

Acknowledgement

The role of my research guide, Dr. N. Bagchi, Scientist, Mechanical Engineering Research & Development Organisation (MER, DO), Pune, in completing the present thesis needs no emphasis. I express my indebtedness to Dr. Bagchi for his continuous guidance and effective supervision during the entire course of this research work.

I am extremely thankful to Maj Gen (Retd) D Kapil, former Director of Armament Research & Development Establishment (ARDE), Pune for permitting me to carryout the research work at ARDE, and Dr. RK Sinha, Scientist-in-Charge, MER, DO, Pune for helping me in every possible way as and when required.

With deep sense of gratitude I would like to acknowledge the useful suggestions and valuable advise received time to time from Dr. SK Basu, Professor Emeritus.

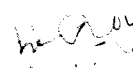
I wish to place on record my appreciations for the constructive cooperation, help and assistance rendered by S Shri AS Joshi, RK Pathak, MR Nanjoshi and BG Joshi in running the experiments; S Shri LP Kadam, NP Prakash Nair, LN Murali in preparing and printing the manuscript; and S Shri AP Lawgi, SA Bose, RJ Kenkre, VM Pangare and Ms NKasturi in providing secretarial support.

"Behind every success of a man, there are many able men". Thus, for successful completion of this Thesis there are direct and indirect contributions of many people. Although it is not possible to mention the name of each and every individual concerned, but certainly I gratefully realise the debt I owe to them.

I would like to take this opportunity to pay my tribute to Dr. SK Salwan, the present Director of ARDE for continuing to provide all necessary facilities and for his incessant encouragement in pursuit of knowledge.

Finally, I am tempted to quote what Sir Issac Newton once said, "If I have seen a little further, that is by standing on the shoulders of giants".

Dated : 12 June, 1997


(RK Roy)