

<b>Chapter</b>	<b>Contents</b>	<b>Page No</b>
<b>1</b>	<b>Data Mining and Warehousing</b>	<b>1</b>
	1.1. Data Mining	1
	1.2. Data Mining Techniques	3
	1.2.1. Decision Trees	4
	1.2.2. Sequential Pattern	9
	1.2.3. Clustering	10
	1.2.4. Predictive Data Mining	13
	1.2.5. Association Rule Mining	14
	1.2.6. Classification	18
	1.3. Introduction of Data Warehouse	20
	1.3.1. Architecture of Data Warehouse	20
	1.3.2. Applications of Data Warehouse	23
<b>2</b>	<b>Information Retrieval and Knowledge Discovery</b>	<b>25</b>
	2.1. Introduction	25
	2.2. Knowledge Discovery in Database	26
	2.3. Data Mining Models	28
	2.3.1. Clustering	29
	2.3.2. Classification	32
	2.3.3. Associate Mining in Database	33
	2.4. Clustering	36
	2.5. Clustering Algorithms	43
	2.5.1. Partitioning Algorithms	44
	2.5.2. Hierarchical Algorithms	48
	2.6. Categorical Data Clustering	52
	2.7. Comparison of ROCK, STIRR, Modified STIRR and K-Mode Algorithms	54
	2.7.1. Comparison of k-means and Hierarchical Algorithms	55
	2.8. Model-Based Methods	57

	2.9. Applications of Cluster Analysis	58
<b>3</b>	<b>Text Clustering Methods</b>	<b>60</b>
	3.1. Introduction	60
	3.2. Clustering	60
	3.2.1. Frequent Term Based Text Clustering	61
	3.2.2. Apriori Method	62
	3.2.3. Frequent Pattern-Growth Method	63
	3.3. Sentence Level Clustering	66
	3.4. Analysis of Text Clustering Methods	68
	3.4.1. Overview of K-Means and K-Modes Methods	69
	3.4.2. Fuzzy K-Modes Method	72
	3.4.3. ROCK	73
	3.4.4. STIRR Algorithm	77
<b>4</b>	<b>Fuzzy Based Modeling</b>	<b>85</b>
	4.1. Introduction	85
	4.2. Fuzzy Machine Learning	86
	4.2.1. Fuzzy Decision Trees	86
	4.2.2. Fuzzy Prototype	89
	4.2.3. Fuzzy Clustering	90
	4.3. Fuzzy Logic	92
	4.4. Fuzzy Inference System	94
	4.5. Fuzzy Clustering Techniques	97
<b>5</b>	<b>Recent Trends in Fuzzy Based Clustering Algorithm</b>	<b>106</b>
	5.1. Introduction	106
	5.2. Overview of Fuzzy Categorical Clustering	106
	5.3. Computational Complexity	108
	5.4. Design of Attributes	109
	5.4.1. Threshold of Similarity Values	109
	5.4.2. Hard Clustering	110

5.5. Solution Strategies	110
5.5.1. Clustering Famous Quotation	111
5.5.2. Measuring Sentence Similarity	112
5.6. Recent Trends in Fuzzy	114
5.7. Fuzzy Based Architectural Design	117
5.8. Architectural Design	119

## **Bibliography**