Contents:

1.	Introduction	page 1
	1.1 Phases of gene expression data analysis	page 1
	1.2 Existing Approaches	page 2
	1.3 Motivation	page 2
	1.4Aim of our work	page 2
	1.5 Objectives of our work	page 3
	1.6 Organization of the Dissertation	page 3
2.	Background of the work	page 4
	2.1 Different types of clustering	page 4
	2.2 Gene-based clustering	page 5
	2.3 Different types of gene-based clustering	page 6
	2.4 Different types of clusters	page 6
	2.5 Proximity measures for gene expression data	page 8
	2.6 Cluster validity measures	page 10
3.	Existing work done on clustering	page 14
	3.1 K-means	page 14
	3.2 Hierarchical Clustering	page 15
	3.3 Density-Based Hierarchical Clustering	page 16
	3.4Model-Based methods	page 1

3.5 Graph-Based Clustering	page 17
3.6 Nearest Neighbor Clustering	page 19
3.7 Fuzzy-Clustering	page 19
4. Proposed approach	page 22
4.1 Link-Based Clustering (LBC)	page 22
4.2 Concepts and Definitions in LBC	page 22
4.3Fuzzy-Link Based Clustering (F-LBC)	page 27
4.4 Concepts and Definitions in F-LBC	page 27
5. Performance Evaluation	page 32
5.1 Performance Evaluation	page 32
5.2 Dataset Description	page 32
5.3 Results	page 33
6. Conclusion and Future work	page 46
References	page 47

.