

# **GUIDE TO THESIS WRITING**

**SECOND EDITION**



**UNIVERSITI PERTAHANAN NASIONAL MALAYSIA**  
**National Defence University of Malaysia**

[www.upnm.edu.my](http://www.upnm.edu.my)



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## **CHAPTER 1**

### **GENERAL REQUIREMENTS OF A THESIS**

#### **1.1 Introduction**

This guide is to assist students of Universiti Pertahanan Nasional Malaysia (henceforth shall be referred to as the University) prepare their thesis in terms of format and writing convention. Students are advised to refer closely to this guide and to seek clarification with the Centre for Graduate Studies (CGS) on specific matters relating to the preparation of their thesis.

#### **1.2 Language**

The thesis may be written in English or Bahasa Melayu. There should be consistency in the use of language, especially the spelling style (American or British), throughout the thesis. Roman alphabets should be used unless otherwise required by the discipline. Where the thesis is written in English it is mandatory that the draft thesis be proofread before submission.

#### **1.3 Technical Specifications**

Printing should be done on a letter-quality or laser printer. Only the original word-processed copy of a thesis or its good and clean photocopy will be accepted. The submitted copy should be free of materials used to correct mistakes such as correcting fluid.

##### **1.3.1 Thesis Text**

The number of pages and word count in a thesis is subject to the study programme and should not exceed - 40,000 words (or 200 pages) for a Master thesis, and 80,000 words (or 300 pages) for a PhD thesis, including tables and figures, but excluding references, footnotes and appendices.

Written permission from the CGS must be sought before a thesis longer than the prescribed length can be submitted for evaluation. The student should provide strong justifications to support his/her request.

##### **1.3.2 Page Layout**

The text is to be presented in portrait layout. Landscape layout may be used for figures and tables that are unable to fit into the portrait layout.

### **1.3.3 Type of Paper**

White A4 sized (210 mm x 297 mm) paper (80 gsm) or paper of equivalent quality should be used. The student should include an extra blank sheet at the front and back of the thesis. Photocopies of the thesis must also be on similar quality paper.

### **1.3.4 Typeface and Font Size**

The entire text of the thesis, including headings and page numbers, must be formatted using the Times New Roman typeface. The font size should be a 12-point and should not be scripted or italicised except for scientific names and terms in a different language. Bold print may be used for headings. Text in the tables should not be less than 8-point or more than 11-point.

### **1.3.5 Margins**

The left margin should be at least 40 mm and the right, top and bottom margins at least 25 mm. Margin specifications are meant to facilitate binding and trimming. All information (text headings, footnotes and figures), including page numbers, must be within the text area as demarcated. All text shall be fully justified between the left and right margins.

### **1.3.6 Spacing**

The general text of the thesis must be typed with double spacing. The following, however, should use single spacing.

- i. Quotations of three lines or more, indented and set in a block;
- ii. References or bibliography (except between entries);
- iii. Multi-line captions (tables, figures);
- iv. Appendices, such as questionnaires, letters; and
- v. Headings or subheadings.

The following guidelines should be observed:

- i. The spacing between top margin and the chapter number should be 2 × double line spacing;
- ii. The spacing between a chapter number and the title, and between the title and the first line of the text should be 2 × double line spacing;
- iii. The spacing between the title of a sub-section and the first line of a text should be 1 x double line spacing;
- iv. The spacing between the last line of a text with the title of a sub-section should be 1 x double line spacing;
- v. The spacing between paragraphs should be 1 x double line spacing;
- vi. The number and the title of a sub-section should be aligned with the left margin;
- vii. The first line of a paragraph should be indented by 1.27 cm;

viii. A new paragraph should not begin on the last line of a page;

### **1.3.7 Pagination**

All pages should be numbered consecutively throughout the thesis, including pages containing tables, figures and appendices, centrally at the bottom margin. Page numbers should appear by themselves and should not be placed in brackets, hyphenated or accompanied by decorative images.

Text, tables and figures should be printed on one side of each sheet only.

Preliminary pages preceding Chapter 1 must be numbered in lowercase Roman numerals (i, ii, iii, etc). The first page (Title Page) is considered as page “i” but the page number is not typed in. The first page of the Introduction (Chapter 1) is considered as page “1” but the page number is not typed in. The same applies to the first page of all the following Chapters, where the page number is not typed in even though the page is counted.

### **1.3.8 Binding**

Before making the required number of copies and binding the thesis, ensure that all University requirements for thesis submission have been met and the necessary signatures have been obtained. Check that all pages are in their correct order. The thesis should be bound with hard covers in the colour shown on Table 1.1.

**Table 1.1. Binding Colour for Thesis Hard Cover**

<b>Level</b>	<b>Binding Colour</b>	<b>Colour Code</b>
Masters	Red	530
PhD	Black	585

The binding should be cloth spine binding. The following requirements for the front cover shall be adhered to.

- i. Thesis spine (Please refer to Appendix A-1 and A-2 for details)  
The spine should be lettered in gold from the head to the foot of the thesis spine, using a maximum 18-point (to fit the length of name and title) and shall contain the following particulars.

Name of student;  
Name of degree;  
UPNM and Year of submission.

- ii. Front cover (Please refer to Appendix A-1 and A-2 for details)  
The front cover should be lettered in gold using an 18-point gold block font (similar to text) and contain the particulars listed below:

Title of thesis;  
Full name of student;  
Full name of degree;  
Name of the university; and  
Year of submission.

#### **1.4 Submission of Thesis**

UPNM views **plagiarism** as a serious academic offence. All work, information or data that is derived from the work of persons other than the student must be acknowledged appropriately in the thesis. Any student plagiarising the work of others will be subject to appropriately disciplinary action by the university.

UPNM seeks to ensure that all students develop good academic practice, including the correct citation of material within assignments. UPNM primary focus in using originality checking software (currently Turnitin) is to provide a means whereby students may enhance their knowledge and understanding of good academic practice in order to reference material correctly, thereby minimising the risk of submitting plagiarised work in summative assessments. The plagiarism check is a mandatory part of student's final examination and needs to be done before handing in the thesis.

A student intending to submit his/her thesis shall comply with the following procedures:

- i. Submit to CGS the prescribed 'Thesis Submission Notice' (Notice of intention to submit a thesis for examination) form at least three months before date of submission.
- ii. Submit six (6) soft-bound copies of the thesis to CGS for examination together with 'Thesis Submission for Examination' form that has been filled and signed.
- iii. Submit to CGS within the time prescribed by examining board after the successful defence of his/her thesis, one loose copy of the corrected thesis and the certified corrections made.

The student should then submit the following to CGS after they are notified of the acceptance of their thesis by CGS.

- Six (6) hardcover bound copies of the thesis.
- Six (6) CDs containing the complete thesis.



## CHAPTER 2

## THESIS FORMAT

The following describes what is generally known as the conventional format for a thesis. A thesis consists of three main parts: preliminary pages; text or main body, usually divided into chapters and sections; and supporting pages containing references/bibliography, appendices and biodata of the student. If applicable, a list of publications produced during the period of candidature, and where the student is the first or principal author should be inserted after the student's biodata page. The preliminary part should include the title page, dedication, abstracts in English and Bahasa Melayu, acknowledgements, approval sheets, declaration of thesis, table of contents, and lists of tables, figures and abbreviations.

A typical layout of how the various parts of a thesis are arranged is shown in Table 2.1. **The entire thesis should be bound in a single volume.** However, in **rare** cases when appendices are particularly long, the thesis may be bound in two volumes. In such cases, the second volume should contain the appendices only and begin with page 1. It should have a List of Appendices immediately before the appendices are inserted. References, the student's biodata and List of Publications should stay within the first volume in the sequence shown earlier.

### 2.1 Title Page

This page should include the following information.

- i. Full title of thesis;
- ii. Full name of student;
- iii. Submission status;
- iv. Year of submission.

**Appendix B-1 and B-2** shows the layout of this page.

The title should describe the content of the thesis accurately and concisely, normally omitting words such as “An Investigation...”, “An Analysis...”, or “A Study...” which are redundant. All of these are investigations, analyses or studies of one kind or another. Full title length preferably should not exceed 15 words or 3 lines.

**Table 2.1 A Typical Layout of a Thesis**

No.	Items	Remarks
1	Blank Page	-
2	Title Page	Not to be paginated but counted as i. Please see Section 2.1
3	Dedications (if any)	-
4	Abstract	Please see Section 2.2
5	Abstrak	Please see Section 2.2
6	Acknowledgement/s	Please see Section 2.3
7	Approval Sheets	Please see Section 2.4
8	Declaration of Thesis	Please see Section 2.5
9	Table of Contents	Please see Section 2.6
10	List of Tables	Please see Section 2.7
11	List of Figures	Please see Section 2.8
12	List of Abbreviations/ Notations/ Glossary of Terms	Please see Section 2.9
13	Body of the Thesis	Please see Section 2.10
14	References/Bibliography	Please see Section 2.11
15	Appendices	Please see Section 2.12
16	Biodata of the Student	Please see Section 2.13
17	List of Publications	Please see Section 2.14
18	Blank Page	-

## 2.2 Abstract

The abstract is a digest of the entire thesis and should be given the same careful attention as the main text. It should not include any references. Abbreviations or acronyms must be preceded by the full terms at the first use.

An abstract shall not be more than 350 words in length (max 2 page). It includes a brief statement of the problem and/or objectives of the study, a concise description of the research method and design, a summary of the major findings including their significance, and conclusions.

The abstract shall be written in both English and Bahasa Melayu. The version to appear first should be of the same language used in the thesis body. The format of abstract heading is shown in **Appendices C-1 and C-2**.

Even though a thesis may have been written in English, the abstract in Bahasa Melayu must also reach an acceptable scholarly standard of writing and shall be a translation of the abstract in English and *vice versa*. Common pitfalls such as spelling errors, incorrect usage of prepositions and prefixes (e.g. “di”, “ke”) should be avoided. Scientific terms must be used accurately and consistently.

### 2.3 Acknowledgements

Acknowledgements usually contain written expressions of appreciation for guidance and assistance received from individuals and institutions.

### 2.4 Approval Sheets

Two approval sheet are required to be inserted into the bound thesis. Please refer to **Appendices D-1 and D-2** for details.

### 2.5 Declaration of Thesis

The declaration form should be written as shown in **Appendix E**.

### 2.6 Table of Contents

The Table of Contents lists in sequence all relevant subdivisions of the thesis with their corresponding page numbers (see **Appendix F**).

### 2.7 List of Tables

The list shows the **exact titles or captions** of all tables in the text and appendices, together with the starting page number of each table, and must be listed in sequence. If the whole thesis contains only one or two tables, then a List of Tables may not be necessary.

### 2.8 List of Figures

Figures include graphs, maps, charts, engineering drawings, photographs (plates), sketches, printed images, and any other forms of illustration that is not a table. **The exact titles or captions** and their corresponding page numbers must be listed in sequence. Figures, including any in the appendices, should be numbered consecutively throughout the thesis. If the whole thesis contains only one or two figures, then, as with tables, the list may be omitted.

## 2.9 List of Abbreviations/Notations/Glossary of Terms

If abbreviations and acronyms (e.g. UPNM, MINDEF, STRIDE) are used in the thesis, they should be explained in the List of Abbreviations, even though the full names are given when the terms are first mentioned in the text. This list should be the last item in the preliminary section. It serves as a ready reference to readers not familiar with the abbreviations used in the thesis. Universally recognised scientific symbols (such as CO<sub>2</sub>, cm, mm, kg) need not be listed.

## 2.10 Body of the Thesis

### 2.10.1 Chapter Layout (See Appendix G)

All chapters and their sub-sections must be labelled and numbered. The chapters are numbered using Arabic numeric, i.e. Chapter 1, Chapter 2, Chapter 3, and so on. The sub-sections should not be indented but arranged in a structured manner not more than four levels as follows:

2 First level (Title of the chapter)

2.1 Second level (Title of the sub-section)

2.1.1 Third level (Title of the sub-sub-section)

2.1.1.1 Fourth level (Title of the sub-sub-sub-section)

Sub-sections beyond level four must be numbered using alphabets; (a), (b), (c) etc. Sub-sections until the third level only are allowed to appear in the table of contents.

**Introduction:** The introductory chapter introduces the subject matter and problem(s) under study, and indicates its importance and validity. It sets out the **hypotheses** to be tested and **research objectives** to be attained. In some theses, usually those in mathematics, this section may be combined with the literature review. It is important to remember that the research objectives stated in the thesis should match the findings of the study. Failing which would result in a verdict of ‘Resubmission of Thesis’ by the Thesis Examination Committee, and a recommendation to conduct additional studies so that the stated objectives are met.

**Literature Review:** This section encompasses a critical and comprehensive review of the literature and previous work related to the topic of thesis. It is meant to act as a basis for the experimental and analytical sections of the thesis. Literature selected must be up to date, analysed and synthesised logically. It is not a mere summary of works of different authors. The review should give the gist of each book or pertinent findings of a journal article, explain how it relates to the topic and should – **and this is important** - show why it is not enough to answer your research questions. For example, the study being reviewed used a Japanese sample, while you are examining the situation in Malaysia. Textbook materials on basic principles or theories should be kept to a minimum.

**Methodology/Materials and Methods:** This section varies from thesis to thesis depending on the discipline of study, and may be absent in a theoretical thesis. It contains a description and justification of the materials, theoretical approaches, experimental designs and methods (including statistical analysis) used to achieve the stated objectives of the study undertaken. In social and management sciences, a conceptual framework may need to be included. In engineering and in pure and applied sciences, this may include, but is not limited to, description of the methodology, theoretical development, fundamental philosophical foundation, experimental design and standard procedure description.

The materials and methods used in the study should be described in detail such that it would be possible for the reader to replicate the experiment that was conducted solely using the information contained within this section. References must be cited for published protocols or methods.

**Results or Findings:** This section of the thesis may also be combined with the Discussion section, as is often done, because their contents tend to be interrelated. This section may be further broken down into subsections.

This section presents a complete account of the results obtained in the study in the form of text, figures, or tables so that the key information is highlighted. The same set of results or data should not be presented in more than one format (e.g. either as a table or figure, but not both). Tabulated data, if necessary, could be included in the appendices. When results are placed in one chapter, subheadings may be used to demarcate the different aspects of the study.

**Discussion:** This part bridges the data presented or described in the preceding section and contains the analyses or interpretations of the results obtained, and the conclusions eventually drawn. The student should discuss these results in relation to the hypotheses or objectives set out in ‘Introduction’, and how they fit into the existing or current body of knowledge. The significance and implications of the main findings should be made clear.

**Summary/Conclusion and Recommendations for Future Research:** This chapter is important since it gives the overall significance of the study, i.e. the research contributions to knowledge, and stresses the findings upon which a conclusion or conclusions are drawn in line with the objectives set, acknowledges the limitations, and suggests further research which may be usefully carried out on the topic.

### **2.10.2 Tables (See Appendix H)**

Do ensure that each table shown in the thesis, including those in appendices, are referred to in the text. Tables should be numbered with Arabic numerals throughout the thesis (including both text and appendices). There are two possible numbering schemes: either (a) number the tables consecutively throughout the thesis e.g. 1, 2, 3 and so on, or (b) number them by chapter, e.g. Table 1.1, Table 1.2 and

Table 1.3 to indicate they belong to Chapter 1, Table 2.1, Table 2.2 and Table 2.3 to Chapter 2, and so on.

A table should be on the same page following the first reference to it, or if this is not possible, as soon as possible in the following pages. When a large table is placed in a landscape orientation, the top of the printed page should be at the thesis binding edge.

The table number, title and caption are typed single-spaced and placed **above** the table. The style used must be consistent throughout the thesis. Table sources and notes should be referred using (Authors Last Name, Year), or commonly acceptable format, at the end of the title. If a table has a source, but has been adapted, indicate by using ‘Adapted from ...’ instead of ‘Source: ...’ and should be placed directly below the table.

### 2.10.3 Figures (See Appendix I)

As with tables, ensure that each figure in the thesis is referred to in the text. Figures include maps, charts, graphs, diagrams, photographs (or plates), engineering drawings and printed images. They are numbered consecutively or according to the chapter throughout the thesis, including those in appendices. The figure number, title and caption should be typed single-spaced and placed **below** the figure using Arabic numeral and lowercase, except for proper nouns and the first letters of principal words. Figures should be inserted as soon as possible after their first mention in the text. As with tables, the style used must be consistent throughout the thesis.

If a figure occupies an entire page, the caption may be typed on the left-hand page (reverse side blank) facing the figure. It is counted but not paginated. A figure drawn in the landscape format should have the top of the figure at the binding edge. The figure number, title and caption should be typed parallel to the orientation of the figure. Figures should conform to the standard margin requirements. Engineering drawings should follow the appropriate standards, with any large size drawings placed as appendices.

Any coloured figures shall be reproduced in colour for all copies of the thesis submitted for examination or binding. Where possible such coloured figures shall be colour laser printed onto the same paper used for the text printing of the thesis. Otherwise any coloured figures shall be differentiated by the use of different textures signifying different colours and a suitable legend shall be included.

If a figure is taken from a particular source, the source must be stated at the end of the caption. Photographs used as illustrations must be affixed in the text using high quality glue or better techniques. Where possible digital reproductions of photographs shall be used as illustrations and colour laser printed. High quality photocopied versions of the actual newspaper or other media clipping shall be used. Alternatively high quality, legible digital scans of the clipping may be used.

### 2.10.4 Equations

All equations, whether mathematical or chemical, are considered text and numbered according to the chapter. If detailed derivation is needed, it is to be placed in an appendix.

Students may use either the Microsoft Equation Editor or the *MathType* commercial add-on for MS Word for all math objects (Insert | Equation *or* MathType Equation). "Float over text" should *not* be selected. To make your equations more compact, you may use the solidus ( / ), the exp function, or appropriate exponents. Italicised Roman symbols for quantities and variables, but not Greek symbols. Use a long dash rather than a hyphen for a minus sign. Use parentheses to avoid ambiguities in denominators.

Number equations consecutively with equation numbers in parentheses **flush with the right margin**, as in (1) (or (2.1) for the first equation in Chapter 2 of a thesis). Be sure that the symbols in your equation have been defined before the equation appears or immediately following.

$$I_F = I_B = -I_C = A^2 I_{A1} + AI_{A2} + I_{A0} = \frac{-J\sqrt{3}E_A}{Z_1 + Z_2} \quad (1)$$

$$I_F = I_B = -I_C = A^2 I_{A1} + AI_{A2} + I_{A0} = \frac{-J\sqrt{3}E_A}{Z_1 + Z_2} \quad (2.1)$$

Where,

$I_F$  is the fault current.

$I_B$  is the .....

Use "(1)," not "Eq. (1)" or "equation (1)," except at the beginning of a sentence: "Equation (1) is ...."

### 2.10.5 Citations

The student is responsible for choosing a style of citation that is appropriate to the field and using that style **correctly and consistently**. The student should consult his/her supervisors for guidelines. Samples of commonly used citations are given in **Appendix J**.

At the end of the thesis, the student must supply a list of references in alphabetical order by authors, with consistent punctuation.

### 2.10.6 Header and Footer

The use of Header and Footer is **not allowed**.

### 2.10.7 Footnotes

Footnotes may be used but only sparingly to clarify certain terms, state conversion factors or elaborate certain facts. The footnote is not to be used to cite authority for specific statements or research findings. Citations shall be made in the text as is outlined in Section 2.11 below. Extensive footnotes will distract the reader from the main text. When used, footnotes shall not occupy more than one quarter of the page contents and shall use 9 point-size. Footnote indicators, if used, shall be sequential within the chapter and will restart at one (1) in the new chapter. The use of asterisk (\*) as the footnote indicator may be allowed subject to the approval of the supervisory committee. All footnote indicators shall be superscript. Footnotes shall be at the foot of the page and separated from the main text by a line extending the width of the page.

### 2.11 References/Bibliography

The References or Bibliography section contains a list of works cited in the thesis. The student should not cite articles that were published from the studies that he/she conducted during his/her candidature as references.

References should be listed in alphabetical order (APA style) or listed consecutively numbered in square bracket (IEEE style), regardless of types of reference.

A thesis has to have one consistent style. Samples of commonly used reference styles are given in **Appendix K**.

### 2.12 Appendices

Information or data that are too detailed for inclusion in the main body of the thesis may be included as appendices, and these are placed after the reference list. Appendices include original data, summary, slide-line or preliminary tests, tabulations, tables that contain data of lesser importance, very lengthy quotations, supporting decisions, forms and documents, computer printouts, detailed engineering drawings and other pertinent documents. Appendix materials should be grouped by type, e.g. Appendix A: Questionnaire; Appendix B: Original data; Appendix C: Tables of results.

Appendices shall be preceded with a unnumbered face sheet entitled 'APPENDIX or APPENDICES' in the centre of the page. Appendices must be paginated consecutively with the main text. If there are three or less appendices, their details such as numbers and titles should be listed as items in the Table of Contents. If there are more than three, then the Table of Contents should include a List of Appendices with its page number. The list itself should come immediately after the List of Figures.



### **2.13 Biodata of the Student**

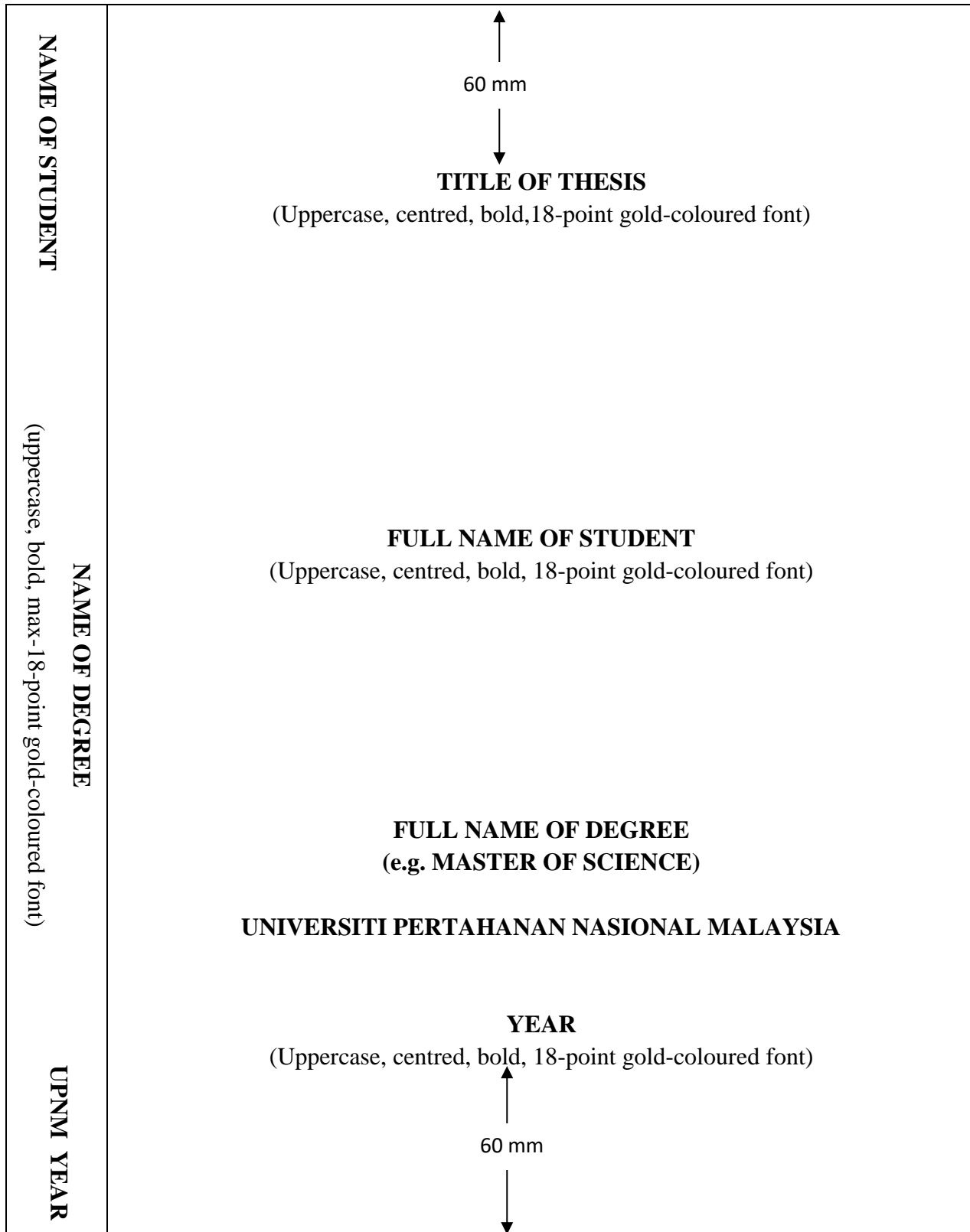
This section is compulsory. It gives the student's biographical information: name, educational background, the degree that is being sought, professional work experience (if any), and any other similar matters that may interest the reader.

### **2.14 List of Publications**

All publications (in journal and proceedings) that result from the study undertaken during a student's candidature, and for which the student is the first, second or principal author, should be listed clearly and accurately. Do not use these publications as references in the literature review.

**Should there be any other requirements other than those mentioned above; written permission should be obtained from the Dean of CGS.**

**APPENDIX A-1  
SPINE AND FRONT COVER OF THESIS**



**APPENDIX A-2  
EXAMPLE OF THE SPINE AND FRONT COVER OF THESIS**

<p><b>MUHAMMAD SYAFIQ BIN MD AKHIR</b></p> <p><b>MASTER OF SCIENCE (CIVIL ENGINEERING)</b></p> <p><b>UPNM 2011</b></p>	<p><b>CARBON FIBRE REINFORCED POLYMER (CFRP) FOR RETROFITTING STRUCTURE AGAINST BLAST LOADING</b></p> <p><b>MUHAMMAD SYAFIQ BIN MD. AKHIR</b></p> <p><b>MASTER OF SCIENCE (CIVIL ENGINEERING)</b></p> <p><b>UNIVERSITI PERTAHANAN NASIONAL MALAYSIA</b></p> <p><b>2011</b></p>
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**APPENDIX B-1  
TITLE PAGE**

**TITLE OF THESIS**

(Uppercase, centred, bold, 12-point font)

**NAME OF STUDENT**

(Uppercase, centred, bold, 12-point font)

Thesis submitted to Centre for Graduate Studies, Universiti Pertahanan Nasional Malaysia, in fulfillment of the requirements for the Degree of <insert the name of degree>

**Year of submission**

**APPENDIX B-2  
EXAMPLE OF TITLE PAGE**

**CARBON FIBRE REINFORCED POLYMER (CFRP) FOR RETROFITTING STRUCTURE  
AGAINST BLAST LOADING**

**MUHAMMAD SYAFIQ BIN MD. AKHIR**

Thesis submitted to Centre for Graduate Studies, Universiti Pertahanan Nasional Malaysia, in fulfillment of the requirements for the Degree of Master of Science (Civil Engineering)

**2011**

**APPENDIX C-1  
FORMAT OF ABSTRACT**

**ABSTRACT**

The abstract is a digest of the entire thesis and should be given the same careful attention as the main text. It does not normally include any reference to the literature. Abbreviations or acronyms must be preceded by the full term at the first use.

An abstract shall not be more than 350 words in length. It includes a brief statement of the problem, a concise description of the research method and design, a summary of major findings, including their significance or lack of it, and conclusions.

**APPENDIX C-2  
FORMAT ABSTRAK**

**ABSTRAK**

Abstrak merupakan ringkasan keseluruhan tesis dan wajib diberi perhatian rapi seperti mana bahagian tesis yang lain. Abstrak tidak mengandungi bahan rujukan. Nama singkatan atau akronim mesti didahului dengan terminologi penuh pertama kali ia digunakan.

Abstrak hendaklah tidak melebihi 350 patah perkataan. Ia merangkumi pernyataan permasalahan, penerangan ringkas dan tepat tentang reka bentuk dan perkaedahan penyelidikan, rumusan penemuan utama dan kesimpulan.

**APPENDIX D-1**  
**EXAMPLE APPROVAL SHEET – EXAMINATION COMMITTEE**

**APPROVAL**

The Examination Committee has met on **12<sup>th</sup> September 2011** to conduct the final examination of **Muhammad Syafiq bin Md. Akhir** on his degree thesis entitled **‘Carbon Fibre Reinforced Polymer (CFRP) For Retrofitting Structure Against Blast Loading’**

The committee recommends that the student be awarded the Master of Science (Civil Engineering)

Members of the Examination Committee were as follows.

**Name of Chairperson**

Name of Faculty

Universiti Pertahanan Nasional Malaysia  
(Chairman)

**Name of Examiner 1**

Name of Faculty

Universiti Pertahanan Nasional Malaysia  
(Internal Examiner)

**Name of Examiner 2**

Name of Faculty

Name of University  
(External Examiner)



**APPENDIX D-2**  
**EXAMPLE APPROVAL SHEET – SUPERVISORY COMMITTEE**

**APPROVAL**

This thesis was submitted to the Senate of Universiti Pertahanan Nasional Malaysia and has been accepted as fulfilment of the requirements for the degree of **Master of Science (Civil Engineering)**. The members of the Supervisory Committee were as follows.

**Name of Main Supervisor**

Name of Faculty

Universiti Pertahanan Nasional Malaysia

(Main Supervisor)

**Name of Co-Supervisor**

Name of Faculty

Universiti Pertahanan Nasional Malaysia

(Co-Supervisor)

**APPENDIX E  
DECLARATION OF THESIS**

**UNIVERSITI PERTAHANAN NASIONAL MALAYSIA**

**DECLARATION OF THESIS**

Student's full name : \_\_\_\_\_

Date of birth : \_\_\_\_\_

Title : \_\_\_\_\_

Academic Session : \_\_\_\_\_

I hereby declare that the work in this thesis is my own except for quotations and summaries which have been duly acknowledged.

I further declare that this thesis is classified as:

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**RESTRICTED** (Contains restricted information as specified by the organisation where research was done)\*

**OPEN ACCESS** I agree that my thesis to be published as online open access (full text)

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EXAMPLE TABLE OF CONTENTS**

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**APPENDIX G  
EXAMPLE LAYOUT OF CHAPTER**

(2 x double spacing)

**CHAPTER 3**

(2 x double spacing)

**TITLE OF CHAPTER**

(2 x double spacing)

There may be a preamble at the beginning of a chapter. The purpose may be to introduce the themes of the chapter and main headings.

(2 x double spacing)

**3.1 Title of the sub-section (Second Level)**

(1 x double spacing)

The spacing between the title of a sub-section and the first line of a text should be 1 x double line spacing.

(1 x double spacing)

The spacing between paragraphs should be 1 x double line spacing.

(1 x double spacing)

**3.1.1 Title of the sub-sub-section (Third Level)**

The title of the sub-section.....

**3.1.1.1 Title of the sub-sub-sub-section (Fourth Level)**

The title of the sub-section.....

## APPENDIX H EXAMPLE OF TABLES

**Table 2.1** Mechanical Properties of Carbon Fibre\*

Property	Unit	AS4	T-300	IM7
Density	Kg/m <sup>3</sup>	1810	1760	1800
Longitudinal Modulus, $E_1$	GPa	235	230	290
Transverse Modulus, $E_2$	GPa	15	15	21
Axial Shear Modulus, $G_{12}$	GPa	27	27	14
Transverse Shear Modulus, $G_{23}$	GPa	7	7	-
Poisson's Ratio, $\nu_{12}$	-	0.2	0.2	0.2
Longitudinal Tensile Strength, $F_1$	MPa	3700	3100	5170

\*Adapted from Daniel and Ishai (2006)

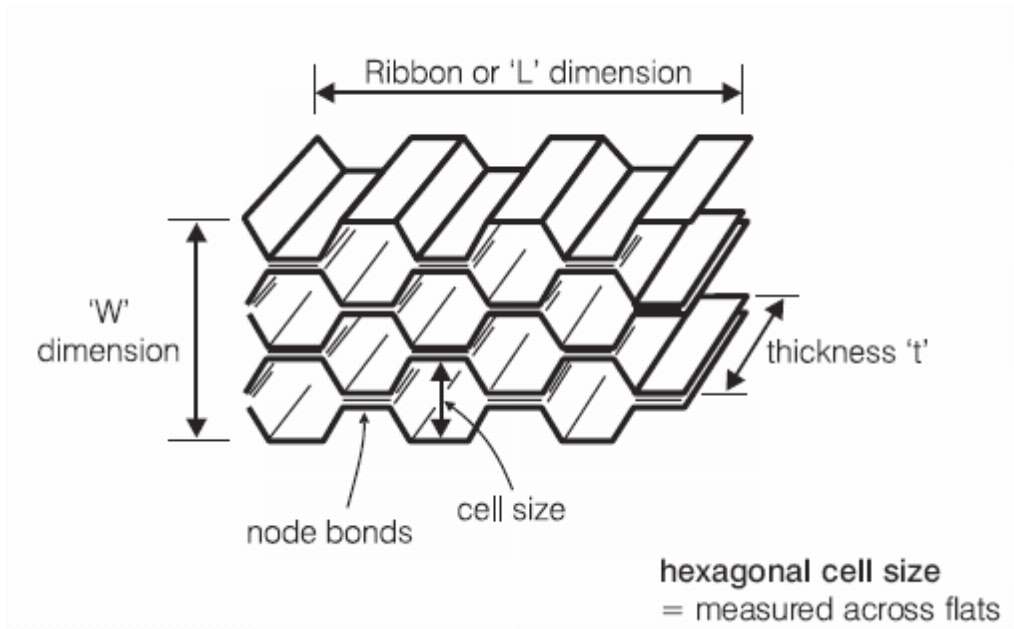
**Table 3.2** Number of Visitors According to Participation in Different Activities. (Zalina, 1999)

Activity	No. of Participants (N=96)	NA
Wildlife sighting	-	96
Fishing	-	96
Photography	92 (95.8)	4
Camping	-	96
Picnicking	47 (49.0)	49
Visiting waterfall	96 (100)	-

Note: Figures in parentheses indicate percentage of N.

NA : Not applicable.

APPENDIX I  
EXAMPLE OF A FIGURE



**Figure 2.1** Aluminum honeycomb with hexagonal cell shapes  
(Hexcel Composite, 2000)

**APPENDIX J  
EXAMPLE OF COMMONLY USED CITATION FORMAT**

**IN-TEXT CITATION**

APA style favors the use of the author’s name, followed by the publication date, as part of your sentence, like this:

Strunk (1979) determined latent .....

The other common choice is to put both the author’s last name and the year of publication in parentheses at the end of the sentence, like this:

...latent adipose deposits also may be a cause of the problem (Strunk, 1979).

Whichever style you choose, remember that the following information is required for a complete citation:

1. Author’s last name
2. Year of publication (separated from the author’s name by a comma).
3. Page number is optional for summary or paraphrase, but required when you use a direct quotation:

According to Gray (1996), his study results “were ridiculous” (p.2).

**WORKS CITED**

The works list appears on a separate page at the end of your paper and is organized as follows:

1. Alphabetically by author’s last name. If no author, alphabetical by first word in title (not “A” or “The”).
2. Double-spaced between entries.
3. First line of each entry even with margin; subsequent lines indented five spaces.

\*\*\*\*\*

**EXAMPLES**

**BOOK, no author:** *Title. (Year). Place of publication: Publisher.*

in-text citation: Grades are not the best measure of student learning (*College Bound Series*,1979).

Reference example: *College bound seniors.* (1979). Princeton, NJ: College Board Publication.



**BOOK, single author:**

in-text citation:

**Author. (Year). Title: Place of publication: Publisher.**

Thomas (1994) suggests the species do not run off the cliffs ...

Reference example:

Thomas, L. R. (1994). *The Life of Lemming: Notes on a species*. New York: Macmillan.

**BOOK, two or more authors:**

in-text citation:

**Authors (in order listed on title page; last name first for each author). (Year). Title. Place of publication: Publisher. (For first citations, list all authors. For future citations, use "et al.")**

Shoe, Dore, and Roe (1995) suggest currents are a factor in navigation.

Shoe et al. (1995) support this view.

Reference example:

Shoe, J. R., Dore, J., & Roe, T. (1995). Life of a rast in the Pacific Islands north of Hawaii. New York: Jossey-Bass.

**ANTHOLOGIZED WORK: (edited book, etc.) :**

in-text citation:

**Author of piece you are citing (e.g. article, essay, report). (Year). Title of piece you are citing. In editor's name (Ed.), Book title with only first letter of first word capitalized (Inclusive pages of piece you are citing). Place of publication. Publisher.**

German (1981) suggests family therapy may be successful.

Reference example:

German, A. S. (1981). Family therapy outcome research: Knowns and unknowns. In D. P. Kinstein (Ed.). *Handbook of family therapy*. (742-775). New York: Bruner/Mazel.

**SCHOLARLY JOURNAL :**

in-text citation:

**Author. (Year). Title. Journal, Volume number, Inclusive pages.**

Pinker (1980) found the third dimension more difficult for subjects than the first.

Reference example:

Pinker, S. (1980). Mental imagery and the third dimension. *Journal of Experimental Psychology: General*, 109, 354-371.

**MAGAZINE:**

in-text citation:

**Author. (Year, month, and date). Title. Journal, Volume number, Inclusive pages.**

Smith (1994) discusses the need for teaching history in elementary school.

Reference example:

Smith, T. R. (1994, October 12). More old information you need. *Time*, 148, 34-38.

**NEWSPAPER:** **Author, if any. Headline. (Year, month and date). Paper, Page number.**

in-text citation: Popular periodicals document the rise of chlorine residue (Took, 1994).

Reference example: Took, J. Study finds dioxins. (1994, April 3). *London Times*, p.1.

**GOVERNMENT DOCUMENT: Name of government agency or institute. (Year). Title. (Publication No.). City name: Country of government office.**

in-text citation: For first citation, spell out agency name and state acronym in square bracket, for second citation, use acronym only: Snail darter populations continue to decline (Environmental Protection Agency [EPA], 1988).

Reference example: Environmental Protection Agency. (1988). *Report on snail darter threat* (No. 5634-223). Washington, DC: U.S. Government Printing Office.

**ERIC DOCUMENT: Author. (Year). Title (Report No.). East Lansing, MI: National Center for Research on Teacher Learning. (ERIC Document Reproduction Service No.)**

in-text citation: Syrdk (1993) says Bulgarian and Russian students have problems with articles.

Reference example: Syrdk, S.T. (1993). *ESL problems faced by Eastern European immigrants*. (Report No. NCRTL-tt-93-5). East Lansing, MI: National Center for Research on Teacher Learning. (ERIC Document Reproduction Service No. ED 378 091)

**E-MAIL: USE IN-TEXT CITATION ONLY FOR PERSONAL CORRESPONDANCE**  
(personal e-mail is not a legitimate reference by APA standards, though e-mail journals may be cited in the References list): give name, indicate source type, and give date.

in-text citation: T. Murphy (e-mail, June 28, 1995) suggests infant formula is a poor alternative.

**ON-LINE JOURNAL:** **Author. (date). Title of article. *Name of periodical* [On-line], *Volume number*. Available at: specify path. Date retrieved.**

in-text citation: Murphy (1995) discusses three causes of eating disorders in children.

Reference example: Murphy, T. (1995, March). Eating disorders in children.[online] <http://www.disorder.net/eat/>. Retrieved on August 10, 199

**DATABASE:** **Authors/contributors. (Year). Title of database [identify medium]. (YEAR HERE IF NO AUTHOR). Place of production or publication: Producer, Distributor, and/or Publisher [specify role]**

in-text citation: ... over 40% of the population (*National Psychological Survey*, 1995).

Reference example: *National Psychological Survey—Important topics in health* [database]. (1995). Sacramento, CA: National Center for Statistics [Producer and Distributor].

**CD-ROM:** **Author. (Date). Title of article or abstract [medium]. *Journal, Volume number*. Inclusive pages. Abstract from: Source and retrieval number**

in-text citation: Meyer and Back (1992) remove all doubt about research interests.

Reference example: Meyer, A. S., & Back, K. (1992). The tip-of-the-tongue phenomenon: Blocking or partial activation? [CD-ROM]. *Memory and Cognition*, 20, 725- 726. Abstract from Silver-Platter File: PsycLIT Item: 80-16351

#### **INTERVIEW/**

**CLASS LECTURE:** **Do not cite in References list. Use in-text only: Give name, indicate source type and give date.**

in-text citation: J. Reiss indicated that “anthropologists are still debating the reasons for the Neanderthals’ disappearance” (class lecture, May 3, 1990).

**PRESENTATION:** **Name of speaker. (Year and month). Title of paper. Occasion and Location.**

in-text citation: Brener (1979) demonstrated the relationship between heart rate and stress.

Reference example: Brener, J. (1979, October). *Energy, information and the control of heart rate*. Paper presented at meeting of the Society for Research, Cincinnati, OH.

**FILM:** **Name(s) of primary contributors and (Function of contributors). (Year). Title. [medium]. (Available from Name of distributor, Location of distributor).**

in-text citation: Maas and Gluck (1979) present a 1970s view of hypnosis.

Reference example: Maas, J. B. (Producer), Gluck, D. H. (Director). (1979). *Deeper into hypnosis* [film]. (Available from Prentice Hall, Englewood Cliffs, NJ)

**INDIRECT SOURCES:** **Author of material you read. (Year). Title of material you read. Title of source, Volume number, inclusive pages of material you read.**

in-text citation: Johnson, in contrast, had positive results (as cited in Beatty, 1962)

Reference example: Beatty, J. (1962). Task-evoked pupillary responses, processing load, and the structure of processing resources. *Psychological Bulletin*, 91,276-292.

### **Citation and Referencing according IEEE Format**

As an option the IEEE Format can also be used, but needs to be consistent throughout the thesis. Number reference citations arranged consecutively in square brackets [1]. The sentence punctuation follows the brackets [2]. Multiple references [2], [3] are each numbered with separate brackets [1][3]. **Refer simply to the reference number, as in [3]. Do not use "Ref. [3]" or "reference [3]" except at the beginning of a sentence: "Reference [3] shows...."**

**APPENDIX K  
EXAMPLE OF COMMONLY USED REFERENCE FORMAT**

**APA STYLE FORMAT**

References should be listed in alphabetical order, regardless of types of reference.

**1. Book**

Hortsman, C. (2009). *C++ for everyone*. New Jersey: John Wiley & Sons.

**2. Book Chapter**

Cohen, J. W. (2009). Militarization of culture in eighteen-century China. In N. D. Cosmo (Ed). *Military culture in imperial China* (pp. 278-295). Massachussets: Harvard University Press.

**3. Book: Edition other than first**

Cunliffe, T. (2009). *Coastal and offshore navigation* (3rd ed.). England: John Wiley & Sons.

**4. Article in Journal**

Mocibob, D., & Belis, J. (2010). Coupled experimental and numerical investigation of structural glasspanels with small slenderness subjected to locally introduced axial compression. *Engineering Structures*,32(3), 753-761.

Alias Y., Norazman M.N., Arifin I., Ng C.P., Fauzi M.Z. and Risby S. (2010). Response of steel fiber reinforced concrete subjected to air blast loading. *Zulfaqar: Jurnal Asia Pertahanan dan Keselamatan*, 1(1), 31-40.

**5. Newspaper and Non-Scientific Magazine Article**

Schuman, M. (2010, July 12). The lost continent. *Time*, 176, 16-21.

**6. Letter to the Editor**

Moller, G. (2009, August). Ripples versus rumbles [Letter to the editor]. *Scientific American*, 287(2), 12.

**7. Encyclopedia**

Bergmann, P. G. (2009). Relativity. In *The New Encyclopedia Britannica* (Vol. 26, pp. 501-508). Chicago: Encyclopedia Britannica.

**8. Government/Institutional Documents**

British Standard [BS]. Part 1(1997). *Structural Use of Concrete*. London: British Standard Institution [BSI].

Engineering Accreditation Council [EAC]. (2006). *Engineering Programme Accreditation Manual, 3<sup>rd</sup> ed.* Kuala Lumpur: Engineering Accreditation Council.

Federal Emergency Management Agency [FEMA]. (1986). *Recommended Provisions for The Development of Seismic Regulation for New Buildings, Part 3.* Washington D.C.: Federal Emergency Management Agency.

National Institute of Mental Health. (2009). *Clinical training in serious mental illness* (DHHS Publication No. ADM 90-1679). Washington, DC: U.S. government Printing Office.

**9. Conference paper given but not published in proceedings**

Cho, Y. M. (2009, August). Theory of colored string. *Paper presented at the Fifth Asia-Pacific Physics Conference*, Kuala Lumpur.

**10. Conference paper published in proceedings**

Hasmah Zanuddin, & Azizah Hamzah. (2009). International trade agreement of intellectual property rights (TRICGS), copyright issues & burden to enforce in Malaysia. In Choi K. Y. (Ed.), *Korean studies in Southeast Asia: Strategic cooperation and development in research and education: Proceedings of the 2nd International Conference of the Korean studies Association of Southeast Asia held on 29 January – 1 February 2009 at the University Malaya, Kuala Lumpur* (pp. 121-138). Kuala Lumpur: University of Malaya.

**(Unpublished conference paper)**

Norazman M. N., Ariffin I., Aminudin S., Mohd Asri M. N. & Vikneswaran M. (2005, December). *Physical responses to blast impact.* Paper presented at the International Conference in Defence Technology, Universiti Pertahanan Nasional Malaysia, Kuala Lumpur.

**11. Thesis / Dissertation**

**Dissertation / Thesis are not placed online and are referred to using the original text (in the form of a thesis submitted), is unpublished dissertation / thesis**

Jowati Juhary. (2009). *The military academy of Malaysia compared with West Point: Learning environments and new technology.* (Unpublished doctoral dissertation). Monash University, Australia.

**Dissertation / Thesis placed online is published dissertation / thesis**

Jowati Juhary. (2009). *The military academy of Malaysia compared with West Point: Learning environments and new technology.* (Doctoral dissertation). Monash University, Australia. Retrieved from .....

## 12. Articles from internet

Owens, P. (2010). *Fear and loathing in Afghanistan?*. Retrieved ~~on August 10, 2010,~~ from <http://www.jmss.org/index.php/jmss/article/download/307/329>.

U.S. Department of Transportation. Federal Highway Administration. (2009). *History of FRP*. Retrieved from <http://www.fhwa.dot.gov>

Farmingdale (2009). *Carbon Fiber Orientation*. Retrieved from <http://info.lu.Farmingdale.edu/depts/met/met205/composites.html>.

Fiber glass (n.d.). In *Wikipedia*. Retrieved October 29, 2010, <http://en.wikipedia.org/>

## 13. Articles from a database

Ballato, A. (2010). MEMS fluid viscosity sensor. *IEEE transactions on ultrasonic, ferroelectronics, and frequency control*, 57(3). Retrieved from <http://...>

## IEEE STYLE FORMAT

References should be listed in square brackets **numbered consecutively, in accordance with the appearance of the reference** in the thesis, regardless of type of reference.

### **1. Periodicals:**

- [1] J. F. Fuller, E. F. Fuchs, and K. J. Roesler, "Influence of harmonics on power distribution system protection," *IEEE Trans. Power Delivery*, vol. 3, pp. 549-557, Apr. 1988.
- [2] E. H. Miller, "A note on reflector arrays," *IEEE Trans. Antennas Propagation.*, to be published.
- [3] R. J. Vidmar. (1992, Aug.). On the use of atmospheric plasmas as electromagnetic reflectors. *IEEE Trans. Plasma Sci.* [Online]. 21(3), pp. 876-880. Available: <http://www.halcyon.com/pub/journals/21ps03-vidmar>

### **2. Books:**

- [1] E. Clarke, *Circuit Analysis of AC Power Systems*, vol. I. New York: Wiley, 1950, p. 81.
- [2] G. O. Young, "Synthetic structure of industrial plastics," in *Plastics*, 2nd ed., vol. 3, J. Peters, Ed. New York: McGraw-Hill, 1964, pp. 15-64.
- [3] J. Jones. (1991, May 10). *Networks*. (2nd ed.) [Online]. Available: <http://www.atm.com>

### **3. Technical Reports:**

- [1] E. E. Reber, R. L. Mitchell, and C. J. Carter, "Oxygen absorption in the Earth's atmosphere," Aerospace Corp., Los Angeles, CA, Tech. Rep. TR-0200 (4230-46)-3, Nov. 1968.
- [2] S. L. Talleen. (1996, Apr.). The Intranet Architecture: Managing information in the new paradigm. Amdahl Corp., Sunnyvale, CA. [Online]. Available: <http://www.amdahl.com/doc/products/bsg/intra/infra/html>

### **4. Papers Presented at Conferences (Unpublished):**

- [1] D. Ebehard and E. Voges, "Digital single sideband detection for interferometric sensors," presented at the 2nd Int. Conf. Optical Fiber Sensors, Stuttgart, Germany, 1984.
- [2] Process Corp., Framingham, MA. Intranets: Internet technologies deployed behind the firewall for corporate productivity. Presented at INET96 Annu. Meeting. [Online]. Available: <http://home.process.com/Intranets/wp2.htm>

### **5. Papers from Conference Proceedings (Published):**

- [1] J. L. Alqueres and J. C. Praca, "The Brazilian power system and the challenge of the Amazon transmission," in *Proc. 1991 IEEE Power Engineering Society Transmission and Distribution Conf.*, pp. 315-320.



## **6. Dissertations:**

- [1] S. Hwang, "Frequency domain system identification of helicopter rotor dynamics incorporating models with time periodic coefficients," Ph.D. dissertation, Dept. Aerosp. Eng., Univ. Maryland, College Park, 1997.

## **7. Standards:**

- [1] *IEEE Guide for Application of Power Apparatus Bushings*, IEEE Standard C57.19.100-1995, Aug. 1995.

## **8. Patents:**

- [1] G. Brandli and M. Dick, "Alternating current fed power supply," U.S. Patent 4 084 217, Nov. 4, 1978.

**Other internationally recognized standard formats are also accepted provided it is used consistently throughout the thesis.**