
Table of Contents

List of Abbreviations List of Notations Organization of the Thesis		i iii iv			
			Chapter 1	: Introduction, Literature Review, and Basic	
				Concepts	
1.1	Introduction	1			
1.2	Literature Review	5			
1.3	Aims and Objectives	26			
1.4	Research Methodology	27			
1.5	Importance of the Research Work	28			
1.6	Preliminaries	28			
Chapter 2	: Properties of Interior, Exterior, Closure, and				
	Boundary in Neutro-Topological Spaces				
2.1	Interior in Neutro-Topological Space	40			
2.2	Exterior in Neutro-Topological Space	43			
2.3	Closure in Neutro-Topological Space	45			
2.4	Boundary in Neutro-Topological Space	50			
2.5	Relative Topology in Neutro-Topological Space	55			
Chapter 3	: Neutro-Bi-Topological Spaces				
3.1	Introduction to Neutro-Bi-Topological Spaces	57			
3.2	Interior in Neutro-Bi-Topological Spaces	58			
3.3	Closure in Neutro-Bi-Topological Spaces	61			

3.4	Exterior in Neutro-Bi-Topological Spaces	64
3.5	Boundary in Neutro-Bi-Topological Spaces	66
3.6	Neutro-Quasi Open and Closed sets	69
Chapter 4:	Study on Interior, Exterior, Closure, and Boundary	
	in Anti-Topological Spaces	
4.0	Some basic concepts in Anti-Topological Space	73
4.1	Interior in Anti-Topological Space	74
4.2	Exterior in Anti-Topological Space	76
4.3	Closure in Anti-Topological Space	78
4.4	Boundary in Anti-Topological Space	82
4.5	Relative Topology in Anti-Topological Space	87
Chapter 5:	Continuity of functions in Neutro-Topological and	
	Anti-Topological Spaces	
5.1	Continuity in Neutro-Topological Spaces	89
5.2	Continuity in Anti-Topological Spaces	101
Chapter 6:	Separation Axioms in Neutro-Topological and	
	Anti-Topological Spaces	
6.1	Separation Axioms in Neutro-Topological Spaces	105
6.2	Separation Axioms in Anti-Topological Spaces	115
Chapter 7:	Multi-Neutro-Topological Space, Multi-Neutro-	
	Bi-Topological Space and Multi-Anti-Topological	
	Space	
7.1	Multi-Neutro-Topological Space	124
7.2	Multi-Neutro-Bi-Topological Space	132
7.3	Multi-Anti-Topological Space	138
Chapter 8:	Summary and Conclusion	
8.1	Summary and Conclusion	146
8.2	Future Scope	148

Bibliography 149
List of Publications
Appendices