

## ACKNOWLEDGEMENTS

The author takes this opportunity to express his deep sense of gratitude to **Prof. N. Manohara Murthy**, Professor of Physics, Sri Krishnadevaraya University, Anantapur for his inspiring guidance and constant help throughout the progress of the work.

The author express his heartfelt thanks to Prof. V. Rama Murthy, Professor of Physics, Prof. T.V. Ramakrishna Rao, Dean, Faculty of Sciences, Prof. E. Rajagopal, professor of Physics, Prof. V. Hyder Khan, former Chairman, Board of Studies in Physics, Prof. K.V. Sivakumar, Chairman, Board of Studies in Physics and Prof. D.V. Subbaiah, Head of the Department of Physics, SK University, Anantapur, who have rendered necessary facilities to complete this work. The author also thanks all the members of the Faculty of Physics, SK University for their help.

The author takes the opportunity to express his deep sense of gratitude to his parents Sri G. Durgaiah and Smt. G. Siddamma and to record his appreciation to his wife Smt. G. Prasanna for the inspiration provided to him throughout the progress of this work.

The author expresses his deep sense of gratitude to Sri I. Thirupelu Reddy, Correspondent and Sri M. Ramachandra Reddy, Principal, of SLS Degree College, Pullareddy Peta for the encouragement provided to him by according permission to go on FIP for completing the Ph.D. work.

The author is thankful to the University Grants Commission, New Delhi for the award of Teacher Research Fellowship (FIP) for carrying out the research programme.

The author is thankful to all his friends, Research Scholars of Physics and colleagues of SLS Degree College for their encouragement.

Mr. V. Sahadevan receives a special note of thanks for the diligence in computer print out of the thesis.

Finally, the author is obligated to the authorities of Sri Krishnadevaraya University, Anantapur for providing him necessary facilities to carry out the research programme.

**G. VENKATA RAMANA.**