TABLE OF CONTENTS

		PAGE
TITI	LE PAGE	i
ACK	KNOWLEDGEMENTS	ii
ABS	TRACT	iii
TAB	ELE OF CONTENTS	iv
LIST	r of figures	vi
LIST	T OF TABLES	xi
CHA	APTER 1 INTRODUCTION	
1.1	General	1
1.2	Research significance	2
1.3	Objectives	3
1.4	Scope of research	4
CHA	APTER 2 LITERATURE REVIEW	
2.1	Shear force on interior beam-column joint	5
2.2	Experimental performance of beam-column joint	7
2.3	Analytical Investigation for beam-column joint model	13
CHA	APTER 3 SEISMIC INVESTIGATION OF EXISTING BUILDING	
3.1	Characteristic assessment of non-seismically detailed buildings	17
3.2	Problem of shear force within interior beam-column joint	18
3.3	Problem of bond deterioration on beam-column joint	19
3.4	Structural indices of RC beam-column frame on seismic performance	19
3.5	Relevant of column tributary area of buildings	24
CHA	APTER4 EXPERIMENTAL PROGRAM ON BEAM-COLUMN JOIN	
4.1	Experimental series	27
4.2	Description, dimensions and reinforcement details of each specimen	32
	4.2.1 Description of each specimen	32
	4.2.2 Dimensions and reinforcement details of each specimen	35
4.3	Test set-up and boundary conditions	41
4.4	Properties of materials	42
4.5	Column load and Loading displacement history	43
4.6	Measurment	44
	4.6.1 Load and lateral displacement	44
	4.6.2 Shear deformation in beam, column and joint component	45
	4.6.3 Flexural rotation in beam, column and joint	45
	4.6.4 Rocking angle at the interface between joint face and beam	45
	4.6.5 Strains of reinforcing bar at various locations of the specimen.	45
CHA	APTER 5 EXPERIMENTAL RESULTS	
5.1	Cracking development	70
5.2	Histeresis loop and Force-displacement relation	75
5.3	Column shear force & Shear angle relation	82
5.4	Column shear force & Rotation angle relation	83

5.5	Column shear force & Rocking angle relation	84
5.6	Strains of Longitudinal bar and transverse bar	94
СНАІ	PTER 6 DISCUSSION	
6.1	Effect of reinforcing bar anchorage within joint core	112
6.2	Joint performance with different joint details	123
6.3	Role of amount of joint transverse reinforcement	132
6.4	Effect of discrete confinement and continuous confinement	141
CHAI	PTER 7 BEAM-COLUMN JOINT MODEL	
7.1	The beam-column joint model	151
7.2	Outline of model	152
	7.2.1 Beam model and Column model	153
	7.2.2 Planar joint model	155
7.3	Solution procedures	165
7.4	Experimental verification	172
7.5	Sensitivity of parameter	179
СНАІ	PTER 8 CONCLUSIONS AND RECOMMENDATION	
8.1	Conclusion Conclusion	185
8.2	Recommendation	187
REFE	CRENCES	189
APPENDIX		