ACKNOWLEDGEMENT

I would like to express my deep sense of gratitude and sincere thanks to my Research Supervisor Dr. R. KESAVAN, Professor, Department of Production Technology, MIT Campus, Anna University, Chennai, for his valuable guidance and suggestions and encouragement throughout this research work.

I am very much grateful to my Doctoral Committee members, Dr. T.V. Moorthy, Retired professor, Department of Manufacturing Engineering, CEG Campus, Anna University, Chennai and Dr. T. Senthilvelan, Professor, Department of Mechanical Engineering, Pondicherry Engineering College, Pondicherry for their valuable suggestions and help given to me during this work.

My sincere thanks to Prof. A. Jothilingam, Head, Department of Production Technology, MIT Campus, Anna University, Chennai for his constant support, guidance and encouragement during my research in our department.

I thank Dr. S. Gajendran, Associate Professor, Department of Production Technology, MIT Campus, Anna University, Chennai for his valuable suggestions and support.

The author also thanks all the Staff members of department of Production Technology for their valuable help and cooperation throughout my research period in our department. The author finally thanks his wife Mrs. A.N. Rajathilagam for motivating him with her patience, sacrifice and love.

CHANDRASEKARAN R