



GERMAN JORDANIAN UNIVERSITY SCHOOL OF APPLIED TECHNICAL SCIENCES

Guidelines for the Preparation of Graduation Projects

Prepared by:

Prof. Mahmoud Kablan

Dr. Safwan Al-Tarazi

Eng. Maysa Ammouri

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Revised by:

Dr. Rula Allaf

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1. Introduction:

The graduation project is a requirement for the BSc. degree in engineering. Working in concert with an academic advisor, a student will develop and complete a project of educational significance. Students are eligible to register for the graduation project after successful completion of (a) the fourth year in Germany and (b) 124 credit hours. Graduation project consists of two phases, Graduation Project I (Project Proposal) and Graduation Project II (Project Implementation), each worth three credit hours and are generally conducted over two consecutive semesters. In most cases, students will conduct their graduation projects in group and under the close guidance of a supervisor/advisor. A co-supervisor can be nominated if needed.

Graduation project constitutes an important phase of the student's future career. In preparing and defending this document, the student tries to apply their knowledge comprehensively in solving a complex and realistic problem. He/she proves that he/she has gained essential skills of research and implementation as well as the ability to effectively communicate the results to an audience.

Although various forms of assistance will be made available, the primary initiative for completion of the project lies with each student. These guidelines are designed to acquaint students with the School of Applied Science's regulations regarding graduation projects. The goal here is to help the student prepare a report that looks professional and renders his/her findings easily accessible to the readers.

2. General Guidelines

2.1 Project Topics

A Graduation project challenges the student to go beyond those learnings that occur as the result of his/her prescribed educational program; it intends to provide the student with a venue to express or demonstrate his/her intellectual, physical and creative abilities based upon research and knowledge of the chosen subject area.

Personal growth and satisfaction are additional goals associated with the Graduation Project. The student will derive a sense of accomplishment through the completion and ownership of a body of work that is a reflection of his/her interests and abilities. Opportunities to expand his/her personal knowledge, explore career paths, and apply learning to real-life situations will serve to benefit the student's growth and promote lifelong learning.

Selection of a project topic will be derived from the advisor and/or student based on such factors as interest and knowledge. There are certain qualifications that must be met if the project is to be accepted; the project must:

- be independent of class related projects
- involve some type of research

- demonstrate the ability to analyze, synthesize, and apply information
- demonstrate the ability to present information effectively
- be a learning activity
- benefit the student and/or society

The subject areas of a graduation project might be in one or more of the following forms:

1. Designing an experiment and/or implementing some experimental research.
2. Developing a computer program to simulate or solve an engineering or management problem.
3. Conducting data analysis through various statistical analysis techniques.
4. Theoretical analysis where the student tackles and solves some theoretical problem.
5. Developing a management system to solve an engineering or management problem, such as, Quality Management Systems, Warehouse Management Systems, Inventory Management Systems, etc.
6. Designing and/or manufacturing a system, machine, and/or component(s), to solve an engineering problem.

2.2 Responsibilities of the Graduation Project

2.2.1 Student

The student is responsible for the successful completion of the Graduation Project under the guidelines established by the department and school.

The student is responsible for preparing a graduation project report and a presentation. Preparation of a paper or poster derived from that project is considered as a bonus.

2.2.2 Academic advisor/supervisor

The Academic Advisor is responsible for providing the necessary guidelines for the student to successfully choose and complete the project. The advisor will meet with the student during academic advisement to provide the appropriate assistance and motivation as necessary.

2.2.3 Assessment committee

The Assessment Committee, chaired by the academic advisor, is responsible for reviewing and evaluating the graduation project progress, report, and oral presentation of the student. The assessment committees consist of three members, at least two from the concerned faculty.

2.2.4 Graduation project coordinator

A staff member is nominated by the department to serve as a Graduation Project Coordinator, who is responsible for the overall mechanics, scheduling, and will provide support to the academic advisors and students. Graduation Project Coordinator, in cooperation with the concerned department head, has the following tasks:

1. Collect and organize suggested project titles and submit them to the department board for approval.
2. Assign and announce the approved projects titles to the students.
3. Develop, update, and keep the project application forms, evaluation forms, and any related documents.
4. Form the project examination committees in consultation with project supervisor and the department members.
5. Organize the presentation sessions.
6. Collect the evaluation forms from the supervisors and examiners, and work out the final grades.
7. Maintain a project database, which may include hard and soft copies of the project' reports, samples of logbooks, posters and presentations.
8. Coordinate the recording of graduation project presentations on videos (if required).
9. Administer the Best Graduation Project Award.

2.3 Project Assignment

By the end of the first week of the semester (first or second), suggested project titles will be announced to students. By the end of the second week of the new semester, Graduation Project I students should form groups consisting of 2-4 students each, and select a graduation project title and supervisor(s), in coordination with the Graduation Project Coordinator. Graduation Project supervisor should be an academic staff member, while the Graduation Project co-supervisor can be another academic staff member or from the industrial sector.

Students who fail to select a graduation project title and advisor will be assigned one by the project coordinator.

2.4 Instructions and Deadlines

Graduation project students should adhere to the following regulation and deadlines. Failure to respect these deadlines and rules will result in grade reduction or possible withdrawal from the Graduation Project.

2.4.1 Graduation Project I students:

- Students should submit the selected graduation project title and group members' names to the Graduation Project Coordinator by the end of the 2nd week.
- Final graduation project groups will be announced by the end of the 3rd week.
- Students should submit and defend a Project Proposal for evaluation by week 15 of the semester. The students are expected to provide the following information convincingly:
 - Background of the project
 - Motivation for the project
 - Problem statement

- Scope of the project
- Literature review
- Project requirements
- Identification of alternative solutions/approaches and justification of selecting a solution/approach
- Expected outcomes
- Identified tasks and a tentative work plan for project implementation.

Note: Some items above are to be adapted further in the implementation phase.

- The supervisor will evaluate each student individually. The overall grade of a student in project proposal will be calculated based on the marks received from the supervisor (100 marks).

2.4.2 Graduation Project II students

The students should follow the following schedule:

12th week: submit a full draft report to the supervisor for reviewing.

14th week: submit a revised draft report to the Graduation Project Coordinator as a hard copy- without hard cover. Number of hard copies is determined by the Graduation Project Coordinator based on the number of supervisors and examination committee. Students can also prepare and submit a poster or a paper derived from their project (optional bonus).

15th week: presentation and oral examination. The duration of the presentation should not exceed 30 minutes and oral examination should take 30 – 40 minutes. Both the supervisor and the committee members will evaluate the students. The overall grade of a student in project implementation will be calculated based on the marks received from the supervisor (40 marks) and from the committee members (60 marks) as outlined in Appendix IV.

16th week: submit a revised final report to the Graduation Project Coordinator after updating it according to examination committee comments and requests. A hard copy and a soft copy, and any related programs of the final report are submitted to be kept in department's database. The number of hard copies is determined by the Graduation Project Coordinator.

3. Project Evaluation

The evaluators try to evaluate student's high-level learning outcomes by means of a set of predefined criteria. In all phases of evaluation, student's ability of communication (report and presentation) and team work (professionalism, cooperation and ethical behavior) will be taken into consideration. However the scientific and technical aspects and achievements of the project will play the key role in evaluation.

3.1 Graduation Project I

The project supervisor will evaluate the students work in Graduation Project I based on the required outcomes (see section 2.4.1), assign the proper grade, and then the supervisor will send it to the Department Head.

It is strongly recommended that students carefully note all the comments made by the supervisor(s) during the final proposal defense and try to incorporate them accordingly in the Project Implementation phase.

3.1 Graduation Project II

The evaluation process of the Graduation Project II is based on the students work, written report, and presentation. Presentation of a paper or poster derived from that project is treated as a bonus. The student should show that he/she applied, analyzed, synthesized and evaluated information, and then communicate significant knowledge and understanding. He/she must defend his/her project in front of the committee members. He/she must answer all questions of the committee members. He/she should also be able to answer any questions asked by the audience. Therefore, he/she must be thoroughly prepared to defend any and every aspect of the project material, and perhaps any material closely related to the project topic.

The grade is assigned based on the grades given by the individual examiners (60%) and supervisor (40%) per each student. The final grade is assigned based on the weights provided in Appendix IV.

4. Report Format

Reports and Presentations for each phase of evaluation should be organized logically and prepared professionally using correct spelling, grammar, format and style. Students should follow the recommended formatting and style in preparing their reports and presentations. The technical contents should be presented clearly, precisely and comprehensively to highlight their contributions and achievements. The report should include:

4.1 Preliminary Matter

Preliminary pages are paginated separately from the rest of the text. Use lower-case Roman numerals at the bottom of pages. Title page is not numbered and should not be included in the Table of Contents. Begin numbering with the Table of Contents, page ii. Continue using the lower-case Roman numerals up to the first page of the Text (page 1 of Chapter 1 or Introduction). Specific requirements and examples for each part of the preliminary matter follow.

1. Cover page

The cover page –not numbered- should always include the following information: University logo (and company logo if project carried out in a company), University, School, Department, Project

title, Students names, Supervisor/s name/s, date as (semester, year), and the following statement: (see Appendix I)

Submitted as Partial Fulfillment of the Requirements of the Bachelor's Degree in (Industrial/Mechanical/Mechatronics) Engineering.

2. Abstract

A one page describing the problem statement, scope, and a summary of the project outcomes and findings.

3. Dedication (optional)

On a separate page(s), dedication is used to acknowledge those who have supported you during your graduate studies. This is not typically the place to recognize those who assisted you in your academic research, which is done on the required acknowledgements page.

4. Acknowledgment

This section, on a separate page(s), is completely devoted to showing appreciation and acknowledging the colleagues, professors, funding organizations, or other people who helped make your dissertation and course of study possible.

5. Table of contents

In this section, on a separate page(s), list all report content with respective page numbers.

6. List of Figures

In this section, on a separate page(s), list all figures with respective page numbers.

7. List of Tables

In this section, on a separate page(s), list all tables with respective page numbers.

8. List of abbreviations and variables

On a separate page(s)

4.2 Text Chapters

The text of the project report should be organized logically according to the nature and range of the project work being reported; suggested chapters (depending on context) include:

a) Chapter 1: Introduction

The Introduction chapter includes problem statement, objective(s), and scope of work.

b) Chapter 2: Background/Literature Review

Background/Literature Review chapter includes citation of theoretical background, related work and results.

c) Chapter 3: Methodology

Method chapter should include the descriptions and the reasoning behind the selection of specific methods, algorithms, software tools, hardware tools etc. which were used during the course of the project to perform the required tasks. All implementation details and discussions should be made in an organized form under this chapter.

d) Chapter 4: Results and Discussions

Results and Discussions chapter should provide the reader with the discussions on the collected results and/or achieved final product capabilities as the result of the graduation project. If the project was not completed, until which stage of the project is finished and the reasons why the project was not completed should also be discussed under this chapter.

e) Chapter 5: Conclusions and Recommendations

The Conclusion and Recommendation chapter should conclude the report by stating the task, the difficulties faced, experiences gained, results achieved and final thoughts on the project. Typically the conclusion should not be longer than 2 pages and not less than a half page. Then Recommendations for future work and project enhancement should be included.

4.3 Back Matter

The back matter of the report consists of the References (Bibliography or Literature Cited) and Appendices. The back matter is paginated consecutively from the last page of the text.

a) References

It is very important to note that every work cited in the text, whether it is a book, Journal Article, Thesis, project, seminar notes, or even personal communication, must be referenced. Also, and most important, any work used which is not the actual work of the student, must be cited within Text, and referenced. A list of references should be provided at the end of the report before the Appendices. Any work done by others, and presented in a project report as though it is the work of the authors of the report, may be treated as plagiarism, and is liable to punishment in the bylaws of the University. Therefore the students must pay utmost attention to this matter. Referencing should be done according to IEEE Citation Reference (Appendix II).

b) Appendices

Discuss with your Supervisor the need for appendices, carefully considering the value of the material you proposed to include. How does the material relate to the rest of your text? Does including the material violate any copyright? Some material often included in the appendices, such as computer printouts, may be so lengthy that placing it in the text would disrupt the reader's attention to your material. It may include special figures and tables, process detailed flow charts, detailed calculations, etc.

Pay attention that, any appendix you place in your report must be cited in the text of your report. Appendices must be designated with a letter (Appendix A, Appendix B, etc) each starting on a fresh page, and a title. Each appendix must be listed in the Table of Contents.

In report writing, student should follow the instruction below:

1. The report should be typewritten in English.
2. Text font should be Times New Roman, Arial, or Cambria.
3. Text font size is 12 pts for the body and 14 pts and bold for titles.
4. All text must be justified.
5. Line spacing should be 1.5 in the entire text.
6. All margins should be 2.0 cm except left margin should be 2.5 cm. The extra width of the left margin accommodates the binding.
7. Pages of Front Matter are numbered using Roman Numerals as (i, ii, iii, iv, ...)
8. The text, beginning with the first chapter should be numbered consecutively using Arabic Numerals as (1, 2, 3, 4, ...)
9. Page number should be placed at the bottom center of the page.
10. Chapter and section titles should be bold and numbered sequentially.
11. Figures and tables should have a referral caption numbers and short description. Caption size is 10 pts, bold, and single line spacing. Figure captions are placed beneath the figure and centered, while table captions are placed above the table (see Appendix III).
12. Numbering of Tables and Figures must be done sequentially, including the Chapter number in which it is placed (for example, Figure 2.1, 3.2, etc).
13. Diagrams and figures must be plotted using any of the available software.
14. If the table, figure or illustration is too wide for the page, Landscape may be used, the caption appearing at the bottom of the table, figure, or illustration (at the right of the page). If the table is too long for one page, the table must be continued on the next page, the title not repeated on the next page, instead, center "Table of Contents contd." at the top of each succeeding page until the table is completed. Table caption must than follow. If the table is oversized, try to redesign the table to fit the page. If this does not solve the problem, you may reduce the table proportionately, but remember that the captions must still conform to the typeface and size standards of the text.
15. If your report includes equations, each equation must be written using a proper, standard scientific notation. Each equation must be centered on a separate line of text and numbered on the right, using Chapter number and equation number, separated by a dot, as in the following example:

$$\frac{x^2}{2} + \sqrt{x_0 + e^{-x^2}} = \frac{d}{a} \quad (2.1)$$

16. In-line equations, or expressions may also be used, as follows:

... realizing that $x^2+y^2=1$, it can be concluded that

17. Tables, figures, illustrations and equations should be referenced and discussed within the text, abbreviation can be used as: Fig. 2.2; Table 2.1; Eq. 2.3

5. Presentation Format

Presentation must be supported by slides which will be reflected by data show projectors. The presentation should include, but is not restricted to, the following basic topics:

1. Project problem statement
2. Project objective(s)
3. Literature review/background
4. Methodology
5. Results and discussion
6. Summary

APPENDICES



Appendix I: Cover Page



**German Jordanian University
School of Applied Technical Sciences
Industrial Engineering Department**

IE 592 – Graduation Project

PROJECT TITLE

Prepared By

First Name Initial Last Name ID #

First Name Initial Last Name ID #

First Name Initial Last Name ID #

Supervised By

Dr. FirstName Initial LastName

**Submitted as Partial Fulfillment of the Requirements for the Bachelor's Degree
of Science in Industrial Engineering**

Semester, Year

Appendix II: IEEE Citation Reference

IEEE Citation Reference

Citation standards in this IEEE citation reference are provided for:

- Books
- Handbooks
- Reports
- Conference Technical Articles
- Online Sources
- Patents, Standards, Theses, Unpublished
- Periodicals
- References

Books

Basic Format:

[1] J. K. Author, Title of chapter in the book, in *Title of His Published Book*, xth ed. City of Publisher, Country if not USA: Abbrev. of Publisher, year, ch. x, sec. x, pp. xxx–xxx.

NOTE: Use *et al.* when three or more names are given.

Examples:

- [1] B. Klaus and P. Horn, *Robot Vision*. Cambridge, MA: MIT Press, 1986.
- [2] L. Stein, Random patterns, in *Computers and You*, J. S. Brake, Ed. New York: Wiley, 1994, pp. 55-70.
- [3] R. L. Myer, Parametric oscillators and nonlinear materials, in *Nonlinear Optics*, vol. 4, P. G. Harper and B. S. Wherret, Eds. San Francisco, CA: Academic, 1977, pp. 47-160.
- [4] M. Abramowitz and I. A. Stegun, Eds., *Handbook of Mathematical Functions* (Applied Mathematics Series 55). Washington, DC: NBS, 1964, pp. 32-33.
- [5] E. F. Moore, Gedanken-experiments on sequential machines, in *Automata Studies* (Ann. of Mathematical Studies, no. 1), C. E. Shannon and J. McCarthy, Eds. Princeton, NJ: Princeton Univ. Press, 1965, pp. 129-153.
- [6] Westinghouse Electric Corporation (Staff of Technology and Science, Aerospace Div.), *Integrated Electronic Systems*. Englewood Cliffs, NJ: Prentice-Hall, 1970.
- [7] M. Gorkii, Optimal design, *Dokl. Akad. Nauk SSSR*, vol. 12, pp. 111-122, 1961 (Transl.: in L. Pontryagin, Ed., *The Mathematical Theory of Optimal Processes*. New York: Interscience, 1962, ch. 2, sec. 3, pp. 127-135).
- [8] G. O. Young, Synthetic structure of industrial plastics, in *Plastics*, vol. 3, *Polymers of Hexadromicon*, J. Peters, Ed., 2nd ed. New York: McGraw-Hill, 1964, pp. 15-64.

Handbooks

Basic Format: [1] *Name of Manual/Handbook*, x ed., Abbrev. Name of Co., City of Co., Abbrev. State, year, pp. xx-xx.

Examples:

- [1] *Transmission Systems for Communications*, 3rd ed., Western Electric Co., Winston-Salem, NC, 1985, pp. 44–60.
- [2] *Motorola Semiconductor Data Manual*, Motorola Semiconductor Products Inc., Phoenix, AZ, 1989.
- [3] *RCA Receiving Tube Manual*, Radio Corp. of America, Electronic Components and Devices, Harrison, NJ, Tech. Ser. RC-23, 1992.

Reports

The general form for citing technical reports is to place the name and location of the company or institution after the author and title and to give the report number and date at the end of the reference.

Basic Format:

[1] J. K. Author, Title of report, Abbrev. Name of Co., City of Co., Abbrev. State, Rep. xxx, year.

Examples:

- [1] E. E. Reber absorption in the earth's atmosphere, Aerospace Corp., Los Angeles, CA, Tech. Rep. TR-0200 (4230-46)-3, Nov. 1988.
- [2] J. H. Davis and J. R. Cogdell, Calibration program for the 16-foot antenna, Elect. Eng. Res. Lab., Univ. Texas,

Austin, Tech. Memo. NGL-006-69-3, Nov. 15, 1987.

[3] R. E. Haskell and C. T. Case, Transient signal propagation in lossless isotropic plasmas, USAF Cambridge Res. Labs., Cambridge, MA, Rep. ARCRL-66-234 (II), 1994, vol. 2.

[4] M. A. Brusberg and E. N. Clark, Installation, operation, and data evaluation of an oblique-incidence ionosphere sounder system, in Radio Propagation Characteristics of the Washington-Honolulu Path, Stanford Res. Inst., Stanford, CA, Contract NOBSR-87615, Final Rep., Feb. 1995, vol. 1.

[5] P. Diament and W. L. Lupatkin, V-line surface-wave radiation and scanning, Dept. Elect. Eng., New York, Sci. Rep. 85, Aug. 1991.

Conference Technical Articles

The general form for citing technical articles published in conference proceedings is to list the author/s and title of the paper, followed by the name (and location, if given) of the conference publication *in italics* using these standard abbreviations.

Write out all the remaining words, but omit most articles and prepositions like of the and on. That is, *Proceedings of the 1996 Robotics and Automation Conference* becomes *Proc. 1996 Robotics and Automation Conf.*

Basic Format:

[1] J. K. Author, Title of paper, in *Unabbreviated Name of Conf.*, City of Conf., Abbrev. State (if given), year, pp. xxx-xxx.

For an electronic conference article when there are no page numbers:

J. K. Author [two authors: J. K. Author and A. N. Writer] [three or more authors: J. K. Author et al.], Title of Article, in [Title of Conf. Record as], [copyright year] © [IEEE or applicable copyright holder of the Conference Record]. doi: [DOI number]

For an unpublished paper presented at a conference:

[1] J. K. Author, Title of paper, presented at the Unabbrev. Name of Conf., City of Conf., Abbrev. State, year.

Online Sources

The basic guideline for citing online sources is to follow the standard citation for the source given previously and add the Digital Object Identifier (DOI) at the end of the citation, or add the DOI in place of page numbers if the source is not paginated. The DOI for each IEEE conference article is assigned when the article is processed for inclusion in the IEEE Xplore digital library and is included with the reference data of the article in Xplore. See The DOI System for more information about the benefits of DOI referencing

WWW

Basic Format:

[1] J. K. Author. (year, month day). *Title* (edition) [Type of medium]. Available: [http://www.\(URL\)](http://www.(URL))

Example:

[1] J. Jones. (1991, May 10). *Networks (2nd ed.)* [Online]. Available: <http://www.atm.com>

Patents, Standards, Theses, Unpublished

Patents

Basic Format:

[1] J. K. Author, Title of patent, U.S. Patent xxx xxx, Abbrev. Month, day, year.

Example:

[1] J. P. Wilkinson, Nonlinear resonant circuit devices, U.S. Patent 3 624 125, July 16, 1990.

NOTE: Use issued date if several dates are given.

Standards

Basic Format:

[1] *Title of Standard*, Standard number, date.

Examples:

[1] *IEEE Criteria for Class IE Electric Systems*, IEEE Standard 308, 1969.

[2] *Letter Symbols for Quantities*, ANSI Standard Y10.5-1968.

Theses (M.S.) and Dissertations (Ph.D.)

Basic Format:

- [1] J. K. Author, Title of thesis, M.S. thesis, Abbrev. Dept., Abbrev. Univ., City of Univ., Abbrev. State, year.
 [2] J. K. Author, Title of dissertation, Ph.D. dissertation, Abbrev. Dept., Abbrev. Univ., City of Univ., Abbrev. State, year.

Examples:

- [1] J. O. Williams, Narrow-band analyzer, Ph.D. dissertation, Dept. Elect. Eng., Harvard Univ., Cambridge, MA, 1993.
 [2] N. Kawasaki, Parametric study of thermal and chemical nonequilibrium nozzle flow, M.S. thesis, Dept. Electron. Eng., Osaka Univ., Osaka, Japan, 1993.
 [3] N. M. Amer, The effects of homogeneous magnetic fields on developments of tribolium confusum, Ph.D. dissertation, Radiation Lab., Univ. California, Berkeley, Tech. Rep. 16854, 1995. *** *The state abbreviation is omitted if the name of the university includes the state name, i.e., Univ. California, Berkeley.****
 [4] C. Beclé, These de doctoral d'état, Univ. Grenoble, Grenoble, France, 1968.

Unpublished

These are the two most common types of unpublished references.

Basic Format :

- [1] J. K. Author, private communication, Abbrev. Month, year.
 [2] J. K. Author, Title of paper, unpublished.

Examples:

- [1] A. Harrison, private communication, May 1995.
 [2] B. Smith, An approach to graphs of linear forms, unpublished.
 [3] A. Brahms, Representation error for real numbers in binary computer arithmetic, IEEE Computer Group Repository, Paper R-67-85.

Periodicals

When referencing IEEE Transactions, **NOTE:** the issue number should be deleted and month carried.

Basic Format:

- [1] J. K. Author, Name of paper, *Abbrev. Title of Periodical*, vol. x, no. x, pp. xxx-xxx, Abbrev. Month, year.

Examples:

- [1] R. E. Kalman, New results in linear filtering and prediction theory, *J. Basic Eng.*, ser. D, vol. 83, pp. 95-108, Mar. 1961.
 [2] Ye. V. Lavrova, Geographic distribution of ionospheric disturbances in the F2 layer, *Tr. IZMIRAN*, vol. 19, no. 29, pp. 31-43, 1961 (Transl.: E. R. Hope, Directorate of Scientific Information Services, Defence Research Board of Canada, Rep. T384R, Apr. 1963).
 [3] E. P. Wigner, On a modification of the Rayleigh-Schrodinger perturbation theory, (in German), *Math. Naturwiss. Anz. Ungar. Akad. Wiss.*, vol. 53, p. 475, 1935.
 [4] E. H. Miller, A note on reflector arrays, *IEEE Trans. Antennas Propag.*..., to be published.
 [5] C. K. Kim, Effect of gamma rays on plasma, submitted for publication.
 [6] W. Rafferty, Ground antennas in NASA's deep space telecommunications, *Proc. IEEE* vol. 82, pp. 636-640, May 1994.

References

NOTE: Use *et al.* when three or more names are given.

References in Text:

References need not be cited in the text. When they are, they appear on the line, in square brackets, inside *the punctuation*. Grammatically, they may be treated as if they were footnote numbers, e.g., as shown by Brown [4], [5]; as mentioned earlier [2], [4]-[7], [9]; Smith [4] and Brown and Jones [5]; Wood et al. [7] or as nouns: as demonstrated in [3]; according to [4] and [6]-[9].

References Within a Reference:

Check the reference list for *ibid.* or *op. cit.* These refer to a previous reference and should be eliminated from the reference section. In text, repeat the earlier reference number and renumber the reference section accordingly. If the *ibid.* gives a new page number, or other information, use the following forms:

- [3, Th. 1]; [3, Lemma 2]; [3, pp. 5-10]; [3, eq. (2)]; [3, Fig. 1]; [3, Appendix I]; [3, Sec. 4.5]; [3, Ch. 2, pp. 5-10]; [3, Algorithm 5].

NOTE: Editing of references may entail careful renumbering of references, as well as the citations in text.

Appendix III: Figures and Tables Format

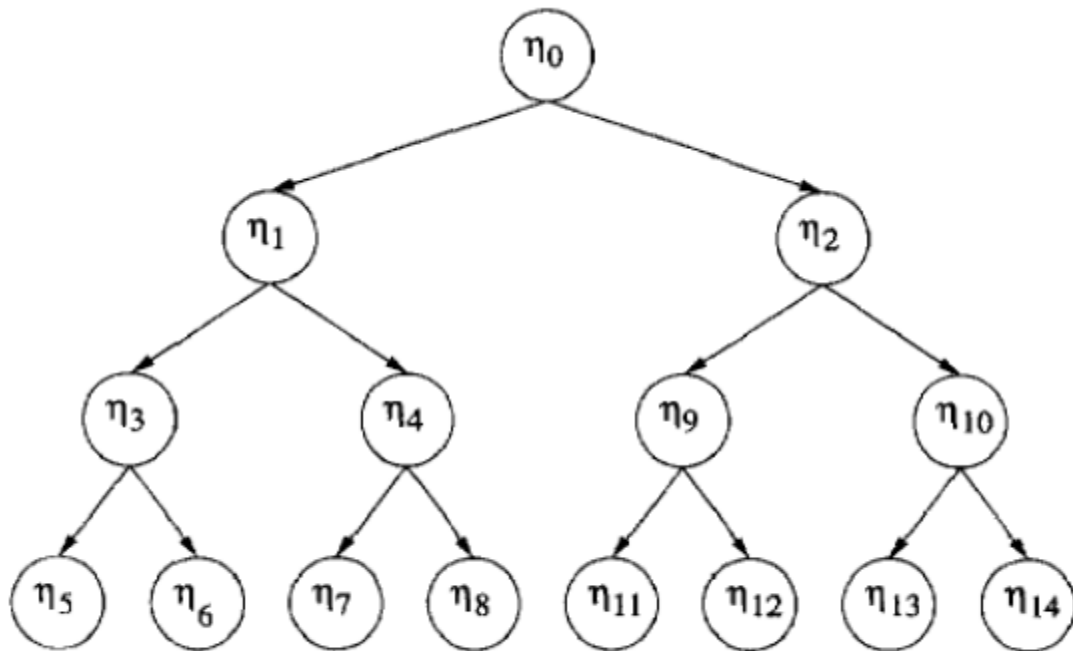


Figure 5.1: Nested Partition Algorithm example [5]

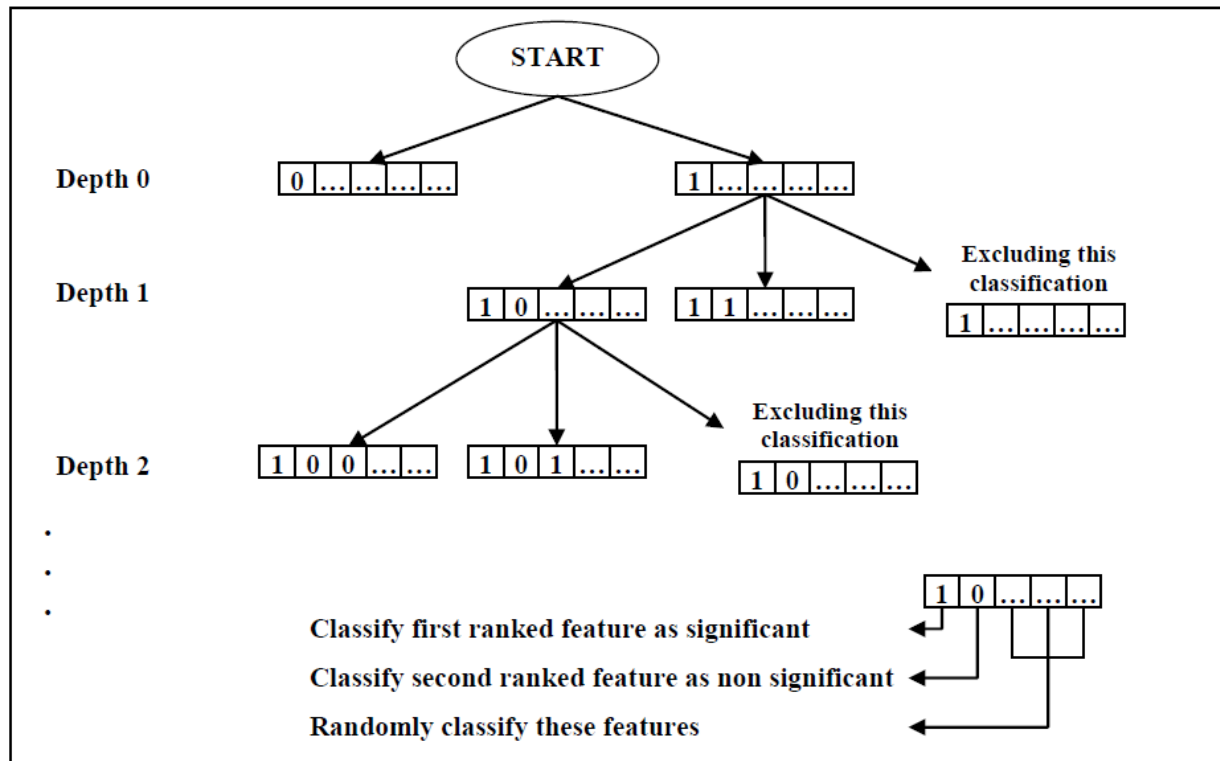


Figure 5.2: Nested Partition Algorithm used

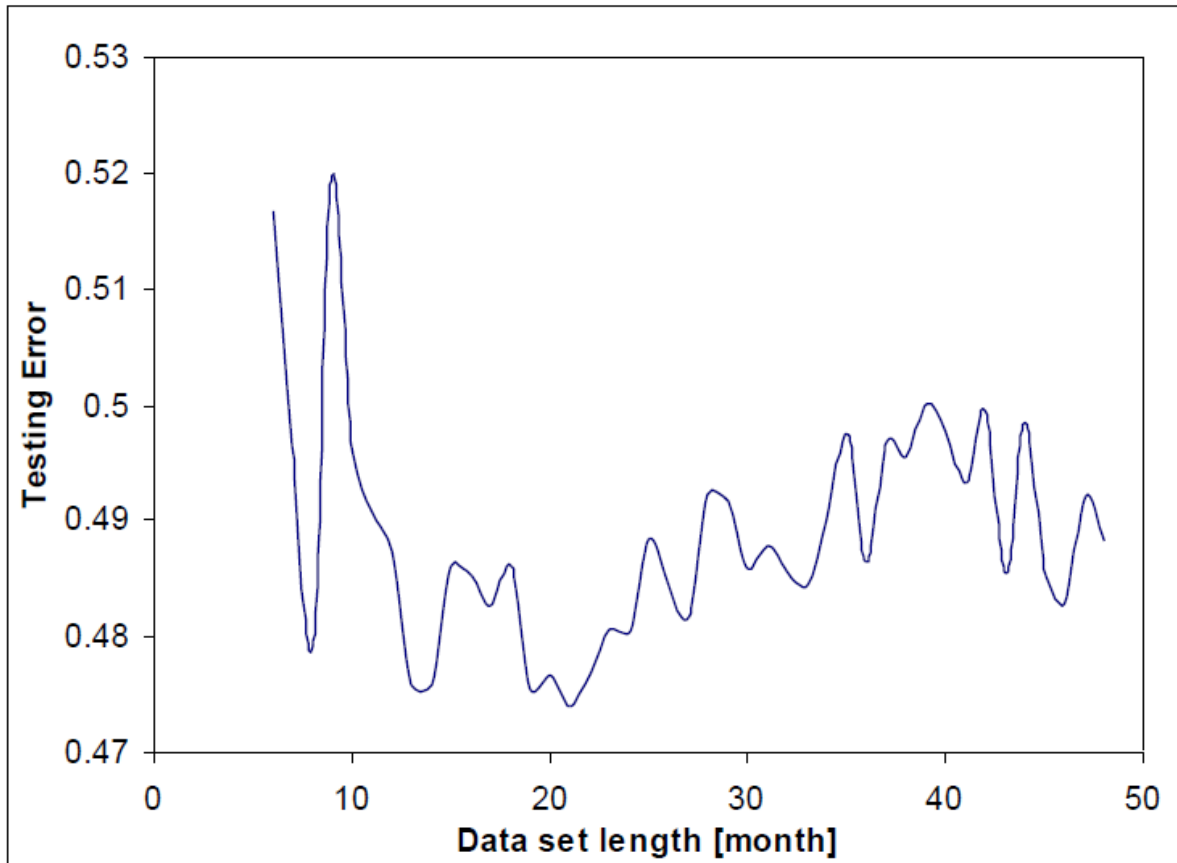


Figure 5.3: Error versus data set length

Table 5.1: Company list in model evaluation

General Electric Company

Microsoft Corporation

Danaher Corporation

Rentech, Inc.

3M Company

United Technologies Corporation

SAP AKTIENGESELL ADS

GenCorp Inc.

Appendix VI: Examiner Evaluation Forms

Graduation Project Evaluation Form

1. Project Title: _____

2. Student Name: _____ (form for each student)

3. Supervisor Name: _____

4. Supervisor Evaluation: (max 40%)

Evaluation Criterion	Weight	Grade
Problem solving capabilities	10	
Commitment & Punctuality	10	
Team spirit, Leadership and Creativity	10	
Report writing and presentation/discussion skills	10	
Total	40	

5. Committee Evaluation: (max 60%)

Evaluation Criterion/weight	Grade			
	1 st member	2 nd member	3 rd member	Avg.
Project value, complexity, and completeness (10)				
Comprehension of the theoretical background of the project (10)				
Understanding the details of the project and the implications of the results (10)				
Ability to make an effective oral presentation (10)				
Discussion and argumentation skills (10)				
Technical writing professionalism and ability to communicate the results in a written format (10)				
Paper / poster (Bonus)				
Total				

6. Committee Decision

Pass

Pass with minor changes

Need to do further work for an extra semester

Final Grade

Committee Chair

1st member

2nd member

3rd member

Graduation Project Evaluation Form

Examiner: Date:

Project Title: Advisor:

Students: (1) (2) (3)

Note: Final Grade = 60% Examiners + 40% Advisor

Project Assessment Category	Points (from 0 to 10)		
1- Documentation <i>background review, organization, written language, completeness, references, timeliness</i>			
2- Project Complexity <i>implementation challenges, interdisciplinary scope</i>			
3- Project Value <i>usefulness, relevance, applicability</i>			
4- Project Completeness <i>prototype, results, conclusions, expandability</i>			
5- Engineering Employed <i>design, analysis, simulation, methodology</i>			
6- Development Performed <i>self-made, not outsourced, little plug-and-play</i>			
7- Paper / poster (Bonus)			
Individual Assessment	Student 1	Student 2	Student 3
8- Presentation Skills			
9- Technical Knowledge			
10- Contribution to Team Project			
11- Personal Growth			
Total =			

Committee Decision

 Pass Pass with minor changes Need to do further work for an extra semester

 Committee Chair 1st member 2nd member 3rd member
