ACKNOWLEDGEMENTS

I am immensely grateful to Dr. Mahanta Kumar Kalita, Administrative Officer, Institute of Advanced Study in Science and Technology, Assam Science Society and Dr. K. Rajendra Singh, Professor and ex-Head of the Department of Mathematics, Gauhati University for their consistent and careful supervision of the work presented in this thesis. This work would not have been possible to complete without their able and dynamic guidance.

I gratefully acknowledge the help rendered by Dr. M. Dutta, Head of the Department of Computer Science and his assistants, Gauhati University in computing some of the results in connection with the thesis.

I am thankful to Prof. D. Goswami, Prof. R. Bhattacharjee, Prof. D. K. Sarma, Prof. M. K. Dey, Prof. A. K. Pathak, Prof. B. Medhi, Prof. D. Medhi, Prof. D. Bhattacharyya and Sri N. Deka for their constant encouragement towards the completion of the thesis.

I would like to extend my sincere thanks to Dr. K. D. Krori, Dr. K. M. Pathak, Dr. B. K. Tamuli, Dr. B. C. Deka, Dr. U. N. Das, and Dr. P. Goswami for innumerable stimulating discussions, I had with them.

I also extend my sincere thanks to Dr. M. N. Barua, Dr. B. P. Chetia, Dr. A. D. Misra, Dr. (Miss) A. Bezbarua, Dr. B. N. Mena, Dr. N. R. Das, Dr. K. Choudhury, Dr. (Mrs) R. Choudhury, Dr. T. K. Dutta,
Dr. K. Barman, Dr. B. C. Goswami, Dr. M. M. Goswami, Dr. R. Barman, Dr. (Mrs) P. Sharma and Dr. D. Nath for their constant encouragement.

My sincere thanks go to Sri S. Das, Sri A. Das and Md. Q. Ali for their help rendered to me in typing the thesis.

I would like to acknowledge Mrs. M. Kalita for her warm hospitality during the time of writing the thesis.

I am greatly indebted to my wife Mrs. D. S. Kalita for her inspiration and sacrifice done towards the completion of my thesis.

B. C. Kalita
(B. C. Kalita)