

Acknowledgment

It's great pleasure for me to express my gratitude to all of them who have provided me guidance and support in bringing out successful completion of my doctoral program at Tezpur University. It would not have been possible for me to achieve success with my effort alone. There were a lot of people who extended their supportive hands towards me in the way of making my work a success. I would like to thank everyone who supported and assisted me while carrying out this work at Tezpur University.

First of all, I would like to thank to my supervisor Prof. Malay Ananda Dutta for his constant support, trust, valuable feedback, encouragement, innumerable advice and overall guidance. He gave freedom to pursue my ideas and work at my own pace, and was always available to discuss various problems on the way. I enjoyed spending these years with him both at work and otherwise. I would also like to extend my sincere thanks to Prof. D.K Bhattacharyya for his encouragement, feedback and valuable advice which have provided a good basis for completion of my research work.

I would like to acknowledge my sincere thanks and gratitude to Dr. Bhogeswar Bora and all the doctoral committee members of my research for their valuable comments and suggestions. I would also like to place on record the help and support received from the members of the faculty, Department of Computer Science and Engineering time to time with a special mention of a few - Prof. Nityananda Sarma, Prof. Shyamanta M. Hazarika, Dr. Sarat Saharia, Prof. Smriti Kr. Sinha, Prof. Utpal Sharma, and Prof. Dilip Kr. Saikia. I extend my sincere thanks to other members of the department specially Sanjib Kr. Deka, S. I. Singh, Dr. Debasish Das, Debojit Boro, Sanghamitra Nath, Dr. Arindam Karmakar, Dr. P Dutta, Dr. Bhabesh Nath and the non-teaching staff of the Department, for their generous help in various ways towards the completion of the work. I wish to place on record my sincere thanks to the members of my thesis review committee and the anonymous reviewers for their precious comments and feedback.

I am highly grateful to Dr. Biren Das, Registrar, Tezpur University, for his help, support and encouragement while carrying out this work.

A very special mention for my parents and my uncle who have been constantly encouraging and supporting me in every walk of my life. I will ever remain grateful to my sister, Rip, Riyam and in-laws for their unconditional love and

support.

I am deeply indebted to my wife- *Krishna* and my son- *Dapon*, whose unending help, inspiration, understanding, and love made me pursue my dreams.

Finally, I would like to thank all those who have directly or indirectly helped me in different capacities to complete my research work.

Rajib Goswami