Mie Scattering Algorithms for interaction of structured laser beams with nanoparticles: Modeling & Analysis

A thesis submitted in partial fulfillment for the

Award of Degree

Doctor of Philosophy

in

Physics

by

Sarita

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I, ***"Sarita"***, certify that the work embodied in this thesis is my own bona fide work carried out by me under the supervision of **"*Prof. Rakesh Kumar Singh*"** from **"*July 2019*"** to ***"October 2024"***, at the **"*Department of Physics*"**, Indian Institute of Technology (BHU), Varanasi. The matter embodied in this thesis has not been submitted for the award of any other degree/diploma. I declare that I have faithfully acknowledged and given credit to the research workers wherever their works have been cited in my work in this thesis. I further declare that I have not willfully copied any other's work, paragraphs, text, data, results, *etc.*, reported in journals, books, magazines, reports dissertations, thesis, *etc.*, or available on websites and have not included them in this thesis and have not cited as my work.

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Sarita

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