ACKNOWLEDGEMENT

It is my great pleasure to record my profound gratitude to my research supervisors, Dr. Dilip Pangavhane, Principal, K.J. Somaiya Institute of Engineering and Information Technology, Mumbai, India and Dr. T. P. Singh, Director, Symbiosis Institute of Technology, Pune. I am indebted to them for their constant inspiration, immense help, incisive comments, invaluable guidance and constant encouragement throughout the course of investigation by sparing their valuable time in spite of extremely busy schedule and painstaking efforts in thoroughly going through and improving the manuscript without which this work would not have been completed.

I am obliged to my colleagues Prof. B.L. Singhal, Col. O.P. Misra, Col. Nitin Solke and Prof. Mandar Sapre, for supporting me in every possible way and providing all the facilities, help and encouragement for carrying out this research work.

I thank my parents whose love and affectionate blessings have been a constant source of inspiration in making this manuscript a reality. I am thankful to my wife Nisha for her affectionate support during the completion of the work.

I would also like to express my sincere thanks to all my friends for their constant encouragement and support during the completion of this thesis.

(Abhisheet B. Auti)