

GUIDELINES FOR PREPARATION OF MASTER AND PHD THESIS

**Mehran University of Engineering and Technology,
Jamshoro**



JANUARY 29, 2018

GUIDELINES FOR PREPARATION OF MASTER AND PHD THESIS

Arrangement of the PhD Thesis

Each thesis must be arranged in the following order. The detail about each section is given on following pages.

- Title Page
- Dedication Page
- Certification of Approval of PhD thesis by examination committee
- PhD Thesis Author's declaration
- Plagiarism undertaking by the PhD Scholar
- Copyright page
- Acknowledgement
- Table of Contents
- List of Abbreviations
- List of Figures
- List of Notations
- List of Photographs
- List of Tables
- Abstract
- Chapter 1 – Introduction
- Chapter 2 – Literature Review
- Chapter 3 – Research Methodology / Experimental Work
- Chapter x -
- Chapter x – Conclusions and Recommendations
- References
- Appendices

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1. ARRANGEMENT OF THE THESIS

The thesis should be divided into three sections:

Sections 1 Preliminary pages must be placed before the text. These pages contain title page, dedication page, certification of approval of thesis by examination committee, Author's declaration, plagiarism undertaking by the scholar, copyright page, acknowledgement page, table of contents, list of abbreviations, list of figures, list of notations, list of photographs, list of tables and abstract.

Sections 2 Main body (text) of the thesis consisting of various chapters, sections and sub-sections, including the chapter of conclusions and recommendations and References.

Sections 3 Appendices must be placed after the text.

The details of the sections along with formatting is discussed in later sections.

2. SIZE AND QUALITY OF PAPER

The thesis should be prepared on standard A4 size (210 mm x 297 mm) good quality white paper (at least 80 gm). The same paper should also be used for Figures, Tables and Charts etc. and for mounting Photographs (if any).

3. SPELLINGS

Either the American or British English spellings should be used throughout the thesis.

4. TYPING AND PRINTING

- i. The entire thesis must be computer-typed and printed through laserprinter with black ink on plain paper without any borderlines, logos, insignia, monograms etc.
- ii. The main text of the thesis must be typed 1.5 spaced with font Times New Roman, size 12, unless specified otherwise, or any other font and / or size as approved by the ASRB from time to time.
- iii. Each chapter must start on a new page and be typed continuously with sections and sub-sections on successive pages.

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- iv. The chapter number and headings should be typed centered on the page in bold capitals and underlined with font size 14. The chapter heading should be placed below the chapter number. The chapter number should be in Arabic numerals, e.g.,

CHAPTER 2
LITERATURE REVIEW AND RESEARCH FRAMEWORK

- v. The section number and heading must be typed from the left margin in capitals bold letters without underlining. The section number must consist of the chapter number followed by a number, both in Arabic numerals, e.g.,

2.1 RESEARCH GAP

- vi. The sub-section numbers and headings must be typed from the left margin in bold lower case characters with the first character of the first word in capital without underlining. The sub-section must consist of the chapter number followed by section number and one additional number representing the subsection, all in Arabic numerals, e.g.,

2.1.1 Research Objectives

- vii. Any further sub-section numbering, if needed, must be done with additional Arabic numerals without bold letters, e.g.,

2.1.1.1 Research Sub-objectives

5. MARGINS

Margins of 1½ inch must be left at the top and left side, and 1 inch on the right side and bottom of the paper.

6. TABLES

- i. Each table must be typed following the place where it is referred first, preferably on the same page, or if it cannot be accommodated in the remaining space on the same page then on the following page, with single or one and a half spacing as is found convenient to accommodate the table on one page within the specified margins.

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- ii. A long table which cannot be accommodated on one page, even with single line spacing and/or reduced to an easily legible size, may be continued on the next page under the same table number with proper indication at the bottom of the page, e.g., "continued on the next page".
- iii. The heading of the table must be in bold lower case letters with the first character of the first word in capital without underlining. The number and heading of the table should be typed above the table itself.
- iv. All the tables belonging to each chapter must be numbered in the same way as the sections of the chapter, the first number indicating the chapter number and the second the table number in sequence, both in Arabic numerals, e.g.,

Table 4.1: Comparison of theoretical and experimental results

- v. If any table is referred on a page other than that where it is placed, it should be referred with its number and the page where it is placed, e.g., Table 4.1 on p. 36.

7. FIGURES

- i. Each figure must be drawn and placed within the specified margins following the place where it is referred first, preferably on the same page, or if it cannot be accommodated in the remaining space on the same page then on the following page.
- ii. The number and caption of each figure should be typed under it with bold letters in the same way as the headings of tables described above, e.g.,

Fig 4.1: Scatter Plot

- iii. If any figure is referred on a page other than that where it is placed, it should be referred with its number and the page where it is placed, e.g., Fig. 4.1 on p.43.

8. PHOTOGRAPHS

- i. Each photograph, colored or black and white, must be placed within the specified margins following the place where it is referred first, preferably on

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the same page, or if it cannot be accommodated in the remaining space on the same page then on the following page.

- ii. The number and caption of each photograph should be typed under it with bold letters in the same way as for figures, e.g.,

Photograph 4.1: Technology Adoption Model

- iii. If any photograph is referred on a page other than that where it is placed, it should be referred with its number and the page where it is placed, e.g. Photograph 4.1 on p.54.

9. LARGE SIZE DRAWINGS, CHARTS, FIGURES, AND TABLES

Any drawing, chart, figure or table, which cannot be accommodated with clarity on the normal size of the thesis page, even with easily legible reduced size, may be prepared on a larger size paper / sheet, which should be folded and enclosed in a special pocket attached permanently inside of the bound back of the thesis.

10. EQUATIONS

All equations belonging to a chapter in the text should be numbered in the same way as the figures and tables. Each equation should start on a separate line with a larger than the normal spacing between the equation and the text above and below it, e.g.,

$$Ax+By=C \qquad (4.1)$$

The equation should be referred to in the text as Eq. (4.1)

11. PAGINATION OF TEXT

The pages in the text should be numbered in Arabic numerals, consecutively, starting from the page where the first chapter begins. The starting page of each chapter should have the page number printed centrally at bottom of the page. All the other pages should have page numbers typed at the top right corner.

12. PRELIMINARY PAGES

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The following pages are to be placed in the order given below before the text of the thesis. These pages should be numbered in lower Roman numerals, consecutively, starting (i) from the title page and the numbers should be placed centrally at bottom of each page.

i. Title Page

The title page should present the MUET logo, thesis title (Times New Roman - 20), student's name (Times New Roman - 16), the statement "Thesis submitted to MUET for the degree of" (Times New Roman - 14), field of study (Times New Roman - 14), department / institute (Times New Roman - 14), faculty (Times New Roman - 14) and the month and year of approval (Times New Roman - 14). A specimen of the title page is given in Appendix 1.

ii. Dedication Page

If a candidate desires to dedicate his / her thesis to any person or organization, it should be so stated on this page with heading (Times New Roman - 18) and text (Times New Roman - 12). A specimen of this page is given in Appendix 2.

iii. Certificate of Approval of thesis by examination committee

A certificate signed by the thesis internal and external examiners, including the candidate and his/her Supervisor and co-supervisor, Director of the concerned Institute and Dean of the concerned Faculty, indicating the approval of the thesis, should be put on this page with heading (Times New Roman - 18) and text (Times New Roman - 12). A specimen of the certificate page is given in Appendix 3.

iv. Author's Declaration

A brief declaration with a candidate name on it stating that the PhD thesis is his/her own work and not submitted anywhere else should be given on this page with heading (Times New Roman - 18) and text (Times New Roman - 12). A specimen of the certificate page is given in Appendix 4.

v. Plagiarism undertaking by the Scholar

An undertaking by student in lines of zero tolerance policy of HEC of plagiarism signed by scholar should be given on this page with heading (Times New Roman - 18) and text (Times New Roman - 12). A specimen of the certificate page is given in Appendix 5.

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vi. Copyright Page

According to the MUET IP Policy, university possesses 100% copyright of the thesis conducted by PhD scholars. A copyright must be mentioned given on this page (Times New Roman – 28). A specimen of the page is given in Appendix 6.

vii. Acknowledgement

A brief acknowledgement, in just one page, only to those persons and organizations who have assisted the candidate in his/her thesis work, or provided relevant data/ information/laboratory or research facility and tools etc. should be given on this page with heading (Times New Roman - 18) and text (Times New Roman - 12). A specimen of the page is given in Appendix 7.

viii. Table of Contents

It should contain the numbers and headings of all the preliminary pages following the Table of Contents, chapters, sections and subsections of the text, including references and appendices, described consecutively, and should indicate the page where the item starts. It should be typed with single line spacing, and with the same font and size of both the capital and lower case characters / letters as followed in the text of the thesis. A specimen of the page is given in Appendix 8.

ix. List of Abbreviations

This list should contain all the abbreviations used in the thesis and should be typed with single line spacing. The abbreviations must be listed in the alphabetical order with heading (Times New Roman - 18) and text (Times New Roman - 12). A specimen of the page is given in Appendix 9.

x. List of Figures

GUIDELINES FOR PREPARATION OF MASTER AND PHD THESIS

The number and caption of each figure, including the page number where it is located in the text, should be provided, consecutively and chapter-wise, in this list and should be typed with single line spacing.

xi. List of Notations

All standard notations in English or Greek characters appearing frequently in the text should be described in the list of notations in alphabetical order with the notations in capitals preceding those in lower case characters. All other notations appearing only once in the text need not be given in this list but should be defined at the place where they appear in the text. This list should be typed with single line spacing. A specimen of the page is given in Appendix 10.

xii. List of Photographs

The number and caption of each photograph, including the page number where it is located in the text, should be provided, consecutively and chapter-wise, in this list and should be typed with single line spacing.

xiii. List of Tables

The number and heading of each table, including the page number where it appears in the text, should be provided, consecutively and chapter-wise, in this list and should be typed with single line spacing.

xiv. Abstract

A brief summary of maximum of 350 words of the whole thesis should be given on this page with heading (Times New Roman - 18) and text (Times New Roman - 12). A detail about this page is given in Appendix 11.

xv. Appendices

The number and title of each appendix including the page number where it is located should be provided, consecutively, in this list and should be typed with single line spacing.

13. REFERENCES

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In order to avoid plagiarism and enable a reader to trace the source of knowledge, all the references quoted in the entire thesis must be placed at the end of the text in the Harvard style alphabetically. There are two parts to referencing using Harvard style: the reference list and citing the references in the text. The reference list appears at the end of the thesis document and citation is within the text.

The citation mentions the author's surname and year of publication. The citation style varies depending upon the number of authors.

For a single author – Qureshi (2018)

For two authors – Bhutto and Qureshi (2018)

For three authors – Bhutto, Shah and Qureshi (2018)

For four or more authors – Balochet *al.* (2018)

The reference list must have surname followed by initials of the authors. The year of publication, in round brackets, should follow the names. In the case of more than one publication of the same author(s) in one year, the year of publication should be followed by the letter 'a', 'b' and so on. The specimen of describing various types of publications from various types of sources are given in Appendix 12.

14. BINDING OF THE THESIS

The thesis should be hard bound in dark blue color, as per specimen available with the Director, Post-Graduate Studies / Director of the concerned Institute / Chairman of the concerned Department. The title of the thesis, author's name, title of the degree, year of award of the degree and Mehran University of Engineering and Technology should be printed in gold letters on the front of the cover. The back of the cover should not have any thing printed on it. The author's name, title of the degree and year of award should be printed in gold letters on the bound edge. Appendix 13 shows the specimen of these writings.

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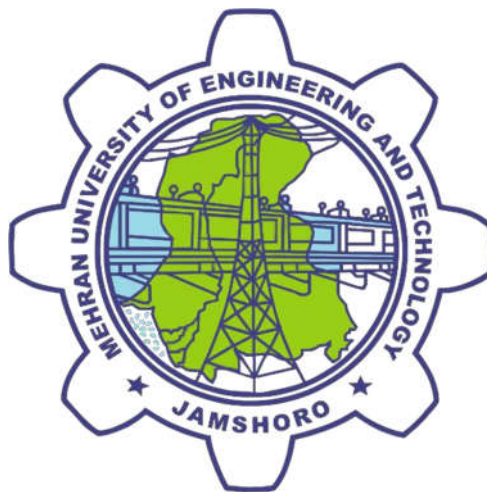
APPENDIX 1

THESIS TITLE

by

Student Name

Roll Number



Thesis submitted to the MUET for the degree of

Master/Doctor of Philosophy

In

Field of Discipline

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Department / Institute

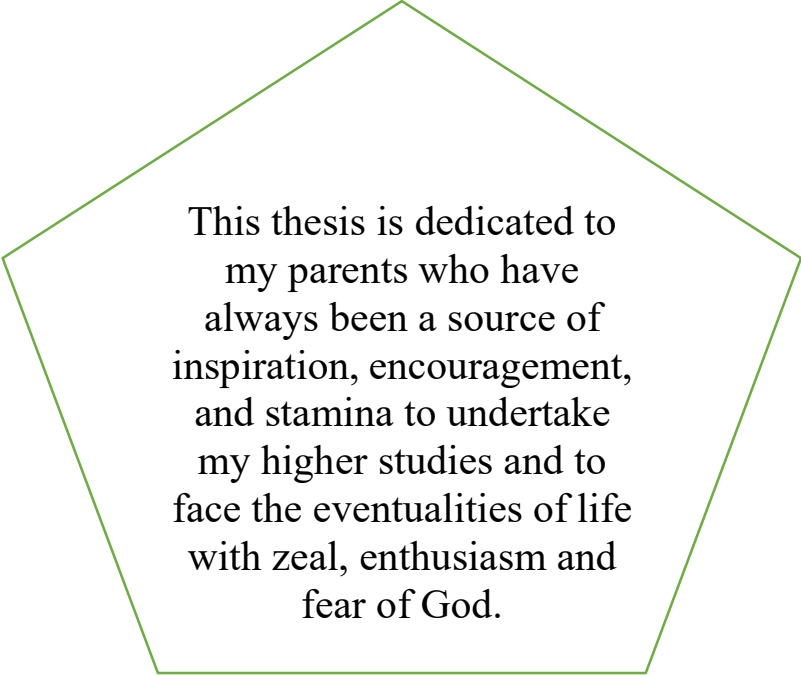
Faculty

**Mehran University of Engineering & Technology,
Jamshoro**

Month 20??

APPENDIX 2

DEDICATION



This thesis is dedicated to
my parents who have
always been a source of
inspiration, encouragement,
and stamina to undertake
my higher studies and to
face the eventualities of life
with zeal, enthusiasm and
fear of God.

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APPENDIX3

Certificate of Approval

This is to certify that the research work presented in this thesis, entitled “-----
-----” was conducted by Mr/Ms ----- under the supervision of Mr/Ms -----
-----, Co-Supervisor ----- and approved by all the members of
thesis committee.

No part of this thesis has been submitted anywhere else for other degree. This thesis is submitted to Institute of
Information & Communication Technologies in partial fulfillment of the requirements for the degree of
Master/Doctor of Philosophy in the Field of ----- and accepted by the Dean
Faculty of Electrical, Electronics and Computer Engineering of Mehran University of Engineering and
Technology.

Student Name: -----

Signature: _____

1. External Examiner:

Signature: _____

2. Internal Examiner:

Signature: _____

3. Supervisor:

Signature: _____

4. Co-Supervisor:

Signature: _____

5. Co-Director IICT:
MUET, Jamshoro

Signature: _____

6. Director IICT:
MUET, Jamshoro

Signature: _____

7. Dean FEECE
MUET, Jamshoro.

Signature: _____

Date: _____

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APPENDIX 4

Author's Declaration

Ihereby state that my
thesis titled.....
.....is my own work and has not been submitted previously by me
for taking any degree from Mehran University of Engineering and Technology or any other
Degree awarding institute and to the best of my knowledge has not been submitted by any other
scholar for the same purpose anywhere else in the country/world.

At any time if my statement is found to be incorrect even after my graduation, Mehran
University of Engineering and Technology has the right to withdraw my Master/PhD degree.

Name of Student: _____

Date: _____

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APPENDIX 5

Plagiarism undertaking by the Scholar

I solemnly declare that research work presented in the thesis titled
.....is my research work with no significant contributions from any other person. Small contribution/help whenever taken has been duly acknowledged.

I understand the zero tolerance policy of the Higher Education Commission and Mehran University of Engineering and Technology towards plagiarism. Therefore as an author of the above titled thesis declare that no portion of my thesis has been plagiarized and any material used as reference is properly referred/cited.

I undertake that if I am found guilty of any formal plagiarism in the above titled thesis even after award of Master/PhD degree, the university reserves the rights to withdraw/revoke my Master/PhD degree and that HEC and MUET has the right to publish my name on the HEC/MUET website on which names of students are placed who submitted plagiarized thesis.

Student Signature: _____

Name: _____

APPENDIX 6

© Copyright, 20??
Mehran University
of
Engineering and Technology
ALL RIGHTS RESERVED

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APPENDIX 7

Acknowledgement

This section is used to thank mentors and colleagues or name the individuals or institutions that supported your research or provided special assistance, such as consultation or aid. Acknowledge the owners of copyrighted materials that have granted you permission to reproduce their work. Describe all sources of funding from outside grants, fellowships, awards or self-supported funding.

GUIDELINES FOR PREPARATION OF MASTER AND PHD THESIS

APPENDIX 8

Table of Contents

Description	Page
Title Page	i
Dedication Page	ii
Certificate of Approval of thesis by examination committee	iii
PhD Thesis Author's Declaration	iv
Plagiarism undertaking by the Scholar	v
Copyright page	vi
Acknowledgement	vii
Table of Contents	viii
List of Abbreviations	ix
List of Figures	x
List of Notations	xi
List of Photographs	xii
List of Tables	xiii
Abstract	xiv
Chapter 1 INTRODUCTION	1
1.1-----	-
1.1.2 -----	-
Chapter 2 _____	-
2.1 -----	-
2.1.2 -----	-
References	-
Appendices	-

GUIDELINES FOR PREPARATION OF MASTER AND PHD THESIS

APPENDIX 9

List of Abbreviations

ACI	American Concrete Institute
ASME	American Society of Mechanical Engineers
HAD	Hyderabad Development Authority
KESC	Karachi Electric Supply Corporation
KMC	Karachi Metropolitan Corporation
IEP	Institute of Engineers Pakistan
MUET	Mehran University of Engineering and Technology
PCATP	Pakistan Council for Architects and Town Planners
PEC	Pakistan Engineering Council
WAPDA	Water and Power Development Authority

GUIDELINES FOR PREPARATION OF MASTER AND PHD THESIS

APPENDIX 10

List of Notations

A	=	Area
B	=	Breadth
E	=	Modulus of Elasticity
a	=	shear span
b	=	width of section
w	=	watt
α	=	factor for modified frequency
β	=	factor for depth of compression block
γ	=	unit weight of sand

GUIDELINES FOR PREPARATION OF MASTER AND PHD THESIS

APPENDIX 11

Abstract

This section is for abstract, presented at the beginning of the thesis, is likely the first substantive description of the research work read by examiners. It is a summary of the whole thesis. It presents all the major elements of the research work in a condensed form. The maximum size of the abstract of the PhD thesis should be 350 words. The aim of the research should be clearly stated at the beginning of the abstract. It must have summary of all the chapters included in the thesis. Results must be clearly presented in it. The purpose of the abstract should be aligned on the lines of what you discovered. The last half of the abstract should be dedicated for the summarization and interpretation of results. The most important thing is clarity of abstract so footnotes, references or unexplained abbreviations must be avoided.

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APPENDIX 12

Book: online/electronic

Author/Editor (if it is an editor always put (ed.) after the name) (Year of publication) Title (this should be in italics) Edition (if not the first edition) [Online] Place of publication (if there is more than one place listed, use the first named) Publisher Available from: URL [Date of access]

Bhutto, A., Qureshi, S. & Shah, F. (2008) *A Short Course in Soil and Rock Slope Engineering*. [Online] London, Thomas Telford Publishing. Available from: <http://www.myilibrary.com?ID=93941> [Accessed 18th June 2017].

Book: chapter in an edited book

Author of the chapter (Year of publication) Title of chapter followed by In: Editor (always put (ed.) after the name) Title (this should be in italics) Series title and number (if part of a series) Edition (if not the first edition) Place of publication (if there is more than one place listed, use the first named) Publisher Page numbers (use 'p.' before a single page number and 'pp.' where there are multiple pages)

Bhutto, A. & Qureshi, S. (2017) Evidence-based practice and information literacy. In: Lipu, S., Williamson, K. & Lloyd, A. (eds.) *Exploring methods in information literacy research*. Wagga Wagga, Australia, Centre for Information Studies, pp. 149-170.

Journal article: print

Author (Year of publication) Title of journal article Title of journal (this should be in italics) Volume number Issue number Page numbers of the article (do not use 'p.' before the page numbers)

Su, Y., Shi, F., Talpur, S., Wang, Y., Hu, S., & Wei, J. (2015). Achieving self-aware parallelism in stream programs. *Journal of Cluster Computing*, 18(2), 949-962.

Bhutto, A. & Baloch, M. (2009) Foreign ownership and profitability: Property rights, control, and the performance of firms in Pakistan industry. *Journal of Law & Economics*, 42 (1), 209-238.

Journal article: online/electronic

If an electronic journal article has a DOI (digital object identifier), you can use this instead of the URL. The DOI is a permanent identifier provided by publishers so that the article can always be found online. To find the DOI, when you read an article online, check the article details as you will usually find the DOI at the start of the article. If you read the article in a full-

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textdatabase service, such as EBSCO, and do not have a DOI or direct URL to the article you should use the database URL.

Author (Year of publication) Title of journal article Title of journal (this should be in italics) [Online] Volume number Issue number Page numbers of the article (do not use 'p'. before the page numbers) Available from: URL or DOI [Date of access]

Qureshi, S. & Baloch, M. (2012) A tale of two citations. *Nature*. [Online] 451 (7177), 397-399. Available from: <http://www.nature.com/nature/journal/v451/n7177/full/451397a.html> [Accessed 20th January 2012].

or

Shah, F., Baloch, M., Qureshi, S. & Bhutto, A. (2017) Novel use of phase change materials in refrigeration plant. Part I: Experimental investigation. *Applied Thermal Engineering*. [Online] 27 (17-18), 2893-2901. Available from: doi:10.1016/j.applthermaleng.2005.06.011 [Accessed 15th July 2008].

Conference proceeding: individual paper

Author (Year of publication) Title of conference paper followed by, In: Editor/Organisation (if it is an editor always put (ed.) after the name) Title of conference proceeding (this should be in italics) Place of publication Publisher Page numbers (use 'p.' before a single page number and 'pp.' where there are multiple pages)

Qureshi, S. (2006) Design, construction, supervision and long-term behaviour of tunnels in swelling rock. In: Van Cotthem, A., Charlier, R., Thimus, J.-F. and Tshibangu, J.-P. (eds.) *Eurock 2006: Multiphysics coupling and long term behaviour in rock mechanics: Proceedings of the International Symposium of the International Society for Rock Mechanics, EUROCK 2006, 9-12 May 2006, Liège, Belgium*. London, Taylor & Francis. pp. 211-216.

Web page/website

Author/Editor (use the corporate author if no individual author or editor is named) (Year of publication) (if available; if there is no date, use the abbreviation n.d.) Title (this should be in italics) [Online] Available from: URL [Date of access]

European Space Agency. (2008) *ESA: Missions, Earth Observation: ENVISAT*. [Online] Available from: <http://envisat.esa.int/> [Accessed 3rd July 2008].

Email: (personal)

Personal emails should be referenced as personal communication, unless you have permission from the sender and receiver to include their details in your reference list.

Sender (Year of communication) Email sent to Name of receiver Date and month of communication

GUIDELINES FOR PREPARATION OF MASTER AND PHD THESIS

Bhutto, A. (2009) Email sent to Abdul Sami Qureshi, 10th June.

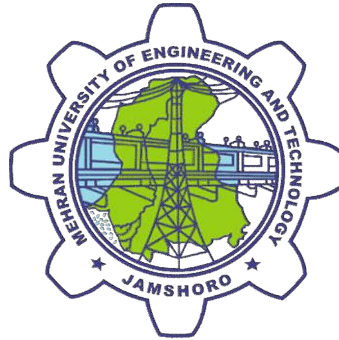
SOURCES OF FURTHER HELP

www.imperial.ac.uk/library/subjectsandsupport/referencemanagement

APPENDIX 13

Name	
TITLE	
Year	

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THESIS TITLE

by

Student Name

Thesis submitted to the MUET for the degree of

Doctor of Philosophy

In

Field of Discipline

Department / Institute

Faculty

Mehran University of Engineering & Technology, Jamshoro

Year