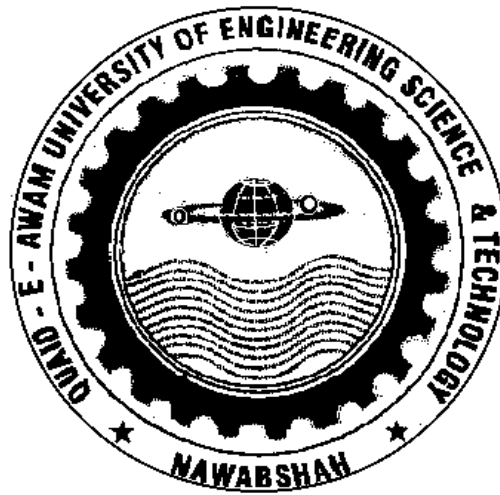


THESIS MANUAL



**QUAID-E-AWAM UNIVERSITY OF ENGINEERING, SCIENCE AND TCHNOLOGY,
NAWABSHAH**

1. GENERAL

1.1 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, Charts and for mounting Photographs, if any. The paper used in entire thesis should be plain without any borderline, logos, insignia, monograms etc.

1.2 LANGUAGE

The entire thesis must be written in English language. The spelling throughout the thesis be either in American or British language.

1.3 TYPING AND PRINTING:

The entire thesis must be computer typed and printed through laser printer with black ink.

2. THESIS ORGANIZATION

A thesis/Dissertation/project report is mainly organized into three parts.

- (i) Preliminary Pages
- (ii) Main body / text
- (iii) References

There is another optional part of Appendices which is to be placed in the end of the thesis.

3. PRELIMINARY PAGES

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. All the pages must start with new page.

3.1 TITLE PAGE

The title page must include the title of the thesis, full name of the candidate, the statement of award of the thesis (Appendix-A), name of university etc. (refer: Appendix-B)

3.2 DECLARATION PAGE

A declaration signed by the student on originality of the work presented by him/her in the thesis/dissertation be provided on this page (Refer Appendix-C)

3.3 DEDICATION PAGE.

If a candidate desires to dedicate his / her thesis to any person or organization, it should be so stated on this page. However, the dedication should not contain any number, photograph or chart or maximum of a 100 words. A specimen of this page is given in Appendix-D.

3.4 CERTIFICATE PAGE

A certificate signed by the thesis examiners, including the candidate's Supervisor, Director Postgraduate Studies & Research and Dean of the concerned Faculty, indicating the approval of the thesis, should be put on this page. A specimen of the certificate page is given in Appendix-E.

3.5 ACKNOWLEDGMENTS

A brief acknowledgment, 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 facilities and tools etc. should be given on this page (Maximum of 500 words).

3.6 TABLE OF CONTENTS PAGE

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 size of both the capital and lower case characters / letters as followed in the text of the thesis. A specimen of the Table of Contents page is given in Appendix-F.

3.7 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. (Refer Appendix-G)

3.8 LIST OF FIGURES

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. (Refer Appendix-H)

3.9 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. (Refer Appendix-I)

3.10 LIST OF ABBREVIATION

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. A specimen of this list is given in Appendix-J.

3.11 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 this list is given in Appendix-K

3.12 LIST OF 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. (Refer Appendix-L)

3.13 ABSTRACT

The abstract may be written using single line spacing. The abstract is different from synopsis or summery of a thesis. It should be brief and should not be of more than two paragraphs, preferably one paragraph. The abstract should not be of more than 500 words and it should state the field of study, provide identified, research methodology adopter, scope of study, result and a very brief conclusions.

4. MAIN BODY /TEXT

Text must be divided into chapters. Each chapter must start on a new page and should continue with sections and subsections on successive page. The sections and subsections should be given appropriate titles and numbers. The text may be written in paragraphs which should not be too long. The paragraphs should repose the continuity.

The text includes:

- (a) Introduction
- (b) Literature review
- (c) Research Methodology
- (d) Data collection
- (e) Results and discussions
- (f) Conclusions and suggestions
- (g) Any other necessary information.

4.1 FONT AND SPACING

The main text of thesis must be typed following font size and style, unless specified otherwise or any other font and or size as approved by the ASRB from time to time.

Main Text:

Font:	Times New Roman
Size:	12
Spacing:	1.5
Heading (main)	14
Heading (Sub)	13

4.2 CHAPTER & SUBSECTION

- i. Each chapter must start on a new page and be typed continuously with sections and sub-section on successive pages. The sub sections are not indented and should not be more than four levels.
- ii. The chapter number and heading should be typed centered on the page in bold capitals. The chapter heading should be placed below the chapter number. The chapter number should be in Arabic numerals, e.g.,

CHAPTER 4

MATERIALS, METHODS AND EXPERIMENTAL SETUP

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

4.1 MATERIAL

- iv. 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.,

4.1.1 Concrete and its properties

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

4.1.1.1 Special types of concrete

5. MARGINS

Margins of 4 cm must be left at the top and left side and 2.5 cm 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, one-and a half or double line spacing as is found convenient to accommodate the table on one page within the specified margins.
- 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: Yield stress and modulus of elasticity of 'I' sections

- 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.,

Figure. 4.1: Arrangement of reinforcement of the model tested

- 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., Figure. 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 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.,

4.1: A model tested

- 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. Plate 4.1 on P.54.
- iv. The photographs should be mounted using non-liquid stick glue on the same size and quality of paper as that of the thesis.

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. REFERENCES:

- i. All the references quoted in the entire thesis must be placed at the end of the text and listed author-wise in the number format (i.e. [1]). The year of publication, in round brackets, should follow the full name(s) of the author(s). the standard method of describing the publications referred in the text should be followed. The specimens of describing various types of publications are given in Appendix-M.
- ii. The publications should be referred in the text by the last name of the first author followed by the number in square brackets.

13. MAXIMUM LIMITS

The thesis should consist the pages of following maximum limits.

	<u>Degree</u>	<u>Max: Pages</u>
i.	Master thesis (By course work and research)	150
ii.	Master thesis (By research only)	200
iii.	Ph.D thesis	300

14. SUBMISSION OF THESIS

Three copies of the draft of the thesis on an ordinary white A4 size paper should be submitted to the Controller of Examinations through the candidate's thesis Supervisor in a loose form/folder ring file for evaluation by the thesis examiners. After successful defense of the thesis in the thesis examination, and after incorporating the changes/corrections recommended by the thesis examiners to their satisfaction, the certificate page should be got signed by the examiners and the concerned university officers. The thesis should then be bound and submitted along-with the softcopy to the Controller of Examinations in sufficient number for distribution as under:

- One copy to be retained by the Controller of Examinations.
- One copy to be sent to the library.
- One copy to be sent to the concerned Director of the Institute or Director of Postgraduate Studies as the case may be.
- One copy to be sent to each of the thesis examiners through the Controller of Examinations.
- One copy to be sent to HEC
- Only the powder photocopies of the thesis on the same size and quality of paper as described at 1.1 above will be accepted for submittal of the thesis in the final form.

15. BINDING

Thesis should be hard bound with front cover of color as mentioned below:

	<u>Degree</u>	<u>Color</u>
i.	Master thesis (By course work and research)	Black
ii.	Ph.D thesis	Maroon

The binding must be bonded properly as per the specimen available with the Directorate of Postgraduate Studies. The specimen referred at Appendix-N and Appendix-O show the contents of the face cover of the hard binding and spine respectively. The writing of face cover and the spine should be in golden letters.

APPENDIX-A

1. Master's Thesis (By course work and research)

A thesis submitted in fulfillment of the requirements for the award of the degree of Master of

2. Master's Thesis (By research)

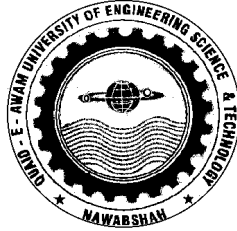
A thesis submitted in fulfillment of the requirements for the award of the degree of Master of

3. Doctor of Philosophy Thesis

A thesis submitted in fulfillment of the requirements for the award of the degree of Doctor of Philosophy

APPENDIX - B

**STRENGTH OF WALL –SLAB JUNCTION WITH SPACIAL
FORM OF SHEAR REINFORCEMENT IN A LATERALLY
LOADED TALL SHEAR WALL BUILDING**



**Rafique Ahmed Memon
13-MCEM-01**

A thesis submitted in fulfillment of the
requirements for the award of the degree of

Master of Engineering

In

Construction Engineering & Management

Department of Civil Engineering

Faculty of Engineering

**Quaid-e-Awam University of Engineering, Science & Technology
Nawabshah**

2013

Appendix – C

DECLARATION

I declare that this thesis entitled “title of the thesis” is the result of my own research except as cited in the references. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

Signature :

Name :

Date :

Appendix – D

Dedicated to my parents

Appendix – E

QUAID-E-AWAM UNIVERSITY OF ENGINEERING, SCIENCE & TECHNOLOGY NAWABSHAH

This thesis, written by Mr. Rafique Ahmed Memon under the direction of his supervisor and approved by all the members of the thesis committee has been presented to and accepted by the Dean, Faculty of Engineering, in fulfillment of the requirements of the degree of Master of Engineering in Construction Engineering & Management.

Supervisor

Co-Supervisor

Internal Examiner

External Examiner

Director,
Postgraduate Studies & Research

Dean,
Faculty of Engineering

Date: _____

Table of Contents

Description

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DEDICATION PAGE

CERTIFICATE PAGE

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APPENDIX J

LIST OF ABBREVIATIONS

DVM	=	Digital Volt Measurements
KN	=	Kilo Newton
LCA	=	Load Cell Amplifier
MT	=	Main Test
N	=	Newton
RCC	=	Reinforced Cement Concrete
SWG	=	Standard Wire Gauge
c/c	=	center to center
mm	=	millimeter

APPENDIX K

LIST OF NOTATIONS

F	Force
E	Modulus of Elasticity
J _c	A property of the critical perimeter analogous to polar moment of inertia
M	Moment
V	Total shear
V _u	Ultimate strength of connection
W _w	Width of wall
X _w	Over all width of the building
Y _w	Bay width of connecting slab
d	Effective depth of slab
f _c	Cylinder crushing strength
f _{cu}	Cube crushing strength
t _w	Thickness of wall
V _{add}	Increase in the critical shear stress due to increase of the flexural reinforcement beyond 1%
V _g	Shear stress due to gravity load

APPENDIX L

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APPENDIX M

Specimen for describing a publication in research journal

- [1] Abbasi, A.F, Ahmed, M and Wasim, M. (1987), “Optimization of Concrete Mix Proportioning Using Reduced Factorial Experimental Technique” ACI Materials Journal, V. 84, No. 1, pp. 55-63.
- [2] Abbasi, A.F, Ahmed, M and Wasim, M. (1987), “Optimization of Concrete Mix Proportioning Using Reduced Factorial Experimental Technique” ACI Materials Journal, V. 84, No. 1, pp. 55-63.

Specimen for describing a report published by a publishing company

- [1] Neville A. M, (1991), Properties of Concrete, 4th edition, ELBS, London, pp.....

Specimen for describing a report published by an organization

- [1] ACI Committee 308, (1992) “Recommended Practice for Hot Weather Concreting” American Concrete Institute, Detroit, Part 2, pp.

Specimen for describing a thesis

- [1] Maslehuddin M. (1982), “Optimization of Concrete Mix Design for Durablility in the Eastern Province of Saudi Arabia,” MS Thesis, Department of Civil Engineering

APPENDIX N

M. F

**STRENGTH OF WALL -SLAB JUNCTION WITH SPACIAL FORM OF SHEAR
REINFORCEMENT IN A LATERALLY LOADED TALL SHEAR WALL BUILDING**

**R.A.
Memon**

2013