

FINITE ELEMENT ANALYSIS OF COLD-
FORMED STEEL STRUCTURAL MEMBERS
WITH DIFFERENT ARRANGEMENT OF
PERFORATIONS

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SUPERVISOR'S DECLARATION

I hereby declare that I have checked this thesis and in my opinion, this thesis is adequate in terms of scope and quality for the award of the degree of Bachelor of Civil Engineering & Earth Resources.

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STUDENT'S DECLARATION

I hereby declare that the work in this thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at Universiti Malaysia Pahang or any other institutions.

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NUR IDAYU BINTI IBRAHIM

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All praised to ALLAH S.W.T

SPECIALLY DEDICATED

To my beloved parents

Salbiah Binti Yusof

Ibrahim Bin Daud

My beloved siblings

Izuddin Bin Ibrahim

Izzuan Bin Ibrahim

Ikhmal Bin Ibrahim

Mohd. Izzat Bin Ibrahim

Nur Ilani Binti Ibrahim

My beloved in laws

Noraishah Binti Ismail

Nuranis Binti Omar

Noraini Binti Daud

Nurul Dalila Binti Che Johar

And my little sweet nieces and nephews

Zahirah, Irdina, Ziyad, Afnan, Inas

Thanks for supporting me until this level of journey,

May ALLAH bless all of you, my big family ☺

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TABLE OF CONTENT

DECLARATION	
TITLE PAGE	
ACKNOWLEDGEMENTS	ii
ABSTRAK	iii
ABSTRACT	iv
LIST OF TABLES	viii
LIST OF FIGURES	ix
LIST OF SYMBOLS	xii
LIST OF ABBREVIATIONS	xiii
CHAPTER 1 INTRODUCTION	1
1.1 Introduction	1
1.2 Problem Statement	4
1.3 Objectives of Research	4
1.4 Scopes of Research	5
1.5 Significance of Study	8
CHAPTER 2 LITERATURE REVIEW	9
2.1 Introduction	9
2.2 Advantages of Cold-formed Section	10
2.3 Cold-formed with Perforations	11
2.4 Different Types of Perforations & Arrangements	11
2.5 Buckling Behavior of Cold-formed Steel Sections	13

2.5.1	Local Buckling	14
2.5.2	Distortional Buckling	14
2.5.3	Global Buckling	15
2.6	Previous Research	17
CHAPTER 3 METHODOLOGY		18
3.1	Introduction	18
3.2	Finite Element Method	18
3.3	Experiment Setup	19
3.4	Project Flow	20
3.5	Procedures of Modeling Column Using LUSAS	22
3.5.1	Modeling the structure	22
3.5.2	Assign the type of meshing	24
3.5.3	Assign the type of geometries	25
3.5.4	Assign the type of material properties	26
3.5.5	Set the support of the column	26
3.5.6	Set the loading of the column	28
3.5.7	Complete modeling in Finite Element (LUSAS)	29
CHAPTER 4 RESULTS AND DISCUSSION		30
4.1	Introduction	30
4.2	Result of Linear Analysis	30
4.2.1	Deformed Mesh	31
4.2.1.1	Fixed Ended Support	31
4.2.1.2	Pinned Ended Support	33
4.2.2	Maximum stress, Nmax	35
4.2.2.1	Fixed Ended Support	35

4.2.2.2	Pinned Ended Support	40
4.2.3	Maximum strain, E_{max}	45
4.2.3.1	Fixed Ended Support	45
4.2.3.2	Pinned Ended Support	49
4.3	Result of Linear Buckling Analysis	53
4.3.1	Fixed Ended Support	53
4.3.1.1	Short Column (600 mm)	54
4.3.1.2	Intermediate Column (1500 mm)	57
4.3.1.3	Slender Column (2000 mm)	60
4.3.2	Pinned Ended Support	64
4.3.2.1	Short Column (600 mm)	65
4.3.2.2	Intermediate Column (1500 mm)	68
4.3.2.3	Slender Column (2000 mm)	71
CHAPTER 5 CONCLUSION		75
5.1	Introduction	75
5.2	Conclusion	75
5.3	Recommendation	76
REFERENCES		77

LIST OF TABLES

Table 1.1	Column testing parameter	7
Table 4.1	Buckling load for short column	63
Table 4.2	Buckling load for intermediate column	63
Table 4.3	Buckling load for slender column	63
Table 4.4	Buckling load for short column	74
Table 4.5	Buckling load for intermediate column	74
Table 4.6	Buckling load for slender column	74

LIST OF FIGURES

Figure 1.1	Roof truss using cold-formed steel	1
Figure 1.2	Residential area using cold-formed steel	2
Figure 1.3	Press-braking process	3
Figure 1.4	Roll-forming process	3
Figure 1.5	C-section configuration	5
Figure 1.6	Perforations position for short column (600 mm) a) 600-150.0, b) 600-172.5, c) 600-195.0, d) 600-217.5, e) 600-240.0, f) 600-262.5, g) 600-NH	5
Figure 1.7	Perforations position for intermediate column (1500 mm) for a) 1500-150.0, b) 1500-172.5, c) 1500-195.0, d) 1500-217.5, e) 1500-240.0, f) 1500-262.5, g) 1500-NH	6
Figure 1.8	Perforations position for slender column (2000 mm) for a) 2000-150.0, b) 2000-172.5, c) 2000-195.0, d) 2000-217.5, e) 2000-240.0, f) 2000-262.5, g) 2000-NH	6
Figure 2.1	Shapes of cold-formed section (Mahmood et. al., 2005)	9
Figure 2.2	Opening spacing (Ling et. al., 2015)	12
Figure 2.3	The arrangement of perforations with different distance of perforations (Reddy S. et. al., 2016)	12
Figure 2.4	Geometric configurations of web openings	13
Figure 2.5	Local buckling (M. P. Kulatunga et. al., 2013)	14
Figure 2.6	Distortional buckling (M. P. Kulatunga et. al., 2013)	14
Figure 2.7	Flexural buckling of a column (Gardner and Baddoo, 2006)	15
Figure 2.8	Flexural-torsional buckling (Young, 2005)	16
Figure 2.9	Perforation positions (M. P. Kulatunga et. al., 2013)	17
Figure 3.1	Laboratory testing setup	19
Figure 3.2	Laboratory testing	20
Figure 3.3	Flow chart of project	21
Figure 3.4	New model	22
Figure 3.5	Entering the coordinates	22
Figure 3.6	Connecting all the nodes	23
Figure 3.7	Mirror the section	23
Figure 3.8	Sweeping tool	24
Figure 3.9	Surface mesh attribute	25
Figure 3.10	Geometric surface attribute	25
Figure 3.11	Material properties attribute	26

Figure 3.12	Bottom support condition	27
Figure 3.13	Top support condition	27
Figure 3.14	Using global distributed load (Total)	28
Figure 3.15	Model geometry	29
Figure 3.16	Model with meshing using QSL8	29
Figure 3.17	Complete modeling with support and loading	29
Figure 4.1	Deformed mesh for short column (600 mm)	32
Figure 4.2	Deformed mesh for intermediate column (1500 mm)	32
Figure 4.3	Deformed mesh for slender column (2000 mm)	32
Figure 4.4	Deformed mesh for short column (600 mm)	34
Figure 4.5	Deformed mesh for intermediate column (1500 mm)	34
Figure 4.6	Deformed mesh for slender column (2000 mm)	34
Figure 4.7	Maximum stress, N_{max} for short column (600 mm)	37
Figure 4.8	Maximum stress, N_{max} for intermediate column (1500 mm)	38
Figure 4.9	Maximum stress, N_{max} for slender column (2000 mm)	39
Figure 4.10	Maximum stress, N_{max} for short column (600 mm)	42
Figure 4.11	Maximum stress, N_{max} for intermediate column (1500 mm)	43
Figure 4.12	Maximum stress, N_{max} for slender column (2000 mm)	44
Figure 4.13	Maximum strain, E_{max} for short column (600 mm)	46
Figure 4.14	Maximum strain, E_{max} for intermediate column (1500 mm)	47
Figure 4.15	Maximum strain, E_{max} for slender column (2000 mm)	48
Figure 4.16	Maximum strain, E_{max} for short column (600 mm)	50
Figure 4.17	Maximum strain, E_{max} for intermediate column (1500 mm)	51
Figure 4.18	Maximum strain, E_{max} for slender column (2000 mm)	52
Figure 4.19	Eigenvalue 1 for short column (600 mm)	54
Figure 4.20	Eigenvalue 2 for short column (600 mm)	55
Figure 4.21	Eigenvalue 3 for short column (600 mm)	56
Figure 4.22	Eigenvalue 1 for intermediate column (1500 mm)	57
Figure 4.23	Eigenvalue 2 for intermediate column (1500 mm)	58
Figure 4.24	Eigenvalue 3 for intermediate column (1500 mm)	59
Figure 4.25	Eigenvalue 1 for slender column (2000 mm)	60
Figure 4.26	Eigenvalue 2 for slender column (2000 mm)	61
Figure 4.27	Eigenvalue 3 for slender column (2000 mm)	62
Figure 4.28	Eigenvalue 1 for short column (600 mm)	65
Figure 4.29	Eigenvalue 2 for short column (600 mm)	66

Figure 4.30	Eigenvalue 3 for short column (600mm)	67
Figure 4.31	Eigenvalue 1 for intermediate column (1500mm)	68
Figure 4.32	Eigenvalue 2 for intermediate column (1500mm)	69
Figure 4.33	Eigenvalue 3 for intermediate column (1500mm)	70
Figure 4.34	Eigenvalue 1 for slender column (2000mm)	71
Figure 4.35	Eigenvalue 2 for slender column (2000mm)	72
Figure 4.36	Eigenvalue 3 for slender column (2000mm) -	73

LIST OF SYMBOLS

E	Young Modulus
ν	Poisson Ratio
N_{\max}	Stress Maximum
E_{\max}	Strain Maximum

LIST OF ABBREVIATIONS

LUSAS	London University Structural Analysis Software
FE	Finite Element
FEM	Finite Element Method
FEA	Finite Element Analysis
QSL8	Quadrilateral Thin Shell Elements with 8 Nodes Clockwise