

**Online International Faculty Development Program**  
on  
**"Gandhi in the Present Context - A Social Discourse"**

Organized by  
**Government Degree College, Bhatronjkhan (Almora) Uttarakhand**  
in Collaboration with  
**Govt. P.G. College, Lohaghat, Champawat**  
&  
**Indian Economic Association (IEA)**

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**E-Certificate**

This is to certify that **Dr. Nisha Dhoundiyal Institute - Government Degree College, Talwari-Tharali (Champlin) Uttarakhand** Has Participated in the Online International one day Faculty Development Program on **"Gandhi Ji in the Present Context - A Social Discourse"** held on **02/10/2022** Organized by **Government Degree College Bhatronjkhan (Almora) Uttarakhand** in Collaboration with **Govt. P.G. College, Lohaghat & Indian Economic Association (IEA)**.



**Dr. Shailendra Kr. Singh**  
Convener



**Prof. Seema Srivastava**  
Principal



# Certificate of Participation

*IQAC, LAJPAT RAI COLLEGE, SAHIBABAD, GHAZIABAD, U.P.  
IN COLLABORATION WITH  
IP AWARENESS/TRAINING PROGRAM UNDER  
"NATIONAL INTELLECTUAL PROPERTY AWARENESS MISSION "*

This is to certify that Mr./Ms./Dr. Dr. Nisha Dhoundiyal has successfully participated in National Webinar Series on  
Various Aspects of Intellectual Property Rights (IPR)  
Lecture-2 "Introduction to Patents and Patent Drafting"

on 21/04/2023

Principal  
Prof. Uday Pratap Singh

Convenor Dr. Neeraj Tewari (IQAC)



Government of India  
Ministry of Commerce and Industry  
Department for Promotion of Industry and Internal Trade  
Office of the Controller General of Patents, Designs and Trade Marks

## CERTIFICATE

This is to certify that, **DR. NISHA DHOUDIYAL** of **GOVERNMENT DEGREE COLLEGE TALWARI- THARALI (CHAMOLI), UTTARAKHAND** has successfully participated in IP Awareness/Training program under **NATIONAL INTELLECTUAL PROPERTY AWARENESS MISSION**

on April 10, 2023

Azadi Ka  
Amrit Mahotsav

Organized by

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Date: April 17, 2023



(Prof. (Dr) Unnat P. Pandit)  
CONTROLLER GENERAL OF  
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## 10

# Effect of Seasonal Change on Natural Population of Campanulotes Bidentatus Comparin Relation to Different Eco-factors

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### Abstract

*Effect of changing season on natural population of small pigeon louse, Campanulotes bidentatus compar on Columba livia, were investigated from March 2017 to February 2018. Eight pigeons (four males and four females) infested with C. bidentatus compar were maintained in natural captivity in Ramnagar throughout the year. Body of birds are demarcated in nine different regions and all demarcated regions were carefully examined with help of magnifying torch for 5- 10 minute fortnightly. Both Adults (male & female) and all three nymphal instars of lice show fluctuation in their population in different months of year. C. bidentatus compar reaches at their topmost in late summer and early rainy months while their population touches to minimal during winter months. For estimating the effect of different eco-factors on lice population, correlation between mean monthly lice index and four environmental factors (i.e. mean monthly*