ACKNOWLEDGEMENTS

I am deeply indebted to my beloved research supervisor Prof. K. Suvarna, Chairperson, Board of Studies, Department of Mathematics, Sri Krishnadevaraya University, Anantapur for her valuable guidance, constant encouragement, care and affection in the execution of this thesis to successful completion.

I am thankful to Prof. R. Siva Prasad, Head, Department of Mathematics, Prof. D. V. Krishna (Rtd), Prof. K. L. Narasimha Rao (Rtd), Prof. D. R. V. Prasada Rao, Prof. P. Narashima Rao, Prof. U. Rajeswara Rao, Dr. A. Mallikarjuna Reddy, and Dr. G. Shobha Latha for their help and valuable suggestions during my research.

I also express my sincere thanks to Prof. K. Ramakrishna Reddy, Head, Department of S. K. I. M, and Dr. D. Sai Baba Reddy, Principal, S.K.I.T., for their constant help and suggestions in my course of research work.

There are no words to express my deep sense of gratitude to my father Sri. V. Malakondaiah, my mother Smt. V. Venkatamma, and all my family members and relatives for their encouragement and cooperation at every stage of my work.

I take this opportunity to express my gratitude to my beloved teachers Sri. Ch. Narayana garu, Sri. J. Ramanaiah garu, Sri K. Narasimha Murthy garu, and Sri. K. C. Krishnaiah garu for their constant cooperation and encouragement.
I am particularly grateful to Prof.I.R.Hentzel, Dept.Of Mathematics, Prof.D.P.Jacobs, Dept.of Computer Science, Iowa State University, Iowa, USA, Prof.H.F.Smith, Dept.of Mathematics, The University of New England, Australia, Dr.Steven D Nimmo, USA, who helped me in collecting the literature.

My acknowledgements would not be completed if I do not mention in particular the help rendered in terms of time and academic services of my research colleagues Mrs. D.Bharathi, Mr. C.Jaya Subba Reddy, Mrs. Sarada, Mr. A.sree Vallabha Reddy, Mr.S.Ravi Kumar, Mr.P.Reddaiah, Mr.M.Siva sankara Reddy, Mr.T. Suresh, Mr.G.P.Viswanatha Reddy, Mr. N.Ameer Ahmmad, Mr. G. Prabhakar Rao, Mr.M.Veera Krishna and Mr.D.Prabhakar for their cooperation in the course of this work.

I take this opportunity to express my thanks to my friends A.Narendra, K.Guravaiah and his family, V.VenKatesh, Dr.T.C.Krishnaiah, Dr.T.Ramadevi, R. R. Ramesh Reddy, K.Vanitha, P.Ashok babu, N.Siddaiah, L.V. Subramanyam, P.Bhaskra Chary, J.Mahesh, V.Mahesh, B.Ramesh, B.Mahesh, T.Vasanth kumar, G.Madhusudhan Reddy, K.Thirupathaiah, Ch.Hazarathaiah, B.Venkatanarayana, Narasimhulu, Sankar Reddy ,Ramana, Thippaiah Swamy for their encouragement throughout the work.

I am thankful to the authorities of SRI KRISHNADEVARAYA UNIVERSITY for providing necessary facilities to carryout my research work.

I express my sincere thanks to Correspondent, principal and all staff members of GATES INSTITUTE OF TECHNOLOGY, GOOTY, for their moral support.
I am thankful to K. Vijaya Bhaskara Reddy, M.Subramanyam and M.Kristappa, Department of Mathematics for their cooperation throughout this work.

Finally my thanks to S. Venkata Swamy, Programmer for typing this work neatly.