Declaration

I do hereby declare that the matter embodied in this thesis is the result of investigations carried out by me in the Department of Mechanical Engineering, Tezpur University, Tezpur, India under the guidance of Professor Tapan Kr. Gogoi, Professor, Department of Mechanical Engineering, Tezpur University.

In keeping with the general practice of reporting scientific observations, due acknowledgements have been made wherever the work described is based on the findings of other investigators.

Date:	Pranjal Sarmah
Place:	