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Signature:

Supervisor

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DECLARATION BY THE CANDIDATE

I, ***“Harshita Trivedi”***, certify that the work embodied in this thesis is my own bonafide work and carried out by me under the supervision of ***“Dr. Avanish Singh Parmar”*** from ***“December 2017”*** to ***“March 2022”***, 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 credits 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, theses, *etc.*, or available at websites and have not included them in this thesis and have not cited as my own work.

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“Never give up on what you really want to do. The person with big dreams is more powerful than the one with all the facts” Albert Einstein (1879 – 1955)

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