

## *Summary and Conclusion*

## SUMMARY AND CONCLUSION

Soft Set Theory and Fuzzy Set Theory are mathematical tools dealing with uncertainties. Both have rich potential for application in solving real life problems.

In this thesis Fuzzy Soft Sets, Fuzzy Parameterized Fuzzy Soft Sets, Interval-Valued Fuzzy Soft Sets, Fuzzy Parameterized Interval-Valued Fuzzy Soft Sets, Generalised Fuzzy Soft Sets and Generalised Interval-Valued Fuzzy Soft Sets are studied with some of its applications to real world problems.

Basic definitions and properties with interesting examples regarding Fuzzy Soft Sets, Fuzzy Parameterized Fuzzy Soft Sets, Interval-Valued Fuzzy Soft Sets, Fuzzy Parameterized Interval-Valued Fuzzy Soft Sets, Generalised Fuzzy Soft Sets and Generalised Interval-Valued Fuzzy Soft Sets are studied in chapters I, II, III, IV, V and VI respectively.

In the real life situations there are vast numbers of problems that warrant rational, logical and scientific decisions that fit best for the accomplishment of desired objective. Application of mathematical concepts facilitates the authorities concerned to analyze the issues scientifically and arrive at most reliable decision. The concept of Fuzzy Soft Sets has rich potentials for developing such decision making models suitable for personal, social, technical, economical, commercial and managerial issues.

The following are the applications of Fuzzy Soft Sets in real life problems studied in this thesis:

- 1) Application of Fuzzy Soft Sets to Investment Decision Making Problem.
- 2) Small-Scale Business Opportunities for Women Entrepreneurs – A Decision Making Model Using Fuzzy Soft Sets.

**3) Application of Interval-Valued Fuzzy Soft Sets in the analysis of the Factors Influencing High Scores in Higher Secondary Examinations.**

The details of these applications are presented in chapters VII, VIII and IX respectively.

It is a good research work to study various real life situations by applying the different forms of Fuzzy Soft Sets.