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I, **Deepa Verma**, certify that the work embodied in the present thesis is my own work carried out by me under the supervision of Dr. R. Manna and Prof. G.V.S. Sastry for a period of six years and nine months from **July 2009** to **April 2016** at the Department of Metallurgical Engineering, Indian Institute of Technology (Banaras Hindu University), Varanasi. The matter embodied in the thesis has not been submitted for the award of any other degree or diploma.

(Deepa Verma)



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

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COURSE/COMPREHENSIVE EXAMINATION/PRE-SUBMISSION SEMINAR COMPLETION CERTIFICATE

This is to certify that Mrs. **Deepa Verma**, a bonafide research scholar of this Department, has satisfactorily completed the course work, comprehensive examination and pre-submission seminar requirements which are a part of her Ph.D. programme.

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Title of the Thesis: **Microstructural Evolution and Mechanical Properties of an Interstitial-Free Steel Processed by Equal-Channel Angular Pressing**

Candidate Name: **Deepa Verma**

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Pre Submission Seminar Certificate

A Pre Submission Ph.D. Seminar of Ms. Deepa Verma D/o Mr. Ganeshi Lal bearing roll no. 09607EN001 (Enrollment No.-318934) was conducted successfully on 03.03.2016 at 03.00 PM by the Departmental Research Committee under the Chairmanship of thesis supervisor Dr. Rampada Manna Department of Metallurgical Engineering, I.I.T., B.H.U. Ms. Deepa Verma may be allowed to submit the Ph.D. Thesis entitled "Microstructural Evolution and Mechanical Properties of an Interstitial-Free Steel Processed by Equal-Channel Angular Pressing".


(R.K.Mandal) 9/3/2016
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