ACKNOWLEDGMENT

It is indeed my fortune to have carried out this research work under the guidance of Dr. Lewlyn L. Raj Rodrigues, Head, Department of Humanities and Management, Former Professor, Department of Mechanical and Manufacturing Engineering, Manipal Institute of Technology, Manipal. His words of encouragement at each stage of the research work always recharged me with the driving force to proceed ahead. His guidance is imperishable and I wholeheartedly thank my guide.

I am deeply indebted to Dr. B. J. Ranganth, Dr. Raviraja Adhikari and Dr. M. Vijaya Kini for their valuable guidance and support as subject experts to carry out this research work.

I am thankful to Dr. Anjaiah D. Professor, Department of Mechanical Engineering, Manipal Institute of Technology, Manipal, for his support during the study of DOE subject.

I would like to thank Dr. Divakar Shetty S., H.O.D., Department of Mechanical and Manufacturing Engineering, MIT, Manipal and Dr. N. Yagnesh Sharma, the former H.O.D. for supporting and helping me during my work.

Dr. G.M. Tungesh and Mr. Praveen Shetty, Department of Humanities and Management, MIT, Manipal were kind enough to carry out the language related editing of the work reported in this thesis and the research articles connected with this work. I am very grateful to them.

I would wish to acknowledge the continuous support and understanding extended by the members of my family throughout the course of this research work.

I wish to thank all other individuals who have directly or indirectly helped me to complete my research work.

Date
MANIPAL

Murthy. B.R.N.