



CERTIFICATE

This is to certify that, the work incorporated in the dissertation entitled **“Development of pulluln nanocomposite for antimicrobial coating system.”** Mr. Pawar Sanket Babaso, Mr. Limkar Pruthviraj Shivaji, Mr. Thorat Rohan Ramesh, Mr. Danane Prathmesh Balaso. Were carried out under my supervision at the Department of Microbiology, as a partial fulfilment of M.Sc. degree in Microbiology under Tuljaram Chaturchand College, Baramati affiliated by Savitribai Phule Pune University, Pune. All the information in this dissertation is genuine to the best of my knowledge.

Research Guide

Department of Microbiology

Head

HEAD
Department of Microbiology
Department of Microbiology
Tuljaram Chaturchand College
Baramati, Dist. Poona

Internal Examiner

External Examiner

Date:

Anekant Education Society's

Tuljaram Chaturchand College of Arts, Science and Commerce (Autonomous) Baramati –
413102, Dist- Pune

DEPARTMENT OF MICROBIOLOGY

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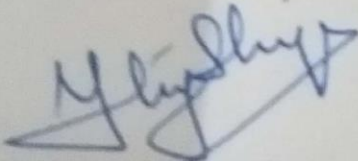
This is, certify that the work incorporated in project entitled **“Isolation of chitinolytic microbes and it's evaluation of antagonistic activity against Fusarium”** which is being submitted herewith the award of M.Sc. in Tuljaram Chaturchand College of Arts, Science and commerce (Autonomous), Baramati- 413102, Dist- Pune the result incorporated in this report are of the original research work carried out by Ms. Pathan Saniya Mahibub , Ms. Iyer Rashmita Rajesh , Ms. Mane Snehal Sudhakar, Ms. Kale Nikita Srirang, Ms. Jamdade Pooja Navnath was carried out by candidates under my supervision and guidance and to the best of my knowledge and belief, the work embodied in this report has not formed earlier for the award of any degree or similar title of this or any other university or examining body.

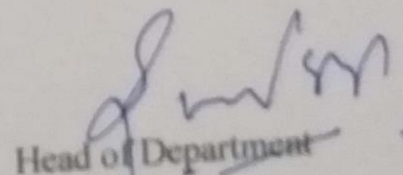
Place: Baramati

Date:

Research Guide:

Prof. Miss P.N. Kamble


External Examiner


Head of Department
Prof. Dr. S.T. Pawar.

ANEKANT EDUCATION SOCIETY'S

TULJARAM CHATURCHAND COLLEGE, BARAMATI

Department Of MICROBIOLOGY,

Certificate

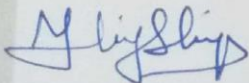
This is to certify that the work incorporated in the project report entitled
"Morpho-Molecular Characterization of Causative Agents of Oily Spot
Disease of Pomegranate and Isolation of Lytic Phages for it's Management,"
Submitted by

- Bhujbal Saurabh Sanjay
- Kaygude Nilam Bharat
- Bhise Priti Dilip
- Gade Kshitij Prakash

for the partial fulfilment of practical course MICRO-245,246 for degree of Master
of science in Microbiology. The Project was carried out in excellent /satisfactorily
manner under my supervision in Department of Microbiology, Tuljaram
Chaturchand College, Baramati.

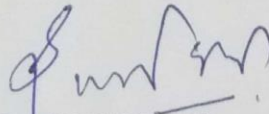
Place: Baramati

Date:04/05/2024



Dr. Milind H. Gajbhiye

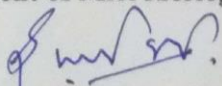
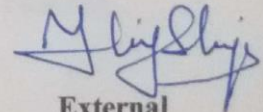
(Project Guide)



Dr. S. T. PAWAR

Head,

Department of Microbiology


Internal Examiner

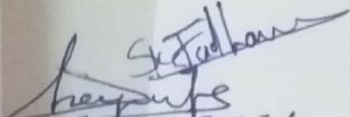
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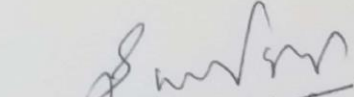
Examiner

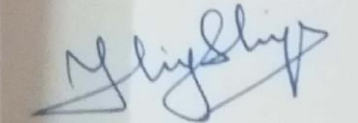


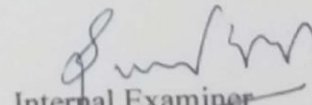
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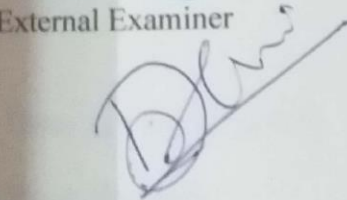
This is to certified that the work incorporated in the dissertation/ thesis entitled studies on "ISOLATION, IDENTIFICATION AND CHARACTERIZATION OF CELLULOSE DEGRADING BACTERIA AND THEIR APPLICATIONS IN STUBBLE DEGRADATION" has been carried out by Kolekar Kiran Ramesh, Chopade Chetan Ramesh, Gadhave Vrushali Dipak, Shelke Amruta Appasaheb. a student of second year M.SC. Microbiology, For the Student Research Project to the Tuljaram Chaturchand College, Baramati, in academic year 2023-2024, under the guidance of Asst.Prof: Miss Sayali K. Jadhav and Asst.Prof: Miss Puja M. Dhapate. All the information in this dissertation is genuine to the best of my knowledge.


02/05/2024
Project guide


Head of Department of
Microbiology


External Examiner


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P.G Coordinator

Date: 4/05/2024

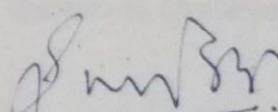
Place: Baramati

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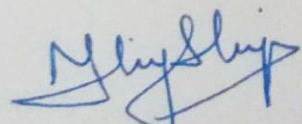
This is, certify that the work incorporated in project entitled "Bacterial Synthesis, Characterization and optimization of ZnO Nanoparticles and their Antibacterial Potential against human Pathogens" which is being submitted herewith the award of M.Sc. in Tuljaram Chaturchand College of Arts, Science and commerce (Autonomous), Baramati-413102, Dist- Pune the result incorporated in this report are of the original research work carried out by Mr. Chougule Darshan Adinath, Mr. Karnale Prathmesh Pravin, Mr. Birnale Yash Kuber & Mr. Raut Rohit Sanjay was carried out by candidates under my supervision and guidance and to the best of my knowledge and belief, the work embodied in this report has not formed earlier for the award of any degree or similar title of this or any other university or examining body.

Place: Baramati

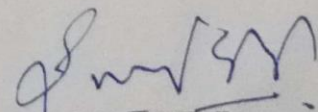
Date:



Prof. Dr. S.T. Pawar.
Research Guide



External Examiner



Prof. Dr. S.T. Pawar.
Head of Department



CERTIFICATE

This is to certify that, the work incorporated in the dissertation entitled “**Study on chemical modification of pullulan and its application in antimicrobial coating system**” Were carried out under my supervision at the Department of Microbiology, as a partial fulfilment of M.Sc. degree in Microbiology under Tuljaram Chaturchand College, Baramati affiliated by Savitribai Phule Pune University, Pune. All the information in this dissertation is genuine to the best of my knowledge.

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Department of Microbiology

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Tuljaram Chaturchand College of Arts, Science and Commerce (Autonomous) Baramati –
413102, Dist- Pune

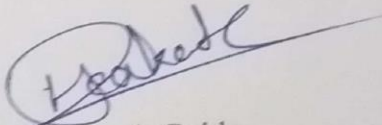
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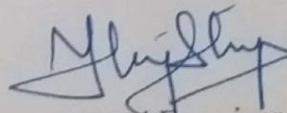
This is, certify that the work incorporated in project entitled “**Studies on isolation, identification and characterisation of Tomato spoiling microorganism and it's inhibition by Neem extract**” submitted by **Miss. Pallake Prerana Popat, Mr. Madake Ankush Shridhar, Mr. Kabade Sammed Manoj and Mr. Magdum Rohit Rajkumar**, was carried out by candidates under my supervision at the Department of Microbiology, **Tuljaram Chaturchand College of Arts, Science and commerce (Autonomous), Baramati-413102, Dist - Pune** as partial fulfilment of M.Sc. Microbiology under Savitribai Phule Pune University, Pune. All the information in this dissertation is genuine to the best of my knowledge.

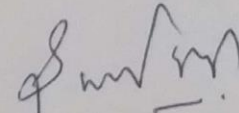
Place: Baramati

Date:03.05.2024


Research Guide

(Asst.Prof. N.T. Deokate)


External Examiner


Head of Department

(Dr. Sunil Pawar)

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**Anekant Education Society's,
Tuljaram Chaturchand College of Arts, Science and
Commerce(Autonomous), Baramati,
Affiliated to Savitribai Phule, Pune University
Academic Year 2023-2024.**

**Project Report on,
“STUDY ON ISOLATION AND IDENTIFICATION OF MANNANASE
PRODUCING BACTERIA AND IT'S OPTIMIZED PRODUCTION”**

PROJECT REPORT

Submitted To,

DEPARTMENT OF MICROBIOLOGY,

Miss.Kate Sanjana Rajendra (Roll No.-16465)

Miss.More Pravina Tanaji (Roll No.-16466)

Miss.Jagtap Gayatri Sachin (Roll No.-16454)

Miss.Suryawanshi Divya Sambhaji (Roll No.-16453)

**Under the guidance of
Professor DR. Mulay Y.R**



Anekant Education Society's

Tuljaram Chaturchand College of Arts, Science and Commerce
(Autonomous) Baramati – 413102, Dist- Pune

DEPARTMENT OF MICROBIOLOGY

CERTIFICATE

This is, certify that the work incorporated in project entitled “**Studies on optimized ethanol production from Fermentative metabolism of cellulose by *Bervibacillus parabrevis***” submitted by **Mr. Patil Abhishek Pramod .Mr. Pathan Aliarbaaz Asif. Miss.Kawade Prerana Sagar. Miss. Patil Sayali Jingonda** was carried out by candidates under my supervision at the department of microbiology, Tuljaram Chaturchand College of Arts, Science and commerce (Autonomous), Baramati-413102, Dist. Pune as partial fulfilment of M.Sc Microbiology under Savitribai Phule Pune University, Pune. All the information in this dissertation is genuine to the best of my knowledge.

Place : Baramati

Date : 4/5/2024

Asst. Prof. Doshi D. V.

Guide

External Examiner

Prof. Dr. S. T. Pawar

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Department of Microbiology
Tuljaram Chaturchand College

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