ACKNOWLEDGEMENT

The author expresses his sincere thanks and gratitude to his Research Supervisor Dr. D. Mary for his valuable suggestions, guidance and constant support. Her intellectual inquiry, friendly approach and sustained encouragement catalyzed the progress of the research work.

The author gratefully acknowledges the Doctoral Committee members Dr. Jovitha Jerome, Professor and Head, Department of Instrumentation and Control Engineering, P.S.G. College of Technology, Coimbatore and Dr. S. Vasantha Rathna, Professor and Head, Department of Electrical and Electronics Engineering, Coimbatore Institute of Technology, Coimbatore for their valuable suggestions and evaluations to strengthen the academic value of this research work.

The author acknowledges the reviewers of the research publications and conferences for their valuable comments. Finally the author expresses his sincere appreciation to all his family members for their co-operation and encouragement.

SAKTHIVEL S