ACKNOWLEDGEMENT

First and foremost, I acknowledge the abiding presence and the abounding grace of our Lord God Almighty right through the course of this work.

I am deeply grateful to my guide and supervisor, Dr. Sakuntala. S. Pillai, Former Director, L.B.S Centre for Science and Technology, Thiruvananthapuram and present Professor and Head, Department of Electronics and Communication Engineering, Mar Baselios College of Engineering, Nalanchira, Thiruvananthapuram, for her scholarly guidance and dedicated support during the course of work. She has been an invaluable source of knowledge and she took wholehearted and sincere interest right from the selection of the topic of research till the completion of the thesis.

I would like to thank Prof. K. Narayanan, The Director, L.B.S Centre for Science and Technology, Thiruvananthapuram, for his support and for providing the facilities needed for carrying out the thesis work during this period.

Last but by no means least, I would like to thank my family members for their continued support, encouragement and sacrifice throughout the years, and I will be forever indebted to them for all that they have done.