

## Acknowledgement

Firstly, I would like to thank my Supervisor, Dr. R. K. Thapa for his endless support, patience, enlightening discussion and sparing his precious time for any works. Without his constant help and encouragements, this work would not have been possible. I thank him for teaching me how to do good, meticulous, and thorough scientific research. His efforts are on every page of this thesis.

I am thankful to all the teaching faculty of the Department of Physics, Mizoram University, Aizawl for their encouragement during the course of this Ph. D. work. My thank goes especially to Dr. Zaihanzauva Pachuau and Dr. B. Zoliana for giving useful help and suggestions.

I also wish to thank my colleagues Lalmanpuia, Sandeep, Dr. M.P.Ghimire and Dibya Prakash Rai for all the support and fruitful discussions. The discussions we had regarding our research works yield the completion of this work.

I take this opportunity to thank Department of Higher and Technical Education, Govt. of Mizoram for giving me the permission to carry out this research work. I also thank Mrs. Lalnangaihi Hrahnel, Principal, Govt. Zirtiri Residential Science College, Aizawl, for her support and understanding. Thanks are also due to the staffs of the GZRSC for their encouragement and moral support in the completion of this work.

My thanks are also due to Mrs. Kamala Thapa for her kind hospitality and also for constant encouragement when this work was in progress.

## *Acknowledgement*

I would like to express my deep sense of gratitude to my parents Mr. C. Rothanga (*who is Rest In Peace*) and Mrs. Romawii, from whom I have taken the words of God since my childhood days and for being the sources of suggestions and encouragement.

Once again, I would like to express my deep sense of gratitude to my wife Lynda Vanlalhruii for her constant moral support and encouragement without which this work could not have been completed.

Last but not the least, I thank God for always with me in every moment of time and all blessings bestowed upon me.

Dated: 5<sup>th</sup> May, 2011

Department of Physics,

Mizoram University, Aizawl

**( ROSANGLIANA )**