

DECLARATION

I hereby declare that the thesis entitled, **DENSITY TRANSITION BASED SELF-FOCUSING OF A SHORT PULSE LASER IN PLASMA** has been prepared by me under the guidance of Dr. Niti Kant, Associate Professor of Physics, Lovely Professional University. This work is entirely my original work and all ideas and references have been duly acknowledged. It does not contain any work for the award of any other degree or fellowship previously at any University.

Manzoor Ahmad Wani

Regd. No. 11312810

Department of Physics,

Lovely Professional University,

Phagwara, Punjab

Date:

CERTIFICATE

This is to certify that Manzoor Ahmad Wani has completed his Ph. D. thesis entitled, **DENSITY TRANSITION BASED SELF-FOCUSING OF A SHORT PULSE LASER IN PLASMA** for the award of Ph. D. of the Lovely Professional University under my guidance and supervision. To the best of my knowledge, the present work is the result of his original investigation and study. No part of the dissertation has ever been submitted for any other degree or fellowship previously at any university.

The thesis is fit for the submission and the partial fulfilment of the conditions for the award of Ph. D Physics.

Dr. Niti Kant
Associate Professor,
Department of Physics,
Lovely Professional university,
Phagwara-144402

Date: