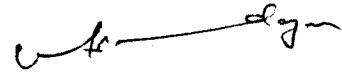


C E R T I F I C A T E

This is to certify that Shri S.R.BCTE,
has completed all the Research Work incorporated
in this Thesis under my personal guidance. This
work has been carried out to fulfil the require-
ments for the Ph.D. Degree (in Physics) of Shivaji
University, Kolhapur.

PLACE; KOLHAPUR

DATE: 15th July 1991



Research Guide
(Dr.M.K.SOUDAGAR)
Reader in Physics,
Shivaji University,
KOLHAPUR-416 004