

CANDIDATE'S DECLARATION

I, Ankit kajaria, certify that the work embodied in this Ph.D. thesis is my own bonafide work carried out by me under the supervision of **Associate Prof. Neeraj Sharma** and **Prof. Lalit.M.Aggarwal**. for a period of more than **4 years** from **October 2012 to April 2017** at School of Biomedical Engineering, Indian Institute of Technology (Banaras Hindu University), Varanasi. The matter embodied in this Ph.D. thesis has not been submitted for the award of any other degree/diploma.

I declare that I have faithfully acknowledged, given credit to and referred to the research workers wherever their works have been cited in the text and the body of the thesis. I further certify that I have not wilfully lifted up some other's work, paragraph, text, data, results, etc., reported in the journals, books, magazines, reports, dissertations, thesis, etc., or available at web-sites and included them in this Ph.D. thesis and cited as my own work.

Date:

Place: IIT (BHU), Varanasi

(Ankit Kajaria)

CERTIFICATE BY THE SUPERVISOR

This is to certify that the above statement made by the candidate is correct to the best of our knowledge.

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