

Thesis Title

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Abstract

Abstract text goes here.

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Acknowledgements

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Declaration

With the exception of chapters 1, 2 and 3, which contain introductory material, all work in this thesis was carried out by the author unless otherwise explicitly stated.

Chapter 1

Introduction

Here starts the thesis with some text to check that things are working. Let's refer to figure 1.1 to check that the captions and labels work. I shall also check that `sanserif` and `typewriter` work. And here is equation (1.1) too,

$$v = L \frac{di}{dt}. \quad (1.1)$$

A report is a formal document and should be written in appropriate language. Numerous books offer advice on writing reports and a selection is listed in the references at the end. Here are a few tips.

- Reports should be written in correct English. Break text into paragraphs, keep sentences to a reasonable length and insert appropriate punctuation. Use a spell-checker and a grammar-checker if desired but neither is a substitute for careful reading.
- A report is not a story. Write 'The voltage was measured' rather than 'I measured the voltage'. This document contains instructions and therefore uses a different style.
- Define all abbreviations when they are first used: 'The accelerometer uses a serial peripheral interface (SPI)'. Provide a list of abbreviations if you use a large number of them.
- Don't write material that you don't understand. It will be obvious to the reader.

The quality of English is assessed as part of the report. Foreign students may feel this to be a



Figure 1.1: This is the university logo, used as an example because it is needed for the front page.

burden but part of their education in this country is to learn to work effectively in an English-speaking environment.

1.1 Precision

An engineering report must be precise. This applies both to the language and to numerical values. For example, the words *precision* and *accuracy* are often used interchangeably in non-technical discussion but the distinction between them is vital in engineering. Vague, waffly text is a major weakness of many students' technical reports (and examination answers).

1.1.1 A subsection

Figures (diagrams, photographs etc) and tables must have informative captions and be numbered. Axes of graphs should have scales, titles and units, otherwise the plot is meaningless. Multiple curves must be labelled, either directly or with a caption. Use dotted or dashed lines as well as colour for clarity; remember that the reader might be colour-blind or have only a black-and-white printout. All text must be legible, roughly the same size as the main text. Be warned that plots from Excel or Matlab need extensive editing to bring them up to an acceptable standard. Experimental traces can be captured on most modern test equipment and can make good illustrations.

Chapter 2

Methodology

Here is another chapter to explain how the work was carried out.

Appendix A

Derivation of the equation

This is such boring material that it has been relegated to an appendix. Let's check an equation:

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}. \quad (\text{A.1})$$

Let's hope I got it correct.

Bibliography

- [1] Bastard, G. (1988). *Wave mechanics applied to semiconductor heterostructures*. New York: Halsted; Les Ulis: Les Editions de Physique.
- [2] Kelly, M. J. (1995). *Low-dimensional semiconductors: materials, physics, technology, devices*. Oxford: Oxford University Press.
- [3] Weisbuch, C., and Vinter, B. (1991). *Quantum semiconductor structures*. Boston: Academic Press.