ACKNOWLEDGEMENT

The author expresses his deep gratitude to his research guide Dr. S.Vijayarangan, Director (Academic), Dr.Mahalingam College of Engineering and Technology, Pollachi for his guidance and encouragement throughout this work. He is highly thankful to the Management of Dr.Mahalingam College of Engineering and Technology, Pollachi for providing the facilities to carry out this research.

The author places on record his sincere thanks to M/s Carborundum Universal Lmtd., Kalamassery, Kerala, for supplying the ceramic powder and M/s Indo shell, Coimbatore, for providing the aluminum castings and their testing facilities.

The author wishes to thank CLRI (Central Leather Research Institute, Chennai), Chemistry Dept., Anna University, Chennai, Cochin University, Cochin and Dept. of Mechanical Engg., IIT, Madras for providing the testing facilities. He expresses his gratitude to TVS motor company, Hosur, for providing the engine components and the IC engine for the performance tests.

VISWANATH B.