Certificate

This is to certify that the dissertation entitled "A NEWMAN AND PENROSE TYPE TETRAD FORMALISM", submitted by Ms. Manjusha M. Patil to the Shivaji University, Kolhapur for the award of Degree of Master of Philosophy in Mathematics, This work carried out by the under my supervision and guidance and embodies the work entirely done by her.

Place: Kolhapur

Date: 19/05/05

Or ISNY A Hardwith 416004
Research Guide

Professor and Reader Department of Mathematics Shivaji University, Kolhapur

Incharge Head

Department of Mathematics

Shivaji University. KOLHAPUR - 416004