ACKNOWLEDGEMENT

It is difficult for me to express in words, my profound sense of gratitude towards my supervisor Professor K.K. Bharadwaj. I am overwhelmed to recall all the generosity, affection and help, which I received from him during the course of this work. His moral strength and courage have been a source of constant inspiration for me. The present work would have been impossible without his constant encouragement and support. Prof. K.K. Bharadwaj not only provided constant and excellent guidance, but also initiated me to a rigorous scientific discipline. He constantly exposed me to the intricacies and possibilities within my subject. His attention in the research world and his indefatigable zeal and dynamism, will forever remain goals for me to emulate.

I should not forget to extend my thanks to all the faculty members of the School of Computer and Systems Sciences for their help and friendly relation. I thank also all my friends for their constant support and encouragement throughout the preparation of this thesis.

Finally, I should not deny that I owe my parents the work of this thesis which without their love and continuous support, morally and financially would have not appeared.

Nabil Mahmoud Hewahi