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It is certified that the work contained in the thesis titled “**Characterization of Particulate Matter with Special Reference to PM₁₀ and PM_{2.5} in Singrauli Coal-field**” by **Akhilesh Kumar Yadav** has been carried out under my supervision and that this work has not been submitted elsewhere for a degree.

It is further certified that the student has fulfilled all the requirements of Comprehensive Examination, Candidacy and SOTA for the award of Ph.D. Degree.

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DECLARATION BY THE CANDIDATE

I, **Akhilesh Kumar Yadav**, certify that the work embodied in this thesis is my own bonafide work and carried out by me under the supervision of **Professor Aarif Jamal**, from **December 2013** to **November 2019**, at the **Department of Mining Engineering**, 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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Place: Varanasi

(Akhilesh Kumar Yadav)

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It is certified that the above statement made by the student is correct to the best of my knowledge.

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