ACKNOWLEDGEMENT

The author expresses her deep sense of gratitude to Dr. M. Karmegam, Director, Center for Water Resources, Anna University, for his scholarly guidance, unlimited support and meticulous supervision.

The author is indebted to the doctoral committee members Dr. T. Natarajan and Dr. S. Thiruvengadachari for their continuous monitoring and constructive criticism. The author also records her immense gratefulness to Dr. Peter Hoffman, Definiens Gmph, Dr. M. V. J. M. Lemmens, Delft University, and Dr. S. K. Pathan, Space Application Center, for their useful suggestions at the hours of need.

Thanks are also due to Dr. S. Thayumanavan, Head of the Department, Civil Engineering Department, Anna University, for his support and encouragement.

The author is immensely grateful to the Director, Institute of Remote Sensing, Anna University, for his support. She thanks all her colleagues in the Department of Civil Engineering for their cooperation.

Special thanks are due to her family members for their unabated enthusiasm and understanding. The motivation created by her parents and the confidence instigated by her husband are gratefully acknowledged. An exclusive appreciation and acknowledgement are due to her daughter for her patience making this a pleasant experience.