

ANNEXURE-E

CANDIDATE'S DECLARATION

I, Pushkar Jha, certify that the work embodied in this Ph.D. thesis is my own bonafide work carried out by me under the supervision of Dr. Rakesh Kumar Gautam and the co-supervision of Prof. Rajnesh Tyagi for a period of about 6 years and 1 month from September, 2011 to October, 2017 at Department of Mechanical 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 willfully lifted up some other's work, para, text, data, results, etc. reported in the journals, books, magazines, reports, dissertations, theses, etc., or available at websites and included them in this Ph.D. thesis and cited as my own work.

Date:

Place: Varanasi

(Pushkar Jha)

CERTIFICATE FROM THE SUPERVISOR/ CO-SUPERVISOR

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

(Dr. Rakesh Kumar Gautam)

Supervisor

(Prof. Rajnesh Tyagi)

Co-supervisor

(Head of the Department)