

Preface

This English version of the Thesis Handbook is equivalent to the Thai version of the handbook of Graduate College, King Mongkut's University of Technology North Bangkok. It is for post – graduate students to use as their guidelines when writing their thesis so that it is in the correct format, so that they are all the same format, of the same standard and consistent with the main format of academic publications in general. If there are errors these must be corrected. The Graduate College will be happy to comment and advise on changes to improve the thesis.

The Graduate College would like to thank all members of examination committees for assisting in correcting theses and modifying them in accordance with this thesis handbook and for making this handbook complete. We hope that it will be useful in helping students to write their theses in the correct format.

Graduate College

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CHAPTER

1

STEPS IN DOING A THESIS

1.1 Preparing a Thesis Proposal

In preparing a thesis proposal students should cover the topics covered in the sections below

1.1.1 The thesis proposal should contain

- Thesis title
- The background and importance of the problem (Specify the problem, the importance of the problem and why it is necessary to do research to solve it.)
- The objectives (State the objectives clearly. If previous knowledge is necessary to do the research state clearly the assumptions that will be used in the research.)
- The scope of the research (Specify the basic research area, the main research topic and how long you have been studying.)
- Methodology (Specify your plans for doing your research, the necessary steps in the research, the tools needed to do the research, how you are going to collect your data and how you will analyze and interpret the results)
- Usefulness of the research (Specify clearly what the results to come out of the research will be. Show how the outcomes of the research will be used to solve the problem.)
- References (List the books and journal articles etc that will be used in the research in the format given in the Graduate College handbook.)
- Other details. In addition list any relevant information needed depending on the postgraduate course.

1.1.2 Students who wish to present their thesis proposals must enrol in not less than 3 thesis credits in that semester. Masters students following alternative plan A option 2 must have studied at least 12 credits and obtained a grade point average not less than 3.00. Doctoral students must pass a qualifying examination and pass a foreign language in accordance with notices issued by the Graduate College about the way to proceed with thesis proposals. In assessing the qualifications of students the head of department shall take responsibility for recommending members of an examining committee for the Graduate College to appoint, including responsibility for

the examination procedure for measuring the student's qualifications up to and including sending the results of the examination to the Graduate College.

1.1.3 Students must submit their requests to present their thesis proposals (G.001) together with their thesis proposal document (G.020) and a request for approval of thesis advisors for the thesis advisor or supervising committee and head of department to sign to show they agree and then submit them to the Graduate College. The Graduate College will consider the application within 5 working days.

1.2 Thesis Title Examination

The Graduate College has made the following regulations for thesis title examinations, which must be followed:

1.2.1 Students must submit a request for a thesis title examination (G.003) along with an abstract (G.021) within 30 days of the examination date, including the day of submission, before their requested day for the thesis title examination. The Graduate College will fix the examination date at least **1 working days** before the date.

1.2.2 When a student has passed the thesis proposal examination the thesis advisor must submit the results of the examination to the Graduate College within 3 days after the examination for Graduate College endorsement.

1.2.3 In the case where the result is 'Pass with conditions, the student must correct the thesis proposal document and show the examination committee and submit the advisor thesis proposal modification form (G.006) with the modified thesis proposal and obtain the signatures of approval from the thesis advisor within 30 days, including the day of examination and submit them to the Graduate College for their endorsement.

1.2.4 Students who fail have to prepare a new thesis proposal and take a new examination.

1.2.5 The thesis proposal can be changed after approval has been given. If there is a change in the title or main focus of the thesis, all enrolled thesis credits will be given a U grade. The student has to enroll and ask for approval of their thesis proposal again. Count the time from the day they receive the most recent approval of their thesis proposal and title.

1.3 Thesis Progress Examination

The Graduate College has made the following regulations for thesis progress examinations:

1.3.1 Students must have had their thesis title approved and spent not less than half the time to their final thesis defense.

1.3.1.1 Masters students following alternative plan A option 1 (thesis only) must have had their thesis title passed at least 120 days ago.

1.3.1.2 Masters students following a alternative plan A option 2 (coursework plus thesis) must have had their thesis title passed at least 60 days ago.

1.3.1.3 Doctoral students following option 1 (thesis only) must have had their thesis title passed at least 365 days ago.

1.3.1.4 Doctoral students following option 2 (coursework plus thesis) must have had their thesis title passed at least 183 days ago.

1.3.2 Students must submit an application for a thesis progress examination (G.003) along with an abstract (G.021) to the Graduate College at least 1 working days before the examination day.

1.3.3 When a student has passed the thesis progress examination the advisor must submit the results to the Graduate College within 3 days after the examination.

1.3.4 Other processes shall be as ordered by relevant notices.

1.4 Thesis Defense Examination

Students have the right to ask for their thesis defense examination not less than 30 days after passing their thesis progress examination.

1.4.1 Students must take time doing their thesis counting from the day the Graduate College approves their thesis title and thesis proposal as set out below:

1.4.1.1 Masters students following plan A option 1 (thesis only) must spend at least 240 days doing their research.

1.4.1.2 Masters students following plan A option 2 (coursework plus thesis) must spend at least 120 days doing their research.

1.4.1.3 Doctoral students following option 1 (thesis only) must spend at least 730 days doing their research.

1.4.1.4 Doctoral students following option 2 (coursework plus thesis) must spend at least 365 days doing their research.

1.4.2 They must have completed all coursework subjects that their course requires and have a grade point average over all subjects of at least 3.00.

1.4.3 They must have received agreement from their thesis advisor to do their thesis defense examination.

1.4.4 Students must submit an application for a thesis defense examination on the Graduate College form (G.004) along with the examination copy of their thesis in a brown envelope. The Graduate College will send it to the defense examining committee.

1.4.5 When students submit their documents in accordance with subsection 1.4.4 they must be in the format required by King Mongkut's University of Technology North Bangkok and graduate studies.

1.4.6 When a student has passed the thesis defense examination the chairperson of the examination committee must submit the results of the examination to his/her department head who directly passes it to the Graduate College within one week after the examination.

1.4.7 Other processes shall be as ordered by relevant notices.

1.5 Printing and Copying the Thesis

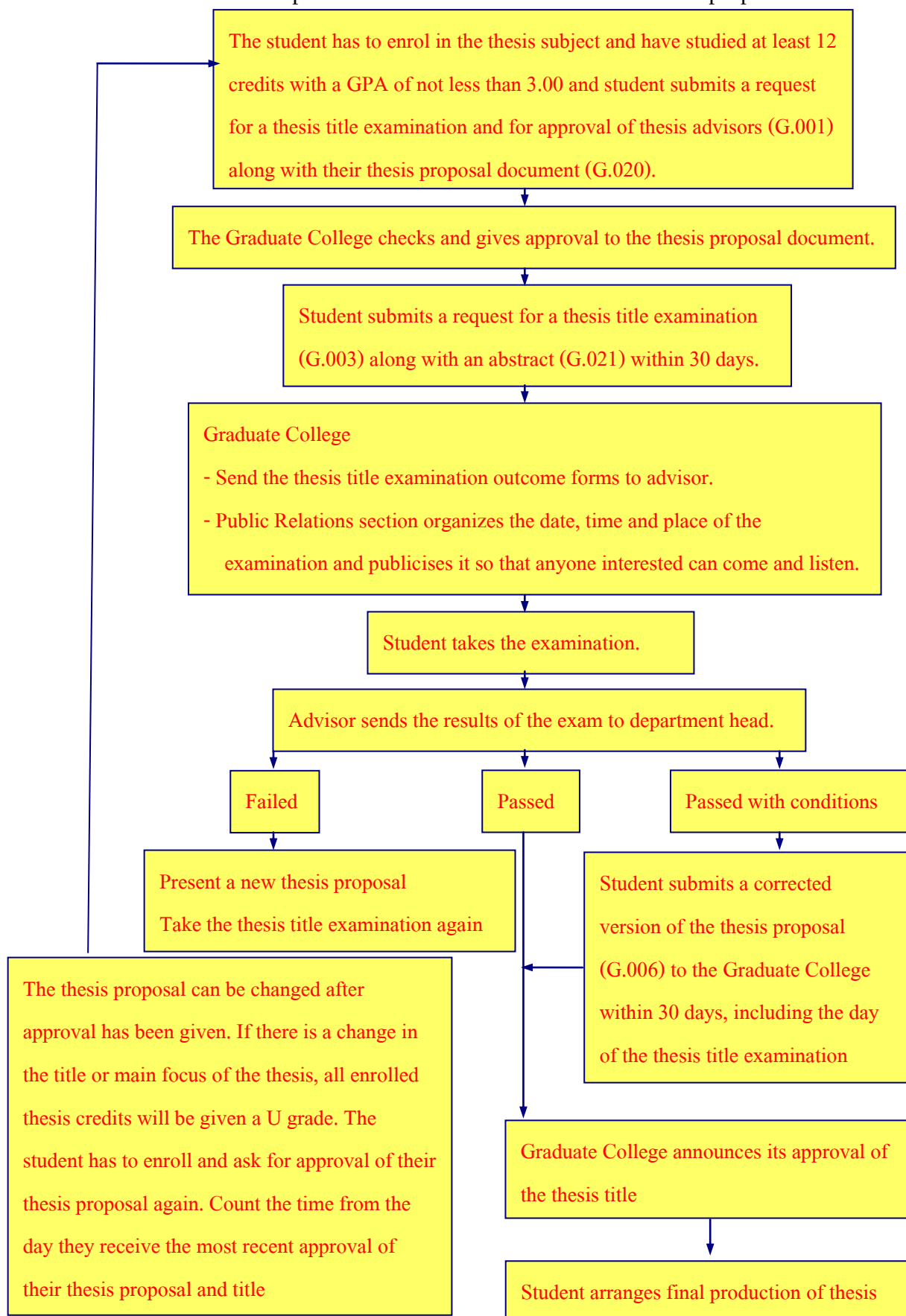
For a thesis that has 80 pages or more print double sided. Odd numbered pages are on the right page, even numbers on the left. New chapters start on a right hand page.

1.6 Submitting the Thesis and Abstract

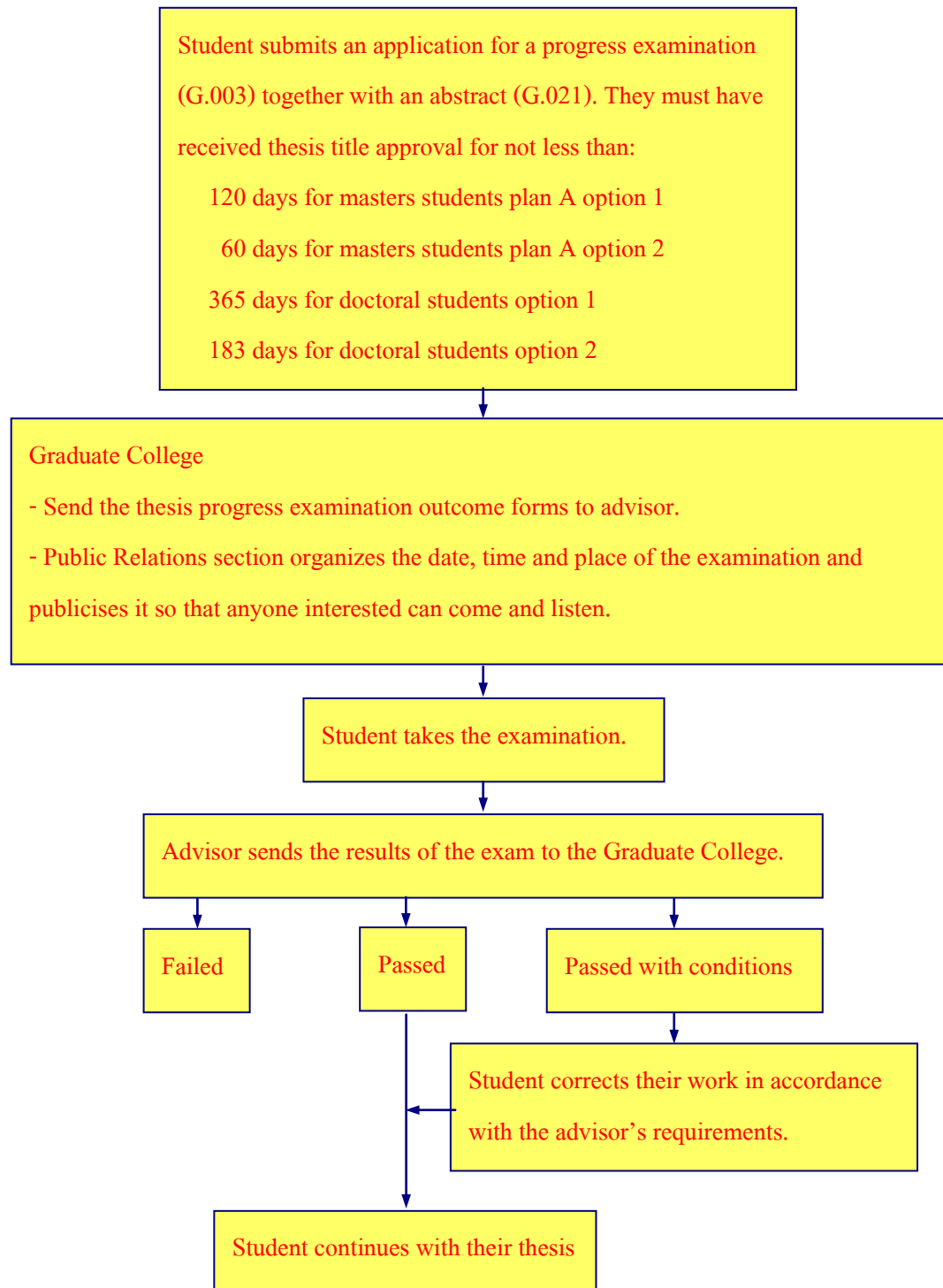
Students must submit **2 final copies** of their thesis with the signatures of all the thesis examiners in standard brown envelopes. They must put a copy of the cover page of their thesis on each envelope. They must also submit, at the same time, an electronic copy of the thesis on a CD and one copy of their abstract in the format directed by the Graduate College. Pay the cost of producing the cover and binding the thesis at a price fixed by the Graduate College. The Graduate College will arrange for the production of the outside cover and the binding of the thesis once they have got approval. This way the appearance of all the theses of King Mongkut's University of Technology North Bangkok will be the same. The Graduate College will not accept theses that are not of the specified standard.

Charts showing the stages of preparing a thesis

1. Chart of the development and examination of a thesis title and proposal



2. Thesis Progress Examination



3. Thesis Defense Examination

- Student submits an application for a thesis defense examination (G.004) together with an abstract (G.021). A record of the subjects taken (Transcript) together with a copy of their draft thesis.
- They must have completed all their coursework subjects and have obtained a GPA of not less than 3.00.
- They must have received thesis title approval for not less than:
 - 240 days for masters students plan A option 1
 - 120 days for masters students plan A option 2
 - 730 days for doctoral students option 1
 - 365 days for doctoral students option 2

The Graduate College checks and appoints an examining committee.

Graduate College

- Send the thesis defense examination outcome forms to chairperson of the examining committee.
- Public relations section organizes the date, time and place of the examination and publicises it so that anyone interested can come and listen.

Student takes the examination.

Chairperson of the examining committee sends the results of the exam to the Graduate College.

Failed

If the student fails the examination. They will be given a U grade for the thesis. They then have to enrol in the thesis again and do a completely new thesis from a new thesis title. (**Comment** It also has to be timing suitable for the student.)

Passed

Passed with conditions

The students has to correct the thesis within 60 days including the examination day. (**Comment** It also has to be timing suitable for the student.)

Student produces the final copy of their thesis as directed by the Graduate College within 15 days including the day they passed the examination. (**Comment** It also has to be timing suitable for the student.)

CHAPTER

2

SECTIONS OF THE THESIS

The thesis document has 3 sections, the front section, the main section and the references and appendices section.

2.1 Front Section

The front section includes

2.1.1 Outside cover. The outside cover of the thesis is a stiff black cover with gold printing exactly the same as on the title page inside.

Example: Outside cover and inside cover

(THESIS TITLE)

TITLE**NAME**SURNAME

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTER OF _____
IN _____
DEPARTMENT OF _____
GRADUATE COLLEGE
KING MONGKUT'S UNIVERSITY OF TECHNOLOGY NORTH BANGKOK
ACADEMIC YEAR _____
COPYRIGHT OF KING MONGKUT'S UNIVERSITY OF TECHNOLOGY NORTH BANGKOK

KNOWLEDGE MANAGEMENT SYSTEM IMPROVEMENT TOWARDS
SERVICE DESK OF IT OUTSOURCING IN BANKING BUSINESS

MR.PADEJ PHOMASAKHA NA SAKOLNAKORN

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF DOCTOR OF PHILOSOPHY
IN INFORMATION TECHNOLOGY

DEPARTMENT OF INFORMATION TECHNOLOGY
GRADUATE COLLEGE

KING MONGKUT'S UNIVERSITY OF TECHNOLOGY NORTH BANGKOK
ACADEMIC YEAR 2007

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2.1.2 Spine. Print the author's name and the academic year of completion.

2.1.3 Blank page. Immediately inside the front and back hard covers there is one blank sheet of white paper.

2.1.4 Thesis certificate. Use the format of the certificate provided by the Graduate College of which there are examples on pages 11-16 When putting the names on the certificate, the thesis examining committee should sign their names in black ink only.

Example: Thesis certificate



Thesis Certificate

The Graduate College, King Mongkut's University of Technology North Bangkok

Title** _____

By _____

allow 1 line

Accepted by the Graduate College, King Mongkut's University of Technology
North Bangkok in Partial Fulfillment of the Requirements for the _____

_____ Dean, Graduate College
(_____)
allow 2 lines

Thesis Committee (3 people)

_____ Chairperson
(_____)

_____ Member
(_____)

_____ Member
(_____)



Thesis Certificate

The Graduate College, King Mongkut's University of Technology North Bangkok

Title** _____

By _____

allow 1 line

Accepted by the Graduate College, King Mongkut's University of
Technology North Bangkok Partial Fulfillment of the Requirements for
the _____

(_____)

Dean, Graduate College

allow 2 lines

Thesis Committee (4 people)

(_____)

Chairperson

(_____)

Member

(_____)

Member

(_____)

Member



Thesis Certificate

The Graduate College, King Mongkut's University of Technology North Bangkok

Title** _____

By _____

allow 1 line

Accepted by the Graduate College, King Mongkut's University of
Technology North Bangkok in Partial Fulfillment of the Requirements for
the _____

(_____)

Dean, Graduate College

allow 2 lines

Thesis Committee (5 people)

(_____)

Chairperson

(_____)

Member

(_____)

Member

(_____)

Member

(_____)

Member



Thesis Certificate

The Graduate College, King Mongkut's University of Technology North Bangkok

Title Production of Vertical Dynamics Using Single Track Suspension Model with Identified Parameters

By Mr.Chatchai Chumjun

Accepted by the Graduate College, King Mongkut's University of Technology North Bangkok in Partial Fulfillment of the Requirements for the Master of Science in Automotive

(Dr.Mongkol Wangsathitwong) Dean, Graduate College

Thesis Committee

(Assistant Professor Dr.Chak Chantalakhana) Chairperson

(Assistant Professor Dr.Saiprasit Koetnityom) Member

(Assistant Professor Dr.Boonchai Watjatrakul) Member

(Associate Professor Dr.Mongkol Mongkolwongrojn) Member



Thesis Certificate

The Graduate College, King Mongkut's University of Technology North Bangkok

Title Knowledge Management System Improvement Towards Service Desk of
It Outsourcing in Banking Business

By Mr.Padej Phomasakha Na Sakolnakorn
Accepted by the Graduate College, King Mongkut's University of Technology
North Bangkok in Partial Fulfillment of the Requirements for the Doctor
of Philosophy in Information Technology

(Dr.Mongkol Wangsathitwong) Dean, Graduate College

Thesis Committee

(Assistant Professor Dr.Phayung Meesad) Chairperson

(Dr.Gareth Clayton) Member

(Associate Professor Dr.Utomporn Phalavonk) Member

(Dr.Choochart Haruechaiyasak) Member



Thesis Certificate

The Graduate College, King Mongkut's University of Technology North Bangkok

Title Classifying and Matching Patterns in Genetic Code with an application to β -Thalassemia

By Mr. Rapin Sunthornwat

Accepted by the Graduate College, King Mongkut's University of Technology North Bangkok in Partial Fulfillment of the Requirements for the Master of Science in Applied Mathematics

_____, Dean, Graduate College
(Dr.Mongkol Wangsathitwong)

Thesis Committee

_____, Chairperson
(Dr.Elvin James Moore)

_____, Member
(Associate Professor Dr.Yaowadee Temtanapat)

_____, Member
(Assistant Professor Dr.Krung Sinapiromsaran)

_____, Member
(Assistant Professor Dr.Supot Nitsuwat)

2.1.5 Inside cover, that is the title page. The title page should be written in the English language which the same type of white paper as the thesis is printed on. It has the following components. (see example: Outside cover and Inside cover)

2.1.5.1 Topic title. This is the thesis title for which the researcher received approval.

2.1.5.2 The name of the person who prepared it or who arranged for it to be done. A title must be shown as Mr., Mrs. or Miss. If the author has an official position that should be used, e.g. police first lieutenant, major, princess, use that title in front of the first name.

2.1.5.3 Specify that the thesis is in partial fulfillment of which course in which faculty and which department and the name of the university (Graduate College, King Mongkut's University of Technology North Bangkok) and the academic year when study was completed.

2.1.5.4 Specify that it is copyright of King Mongkut's University Technology North Bangkok

2.1.6 Abstract. If the thesis is written in English or other foreign language the abstract should be in the language of the thesis and in Thai. The following are the components of the abstract

2.6.1.1 The full name of the researcher with their title Examples are the same as for the title page. Thesis title, department, University name, the names of committee who were advisors of the thesis, and the academic year of completion of study.

2.1.6.2 Objectives scope, methodology of the research, results and conclusions.

2.1.6.3 Show the total number of pages in the thesis.

2.1.6.4 The advisor signs to show their approval. (They should sign using black ink)

2.1.7 Acknowledgements. This is to show appreciation to the people who helped to bring this thesis to completion.

Example: Abstract

Name : ** _____
Thesis Title : ** _____
Major Field : ** _____
King Mongkut's University of Technology North Bangkok
Thesis Advisor ** : ** _____
Co-Advisor : ** _____
Academic Year : ** _____

One blank line

Abstract

(Indent 1 cm. as in thesis)

(Total.....Pages)

One blank line

Keywords : ** _____

Advisor

Name : Mr. Padej Phomasakha Na Sakolnakorn
Thesis Title : Knowledge Management System Improvement Towards Service Desk of IT Outsourcing in Banking Business
Major Field : Information Technology
King Mongkut's University of Technology North Bangkok
Thesis Advisor : Assistant Professor Dr. Phayung Meesad
Co-Advisor : Dr. Gareth Clayton
Academic Year : 2007

Abstract

In business, knowledge is an organizational asset that enables corporations to sustain competitive advantages. In addition to increasing the demands of IT outsourcing to deliver world-class services, the Information Technology Infrastructure Library (ITIL) is a key concept to provide a high quality service, and the IT service desk is a crucial function for a whole concept of IT service management.

Three current problems include 1) technical staff turnover is very high; 2) more than sixty percent of all resolving time is spent to resolve the repeat incidents; and 3) the assigned resolver group to deal with the incident may be inaccurate due to human error. Thus, this thesis proposes a framework for a knowledge management system with root cause analysis, so called KMRCA IT service desk system, and evaluates its performance. The system is composed of two main functions, a searching knowledge function, and an automatic assignment function. This thesis evaluated the performance of the searching knowledge function using a simulation study and concluded that the system could significantly reduce time in resolving incidents. Moreover, this thesis enhances the framework to select the most suitable resolver group to deal with the incident using Text mining discovery methods. The ID3 decision trees method could increase productivity and decrease reassignment turnaround times. Furthermore, the rules resulting from the rule generation from the decision tree could be properly kept in a knowledge database in order to support and assist with future assignments.

(Total 153 pages)

Keywords : knowledge management, service desk, outsourcing, text mining, ITIL, performance evaluation, simulation study, and decision tree.

Advisor

Example: Acknowledgements

[illegible]

ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to Associate Professor Dr.Surin Laosooksathit and Associate Professor Dr.Apichart Suksamrarn for their helpful guidance, suggestion and encouragement throughout this study. I am grateful to Assistant Professor Narumol Kreuaongarjnukool for her useful comments. I am also indebted to Chulabhorn Research Institute for recording the Nuclear magnetic resonance spectra. I would like to thank to my teachers, my family, my friends and the staff of the Industrial Chemistry Department, Faculty of Applied Science, King Mongkut's University of Technology North Bangkok for their helpful suggestion and valuable assistance throughout the entire research.

Finally I would like to thank the Graduate College of King Mongkut's University of Technology North Bangkok for providing financial support from the research fund.

Pranee Preecha

2.1.8 Table of contents. This is a list showing the details of the chapters and sections of the thesis and their page numbers. The layout of the table of contents should be the same as the examples. If the table of contents takes more than one page, the later pages should have the heading "Table of Contents (Continued)" in the middle of the top of the page.

Example: Table of contents

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Abstract (in Thai)		iii
Acknowledgement		iv
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Remark: If the table of contents takes more than one page, the later pages should have the heading “**TABLE OF CONTENT (CONTINUED)**” in the middle of the top of the page.

TABLE OF CONTENTS

	Page
Abstract (in English)	ii
Abstract (in Thai)	iii
Acknowledgements	iv
List of Tables	vi
List of Figures	vii
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2.1.9 List of tables. This is a list of the tables (if any) in the thesis and their page numbers. The layout of the list of tables should be the same as the examples. If the list of tables take more than one page, the later pages should have the heading “List of Tables (Continued)” in the middle of the top of the page.

Example: List of tables

LIST OF TABLES		
<Blank 1 line>		
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Remark*:*: If the list of tables take more than one page. The later pages should have the heading “**LIST OF TABLES (CONTINUED)**” in the middle of the top of the page.

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2.1.10 List of figures. This is a list of all the figures (pictures, maps, charts, graphs etc) in the thesis and their page numbers. The layout of the list of figures should be the same as the examples. If the list of figures takes more than one page, the later pages should have the heading “List of Figures (Continued)” in the middle of the top of the page.

Example: List of figures

LIST OF FIGURES		
<Blank 1 line>		
Figure		Page
1-1		7
1-2		9
2-1		23
2-2		24
3-1		29
3-2		30
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Remark:** If the list of tables takes more than one page. The later pages should have the heading “**LIST OF FIGURES (CONTINUED)**” in the middle of the top of the page.

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2.1.11 List of abbreviations and symbols. This is a list explaining the abbreviations and symbols used in the thesis (if any). These abbreviations and symbols must have the same meaning throughout the thesis and should be arranged in alphabetical order.

Example: List of abbreviations and symbols

LIST OF ABBREVIATIONS AND SYMBOLS

A/F	Air/Fuel
BSFC	Brake Specific Fuel Consumption
CBU	Completely Build up Unit
CFD	Computational Fluid Dynamics
CKD	Complete Knock Down
CNG	Compress Natural Gas
CO	Carbon Monoxide
CR	Compression Ratio
DDF	Diesel Dual Fuel
ECU	Electronic Control Unit
HUCR	High Useful Compression Ratio
HC	Hydrocarbon
K	Kelvin
LEL	Lower Explosive Limit
LPG	Liquid Petroleum Gas
MBT	Maximum Brake Torque
NGV	Natural Gas for Vehicle
Pa	Pascal
PM	Particulate Matter
PTT	Thai Petroleum Company
TDC	Top Dead Center
UEL	Upper Explosive Limit
WOT	Wide Open Throttle'
r	Compression Ratio

2.2 Main Section

This section contains the main body of the thesis. It contains 1) introduction, 2) steps that had to be taken in doing the research and a review of the results, 3) conclusion and suggestions.

2.2.1 Introduction. This is the first chapter of the thesis and includes the source of the motivation for doing the research, the importance of the problem, the scope of the research, a survey of other relevant research. It also includes the theory that was used in the research, a short description of the research method and the applications that come out of the research.

2.2.2 Steps that had to be taken in doing the research and a review of the results. In this part there can be as many chapters as are needed. The chapters may be different according to the nature of the body of the thesis and the traditions of the research field. However in general it will describe the main part of the thesis. In this part there will probably be a chapter giving a general introduction, a literature review chapter including theory, the concept of the research and a review of relevant other research. Another chapter will describe the details of the methods used in conducting the research and the tools used in doing the research (methodology), covering the format of the research, the population, method of sampling, sample group and tools used in the research. For each step what data source documents, types and varieties of tools were used, and the information documents and how they were used (materials and methods) up to and including the analysis. There should be a result chapter and a discussion chapter.

A more detailed explanation of this part. Give details of the customary procedure for conducting research in the relevant field, the results of the study shown in a suitable format, e.g. table, picture, along with an explanation to enable readers to understand, a discussion or review of the results which come from the results of the study. There ought to be a full coverage of the main points from the results of the research or study and whether they agree with or differ from the results of others who have studied the same topic along with the reasons for this. The last part of the discussion or review of the results is to give suggestions if there is further study or research in related areas and the way to arrange the research to get the best results. If there is further research on the same title how should the way of doing the research change to get better results than in this research. What is the benefit of this research in applications. Explain the reasons for your recommendations.

2.2.3 Conclusions. This is the last section which summarises the main points of the research. It identifies the important results which come out of the research, the limitations of the research and recommendations. It is the place to give a brief summary of advice for further research together with the benefits that come out of applications of the research done here.

2.3 Reference or Final Section

This part contains the references and other final features. The references or bibliography, appendices (if any) and a biography of the researcher. In the final section there will probably be other things to include as well which do not fit conveniently in the main body of the thesis. The section has the following details.

2.3.1 Bibliography or references is the section to show the details of names of the books or other material which have been cited in the body of the thesis. It goes after the main body of the thesis and before the appendices.

See section 3.11

Example : Bibliography
MLA STYLE

The top margin is 5.08 cm (2 inch)

BIBLIOGRAPHY

- Barnhart Cynthia. "Airline Crew Scheduling." Handbook of Transportation Science, (2nd Edition) Randolph W. Hall (editor), Kluwer Academic Publishers, Norwell, MA (2003) : 517-560.
- Yunes Talys H., Arnaldo V. Moura and Cid C. de Souza. "Modeling and Solving a Crew Rostering Problem with Constraint Logic Programming and Integer Programming." Relatorio Tecnico IC-00-04 (2000) : 11-15.
- Hartog Anneke. "Decision Support for Crew Rostering at NS." Econometric Institute Report EI2006-04.
- Kohl Niklas, and Stefan E. Karisch. "Airline Crew Rostering: Problem Types, Modeling and Optimization." Annals of Operation Research. 127 (2004) : 223-257.
- Mokhtar, B., John, J., and Hanif, S. Linear Programming and Network Flow, 3rd Ed., New Jersey. 281 (2005) : 527-534.
- Medard C.P., and N. Sawhney. Airline crew scheduling: From planning to operations, Carmen Research and Technology Report CRTR-0406, Carmen Systems AB, Göthenburg, Sweden, 2004.
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- Lettovsk'y, L. Airline Operations Recovery: An Optimization Approach. PhD thesis, Georgia Institute of Technology, 1997.
- Lettovsk'y, L., Johnson, E., and Nemhauser, G. "Airline crew recovery." Transportation Science. 34 (2000) : 337-348.
- Bailey, J. T., Steffen, S. M. and Grout, J. W. "The Stress Audit : Identifying the Stressor of ICU." Journal of Nursing Education. 19 (Jun 1980) : 15-25.
- Coat, G. "The Impact of Shift and Night Work on Health". Applied Ergonomics. 27 (Jan 1996) : 5-44.

Example : References
MLA STYLE

The top margin is 5.08 cm (2 inch)

REFERENCES

1. Day, P., and Ryan, D. "Flight attendant rostering for short-haul airline operations." Operations Research. 45 (1997) : 649-661.
2. Caprara, A., Toth, P., and Vigo, D. Modeling and solving the crew rostering problem (CRP). Operations Research, 46 (1998) : 820–830.
3. Lettovsk'y, L.; Johnson, E., and Nemhauser, G. Airline crew recovery. Transportation Science, 34 (2000) : 337-348.
4. West, D.B. Introduction to Graph Theory, 2nd Ed., Prentice-Hall, Upper Saddle River, N.J, U.S.A. (2001) : 123-127.
5. Abbink, E., etal. Reinventing Crew Scheduling at Netherlands Railways, Social Science Research Network. [online] 2007. [cited 2007 Oct 23]. Available from : http://papers.ssrn.com/sol3/papers.cfm?abstract_id=594982
6. Barnhart, C., etal. "Airline Crew Scheduling." Handbook of Transportation Science, 2nd Ed., Kluwer Academic Publishers, Norwell, MA, (2003) : 517-560.
7. Barnhart, C., and Cohn, A. "Airline Scheduling Planning: Accomplishments and Opportunities." Manufacturing & Service Operations Management, 6 (2004) : 3-22.
8. Gross, J. L. and Yellen, J. Handbook of Graph Theory, 2nd ed. Florida : CRC Press, (2005) : 236-240.
9. Causmaecker, P.; Demeester, P.; Berghe, G.; Verbeke, B. Analysis of real-world personnel scheduling problems. PATAT '04 Proceedings of the 5th International Conference on the Practice and Theory of Automated Timetabling, (2004) : 183-198.
10. Weide, O.; Ryan, D.; and Ehrgott, M. Iterative Airline Scheduling. [online] 2007. [cited 2007 Oct 9]. Available from : <http://www.esc.auckland.ac.nz/research/tech/esc-tr-645.pdf>
11. Melin, A. MATLAB Central File Exchange. [online] 2006. [cited 2006 Aug 24]. Available from : <http://www.mathworks.com/matlabcentral/fileexchange/>
12. Yu, G.et.al. "A New Era for Crew Recovery at Continental Airlines." Interfaces 33 (2003) : 5-22.
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15. Wolfgang, A. P. "Job Stress in the Health Professions : A Study of Physicians." Nurses and Pharmacists. 14 (Jan 1988) : 43-47.

Example : Bibliography
APA STYLE

The top margin is 5.08 cm (2 inch)

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- Mokhtar, B., John, J., and Hanif, S. (2005). Linear Programming and Network Flow, 3rd Ed., New Jersey. 281: 527-534.
- Medard C.P., and N. Sawhney. (2004). Airline crew scheduling: From planning to operations, Carmen Research and Technology Report CRTR-0406, Carmen Systems AB, Göthenburg, Sweden.
- Kohl, N. (1999). "The Use of Linear and Integer Programming in Airline Crew Scheduling." In Proceedings of the 3rd Scandinavian Workshop on Linear Programming, Lyngby, Denmark, August 26–28,.
- Lettovsk'y, L. (1997). Airline Operations Recovery: An Optimization Approach. PhD thesis, Georgia Institute of Technology.
- Lettovsk'y, L., Johnson, E., and Nemhauser, G. (2000). "Airline crew recovery." Transportation Science. 34 : 337-348.
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- Coat, G. (1996). "The Impact of Shift and Night Work on Health." Applied Ergonomics. 27 (Jan) : 5-44.
- Lawrence, R. M. and Lawrence, S. A. (1988). "The Nurse and Job Related Stress : Responses Rx and Self Dependency." Nursing Forum. 23 (march) : 41-48.

Example : References
APA STYLE

The top margin is 5.08 cm (2 inch)

REFERENCES

1. Day, P., and Ryan, D. (1997). "Flight attendant rostering for short-haul airline operations." Operations Research, 45 : 649-661.
2. Caprara, A., Toth, P., and Vigo, D. (1998). Modeling and solving the crew rostering problem (CRP). Operations Research, 46: 820–830.
3. Lettovsk'y, L.; Johnson, E., and Nemhauser, G. (2000). Airline crew recovery. Transportation Science, 34: 337-348.
4. West, D.B. (2001). Introduction to Graph Theory, 2nd Ed., Prentice-Hall, Upper Saddle River, N.J, U.S.A. : 123-127.
5. Abbink, E., etal. (2007). Reinventing Crew Scheduling at Netherlands Railways, Social Science Research Network. [online]. [cited 2007 Oct 23]. Available from : http://papers.ssrn.com/sol3/papers.cfm?abstract_id=594982
6. Barnhart, C., etal. (2003). "Airline Crew Scheduling." Handbook of Transportation Science, 2nd Ed., Kluwer Academic Publishers, Norwell, MA, : 517-560.
7. Barnhart, C., and Cohn, A. (2004). "Airline Scheduling Planning: Accomplishments and Opportunities." Manufacturing & Service Operations Management, 6 : 3-22.
8. Gross, J. L. and Yellen, J. (2005). Handbook of Graph Theory, 2nd ed. Florida : CRC Press, : 236-240.
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11. Melin, A. (2006). MATLAB Central File Exchange. [online]. [cited 2006 Aug 24]. Available from : <http://www.mathworks.com/matlabcentral/fileexchange/>
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13. Sullivan, E. J. and Decker, P. J. (2004). Effective Leadership and Management in Nursing. California : Prentice- Hall.
14. Wolfgang, A. P. (1988). "Job Stress in the Health Professions : A Study of Physicians." Nurses and Pharmacists. 14 (Jan) : 43-47.

2.3.2 This is the place to include further details of matters in the main body of the thesis to help improve understanding. There may or may not be any references. It depends on what is convenient or necessary, examples are vocabulary, abbreviations, illustrations, various calculations, questionnaires.

2.3.3 Biography. Use the section classification as the title of the section.

2.3.3.1 Academic biography from bachelor level or equivalent upwards. Give the name of the educational establishment and the academic year of completion for each level.

2.3.3.2 Employment record give details of employment and any academic training, prizes or important sponsorships. Also give the position held and place and year of any jobs.

2.3.3.3 Where to contact.

BIOGRAPHY

Name : Mrs.Yupadee Samorn

Thesis Title : Development of New Chromo- and Fluorogenic Probes

Major Field : Industrial Chemistry

Biography

TYPING THE THESIS

3.1 Paper to Use

The restrictions on the paper used in a thesis are that it must be , A4 size plain white paper and 80 grams per square meter weight.

3.2 Margin of a page

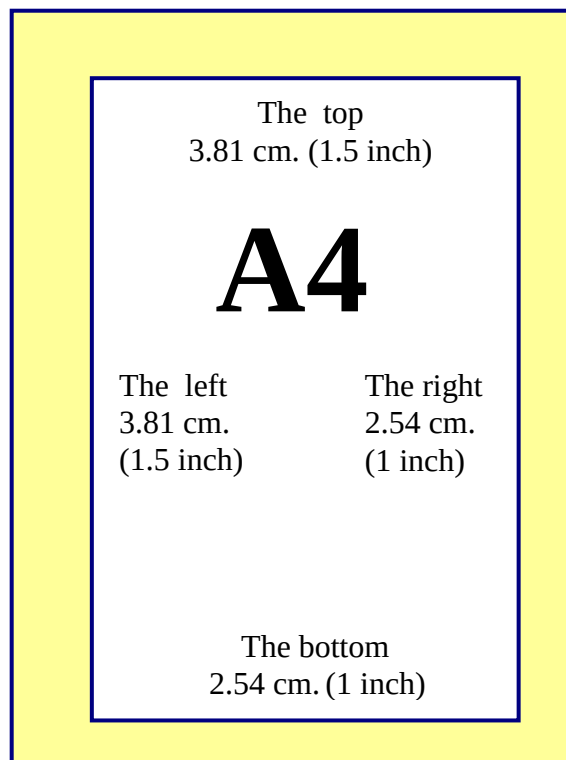
The spacing from the edge of the paper should be done as follows.

3.2.1 The top margin is 3.81 cm. (1.5 inch) (except for the first page of a new chapter where the margin is at 5.08 cm. (2 inch).

3.2.2 The bottom and the right margins are 2.54 cm. (1 inch).

3.2.3 The left margin is 3.81 cm. (1.5 inch).

Example: Margin of a page



3.3 Typing

3.3.1 The font used must be Times New Roman 12 pt. throughout the thesis. For an important heading uses 12 pt. bold. The thesis must be printed in black on white paper.

3.3.2 Leave a blank line under heading.

3.3.3 Use 1 cm. (0.39 inch) indenting from the edge of printing at the beginning of a paragraph.

3.3.4 Starting a new page.

3.3.4.1 A bottom margin is about 2.54 cm. (1 inch).

3.3.4.2 If there is only one line left before the end of a paragraph, print it on the same page. The new paragraph starts on the next page.

3.3.4.3 If there is only room to type one line of a paragraph at the bottom of a page move it to the top of the next page and start the new paragraph at the top of the next page.

3.4 Paging a Thesis

3.4.1 In the front section, use the Roman numerals ii, iii, iv ... in English. The numbers are to be printed in the center of the bottom of the page 1.27 cm. (0.5 inch) below the bottom of the page of printing. Do not print the pages number on the title page but count the page. Printing starts from the abstract.

3.4.2 In the main body and appendices parts use the Arabic numerals 1, 2, 3, ... The total numbers of pages are counted successively for the whole of these 2 parts. The numbers must be printed on the top of the page, 2.54 cm. (1 inch) from the top and right of the page. Do not print the page numbers on the first pages of new chapters, the first page of the bibliography or reference and the first page of each appendix.

3.5 Printing of Chapters, Sections and Subsections

3.5.1 Always starts a new chapter on a new page and number the chapters in order, using Arabic numerals only. Print “CHAPTER” in the middle at the top of the page. The title of the chapter is printed on the next line. Do not leave a line. If the title is too long to fit onto one line, separate the title across 2 or 3 lines. Print in 14 point bold.

3.5.2 The section headings should be printed on the left of the page next to the left margin and use 12 pt. bold. Do not underline. Leave a blank line only at the beginning of a chapter under the chapter title. The first letters of each word in the section headings should be capitals except for prepositions, conjunctions and articles unless they are the first word of the title.

3.5.3 Subsection titles. Indent subsection titles so that they line up with the first letter of the section headings. If the subsections have more than 4 levels, for the lower levels you

can use either numbers or the lower case English alphabet, i.e. a, b, c, . . . Use the same way throughout the thesis.

Example 1: Using numbers throughout

1.1Section Title** (The ** symbol indicates leave 2 spaces)

1.1.1** Subsections title

1.1.2** Subsections title

1.1.2.1 ** Subsections title

1.1.2.2 ** Subsections title.....

1.1.2.2.1** Subsections title.....

1.1.2.2.2** Subsections title.....

Example 2: Using both numbers and letter

1.1Section Title** (The ** symbol indicates leave 2 spaces)

1.1.1** Subsections title

1.1.2** Subsections title

1.1.2.1 ** Subsections title

1.1.2.2 ** Subsections title.....

1.1.2.2.1** Subsections title.....

1.1.2.2.2** Subsections title.....

a)** Subsections title.....

b)** Subsections title.....

Example 3 :

	(Times New Roman 14)
	CHAPTER 1
	INTRODUCTION
	<1 Blank line >
1.1	Thailand (Times New Roman 12)
1.1.1	North.....
1.1.2	South.....
1.1.2.1	Chumporn.....
1.1.2.2	Trang.....
a)	Kantang.....
b)	Palian.....
1.1.3	East.....
1.2	Lao
1.3	Cambodia

3.6 Printing of Tables

3.6.1 The numbers of tables, caption notes, and sources of tables are printed above the tables. Tables can be printed in either portrait or landscape mode.

3.6.2 Print the word “TABLE” near the left margin of the page. Also print the table number in the chapter-number format and the caption for the table above the table. The table numbering goes from 1 onwards within a chapter. Tables in appendices are numbered in the same way. Print the word “TABLE” and the table number in bold such as **TABLE 1-1** (in Chapter 1), **TABLE 2-1** (in Chapter 2), **TABLE A-1** (in Appendix A)

3.6.3 The caption is printed after the number of a table, and 2 characters space. If the caption can not be fitted on one line, line up the first character of the next line below the first character of the title in the first line, for example :

TABLE 1-1** Table of the Coverages of the Confidence Intervals Obtained for the Estimation of the Parameters Using the Least Squares Method

3.6.4 Tables from other sources. The source of the table and the citation reference are printed under the table.

3.6.5 The size of the table can not go over the border of the printing area of the pages. In the case of a large table, resize it unit it can be fitted in the available area. The resize image must be sharp and easy to read. If it is not possible to reduce the size, then use the advisor's judgement.

3.6.6 In a case where a table is too long or too wide and not possible to fit it on one page, use a summary table or split it into two parts. The later parts of the table are printed on the next pages. The table number and the word "CONTINUED" in brackets must be shown.

Examples :

TABLE 3-2 IR Spectrum, Mass Spectrum (**41a-e**)

Substance	IR (cm. ⁻¹)	Mass	m.p.(°C)
41a	(KBr) 1715, 1597 1515, 1227	272(M ⁺ ,1.09), 121(100), 91(5.54), 78(4.62)	50-52
41b	(Neat) 1722, 1609, 1577, 1255	272(M ⁺ ,20.56), 241(24.16), 240(100), 213(2.54), 91(31.72)	-
41c	(KBr) 1722, 1581, 1503, 1022	302(M ⁺ ,34.13), 270(16.55), 242(10.37), 121(100), 91(4.81)	56-58
41d	(KBr) 1727, 1613, 1499, 1279	302(M ⁺ ,35.81), 270(80.77), 271(44.03), 243(38.07), 91(100)	66-68
41e	(KBr) 1728, 1614, 1514, 1268	332(M ⁺ ,38.82), 300(45.72), 121(100)	76-78

TABLE 3-3 ¹H NMR (CDCl₃; 200MHz) (**41a-e**)

Substance	δ _H (ppm)
41a	3.75 (s, 3H, -OCH ₃), 3.90 (s, 3H, -OCH ₃), 5.10 (s, 2H, -OCH ₂), 6.80-7.50 (m, 7H, ArH), 7.80 (dd, J = 2.0, 8.0 Hz, 1H, H-6)
41b	3.80 (s, 3H, -OCH ₃), 3.90 (s, 3H, -OCH ₃), 5.15 (s, 2H, -OCH ₂), 6.40-6.60 (m, 2H, H-3,5), 7.20-7.60 (m, 5H, ArH), 7.90 (d, J = 10.0 Hz, 1H, H-6)

TABLE 4-1 Natural Gas Retrofit Engine Specification

Item	Natural Gas Retrofit Engine
Type	4-cylinder 4 stroke
Displacement	2197 cc
Bore (mm)	87
Stroke (mm)	92.4
Compression ratio	9, 9.5, 10, 10.5
Fuel Supply System	Gas Fuel Mixer
Spark System	Electric discharge

TABLE 4-2 Length of Melt Flow (The Circular Cross-Section of Flow Channel, Polypropylene, Mold Temperature 50 °C)

Mold Temperature (°C)	Melt Temperature (°C)	Length of melt flow (mm)
50	220	1259.18
50	230	1358.94
50	240	1450

TABLE 4-3 Length of Melt Flow (The Circular Cross-Section of Flow Channel, Polypropylene, Mold Temperature 60 °C)

Mold Temperature (°C)	Melt Temperature (°C)	Length of melt flow (mm)
60	220	1264.545
60	230	1364.595
60	240	1450

TABLE 4-4 Effect of Mica and Talc Concentration on Impact Property

Samples	Impact properties (kJ/mm ²)	Decrease (%)	σ_2
HDPE	35.61		6.76×10^{-4}
HD / mica 5	31.04	12.83	7.34×10^{-4}
HD / mica 10	28.75	19.26	7.8×10^{-1}
HD / mica 15	26.14	26.59	6.6×10^{-4}
HD / mica 20	22.87	35.94	2.1×10^{-3}
HD / mica 25	19.60	44.96	3.6×10^{-1}
HD / mica 30	18.62	47.71	2.36×10^{-4}
HD / talc 5	33.98	4.58	4.06×10^{-3}
HD / talc 10	30.70	13.79	1.57×10^{-3}
HD / talc 15	28.37	20.33	3.77×10^{-3}
HD / talc 20	26.46	25.70	1.489×10^{-3}
HD / talc 25	24.50	31.20	3.74×10^{-3}
HD / talc 30	23.20	34.85	7.58×10^{-3}

3.7 Printing of Figures

3.7.1 A Figure include pictures, maps, charts, and graphs etc.

3.7.2 A Colored figure must have clear color photocopies made on white bond paper.

3.7.3 Every picture must be numbered and a name or an explanation of the picture must be put below the figure in the center of the page. The figure are numbered from 1 upward within chapters. Pictures in the appendices use the same format. Type the word “FIGURE” and the number in bold, e.g. **FIGURE 1-1** (in Chapter 1), **FIGURE 2-1** (in Chapter 2), **FIGURE A-1** (in Appendix A)

3.7.4 All pictures must be clear and have to be resized until they fit on a page. In the case of editing figure, all processes must be finished in the computer before printing them out. (Glues and staples can not be accepted)

3.7.5 In printing figure use the same approach as described above for tables.

Examples :

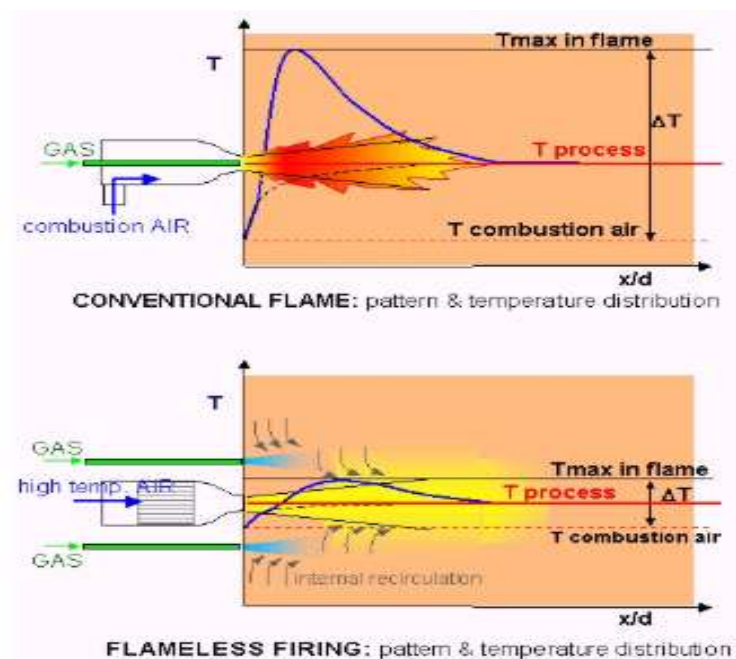


FIGURE 3-1 Pattern and Temperature Distribution

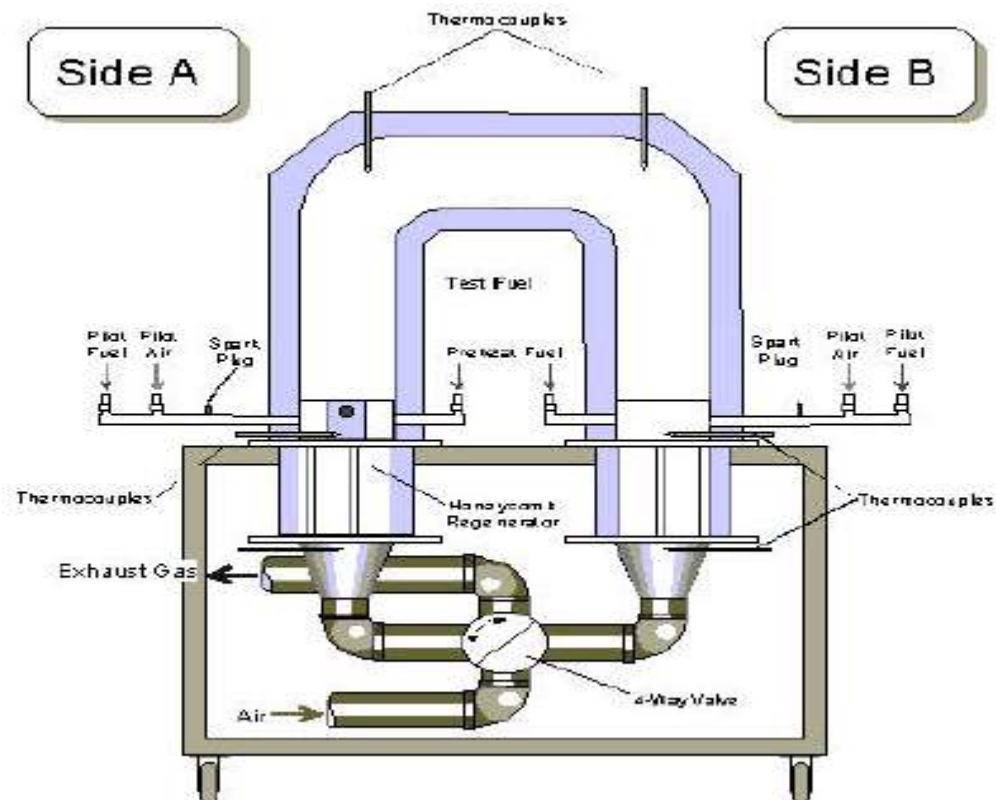


FIGURE 3 -2 A Schematic Diagram of the Experimental Test Facility

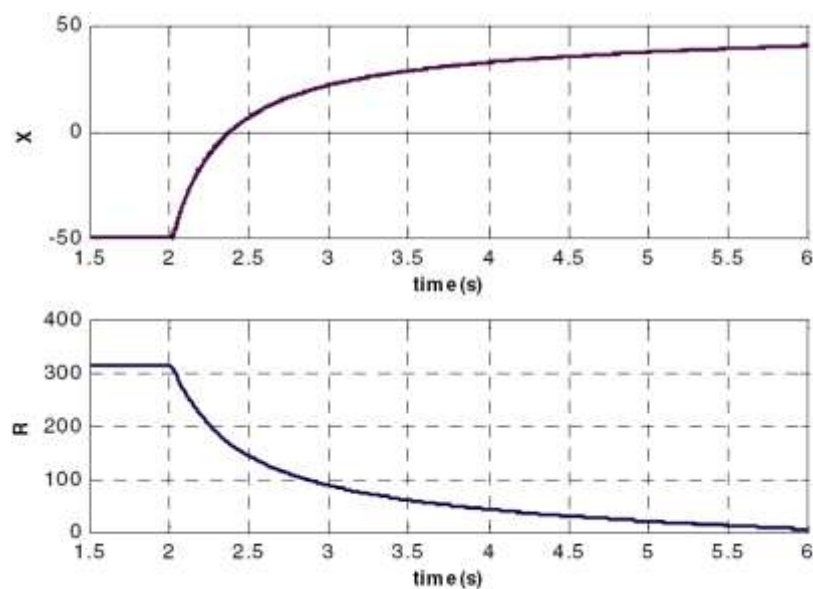


FIGURE 3-3 The Impedance Changes when the Power Oscillates with Oscillation Frequency Equal to 0.1 Hz

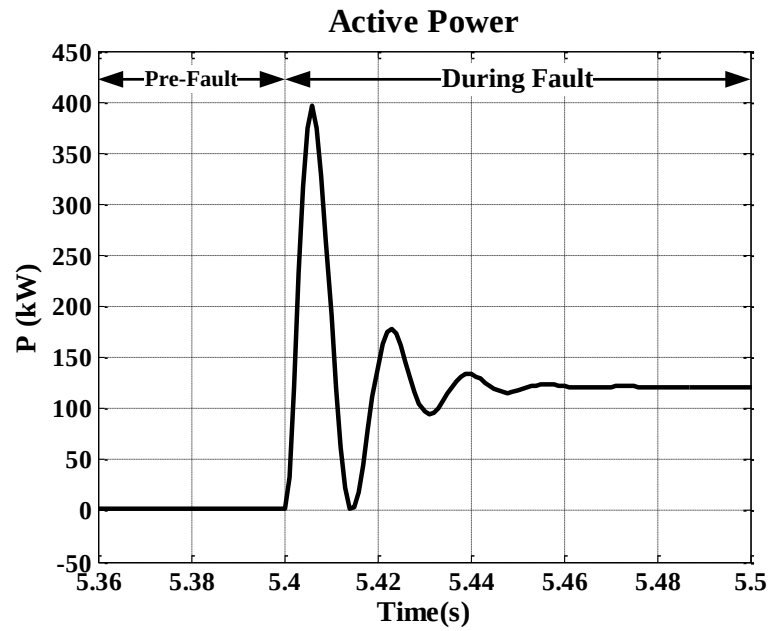


FIGURE 3-4 Active Power when Fault Occurs at 5.4 s

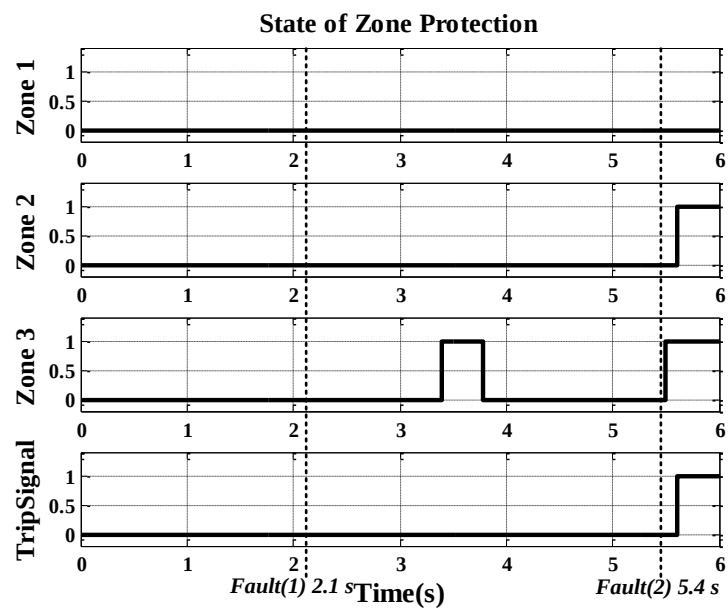


FIGURE 3-5 State of Distance Relay 1

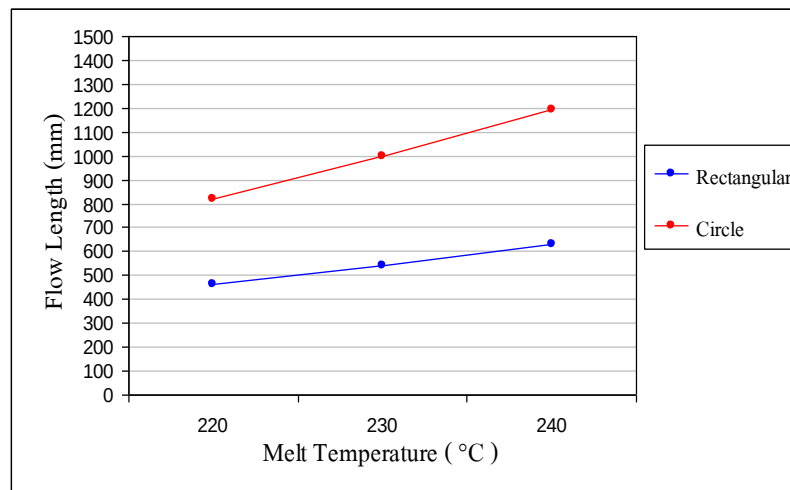


FIGURE 3-6 Comparison of the Effects of Cross-Section on the to Flow Length at Mold Temperature 40 °C with Polystyrene (PS) Plastic

3.8 Printing of Equations

All cited equations are numbered, starting from 1 to the last equation of the chapter. Equations in appendices are numbered in the same format. Use the numbering system, e.g. the 1st equation in chapter 1 is numbered (1-1), the 2nd equation in chapter 2 is numbered (2-2), the 3rd equation in appendix B is numbered (B-3).

Examples :

Any periodic function $f(t)$ can normally be represented by a Fourier series of discrete harmonics

$$f(t) = \frac{a_0}{2} + \sum_{n=1}^{\infty} a_n \cos n\omega_0 t + \sum_{n=1}^{\infty} b_n \sin n\omega_0 t \quad (3-1)$$

Where ω_0 is the angular fundamental frequency $= 2\pi f_0 = 2\pi/T$

T is the time period of the fundamental component

$n\omega_0$ is the n th harmonic angular frequency

t_1 is arbitrary

Given the known function $f(t)$ (which in most practical situation is a function that varies with time), the coefficients $a_0, a_1, b_1, \dots, a_n, b_n$ can be determined from

expressions of the form of Equation 3-2 to 3-4

$$a_0 = \frac{2}{T} \int_{t_1}^{t_1+T} f(t) dt \quad (3-2)$$

$$a_n = \frac{2}{T} \int_{t_1}^{t_1+T} f(t) \cos n\omega_0 t dt \quad (3-3)$$

$$b_n = \frac{2}{T} \int_{t_1}^{t_1+T} f(t) \sin n\omega_0 t dt \quad (3-4)$$

Alternative, by combining corresponding sine and cosine terms of the same frequency, Equation 4-2 can be written as

$$f(t) = \sum_{n=0}^{\infty} A_n \cos(n\omega_0 t + \theta_n)$$

$$\text{Where } A_n = \frac{a_0}{2}, \theta_0 = 0$$

$$\text{And } A_n = \sqrt{a_n^2 + b_n^2}, \theta = \tan^{-1} \frac{b_n}{a_n} \quad (n = 1, 2, \dots)$$

(4-2)

Theoretically, a gas-assisted injection molding process is a three-dimensional, transient, two-phase problem with moving front and gas-melt interface. To simplify the mathematical model of this complicated problem, it is assumed that the flow in the polymer melt phase is governed by the generalized Hele-Shaw flow model [4] for the inelastic non-Newtonian fluids under non-isothermal condition. That is,

$$\begin{aligned} \frac{\partial \rho}{\partial t} + \nabla \cdot (\rho u) &= 0 \\ \frac{\partial}{\partial z} \left(\eta \frac{\partial u}{\partial z} \right) - \nabla p &= 0 \\ \rho C_p \left(\frac{\partial T}{\partial t} + u \cdot \nabla T \right) &= \frac{\partial}{\partial z} \left(k \frac{\partial T}{\partial z} \right) + \eta \dot{\gamma}^2 \end{aligned} \quad (2-1)$$

3.9 Citing References by Name and Year

3.9.1 Citing references by name and year uses the family name of the author or organization which produced the reference and year of publication. When the author's name appears in the sentence put the year in brackets. When citing references write the author's family name only in English.

3.9.2 When the author's family name does not appear in the citing sentence put the author and year in brackets within the referring sentence.

Example:

"People are the most important factors in management because people are those who make things and manage other activities whether it is money or materials or work arrangements." (Soman, 1980)

"From a 1985 survey it is evident that there are at least 2,000 large and small industrial plants in the country making plastic goods. The large ones make about 46.3% of the household goods and a further 35% of containers. In total they make about 250,000-300,000 items a year. We can expect that in the future the number of factories making plastic goods will increase in accordance with the demands of the consumers." (Ghomulluk, 1985)

"The course has 3 section, the aims of behaviour, teaching activities and assessment." (Tyler, 1970)

3.9.3 If you want to cite a reference which you have seen cited in a later work, give the original author and year reference and say "cited in" and give the author and year of reference for the later work in which you read about it.

Example:

"A study of US power blackouts suggested that self-organised criticality may govern the system." (Carreres, et al., 2002 cited in Jordon, et al., 2006)

3.9.4 When reporting what other authors have written quotation marks must be used when exactly the same words as the source are quoted. If the quote is short and no more than 3 lines, type it in the main body. Enclose it in double quotation marks (" "). If the quote is more than 3 lines, print it in a new paragraph and do not enclose it in quotation marks, but type continuously. Indent to the right of the indentation of the level of section in which it appears.

If the text being transcribed does not start at the beginning of a section and does not finish at the end of the section, put ellipses at the beginning and at the end of the quote, . . . If you want to quote some parts of the passage use ellipses for the parts not quoted. If typing use 3 full stops leaving one space between each pair.

Example: Short quotations of less than 3 lines.

Some idea of the level of superstition in Thailand can be got from the results of a survey by Kasikorn Research Center “. . . fortune telling and related businesses generated revenue of about Bt2.5 billion last year. . . . gurus . . . suggest that their clients follow certain instructions to ward off bad luck. That can cost a lot of money . . .”. (The Nation, 2007)

Example: Quotations longer than 3 lines.

In describing the start of the business process of EGAT, Kabounrat (2005) said the following:

The sales process begins when the Marketing Department at EGAT when the salesperson receives the customer’s requirement form. The sales person makes a proposal that includes the quotation, scope and schedule of work. The salesperson sends the proposal and waits for a response from the customer . . .

3.9.5 In cases where the author’s name appears in the main part of the sentence only the year of publication appears in brackets.

Example:

Drucker (1995) was one of the first to advocate the advent of the knowledge society.

Meesad and Yen (2003) used an incremental learning fuzzy neural network algorithm to classify breast cancer in mammography images.

Our work here is closest to that of Slade (2000a), who developed, in the context of a two-allele model, a computational method for approximating the properties of the conditional distribution of the genealogy given in a sample.

3.9.6 If the researcher cites several papers by the same authors published in the same year, show the order of publication within the year with lower-case letters a, b, c, . . .

3.10 Writing a Bibliography

The main criteria to write a bibliography are given here.

3.10.1 The bibliography comes after the body of the thesis. At the top center of the page in the center write “BIBLIOGRAPHY” in the same place as for the beginning of a new chapter. Leave a one line space before listing the first reference.

3.10.2 Put all the references in alphabetical order of the family name.

3.10.3 Typing the reference list. Start the first line of the reference at the left margin. The further lines of the same reference are indented 1.5 cm. (0.59 inch), such as:

Gaspar, P., and Nadai, L. "Estimation of Dynamical Parameters of Road Vehicles on Freeways." Proceeding of IEEE International. (2007): 107-112.
———. "Parameter Estimation of Coupled Road-Vehicle System." Proceeding of IEEE International. (1997): 522-527.

3.10.4 The family name is given first, followed by the initials of the given names. (or complete given names if available), such as:

Raftery, A.E., and Lewis, S.M.
Reynolds, F.E., Mullen, N.D., and Turabian, K.L.

3.10.5 If there are two to three credited authors, record the names of all authors, using "and" or "&" (ampersand) before the last author, separating names with commas ";", such as:

Venner, P.M., Glazer, R.I., and Blatt, J.
Hanson, H., Borlaug, N.E., & Anderson, R.G.

3.10.6 If there are four or more authors, record the names of the first author, followed by "et al." or "and others.", separating names with commas ";", such as:

Guerry, R.D., et al.
Hart, B.A., and others.

3.10.7 In the case that there is no publisher or place of publication given, write n.p. and put it in square brackets, [], e.g. [n.p.] in place of the publisher information.

3.10.8 If the document has no apparent year of publication or production, use the term n.d. and put it in square brackets, [], e.g. [n.d.] (as mentioned for publishers).

3.10.9 Name of the book, journal, thesis etc. should be highlighted by writing in **bold**, *italics* or underlins. Use the same style throughout the list.

3.10.10 When using punctuation marks, full stops are followed by 2 spaces, commas, semi-colons and colons are followed by 1 space.

3.10.11 Abbreviations accepted for writing reference.

Abbreviation	Full words	Remark
comp. ed. (eds.)	compiler editor, editors edited by	use comps. as plural
ed.	edition	
enl.ed.	enlarged edition	
rev.ed.	revised edition	
2nd ed.	second edition	
3rd ed.	third edition	
et al.	et alia	and others
ibid	ibidem	in the same place/the same as the previous reference
n.d.	no date	
n.p.	no place	
no.	number	
op.cit	Opus citatum	Reference already cited
p. (pp.)	page (pages)	
r.p.m.	revolution per minute	speed of disc spinning per minute
tr.	translator translated by	
vol.	volume	e.g. Vol. 4
vols.	volumes	The number of volume (e.g. 4 Vols.)

Example : Underline

The top margin is 5.08 cm. (2 inch).

BIBLIOGRAPHY

Blank line

Aron, Raymind. "The Education of the Citizen in Industrial Society." Dardalus. 91 (1962) : 249-263.

Baclawski, K.P. "Homology and Combinatorics of Ordered Sets." Ph.D.Thesis, Faculty of Science, Harward University, 1976.

Marc, James G., and Simon, Herbert A. Organizations. New York: John Wiley, 1958.

The Lottery. London: J. Watts, 1732.

Example : Bold

The top margin is 5.08 cm. (2 inch).

BIBLIOGRAPHY

Blank 1 line

Aron, Raymind. "The Education of the Citizen in Industrial Society." **Dardalus**. 91 (1962): 249-263.

Baclawski, K.P. "**Homology and Cambinatories of Ordered Sets**." Ph.D.Thesis, Faculty of Science, Harward University, 1976.

March, James G., and Simon, Herbert A. **Organizations**. New York: John Wiley, 1958.

J. Watts ,**The Lottery**. London , 1732.

Example : Italic

The top margin is 5.08 cm. (2 inch).

BIBLIOGRAPHY

Blank line

Aron, Raymind. "The Education of the Citizen in Industrial Society." *Dardalus*. 91 (1962): 249-263.

Baclawski, K.P. "*Homology and Cambinatories of Ordered Sets*." Ph.D.Thesis, Faculty of Science, Harward University, 1976.

March, James G., and Simon, Herbert A. *Organizations*. New York: John Wiley, 1958.

J. Watts ,*The Lottery*. London, 1732.

3.11 Listing References by Number

The numbering method of referencing is used to showing that where the citation appears in the thesis. The method works as follows:

3.11.1 Put the numbers along side the place where the citation is made. Use arabic numerals and put them in square brackets, [], e.g. [1], [12].

3.11.2 The numbers are used in the order of citation, so [1] is for the first reference cited and so on.

3.11.3 When there are repeated citations of the same reference use the number of the first citation.

3.11.4 When all the references have been cited in the body of the thesis, go to the list of references and make sure they all appear in the list of references.

The list of references is given in numerical order.

Example:

The organisation maintains the organizational knowledge in organizational knowledge resources which are operated on by human or computer processes that manipulate the knowledge to create values for the organization [22]. Nonaka and Takeuchi [1] define organizational learning as, “a process that amplifies the knowledge created by individuals and crystallises it as part of the knowledge network of the organization.”

3.12 Typing of the References List

3.12.1 The list of references comes after the body of the thesis. At the top center of the page of references write “REFERENCES” in the same place as for the beginning of a new chapter. Leave one line space before listing the first reference.

3.12.2 Put all the references in numerical order. Do not put them in alphabetical order.

3.12.3 Do not separate the references of different languages.

3.12.4 Align the numbers of each references at the left margin of the pages.

3.12.5 If the details of a reference are longer than one line, indent the next lines by 1.5 cm.. (0.59 inch).

When using the numbering system of citing,
it must be used throughout the document.

Example :

The top margin is 5.08 cm. (2 inch).

REFERENCES

Blank 1 line

1. Stogdill, Ralph N. Handbook of Leadership: A Survey of Theory and Research. New York: The Free Press, 1969.
2. Fukutake, T., and Morioka, K., eds. Sociology and Social Development in Asia: Proceedings of the symposium. Tokyo: University of Tokyo Press, 1974.
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7. Jaccard, J., Knox, R., and Brinberg, D. "Prediction of behaviour from beliefs : An extension and test of a subjective probability model." Journal of Personality and Social Psychology. 37 (July 1979): 1239-1248.
8. Reynolds, J.E., and Prasad, A.B. editors. Martindale: the extra pharmacopoeia. 28th ed. London: The Pharmaceutical Press, 1982.
9. Mongkol Wangsathitwong. Dean, Graduate College. Interview, 14 February, 2008.
10. Passkorn Roungrong. Development, Implementation, and Evaluation of Bachelor's Degree in Computer Education Curriculum Basing on Tripartite PMC Model. Doctor of Philosophy in Computer Education, Department of Computer Education, Graduate College, King Mongkut's Institute of Technology North Bangkok, 2006.
11. Pattanapong Jaroengeratikun. A Zero Current Switch Parallel-loaded Resonant Topology DC-DC Power Converter. Master of Engineering in Electrical Engineering, Department of Electrical Engineering, Graduate College, King Mongkut's Institute of Technology North Bangkok, 1999.
12. Rakheja, S., Ahmed, A.K.W., and Stiharu, I. Urban Bus Optimal Passive Suspension Study. Canada: Transport Canada Publication, 2001.
13. Gaspar, P., and Nadai, L. "Estimation of Dynamical Parameters of Road Vehicles on Freeways." Proceeding of IEEE 5 th International Symposium on Intelligent Systems and Informatics. (2007): 107-112.
14. Milliken, F., and Milliken, L. Race Car Vehicle Dynamics. United States of America: SAE International, 1995.

3.13 Method of Writing a Bibliography or List of References at the end of the Document

The method of writing the details of the references is the same either the writer has used the number system or the author – year system. There are formats for writing the details of the referenced documents depending on whether they are books, publicity material, critique, photocopy or other unpublished work including interviews. Here are some examples. (Note that , in what follows , the * character here represents a space character.)

Books

1 author

Leonard, J. Advanced Practical Organic Chemistry. 2nd ed. London: Blackie Academic and Professional, 1995.

Allee, V. The Knowledge Evolution : Expanding Organisational Intelligence. New York: Butterworth-Heinemann, 1997.

Peter, C. Brooks. Vehicle Design and Performance. Department of Mechanical Engineering: University of Leeds, 2001.

2 authors

Nonaka, I., and Takeuchi, H. The Knowledge-Creating Company. New York: Oxford Press, 1995.

3 authors

Skoog, D.A., West, Donald M., and Holler, James, F. Analytical Chemistry: An Introduction. 8th ed. Philadelphia: Saunders College, 1990.

4 or more authors

Coffee, P., et al. How to Program JavaBeans. Emeryville, Calif: Ziff-Davis Press, 1997.

Corporate authors

Institute of Electrical Engineers. Energy Storage for Power Systems. London: Peter Peregrinus, 1994.

Books with contributed chapters

Author. **title of paper. **page no. **title of complete work. editors. **head office of publisher, date published.

Bishop , P.G., and Pullen, F.D. “Error Making : A Source of Failure Dependency in Multi-Version Programs.” in Dependable Computing for Critical Applications. J.C. Laprie and A Avizier (eds.) Viena: Springer - Verlag, 1991: 53-57.

References cited in other works

Wallis, Osbourne, A. Introduction to Microcomputers. Berkley, Calif : Adam Osbarne & Assoc., 1977: 198. Cited in Morris M. Hyman. Automated Library Circulation System. White Plains, NY: Knowledge Industry Publications, 1981.

Theses

Thesis writer. **Title of thesis.** Thesis level, Major, Department, Faculty, University, Year of publication.

Richmond, J. Customer expectations in the world of electronic banking : a case study of the Bank of Britain. Ph.D. thesis, Anglia Ruskin University, 2005.

Aamodt, A. A Knowledge Intensive Approach to Problem Solving and Sustained Learning. Ph.D. thesis, University of Trondheim, Norwegian Institute of Technology, May 1991.

Sangwirach, Thanyaporn. The effect of corrective feedback upon the performance of students in English written assignments. Master of Arts in Linguistics, Faculty of Graduate Studies, Mahidol University, 1995.

Pattanapong Jaroengertakun. A Zero Current Switch Parallel-loaded Resonant Topology DC-DC Power Converter. Master of Engineering in Electrical Engineering, Department of Electrical Engineering, Graduate College, King Mongkut's Institute of Technology North Bangkok, 1999.

Passkorn Roungrong. Development, Implementation, and Evaluation of Bachelor's Degree in Computer Education Curriculum Basing on Tripartite PMC Model. Doctor of Philosophy in Computer Education, Department of Computer Education, Graduate College, King Mongkut's Institute of Technology North Bangkok, 2006.

Journal articles

author. **Title of paper.** **Name of journal.** vol. no., year : pages.

Meso, P., and Smith, R. "A Resource-based View of Organisational Knowledge Management Systems." Journal of Knowledge Management. 3-4,(2000): 224-234.

Conference proceedings

Chen, F., and Burstein, F. "A Dynamic Model of Knowledge Management for Higher Education Development." Proc. 7th Int. Conf. Info. Tech. Based Higer Edu. Conf. on Artificial Neural Networks. 448 - 453 (04 May 1999).

Documents available on the Internet

Prizker, T.J. An Early fragment from Central Nepal. 17 March, 1995. Available from: <http://www.asianart.com/pritzker/pritzker.html> (11 April 2008).

Chandrasekar, R., and Bangalor S. Knowing a Word by the Company it Keeps : Using Local Information in a Maximum Entropy Model for Word Sense Disambiguation. 1998. Available on line at: <http://research.microsoft.com/users/ramanc/Publications/WSD.pdf> (11 April 2008).

Scottish Intercollegiate Guidelines. Hypertension in the elderly. (SIGN publication 20) Edinburgh : SIGN, 2001 Available on line at: <http://www.sign.ac.uk/pdf/sign49.pdf> (17 March 2005).

Translations

Author. **title of document.** *translated by name of translator.* **head office of publisher,*date published.

Lissner, Ivar. The Living Past. Translated by J. Maxwell Brownjohn. New York: G.P.Putnam's Sons, 1957.

Foucault, M. The Archaeology of Knowledge. Translated by A.M.S. Smith. London: Tavistock Publications, 1972.

Collection of Works of an author compiled by an editor

Coleridge, Samuel Taylor. The Complete Works of Samuel Taylor Coleridge. Edited by W. G. T. Shedd Vol.1. Aid to Reflection. New York.: Harper & Bros, 1884.

Book in a series

Author. **name of the book.** **series name.** **vol.no.*publisher head office, publisher, year.

Clapp, Verner W. The Future of the Research Library. Phenias W. Windsor Series in Librarianship. No.8. Urbana: University of Illinois Press, 1964.

Newspaper articles

Author. **title of article.** **Newspaper's name.** **day, month, year: page number.

"Amazing Amazon Region." New York Times. 12 January, 1969: 11.

Boonnoon, Jirapan. "Officemate using e-logistics for managing orders." The Nation. Byteline, 7 April, 2008: 3B.

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Standards

ASTM DESIGNATION : D1238-94a, Standard test method for flow rate of thermoplastics by extrusion plastomer.

Patent

Name of patent holder. ** "name of method or thing patented." **patent country. **patent no., **date of patent

Meltsner, B.R. "Stable Plastic Compositions, Assigner to ethyl Corporation." New York, U.S. Patent: 3,637,586. January 1972.

Buchanan, R.A. "Extraction of Rubber or Rubber like Substances from Fibrous Plant materials." U.S. Patent: 4,136,131. 23 January, 1979.

3.14 Printing Appendices

Appendices are printed after the references. If there is only one appendix do not arrange it as if there are several appendices. Print "APPENDIX A" in the middle of the page. Leave a line space then on the next line print the title of the appendix. If there are several appendices call them "APPENDIX A", "APPENDIX B" and so on. Start each appendix on a new page.

3.15 Copying the Thesis

To make copies of the thesis use the Roneo method of copying, photocopy, offset printing or some other method which gives clear accurate copies of the original. Every thesis which is shown to the Graduate College must have an original, genuine signatures of the thesis examining committee signed in black liquid ink (on the thesis certificate). It must also have the signature of the thesis advisor (on the abstract).