

Summary and Conclusion

SUMMARY AND CONCLUSION

Soft sets and soft topological spaces has become an important area of research in different disciplines such as Engineering, Medical Science, social Science, Physics, Statistics, Graph Theory, Signal Processing, Pattern Recognition, Computer Networks, Expert Systems, Decision Making and so on.

This thesis is devoted to the study of

1. Soft sets and soft topological spaces
2. Soft mappings on soft topological spaces.
3. Soft Hausdorff spaces
4. Soft compact spaces
5. Soft connected spaces
6. Generalizations of soft open and closed sets, soft functions, soft compactness and soft connectedness.

Preliminary definitions and notations regarding soft sets are given in chapter I.

In the second chapter, the concepts of soft open set, soft closed set, soft closure and soft interior of a soft set, soft subspace, soft neighborhood and soft continuity are studied with interesting properties.

Soft continuous mapping, soft open mapping, soft closed mapping, soft homeomorphism, soft pu -continuous mapping are introduced and studied in chapter III. Also interesting characterizations regarding soft continuous mappings and soft pu -continuous mappings are proved.

In the fourth chapter the definition of soft Hausdorff space is given with an example. Also the definition of diagonal soft set is given and the concept of soft Hausdorffness is characterized with this diagonal soft set.

Soft compact spaces are studied in chapter V. The concept of soft compactness is introduced and some interesting results are proved.

In the sixth chapter the concept of soft connectedness is introduced with interesting properties.

In the seventh chapter semiopen and semiclosed soft sets in soft topological spaces are introduced. The properties of semiopen soft sets, semiclosed soft sets, semi interior and semi closure of soft sets in soft topological spaces are studied. The definitions of soft semi continuous, soft irresolute, soft semiopen function, soft semiclosed function are introduced and characterized. The concepts of soft semi compactness and soft semi connectedness are introduced and characterized.