ACKNOWLEDGEMENT

I solemnly express my earnest and humble thanks to my Supervisor Dr. A. Chandra Sekar, Professor of Computer Science and Engineering for his valuable guidance, suggestions, constant support and encouragement throughout the period of this research work.

I am grateful to Dr. K. Selvamani Assistant Professor Department of Computer Science and Engineering, College of Engineering Gundy, Chennai and Dr. V. Cril Raj, Dean (E&T), Dr. MGR Educational and Research Institute, Chennai for their untiring efforts throughout my research.

I also extend my heartfelt thanks to Dr. V. Rhymend Uthariaraj, Professor and Director, Ramanujan Computing Center, Anna University, Chennai and all the teaching faculty members of the Ramanujan Computing Center for their concern and timely help during the research period.

I am extremely thankful for the encouragement and co-operation of my spouse, daughter, mother and dedicate this work to my late father without which this work would not have been possible.

ANBUCHELIAN S