
Summary and Conclusion

In the literature it is observed that there are large number of ways to generalize the closed sets in intuitionistic fuzzy topological spaces.

Throughout the research work the concepts of intuitionistic fuzzy β^{**} generalized closed sets are introduced and analyzed. They are compared with the already existing intuitionistic fuzzy closed sets in intuitionistic fuzzy topological space. Also intuitionistic fuzzy β^{**} generalized open sets, theoretical applications and some of the intuitionistic fuzzy β^{**} generalized continuous mappings, intuitionistic fuzzy contra β^{**} generalized continuous mappings, intuitionistic fuzzy almost β^{**} generalized continuous mappings are developed. Many properties and characterizations of newly defined continuous mappings are obtained.

The notion of intuitionistic fuzzy completely β^{**} generalized continuous mappings, intuitionistic fuzzy perfectly β^{**} generalized continuous mappings and intuitionistic fuzzy quasi β^{**} generalized continuous mappings are discussed.

The comparative study of intuitionistic fuzzy β^{**} generalized closed mappings with various existing intuitionistic fuzzy closed mappings has been executed. Throughout the thesis, the reverse implications which do not hold good are substantiated by suitable examples.

The composition of two intuitionistic fuzzy β^{**} generalized continuous mappings and intuitionistic fuzzy β^{**} generalized closed mappings are not preserved.

The future research directions based on this research work may be extended as follows :

1. The notion of intuitionistic fuzzy β^{**} generalized closed sets can be extended to nano topological spaces and cubic topological spaces.

2. The theoretical developments studied in this thesis may be focused on the applications in medical diagnosis, sales analysis, new product marketing, financial services.
3. Different types of intuitionistic fuzzy β^{**} generalized continuous mappings can be studied for separation axioms, homeomorphisms, compactness in intuitionistic fuzzy topological spaces.