ACKNOWLEDGEMENT

I wish to put on record my deep sense of gratitude to **Prof.** (Dr.) Someshwar Bhattacharya of Department of Textile Engineering, the Maharaja Sayajirao University of Baroda, Vadodara, for his invaluable guidance and constant involvement throughout the course of this work. It is due to his tireless supervision that this work has developed into its present form.

I thank Prof. (Dr.) D.K.De for his kind help in times of need. I am very grateful to Mr.Sanjay Patel, Director of Nita Textiles, Surat for the donation of Assembly winder, spares required during fabrication work and providing facility for conducting weaving of yarn samples.

I like to express deep sense of gratitude to Mr. B.G. Nanavati, Vice president and Dr. K.N. Bhawmik, Senior manager (QC) of Modern Petrofils Ltd. Vadodara, for granting permission for carrying out testing work. I am very much thankful to Mr.Asim Pan and all members of Reliance Industries, who have helped me directly or indirectly in getting the raw material for the experimental work, conducting confirmation tests for yarn samples as well as fabric samples and availing authentic standards and values for commercial texturising systems. I like to be thankful to Mr.Shailesh Bhagat of Gupta dyeing industry and Mr. Oam Sinha of Priya Dyeing, Surat for carrying out dyeing of my grey fabric samples and providing their valuable suggestions during the course of research.

I am grateful to Mr. Aarif of Chem Tex laboratory Surat for carrying out evaluation of my yarn and fabric samples free of cost.

I also express my gratitude to Mr. Mrudang Parikh of M/s Vraj Textpart Pvt. Ltd., Ahmedabad, the fabricator of Mechanical Bulking Apparatus.

I am very grateful to all staff members of Department of Textile Engg., M.S.U of Baroda, especially Mr. J.R. Vasava, Mr. K.J.Kharadi,Mr. N.K.Bhangole, Mr. B.J. Rathwa Mr.K.K.Panchal and Mr. K.L.Pawar (spinning department) for their valuable assistance. I specially acknowledge Mr. B.B. Shah and Mr. D. Solanki (Testing department); for their valuable devotion in testing of samples. I am thankful to Mr. D.J. Chudasma of Textile Engineering Department for helping me in preparing photography of yarn samples as well as fabric samples.

I am thankful to Dr. Agnihotri Head of NLRC Arvind mills for granting me the permission for using NLRC library. I am also thankful to Mr. Amit Pal and Mr. Vijaybhai Shah of Arvind mills for providing their help in literature survey.

This type of research work naturally draws information from many standard publications on this subject. I am grateful to all these publications and express my sincere thanks.

I also express very special thanks to all teachers of Textile Engineering Department for their good support, co-operation and suggestions provided during the experimental work. I am thankful to my friends who have relieved my stress by their help and moral support.

Last but not least, I wish to express my deepest gratitude to my family members, especially my daughters for their sacrifice, encouragement, interest and moral support in this work, without which this work cannot be materialized.

> Mrs. Tasnim N. Shaikh Baroda-2009