning when there was only the RED-camera, but now, after RED, it just continuous. And all the different manufacturers, they cannot agree upon what is the standard file format, codec, or compression algorithms, and so on. It is a jungle."

CEO, Full Name (Company A)

## 1.6   Citations

It is suggested that you choose "\citet" and/or "\citep" to cite references. The "\citet{key}" gives you a format of "Name (1990)", whileas "\citep{key}" delivers a format of "(Name, 1990)". For example, Wang and Zeng (2009) extended their research from (Zeng, 2008).

# Chapter 2

# Literature Review

Put your literature review contents here.

# Appendix A

# My Appendix

Appendix figure example is shown in A.1 below



Figure A.1: An figure example in Appendix A.

# References

Wang, M., & Zeng, Y. (2009, April). Asking the right questions to elicit product requirements. *International Journal of Computer Integrated Manufacturing*, *22*(4), 283–298. Retrieved from http://dx.doi.org/10.1080/09511920802232902 doi: 10.1080/09511920802232902

Zeng, Y. (2008, August). Recursive object model (ROM) – Modelling of linguistic information in engineering design. *Computers in Industry*, *59*(6), 612–625. Retrieved 2015-10-21, from http://www.sciencedirect.com/science/article/pii/S0166361508000249 doi: 10.1016/j.compind.2008.03.002