PREFACE

The present work embodied in this thesis involves four indigenous *Xenorhabdus* isolates and their identification and characterization by employing biochemical tests and molecular tools. The study also involved isolation, purification and characterization of an exo toxin from *Xenorhabdus* bacteria. The thesis is comprised of seven chapters. The following is the brief outline of the contents of each the above chapters.

Chapter one of the thesis is an introductory chapter. It deals with the life cycle of entomopathogenic nematodes and the associated bacteria. The taxonomy, pathogenicity, phase variation, virulence, specificity and secretion of toxin and secondary metabolites of *Xenorhabdus* bacteria are highlighted.

In Chapter two the relevant literature survey pertaining to the objectives and methodology employed in the study has been presented.

In Chapter three the relevant materials and methods followed in the study has been presented.

In Chapter four the results of the experimental investigation of various parameters involved in the study are presented. In addition to the tabulated data graphical and pictorial illustrations have been elucidated.

In Chapter five the results have been discussed with respect to the findings of similar studies published in literature.

In Chapter six the conclusions and future line of work is presented.

In Chapter seven the list of all references arranged in alphatical order is presented.