ACKNOWLEDGMENT

I express my deep sense of gratitude to my research supervisor and beloved teacher Dr. C. Nagaraja, Department of instrumentation, Sri Krishnadevaraya University, Anantapur for his able and inspiring guidance and valuable suggestions throughout my research work.

I record my deep sense of gratitude to Prof. K. Malakondaiah, professor and chairman, Department of Instrumentation, Sri Krishnadevaraya University, Anantapur for his help and encouragement throughout my research work.

I am extremely grateful to Dr. Rama Murthy, Head: Department of instrumentation & University Science Instrumentation center, Sri Krishnadevaraya University, Anantapur for his help and co-operation.

I shall remain grateful to my beloved teacher Dr. K. Raghavendra Rao, department of Physics, Sri Krishnadevaraya University, Anantapur for his constant encouragement and valuable suggestions. He is a constant source of inspiration to me in all my endeavors.

I acknowledge my indebtedness to all those scholars whose works I have drawn upon. They have not only enriched by understanding the subject but also served as a source of inspiration.

M. Tanooj Kumar