SCHOOL OF ELECTRICAL ENGINEERING
AND TELECOMMUNICATION

Requirements to Theses and Group Theses Submitted at EE&T

by

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Thesis submitted as a requirement for the degree

Bachelor of Engineering (Electrical Engineering)

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Abstract

abstract goes here

Abbreviations

BSOC Battery State of Charge

BMS Battery Monitoring System

CAN Controller Area Network

Contents

Chapter 1

Introduction

Battery blah

Chapter 2 explains the background for this document. Chapter **??** states the style and submission related requirements to theses submitted at the school. Chapter 3 explains content related requirements to theses. Chapter 4 evaluates the thesis requirements template. Finally, Chapter 5 draws up conclusions and suggest ways to further improve the thesis requirements template.

Chapter 2

Background

blah blah WSC blah blah importance of the battery within the car

2.1 Previous work

past designs within the team, outside of the team, BMS construction etc

Requirements for other parts of the thesis work can be found on the school web-pages [4]. The requirements below are for the written thesis only.

2.2 Format

The following format specifications must be adhered to for your thesis (the LaTeX template available from the school ensures this):

1. The thesis must be printed on *A4 size paper*.
2. The thesis must be typed or prepared using a *word-processor*. You are encouraged to use both sides of the paper.
3. *Margins* on all sides must be no less than 25 mm (before binding).
4. *1.5 line spacing* (about 8 mm per line) must be used.
5. All sheets must be *numbered*. The main body of the thesis must be numbered consecutively from beginning to end. Other sections must either be included or have their own logical numbering system.
6. The *title page* must contain the following information:
   (a) University and School names.
   (b) Title of Thesis/Project.
   (c) Topic Number (if applicable).
   (d) Name of Author and student ID.
   (e) The degree the thesis is submitted for.
   (f) Submission date (month and year).
   (g) Supervisor's name.

2.3 Other physical appearance

Other requirements to the physical appearance of your theses are:

1. The report must be *spiral bound* (at your own cost).

2. Formulas and other items difficult to type may be *neatly hand-written* in *permanent* black ink.

3. *Graphs, diagrams and photographs* should be inserted as close as possible to their *first reference* in the text. Rotated graphs etc are to be arranged so as to be conveniently read, with the bottom edge to the outside of the page. *Graphs and diagrams must be legible!*

4. *Photographs* must be permanently attached to sheets at least along their left edge. Double sided adhesive may be used to attach photographs. Photographs printed on A4 size lightweight paper may be bound directly into the thesis.

5. *Computer programs* and *engineering drawings* should be bound into the thesis, usually in an appendix.

6. *Floppy diskettes/CD* may be attached to the back cover of the thesis folder using self adhesive tape or in a secure pocket.

2.4 Submission

Finally, here are some requirements to the submission procedure.

1. The *author* of the thesis is *responsible* for the preparation of the thesis before the deadline, proofreading the typescript and having corrections made as necessary.

2. All students must submit a *thesis summary sheet* with their thesis report. This summary sheet is designed to assist in determining the overall input by students into the thesis work. Please note that a separate summary sheet must be submitted by individual student, even if part of a group submitting a group thesis. The

guidelines for completing the summary sheet and the summary sheet form can be downloaded from the School Office Website.

3. *Two copies* of each thesis/group thesis report must be submitted.

4. Students doing a *Group Thesis* are required to write and hand in *individual reports*. The reports should be clearly distinguishable, and appropriately cross referenced to each other. The common work overlapping between the reports should be clearly identified.

5. There is a *page limit* of 100 pages for the main body of the thesis.

Chapter 3

Content Requirements

Students should consult the literature (e.g. [5, 6, 1]) and other resources for material on how to write a good thesis. The present document is only a very brief introduction as to what is expected.

3.1 Structure

Most theses are structured very much like the present document. The main part of the thesis can be structured in many different ways, however, but must contain: a *problem definition*; *theory* and *considerations* on how to solve the problem; a description of the *solution method* (dimensioning, construction, etc.); presentation of *results* (measurements, simulations, etc.); a *discussion* of the results (validity, deviations, comparison with previous solutions, etc.); and finally the *conclusions*.

3.2 Style of writing

1. Audience: The thesis must be addressed to engineers at the same level as the student but without the special knowledge gained during the thesis work. Such a third-person must be able to reconstruct the results on the basis of the thesis alone.

2. Every used concept/symbol/abbreviation which is not widely know must be *defined*. The wording should be *short* and *concise*; a suitable length is 40–70 pages (plus

appendices). Readable(!) *figures* and *graphs* enhances comprehensibility.

3. Units. *SI units* must be used.

3.3 Documentation

1. The work must be well documented; i.e. enclosed must be the *complete schematics* of designed electronic circuits/test set-ups and/or a *program listing*, and/or etc. Documentation of *simulation results* and/or *measurement results* likewise.

2. References: For every declaration/equation/method/etc., which is not widely known, a *reference to the literature* must be given (or a 'proof' if it is the authors own work). In case material is copied verbatim, quotes must be used. This is also the case when referring to partners work in the case of a Group Thesis.

3. Plagiarism: Failure to give proper references to the literature is *plagiarism*. Plagiarism is considered serious offence and severe penalties may apply.

Chapter 4

Evaluation

4.1 Results

4.2 Discussion

Chapter 5

Conclusion

stuff happened

5.1 Future Work

further development of firmware

Bibliography

[1] Bruce M. Cooper. *Writing Technical Reports*. Penguin Books, Middlesex, 1964.

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[4] Saeid Nooshabadi. Bachelor of engineering thesis and project: timetable and notes for students. http://scoff.ee.unsw.edu.au/document/thesis/thnotes2.pdf, accessed 14/11/2005, 2005. School of El. Eng. and Telecom., UNSW.

[5] Charles H. Sides. *How to Write & Present Technical Information*. Cambridge University Press, Cambridge, 3rd edition, 1999.

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