ACKNOWLEDGEMENTS

The author wishes to express his deep sense of gratitude to Prof. N.S. Pandya, M.Sc., Ph.D. (London), for his continuous guidance, keen interest and excellent facilities provided during the course of the work. The author is specially indebted to Dr. A.P. Balasubramanian for his help and fruitful discussions.

It is a pleasure to thank Dr. B.S. Shah, Messers R.K. Shukla, P.P. Mathews, V.R. Mathrubhuteshwaran, Miss Elizabeth Mathai and other research colleagues of mine for the help rendered in various forms in the course of the work and in the preparation of this thesis.

The co-operation of the staff of Central Workshop during the period of this work is appreciated.

The author is thankful to the Council of Scientific and Industrial Research for the award of a Junior Research Fellowship during the tenure of this work.