ACKNOWLEDGEMENTS

I am proud enough to express my cordial gratitude to my research guide and supervisor Prof. S. SREENADH, Head, Department of Mathematics, Sri Venkateswara University, Tirupati, for his exquisite and exemplary guidance, high priced interpose and proposition untiring efforts and personal interest shown through the execution of this research.

I am grateful to Prof. P. V. ARUNACHALAM, former Vice-chancellor of Dravidian University, Kuppam for his encouragement and inspiration.

I am thankful to Prof. A. RAMACHANDRA RAO, Department of Mathematics, Indian Institute of Sciences, Bangalore, for his advice and encouragement.

I express my deep sense of gratitude to principal Prof. K. JAYANTRY RAO, S. V. U. college of Sciences, for his keen interest and for providing necessary facilities.

I express my sincere thanks to Prof. N. BHASKARA REDDY, Chairman, Board of Studies, Department of Mathematics for his constant encouragement.

I express my indebted thanks to Prof. K. RAMAKRISHNA PRASAD, Prof. M. Sundara Murthy, Prof. S. Venkata Ramana, Sri K. M. Bhanu, Prof. S. V. K. Varma, Dr. G. Viswanatha Reddy, Dr. D. V. Sugunamma, Dr. D. Bharathi, Dr. C. Jayasubba Reddy Department of Mathematics, Sri Venkateswara University, Tirupati for their help and encouragement.

I thank all the non-teaching staff of the Department for their co-operation.

I express my indebted, sincere thanks to Dr. T. Gowri manohar, Department of E. E. E, Sri Venkateswara University, Tirupati for their help and encouragement.
I express my heartfelt gratitude to my wife Mrs. K. Suchitra, my daughter Chi. A. Kamya, my father Sri A. Chandra babu and my mother A. Imbavalli, who co-operated me for their affectionate encouragement and moral support in carrying out this research.

I should render my deep sense of gratitude to and my father in-law Sri. K. Choleswaraiah S.I of Police, mother in-law K. Syamala, daughter in-law, Chi. K. Rayna and also my brother in-laws K. Damodaram, K. S. Harinadh, sister in-law S. Muni Rajitha, uncle Chinnamguri Ramana, A.E.O, T.T.D and other family members for their moral support and constant encouragement through out my career.

I express my heart full thanks Mrs. Sreenadh garu for her maternal affection, encouragement and blessings.

I thank my friends, Dr. A. N. S. Srinivas, Dr. K. Rajanikanth, Dr. R. Hemadri Reddy, Dr. K. Chakradhar, Dr. P. Lakshminarayana, G. Bhaskar Reddy, R. Saravana, CH. Badrinarayana, D. Venkateswarlu Naidu, P. Govindarajulu, M. Arunkumar and E. Sudhakar, for their encouragement and help.

I express my sense of obligation to one of the Management members Sri. S. Venkata Subaiah garu and college friends, B. Purusotham, Srivasthava, Ragavendra, Ganesan, Gopinath, Srinivasulu, Prabhudas, Udayasekhar, Principal, and especially J. Prabhakar Naik and others...in, VITT, Tanapalli, Tirupati, A.P. for their encouragement.

Above all, I bow my head before LORD SRI VENKATESWARA for his gracious blessing which enable me to complete this critical task successfully.

(A. PARANDHAMMA)