

ini
Information Networking Institute

Thesis Guidelines

Carnegie Mellon

Preface

The thesis represents a capstone experience and an original contribution in an interesting and relevant area of information networking and security.

The process for choosing a thesis topic includes attending the INI research seminars (for Pittsburgh MSIN and MSISTM students), which are held in the first fall and spring semesters of the program. Members of the Carnegie Mellon community, who are experts in their field, are invited to present their current research in the weekly Seminar sessions in order to introduce INI students to a variety of research topics and projects, both new and on-going, that students may use to form the basis of their thesis.

Research may include internships, working on existing projects, designing new areas of research, or assisting faculty on their current research. Several INI students have either originated or contributed to research and projects that resulted in start-up companies and widely utilized technologies such as MindMatrix, Teragon Corporation, and RaveTel (which was purchased by dynamicsoft). Most notably, INI faculty, researchers, and students were the prime initiators and implementers of Wireless Andrew, the largest high speed wireless network in the world, covering the entire Carnegie Mellon campus.

Once research is complete, students defend their thesis work and conclusions to an audience of their peers and faculty. Work culminates in a written, formal thesis (archived in the University Library and kept on file at the INI).

Graduate Project/Thesis Timeline*

Time Frame	Action
1 st Fall Semester	Attend Seminar (if applicable)
1 st Spring Semester	Attend Seminar (if applicable)
4 Weeks Before Last Day of 1 st Spring Semester Classes	Submit Curriculum Option Form
2 Weeks Before Last Day of 1 st Spring Semester Classes	Submit Thesis Proposal
3 Weeks Before Last Day of Class in the submission semester	Defense of Thesis
2 Weeks Before Last Day of Class in the submission semester	Submit Final Thesis

*If you do not adhere to these deadlines, your degree certification WILL be delayed

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Important Staff Contacts at INI

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INI Enrollment Services Office Email Address

ini-enrollment@andrew.cmu.edu

Chapter 1: Administrative Guidelines

1.1 Role of the INI Enrollment Services Office and Academic Advisors & Overview

There are currently two staff members in the INI Enrollment Services Office (INI ESO) and five academic advisors at the Information Networking Institute (INI). As a team, they advise MS candidates on all aspects of course enrollment, curriculum option, thesis development, and thesis preparation. In addition, students who choose the thesis as their curriculum option are required to find an appropriate faculty advisor or industry supervisor.

Four weeks (one month) before the last day of classes in the student's first spring semester, students must notify the INI ESO about which curriculum option he or she wants to pursue via the 'curriculum option form'. The purpose of the curriculum option form is to declare to the INI administration which curriculum option a student will pursue (either: course option, traditional research thesis or Internship/Practicum research project).

The curriculum option form (see Appendices) must be approved by the academic advisor and can be found on the INI website:

http://www.ini.cmu.edu/current_students/grad_project/index.html.

Students are expected to discuss their curriculum option with their academic advisor and then submit the form to the INI ESO. The INI ESO will obtain the signature of the academic advisor on behalf of the student.

If the student elects to pursue a traditional research thesis, he or she will spend the next two weeks developing a thesis proposal and finding an appropriate thesis advisor. The academic advisors can guide students in selecting a thesis topic and a faculty advisor. The thesis proposal is due to the INI ESO two weeks before the last day of classes in the first spring semester. If this deadline is not met, the student will not receive his/her grade for spring seminar.

The thesis and academic advisors will consult with students over email, in person, or over the phone. However, the student is responsible for completing all of the work on time. Responsibilities for acquiring basic research techniques and identifying an initial research problem lie solely with the student. The student should arrange periodic meetings with the thesis advisor to assist with problems and assure adequate progress. These meetings are likely to be most frequent at the early stages of the research, but the thesis advisor should not expect to take on remedial work. Upon completion of the research, the student submits the thesis to his/her advisor(s) for review, which will allow the advisors to make comments and suggestions. Please note, advisors may request additional work or additions to the thesis after the defense as well. The student should submit an electronic copy of his/her "final version" (before printing) to the INI ESO so the formatting can be checked. Theses that don't adhere to the formatting guidelines will not be accepted.

The final, printed **thesis** is due to the INI ESO *at least* two weeks before the end of the semester in which the student is submitting. Failure to submit a final thesis by the deadline WILL result in the delay of the student's degree certification.

As previously mentioned, the final thesis *must* meet the guidelines described in this document. In order to ensure that the guidelines are met, students are encouraged to submit a Word document to INI ESO for review before printing.

1.2 Role of Thesis Advisors and Readers

You will be exposed to the work of a number of CMU faculty members in the context of the INI seminar series during the first fall and spring semesters. But do not limit your search for potential advisors to those who speak at the seminars. Many faculty members, who may be unable to speak at the seminars, have served in the past as thesis/project advisors.

A good place to get ideas about potential advisors is from the websites of the ECE and CS departments, Tepper, and Heinz College. Advisors from the EPP department, the SEI, Robotics Institute, and many other corners of the university also have served as advisors over the years.

You will need one primary advisor and one additional person to serve as a reader for your thesis. The eligibility requirements of people to serve as advisors are loosely drawn to allow students flexibility in their choice. CMU faculty, including research faculty, from any department may serve as advisors. On-campus pre-doctoral students generally are not permitted to serve as either advisors or readers. The INI Director has the final say on advisor eligibility in borderline cases (such as staff members with doctorates). If you are considering a PhD student as your reader, you must file a petition requesting permission to do so.

Keep in mind that your thesis advisor and reader are required to be present at your defense and must be available to sign your thesis signature page. This is a requirement without exception. Certification of the student's degree can be delayed by the absence of your advisor or reader.

How do I start a relationship with my thesis advisor?

You should look on your first contacts with a potential thesis advisor as a mutual courtship. You can be of great help to a potential thesis advisor by doing good work on projects that are of interest to him or her. However, your thesis advisor will also need to spend some time and effort in training you and bringing you up to speed on his or her research topics and operating environment. Just as you are evaluating potential thesis advisors, they will be evaluating you. Prepare yourself for your initial meeting by learning a bit about the research of a potential thesis advisor by looking over the information on his or her website.

You should also try to learn something about your potential advisor from other students who have worked with him or her. Your thesis advisor and reader should help monitor and guide your research progress, so one who is hard to reach can delay completion of your

thesis and affect your graduation. It is your job to educate him or her on the thesis timeline in order to graduate on time.

You and your thesis advisor and reader should stay within the timeline created in your proposal as closely as possible. Ultimately, you are responsible for the timely completion of your thesis. If you are experiencing difficulties communicating with them, you should inform the INI ESO as soon as you become aware that there is a potential problem.

Once you and your thesis advisor agree to work together, make sure that you and he or she have a clear idea (and the same idea!) of what you will be doing, what the scope of the research is, how you will evaluate the success of the work that was done, and what your “deliverables” are. You should also have shared expectations on what the timetable for completion is likely to be. Nevertheless, you should expect that some of the specifics of what goes on will have to be worked out as time progresses.

1.3 Project Grading

A thesis at INI is worth 36 units and is posted to the student’s schedule during the semester in which the student will defend and submit their thesis. Thesis units cannot be divided between semesters. The student will receive a letter grade from his or her thesis advisor. The advisor communicates the final grade to the INI ESO, who will enter the grade into the student information system.

Students can indicate on their transcript that they are working on their thesis in the semesters leading up to the defense and submission. Students must communicate this to the INI ESO, who will in turn, post the appropriate course to the student’s schedule. The “working on thesis” course is considered as pass/fail and isn’t factored into the student’s cumulative GPA.

Chapter 2: The Thesis Proposal

You should think of the thesis proposal as being a contract between you, your advisor, your reader, and INI.

2.1 Proposal Format

The thesis/ proposal is typically 3-6 pages long and should be divided in to five sections:

1. Introduction and background

This section sets the stage for motivating the work you will do. You outline what has already been done in the field of interest, and in particular, you describe what are the limitations or shortcomings of the current state of the art that your work will address or improve.

2. What you will do

You will state here as specifically as you can what you will do for your thesis work and how it differs from what has already been done before by the rest of the world.

3. Evaluation of your work

Address two important issues here: (1) how you will know when your work is completed, and (2) how you will evaluate how well you have done. While you may work on a wide variety of topics, no proposal will be accepted by us unless it includes a viable form of evaluation.

4. Deliverables

State here what artifacts you will leave behind you. Minimally, this will form the basis of your thesis which ultimately could contain code, a hardware prototype, a working demonstration system, etc. In the proposal, however, these "artifacts" will merely be mentioned.

5. Expected timetable

Include here the major milestones in the thesis and the expected completion date.

2.2 Proposal Submittal

Students are required to submit a hard copy of the thesis proposal to the INI ESO, along with a 'Thesis Proposal Signature Page' signed and dated with original signatures by you, your project team members (if any), your project advisor(s) and reader. The INI ESO will forward your proposal and signature page to your academic advisor for his/her approval. You can find the appropriate 'Project Proposal Signature Page Form' here:

http://www.ini.cmu.edu/current_students/grad_project/index.html .

The proposal should be submitted two weeks before the last day of class in your first spring semester. Faxed copies will not be accepted. The proposal must be submitted to receive the two (2) units for the Spring Seminar for Pittsburgh students.

Chapter 3: The Master's Thesis

Students writing a master's thesis should view the CIT website for all formatting and procedural information.

http://www.cit.cmu.edu/current_students/graduates/thesis_dissertation_policies.html

3.1 Submittal of the Master's Thesis

Each candidate is expected to have a complete version of the thesis in the hands of the INI ESO no later than two weeks before the last day of class in the graduating semester. CIT has strict guidelines regarding thesis submission and a student's failure to meet deadlines WILL result in delay of degree certification.

Following approval by the thesis advisor, but not later than two weeks before the last day of class in the graduating semester, the student must submit 5 items to the INI ESO:

- One single-sided paper copy of good reproducible quality to the College of Engineering Dean's Office (to be submitted to the University Libraries and used for microfilming).
- In addition, the student must submit 3 signature pages with original signatures of the thesis advisor; the INI ESO will obtain the academic advisor's and Director's signatures.
- One paper copy for the advisor (can be double sided).
- One paper copy for the department or for the relevant departments if the thesis or dissertation is for a joint degree (can be double sided).
- One paper copy for the student (can be double sided).
- One electronic file (PDF format) with the entire thesis, to the department, or to the relevant departments if the thesis or dissertation is for a joint degree.

Students submitting a thesis must follow the CIT thesis and dissertation guidelines for format and submittal. CIT also submits all theses to ProQuest to be published in an online directory.

All information regarding thesis submittal to CIT and ProQuest can be found here:

http://www.cit.cmu.edu/current_students/graduates/thesis_dissertation_policies.html

As previously mentioned, students should send an e-copy of their "final version" to the INI ESO office before printing. The INI ESO will check formatting of the title page, signature page, document and references. Typically, the INI ESO will review a student's thesis at least 3 times before approving the formatting.

3.2 General Format of the Masters Thesis

Except as specifically superseded by directions from the candidate's major department and the ProQuest/UMI booklet, the general rules with respect to form shall follow those provided below. Some of the guidance is from K. L. Turabian, *A Manual for Writers of Term Papers, Thesis and Dissertations*, 6th Edition, University of Chicago Press, Chicago, 1996.

Paper: The paper must have archival qualities and must be heavy enough so that the typing or printing does not show through the pages. *The one (1) hardcopy of the original thesis, that will be sent to the library, must be printed on 20-pound, smooth-finished bond paper of 50% or higher cotton fiber.* The corresponding signature page must also be printed on the same paper as the thesis.

Order of Preliminaries*

Preliminaries should be numbered with small Roman numerals (i, ii, iii, iv, etc.). The numbering begins with ii; the title page counts as page i, but the number does not appear.

A) Signature Page – See Appendix; The signature pages must include original signatures (faxed or copied pages will not be accepted). Upon successful completion of the defense, the original signature pages must be signed by the thesis advisor(s), reader and submitted to the INI ESO. The INI ESO will obtain the academic advisor and INI director’s signatures.

You must use the ‘Thesis Signature Page’ that is available on our website.

The signature page is not assigned a number.

B) Title Page – See Appendix; Your thesis will be a valuable source for other scholars only if it can be located easily. Modern retrieval systems use the words in the title—and sometimes a few other descriptive words—to locate your document. It is essential that the title be a meaningful description of the content of your dissertation. Avoid highly specialized terms to the extent possible, and use word substitutes for formulas, symbols, superscripts, Greek letters, etc.; (page i, but number doesn’t appear).

You must use the title page that is available on our website.

C) Blank Page or Copyright Notice – should follow the title page, on a separate page, if statutory copyright in the dissertation has been or is to be claimed; (this page isn’t assigned a number)

D) Acknowledgments – All theses must include an Acknowledgments section which, at a minimum, describes the source(s) of support for the research, even if it is self support. Acknowledgment of the source(s) of support is important ethically in all research publications and presentations, including theses, to give the sponsors the recognition they deserve, and also to disclose publicly the organization or persons funding the research; (page ii and continue numbering Preliminary pages)

E) Abstract – should not exceed 350 words

F) Table of Contents – with page references

G) List of Tables – with titles and page references

H) List of Figures and Illustrations – with titles and page references.

Order of the Body of the Thesis*

* The body of the thesis, including the text, illustrations, appendices, and bibliography, should be numbered with Arabic numerals (1, 2, 3, 4, etc.). Each page must be numbered. Try to avoid use of letter suffixes such as 10a, 10b. The numbering begins with 1 and runs consecutively to the end of the thesis.

A) Introduction

B) **Main Body** – with larger divisions and more important minor divisions indicated by suitable, consistent headings

C) **Summary and Conclusions** – highlighting the key findings and conclusions of the work presented. For engineering and science theses and dissertations, this section often also includes recommendations for follow-up research.

D) **References** – Citations of the professional literature should be standardized throughout the thesis. The form of citation should be consistent with the form used in a standard professional journal of the candidates' field. The Harvard Citation Style is used commonly in engineering and science. The following journal is recommended as a sample in Electrical and Computer Engineering - *Proceedings of the IEEE*. **Required format for an INI Thesis**

E) **Appendices** – each appendix should have a title and be listed in the Table of Contents

Additional Page Numbering Info

For More Than One Volume – each volume should contain a title page duplicating the title page of the first volume. If the volumes are separate entities, identify them further as Volume I, II, etc. In any case, the numbering may follow consecutively from one volume to another, or begin with Arabic 1 at each new title page.

Footnotes

If footnotes are needed, they should be placed at the bottom of the page below a 1.5 inch underscore (starting at the left border). The first line of each footnote should be indented 0.5 inches and identified by a raised numeral corresponding to that used in the text. Footnotes should be numbered consecutively throughout each chapter.

Reproduction of Data

The data on which the thesis or dissertation is based should be made accessible to the reader in substantially complete form. Generally, this means that raw data should be reproduced in a convenient manner in one or more appendices to the main document. In the case of extensive data gathered from readily available published sources, specific detailed citations will suffice, provided that a minimum of one set of the raw data used in the dissertation, complete in all respects, is presented with the original copy submitted to the Library. Deviations from a procedure of full disclosure must be specifically approved by the M.S. thesis advisor(s) or Ph.D. Dissertation Committee and explained fully in the thesis or dissertation.

Copyright Permissions

As author, the student must certify (by signing the ProQuest/UMI agreement form) that any copyrighted material used in his or her dissertation, beyond brief excerpts, is with the written permission of the copyright owner, and that he or she will save and hold harmless ProQuest/UMI from any damages which may arise from copyright violations. Copies of permission letters should be attached to the agreement form.

Reproduction of Procedures

All instruments, analytic procedures, apparatus, or other critical elements in the execution of the study should be described in detail. Apparatus normally should be described in an engineering drawing and by photograph. Instruments normally should be reproduced in full in pictures or drawings, unless they are easily available from other sources. Procedures of analysis should be specified fully either by citation or by detailed discussion in one or more appendices. Computer calculations that are essential to the central arguments of the research must be fully and clearly explained. If the computer programs which provide the basis for these calculations are originated by the student, the student is required to provide a program listing and minimal documentation on the program in the thesis or dissertation. The program listing and documentation normally would be included in a separate appendix to the thesis or dissertation. However, in the case of extensive computer work considered by the student and his or her advisor to be too long to include in the thesis or dissertation, presentation in the form of tables elucidating important components is acceptable. In this case, the student is advised to submit a separate internal report giving further details. Standard subroutines or packaged programs which are routinely included as software support to a computer installation and which can be readily obtained are exempted from this requirement, but these should be clearly cited and the source of these programs made apparent in the thesis.

Equations, Charts, Graphs, Tables, Figures: Formulas and equations should be neatly typed. Drawings should be made with instruments in ink. As much as possible, they should be kept within the bounds of a six-inch by nine-inch rectangle. Notes and titles should be neatly typed or lettered. Graphs should show only the main grid lines.

Illustrative material drawn in ink will reproduce satisfactorily. Lines on graphs or illustrations should be identified by labels or symbols rather than colors. Shaded areas should use cross-hatching, and not color, for contrast.

Data should be presented, where possible, in numbered, titled, tables.

Photographs: Ideally, each photograph should have a full range of contrast from true black to pure white. Photos with limited contrast will reproduce satisfactorily on positive microfilm but they will be unclear in xerographic copies made from microfilm. Color photos should not be used in the project document. If necessary, contact a photographer about having color photos reprinted in black on white. Rubber cement and glue are acceptable means of affixing photos, but dry-mounting tissue provides the neatest and most permanent method.

All tables, pictures, and graphics must be in black and white.

Oversize Paper: Charts, graphs, maps and tables that are larger than the standard page size might have to be used in the project. It is recommended that such pages be avoided unless absolutely necessary. Try a different layout for the chart or table to see if it can be placed on a standard page, or use a photograph or xerographic reduction of the material.

Typewriter-Generated Text: Pages must be single-sided and unbound with the typed matter double-spaced or a space and one-half, clearly legible and typed or printed using black ribbon or toner. Footnotes and long quotations may be single-spaced. The typed text should fill an area not larger than six inches by nine inches on one side of an 8 1/2" by 11" sheet, allowing a minimum margin of one and one-half inches on the left for binding and one inch on the other three sides. Either pica or elite type may be used.

Computer-Generated Text: If the text is being generated on a computer, care must be taken to ensure that the original is in black ink/toner print on white, 20-pound paper with 50% cotton fiber or higher. Conventional line printer output is not acceptable. The margins must be set as described above.

For the printed copy, any clear font type is acceptable. However, the font size must not be smaller than 8-point nor larger than 12. When using a program format such as Latex or SCRIBE, this might require special specifications for footnotes. For example, if a font such as ROMAN 10 is specified for the text, the corresponding footnote size in SCRIBE is too small for clear reproduction. A special footnote specification should then be used so that the font size is at least 8-point.

In general, for computer-generated text and figures, clarity of production should be the guide for both text and figures. A minimum font size of 8-point must be followed for all legends and lettering on figures. Data and computer programs may be shown as direct computer output, provided the general rules with respect to clarity, size, and margins are followed.

Margins: Margins must be set at 1.5 inches on the left side and 1 inch on all other sides.

Additional Guidance

Refer to the ProQuest/UMI document "[Guide 1: Preparing Your Manuscript for Submission to ProQuest/UMI](#)" for margins, paper type, line spacing and additional formatting guidelines that have not been noted above.

Chapter 5: The Defense

At least three weeks before the last day of class during the semester that the student will submit a thesis, he or she will hold a defense to the advisors, reader and the INI ESO. Fellow students are also invited to attend.

Students must submit a 'Defense Scheduling Form' (see Appendices) to the INI ESO at least two weeks prior to the date he or she would like to present on. Submitting the form initiates appropriate logistical planning for your defense. Without it, the INI community will not be adequately notified.

The defense should be treated as a formal and professional presentation. Students should be well prepared with a PowerPoint, demonstrations if applicable, and provide slide handouts

for those in attendance. Please be aware that your advisors, reader or INI ESO may request further changes to the thesis after the presentation.

5.1 Presentation Tips

- Begin to prepare early!
- Typical presentation outline: Introductory slide—project title, your name, advisor and reader, etc. Overview slide—be sure to inform the audience of what is to come (keeps them interested) Move into the “meat” of the thesis quickly. Don’t bore the audience with nitty-gritty details that, although they may be important, won’t contribute to the audience’s understanding of your contributions
- Be sure to highlight your contribution. This is important!
- Don’t clutter the slides. Each slide should contain 2-3 important points with 1-2 sub-points each. Absolutely no full sentences—if it’s important enough for a full sentence, say it, don’t make the audience read it. The slides serve as a supplement to what you’re saying, not the other way around.
- Practice, practice, practice. Get volunteers for a mock-up of the final presentation and incorporate their comments and criticisms.
- Don’t include code during the body of the presentation unless your advisor/reader requests it. Have code sample prepared, however, in case someone requests it during the Q&A session.
- Make eye contact with your audience, but avoid looking only at your advisor/reader. Keep the audience involved.
- Welcome or even invite questions periodically. You don’t want them to fall asleep

CURRICULUM OPTION FORM

Student Name: _____
Last
First
Middle

Student E-mail: _____ Program: _____

Curriculum Option Decision - Please Select One of the Following Four Options:

1. Course Option – Select One of the Following Two Options:

A. I want to complete the FORENSICS TRACK and apply these courses towards my course option.

(Please note: the Forensics Track consists of 48 units; therefore, 36 of the 48 units will count towards course option and the remaining 12 units will count as a security elective.)

B. I want to customize my course option with the following courses:

Area of Concentration: _____

(List at least 48 units of proposed courses below; be sure to include course numbers & titles; if you have not yet chosen your courses, a course plan must be submitted by the last INI Spring Seminar Class.)

2. Traditional Research Thesis:

(You must submit a proposal signed by your project advisor, reader and academic advisor at least two weeks before the last day of the 1st spring semester classes.)

3. Project-based Technical Report:

(You must submit a proposal signed by your project advisor, reader and academic advisor at least two weeks before the last day of the 1st spring semester classes.)

4. Industry Practicum Project:

(You must submit a proposal signed by your project advisor, industry supervisor and academic advisor at least two weeks before the last day of the 1st spring semester classes.)

Please note that there will be no exceptions or extensions to the final deadline. Course plans and project proposals must be submitted by the last day of the INI Spring Seminar class or an 'R' (failing) grade will be applied to the Spring Seminar.

Student Signature

Date

Curriculum option approved
 Curriculum option approved with conditions: _____

Petition denied for the following reason: _____

INI Graduate Programs Academic Advisor

Date

Submit your completed form to the INI Enrollment Services Office:

1. Jamie Lehneke, Manager of Enrollment Services, Room 113

2. Jessica Becker, Enrollment Services Coordinator, Room 114

Questions? Send an email to: ini-enrollment@andrew.cmu.edu

Defense Scheduling Form

***Request dates at least 2 weeks prior to defense.**

***Requests submitted with less notice may not be scheduled on the requested date or time.**

***Presenters must supply, via e-mail, a project abstract when the defense scheduling form is submitted.**

Presenter(s): _____ Graduation Date: _____

Project Title: _____

Advisor or Industry Supervisor: _____ E-mail: _____

Advisor 2: _____ E-mail: _____

Reader: _____ E-mail: _____

Logistics of Your Defense:

1st Choice: Requested Defense Date: _____ Requested Defense Time: _____

2nd Choice: Requested Defense Date: _____ Requested Defense Time: _____

We schedule all of the student defenses in the INI lower level conference room. If you need to host your defense in another location, please let us know where and understand that you may have to reserve the room on your own:

About Your Defense - Please Check All that Apply:

- I will bring my own laptop.
- I will have a PowerPoint presentation.
- I will have demos in my presentation.
- I will need to teleconference to _____.
(Name of person; It is your responsibility to obtain this person's phone number)
- I will need to videoconference to _____.
(Name of person & location that has videoconference capability)
- I want my presentation to be videotaped (**must submit consent form** – available online).

INI will create a defense announcement that will be sent to you, your advisor, reader or industry supervisor and posted to the INI MS B-board. In order to do so, we need a copy of your abstract. Please e-mail a copy of your abstract to the INI Enrollment Services Office at ini-enrollment@andrew.cmu.edu

Submit your completed form and videotape consent form (if applicable) to the INI Enrollment Services Office:

1. Jamie Lehneke, Room 113, jlehneke@cmu.edu
2. Jessica Becker, Room 114, jbecker23@cmu.edu

Questions? Send an email to: ini-enrollment@andrew.cmu.edu

Carnegie Mellon University

CARNEGIE INSTITUTE OF TECHNOLOGY

THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF Master of Science

TITLE _____

PRESENTED BY _____

ACCEPTED BY THE DEPARTMENT OF
_____ Information Networking Institute _____

THESIS ADVISOR _____ DATE

ACADEMIC ADVISOR _____ DATE

DEPARTMENT HEAD _____ DATE

APPROVED BY THE COLLEGE COUNCIL

DEAN _____

Reference List Example

The Institute of Electrical and Electronics Engineers (IEEE) Style is used primarily for publications in engineering, electronics, telecommunications, computer science and information technology.

The reference list should appear at the end of your paper. Begin the list on a new page. The title *References* should be either left justified or centered on the page. The entries should appear as one numerical sequence in the order that the material is cited in the text of your assignment.

Note: The hanging indent for each reference makes the numerical sequence more obvious.

- [1] A. Rezi and M. Allam, "Techniques in array processing by means of transformations," in *Control and Dynamic Systems*, Vol. 69, Multidimensional Systems, C. T. Leondes, Ed. San Diego: Academic Press, 1995, pp. 133-180.
- [2] G. O. Young, "Synthetic structure of industrial plastics," in *Plastics*, 2nd ed., vol. 3, J. Peters, Ed. New York: McGraw-Hill, 1964, pp. 15-64.
- [3] S. M. Hemmington, *Soft Science*. Saskatoon: University of Saskatchewan Press, 1997.
- [4] N. Osifchin and G. Vau, "Power considerations for the modernization of telecommunications in Central and Eastern European and former Soviet Union (CEE/FSU) countries," in *Second International Telecommunications Energy Special Conference*, 1997, pp. 9-16.
- [5] D. Sarunyagate, Ed., *Lasers*. New York: McGraw-Hill, 1996.
- [8] O. B. R. Strimpel, "Computer graphics," in *McGraw-Hill Encyclopedia of Science and Technology*, 8th ed., Vol. 4. New York: McGraw-Hill, 1997, pp. 279-283.
- [9] K. Schwalbe, *Information Technology Project Management*, 3rd ed. Boston: Course Technology, 2004.

Check <http://standards.ieee.org/guides/style/>

This list was taken from <http://wwwlib.murdoch.edu.au/find/citation/ieee.html>

Please refer to this Website for help in formatting your reference page.