

AKNOWLEDGEMENT

First I would like to express my deep gratitude to my supervisor Professor Munindra Borah, for his patience, faith, encouragement, advice, support and many hours that he has spent on me to develop my style as a researcher.

I would like to thank Professor Debajit Hajarika and Professor Munmun Hazarika for being my DC committee member. Many thanks to Dr. Bhim Prasad Sarmah (Head, Department of Mathematical Sciences, Tezpur University) and all my respected teachers and staff members of the Department of Mathematical Sciences, Tezpur University for their encouragement in pursuing this research work and providing the necessary facilities.

I would like to thank my parents for their love and support. I am especially grateful to my sisters for support so that I could concentrate only on my research work.

I would like to thank all my respected teachers starting from the primary school to the University.

Thanks to all other research scholars at Department of Mathematical Sciences, Tezpur University for the nice environment.

I thank Tezpur University for providing me the institutional fellowship during the first sixteen months of my research.

I thank Girijananda Chowdhury Institute of Management and Technology-Tezpur, and my colleagues for supporting me in my research work.

Finally, I thank the almighty God for always being with me.

(KRISHNA RAM SAIKIA)