FAIRFIELD UNIVERSITY School of Engineering

Title

A Thesis

By

When writing an abstract, bear in mind an abstract is a short descriptive summary of your thesis. The number of words accepted might vary e.g. 200-250 words. An MS thesis abstract need not exceed two pages. Abstracts are typically written last although they are the most important part of the thesis. They should have a compilation of: the background, the scope of your project, the purpose, findings and conclusions. An abstract is neither paragraphed nor cited. It should not be written as a literature review or a discussion of results. In a simplistic manner, your abstract, in a few words, should answer the questions: why should we care about your research; how did you get your results; what did you learn, find, create, invent; and finally what do your results imply?

--there is text and instructions throughout that need to be deleted as you add your own text --

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It is customary and good manners to say thank you. Please write a few words to express your gratitude to those who offered their time and effort to make your research better.

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The table of contents is most easily created automatically using tools within WORD. The chapter titles and section headers should have been set to create a table of contents. It is important that the styles laid out in this template are used to maximize the benefits of the template and MS WORD options. The table of conten

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The list of tables is also easily created automatically (!!) with REFERENCE tools within WORD. Click on the following sequence: "insert, reference, index and tables, table of figures, (find "caption label" box set as – tables), okay." This can be updated as you revise your thesis by using right mouse button and clicking on "update field." With this

The List of Figures is most easily created automatically (!!) with REFERENCE tools within WORD. Click on the following sequence: insert, reference, index and tables, table

These define the required steps; they do not define the outcome so they are NOT objectives.

Some theses and dissertations can have some chapters written as manuscripts that can be submitted to peer-reviewed scientific research journals. In that scenario, the grad student should be the principal author of the pending articles. The thesis or dissertation that includes manuscripts as chapters are not exempt from writing an introduction, background/ literature review and overall conclusions and recommendations.

This template uses the MS WORD STYLES extensively to help keep your work in the proper format. These paragraphs use the "thesis-body text" style that is set for Times New Roman, 12 point font with double spaced lines and extra spacing between paragraphs (no need for hard carriage returns). There are also styles for headers,

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The background and literature review section needs to provide sufficient fundamental background information about the subject to support your objectives, hypothesis (or research questions) and methods, and review the pertinent literature related to the specific problem / hypothesis you are addressing. In Johnson (1991), some of the questions that he listed that the literature review should be to answer include:

what are the fundamental science, math, engineering conce-(c) 4de: b.0 sc q50 392 -150B -7 (e) 4 (s)

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chapter titles). The heading styles formats should be consistent throughout the document as it helps significantly in creating the automatic table of contents.

The subheadings here have a different format ("heading 3") than the section headers.

Sub-sub heading (heading 4)

You can even get to another level of headers, defined here as "heading 4." The table of contents, however, is currently set up to just include three levels of headers.

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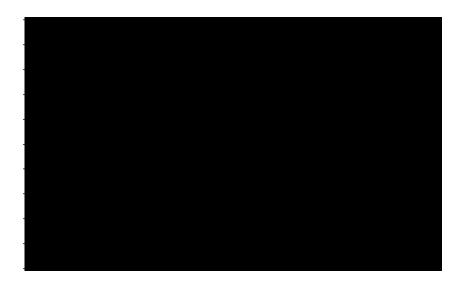
Tables should have meaningful information with descriptive headers. You can use the "thesis-table caption" style to define your captions and refer to the table in the

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Figure 1: Example photo with high resolution. Caption created with "insert, reference, caption, and figure" and the style changed to "thesis-figure caption."



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Figure 2: Example of high resolution graphic inserted with "paste special, as enhanced metafile"

In addition to the detailed methods, you need to provide specific objectives and an overview of your approach if they have not already been presented in the introductory

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Results, findings, discussion of results OR manuscripts. It is best to also reiterate information in your literature review to help substantiate the findings of your research.

This template is best used for directly typing in your content.

This chapter could also be called "Conclusions and Recommendations" or "Conclusions and Implications." In general, there should be no new information presented here. It should be a synthesis of information that you've already discussed.

Includes all references: articles, media facts, books, reports, regulations, internet articles, papers that you referenced from the text. You can include the citations in the text as a number [1] to present your references numerically. The MS WORD tools – "insert, reference, footnote, endnote" (or "cross reference" if you refer to the same reference more than once) should be used to help you organize and manage your references.

References can be written in single space with extra space between references as in the format below. There are many different ways to arrange the information and punctuation in a reference listing. The most important thing is to make sure all references are complete and that the format of your references is consistent throughout. Journals of the IEEE Transactions use the following reference format. Various types of references are listed below with examples and may be used appropriately.

Basic format for books:

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J. K. Author, "Title of chapter in the book," in

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- [1] G. O. Young, "Synthetic structure of industrial plastics," in Plastics, vol. 3, Polymers of Hexadromicon, J. Peters, Ed., 2nd ed. New York, NY, USA: McGraw-Hill, 1964, pp. 15-64. [Online]. Available: http://www.bookref.com.
- [2] The Founders' Constitution, Philip B. Kurland and Ralph Lerner, eds., Chicago, IL, USA: Univ. Chicago Press, 1987. [Online]. Available: http://press-pubs.uchicago.edu/founders/
- [3] The Terahertz Wave eBook. ZOmega Terahertz Corp., 2014. [Online]. Available: http://dl.z-thz.com/eBook/zomega_ebook_pdf_1206_sr.pdf. Accessed on: May 19, 2014.
- [4] Philip B. Kurland and Ralph Lerner, eds., The Founders' Constitution. Chicago, IL, USA: Univ. of Chicago Press, 1987, Accessed on: Feb. 28, 2010, [Online] Available: http://press-pubs.uchicago.edu/founders/

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- [5] J. S. Turner, "New directions in communications," IEEE J. Sel. Areas Commun., vol. 13, no. 1, pp. 11-23, Jan. 1995.
- [6] W. P. Risk, G. S. Kino, and H. J. Shaw, "Fiber-optic frequency shifter using a surface acoustic wave incident at an oblique angle," Opt. Lett., vol. 11, no. 2, pp. 115–117, Feb. 1986.
- [7] P. Kopyt et al., "Electric properties of graphene-based conductive layers from DC up to terahertz range," IEEE THz Sci. Technol., to be published. DOI: 10.1109/TTHZ.2016.2544142.

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Example for papers presented at conferences (unpublished):

[13] D. Ebehard and E. Voges, "Digital single sideband detection for interferometric sensors," presented at the 2nd Int. Conf. Optical Fib

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Basic formats for standards:

- a) Title of Standard, Standard number, date.
- b) Title of Standard, Standard number, Corporate author, location, date.

Examples:

- [20] IEEE Criteria for Class IE Electric Systems, IEEE Standard 308, 1969.
- [21] Letter Symbols for Quantities, ANSI Standard Y10.5-1968.

Article number in reference examples:

- [22] R. Fardel, M. Nagel, F. Nuesch, T. Lippert, and A. Wokaun, "Fabrication of organic light emitting diode pixels by laser-assisted forward transfer," Appl. Phys. Lett., vol. 91, no. 6, Aug. 2007, Art. no. 061103.
- [23] J. Zhang and N. Tansu, "Optical gain and laser characteristics of InGaN quantum wells on ternary InGaN substrates," IEEE Photon. J., vol. 5, no. 2, Apr. 2013, Art. no. 2600111

Example when using et al.:

[24] S. Azodolmolky et al., Experimental demonstration of an impairment aware network planning and operation tool for transparent/translucent optical networks," J. Lightw. Technol., vol. 29, no. 4, pp. 439–448, Sep. 2011.

Type or paste your appendices here. Appendices are a place to organize and include all of the "extra" material that is important to your research work but that is too detailed for the main text. Examples can include: specific analytical methods, computer code, spreadsheets of data, details of statistical analyses, etc. But, these materials do not speak for themselves. There should be a reference to these materials from the main chapters (complete details included in Appendix A) and there should be some text at the beginning of each appendix to briefly explain what the information is and means that is included in that appendix.

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