## Acknowledgement

First of all, I would like to express my jovial gratitude to my supervisor, Dr. Paresh Chandra Jana for his valuable guidance, motivation, suggestions, encouragements and continuous support.

I would like to thank to the members of Ph. D. committee for taking necessary steps and decisions.

I am also grateful to Dr. Tapas Ghosh for initial support and encouragements.

I also thankful to Bappa Bisui, IIT Bombay for his kind support via different journal papers, software etc.

I would like to thank Mr. Susanta Kumar Ghorai for giving me time to time essential information and official support, which helped me for smoothly running my Ph. D. work.

I am very much indebted to my grandfather, my grandmother, my parents, my family members and friends, who encouraged and helped me in every possible ways to progress my research work.

Finally, I thank to all who have supported me by any way, during my research period.