ACKNOWLEDGEMENTS

It is really a great pleasure to express my heartfelt gratitude to my respectful guide and motherlike Dr. (Mrs.) Padmanavathamma, Professor, Department of Studies in Mathematics, University of Mysore, Mysore for her immense support and valuable guidance. I am very grateful to my Guide for her cordiality and co-operation extended to me in this endeavour.

I would like to express my thanks to the Department of Science and Technology, New Delhi for the financial assistance and appointing me as Junior Research Fellow. Without this I would not have been able to complete my research work.

I am highly indebted to Professor George E. Andrews, Professor of Mathematics, Pennsylvania State University, USA, Professor Krattenthaler, Institut Girard Desargues, Université Claude Bernard Lyon-I, 21, avenue Claude Bernard, F-69622 Villeurbanne Cedex, France, Professor Jeremy Lovejoy, LIAFA – Université Denis Diderot Case 70142, Place Jussieu, 75251 – Paris Cedex 05, France, Professor N.Robbins, Mathematics Department, San Francisco State University, San Francisco, CA 94132, USA, Professor R.Y.Denis, Department of Mathematics, University of Gorakhpur, Gorakhpur, India, Professor A.K.Agarwal, Centre for Advanced Study in Mathematics, Panjab University, Chandigarh, India, for their timely advice, valuable suggestions and comments.

I am thankful to the Chairman, teaching and non-teaching staff of our Department for their wholehearted support during my studies.

It gives me immense pleasure to acknowledge my senior Dr. Ruby Salestina, Lecturer in Mathematics, RV College of Engineering, Bangalore, for her cooperation and support during my research work. I also thank my friend Mr. S.R. Sudarshan, Lecturer in Mathematics, PESIT, Bangalore, for his valuable assistance in computer programming. Also my thanks go to my co-researcher Mr. B.M. Chandra Shekara and to Mr. Rajeshkanna, for their lively company during this work.

Last but not the least, I owe my special thanks to my family members and relatives for their support and encouragement, without which I could not have dreamt of completing this formidable task.