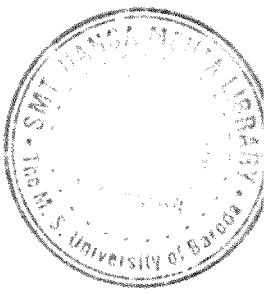

CHAPTER - 5
CONCLUSION

The object of the work was to develop a software to compare fabrics for their mechanical and thermal comfort. **FabCOM – Fabric comfort by Objective Measurements** has been developed for this purpose.

Features of this system are

- By this technique, comparison of fabric for comfort is reliable. Due to non involvement of any subjective assessment, this system may be acceptable to any place or market situation. The drawback of KESF system's regional influence on fabric grading is thus eliminated by objective assessment.
- Fabric comfort assessment becomes easily accessible. Fabric properties tested on any testing instruments (in terms of the measurement units specified in this system) can be used by the system. This over come the limitation imposed by KESF or FAST systems to use their set of instruments.
- It is a simple technique. Fabric properties are tested using simple instruments and techniques. Thus with minimum infrastructure and cost testing facilities can be developed in existing textile laboratories.
- Though the regression equations used in the development of software are based on data of Polyester-Viscose blend suiting fabrics, the use of linear regression makes it feasible for other fabrics too. Any chance of occurrence of error would affect both the fabrics evaluated and thus comparison becomes valid.

Thus this system may prove helpful in design and development of new products and techniques in spinning, weaving as well as processing.

It has scope in the areas such as

- Introducing new fibres or blends, Variation in m/c parameters etc in spinning department. The ultimate effect of these variations on fabric performance may be compared.
- Developing new designs by manipulation of weave structure viz. sett and type of weave etc., assessment of weaving machine performance i.e. effect of weaving tension, type of let-off etc. can be evaluated in terms of fabric characteristics.
- Optimization of chemical and process sequence in processing of fabric.

All these change are routine in textile industry. Sometimes it creates confusion between the produces and the clients. The system provides to compare the new product after the trial with original fabric. The results from this system would be acceptable to both because of it truly objective in nature.