

## ACKNOWLEDGEMENT

The author deems it a veritable pleasure to record her heartfelt thanks to her supervisor, **Dr.G.Uma**, Associate Prof., PED, DEEE, Anna University for her invaluable guidance and magnanimous help to carry out the research work. Being a source of unlimited inspiration and uncompromising commitment, she has been the driving force behind the author in realising the fruits of this work.

It is a great pleasure to express the author's sincere thanks and deep sense of gratitude to **Dr.K.Murali**, Associate Professor, Department of Physics, Anna University for his excellent guidance, constant encouragement, thought provoking ideas and constructive criticism.

The author is thankful to **Dr.S.Usa**, H.O.D, DEEE, Anna University for providing the necessary facilities to carry out this research work. The author also expresses her gratitude to the Doctoral Committee members, **Dr.R.Ramanujam**, Retired Professor, Anna University and **Dr.N.Lakshminarasamma**, Assistant Professor, IIT Madras for their guidance.

Last but not the least, the author acknowledges her husband **Mr.K.Muthukumar**, her daughter **M.Harini**, her parents **Ms.P.Santha** and **Mr.P.Sankar**, her mentors **Dr.K.Dharmalingham** and **Dr.G.Sambandan** and her friends for their patience and moral support.

**DEIVA SUNDARI P**