THE UNIVERSITY OF SOUTH ALABAMA

COLLEGE OF ARTS AND SCIENCES

# TITLE OF YOUR THESIS OR DISSERTATION

BY

Agrad S. Tudent

A Thesis

Submitted to the Graduate Faculty of the

University of South Alabama

in partial fulfillment of the

requirements for the degree of

Master of Science

in

Electrical and Computer Engineering

May 2025

Approved: Date:

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# ACKNOWLEDGEMENTS

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# LIST OF ABBREVIATIONS

0DoF Zero degrees of freedom

1D One-dimensional

2D Two-dimensional

2421 Four-bit code where MSB is weighted 2, not 8

3D Three-dimensional

A/D Analog to digital

ASIC Application-specific integrated circuit

I/O Input/Output

LSB Least significant bit

MSB Most significant bit

XOR Exclusive-OR

ZIF Zero insertion-force

# ABSTRACT

Agrad S. Tudent, M. S., University of South Alabama, May 2022. Title of Your Thesis or dissertation. Chair of Committee: First Name, Middle Initial, Last Name, Ph.D.

If this is a **thesis**, the abstract may only be **one** page maximum length. If this is a **dissertation**, it may be **two** pages maximum length.

# CHAPTER I

**INSERT TITLE OF CHAPTER**

Begin Chapter I here. Chapter headings are considered major headings. They must be followed by three blank line spaces and the page must have a two-inch top margin like all the pages with major headings.

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There are several different ways to format **citations** and your **reference section**. **The Graduate School strongly recommends using free software available to help with citation and reference formatting**; see “How should I format my Reference Section?” in https://www.southalabama.edu/colleges/graduateschool/resources/tdfaqs.pdf for further information. Remember that if you cite using numbers, for example1 or (1) or [1], then your references must be numbered in the **order of first appearance** in your thesis or dissertation, **not** in alphabetical order. To order your references in alphabetical order, you need to format your citations using the author’s name or names and year of publication.

Getting the **page numbers** in the front material has been a problem often encountered by students. The front material (Signature and Title pages, Contents, Abstract, etc.) is in one Word Section so those pages are automatically numbered in Roman numerals. The **main text starting Chapter I is in a single second Word Section not further divided into separate Sections** so it is automatically paginated in conventional numerals, and should not be Sectioned unless you need to do so for special reasons. Each Section can be treated like a mini-document. Some versions of Word are confused by too many Section Breaks. Different versions of MS Word have different menu options; look for “Section Break” in your menu bar if you need to edit Section Breaks. Complete the page numbers listed in the Contents page only after all other edits have been completed.

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Table 1. This is a table caption. Tables are separated from the text of your thesis or dissertation by three blank single-line spaces (=½*"*) both above and below. However, if a table appears at the top of a page, those extra blank lines above are not needed. Captions have traditionally been single-spaced but double-spaced is now accepted, as long as **all** the captions in your thesis or dissertation have the **same** line spacing. If a table or figure is too wide to fit in portrait (“normal”) page orientation, you can use landscape (“sideways”) orientation for that table or figure only. The page margins remain the same, and you must still place the page number at the bottom of the page, regardless of the table or figure orientation. Your caption should be self-explanatory. Avoid vague captions such as “Participant Demographics” and tell your reader who your participants are in regards to your specific research.

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# REFERENCES

Firstname, A.B., Nextname, B.C. & Finalname, Y.Z.: ‘Journal paper title’, J. Modern Research **2**(5) 498-518 (2011)

Surname, H.I, Anothername, J.K., Yetanothername, L.M. & Finalname, Y.Z.: ‘Conference paper title’, Proc. Conf. Amazing Research, Chicago, IL, U.S.A. 144-147 (1981)

Verylastname, B. & Coauthor, R.C.: ‘Book title name’, Publisher name, City, State, Nation, ISBN-13 123-4567891234 (2002)

[1] Surname, H.I, Nextname, B.C. & Finalname, Y.Z.: ‘Conference paper title’, Proc. Conf. Amazing Research, Chicago, IL, U.S.A. 144-147 (1981)

[2] Verylastname, R.C.: ‘Book title name’, Publisher name, City, State, Nation, ISBN-13 123-4567891234 (2002)

[3] Firstname, A.B., Anothername, J.K., Yetanothername, L.M. & Finalname, Y.Z.: ‘Journal paper title’, J. Modern Research **2** 498-518 (2011)

# APPENDIX APPENDICES

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## Appendix B: Title of Appendix B

Figures and/or tables may be included in the appendix.



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