Acknowledgements

We are just the live product of our parents. With heartfelt devotion, first I would like thankful to my parents blessings for this research work. Even though they are not educated and do not know anything about research, they provided me whatever the facilities they are able to give. I am grateful to my beloved brothers Shreenivasa, Narasimha and Mahalinga to their moral and financial support during my student life. I am also grateful to my beloved sister Varalakshmi to her moral support.

I would like to thank my guide Dr H Somashekarappa for his valuable guidance in this research work. Even though I have registered as a research student in Yuvarajas College, based on request, Prof R Somashekar has provided me the laboratory facility in Solid state physics research lab in the Department of Studies in Physics, University of Mysore, Manasagangothri and he has also helped me to carry this research work. So I would like to thank Prof R Somashekar for his support, encouragement and suggestions. The author wishes to record his thanks to Prof S N Gayathri, the principal, the teaching staff of Department of Physics and non-teaching staff of Yuvaraja’s college, Mysore for their support. I would like to express my thanks the Doctoral committee for their needful work. I would like to thank all the chairpersons of the Department of Studies in Physics, Manasagangothri, Mysore, who helped me to carry out this research work.

I thank Prof G Ramachandran and Prof K S Mallesh for initiating me into research. After my parents, my teachers strengthened my feelings on Physics and showed the way to carry this research work. With heartfelt devotion I would like to
thankful to all my teachers for their help and guidance.

I am thankful to Dr P Parameshwara, Dr S Divarakara and Mr. A R Niranjana for their encouragement and support as the research colleagues in the lab. I am also thankful to Mr. M B Nandaprakash and Mr. Tejas urs for their support in the lab. I would like to thank all non-teaching staff of the Department of Studies in Physics for their help. Finally I would like to thank each and every persons those directly and indirectly helped me during my research work.