

**CERTIFICATE**

This thesis is submitted under Academic Regulations for Doctoral Programmes which allows a candidate to do Ph.D. research without the benefit of a supervisor.

This is to certify that the thesis entitled "**Studies on Low Pressure Plasma Nitriding of Steels with Various Alloying Concentrations**" and submitted by **Ravindra Kumar** ID No **VGU/2017/Res/Sch/Phy/804** for award of Ph.D. Degree embodies my original work.



Signature

RAVINDRA KUMAR

ID No. **VGU/2017/Res/Sch/Phy/804**

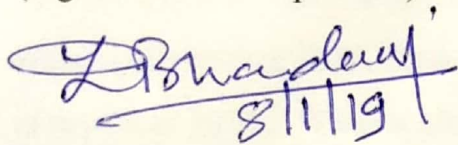
Date: 07/01/2019

CERTIFICATE

This is to certify that the thesis titled “**Studies on Low Pressure Plasma Nitriding of Steels with Various Alloying Concentrations**” submitted by **Ravindra Kumar** for the award of Degree of Doctor of Philosophy in the Faculty of Basic and Applied Sciences of Vivekananda Global University, Jaipur, is a record of authentic work carried out by him to the best of our knowledge.

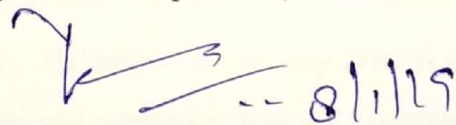
The matter embodied in this thesis is the original work of the candidate and has not been submitted for the award of any other degree/ diploma in any university. It is further certified that he has worked under my guidance for the required period as per the university rules.

(Signature of Co-Supervisor)



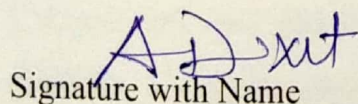
Dr. Dheeraj Bhardwaj  
In-charge, Department of Physics  
Birla Institute of Tech., Mesra,  
Jaipur Campus  
Date:

(Signature of Supervisor)



Prof. (Dr.) Yogesh Chandra Sharma  
Dean, Research and Development  
Professor in Department of Physics  
Vivekananda Global University, Jaipur  
Date:

I AMBESH DIXIT have examined the viva voce of the candidate on date 8/3/19 and recommend to award of Ph.D. degree.



Signature with Name

Name: AMBESH DIXIT

Address: Dept. of Physics  
& C. for Solar Energy  
Email: ambesh@iitj.ac.in