

CONTENTS

Sr. No.	Name of Chapter	Page No.
	Acknowledgement	iii
	List of Figures	iv
	List of Tables	vi
	List of Graphs	vii
	Nomenclature	viii
1	INTRODUCTION	1
1.1	Introduction	1
1.2	Problem statement	5
1.3	Objective	5
1.4	Methodology	5
1.5	Organization of Dissertation	6
2	LITERATURE SURVEY	7
2.1	History	7
2.2	Current level CBIR techniques	8
2.2.1	Color Retrieval	9
2.2.2	Texture Retrieval	10
2.2.3	Shape Retrieval	11
2.2.4	Retrieval By Other Types Of Primitive Feature	13
2.3	Existing Systems	13
2.3.1	Commercial systems	13
2.3.2	Experimental systems	14
2.3.3	Automated System	14
2.4	Global features of image	15
2.4.1	Color Feature	15
2.4.2	Texture Feature	16
2.5	Discrete wavelet transform	17
2.5.1	Historical Overview	17

2.5.2	Basics of Discrete Wavelet Transform(DWT)	20
2.6	Gray-level Co-occurrence Matrix (GLCM)	22
2.7	Support Vector Machine (SVM)	25
2.7.1	Historical Overview	25
2.7.2	Basics of SVM	27
2.8	Block Truncation Coding Techniques	29
2.8.1	Historical Overview	30
2.8.2	Basics of BTC	32
2.9	Use of Morphology Techniques	36
2.9.1	Basic Morphological Theories	37
3	SYSTEM DEVELOPMENT	38
3.1	Block Diagram of CBIR System	38
3.1.1	Flowchart	41
3.1.2	Mathematical Modal	42
3.2	Proposed CBIR Techniques	47
3.2.1	Color Feature	48
3.2.2	Discrete Wavelet Transform	48
3.2.3	Gray Level Co-Occurrence Matrix (GLCM)	50
3.2.4	Local Features	54
4	PERFORMANCE ANALYSIS	55
4.1	Main GUI	56
4.2	Experimental Analysis using similarity metrics	58
4.3	Experimental Analysis Using SVM	59
4.4	Performance Parameter Evaluation	60
4.4.1	Precision and Recall Analysis	60
4.4.2	Accuracy evaluation using confusion matrix	62
5	CONCLUSIONS	65
5.1	Conclusions	65
5.2	Future Scope	66
5.3	Applications	66

References

Publications