ACKNOWLEDGEMENT

The author expresses his deep sense of gratitude and indebtedness to Dr. M. Karmegam, Director, Centre for Water Resources, Anna University, Chennai, for his scholarly guidance, keen interest, support and kind efforts in steering this research work.

The author is immensely grateful to Dr. S. Thiruvengadachari, Ex. Group Director, National Remote Sensing Agency, Hyderabad, India and Dr. K. Elango, Professor, Indian Institute of Technology, Madras for their constructive criticism and inspiring suggestions during this research as members of the Doctoral Committee.

The author is extremely thankful to Dr. K. Venugopal, Director, Institute of Remote Sensing, Anna University for the facilities and data products provided throughout the course of this research.

The author is thankful to Mr. A. Ravindran, Scientist, Institute of Remote Sensing, for his suggestions to carry out this research work. Grateful acknowledgement for the data used in this study is due to the engineers and field staff of Public Works Department, Central Ground Water Board and Tamil Nadu Water Supply and Drainage Board.

The author whole-heartedly acknowledges the moral support and encouragement rendered by his wife and daughter. The author is grateful for their patience and cooperation throughout the course of this work.