ACKNOWLEDGEMENT

It is my great pleasure and privilege to express profound indebtedness to my guide **Dr.K.Perumal M.Sc.,Ph.D.,** for his unstinted guidance, everlasting inspiration, stimulating discussion, valuable supervision and unfailing help at all stages of this work.

I wish to record my humble and reverential gratitude to **Dr.D.Subhakar M.E.,Ph.D.,** Agency for Nonconventional Energy and Rural Technology (ANERT),Thiruvananthapuram-695004 who has helped the theoretical study of this work His scholarly advice and encouragement brought this work a fruitful one.

Grateful thanks are to **Swami Atmaramanandaji,** Secretary, **Swami Thanmayanandaji,** Former Secretary, Sri Ramakrishna Mission Vidyalaya, **Dr.K.Kulandaivel,** Secretary, **Swami Purnajnananandaji,** and **T.S.Ramaswamy,** former Principal, Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore- 20 for their kind help and encouragement.

I express my sincere thanks to **Dr.S.Jayaraman M.Sc.,Ph.D.,** Principal, Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore- 20 for his timely help during the course of my project work.

I wish to record my profound thanks to **Dr.V.Srinivasan M.Sc.,M.Phil.,Ph.D(IISc).,** Head of the Department, Department of Physics, Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore- 20 who has motivated in this project work.

I wish to convey my heartfelt thanks to all the staff members of Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore- 20.

With deep sense of gratitude and profound sense of feelings, I acknowledge the support and able assistance rendered by all others towards the success of this project work.

R.JAYAPRAKASH