

Tuljaram Chaturchand college,
Baramati – 413102 (Pune)



DEPARTMENT OF MICROBIOLOGY

CERTIFICATE

This is to certified that the work incorporated in the dissertation entitled studies on **INCIDENCE OF *Escherichia coli* LIVESTOCKS IN POULTRY FEEDS** by Miss. Thopate Charushila Kakaso , Kumawat Poonam Phoolchand was carried out under my supervision at the Department Tuljaram Chaturchand College Baramati , as a partial fulfilment of M.Sc. Microbiology under Savitribai Phule Pune University, Pune .All the information in this dissertation is genuine to the based of my knowledge .

Research guide

Department of Microbiology

Internal Examiner

Head

Department of Microbiology

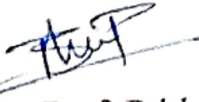
External Examiner



Department of Microbiology
Tuljaram Chaturchand, Arts, Science and Commerce College,
Baramati-413133, Dist.-Pune
Affiliated to Savitribai Phule Pune University, Pune

CERTIFICATE

This is to certify that Ms. Hirave Shweta Kashinath, Ms. Popalbhat Dipali Pandurang, Ms. Bondre Kumodini Mahadev, Ms. Dhapate Sonali Santosh has satisfactorily completed the dissertation work entitled, " silver and copper oxide nanoparticle synthesis from probiotic bacteria and its antimicrobial activity" for the partial fulfilment of the Degree of Master of Science (M.Sc.) in Microbiology, Department of Microbiology, Tuljaram Chaturchand, Arts; Science and Commerce College, Baramati under Savitribai Phule Pune University, under my guidance and supervision in the academic year 2022 - 2023. The results embodied in this dissertation have not been submitted to any other University or to the Institute for award of any degree or diploma.


Asst Prof. Priti Bhosale

Project Guide

Asst Prof. Dhawal Doshi

PG Coordinator


Prof. Dr. Sunil Pawar

HOD of Microbiology

EXTERNAL

INTERNAL



ACADEMIC YEAR: 2022-2023

Anekant Education society's

**Tuljaram chaturehand College of Arts, Science And
Commerce, Baramati**

CERTIFICATE

This is to certify that, the work incorporated in the dissertation entitled **Studies on Bacterial synthesis of zinc oxide (ZnO) nanoparticles and their antibacterial activity** by Jadhav Ankita Mukund, Chopade Sudiksha Arjun, Bhunje Rutuja Rajendra, Bhosale Priyanka Madhukar was carried out under my supervision at the Department Tuljaram Chaturchand College, Baramati, as a partial fulfillment of M.Sc. Microbiology under Savitribai Phule Pune University, Pune. All the information in this dissertation is genuine to the best of my knowledge.

Research guide

Department of Microbiology

Internal examiner

Date:

Head

Department of Microbiology

External examiner

Certificate

This is to certified that the work incorporated in the dissertation entitled studies on **CHARACTERIZATION OF HYDROLYTIC ENZYMES PRODUCING OLIVIBACTER OLEIDEGRADANS AND AGROBACTERIUM sp., AND THEIR USE IN THE MANAGEMENT OF RICE STUBBLE WASTE** by Kokare Supriya Sakharam, Awate Sagar Atmaram, Terdale Siddharth Krishnappa & Gunaware Kunal Bharat was carried out under my supervision at the Department Tuljaram Chaturchand Collage Baramati, as a partial fulfillment of M.Sc. Microbiology under Savitribai Phule Pune university, Pune. All the information in this dissertation is genuine to the best of my knowledge.


Research guide

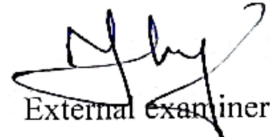
Department of microbiology

Internal examiner

Date:

Head

Department of microbiology


External examiner

Tuljaram Chaturchand college,

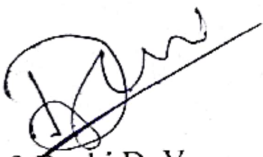
Baramati – 413102 (Pune)

DEPARTMENT OF MICROBIOLOGY


CERTIFICATE

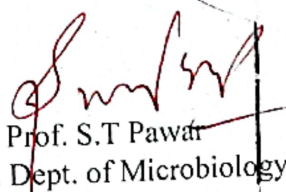
Roll No. 16026, 16027, Exam No.

This is to certify that, Mr. Mane Viraj Mahesh, Mr. Khurape Aniket Adinath (M.Sc. II Microbiology) has successfully work on, the project entitled “Incidence of *Salmonella* Live Stock In Poultry Feed” in department of Microbiology under the guidance of Prof. Dhawal Doshi during academic year 2022-2023 partial fulfilment for award of Master of Science in Microbiology.


Prof. Doshi D. V
PG Co-ordinator

External Examiner


Prof. Doshi D.V
Project In-charge
Department of Microbiology


Prof. S.T Pawar
Head Dept. of Microbiology



CERTIFICATE

This is to certify that, the work incorporated in the dissertation entitled **Extracellular Bacterial Synthesis of ZnO nanoparticles and it's antibacterial activity against human pathogen** by

Mr. Atole Tushar Dattatray

Miss. Chavan Pooja Phattensing

Miss . Dagade Kalyani Anil

was carried out under my supervision at the Department of Microbiology, as a partial fulfillment 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
Microbiology

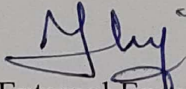
Internal Examiner

Date:

2

Head

Department of


External Examiner



CERTIFICATE

This is to certify that, the work incorporated in the dissertation entitled **Extracellular Bacterial Synthesis of ZnO nanoparticles and it's antibacterial activity against human pathogen** by

Mr. Atole Tushar Dattatray

Miss. Chavan Pooja Phattasing

Miss. Dagade Kalyani Anil

was carried out under my supervision at the Department of Microbiology, as a partial fulfillment 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.

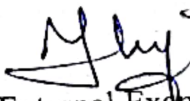
Research Guide

Department of Microbiology
Microbiology

Head

Department of

Internal Examiner


External Examiner

Date:

2



A PROJECT REPORT ON

Production of amylase from *Aureobasidium pullulans* and its optimization by Placket and Burman method.

Submitted to

Anekant Education Society's

Tuljaram Chaturchand College of Arts, Science and Commerce,
Baramati.(Autonomous) 413102 affiliated by Savitribai Phule
Pune University, Pune.

As a partial fulfillment of the degree of

M. Sc. in Microbiology

Submitted by

Mr. Virkar Sumit Appa (15982).

Mr.Zagade Rohit Balu (15983).

Mr.Bhosale Shubham Ganesh (16033).

Mr.Sawant Akshay Sudam (16032).

Under the Guidance Of

Professor Dr. Yogini R. Mulay.

Anekant Education society's
Tuljaram Chaturchand College Of Arts, Science and Commerce, Baramati



CERTIFICATE

This is to certified that the project entitled
Synthesis of TiO₂ NPs by Bacteria isolated from soil sample and determination
of their antibacterial activity against plant pathogen

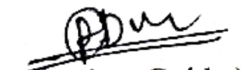
Has been successfully completed by

KATE REVATI SHAILESH

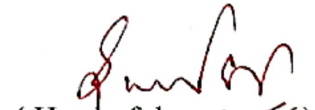
KATE SRUSHTI BALASAHEB

MORE NILAM MADHUKAR

SONAWANE PAURNIMA VIJAY


(Project Guide)

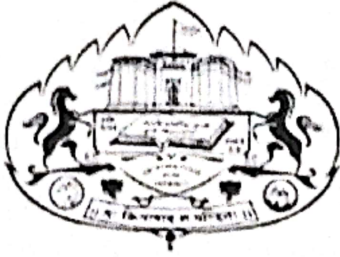
MISS. PRAJAKTA MARKALE


(Head of department)
Mr. S. T. PAWAR

Internal Examiner

External examiner





CERTIFICATE

This is to certify that, the project report entitled **Isolation of rhizospheric bacteria and screening for multifarious plant growth promoting traits.** which is being submitted here with the award of M.Sc. in Microbiology of Tuljaram Chaturchand College of Arts, Science and Commerce, Baramati (Autonomous) affiliated to Savitribai Phule Pune University, Pune. The results incorporated in this report are of the original research work carried out by

MISS. AKANKSHA SANJAY KUMBHOJE.

MISS. AKSHATA BALASO PATIL.

MISS. NISHA NARSU SHIRGUPPE.

MISS. SOUNDARYA SANJAY PALLAKE.

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.

Project Guide

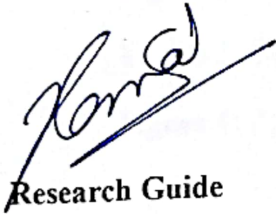
H.O.D. Microbiology

External Examiner

Internal Examiner

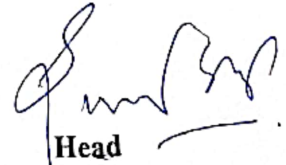
CERTIFICATE

This is to certify that Miss. Patil Akshata Kuber, Miss. Saundatte Divya Kuber, Miss . Chougule Ankita Narasgonda and Miss Nirwane Vedika Vijay have successfully completed project on "ISOLATION, CHARACTERIZATION AND PURIFICATION OF PECTINASE ENZYME" under Student research project scheme-2022-23. This work was carried out at Department of microbiology, Tuljaram chaturchand college of Arts , Science and Commerce, Baramati during 2022-23 under the guidance of Assistant prof. Komal R. Jagtap .



Research Guide

Department of Microbiology



Head

Department of Microbiology



CERTIFICATE OF THE GUIDE

This is to certify that this dissertation / thesis entitled **"ISOLATION AND CHARACTERIZATION OF KERATINASE PRODUCING BACTERIA AND THEIR APPLICATION IN FEATHER WASTE MANAGEMENT"** submitted by Miss. Jadhav Sayali Kalidas, Miss. Khomane Rushika Yuvraj, Miss. Ghadage Triveni Jayshing, Miss. Mergal Reshma Chimaji For The Student Research Project in to the **Tuljaram Chaturchand College, Baramati**, is carried out under my guidance and to my satisfaction. The thesis is now ready for examination.

Date: 04/05/2023

Dr. Milind H. Gajbhiye

Place: Baramati

A PROJECT REPORT ON

Studies on potential of pullulan for Microbial Enhanced Oil Recovery (MEOR)

Submitted to



Anekant Education Society's
Tuljaram Chaturchand College of Arts, Science and Commerce,
Baramati. (Autonomous) Dist. Pune 413102
Affiliated by Savitribai Phule Pune University, Pune

As a partial fulfillment of the degree of

M. Sc. in Microbiology

Submitted by

Ms. Dhembare Shivanjali Hanumant

Mr. Khatmode Aniket Ashok

Mr. Shinde Sanket Rajendra

Mr. Chavan Abhishek Dattatray

Under the Guidance

Ms. Kajal M. Gaikwad

(2022-2023)



CERTIFICATE

This is to certify that, the work incorporated in the dissertation entitled "**Studies on potential of pullulan for Microbial Enhanced Oil Recovery (MEOR)**" by Miss. Dhembare Shivanjali H., Mr.Khatmode Aniket A., Mr. Shinde Sanket R. and Mr. Chavan Abhishek D.

Were carried out under my supervision at the Department of Microbiology, as a partial fulfillment 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

Department of Microbiology

Internal Examiner

External Examiner

Date:



PROJECT REPORT ON

STATISTICAL OPTIMIZATION OF PULLULAN PRODUCTION BY *AUREOBASIDIUM PULLULAN* BY USING PLACKETT-BURMAN DESIGN.

dissertation submitted for fulfilment of the degree of master of science (M.Sc.) in
microbiology, Tuljaram Chaturchand College, Baramti.

BY

ALMAN ADIKSHA AJIT

LONDHE SNEHAL GANESH

KAVATHE ARPITA ANIL

PACHORE AISHWARYA ASHOK

UNDER THE GUIDANCE OF

Prof. DR. Y. R. MULAY

Department Of Microbiology

Tuljaram Chaturchand College,

Baramati, Pune 413102

ACADEMIC YEAR – 2022 – 2023



CERTIFICATE

This is to certify that, the work incorporated in the dissertation entitled **“STATISTICAL OPTIMIZATION OF PULLAN PRODUCTION BY *AUREOBASIDIUM PULLANS* USING PLACKETT-BURMAN METHOD.** by **Alman Adiksha Ajit, Londhe Snehal Ganesh, Kavathe Arpita Anil, Pachore Aishwarya Ashok** was carried out under my supervision at Department of Microbiology, Tuljaram Chaturchand College, Baramati as a partial fulfillment of M. Sc. Microbiology under Savitribai Phule Pune University, Pune. All the information in this dissertation is genuine to the best of my knowledge.

Reserch Guide

Department of Microbiology

Head

Department of Microbiology

Internal examiner

External examiner