ACKNOWLEDGEMENT

The author takes this opportunity to record his profound respect and deep sense of gratitude and indebtedness to Dr. D. Dutta Majumder and Dr. B.B. Chaudhuri, Electronics and Communication Sciences Unit, Indian Statistical Institute, Calcutta, not only for their valuable guidance but also for their constant inspiration to complete the work.

Invaluable discussions with Mr. C.A. Murthy and Mr. P.C. Mali are gratefully acknowledged. Thanks are due to Mr. R. Kundu for his help in programming. He also extends his thanks to Computer Science Unit and Reprography Unit of ISI for their valuable assistance in printing the images.

Heartfelt thanks are due to Mr. A. Chatterjee and Mr. T. Bhattacharya for their co-operation in various respects during the preparation of the Thesis. Thanks are also due to Mr. J. Gupta for typing the manuscript and Mr. S. Chakraborty for drawing the figures.

The encouragement and inspiration extended by the author's friends and colleagues, especially Mr. A.K. Datta, Dr. J. Das, Mr. N.R. Ganguli, Mr. B. Mukherjee, Dr. S.K. Pal, Dr. S. Ray, Mr. S.N. Biswas, Mr. K.S. Ray, Mr. M. K. Kundu, Mr. A. De, Mr. S.L. Kundu, Mr. S. Majumder, Mr. S.K. Parui,
Mr. S.E. Sarma, Mr. B. Bhoumik, Mr. S. Dasgupta, Mrs. B.
Chakraborty, Miss. A. Roy, Mr. P. Sengupta, Mrs. S. Dey
Bhoumick, Mrs. D. Satt and Mr. K. Sarkar are gratefully
acknowledged.

The author's thanks are also due to Indian Statistical
Institute for their support to complete the research work by
providing a fellowship and other facilities available in the
institute.

At last, but not the least, the author thanks his
friends and relatives for their good wishes.