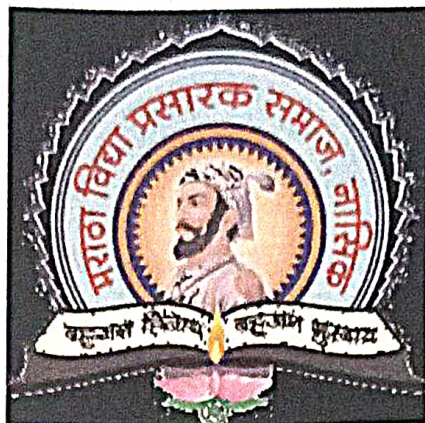


**Savitribai Phule Pune University**



M.V.P. Samaj's, Nashik  
KARMAVEER SHANTARAM BAPU KONDAJI WAVARE  
(K.S.K.W) ARTS, SCIENCE & COMMERCE COLLEGE,  
CIDCO, NASHIK-422008

A  
PROJECT REPORT  
ON

**An Efficient Synthesis of 1, 4 dihydropyrano[2,3-c]pyrazole derivatives using NiO–Co<sub>3</sub>O<sub>4</sub>@ CuO as a catalyst**

**Submitted By: Ms. Akanksha Milind Sajgure**

Academic Year  
**2022-2023**

Under the Guidance of Dr. Savita.V.Thakare

## EXAMINERS CERTIFICATE

This is to certify that PG dissertation entitled "An efficient synthesis of 1,4 dihydropyrano[2,3c]Pyrazole derivatives using NiO-Co<sub>3</sub>O<sub>4</sub>@CuO as a catalyst " submitted by MS. Akanksha Milind Sajgure was carried out by candidate under supervision of Dr.Savita.V.Thakare .

With this understanding, we consider the fact that the PG dissertation is well written project report , should be appreciable and the project work carried out is commendable , we recommend that the PG dissertation submitted by MS. Akanksha Milind Sajgure be accepted in its present form for the award of Masters of Science in Organic Chemistry , Savitribai Phule Pune University , Pune. They successfully defended the Viva-Voce Examination.



External Examiner



Internal Examiner



Principal

K.S.K.W. Arts, Sci. & Com. College

CIDCO, Nashik-8  
Prof. D.S.R. Kushare

Maratha Vidya Prasarak samaj's  
**Karmveer Shantarambapu Kondaji Wavare**  
**Arts, Commerce & Science College, CIDCO,**  
**Nashik-422008.**

## *Certificate*

This is to certify that the project entitled  
**An Efficient Synthesis of 1, 4 dihydropyrano[2,3-  
c]pyrazole derivatives using NiO-Co<sub>3</sub>O<sub>4</sub>@ CuO as a  
catalyst**

Has been successfully completed by

**Ms. Akanksha Milind Sajgure**

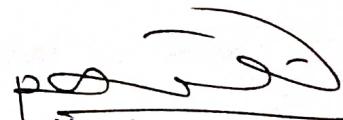
During the academic year 2022-23 for fulfilment of  
M.Sc. (Organic Chemistry) degree.



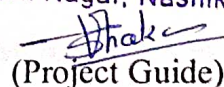
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(Project Guide)