CERTIFICATE

This is to certify that the thesis entitled

A NEW WAVELET TECHNIQUE USING PRECONDITIONING AND SPARSENESS STUDIES FOR THE NUMERICAL SOLUTION OF ELLIPTIC PARTIAL DIFFERENTIAL EQUATIONS

is a piece of the research work done by **Ms. Sapna Somani** under my guidance and supervision for the award of degree of Doctor of Philosophy in Applied Mathematics. The work is original and several papers based on the present investigation have been published in the international and national journals and conferences.

Dr. Dhanesh P. Patel
Reader
Department of Applied Mathematics
Faculty of Technology and Engineering
The M. S. University of Baroda
Vadodara
June 3, 2005.