

# Acknowledgments

First and foremost I would like to thank God for giving me the strength and courage for completing this research. Secondly, I would like to thank my wife, my children and my dearest family members who have been supporting me all the way.

I would like to take this golden opportunity to express my sincere thanks to both my supervisors, Professor Dr. Keshav N. Shrivastava for sharing his knowledge and expertise and Associate Professor Dr. Hasan Abu Kassim for his kind cooperation and useful discussions. I am grateful to my best friend Dr. Ahmad Nazrul Rosli for his assistance in writing thesis.

To all members of the theoretical physics laboratory, Dr. Norhaliza, Anwer, Lokman, Azni and Sofiah thank you very much for your help and friendship.

I express my gratefulness to the Head of the Physics Department, Professor Datin Dr. Saadah Abdul Rahman .

Last but not the least, I would like to express my thanks and appreciation to the University of Malaya, for give me the opportunity to complete a PhD in it.