



Declaration

I hereby declare that:

- i. the thesis comprises only my original work towards the PhD except where indicated,
- ii. due acknowledgement has been made in the text to all other materials used,
- iii. this work has not formed the basis for the award of any degree, diploma, fellowship, associateship or similar title of any University or Institution.

A handwritten signature in black ink, appearing to read "Archit A Yajnik".

Archit A Yajnik
Department of Applied Mathematics
Faculty of Engineering & Technology
The M. S. University of Baroda
Vadodara – 390 001