

राष्ट्रसंत तुकडोजी महाराज नागपूर विद्यापीठ, नागपूर
श्री. किसानराव खोब्रागडे शिक्षण संस्था, आरमोरी, जि. गडचिरोली



यशवंतराव चव्हाण कला, वाणिज्य व विज्ञान
महाविद्यालय लाखांदूर, जि. भंडारा

पदव्युत्तर भूगोल विभाग, उच्च शिक्षण व संशोधन केंद्र

सन २०२२-२३

-: प्रमाणपत्र :-

राष्ट्रसंत तुकडोजी महाराज नागपूर विद्यापीठांतर्गत येणाऱ्या एम.ए.
द्वितीय वर्ष, चतुर्थ सेम, भूगोल विषयांतर्गत सन २०२२-२३ या शैक्षणिक सत्राकरिता
सादर करण्यात आलेला "क्षेत्रीय सर्वेक्षण वृत्तांत" एम.ए. अंतिम वर्षाच्या विद्यार्थी-
विद्यार्थिनींनी पूर्ण केला.

हा वृत्तांत स्वतः त्यांनी लिहिलेला असून एम.ए. (द्वितीय वर्ष) चतुर्थ
सेम, भूगोल पदव्युत्तर परीक्षेला सादर करण्यात आलेला आहे.


मार्गदर्शक

प्रा. डॉ. जी. एल. धोटे

यशवंतराव चव्हाण कला, वाणिज्य व
विज्ञान महाविद्यालय, लाखांदूर



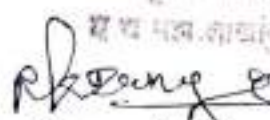
मार्गदर्शक व भूगोल विभाग प्रमुख

प्रा. डॉ. के. वाय. ठाकरे

यशवंतराव चव्हाण कला, वाणिज्य व
विज्ञान महाविद्यालय, लाखांदूर



अंतर्गत परीक्षक



बहिःशाल परीक्षक

P. G. DEPARTMENT OF BOTANY
YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE
COLLEGE LAKHANDUR
AFFILIATED TO
RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR
2022-23



Certificate



I hereby certify that the project entitled "DIVERSITY OF DESMIDS IN MASAL LAKE, LAKHANDUR TAHSIL, BHANDARA DISTRICT (M.S.) INDIA", submitted for the award of the Degree of MASTER OF SCIENCE in the faculty of Science & Technology (Botany), of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur embodies the results of bonafide research work, carried out by AISHWARYA DIPAK SHIVANKAR, under my guidance and supervision.

Place: Lakhandur

Date : 28/06/2023

Mr. D. N. LANJEWAR

Supervisor

Forwarded by:

Mr. D. N. LANJEWAR
Head
Department of Botany

Dr. J. V. Dadve
Principal
Y.C.College Lakhandur

28/06/23

CERTIFICATE


This is to certify that the dissertation entitled "Isolation of Chickpea nodule Microsymbiont and screening for the potential plant growth promoting traits nearby Y. C. College Lakhandur, Bhandara, Maharashtra" submitted to Post Graduate Teaching Department of Microbiology, Yashwantrao Chawhan Arts, Commerce & Science College Lakhandur, Dist- Bhandara, for the Partial Fulfillment of the Degree of Master of Science in Microbiology embodies the result of the bonafide work carried out by Miss. Sandhya Yashwant Dani under my Guidance and Supervision in the Post Graduate Teaching Department of Microbiology, Yashwantrao Chawhan Arts, Commerce & Science College Lakhandur, Dist- Bhandara, Maharashtra, India, Pin-441803.

This work was done under the Guidance and Supervision of Dr. Rakesh U. Thakare. This work is now ready for Examination.

Date: 20-06-2023

Place: Lakhandur




Dr. Rakesh U. Thakare,
Assistant Professor & Head

Dr. Rakesh U. Thakare
Assistant Professor & Head
Dept. of Microbiology
Y. C. College, Lakhandur,
Dist. Bhandara.



Principal
Dr. J. V. Dadve

Principal
Y. C. College, Lakhandur
Dist. Bhandara



Shri. Kisanrao Khobragade Education Society, Amori, Dist.-Gadchiroli
(Reg. No. E-1499/Gad/02)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur
Dist.-Bhandara (M.S.) Pin- 441803**

Principal
Dr. J. V. Dadve
M.A., M.Phil., Ph.D.



E-mail: yccel_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

CERTIFICATE

This is to certify that the dissertation entitled "Limnological study of some ponds surrounding Lakhandur area dist. Bhandara M.S. India" is carried out by **Ms. Nisha Purame** under my supervision for the partial fulfilment for the requirement of the award of the M.Sc. Degree in Zoology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

The work embodies in this project has not been submitted for any degree or diploma.

Date:
Place: Lakhandur

Dr. M. R. Thengare
Supervisor
Assistant Professor & Head
Department of Zoology,

Dr. J. V. Dadve
Principal
Yashwantrao Chawhan Arts, Commerce &
Science College, Lakhandur Dist.-Bhandara



६.३ उपायचीजना :-

१. गावात उद्योगांच्या विकासासाठी प्रयत्न व्हायला हवेत.
२. रस्त्यांच्या व वाहतुकीच्या साधनांचा पुरेसा विकास व्हायला हवा.
३. शिण्याच्या शुध्द पाण्याची सोय करायला हवी.
४. जीवनसत्वक वस्तूच्या पुरवठ्याची सोय उपलब्ध करव्यासाठी प्रयत्न झाले पाहिजेत.
५. अनेक कुटूंबांकडे पन्हे घर नाही. त्यांना पन्हे घर उपलब्ध व्हायला हवे.
६. प्राथमिक शिक्षणाच्या पलीकडे उत्तम शिक्षणाची सुविधा उपलब्ध व्हायला हवी.
७. गावात वाचनालयाची व्यवस्था हवी.
८. शेतीला उद्योगाचे स्वरूप प्राप्त होण्यासाठी प्रयत्न व्हायला हवे.
९. गावातील शेतकऱ्यांकडे सिंचनाच्या सुविधांचा पुरेसा विकास होण्यासाठी प्रयत्न झाले पाहिजे.
१०. शेतकऱ्यांना आधुनिक कृषि साधनांवर भर दिला पाहिजे.
११. गावातील शेतीचे दर हेक्टरी उत्पादन वाढविण्यावर भर दिले पाहिजे.

६.४ सारांश :-

आयली गावाचे एकूण क्षेत्रफळ १.२७ हे. असून गावाची एकूण लोकसंख्या १२१४ व्यक्ती आहे. त्यामध्ये पुरुष ६२७ असून स्त्रियांचे ५८७ आहे. गावामध्ये रस्त्यावर दिवावतीची सोय केली आहे. गावात १ ते ४ वर्गापर्यंत प्राथमिक शाळा आहे. गावात एकूण ५ रस्ते आहेत. रस्ते हे पक्क्या स्वरूपाचे आहेत. गावात शिण्याच्या पाण्याची उत्तम सोय करवळ करवळ १०० टक्के आहे. घरामध्ये विद्युत पुरवठा झालेला आहे.

सद्य अध्ययनाद्वारे आयली गावातील शेतकऱ्यांच्या शेतीविषयक दृष्टीकोण आणि त्यांचा सामाजिक व आर्थिक विकासाच्या स्थितीचे अवलोकन हे या अध्ययनाचे अभ्यास विषय आहे.

सद्य अध्ययनासाठी पुढील उद्देश मांडण्यात आले आहेत.

१. आयली गावाची भौगोलिक व सामाजिक पार्श्वभूमीचे अवलोकन करणे.
२. सामाजिक व आर्थिक विकास तपासून पाहणे.
३. गावाच्या सामाजिक व आर्थिक समस्या जाणून घेणे.

(...४५...)

४. त्याचबरोबर त्या गावातील शेतीची वैशिष्ट्ये काय आहेत त्याचे विश्लेषण करणे.
५. शेतीतील समस्यांची चर्चा करणे.
६. त्या समस्यांवर उपाययोजना सुचविणे.

इ. उद्देश ठेवून आथली या गावाचे अध्ययन करण्यात आले आहे.

हा भाग जवळ जवळ सपाट स्वरूपाचा असून या भागाची साधारण उंची २५० ते ३०० मीटर पर्यंत आहे. या तालुक्यात जमीनीचा उतार इशान्येकडून नैऋत्येकडे आहे. जिल्ह्यातील मुख्य नदी वैनगंगा असून ती लाखांदूर तालुक्याच्या दक्षिण सिमेवरून वाहते. त्यामुळे त्या वैनगंगेस जाऊन मिळणाऱ्या चुलबंद नदीच्या उपशाच्या व चुलबंद नदी तालुक्यात आपला प्रभाव टाकते. वैनगंगा व चुलबंद नदीच्या किणारी भागात सधन काळी मृदा आढळते. ही मृदा तांदुळ, गहू, ऊस, हरभरा, ज्वारी, तुर मुंग, मसुर, उडीद, वाटाणा इ. पिकविण्यासाठी उपयोगी आहे. लाखांदूर तालुक्याच्या कृषीवर हवामान या घटकांचा परिणामाचा विचार करता हवामानाच्या विविध अंगांपैकी पर्जन्य हा घटक महत्त्वाचा आहे. हा भाग उष्णकटीबंधीय असल्यामुळे तापमान हे कृषिकरीता वर्षभर आवश्यक असते. परंतु पृथ्वी हे मोसमी स्वरूपाचे आहे. जून ते सप्टेंबर या काळात जवळजवळ ७० टक्के पाऊस पडतो. त्यामुळे या काळात येथे तांदळाची जास्त पाण्याची शेती केली जाते. या गावातील एकुण जमीनीच्या ८२.०० टक्के जमीन पिकाखाली आहे.

लाखांदूर तालुक्यातील आथली गावात एकुण लोकसंख्या १२१४ व्यक्ती असून त्यात पुरुषांचे प्रमाण ६२७ व स्त्रियांचे प्रमाण ५८७ असे आहे. त्यामध्ये जवळ जवळ ४० टक्के लोकसंख्या कार्यकारी म्हणजे रोजगाराभीमुख्य आहे. गावाचे एकुण क्षेत्र ३२७.७९ हेक्टर आहे. आथली गावातील सर्वेक्षणानुसार १२१४ लोकसंख्येपैकी ६२७ पुरुष व ५८७ स्त्रीया आहेत जे की पुरुषांपेक्षा जास्त आहेत. गावात महार, माळी, दीवार, लोहार व कुणबी या जातीचे लोक राहतात. यामध्ये सर्वात जास्त लोकसंख्या कुणबी लोकसंख्या आहे. गावाची एकुण साक्षरता १५ टक्के असून ५ टक्के लोकसंख्या निरक्षर आहे. गावात एकुण पुरुष साक्षरता ७५ टक्के आहे तर स्त्री साक्षरता ६६ टक्के आहे. आथली गावात एकुण ५५ कुटूंब शेती व्यवसायात गुंतलेले आहेत. परंतु सर्वेक्षणावरून स्पष्ट होते. या गावात जवळ जवळ ५८ टक्के लोकसंख्या शेती करतांना आढळते. आथली गावात ९४ कुटूंबांच्या निरीक्षणात ५५ टक्के म्हणजे ५९ टक्के कुटूंबाचे वार्षिक उत्पन्न १५ हजार पेक्षा कमी आहे. गावात अनेक कुटूंबाकडे सोपासेट, मोबाईल फोन, आलमारी, फ्रिज, गॅस शोभडी, टि.व्ही. डी.टी.एच सारख्या वस्तू आढळतात.

(..४६..)

आथली गावात १८ कुटूंबसंख्या आहे. या कुटूंबातील गावातील शेतीवर ५५ लोक काम करतात. आथली गावामध्ये एकूण कुटूंबामध्ये ८१.४१ टक्के कुटूंबाकडे स्वतःची शेती आहे. त्यामुळे ते स्वतःची शेती करतात. ज्या कुटूंबाकडे शेती आहे. त्या कुटूंबांना शेती करण्यासाठी स्वतः जवळचा पैसा खर्च करावा लागतो. आथली गावातील शेतकरी अनेक संस्थाकडून कर्ज घेत असल्याचे आढळते. आथली गावातील शेतकरी आपल्या शेतामध्ये अनेक रासायनिक खतांचा वापर करतात. आथली गावातील अनेक शेतकरी मागच्या १५ वर्षांपासून किटकनाशकांचा वापर करतांनी आढळतात. ५७ शेतकरी ५ वर्षांपासून ५२ शेतकरी १० वर्षांपासून तर २० कृषक मागच्या १५ वर्षांपासून किटकनाशकांचा वापर करित आहेत. आवडी गावामध्ये प्राचीन काळापासून अजुन बरेच शेतकरी पारंपारीक कृषि अवजारांचा वापर करित असल्याचे आढळते. एकूण कृषी अवजारांमध्ये लोखंडी व लाकडी नागरांची संख्या अनुक्रमे २५ व २५ आहे. कृषिपिकांना ने आण करण्यासाठी वाहतुक साधनासाठी बैलगाडीचा वापर होत असल्याचे आढळते. आथली गावातील शेतकरी पारंपारीक कृषि अवजारां व्यतिरिक्त आधुनिक कृषी अवजारांचा सुध्दा वापर करतांना आढळतात. आथली गावात ३ वर्षापेक्षा कमी पशुंची संख्या १३३ आहे. तर ३ वर्षापेक्षा जास्त वर्षांच्या पशुंची संख्या ८३ आहे.

आथली गावामध्ये एकूण सिंचित क्षेत्रात धान, कापूस, गहु, हरभरा, सोयाबीन, मीरची, उडीद, मुंग, तेलबिया, भाजीपाला इ. पिकांचा समावेश होतो. आथली गावात सर्वात जास्त जलसिंचन विहिरी व स्वोताद्वारे केले जाते. त्या क्षेत्राचे शेकडा प्रमाण ३४.५५ टक्के आहे. आथली गावात सर्वात जास्त क्षेत्र धान पिकाचे आहे. त्यामुळे सर्वात जास्त सुधारीत ची बियाणे धान पिकाचे आहे. एकूण सुधारीत बीयानांच्या तुलनेत एकट्या धान्याचा शेकडा प्रमाण ६६ टक्के आहे. त्यानंतर १४ टक्के क्षेत्र गहु पिकाचे आहे. गावातील एका शेतकऱ्याकडे धान थ्रेसर असून १० शेतकऱ्यांकडे कडधान्य थ्रेसर आहे. एकूण पिकांच्या उत्पादनात सर्वात जास्त उत्पादन तांदुळ पिकाचे आहे. त्याचे शेकडा प्रमाण ७० टक्केच्या वर आहे. तर इतर सर्व पिकांचे उत्पादन जवळ जवळ ३० टक्के आहे.

P. G. DEPARTMENT OF BOTANY

YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE

COLLEGE LAKHANDUR

AFFILIATED TO

RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR

2022-23



Certificate



I hereby certify that the project entitled "DIVERSITY OF DESMIDS IN MASAL LAKE, LAKHANDUR TAHSIL, BHANDARA DISTRICT (M.S.) INDIA", submitted for the award of the Degree of **MASTER OF SCIENCE** in the faculty of Science & Technology (Botany), of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur embodies the results of bonafide research work, carried out by **AISHWARYA DIPAK SHIVANKAR**, under my guidance and supervision.

Place: Lakhandur

Date : 28/06/2023

Mr. D. N. LANJEWAR

Supervisor

Forwarded by:

Mr. D. N. LANJEWAR
Head
Department of Botany

Dr. J. V. Dadve
Principal
Y.C.College Lakhandur

28/06/23

DEPARTMENT OF BOTANY

YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE

COLLEGE LAKHANDUR

AFFILIATED TO

RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR

2022-23



Certificate



I hereby certify that the project entitled "STUDIES ON TIMBER YIELDING PLANTS IN LAKHANDUR AREA WITH SPECIAL REFERENCE TO MEDICINAL STUDY", submitted for the award of the Degree of **MASTER OF SCIENCE** in the faculty of Science & Technology (Botany), of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur embodies the results of bonafide research work, carried out by **AKANKSHA DHANANJAY FULE**, under my guidance and supervision.

Place: Lakhandur

Date : 28/06/23

Dr. N. S. Kamble

Supervisor

Forwarded by:

Mr. D. N. LANJEWAR

Head

Department of Botany

Dr. J. V. Dadve

Principal

28/06/23



P. G. DEPARTMENT OF BOTANY
YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE
COLLEGE LAKHANDUR
AFFILIATED TO
RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR
2022-23



Certificate



I hereby certify that the project entitled "STUDIES ON WEED DIVERSITY IN RICE FIELD OF SOUNDAD TA. SADAK ARJUNI", submitted for the award of the Degree of MASTER OF SCIENCE in the faculty of Science & Technology (Botany), of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur embodies the results of bonafide research work, carried out by BHAGYASHRI JAGESHWAR RAUT, under my guidance and supervision.

Place: Lakhander

Date: 23/06/23

Dr. N. S. Kamble

Supervisor

Forwarded by:



Mr. D. N. LANJEWAR
Head
Department of Botany

28/06/23

Dr. J.V. Dadv
Principal
Y.C. College Lakhander

P. G. DEPARTMENT OF BOTANY

YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE

COLLEGE LAKHANDUR

AFFILIATED TO

RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR

2022-23



Certificate



I hereby certify that the project entitled "DIVERSITY OF FOREST TREES IN LAKHANDUR TASHIL", submitted for the award of the Degree of MASTER OF SCIENCE in the faculty of Science & Technology (Botany), of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur embodies the results of bonafide research work, carried out by BHUPESH TUKARAM DAKHANE, under my guidance and supervision.

Place: Lakhandur

Date : 28/06/23

Mr. D. N. LANJEWAR

Supervisor

Forwarded by:

Mr. D. N. LANJEWAR
Head
Department of Botany



Dr. J. V. Dadve
Principal
Y.C.College Lakhandur

P. G. DEPARTMENT OF BOTANY

**YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE
COLLEGE LAKHANDUR**

**AFFILIATED TO
RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR
2022-23**



Certificate



I hereby certify that the project entitled "ROLE OF CHAPRAD PAHADI DURGA MATA TEMPLE IN CONSERVATION OF TREES", submitted for the award of the Degree of MASTER OF SCIENCE in the faculty of Science & Technology (Botany), of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur embodies the results of bonafide research work, carried out by DEEPA RAMU DESHMUKH, under my guidance and supervision.

Place: Lakhandur

Date : 28/06/2023

Mr. D. N. LANJEWAR

Supervisor

Forwarded by:

**Mr. D. N. LANJEWAR
Head
Department of Botany**



**Dr. J. V. Dadve
Principal
Y.C.College Lakhandur**

28/06/23

P. G. DEPARTMENT OF BOTANY

YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE

COLLEGE LAKHANDUR

AFFILIATED TO

RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR

2022-23



Certificate



I hereby certify that the project entitled "DIVERSITY OF ALGAE IN KHARASHI POND, LAKHANI TAHSIL, BHANDARA DISTRICT (M.S.) INDIA", submitted for the award of the Degree of MASTER OF SCIENCE in the faculty of Science & Technology (Botany), of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur embodies the results of bonafide research work, carried out by DIMPALTAI C. FUNDE, under my guidance and supervision.

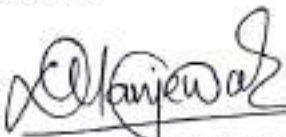
Place: Lakhandur


Date : 28/06/23


Dr. N.S. KAMBALE

Supervisor

Forwarded by:


Mr. D. N. LANJEWAR
Head
Department of Botany


Dr. J. V. Dadve
Principal
Y.C.College Lakhandur


28/06/23



P. G. DEPARTMENT OF BOTANY

**YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE
COLLEGE LAKHANDUR**

**AFFILIATED TO
RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR
2022-23**



Certificate



*I hereby certify that the project entitled
"STUDIES ON ETHNOBOTANICALLY IMPORTANT PLANTS USED
IN HAIR CARE", submitted for the award of the Degree of MASTER OF
SCIENCE in the faculty of Science & Technology (Botany), of Rashtrasant
Tukadoji Maharaj Nagpur University, Nagpur embodies the results of
bonafide research work, carried out by JANHAVI RAJIV KAMDI, under
my guidance and supervision.*

Place: Lakhandur

Date : 28/06/2023

Mr. D. N. LANJEWAR

Supervisor

Forwarded by:

Mr. D. N. LANJEWAR
Head
Department of Botany



Dr. J. V. Dadve
Principal
Y.C.College Lakhandur

28/06/23

P. G. DEPARTMENT OF BOTANY

YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE
COLLEGE LAKHANDUR

AFFILIATED TO
RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR

2022-23



Certificate



I hereby certify that the project entitled
"DIVERSITY OF ALGAE IN AGRICULTURAL LAND OF DHOLSAR
VILLAGE, LAKHANDUR TAHSIL", submitted for the award of the
Degree of MASTER OF SCIENCE in the faculty of Science & Technology
(Botany), of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur
embodies the results of bonafide research work, carried out by
MADHAVI MAHENDRA RAKHADE, under my guidance and supervision.

Place: Lakhander

Date : 28/06/2023

Mr. D. N. LANJEWAR

Supervisor

Forwarded by:

Mr. D. N. LANJEWAR
Head
Department of Botany

Dr. J. V. Dadve
Principal
Y.C.College Lakhander

28/06/23

P. G. DEPARTMENT OF BOTANY

**YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE
COLLEGE LAKHANDUR**

**AFFILIATED TO
RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR
2022-23**



Certificate



I hereby certify that the project entitled "ANALYSIS OF DISEASES IN RICE", submitted for the award of the Degree of MASTER OF SCIENCE in the faculty of Science & Technology (Botany), of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur embodies the results of bonafide research work, carried out by MANISHA D. LANJEWAR, under my guidance and supervision.

Place: Lakhandur

Date : 28/06/2023

Dr. N.S. KABLE

GUIDE

Forwarded by:

**Mr. D. N. LANJEWAR
Head
Department of Botany**

**Dr. J.V. Dadve
Principal
Y.C. College Lakhandur**



P. G. DEPARTMENT OF BOTANY

YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE

COLLEGE LAKHANDUR

AFFILIATED TO

RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR

2022-23



Certificate



I hereby certify that the project entitled "DIVERSITY OF PLANTS IN SIREGAON FOREST, ARJUNI MORGAN TAHSIL, GONDIA DISTRICT (M.S.) INDIA", submitted for the award of the Degree of MASTER OF SCIENCE in the faculty of Science & Technology (Botany), of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur embodies the results of bonafide research work, carried out by NANDINI MILIND DONODE, under my guidance and supervision.

Place: Lakhandur

Date : 28/06/2023

Dr. N.S. KAMBLE

Supervisor

Forwarded by:



Mr. D. N. LANJEWAR
Head
Department of Botany

Dr. J. V. Dadve
Principal
Y.C.College Lakhandur

28/06/23

P. G. DEPARTMENT OF BOTANY
YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE
COLLEGE LAKHANDUR
AFFILIATED TO
RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR
2022-23



Certificate



I hereby certify that the project entitled "INVESTIGATION ON SACRED PLANTS IN SAKOLI TAHSIL WITH RESPECT TO SACRED AND MARKETING VALUE", submitted for the award of the Degree of MASTER OF SCIENCE in the faculty of Science & Technology (Botany), of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur embodies the results of bonafide research work, carried out by NIKITA PRABHU NAKADE, under my guidance and supervision.

Place: Lakhndur

Date : 28/06/2023

Dr. N.S. KAMBLE

Supervisor

Forwarded by:



Mr. D. N. LANJEWAR
Head
Department of Botany

Dr. J. V. Dadve
Principal
Y.C.College Lakhndur

28/06/23

P. G. DEPARTMENT OF BOTANY

YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE

COLLEGE LAKHANDUR

AFFILIATED TO

RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR

2022-23



Certificate



I hereby certify that the project entitled "INVESTIGATION ON NATURAL DYE YELDING PLANTS IN ARJUNI MORGAON TAHSIL OF GONDIA DISTRICT", submitted for the award of the Degree of MASTER OF SCIENCE in the faculty of Science & Technology (Botany), of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur embodies the results of bonafide research work, carried out by PAVAN NARESH BUDGEWAR, under my guidance and supervision.

Place: Lakhandur

Date : 28/06/2023

Mr. D. N. LANJEWAR

Supervisor

Forwarded by:

Mr. D. N. LANJEWAR
Head
Department of Botany



Dr. J. V. Dadve
Principal

Y.C.College Lakhandur

28/06/23

P. G. DEPARTMENT OF BOTANY

**YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE
COLLEGE LAKHANDUR**

**AFFILIATED TO
RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR
2022-23**



Certificate



*I hereby certify that the project entitled
"DIVERSITY AND DENSITY OF FOREST TREES IN GOTHANGAON
RANGE OF ARJUNI MORGAON TAHSIL", submitted for the award of
the Degree of MASTER OF SCIENCE in the faculty of Science &
Technology (Botany), of Rashtrasant Tukadoji Maharaj Nagpur
University, Nagpur embodies the results of bonafide research work, carried
out by PORNIMA BHOJRAM SELOKAR, under my guidance and
supervision.*

Place: Lakhandur

Date : 26/06/23

Mr. D. N. LANJEWAR

Supervisor

Forwarded by:



**Mr. D. N. LANJEWAR
Head
Department of Botany**

**Dr. J. V. Dadve
Principal
Y.C.College Lakhandur**

25/06/23

**Principal
Y.C. College, Lakhandur
Dist. Bhandara**

P. G. DEPARTMENT OF BOTANY

YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE

COLLEGE LAKHANDUR

AFFILIATED TO

RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR

2022-23



Certificate



*I hereby certify that the project entitled "Availability and Potential use of NTFP obtained from Trees in Dighori Forest area Bhandara district M.S." submitted for the award of the Degree of **MASTER OF SCIENCE** in the faculty of Science & Technology (**Botany**), of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur embodies the results of bonafide research work, carried out by **PRACHI BHOJRAJ HUKARE**, under my guidance and supervision.*

Place: Lakhandur

Date : 28/06/2023

D. N. LANJEWAR

Supervisor

Forwarded by:

Mr. D. N. LANJEWAR
Head
Department of Botany

Dr. J. V. Dadve
Principal
Y.C.College Lakhandur



P. G. DEPARTMENT OF BOTANY

YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE

COLLEGE LAKHANDUR

AFFILIATED TO

RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR

2022-23



Certificate



I hereby certify that the project entitled "DIVERSITY OF ALGAE IN LAKHANDUR", submitted for the award of the Degree of MASTER OF SCIENCE in the faculty of Science & Technology (Botany), of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur embodies the results of bonafide research work, carried out by PRATIKSHA JAGESHWAR KHOBRADE, under my guidance and supervision.

Place: Lakhandur

Date : 28/06/2023

Mr. D. N. LANJEWAR

Supervisor

Forwarded by:

Mr. D. N. LANJEWAR
Head
Department of Botany



Dr. J. V. Dadve
Principal
Y.C.College Lakhandur

28/06/23

P. G. DEPARTMENT OF BOTANY
YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE
COLLEGE LAKHANDUR
AFFILIATED TO
RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR
2022-23



Certificate



I hereby certify that the project entitled "DIVERSITY OF DIATOMS IN SHIVANIBANDH LAKE", submitted for the award of the Degree of MASTER OF SCIENCE in the faculty of Science & Technology (Botany), of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur embodies the results of bonafide research work, carried out by PRATIKA PRADEEP BADWAIK, under my guidance and supervision.


Place: Lakhandur

Date: 28/06/2023


Mr. D. N. LANJEWAR
Supervisor

Forwarded by:


Mr. D. N. LANJEWAR
Head
Department of Botany


Dr. S. V. Dadve
Principal
Y.C. College Lakhandur


28/06/23



P. G. DEPARTMENT OF BOTANY

YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE

COLLEGE LAKHANDUR

AFFILIATED TO

RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR

2022-23



Certificate



I hereby certify that the project entitled "STUDIES ON WEED DIVERSITY IN RICE FIELD IN GHATBORI / TELI (GONDIA)", submitted for the award of the Degree of MASTER OF SCIENCE in the faculty of Science & Technology (Botany), of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur embodies the results of bonafide research work, carried out by Priyanka Prakash Mohurle, under my guidance and supervision.

Place: Lakhander

Date: 28/06/23

Miss. ANJALI Mam

Supervisor

Forwarded by:

Mr. D. N. LANJEWAR
Head
Department of Botany

Dr. J.V. Dadve
Principal
Y.C. College Lakhander

28/06/23



P. G. DEPARTMENT OF BOTANY
YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE
COLLEGE LAKHANDUR
AFFILIATED TO
RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR
2022-23



Certificate



I hereby certify that the project entitled
**"STUDIES ON NAVAGRAHA PLANTS WITH SPECIAL REFERENCE
TO SACRED VALUE AND MEDICINAL VALUE"**, submitted for the
award of the Degree of **MASTER OF SCIENCE** in the faculty of Science &
Technology (Botany), of Rashtrasant Tukadoji Maharaj Nagpur
University, Nagpur embodies the results of bonafide research work, carried
out by **PRIYANKA MADHORA CHACHANE**, under my guidance and
supervision.

Place: Lakhndur
Date: 26/08/23

Mr. D. N. LANJEWAR
Supervisor

Forwarded by:



Mr. D. N. LANJEWAR
Head
Department of Botany

Dr. J. V. Dadve
Principal
Y.C. College Lakhndur

28/06/23

P. G. DEPARTMENT OF BOTANY
YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE
COLLEGE LAKHANDUR
AFFILIATED TO
RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR
2022-23



Certificate



*I hereby certify that the project entitled "CROP DISEASE OF TOMATO PLANT IN ARMORI VILLAGE (DIST. - GADCHIROLI) - A SURVEY", submitted for the award of the Degree of **MASTER OF SCIENCE** in the faculty of Science & Technology (Botany), of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur embodies the results of bonafide research work, carried out by **PRIYANKA RAJESHWAE NAKHATE**, under my guidance and supervision.*

Place: Lakhandur

Date : 28/06/23

Dr. N. S. Kamble

Supervisor

Forwarded by:



Mr. D. N. LANJEWAR
Head
Department of Botany

Dr. J. V. Dadve
Principal
Y.C.College Lakhandur

28/06/23

P. G. DEPARTMENT OF BOTANY
YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE
COLLEGE LAKHANDUR
AFFILIATED TO
RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR
2022-23



Certificate



I hereby certify that the project entitled "DISEASES AND MAJOR PESTS ON SELECTED FRUIT PLANTS IN PANDHARPAUNI IN RAJURA TAHSIL, CHANDRAPUR DISTRICT", submitted for the award of the Degree of MASTER OF SCIENCE in the faculty of Science & Technology (Botany), of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur embodies the results of bonafide research work, carried out by PUJA PRAKASH AGASHE, under my guidance and supervision.

Place: Lakhndur

Date : 28/06/2023

Mr. D. N. LANJEWAR

Supervisor

Forwarded by:



Mr. D. N. LANJEWAR
Head
Department of Botany

Dr. J. V. Dadve
Principal
Y.C.College Lakhndur

28/06/23

P. G. DEPARTMENT OF BOTANY
YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE
COLLEGE LAKHANDUR
AFFILIATED TO
RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR
2022-23



Certificate



I hereby certify that the project entitled "ALGAL FLORA OF CHICHGAON LAKE, LAKHANDUR TAHSIL, BHADARA DISTRICT", submitted for the award of the Degree of MASTER OF SCIENCE in the faculty of Science & Technology (Botany), of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur embodies the results of bonafide research work, carried out by SHUBHANGI HARIDAS BHOYAR, under my guidance and supervision.

Place: Lakhandur

Date : 28/06/2023

Mr. D. N. LANJEWAR

Supervisor

Forwarded by:

Mr. D. N. LANJEWAR
Head
Department of Botany



Dr. J. V. Dadve
Principal
Y.C.College Lakhandur

28/06/23

DEPARTMENT OF BOTANY

YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE

COLLEGE LAKHANDUR

AFFILIATED TO

RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR

2022-23



Certificate



I hereby certify that the project entitled "Phytochemical Evaluation from Chrozophora Tinctoria", submitted for the award of the Degree of **MASTER OF SCIENCE** in the faculty of Science & Technology (**Botany**), of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur embodies the results of bonafide research work, carried out by **MS. SNEHA R. FATE**, under my guidance and supervision.

Place: Lakhandur

Date : 28/06/2023

Mr. D. N. LANJEWAR

Assistant Professor

Forwarded by:

Mr. D. N. LANJEWAR
Head
Department of Botany

Dr. J. V. Dadve
Principal

DEPARTMENT OF BOTANY



P. G. DEPARTMENT OF BOTANY

YASHWANTRAO CHAVHAN CRIC COLLEGE OF SCIENCE AND TECHNOLOGY
COLLEGE LAKHANDUR

OFFICE NO.

RASHTRANT TUKADOL MAHARAJA NAGPUR UNIVERSITY NAGPUR

2022-23



Certificate



I hereby certify that the project entitled "STUDIES ON PLANTS ASSOCIATED WITH NAKSHATRAVANA WITH SPECIAL REFERENCE TO MEDICINAL VALUE", submitted for the award of the Degree of MASTER OF SCIENCE in the faculty of Science & Technology (Botany), of Rashtrant Tukadol Maharaj Nagpur University, Nagpur embodies the results of bonafide research work, carried out by SWITY VISHWADIP SANGOLE, under my guidance and supervision.

Place: Lakhander

Date : 28/06/23

Mr. D. N. LANJEWAR

Supervisor

Forwarded by:



Mr. D. N. LANJEWAR
Head
Department of Botany

Dr. J. V. Dade
Principal
Y.C. College Lakhander

28/06/23

P. G. DEPARTMENT OF BOTANY
YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE
COLLEGE LAKHANDUR
AFFILIATED TO
RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR
2022-23



Certificate



I hereby certify that the project entitled " STUDY ON WEED DIVERSITY IN MAIZE FIELD ON SADAK ARJUNI, AT. KANHARTOLA, TA. SADAK ARJUNI ", submitted for the award of the Degree of MASTER OF SCIENCE in the faculty of Science & Technology (Botany), of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur embodies the results of bonafide research work, carried out by VAISHALI SANJAY MENDHE, under my guidance and supervision.

Place: Lakhandur

Date : 28/06/2023

Mr. D. N. LANJEWAR

Supervisor

Forwarded by:



Mr. D. N. LANJEWAR
Head
Department of Botany

Dr. J.V. Dadve
Principal
Y.C.College Lakhandur

28/06/23

DEPARTMENT OF BOTANY

YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE
COLLEGE LAKHANDUR

AFFILIATED TO
RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR

2022-23



Certificate



*I hereby certify that the project entitled "Study of exotic plant species found in Sakoli Taluka", submitted for the award of the Degree of **MASTER OF SCIENCE** in the faculty of Science & Technology (Botany), of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur embodies the results of bonafide research work, carried out by **Vidya Parasram Bahekar**, under my guidance and supervision.*

Place: Lakhandur

Date : 28/06/2023

Mr. D. N. LANJEWAR
OR
Dr. N.S. KAMBLE
Assistant Professor

Forwarded by:



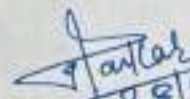
Mr. D. N. LANJEWAR
Head
Department of Botany

Dr. J. V. Dadve
Principal

25/06/23

CERTIFICATE

This is to certify that the work incorporated in this project entitled "**Qualitative phytochemical screening of praecitrullus fistulosus plant extract**" is satisfactory carried out and completed by **Miss. Aachal Ramesh Harinkhede**, M.Sc chemistry, post-graduation teaching department of chemistry, Yashwantrao Chawhan arts, commerce and science college lakhandur for the partial fulfilment of the degree of **Master of science in chemistry** in the faculty of science and technology, Rashtrasant Tukdoji Maharaj Nagpur university, Nagpur for session 2022-23. To the best of my knowledge and belief, this work has not been submitted earlier to this or any other university or institution for any research degree or diploma or certificate.


28/06/2023
Supervisor

Place: Lakhandur

Date: 30/06/2023

Mr. Kishor S. Itankar

Assistant professor

Yashwantrao Chawhan arts, commerce
and science college lakhandur dist. Bhandara

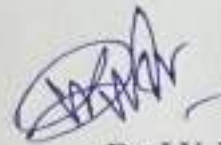

Forwarded by:

Dr. Sudhirkumar M. Maskey

Head & Assistant professor

Yashwantrao Chawhan arts, commerce
and science college lakhandur dist. Bhandara

Head
Department Of Chemistry
Y.C. College, Lakhandur
Dist. Bhandara-441203



Dr. J.V. Dadve

Principal

Y.C. College, Lakhandur
Dist. Bhandara
Yashwantrao Chawhan arts, commerce
and science college lakhandur dist. Bhandara



CERTIFICATE

This is to certify that the work incorporated in this project entitled **"Layered double hydroxide: A brief review on synthesis and Application"** is satisfactory carried out and completed by **Mr. Akash Rastrapal Rodge**, M.Sc chemistry, post-graduation teaching department of chemistry, Yashwantrao Chawhan arts, commerce and science college Lakhandur for the partial fulfilment of the degree of **Master of science in chemistry** in the faculty of science and technology, Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur for session 2022-23. To the best of my knowledge and belief, this work has not been submitted earlier to this or any other university or institution for any research degree or diploma or certificate.



Supervisor

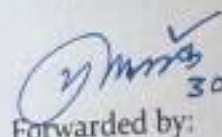
Mr. Shailesh K. Bhagat

Assistant professor

Yashwantrao Chawhan arts, commerce
and science college lakhandur Dist. Bhandara

Place: Lakhandur

Date: 30/06/2023

Forwarded by: 
30/06/23 Head
Department Of Chemistry
Y.C. College. Lakhandur
Dist. Bhandara-441803

Dr. Sudhirkumar M. Maskey

Head & Assistant professor
Yashwantrao Chawhan arts, commerce
and science college lakhandur Dist. Bhandara



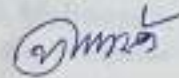
Dr. J.V. Dadve

Principal
PRINCIPAL
Yashwantrao Chawhan arts, commerce
and science college lakhandur Dist. Bhandara



Certificate

This is to certify that the project titled "*Synthesis, Characterizations and Practical Applicability of new Polymer MTUF*" is satisfactory carried out and completed by **Mr. Ashish Vishwanath Maske**, M.Sc. Chemistry, Post Graduate Teaching Department of Chemistry, Yashwantrao Chawhan Arts, Commerce and Science College, Lakhandur For the partial fulfillment of the Degree of Master of Science in Chemistry in the faculty of Science & Technology of Rashtrasant Tukadoji Maharaj Nagpur university, Nagpur in session 2022-2023. To the best of my knowledge and belief, this work has not been submitted earlier to this or any other University or Institution for any research degree or diploma or certificate.



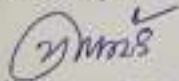
Supervisor

Dr. Sudhirkumar M. Maskey
Assistant Professor

Place:-Lakhandur

Date:- 30/06/2023

Forwarded By:



Dr. Sudhirkumar M. Maskey

Head

Department of Chemistry

Head

Department Of Chemistry
Y.C. College Lakhandur
Dist- Bhandara-441808



Dr. PRATIKPAL
Principal
Yashwantrao Chawhan College
Lakhandur Dist. Bhandara



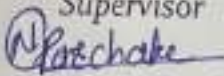
CERTIFICATE

This is to certify that the work incorporated in this project entitled "A Review on Biosynthesis of ZnO Nanoparticles and its Applications" is satisfactory carried out and completed by Miss. Bharti S. Chute, M.Sc. chemistry, post-graduation teaching department of chemistry, Yashwantrao Chawhan arts, commerce and science college Lakhandur for the partial fulfilment of the degree of Master of science in chemistry in the faculty of science and technology, Rashtrasant Tukdoji Maharaj Nagpur university, Nagpur for session 2022-23. To the best of my knowledge and belief, this work has not been submitted earlier to this or any other university or institution for any research degree or diploma or certificate.

Place: Lakhandur

Date: 30-6-23

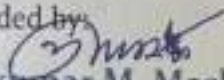
Supervisor


Miss. Nitu G. Parchake

Assistant professor

Yashwantrao Chawhan Arts, Commerce and
Science college Lakhandur dist. Bhandara


Forwarded by


Dr. Sudhir Kumar M. Maskey

Head & Assistant professor

Yashwantrao chawhan Arts, Commerce
And Science college Lakhandur

dist. Bhandara


Head
Department of Chemistry
Y.C.C. Lakhandur
Dist. Bhandara-441803


Principal
Y.C. College, Lakhandur
Dist. Bhandara

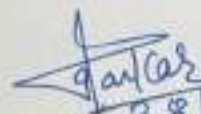
Yashwantrao chawhan Arts, Commerce
and Science college Lakhandur

dist. Bhandara

CERTIFICATE

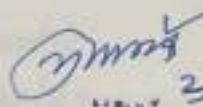
This is to certify that the work incorporated in this project entitled "Green synthesis and structural characterization of cadmium oxide nanoparticle using *G. Sepium* flower extract" satisfactory carried out and completed by **Mr. Bhavesh Sanjay Rahangdale**, M.Sc. chemistry, post-graduation teaching department of chemistry, Yashwantrao Chawhan arts, commerce and science college Lakhandur for the partial fulfilment of the degree of **Master of science in chemistry** in the faculty of science and technology, Rashtrasant Tukdoji Maharaj Nagpur university, Nagpur for session 2022-23. To the best of my knowledge and belief, this work has not been submitted earlier to this or any other university or institution for any research degree or diploma or certificate.

Place: Lakhandur
Date: 30/06/23


28/06/2023
Supervisor

Mr. Kishor S. Itankar

Assistant professor
Yashwantrao Chawhan arts, commerce
and science college Lakhandur dist. Bhandara


30.06.23

Department of Chemistry
EC College Lakhandur
For more details contact 441888

Dr. Sudhirkumar M. Maskey
Head & Assistant professor

Yashwantrao Chawhan arts, commerce
and science college Lakhandur dist. Bhandara



Dr. J.V. Dadve
Principal

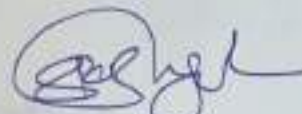
Yashwantrao Chawhan arts, commerce
and science college Lakhandur

PRINCIPAL
Yashwantrao Chawhan College
Lakhandur Dist. Bhandara



CERTIFICATE

This is to certify that the work incorporated in this project entitled **"Synthesis and Characterizations of Mg-Al-CO₃ Layered double hydroxide"** is satisfactory carried out and completed by **Miss. Diksha R. Dhoke**, M.Sc chemistry, post-graduation teaching department of chemistry, Yashwantrao Chawhan arts, commerce and science college lakhandur for the partial fulfilment of the degree of **Master of science in chemistry** in the faculty of science and technology, Rashtrasant Tukdoji Maharaj Nagpur university, Nagpur for session 2022-23. To the best of my knowledge and belief, this work has not been submitted earlier to this or any other university or institution for any research degree or diploma or certificate.



Supervisor

Mr. Shailesh K. Bhagat

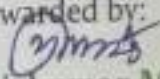
Assistant professor

Yashwantrao Chawhan arts, commerce
and science college lakhandur dist. Bhandara

Place: Lakhandur

Date: 30/06/2023


Forwarded by:



Dr. Sudhirkumar M. Maskey

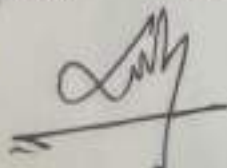
Head & Assistant professor
Yashwantrao Chawhan arts, commerce
and science college lakhandur dist. Bhandara

Head
Department Of Chemistry
V.C. College, Lakhandur
Dist. Bhandara-441 808



Dr. J.V. Dadve

Principal
Y.C. College, Lakhandur
Dist. Bhandara
Yashwantrao Chawhan arts, commerce
and science college lakhandur dist. Bhandara



Certificate

This is to certify that the project entitled "*Synthesis, Characterizations and Practical Applicability of new Polymer RMF-1*" is satisfactory carried out and completed by **Miss. Miss. Dipali Mohan Mehendale**, M.Sc. Chemistry, Post Graduate Teaching Department of Chemistry, Yashwantrao Chawhan Arts, Commerce and Science College, Lakhandur For the partial fulfillment of the Degree of Master of Science in Chemistry in the faculty of Science & Technology of Rashtrasant Tukadoji Maharaj Nagpur university, Nagpur in session 2022-2023. To the best of my knowledge and belief, this work has not been submitted earlier to this or any other University or Institution for any research degree or diploma or certificate.



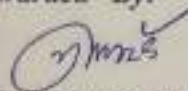
Supervisor

Dr. Sudhirkumar M. Maskey
Assistant Professor

Place:- Lakhandur

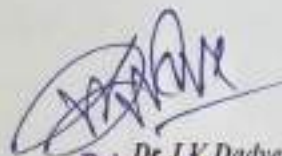
Date:- 30-06-2023

Forwarded By:




Dr. Sudhirkumar M. Maskey
Head

Department of Chemistry
Department Of Chemistry
Y.C. College, Lakhandur
Dist. Bhandara



Dr. J.V. Dadve
Principal
Y.C. College, Lakhandur
Dist. Bhandara



CERTIFICATE

This is to certify that the work incorporated in this project entitled "Qualitative phytochemical screening of *Gliricidia sepium* Flower extract" satisfactory carried out and completed by Miss. Kajal Ashok Humane, M.Sc. chemistry, post-graduation teaching department of chemistry, Yashwantrao Chawhan arts, commerce and science college Lakhandur for the partial fulfilment of the degree of Master of science in chemistry in the faculty of science and technology, Rashtrasant Tukdoji Maharaj Nagpur university, Nagpur for session 2022-23. To the best of my knowledge and belief, this work has not been submitted earlier to this or any other university or institution for any research degree or diploma or certificate.

Place: Lakhandur

Date: 30/06/2023

Place: Lakhandur

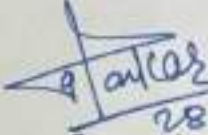
Date: 30/06/2023

Forwarded by:

Dr. Sudhirkumar M. Maskey

Head & Assistant professor
Yashwantrao Chawhan arts, commerce
and science college Lakhandur dist. Bhandara

Department Of Chemistry
Y.C. College, Lakhandur
Dist. Bhandara-441803


28/08/2023
Supervisor

Mr. Kishor S. Itankar

Yashwantrao Chawhan arts, commerce
and science college Lakhandur dist. Bhandara

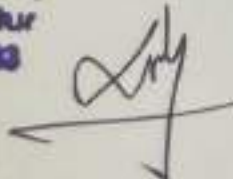
Miss. Kajal Ashok Humane


Dr. J.V. Dadve

Principal

Yashwantrao Chawhan arts, commerce
and science college Lakhandur

Principal
Y.C. College, Lakhandur
Dist. Bhandara



CERTIFICATE

This is to certify that the work incorporated in this project entitled "Effect of stirring time on Structure and Morphology of Mg-Al-CO₃ Layered Double Hydroxide" is satisfactory carried out and completed by Miss. Manisha Shivshankar Bhagat, M.Sc chemistry, post-graduation teaching department of chemistry, Yashwantrao Chawhan arts, commerce and science college Lakhandur for the partial fulfilment of the degree of Master of science in chemistry in the faculty of science and technology, Rashtrasant Tukdoji Maharaj Nagpur university, Nagpur for session 2022-23. To the best of my knowledge and belief, this work has not been submitted earlier to this or any other university or institution for any research degree or diploma or certificate.



Supervisor

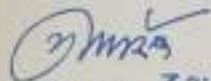
Mr. Shailesh K. Bhagat

Assistant professor

Yashwantrao Chawhan arts, commerce
and science college Lakhandur Dist. Bhandara

Place: Lakhandur

Date: 30-6-2023



Forwarded by: 30-06-23

Dr. Sudhirkumar M. Maskey

Head

Head & Assistant Professor

Department of Chemistry
Yashwantrao Chawhan Arts, Commerce
and Science College, Lakhandur - 441803
Dist. Bhandara



Dr. J.V. Dadve

Principal

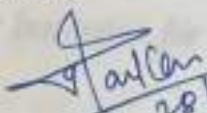
Yashwantrao Chawhan College
Arts, Commerce and Science
Lakhandur Dist. Bhandara



CERTIFICATE

DECLARATION

This is to certify that the work incorporated in this project entitled "Qualitative phytochemical investigation of root, stem, leaf, flower of *N. oleander* plant using petroleum extract" is satisfactory IV chemistry, post-graduation teaching department of chemistry, Yashwantrao Chawhan arts, commerce and science college lakhandur for the partial fulfilment of the degree of Master of science in chemistry in the faculty of science and technology, Rashtrasant Tukdoji Maharaj Nagpur university, Nagpur for session 2022-23. To the best of my knowledge and belief, this work has not been submitted earlier to this or any other university or institution for any research degree or diploma or certificate.


28/06/2023
Supervisor

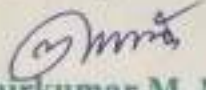
Place: Lakhandur


Date: 30-06-2023

Mr. Kishor S. Itankar

Assistant professor
Yashwantrao Chawhan arts, commerce
and science college, Lakhandur

Forwarded by:


Dr. Sudhirkumar M. Maskey
Head & Assistant professor
Yashwantrao Chawhan arts,
commerce and science college
Lakhandur


Dr. J.V. Dadve
Principal
Yashwantrao Chawhan arts,
commerce and science college,
Dist. Bhandara
Lakhandur

Head
Department Of Chemistry
Y.C. College, Lakhandur
Dist. Bhandara-441 999



Certificate

This is to certify that the project entitled "**Chlorpyrifos Pesticide Removal from Water Using Activated Carbon ANAC**" is satisfactory carried out and completed by **Miss. Nikita Rahishkumar Ninawe**, M.Sc. Chemistry, Post Graduate Teaching Department of Chemistry, Yashwantrao Chawhan Arts, Commerce and Science College, Lakhandur For the partial fulfillment of the Degree of Master of Science in Chemistry in the faculty of Science & Technology of Rashtrasant Tukadoji Maharaj Nagpur university, Nagpur in session 2022-2023. To the best of my knowledge and belief, this work has not been submitted earlier to this or any other University or Institution for any research degree or diploma or certificate.

Place:- Lakhandur

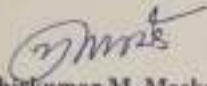
Date:- 30 June 2023



Supervisor

Dr. Sudhirkumar M. Maskey
Assistant Professor

Forwarded By:



Dr. Sudhirkumar M. Maskey
Head & Assistant Professor
Department of Chemistry
Department Of Chemistry
Y.C. College, Lakhandur
Dist. Bhandara-441803



Principal
Y. C. College, Lakhandur
Dist. Bhandara

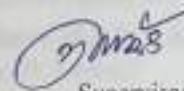


Certificate

This is to certify that the project entitled "*Removal of Malachite Green Dye Using Activated Carbon PMWAC*" is satisfactory carried out and completed by *Miss. Nilima Lekhchan Kore, M.Sc. Chemistry, Post Graduate Teaching Department of Chemistry, Yashwantrao Chawhan Arts, Commerce and Science College, Lakhandur* For the partial fulfillment of the Degree of Master of Science in Chemistry in the faculty of Science & Technology of Rashtrasant Tukadoji Maharaj Nagpur university, Nagpur in session 2022-2023. To the best of my knowledge and belief, this work has not been submitted earlier to this or any other University or Institution for any research degree or diploma or certificate.

Place:- Lakhandur

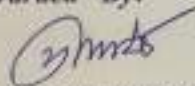
Date:- 30/06/2023



Supervisor

Dr. Sudhirkumar M. Maskey
Assistant Professor

Forwarded By:

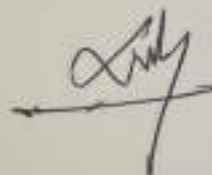


Dr. Sudhirkumar M. Maskey
Head
Department of Chemistry

Head
Department Of Chemistry
Y.C. College, Lakhandur
Dist. Bhandara-441200



Dr. J. K. Daulve
Principal
Y. C. College, Lakhandur
Dist, Bhandara



Certificate

This is to certify that the project entitled "**Removal of Toxic As(III) by Using New Copolymer SAMF-I**" is satisfactory carried out and completed by **Mr. Pankaj Vishwanath Zode**, M.Sc. Chemistry, Post Graduate Teaching Department of Chemistry, Yashwantrao Chawhan Arts, Commerce and Science College, Lakhandur For the partial fulfillment of the Degree of Master of Science in Chemistry in the faculty of Science & Technology of Rashtrasant Tukadoji Maharaj Nagpur university, Nagpur in session 2022-2023. To the best of my knowledge and belief, this work has not been submitted earlier to this or any other University or Institution for any research degree or diploma or certificate.



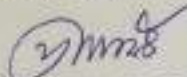
Supervisor

Dr. Sudhirkumar M. Maskey
Assistant Professor

Place:- Lakhandur

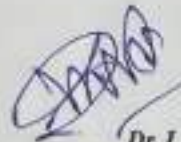
Date:- 30/06/2023

Forwarded By:



Dr. Sudhirkumar M. Maskey
Head
Department of Chemistry

Head
Department Of Chemistry
Y.C. College, Lakhandur
Dist. Bhandara-441383



Dr. J.V. Dadve

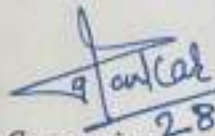
Principal

Yashwantrao Chawhan College
Lakhandur Dist. Bhandara



CERTIFICATE

This is to certify that the work incorporated in this project entitled "Qualitative phytochemical analysis of *Thithonia diversifolia* leaf extract" satisfactory carried out and completed by **Miss. Pooja Deochand walde**, M.Sc. chemistry, post-graduation teaching department of chemistry, Yashwantrao Chawhan arts, commerce and science college Lakhandur for the partial fulfilment of the degree of **Master of science in chemistry** in the faculty of science and technology, Rashtrasant Tukdoji Maharaj Nagpur university, Nagpur for session **2022-23**. To the best of my knowledge and belief, this work has not been submitted earlier to this or any other university or institution for any research degree or diploma or certificate.


Supervisor 28/06/2023

Place: Lakhandur

Date: 30/06/23

Mr. Kishor S. Itankar

Assistant professor

Yashwantrao Chawhan arts,
commerce and science college Lakhandur
dist. Bhandara

Place: Lakhandur


Forwarded by:

Dr. Sudhirkumar M. Maskey

Head & Assistant professor

Yashwantrao Chawhan arts, commerce
and science college Lakhandur dist. Bhandara

Place: Lakhandur

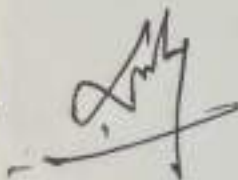


Dr. J.V. Dadve

Principal

Yashwantrao Chawhan arts, commerce
and science college Lakhandur
Dist. Bhandara
dist. Bhandara

Head
Department Of Chemistry
Y.C. College, Lakhandur
Dist. Bhandara-441803



Dedication

Certificate

This is to certify that the project entitled "**Removal of Hexavalent Chromium Using Activated Carbon CCAC**" is satisfactory carried out and completed by **Miss. Pranali Ramesh Lichade, M.Sc. Chemistry, Post Graduate Teaching Department of Chemistry, Yashwantrao Chawhan Arts, Commerce and Science College, Lakhandur** For the partial fulfillment of the Degree of Master of Science in Chemistry in the faculty of Science & Technology of Rashtrasant Tukadoji Maharaj Nagpur university, Nagpur in session 2022-2023. To the best of my knowledge and belief, this work has not been submitted earlier to this or any other University or Institution for any research degree or diploma or certificate.

Miss. Pranali Ramesh Lichade

Dr. Sudhirkumar M. Maskey

Place:- Lakhandur

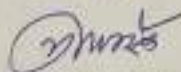
Date:- 30/06/2023



Supervisor

Dr. Sudhirkumar M. Maskey
Assistant Professor

Forwarded By:

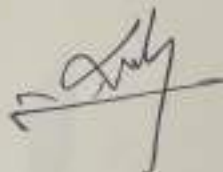


Dr. Sudhirkumar M. Maskey
Head
Department of Chemistry



Prakash D. Dudve
Y. C. College, Lakhandur
Dist. Bhandara

Head
Department Of Chemistry
Y.C. College Lakhandur
Dist. Bhandara-441803



Certificate

This is to certify that the project entitled "*Synthesis, Characterizations and Practical Applicability of new Polymer RTUF-I*" is satisfactory carried out and completed by *Miss. Pratiksha Sadanand Kargate, M.Sc. Chemistry, Post Graduate Teaching Department of Chemistry, Yashwantrao Chawhan Arts, Commerce and Science College, Lakhandur* For the partial fulfillment of the Degree of Master of Science in Chemistry in the faculty of Science & Technology of Rashtrasant Tukadoji Maharaj Nagpur university, Nagpur in session 2022-2023. To the best of my knowledge and belief, this work has not been submitted earlier to this or any other University or Institution for any research degree or diploma or certificate.

Place:- Lakhandur

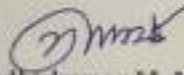
Date:- 30-08-2023



Supervisor

Dr. Sudhirkumar M. Maskey
Assistant Professor

Forwarded By:



Dr. Sudhirkumar M. Maskey
Head
Department of Chemistry

Head
Department of Chemistry
Y.C. College, Lakhandur
Dist. Bhandara-441803



Principal
Dr. J. S. Dhadve
Y.C. College, Lakhandur
Principal
Dist. Bhandara



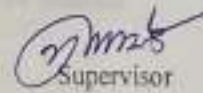
Declaration

Certificate

This is to certify that the project entitled "*Synthesis, Characterizations and Practical Applicability of new Polymer HASF-I*" is satisfactory carried out and completed by *Miss. Priti Tulsidas Chakole, M.Sc. Chemistry, Post Graduate Teaching Department of Chemistry, Yashwantrao Chawhan Arts, Commerce and Science College, Lakhandur* For the partial fulfillment of the Degree of Master of Science in Chemistry in the faculty of Science & Technology of Rashtrasant Tukadoji Maharaj Nagpur university, Nagpur in session 2022-2023. To the best of my knowledge and belief, this work has not been submitted earlier to this or any other University or Institution for any research degree or diploma or certificate.

Place:- Lakhandur

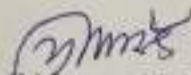
Date:- 30-06-2023



Supervisor

Dr. Sudhirkumar M. Maskey
Assistant Professor

Forwarded By:

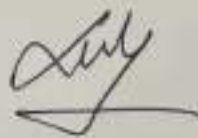


Dr. Sudhirkumar M. Maskey
Head
Department of Chemistry

Head
Department Of Chemistry
Y.C. College, Lakhandur
Dist. Bhandara-481003




Dr. V. Dadve
Principal
Y.C. College, Lakhandur
Dist. Bhandara



CERTIFICATE

This is to certify that the work incorporated in this project entitled "*Review On Bio based nano filler - A superior material for rubber composites*" is satisfactory carried out and completed by Miss. Priya Bharat Bahekar, M.Sc chemistry, post-graduation teaching department of chemistry, Yashwantrao Chawhan arts, commerce and science college lakhandur for the partial fulfillment of the degree of Master of science in chemistry in the faculty of science and technology, Rashtrasant Tukdoji Maharaj Nagpur university, Nagpur for session 2022-23. To the best of my knowledge and belief, this work has not been submitted earlier to this or any other university or institution for any research degree or diploma or certificate.

Forwarded by:

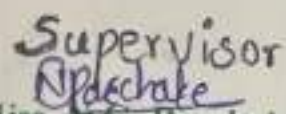

Dr. Sudhir Kumar M. Maskey
Head & Assistant professor

Yashwantrao Chawhan arts, commerce
and science college lakhandur dist. Bhandara

Department Of Chemistry
Y.C College, Lakh. Dist. Bhandara-441066


Place: Lakhandur

Date: 30/06/2023

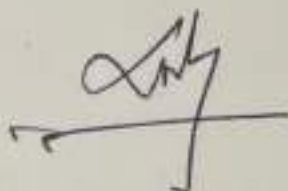
Supervisor

Miss. N.G. Parchake

Assistant professor

Yashwantrao Chawhan arts, commerce
and science college lakhandur dist. Bhandara

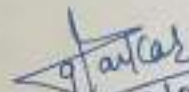

P. E. College, Lakhandur
Principal
Dist. Bhandara

Yashwantrao Chawhan arts, commerce
and science college lakhandur dist. Bhandara



CERTIFICATE


This is to certify that the work incorporated in this project entitled "Green synthesis of silver nanoparticle using *Praecitrullus Fistulosus* leaf extract" satisfactory carried out and completed by Mr. Rahul Mulchand Kewat, M.Sc. chemistry, post-graduation teaching department of chemistry, Yashwantrao Chawhan arts, commerce and science college Lakhandur for the partial fulfilment of the degree of **Master of science in chemistry** in the faculty of science and technology, Rashtrasant Tukdoji Maharaj Nagpur university, Nagpur for session 2022-23. To the best of my knowledge and belief, this work has not been submitted earlier to this or any other university or institution for any research degree or diploma or certificate.


28/06/2023
Supervisor

Place: Lakhandur
Date: 30/06/2023

Mr. Kishor S. Itankar
Assistant professor

Yashwantrao Chawhan arts, commerce
and science college Lakhandur dist. Bhandara


30.06.23
Head
Department Of Chemistry
Y.C. College. Lakhandur
Dist. Bhandara-441803

Dr. Sudhirkumar M. Maskey

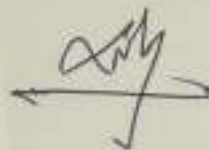
Head & Assistant professor
Yashwantrao Chawhan arts, commerce
and science college Lakhandur dist. Bhandara



Dr. J.V. Dadve

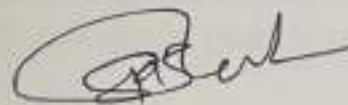
Principal
Yashwantrao Chawhan arts, commerce
and science college Lakhandur
dist. Bhandara

PRINCIPAL
Yashwantrao Chawhan College
Lakhandur Dist. Bhandara



CERTIFICATE

This is to certify that the work incorporated in this project entitled **Synthesis and Characterization of Calcinite Layered Double Hydroxide** is satisfactory carried out and completed by Mr. Ravikumar Chudaman Kavgate, M.Sc. chemistry, post-graduation teaching department of chemistry, Yashwantrao Chawhan arts, commerce and science college Lakhandur for the partial fulfilment of the degree of **Master of science in chemistry** in the faculty of science and technology, Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur for session 2022-23. To the best of my knowledge and belief, this work has not been submitted earlier to this or any other university or institution for any research degree or diploma or certificate.



Supervisor

Mr. Shailesh K. Bhagat

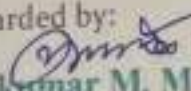
Assistant professor

Yashwantrao Chawhan arts, commerce
and science college Lakhandur Dist. Bhandara

Place: Lakhandur

Date: 30/06/23

Forwarded by:


Dr. Sudhirkumar M. Maskey

Head & Assistant professor
Yashwantrao Chawhan arts, commerce
and science college Lakhandur
Dist. Bhandara.

Head
Department Of Chemistry
Y.C. College, Lakhandur
Dist-Bhandara-441803



Dr. J.V. Dadve

Principal

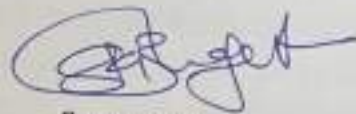
Yashwantrao Chawhan arts,
commerce and science college
Lakhandur Dist. Bhandara.

PRINCIPAL
Yashwantrao Chawhan College,
Lakhandur Dist. Bhandara



CERTIFICATE

This is to certify that the work incorporated in this project entitled "Effect of stirring rate on Structural Morphology of Mg-Al-CO₃ layered double hydroxide" satisfactory carried out and completed by Miss. Rupali S. Rahangdale, M.Sc. chemistry, post-graduation teaching department of chemistry, Yashwantrao Chawhan arts, commerce and science college Lakhandur for the partial fulfilment of the degree of Master of science in chemistry in the faculty of science and technology, Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur for session 2022-23. To the best of my knowledge and belief, this work has not been submitted earlier to this or any other University or Institution for any research degree or diploma or certificate.



Supervisor

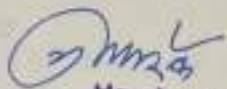
Mr. Shailesh K. Bhagat

Assistant professor

Yashwantrao Chawhan arts, commerce and science college Lakhandur Dist. Bhandara

Place: Lakhandur

Date: 30/06/2023



Head 30.6.23

Department Of Chemistry
Y.C. College, Lakhandur

Forwarded by
Phone Number-441893

Dr. Sudhirkumar M. Maskey

Head & Assistant professor

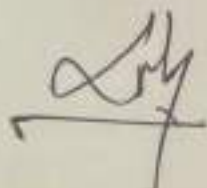
PRINCIPAL
Yashwantrao Chawhan arts, commerce and science college Lakhandur Dist. Bhandara



Dr. J.V. Dadve

Principal

Yashwantrao Chawhan arts, commerce and science college Lakhandur Dist. Bhandara
PRINCIPAL
Yashwantrao Chawhan College
Lakhandur Dist. Bhandara



Certificate

This is to certify that the project entitled "*Synthesis, Characterizations and Practical Applicability of new Polymer 8-HQTUF*" is satisfactory carried out and completed by **Mr. Rohit Vijay Fasate, M.Sc. Chemistry, Post Graduate Teaching Department of Chemistry, Yashwantrao Chawhan Arts, Commerce and Science College, Lakhandur** For the partial fulfillment of the Degree of Master of Science in Chemistry in the faculty of Science & Technology of Rashtrasant Tukadoji Maharaj Nagpur university, Nagpur in session 2022-2023. To the best of my knowledge and belief, this work has not been submitted earlier to this or any other University or Institution for any research degree or diploma or certificate.

Place:- Lakhandur

Date:- 30/06/2023

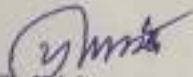


Supervisor

Dr. Sudhirkumar M. Maskey

Assistant Professor

Forwarded By:



Dr. Sudhirkumar M. Maskey

Head

Department of Chemistry

Head

Department of Chemistry

Y.C. College, Lakhandur

Bhauddara-441802



Dr. J.V. Dade

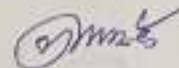
PRINCIPAL

Yashwantrao Chawhan College,
Lakhandur Dist. Bhauddara



Certificate

This is to certify that the project entitled "**Removal of As(III) Using Activated Carbon MLAC**" is satisfactory carried out and completed by **Miss. Sakshi Vinayak Nawkhare, M.Sc. Chemistry, Post Graduate Teaching Department of Chemistry, Yashwantrao Chawhan Arts, Commerce and Science College, Lakhandur** For the partial fulfillment of the Degree of Master of Science in Chemistry in the faculty of Science & Technology of Rashtrasant Tukadoji Maharaj Nagpur university, Nagpur in session 2022-2023. To the best of my knowledge and belief, this work has not been submitted earlier to this or any other University or Institution for any research degree or diploma or certificate.



Supervisor

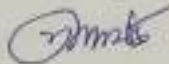
Dr. Sudhirkumar M. Maskey

Assistant Professor

Place:- Lakhandur

Date:- 22/06/2023

Forwarded By:



Dr. Sudhirkumar M. Maskey

Head

Department of Chemistry

Post

Department Of Chemistry

Y.C. College, Lakhandur

Dist. Bhandara-441808



Principal

Y.C. College, Lakhandur

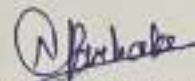
Dist. Bhandara



CERTIFICATE

This is to certify that the work incorporated in this project entitled "Review on Green Synthesis of Manganese Oxide Nanoparticles, Structural and Its Application" is satisfactory carried out and completed by Miss. Twinkal Yadora Kore, M.Sc chemistry, post-graduation teaching department of chemistry, Yashwantrao Chawhan arts, commerce and science college lakhandur for the partial fulfillment of the degree of Master of science in chemistry in the faculty of science and technology, Rashtrasant Tukdoji Maharaj Nagpur university, Nagpur for session 2022-23.

To the best of my knowledge and belief, this work has not been submitted earlier to this or any other university or institution for any research degree or diploma or certificate.



Miss. N.G. Parchake

Supervisor

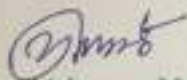
Assistant professor

Yashwantrao Chawhan Arts, Commerce
And Science College Lakhandur Dist. Bhandara

Place: Lakhandur

Date: 30/06/2023

Forwarded by:



Dr. Sudhirkumar M. Maskey

Head & Assistant professor

Yashwantrao Chawhan Arts, Commerce
And Science College Lakhandur Dist. Bhandara

Head
Department Of Chemistry
*C College, Lakhandur
Lakhandur-Bhandara-441803

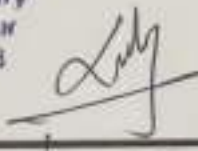


Dr. J.V. Dadve

Principal

Yashwantrao Chawhan Arts, Commerce
And Science College
Lakhandur Dist. Bhandara

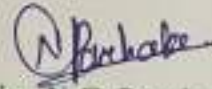
Principal
Yashwantrao Chawhan College
Lakhandur Dist. Bhandara



CERTIFICATE

This is to certify that the work incorporated in this project entitled "Review on Green Synthesis of Manganese Oxide Nanoparticles, Structural and Its Application" is satisfactory carried out and completed by Miss. Twinkal Yadora Kore, M.Sc chemistry, post-graduation teaching department of lakhandur for the partial fulfillment of the degree of Master of science in chemistry in the faculty of science and technology, Rashtrasant Tukdoji Maharaj Nagpur university, Nagpur for session 2022-23.

To the best of my knowledge and belief, this work has not been submitted earlier to this or any other university or institution for any research degree or diploma or certificate.



Miss. N.G. Parchake

Supervisor

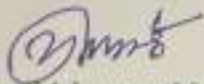
Assistant professor

Yashwantrao Chawhan Arts, Commerce
And Science College Lakhandur Dist. Bhandara

Place: Lakhandur

Date: 30/06/2023

Forwarded by:



Dr. Sudhirkumar M. Maskey

Head & Assistant professor

Yashwantrao Chawhan Arts, Commerce
And Science College Lakhandur Dist. Bhandara

Head
Department Of Chemistry
*C College, Lakhandur
Dist-Bhandara-441803




Dr. J.V. Dadve

Principal

Yashwantrao Chawhan Arts, Commerce
And Science College Lakhandur Dist. Bhandara

Principal
Yashwantrao Chawhan College
Lakhandur Dist. Bhandara



CERTIFICATE

This is to certify that the project entitle

**"PROFILE OF HYDROGEOLOGY FROM
WAINGANGARIVER WITH IMPACT OF HUMAN
ACTIVITIES AT-LAKHANDUR TAHSHIL, DISTRICT-
BHANDARA, MAHARASTRA"**

Submitted in partial fulfilments of the requirements for the degree of master of Science in Geology of the YASHWANTRAO CHAVHAN COLLEGE LAKHANDUR, R.T.M.N.U. Nagpur, is a recorded of project work carried out by **Lokman P. Diwathe** under my guidance and supervision.



Dr. J.V. DADVE Sir
Principal
Y.c. Collage Lakhandur



Guided By
Dr. S.G. JUARE Y.C.C.
And Head Department of
Geology

Dr. Snehal G. Juare
H.O.D.
Dept. of Geology
Yashwantrao Chavan
Lakhandur

CERTIFICATE


This is to certify that **MISS. KARISHMA R. MESHARAM** has carried out his project work on the topic entitled of "**WATERSHED AND HYDROLOGY NEAR VIRLI VILLAGE AND AROUND, LAKHANDUR TALUKA DIST. BHANDARA, MAHARASHTRA** " during the academic session 2022-2023 under my supervision in the Post Graduate Department of Geology Yashwantrao Chawhan Arts Commerce, Science College Lakhandur This research work presented in this project is own work of the candidate.

Dr. Dr. S.G. JUARE
(Supervisor)

Dr. Snehal G. Juare
H.O.D.
Dept. of Geology
Yashwantrao Chawhan College
Lakhandur, Dist. Bhandara


28-6-23
Internal Examiner


28/6/23
External Examiner


Principal
Y. C. College, Lakhandur
Dist. Bhandara



YASHWANTRAO CHAWHAN COLLEGE , LAKHANDUR

CERTIFICATE

This is to certify that the thesis entitled “GROUND WATER POLLUTION AROUND INDUSTRIAL AND COAL MINING AREA .CHANDRAPUR DISTRICT MAHARASTRA” submitted by SHIVAM SUDHAKAR MANDHARE (Roll No:) in partial fulfilment of the requirements for the award of Master of Science degree in Geology at the YCC college lakhandur,dist. bhandara (RTM Nagpur university) is an authentic work carried out by him under my supervision and guidance.

To the best of my knowledge, the matter embodied in the thesis has not been submitted to any other University/Institute for the award of any Degree or Diploma.

Date: 20/06/2023

Dr. Snehal G. Juare
H.O.D.
Dept. of Geology
Yashwantrao Chawhan College
Lakhandur, Dist. Bhandara

Asst. Prof. S.S. GUDADHE
Assistant Professor
Department of Geology
Ycc college lakhandur
- 441803

28-6-23

Internal Examiner

Principal
Y. C. College, Lakhandu.
Dist, Bhandara

28/6/23

External Examiner

CERTIFICATE

This is to certify that the project entitle "Coal Quality Analysis From Wardha Valley Coalfield Chandrapur Area Dist. Chandrapur, Maharashtra "

Submitted in partial fulfilments of the requirements for the degree of master of Science in Geology of the **YASHWANTRAO CHAVHAN COLLEGE LAKHANDUR** affiliated to **R.T.M.N.U. Nagpur** , is a recorded of project work carried out by **Zakiya shireen mohammad** under my guidance and supervision.

Dr.J.V.DADVE

Principal

Y.C.C. COLLEGE LAKHANDUR



Guided By

Dr. Snehal G. Juare
Prof. Dr. S. G. JUARE
Dept. of Geology
Yashwantrao Chavhan College
Lakhandur, Dist. Bhandara

Department Of

Geology

Dadve
28-6-23

Internal Examiner

Bonny
28/6/23

External Examiner

[Signature]
Principal
Y. C. College, Lakhandur
Dist. Bhandara

Principal
Y. C. College, Lakhandur
Dist. Bhandara

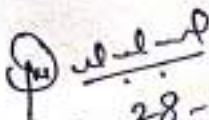
CERTIFICATE

This is to certify that MISS. MANALI M. SONWANE has carried out his project work on the topic entitled of **THE SEDIMENTARY ROCKS IN LAKHANDUR AREA DIST BHANDARA** during the academic session 2022-2023 under my supervision in the Post Graduate Department of Geology Yashwantrao Chawhan Arts, Commerce & Science College Lakhandur This research work presented in this project is own work of the candidate.



Dr. S. G. JUARE
(Supervisor)

Dr. Snehal G. Juare
H.O.D.
Dept. of Geology
Yashwantrao Chawhan College
Lakhandur, Dist. Bhandara


28-6-23
Internal Examiner


28/06/23
External Examiner


Principal
Y. C. College, Lakhandu.
Dist. Bhandara

CERTIFICATE

This is to certify that the project entitle "PRE-MONSOON GROUNDWATER LEVEL STUDY OF LAKHANDUR TOWN, MAHARASHTRA"

Submitted in partial fulfilments of the requirements for the degree of master of Science in Geology of the YASHWANTRAO CHAVHAN COLLEGE LAKHANDUR, R.T.M.N.U. Nagpur, is a recorded of project work carried out by Mr. Roshan S. Burde under my guidance and supervision.


Dr. S. S. GUDADHE
Principal
Lakhandur


Y.C.C. COLLEGE LAKHANDUR


Guided By

Dr. S. S. GUDADHE

Asst. Prof. Of

Department Of Geology


28-6-23
Internal Examiner


External Examiner

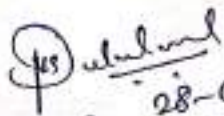
20/09/23

Certificate

This is to certify that Miss. Mayuri Dhakade has carried out his project work on the topic entitled of "HYDROGEOMORPHOLOGICAL STUDY OF LAKHANDUR TALUKA DIST. BHANDARA, MAHARASHTRA" during the academic session 2022-2023 under my supervision in the Post Graduate Department of Geology Yashwantrao Chawhan Arts, Commerce & Science College Lakhandur This research work presented in this project is own work of the candidate.



Dr. Swapnil S. Gudadhe
(Supervisor)


28-6-23

Internal Examiner



Principal
Y.C. College, Lakhandur
Dist. Bhandara


28/06/23

External Examiner




**POST GRADUATE DEPARTMENT OF GEOLOGY
YASHWANTRAO CHAWHAN ARTS COMMERCE
SCIENCE COLLEGE
LAKHANDUR DIST -BHANDARA
2022-2023 (M.S.) 441803**

Dr. S.G. JUARE
Head of Department
Mo No- 9175740864


Certificate

This is to certify that the dissertation thesis entitled
“GEOLOGICAL STUDY OF THE BASIC DYKES OCCURING IN THE
KURKHEDA AREA, GADCHIROLI DISTRICT, MAHARASHTRA” Being
submitted here as a part – fulfillment for the award of the degree of **Master of Science in
Geology, Faculty of Science, Yashwantrao Chawhan Arts, Commerce & Science College
Lakhandur, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur, embodies result of
the bonafide research and field work carried out by MISS. MAYURI DHAKADE,
during 2022-23.**

I further certify that work has not formed the basis for the award of any such
degree, diploma or other title earlier.


Dr. S.G. JUARE
Professor & Head
Department of Geology,
YCACC Lakhandur

Date: 16/12/2023
Place: Lakhandur


Principal
Y. C. College, Lakhandur
Dist, Bhandara


CERTIFICATE

This is to certify that MISS. SWATI D. GADEKAR has carried out his project work on the topic entitled of "Hydro geomorphological Study of Pauni Taluka Dist-Bhandara, Maharashtra" during the academic session 2022-2023 under my supervision in the Post Graduate Department of Geology Yashwantrao Chawhan Arts, Commerce & Science College Lakhandur This research work presented in this project is own work of the candidate.


Dr. Swapnil S. Gudadhe
(Supervisor)


- 28-6-23
Internal Examiner


28/6/23
External Examiner


Principal
Y. C. College, Lakhandur
Dist, Bhandara

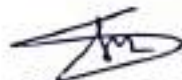


**POST GRADUATE DEPARTMENT OF GEOLOGY
YASHWANTRAO CHAWHAN ARTS COMMERCE
SCIENCE COLLEGE
LAKHANDUR DIST -BHANDARA
2022-2023 (M.S.) 441803**

Dr. S. G. JUARE
Head of Department
Mo No- 9175740864

Certificate

This is to certify that the dissertation thesis entitled
"Hydro geomorphological Study of Pauni Taluka Dist- Bhandara, Maharashtra "
Being submitted here as a part – fulfillment for the award of the degree of Master of
Science in Geology, Faculty of Science, Yashwantrao Chawhan Arts Commerce, Science
College Lakhandur, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur, embodies
result of the bonafide research and field work carried out by MISS. SWATI D.
GADEKAR, during 2022-23.


Dr. S. G. JUARE
Professor & Head
Department of Geology,
YCACC Lakhandur

Date: 20/06/2023
Place: Lakhandur



**Principal
Y. C. College, Lakhandur
Dist, Bhandara**



**POST GRADUATE DEPARTMENT OF GEOLOGY
YASHWANTRAO CHAWHAN ARTS COMMERCE
SCIENCE COLLEGE**

LAKHANDUR DIST -BHANDARA

2022-2023 (M.S.) 441803

Dr. S.G. JUARE
Head of Department
Mo No- 9175740864

Certificate

This is to certify that the dissertation thesis entitled
“ **HYDROGEOMORPHOLOGICAL STUDY OF LAKHANDUR TALUKA DIST.
BHANDARA, MAHARASHTRA** ” Being submitted here as a part – fulfillment for the
award of the degree of **Master of Science in Geology, Faculty of Science, Yashwantrao
Chawhan Arts Commerce, Science College Lakhandur, Rashtrasant Tukadoji Maharaj
Nagpur University, Nagpur, embodies result of the bonafide research and field work
carried out by MISS. PALLAVI VINAYAK ITWALE, during 2022-23.**

I further certify that work has not formed the basis for the award of any such
degree, diploma or other title earlier.


Dr. S.G. JUARE
Professor & Head
Department of Geology,
YCACC Lakhandur

Principal
Y. C. College, Lakhandur
Dist. Bhandara

Date: 28/04/2023
Place: Lakhandur


CERTIFICATE

This is to certify that **MISS. MAHESHWARI N. BHALAVI** has carried out his project work on the topic entitled of **"PRE – MONSOON GROUNDWATER LEVEL STUDY OF SAKOLI TOWN OF BHANDARA DISTRICT, MAHARASHTRA"** during the academic session 2022-2023 under my supervision in the Post Graduate Department of Geology Yashwantrao Chawhan Arts, Commerce & Science College Lakhandur This research work presented in this project is own work of the candidate.


Dr. Swapnil S. Gudadhe
(Supervisor)

Internal Examiner


External Examiner


Principal
Y. C. College, Lakhandur
Dist, Bhandara




**POST GRADUATE DEPARTMENT OF GEOLOGY
YASHWANTRAO CHAWHAN ARTS COMMERCE
SCIENCE COLLEGE
LAKHANDUR DIST -BHANDARA
2022-2023 (M.S.) 441803**


Dr. S. G. JUARE
Head of Department
Mo No- 9175740864

Certificate

This is to certify that the dissertation thesis entitled
“PRE – MONSOON GROUNDWATER LEVEL STUDY OF SAKOLITOWN OF
BHANDARA DISTRICT, MAHARASHTRA” Being submitted here as a part –
fulfillment for the award of the degree of Master of Science in Geology, Faculty of
Science, Yashwantrao Chawhan Arts Commerce, Science College Lakhandur, Rashtrasant
Tukadoji Maharaj Nagpur University, Nagpur, embodies result of the bonafide research
and field work carried out by MISS. MAHESHWARI N. BHALAVI, during 2022-23.


Dr. S. G. JUARE
Professor & Head
Department of Geology,
YCACC Lakhandur

Date: 20/06/2023
Place: Lakhandur


Principal
Y. C. College, Lakhandur.
Dist, Bhandara




**POST GRADUATE DEPARTMENT OF GEOLOGY
YASHWANTRAO CHAWHAN ARTS COMMERCE
SCIENCE COLLEGE
LAKHANDUR DIST -GONDIA
2022-2023 (M.S.) 441803**

Dr. S. G. JUARE
Head of Department
Mo No- 9175740864


Certificate

This is to certify that the dissertation thesis entitled
**"GEOLOGICAL STUDY OF KYANITE-SILLIMANITE MINE OF DAHEGAO
VILLAGE TALUKA LAKHANDUR, DISTRICT BHANDARA, MAHARASHTRA"**
Being submitted here as a part – fulfillment for the award of the degree of Master of
Science in Geology, Faculty of Science, Yashwantrao Chawhan Arts, Commerce,
Science College Lakhandur, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur,
embodies result of the bonafide research and field work carried out by **MISS. PRAGATI
A. PAWAR**, during 2022-23.

I further certify that work has not formed the basis for the award of any such degree,
diploma or other title earlier.


Dr. S. G. JUARE
Professor & Head
Department of Geology,
YCACC Lakhandur

Date: 20 / 6 / 2023
Place: Lakhandur


Principal
Y. C. College, Lakhandu.
Dist. Bhandara

CERTIFICATE

This is to certify that the project entitle "Geological mapping of Vairagad area near Armori in Gadchiroli District"

Submitted in partial fulfilments of the requirements for the degree of master of Science in Geology of the YASHWANTRAO CHAVHAN COLLEGE LAKHANDUR , R.T.M.N.U.Nagpur , is a recorded of project work carried out by Mr.Shivkumar R Ghaturkar under my guidance and supervision.

Principal
Y.C. College Lakhandur
Dist. Bhandara


Dr.J.V.DADVE

Principal

Y.C.C. COLLEGE LAKHANDUR

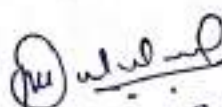



Guided By

Prof. Dr.S. G. JUARE

Head


Department Of Geology


28-6-2023
Internal Examiner


28/06/23
External Examiner

CERTIFICATE

This is to certify that MISS. PRAGATI A. PAWAR has carried out his project work on the topic entitled of "GEOLOGICAL STUDY OF KYANITE-SILLIMANITE MINE OF DAHEGAO VILLAGE TALUKA LAKHANDUR, DISTRICT BHANDARA, MAHARASHTRA" during the academic session 2022-2023 under my supervision in the Post Graduate Department of Geology Yashwantrao Chawhan Arts Commerce, Science College Lakhandur This research work presented in this project is own work of the candidate.


Dr. S. G. JUARE
(Supervisor)

Principal
Dr. S. G. Juare
Y. C. College, Lakhandur
Dept. of Geology
Yashwantrao Chawhan College
Lakhandur, Dist. Bhandara


28-6-23
Internal Examiner


28/6/23
External Examiner


Principal
Y. C. College, Lakhandur
Dist. Bhandara

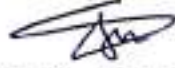


**POST GRADUATE DEPARTMENT OF GEOLOGY
YASHWANTRAO CHAWHAN ARTS COMMERCE
SCIENCE COLLEGE
LAKHANDUR DIST -GONDIA
2022-2023 (M.S.) 441803**

Dr. S. G. JUARE
Head of Department
Mo No- 9175740864

Certificate

This is to certify that the dissertation thesis entitled
“PRE – MONSOON GROUNDWATER LEVEL STUDY OF ARJUNI –MORGAON
TOWN OF GONDIA DISTRICT, MAHARASHTRA” Being submitted here as a part
– fulfillment for the award of the degree of Master of Science in Geology, Faculty of
Science, Yashwantrao Chawhan Arts Commerce, Science College Lakhandur, Rashtrasant
Tukadoji Maharaj Nagpur University, Nagpur, embodies result of the bonafide research
and field work carried out by **MISS. CHETANA A. PAWAR**, during 2022-23.


Dr. S. G. JUARE
Professor & Head
Department of Geology,
YCACC Lakhandur

Date: 20/06/2023
Place: Lakhandur


Principal
Y. C. College, Lakhandur,
Dist, Bhandara



**POST GRADUATE DEPARTMENT OF GEOLOGY
YASHWANTRAO CHAWHAN ARTS COMMERCE
SCIENCE COLLEGE
LAKHANDUR DIST -BHANDARA
2022-2023 (M.S.) 441803**

Dr. S.G. JUARE
Head of Department
Mo No- 9175740864

Certificate

This is to certify that the dissertation thesis entitled
“GEOLOGICAL STUDY OF THE DEWULGAO AREA TALUKA ARMORI,
GADCHIROLI DISTRICT, MAHARASHTRA” Being submitted here as a part –
fulfillment for the award of the degree of **Master of Science in Geology, Faculty of
Science, Yashwantrao Chawhan Arts, Commerce & Science College Lakhandur,
Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur, embodies result of the
bonafide research and field work carried out by MISS. SUPRIYA SHAMKUWAR,
during 2022-23.**

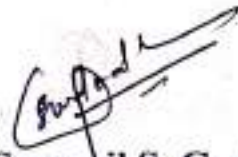
Dr. S.G. JUARE
Professor & Head
Department of Geology,
YCACC Lakhandur

Date: 20/ 6/2023
Place: Lakhandur

Principal
Y.C. College, Lakhandu.
Dist, Bhandara


CERTIFICATE

This is to certify that **Miss. Chetana A. Pawar** has carried out his project work on the topic entitled of **"Pre – Monsoon Groundwater Level Study of Arjuni –Morgaon Town of Gondia District, Maharashtra"** during the academic session 2022-2023 under my supervision in the Post Graduate Department of Geology Yashwantrao Chawhan Arts, Commerce & Science College Lakhandur This research work presented in this project is own work of the candidate.


Dr. Swapnil S. Gudadhe
(Supervisor)


Internal Examiner


External Examiner


Principal
Y. C. College, Lakhandur
Dist. Bhandara



POST GRADUATE DEPARTMENT OF GEOLOGY
YASHWANTRAO CHAWHAN ARTS COMMERCE SCIENCE
COLLEGE
LAKHANDUR DIST -BHANDARA
2022-2023 (M.S.) 441803

Dr. S.G. JUARE
Head of Department
Mo No- 9175740864

Certificate

This is to certify that the dissertation thesis entitled
“Geology and Chemistry of Titaniferous Iron Ore Deposited Form Khursipar
MSMC Mine and Adjoining Village in Tahsil Amgaon of Gondia District,
Maharashtra, India”. Being submitted here as a part – fulfillment for the award of the
degree of Master of Science in Geology, Faculty of Science, Yashwantrao Chawan
Arts, Commerce & Science College Lakhandur, Rashtrasant Tukadoji Maharaj Nagpur
University, Nagpur, embodies result of the bonafide research and field work carried out by
MR. AMIR S. SUKHADEVE, during 2022-23.

Dr. S.G. JUARE
Professor & Head
Department of Geology,
YCACC Lakhandur

Date 28/06/2023
Place: Lakhandur

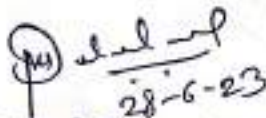
Principal
Y. C. College, Lakhandu.
Dist, Bhandara

Certificate

This is to certify that MISS. SUPRIYA SHAMKUWAR has carried out his project work on the topic entitled of "GEOLOGICAL STUDY OF THE DEWULGAO AREA TALUKA ARMORI, GADCHIROLI DISTRICT, MAHARASHTRA" during the academic session 2022-2023 under my supervision in the Post Graduate Department of Geology Yashwantrao Chawhan Arts, Commerce & Science College Lakhandur This research work presented in this project is own work of the candidate.



**Dr. Swapnil S. Gudadhe
(Supervisor)**



28-6-23

Internal Examiner



**Principal
Y. C. College, Lakhandur
Dist, Bhandara**



28/06/23

External Examiner

CERTIFICATE

This is to certify that, project work entitled "sedimentary rocks of kamptee area" is being submitted here as a partial fulfilment of the award of the degree of Master of Science in Geology, under the faculty of science, Rashtrasant Tukdoji Maharaj University, Nagpur, embodies the bonafide work carried out by Miss. Ashika Subhash Madne. The present report is based on extensive literature survey. The materials, such as texts, tables, and figures presented in this report are being used here solely for academic purpose after giving proper credit to the original authors. This report will not be used for drawing any commercial benefits or academic credentials. Therefore, this report, either completely or in part, will not lead to any infringement of the copyright or being considered as plagiarism within the context mentioned here in above. This certificate is issued within the scope and limit as stated above.

Guided by



SNEHAL JUARE

(Assistant Professor And Head Of Department Of Geology)
Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur, Bhandara District
Maharashtra

Dr. Snehal G. Juare

H.O.D.
Dept. of Geology

Y. C. College, Lakhandur, Dist. Bhandara

28/6/23


28-6-23
Internal Examiner


28/6/23
External Examiner


Principal
Y. C. College, Lakhandur,
Dist. Bhandara

Certificate

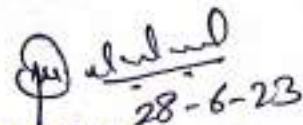
This is to certify that **Mr. Amir S. Sukhadeve** has carried out his project work on the topic entitled of **"Geology and Chemistry of Titaniferous Iron Ore Deposited Form Khursipar MSMC Mine and Adjoining Village in Tahsil Amgaon of Gondia District, Maharashtra, India"**. during the academic session 2022-2023 under my supervision in the Post Graduate Department of Geology Yashwantrao Chawhan Arts, Commerce & Science College Lakhandur This research work presented in this project is own work of the candidate.




Dr. Swapnil S. Gudadhe
(Supervisor)



External Examiner



Internal Examiner



Principal
Y. C. College, Lakhandur
Dist, Bhandara

CERTIFICATE

This is to certify that the project entitle
"HYDROGEOLOGICAL STUDISE IN SELECTED FIVE
VILLEGES OF LAKHANDUR TALUKA, BHANDARA DISTRICT,
MAHARASTRA"

Submitted in partial fulfilments of the requirements for the
degree of master of Science in Geology of the YASHWANTRAO
CHAVHAN COLLEGE LAKHANDUR, R.T.M.N.U. Nagpur, is a recorded
of project work carried out by **Vyankat H. Kapgate** under my
guidance and supervision.



Dr. J.V. DADVE Sir
Principal
Y.c. collage Lakhandur

Principal
Y.C. College, Lakhandu;
Dist, Bhandara



Guided By
Prof. Dr.S.G. JUARE Y.c.c. prof
and Head Department of
Geology

CERTIFICATE

This is to certify that the dissertation entitled "Isolation of Chickpea nodule Microsymbiont and screening for the potential plant growth promoting traits nearby Y. C. College Lakhandur, Bhandara, Maharashtra" submitted to Post Graduate Teaching Department of Microbiology, Yashwantrao Chawhan Arts, Commerce & Science College Lakhandur, Dist- Bhandara, for the Partial Fulfillment of the Degree of Master of Science in Microbiology embodies the result of the bonafide work carried out by Miss. Sandhya Yashwant Dani under my Guidance and Supervision in the Post Graduate Teaching Department of Microbiology, Yashwantrao Chawhan Arts, Commerce & Science College Lakhandur, Dist- Bhandara, Maharashtra, India, Pin-441803.

This work was done under the Guidance and Supervision of Dr. Rakesh U. Thakare. This work is now ready for Examination.

Date: 20.06.2023

Place: Lakhandur



Dr. Rakesh U. Thakare,
Assistant Professor & Head

Dr. Rakesh U. Thakare
Assistant Professor & Head
Dept. of Microbiology
Y. C. College, Lakhandur,
Dist. Bhandara.



Principal
Dr. J. V. Dadve

Principal
Y. C. College, Lakhandur
Dist. Bhandara



DEPARTMENT OF MICROBIOLOGY
YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE COLLEGE
LAKHANDUR
AFFILIATED TO
RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR



Certificate



This is to certify that the project entitled "Study on Effect of Plant growth promoting bacteria with Biochar on Plant Growth", is satisfactorily carried out and completed by Miss. Mayuri Madhorao Ghanade, M.Sc. Microbiology, Yashwantrao Chawhan Arts, Commerce & Science College, Lakhadur, Dist. Bhandara for the partial fulfillment of the Degree of MASTER OF SCIENCE in MICROBIOLOGY in the faculty of Science & Technology of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur in the Year 2023.

Dr. RAJU GADPAYLE

Project Supervisor
Department of Microbiology

Dr. R.U. THAKARE

HOD
Department of Microbiology
Dr. Rakesh U. Thakare
Assistant Professor & Head
Dept. of Microbiology
Y. C. College, Lakhadur,
Dist. Bhandara.

30.6.2023

Dr. J. V. DADVE

Principal

Principal
Y. C. College, Lakhadur
Dist. Bhandara



DEPARTMENT OF MICROBIOLOGY
YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE COLLEGE
LAKHANDUR
AFFILIATED TO
RASHTRASANT TUKADJI MAHARAJ NAGPUR UNIVERSITY NAGPUR



Certificate



This is to certify that the project entitled "Study on Antibacterial Activity of *Hibiscus sabdariffa* on Pathogenic Bacteria", is satisfactorily carried out and completed by Miss. Nandini Anant Gohane, M.Sc. Microbiology, Yashwantrao Chawhan Arts, Commerce & Science College, Lakhadur, Dist. Bhandara for the partial fulfillment of the Degree of MASTER OF SCIENCE in MICROBIOLOGY in the faculty of Science & Technology of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur in the Year 2023.

Dr. RAJU GADPAYLE

Project Supervisor
Department of Microbiology

Dr. R.U. THAKARE

HOD
Department of Microbiology
Dr. Rakesh U. Thakare
Assistant Professor & Head
Dept. of Microbiology
Y. C. College, Lakhadur,
Dist. Bhandara.

Dr. J. V. DADVE
Principal
Y. C. College, Lakhadur
Dist. Bhandara



DEPARTMENT OF MICROBIOLOGY
YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE COLLEGE
LAKHANDUR
AFFILIATED TO
RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR



Certificate



This is to certify that the project entitled "Study on the Antimicrobial Activity of *Withania somnifera* Extract", is satisfactorily carried out and completed by Miss. *Neha Giridhar Fulbandhe*, M.Sc. Microbiology, Yashwantrao Chawhan Arts, Commerce & Science College, Lakhadur, Dist. Bhandara for the partial fulfillment of the Degree of **MASTER OF SCIENCE in MICROBIOLOGY** in the faculty of Science & Technology of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur in the Year 2023.

Dr. RAJU GADPAYLE

Project Supervisor
Department of Microbiology

Dr. R.U. THAKARE

HOD
Department of Microbiology

Dr. Rakesh U. Thakare
Assistant Professor & Head
Dept. of Microbiology
Y. C. College, Lakhadur,
Dist. Bhandara.

Dr. J. V. DADVE
Principal
Y.C. College, Lakhadur
Dist. Bhandara



DEPARTMENT OF MICROBIOLOGY
YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE COLLEGE
LAKHANDUR
AFFILIATED TO
RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR



Certificate



This is to certify that the project entitled "Study on Effect of Plant growth promoting bacteria with Biochar on Plant Growth", is satisfactorily carried out and completed by Miss. Mayuri Madhorao Ghanade, M.Sc. Microbiology, Yashwantrao Chawhan Arts, Commerce & Science College, Lakhadur, Dist. Bhandara for the partial fulfillment of the Degree of MASTER OF SCIENCE in MICROBIOLOGY in the faculty of Science & Technology of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur in the Year 2023.

Dr. RAJU GADPAYLE

Project Supervisor
Department of Microbiology

Dr. R.U. THAKARE

HOD
Department of Microbiology
Dr. Rakesh U. Thakare
Assistant Professor & Head
Dept. of Microbiology
Y. C. College, Lakhadur,
Dist. Bhandara.

Dr. J. V. DADVE

Principal

Principal
Y. C. College, Lakhadur
Dist. Bhandara



DEPARTMENT OF MICROBIOLOGY
YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE COLLEGE

LAKHANDUR

AFFILIATED TO

RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR



Certificate



This is to certify that the project entitled "Isolation And Characterization of Plant Growth Promoting Rhizobacteria from Mimosa Root", is satisfactorily carried out and completed by Miss. Monali Tularam Naktode, M.Sc. Microbiology, Yashwantrao Chawhan Arts, Commerce & Science College, Lakhadur, Dist. Bhandara for the partial fulfillment of the Degree of MASTER OF SCIENCE in MICROBIOLOGY in the faculty of Science & Technology of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur in the Year 2023.

Dr. RAJU GADPAYLE

Project Supervisor
Department of Microbiology

Dr. R.U. THAKARE

HOD
Department of Microbiology
Dr. Rakesh U. Thakare
Assistant Professor & Head
Dept. of Microbiology
Y. C. College, Lakhadur,
Dist. Bhandara.

Dr. J. V. DADVE

Principal

Principal
Y. C. College, Lakhadur
Dist. Bhandara



CERTIFICATE

This is to certify that project report entitled "ANTIBACTERIAL AND ANTICANCER ACTIVITY OF NYMPHAEA TUBER" is hereby submitted under the partial fulfillment of Master of Science Degree in microbiology in the Academic year of 2022-23.

The work presented here in the report has been carried out by **Miss. Priyanka Ashok Raut**, A student of semester IV M.Sc Microbiology, Yashwantrao chawhan Arts Commerce and Science college, Lakhandur (M.S.) under the guidance of **Mr. Pravin Thikre**, Assistant Professor, Yashwantrao chawhan Arts Commerce and Science College, Lakhandur (M.S.)



Mr. Pravin Thikre

Project Guide

Assistant Professor,

Department of Microbiology,

Yashwantrao Chawhan Arts, Commerce

and Science College Lakhandur (M.S.)



Dr. Rakesh U. Thakre

Head of Department, Microbiology

Yashwantrao Chawhan Arts, Commerce

and Science College Lakhandur (M.S.)



Dr. P. M. Dhule

Y.C. College, Lakhandur
Principal Yashwantrao Chawhan Arts
Dist. Bilandara

Commerce and Science College Lakhandur (M.S.)



CERTIFICATE

This is to certify that project report entitled "ISOLATION OF PLANT GROWTH PROMOTING RHIZOBACTERIA AND THEIR EFFECT ON CROP PLANTS" is hereby submitted under the Partial Fulfillment of Master of Science Degree in Microbiology in the Academic Year 2021-22.

The work presented here in the report has been carried out by Miss. Rutuja Rajendra Marwade, a student of Semester IV M.Sc. Microbiology, Yashwantrao Chawhan Arts Commerce & Science College, Lakhandur (M.S) under the guidance of Mr. Pravin Thikre, Assistant Professor, Yashwantrao Chawhan Arts, Commerce & Science College, Lakhandur (M.S).

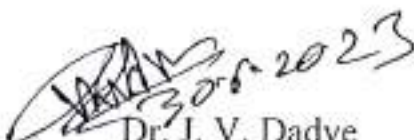


Mr. Pravin Thikre
Project Guide
Assistant Professor,
Department of Microbiology,
Yashwantrao Chawhan Arts, Commerce
& Science College, Lakhandur.



Dr. Rakesh U. Thakre
Head of Department of Microbiology
Yashwantrao Chawhan Arts, Commerce
& Science College, Lakhandur.
Dr. Rakesh U. Thakre
Assistant Professor & Head
Dept. of Microbiology
Y. C. College, Lakhandur,
Dist. Bhandara.




30.08.2023
Dr. J. V. Dadve
PRINCIPAL
Yashwantrao Chawhan Arts, Commerce
& Science College, Lakhandur.
Principal
Y. C. College, Lakhandur
Dist, Bhandara



DEPARTMENT OF MICROBIOLOGY
YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE COLLEGE
LAKHANDUR
AFFILIATED TO
RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR



Certificate



This is to certify that the project entitled "Isolation And Characterization of Plant Growth Promoting Rhizobacteria from Mimosa Root", is satisfactorily carried out and completed by Miss. Monali Tularam Naktode, M.Sc. Microbiology, Yashwantrao Chawhan Arts, Commerce & Science College, Lakhadur, Dist. Bhandara for the partial fulfillment of the Degree of MASTER OF SCIENCE in MICROBIOLOGY in the faculty of Science & Technology of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur in the Year 2023.

Dr. RAJU GADPAYLE

Project Supervisor
Department of Microbiology

Dr. R.U. THAKARE

HOD
Department of Microbiology
Dr. Rakesh U. Thakare
Assistant Professor & Head
Dept. of Microbiology
Y. C. College, Lakhadur,
Dist. Bhandara.

Dr. J. V. DADVE

Principal

Principal
Y. C. College, Lakhadur
Dist. Bhandara



DEPARTMENT OF MICROBIOLOGY
YASHWANTRAO CHAWHAN ARTS COMMERCE AND SCIENCE COLLEGE
LAKHANDUR
AFFILIATED TO
RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY NAGPUR



Certificate



This is to certify that the project entitled "Study on Phytochemical Extraction and Antimicrobial Activity of Melissa officinalis", is satisfactorily carried out and completed by Miss. Priti Lalchand Meshram, M.Sc. Microbiology, Yashwantrao Chawhan Arts, Commerce & Science College, Lakhadur, Dist. Bhandara for the partial fulfillment of the Degree of MASTER OF SCIENCE in MICROBIOLOGY in the faculty of Science & Technology of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur in the Year 2023.

Dr. RAJU GADPAYLE

*Project Supervisor
Department of Microbiology*

Dr. R.U. THAKARE

*HOD
Department of Microbiology
Dr. Rakesh U. Thakare
Assistant Professor & Head
Dept. of Microbiology
Y. C. College, Lakhadur,
Dist. Bhandara.*

Dr. J. V. DADVE
Principal
Y. C. College, Lakhadur,
Dist. Bhandara

CERTIFICATE

This is to certify that project report entitled "ISOLATION OF PLANT GROWTH PROMOTING RHIZOBACTERIA AND THEIR EFFECT ON CROP PLANTS" is hereby submitted under the Partial Fulfillment of Master of Science Degree in Microbiology in the Academic Year 2021-22.

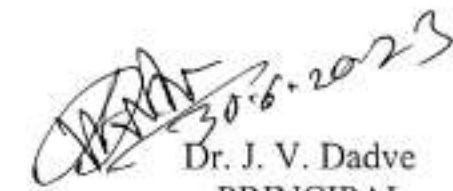
The work presented here in the report has been carried out by **Miss. Rutuja Rajendra Marwade**, a student of Semester IV M.Sc. Microbiology, Yashwantrao Chawhan Arts Commerce & Science College, Lakhandur (M.S) under the guidance of **Mr. Pravin Thikre**, Assistant Professor, Yashwantrao Chawhan Arts, Commerce & Science College. Lakhandur (M.S).



Mr. Pravin Thikre
Project Guide
Assistant Professor,
Department of Microbiology,
Yashwantrao Chawhan Arts, Commerce
& Science College. Lakhandur.



Dr. Rakesh U. Thakre
Head of Department of Microbiology
Yashwantrao Chawhan Arts, Commerce
& Science College, Lakhandur.
Assistant Professor & Head
Dept. of Microbiology
Y. C. College, Lakhandur,
Dist. Bhandara.



Dr. J. V. Dadve
PRINCIPAL
Yashwantrao Chawhan Arts, Commerce
& Science College. Lakhandur.

Principal
Y. C. College, Lakhandur
Dist. Bhandara



CERTIFICATE

This is to certify that the dissertation entitled "**Growth Media Development from Different Fruit Peels Waste and Their Optimization for *Aspergillus Species***" submitted to Post Graduate Teaching Department of Microbiology, Yashwantrao Chawhan Arts, Commerce & Science College Lakhandur, Dist- Bhandara, for the Partial Fulfillment of the Degree of Master of Science in Microbiology embodies the result of the bonafide work carried out by **Miss. Pooja Tikeshwar Bhujade** under my Guidance and Supervision in the **Post Graduate Teaching Department of Microbiology**, Yashwantrao Chawhan Arts, Commerce & Science College Lakhandur, Dist- Bhandara, Maharashtra, India, Pin-441803.

This work was done under the Guidance and Supervision of **Dr. R.U. Gadpayle**. This work is now ready for Examination.

Date: 20/06/2023

Place: Lakhandur



Dr. R. U. Gadpayle
Assistant Professor



Principal
Y. C. College, Lakhandur
Dist. Bhandara

Principal
Dr. J. V. Dadve



Dr. Rakesh U. Thakare
Assistant Professor & Head
Dept. of Microbiology
Y. C. College, Lakhandur,
Dist. Bhandara.



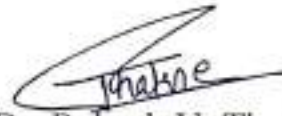
CERTIFICATE

This is to certify that project report entitled "ISOLATION OF PLANT GROWTH PROMOTING RHIZOBACTERIA AND THEIR EFFECT ON CROP PLANTS" is hereby submitted under the Partial Fulfillment of Master of Science Degree in Microbiology in the Academic Year 2021-22.

The work presented here in the report has been carried out by **Miss. Sakshi Govinda Khadse**, a student of Semester IV M.Sc. Microbiology, Yashwantrao Chawhan Arts Commerce & Science College, Lakhandur (M.S) under the guidance of **Mr. Pravin Thikre**, Assistant Professor, Yashwantrao Chawhan Arts, Commerce & Science College, Lakhandur (M.S).



Mr. Pravin Thikre
Project Guide
Assistant Professor,
Department of Microbiology,
Yashwantrao Chawhan Arts, Commerce
& Science College, Lakhandur.



Dr. Rakesh U. Thakre
Head of Department of Microbiology
Yashwantrao Chawhan Arts, Commerce
& Science College, Lakhandur.
Dr. Rakesh U. Thakre
Assistant Professor & Head
Dept. of Microbiology
Y. C. College, Lakhandur,
Dist. Bhandara.



Dr. J. V. Dadve
PRINCIPAL
Yashwantrao Chawhan Arts, Commerce
& Science College, Lakhandur.

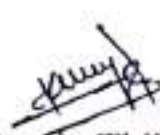
Principal
Y. C. College, Lakhandur
Dist. Bhandara



CERTIFICATE

This is to certify that project report entitled "ISOLATION OF PLANT GROWTH PROMOTING RHIZOBACTERIA AND THEIR EFFECT ON CROPLANTS" is hereby submitted under the Partial Fulfillment of Master of Science degree in Microbiology in the Academic Year 2021-22.

The work presented here in the report has been carried out by **Miss. Priyanka Ashok Raut**, a student of Semester IV M.Sc. Microbiology, Yashwantrao Chawhan Arts Commerce & Science College, Lakhandur (M.S) under the guidance of **Mr. Pravin Thikre**, Assistant Professor, Yashwantrao Chawhan Arts, Commerce & Science College, Lakhandur (M.S).



Mr. Pravin Thikre
Project Guide
Assistant Professor,
Department of Microbiology,
Yashwantrao Chawhan Arts, Commerce
& Science College, Lakhandur.



Dr. Rakesh U. Thakre
Head of Department of Microbiology
Yashwantrao Chawhan Arts, Commerce
& Science College, Lakhandur.
Y. C. College, Lakhandur,
Dist. Bhandara.



Dr. J. V. Dadve
PRINCIPAL
Yashwantrao Chawhan Arts, Commerce
& Science College, Lakhandur.

Principal
Y.C. College, Lakhandur
Dist, Bhandara



CERTIFICATE

This is to certify that project report entitled "ANTIBACTERIAL AND ANTICANCER ACTIVITY OF SYMPHAEA SOUCHALI TUBER" is hereby submitted under the Partial Fulfillment of Master of Science Degree in Microbiology in the Academic Year 2021-22.

The work presented here in the report has been carried out by **Miss. RAJNANDINI PRASHANT BHURE**, a student of Semester IV M.Sc. Microbiology, Yashwantrao Chawhan Arts Commerce & Science College, Lakhandur (M.S) under the guidance of **Mr. Pravin Thikre**, Assistant Professor, Yashwantrao Chawhan Arts, Commerce & Science College, Lakhandur (M.S).



Mr. Pravin Thikre
Project Guide
Assistant Professor,
Department of Microbiology,
Yashwantrao Chawhan Arts, Commerce
& Science College, Lakhandur.



Dr. Rakesh U. Thakre
Head of Department of Microbiology
Yashwantrao Chawhan Arts, Commerce
& Science College, Lakhandur.
Dr. Rakesh U. Thakre
Assistant Professor & Head
Dept. of Microbiology
Y. C. College, Lakhandur,
Dist. Bhandara.



Dr. J. V. Dadve
PRINCIPAL
Yashwantrao Chawhan Arts, Commerce
& Science College, Lakhandur.
Principal
Y. C. College, Lakhandur
Dist. Bhandara





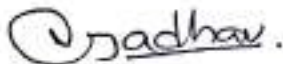
CERTIFICATE

This is to certify that the dissertation Report Entitled "**Isolation and Screening of Amylase producing bacteria**" submitted to the Department of Microbiology Yashwantrao Chawhan arts, commerce and science college, Lakhandur Affiliated to RTMN University, Nagpur for the partial fulfillment of Master of Science Degree in Microbiology under The Faculty of Science is the Record of original Research work carried out by **Miss. Tejaswini Panjabrao Kshirsagar** Under my Guidance.

This Dissertation Embodies the work of Candidate herself and no Part thereof have been previously Submitted to degree of this or Any Other University/ Institution.

Place : Lakhandur

Date : 20/6/2023



Mr. Vishnu Ganesh Jadhav

Project Supervisor
Assistant Professor
Department of Microbiology
Yashwantrao Chawhan Arts, Commerce
and Science college lakhandur



Dr. Rakesh U. Thakare

Head & Assistant professor
Department of Microbiology
Yashwantrao Chawhan Arts,
Commerce and science college
Lakhandur





Dr. J. V. Dadve

Principal

Yashwantrao Chawhan Arts Commerce &
Science College, Lakhandur.

Principal
Y. C. College, Lakhandur
Dist, Bhandara





CERTIFICATE

This is to certify that the dissertation Report Entitled "**Isolation and Screening of lipase producing bacteria**" submitted to the Department of Microbiology Yashwantrao Chawhan arts, commerce and science college, Lakhandur Affiliated to RTMN University, Nagpur for the partial fulfillment of Master of Science Degree in Microbiology under The Faculty of Science is the Record of original Research work carried out by **Miss Sukanya Sewak Hume** Under my Guidance.

This Dissertation Embodies the work of Candidate herself and no Part thereof have been previously Submitted to degree of this or Any Other University/ Institution.

Place : Lakhandur

Date :

Mr. Vishnu Ganesh Jadhav

Project Supervisor
Assistant Professor
Department of Microbiology
Yashwantrao Chawhan Arts, Commerce
and Science college lakhandur

Dr. Rakesh U. Thakare

Head & Assistant professor
Department of Microbiology
Yashwantrao Chawhan Arts,
Commerce and science college
Lakhandur

Dr. J. V. Dadve

Principal

Yashwantrao Chawhan Arts Commerce &
Science College, Lakhandur.

Principal
Y. C. College, Lakhandur
Dist. Bhandara





CERTIFICATE

This is to certify that the dissertation Report Entitled "The Ongoing Battle Against HIV/AIDS: Understanding the Epidemic, Current Progress on Vaccine, and Future Challenges" submitted to the Department of Microbiology Yashwantrao Chawhan arts, commerce and science college, Lakhandur Affiliated to RTMN University, Nagpur for the partial fulfillment of Master of Science Degree in Microbiology under The Faculty of Science is the Record of original Research work carried out by **Miss. Vrunda Vasanta Ther** Under my Guidance.

This Dissertation Embodies the work of Candidate herself and no Part thereof have been previously Submitted to degree of this or Any Other University/ Institution.

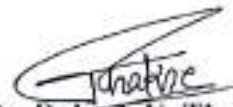
Place : Lakhandur

Date : 20/6/2023



Mr. Vishnu Ganesh Jadhav

Project Supervisor
Assistant Professor
Department of Microbiology
Yashwantrao Chawhan Arts, Commerce
and Science college lakhandur



Dr. Rakesh U. Thakare

Head & Assistant professor
Department of Microbiology
Yashwantrao Chawhan Arts,
Commerce and science college
Lakhandur





Dr. J. V. Dadve

Principal

Yashwantrao Chawhan Arts Commerce &
Science College, Lakhandur.

Principal
Y. C. College, Lakhandur
Dist. Bhandara





CERTIFICATE

This is to certify that the dissertation Report Entitled "A Review of Literature On Bioluminescence of Bacteria And Fungi" submitted to the Department of Microbiology Yashwantrao Chawhan arts, commerce and science college, Lakhandur Affiliated to RIMN University, Nagpur for the partial fulfillment of Master of Science Degree in Microbiology under The Faculty of Science is the Record of original Research work carried out by **Miss. Yamini Prabhakar Zode** Under my Guidance

This Dissertation Embodies the work of Candidate herself and no Part thereof have been previously Submitted to degree of this or Any Other University/ Institution

Place : Lakhandur

Date : 20/06/2023

Mr. Vishnu Ganesh Jadhav

Project Supervisor
Assistant Professor
Department of Microbiology
Yashwantrao Chawhan Arts, Commerce
and Science college lakhandur

Dr. Rakesh U. Thakare

Head & Assistant professor
Department of Microbiology
Yashwantrao Chawhan Arts,
Commerce and science college
Lakhandur

Dr. J. V. Dadve

Principal

Yashwantrao Chawhan Arts Commerce &
Science College, Lakhandur
Principal
Y. C. College, Lakhandur
Dist. Bhandara





CERTIFICATE

This is to certify that the dissertation Report Entitled "Siderophore Production, Screening, Quantitative Estimation, Detection, Types & Application – A review" submitted to the Department of Microbiology Yashwantrao Chawhan arts, commerce and science college, Lakhandur Affiliated to RTMN University, Nagpur for the partial fulfillment of Master of Science Degree in Microbiology under The Faculty of Science is the Record of original Research work carried out by Miss. Yukta Devrao Faye Under my Guidance.

This Dissertation Embodies the work of Candidate herself and no Part thereof have been previously Submitted to degree of this or Any Other University/ Institution.

Place : Lakhandur

Date : 20-06-2023

Mr. Vishnu Ganesh Jadhav

Project Supervisor
Assistant Professor
Department of Microbiology
Yashwantrao Chawhan Arts, Commerce
and Science college lakhandur

Dr. Rakesh U. Thakare

Head & Assistant professor
Department of Microbiology
Yashwantrao Chawhan Arts,
Commerce and science college
Lakhandur

Dr. J. V. Dadve

Principal

Yashwantrao Chawhan Arts Commerce &
Science College, Lakhandur.
Principal
Y. C. College, Lakhandur
Dist, Bhandara





CERTIFICATE

This is to certify that the dissertation Report Entitled "**Role of Key Microorganism in Bioremediation- A Review**" submitted to the Department of Microbiology Yashwantrao Chawhan arts, commerce and science college, Lakhandur Affiliated to RTMN University, Nagpur for the partial fulfillment of Master of Science Degree in Microbiology under The Faculty of Science is the Record of original Research work carried out by **Miss. Shivani Shalikram Kamble** Under my Guidance.

This Dissertation Embodies the work of Candidate herself and no Part thereof have been previously Submitted to degree of this or Any Other University/ Institution.

Place: Lakhandur

Date: 20/6/2023


Mr. Vishnu Ganesh Jadhav

Project Supervisor
Assistant Professor
Department of Microbiology
Yashwantrao Chawhan Arts, Commerce
and Science college lakhandur


Dr. Rakesh U. Thakare

Head & Assistant professor
Department of Microbiology
Yashwantrao Chawhan Arts,
Commerce and science college
Lakhandur




Dr. J. V. Dadve

Principal

Yashwantrao Chawhan Arts Commerce &
Science College, Lakhandur.

Y. C. College, Lakhandur
Dist. Bhandara





Shri.KisanraoKhobragade Education Society,Armori, Dist.-Gadcholi

(Reg. No. F/1693-Gad-92)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur
Dist.-Bhandara (M.S.) Pin- 441803**

NAAC Accreditation 'B' Grade

Principal
Dr. J.V. Dadve
M.A., M.Phil., Ph.D.

E-mail: yccel_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

Ref. No.

Date:

CERTIFICATE

This is to certify that the project report entitled "SYNTHESIS AND CHARACTERISATION OF CONDUCTING POLYMER POLYANILINE" being submitted by Ms. Nikita Barde in partial fulfillment of the requirements for the degree of Master of Science in Physics from Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur is an authentic work carried out by her under my supervision and guidance.

In my opinion, this is a fit piece of work for the degree of Master of Science. To the best of my knowledge, the matter embodied in the project report has not been submitted to any other University / Institute for the award of any Degree or Diploma.

Date: 28/06/2023

Place: Lakhandur

Mr. SUMIT D. ROKADE
Supervisor
Department of Physics

Head of Department
Dept. of Physics
Y. C. College, Lakhandur
Dist. Bhandara (M.S.)
Mr. M. S. BIEN
Head of Department
Department of Physics

Forwarded by
Principal
Y. C. College, Lakhandur
Dist. Bhandara

30/06/23

Yashwantrao Chawhan Arts, Commerce and Science College, Lakhandur.

30/06/2023

Shri.KisanraoKhobragade Education Society,Armori, Dist.-Gadcholi

(Reg. No. F/1693-Gad-92)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur**

Dist.-Bhandara (M.S.) Pin- 441803

NAAC Accreditation 'B' Grade

Principal

Dr. J.V. Dadve

M.A., M.Phil., Ph.D. E-mail:yccl_260112@rediffmail.com

STD: 07181

Off: 260112

Res.: 260585

Ref. No.

Date:

CERTIFICATE

This is to certify that the project report entitled " **TO STUDY THE SEMICONDUCTOR METAL OXIDE FOR GAS SENSING APPLICATION:A REVIEW** " being submitted by **Ms. Kajal H.Borkar** in partial fulfillment of the requirements for the degree of **Master of Science in Physics** from **Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur** is an authentic work carried out by her under my supervision and guidance. In my opinion, this is a fit piece of work for the degree of Master of Science. To the best of my knowledge, the matter embodied in the project report has not been submitted to any other University / Institute for the award of any Degree or Diploma.

Date: 28/06/2023

Place: Lakhandur

Mr. SUMIT D.ROKADE

Supervisor

Department of Physics

Mr. M. S. BISEN
Dept. of Physics
Y. C. College, Lakhandur
Dist. Bhandara (M.S.)
Head of Department
Department of Physics

Forwarded by

Principal
Dr. J.V. Dadve
Y. C. College, Lakhandur
Dist. Bhandara
Principal

Yashwantrao Chawhan Arts, Commerce and Science College, Lakhandur.

Shri.KisanraoKhobragade Education Society, Armori, Dist.-Gadcholi
(Reg. No. F/1693-Gad-92)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur**



Dist.-Bhandara (M.S.) Pin- 441803

NAAC Accreditation 'B' Grade

Principal
Dr. J.V. Dadve
M.A., M.Phil., Ph.D.

E-mail: yccl_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

Ref. No.

Date:


CERTIFICATE

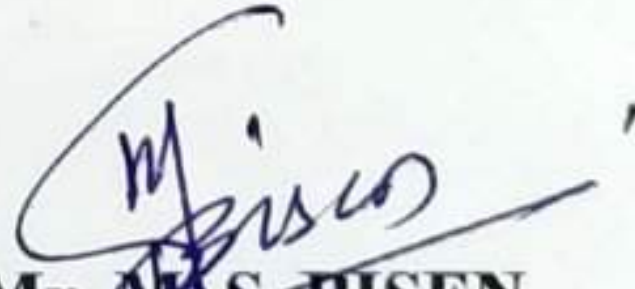
This is to certify that the project report entitled "SYNTHESIS AND CHARACTERISATION OF TITANIUM DIOXIDE AND CONDUCTING POLYANILINE NANOCOMPOSITE" being submitted by **Ms. Yashashri S. Borkar** in partial fulfillment of the requirements for the degree of **Master of Science in Physics** from **Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur** is an authentic work carried out by her under my supervision and guidance.


In my opinion, this is a fit piece of work for the degree of Master of Science. To the best of my knowledge, the matter embodied in the project report has not been submitted to any other University / Institute for the award of any Degree or Diploma.

Date: 28/06/2023

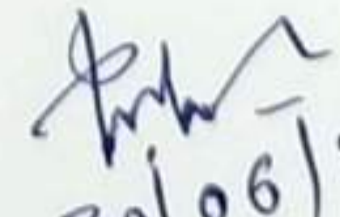
Place: Lakhandur


Mr. Sumit D. Rokade
Supervisor
Department of Physics


Mr. M.S. BISEN
Head
Department of Physics
Y.C. College, Lakhandur
Dist. Bhandara (M.S.)


30/06/2023

Forwarded by
Principal
Dr. J.V. Dadve
Y.C. College, Lakhandur
Dist. Bhandara
Principal
Yashwantrao Chawhan Arts, Commerce and Science College,
Lakhandur.


30/06/23



Yashwantrao Chawhan Arts, Commerce & Science College, Lakhandur

Dist.-Bhandara (M.S.) Pin- 441803

NAAC Accreditation 'B' Grade

Principal

Dr. J.V. Dadve

M.A., M.Phil., Ph.D.

E-mail: yccel_260112@rediffmail.com

STD: 07181

Off: 260112

Res.: 260585

Ref. No.

Date:

CERTIFICATE

This is to certify that the project report entitled "TO STUDY SYNTHESIS AND CHARACTERIZATION OF TITANIUM DIOXIDE (TiO₂)" being submitted by **Ms. Shital T. Deshmukh** in partial fulfillment of the requirements for the degree of **Master of Science in Physics** from **Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur** is an authentic work carried out by her under my supervision and guidance.

In my opinion, this is a fit piece of work for the degree of Master of Science. To the best of my knowledge, the matter embodied in the project report has not been submitted to any other University / Institute for the award of any Degree or Diploma.

Date: 28/06/2023

Place:

Mr. S. D. ROKADE

Supervisor

Department of Physics

Head

Dept. of Physics

Y. C. College, Lakhandur

Dist. Bhandara (M.S.)

Head of Department

Department of Physics

Forwarded by

30/06/2023

Principal
Dr. J.V. Dadve
Y. C. College, Lakhandur
Dist. Bhandara

30/06/23

Yashwantrao Chawhan Arts, Commerce and Science College, Lakhandur



Shri.KisanraoKhobragade Education Socioty,Armori, Dist.-Gadchioli

(Reg. No. F/1693-Gad-92)

Yashwantrao Chawhan Arts, Commerce & Science

College, Lakhandur

Dist.-Bhandara (M.S.) Pin- 441803

NAAC Accreditation 'B' Grade

Principal

STD: 07181

Dr. J.V. Dadve

Off: 260112

M.A., M.Phil., Ph.D.

E-mail:yccl_260112@rediffmail.com

Res.: 260585

Ref. No.

Date:

CERTIFICATE

This is to certify that the project report entitled

"TO STUDY THE MULTIFUNCTIONAL APPLICABILITY OF CARBON BASED MATERIALS SUCH AS GRAPHENE" being submitted by **Mr. Sumit D. Patle** in partial fulfillment of the requirements for the degree of **Master of Science in Physics** from **Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur** is an authentic work carried out by her under my supervision and guidance.

In my opinion, this is a fit piece of work for the degree of Master of Science. To the best of my knowledge, the matter embodied in the project report has not been submitted to any other University / Institute for the award of any Degree or Diploma.

Date: 28/06/2023

Place: Lakhandur

Mr. S.D.ROKADE

Supervisor

Department of Physics

Mr. M.S. BISEN

Head

Head of Department
Y. C. College, Lakhandur
Department of Physics

Principal
Forwarded by
Y. C. College, Lakhandur
Dr. J.V. Dadve
Dist. Bhandara
Principal

Yashwantrao Chawhan Arts, Commerce and Science College, Lakhandur.

Internal Examiner
30/06/2023

2

External Examiner
30/06/23



Shri.KisanraoKhobragade Education Society,Armori, Dist.-Gadcholi

(Reg. No. F/1693-Gad-92)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur**

Dist.-Bhandara (M.S.) Pin- 441803

NAAC Accreditation 'B' Grade

Principal

Dr. J.V. Dadve

M.A., M.Phil., Ph.D.

E-mail:yccl_260112@rediffmail.com

STD: 07181

Off: 260112

Res.: 260585

Ref. No.

Date:

CERTIFICATE

This is to certify that the project report entitled "TO STUDY THE MULTIFUNCTIONAL APPLICABILITY OF CARBON NANOTUBE (A REVIEW)" being submitted by **Mr. Unmesh D Raut** in partial fulfillment of the requirements for the degree of **Master of Science in Physics** from **Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur** is an authentic work carried out by her under my supervision and guidance.

In my opinion, this is a fit piece of work for the degree of Master of Science. To the best of my knowledge, the matter embodied in the project report has not been submitted to any other University / Institute for the award of any Degree or Diploma.

Date: 28/06/2023

Place: Lakhandur

Mr. SUMIT.D.ROKADE

Supervisor

Department of Physics

Principal
Y. C. College, Lakhandur
Dist. Bhandara

Yashwantrao Chawhan Arts, Commerce and Science College, Lakhandur.

Internal Examiner
30/06/2023

Head
Dept. of Physics
Y. C. College, Lakhandur
Dist. Bhandara (M.S.)
Mr. M. S. BISEN
Head of Department
Department of Physics

External Examiner
30/06/23



**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur
Dist.-Bhandara (M.S.) Pin- 441803**

NAAC Accreditation 'B' Grade

Principal
Dr. J.V. Dadve
M.A., M.Phil., Ph.D.

E-mail: yccel_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

Ref. No.

Date:

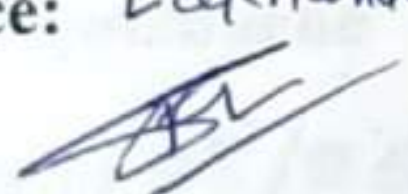
CERTIFICATE

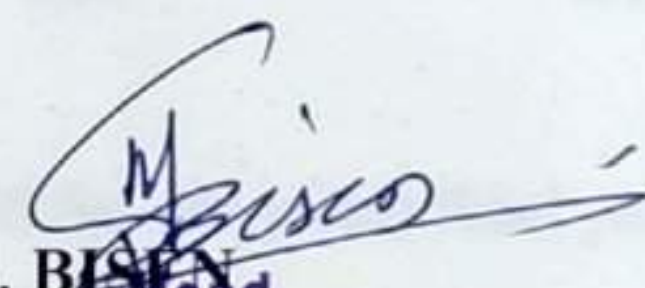
This is to certify that the project report entitled "POLYANILINE FOR GAS SENSING APPLICATION" TO REVIEW BASED STUDY ON CONDUCTING POLYMER being submitted by **Ms. Dimpal B. Bandebuche** in partial fulfillment of the requirements for the degree of **Master of Science in Physics** from **Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur** is an authentic work carried out by her under my supervision and guidance.

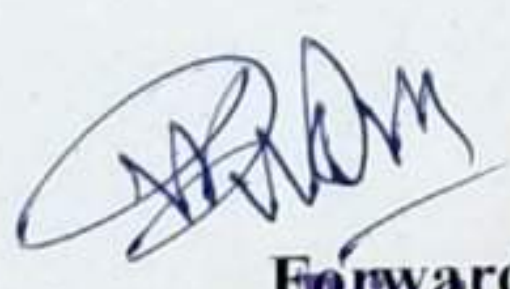
In my opinion, this is a fit piece of work for the degree of Master of Science. To the best of my knowledge, the matter embodied in the project report has not been submitted to any other University / Institute for the award of any Degree or Diploma.

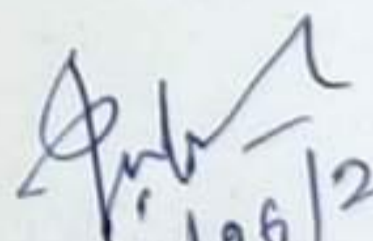
Date: 28/06/2023

Place: Lakhandur


Mr. SUMIT ROKDE
Supervisor
Department of Physics


Mr. M. S. BISEN
Head
Department of Physics
Y.C. College, Lakhandur
Dist. Bhandara (M.S.)


Forwarded by
Principal
Y.C. College, Lakhandur
Dr. J.V. Dadve
Dist. Bhandara
Principal


30/06/23

Yashwantrao Chawhan Arts, Commerce and Science College, Lakhandur.



Shri.Kisanrao Khobragade Education Society, Armori, Dist.-Gadcholi

(Reg. No. F/1693-Gad-92)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur**

Dist.-Bhandara (M.S.) Pin- 441803

NAAC Accreditation 'B' Grade

Principal
Dr. J.V. Dadve
M.A., M.Phil., Ph.D.

E-mail:yccl_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

Ref. No.

Date:

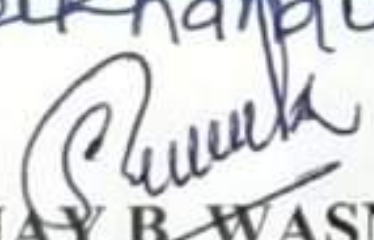
CERTIFICATE

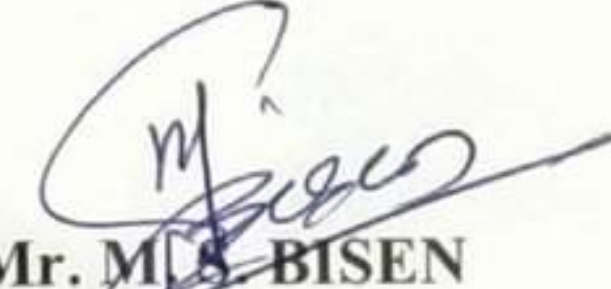
This is to certify that the project report entitled "SYNTHESIS AND CHARACTERISATION OF $Cu_{0.5}Zn_{0.5}Fe_{1.4}Al_{0.6}O_4$ FERRITE" being submitted by **Ms. Dipali J. Meshram** in partial fulfillment of the requirements for the degree of **Master of Science in Physics** from **Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur** is an authentic work carried out by her under my supervision and guidance.


In my opinion, this is a fit piece of work for the degree of Master of Science. To the best of my knowledge, the matter embodied in the project report has not been submitted to any other University / Institute for the award of any Degree or Diploma.

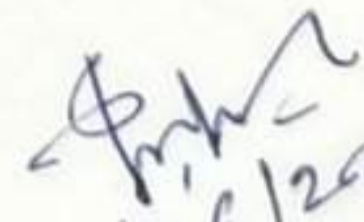
Date: 28/06/2023

Place: Lakhandur


Mr. PRANAY B. WASNIK
Supervisor
Department of Physics


Mr. M.S. BISEN
Head of Department
Department of Physics


Forwaded by
Y. C. College, Lakhandur
Dist. Bhandara
Principal


30/06/2023

Yashwantrao Chawhan Arts, Commerce and Science College, Lakhandur.



Shri. Kisanrao Khobragade Education Society, Armori, Dist.-Gadcholi

(Reg. No. F/1693-Gad-92)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur**

Dist.-Bhandara (M.S.) Pin- 441803

NAAC Accreditation 'B' Grade

Principal
Dr. J.V. Dadve
M.A., M.Phil., Ph.D.

E-mail: yccl_260112@rediffmail.com

STD: 07181

Off: 260112

Res.: 260585

CERTIFICATE

This is to certify that the project report entitled "REVIEW BASED STUDY OF SYNTHESIS AND CHARECTERIZATION OF NICKEL ZINC COPPER (NCZ) SPINEL FERRITE" being submitted by Ms. Nikita H. Shahare in partial fulfillment of the requirements for the degree of **Master of Science in Physics** from **Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur** is an authentic work carried out by her under my supervision and guidance.

In my opinion, this is a fit piece of work for the degree of Master of Science. To the best of my knowledge, the matter embodied in the project report has not been submitted to any other University / Institute for the award of any Degree or Diploma.

Place: Lakhandur

Date: 28-06-2023

MR. PRANAY B. WASNIK

Supervisor

Department of Physics

Mr. M. BISEN

Head
Dept. of Physics
Y. C. College, Lakhandur,
Dist. Bhandara (M.S.)
Department of Physics,

Principal
Y. C. College, Lakhandur
Dist. Bhandara
Dr. J. V. Dadve

Principal

30/06/2023

30/06/23

Shri.KisanraoKhobragade Education Society,Armori, Dist.-Gadcholi

(Reg. No. F/1693-Gad-92)

Yashwantrao Chawhan Arts, Commerce & Science

College, Lakhandur

Dist.-Bhandara (M.S.) Pin- 441803

NAAC Accreditation 'B' Grade

Principal
Dr. J.V. Dadve
M.A., M.Phil., Ph.D.

E-mail:yccl_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

Ref. No.

Date:

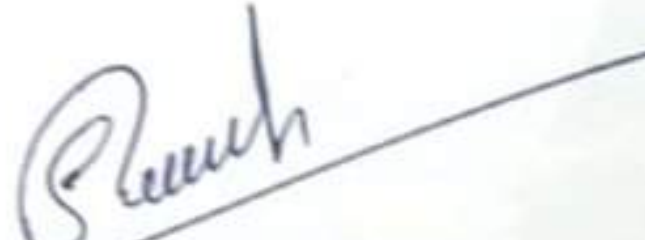
CERTIFICATE

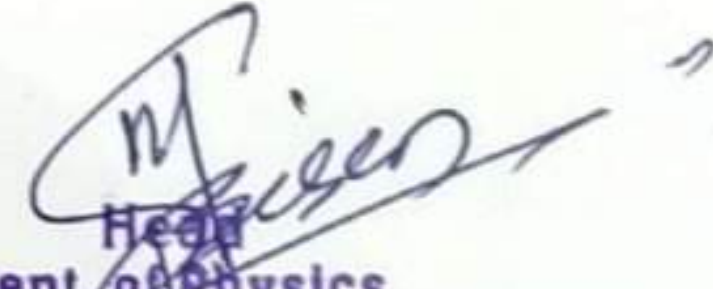
This is to certify that the project report entitled "SYNTHESIS AND CHARACTERISATION OF ALUMINIUM SUBSTITUTED COPPER ZINC SPINAL FERRITE" being submitted by **Ms. Utkarsha B. Sarve** in partial fulfillment of the requirements for the degree of **Master of Science in Physics** from **Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur** is an authentic work carried out by her under my supervision and guidance.

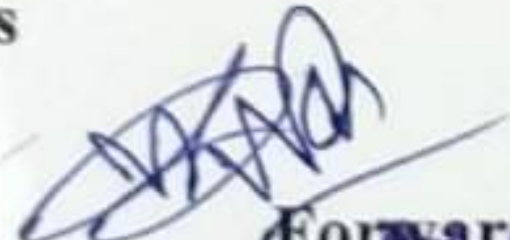
In my opinion, this is a fit piece of work for the degree of Master of Science. To the best of my knowledge, the matter embodied in the project report has not been submitted to any other University / Institute for the award of any Degree or Diploma.

Date:

Place:

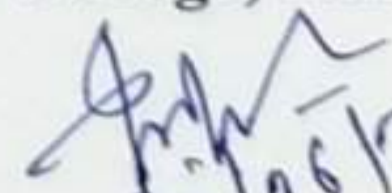

Mr. PRANAY B. WASNIK
Supervisor
Department of Physics


Head
Dept. of Physics
Y. C. College, Lakhandur
Dist. Bhandara (M.S.)
Mr. M. S. BISEN
Head of Department
Department of Physics


Forwarded by
Principal
Y. C. College, Lakhandur
Dist. Bhandara
Principal

Yashwantrao Chawhan Arts, Commerce and Science College, Lakhandur.


30/06/2023


30/06/23



Shri.Kisanrao Khobragade Education Society, Armori, Dist.-Gadcholi

(Reg. No. F/1693-Gad-92)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur
Dist.-Bhandara (M.S.) Pin- 441803**

NAAC Accreditation 'B' Grade

Principal
Dr. J.V. Dadve
M.A., M.Phil., Ph.D.

E-mail: ycccl_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

Ref. No.

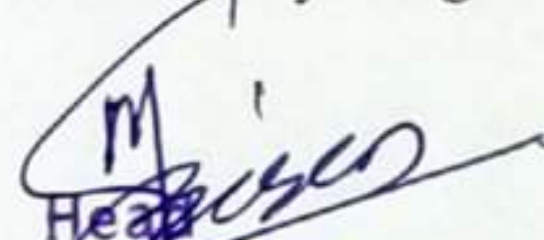
Date:


CERTIFICATE

This is to certify that the project report entitled "SYNTHESIS AND CHARACTERISATION OF $Cu_{0.5}Zn_{0.5}Fe_{1.1}Al_{0.9}O_4$ FERRITE BY SOL-GEL METHOD" being submitted by **Ms. Shital R. Dani** in partial fulfillment of the requirements for the degree of **Master of Science in Physics** from **Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur** is an authentic work carried out by her under my supervision and guidance.

In my opinion, this is a fit piece of work for the degree of Master of Science. To the best of my knowledge, the matter embodied in the project report has not been submitted to any other University / Institute for the award of any Degree or Diploma.

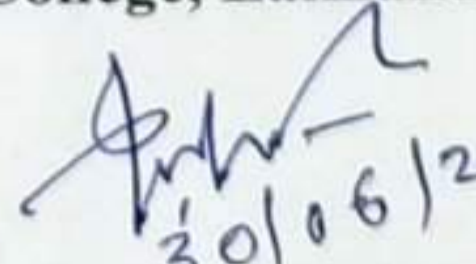
Date: 28/6/2023
Place: Lakhandur
Mr. Pranay B. Wasnik
Supervisor
Department of Physics


Head
Dept. of Physics
Y.C. College, Lakhandur
Dist. Bhandara (M.S.)
Department of Physics


Forwarded by
Y.C. College, Lakhandur
Dist. Bhandara

Yashwantrao Chawhan Arts, Commerce and Science College, Lakhandur


30/06/2023


30/06/23

Shri.KisanraoKhobragade Education Society,Armori, Dist.-Gadcholi

(Reg. No. F/1693-Gad-92)



**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur
Dist.-Bhandara (M.S.) Pin- 441803**

NAAC Accreditation 'B' Grade

Principal
Dr. J.V. Dadve
M.A., M.Phil., Ph.D.

E-mail:yccl_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

Ref. No.

Date:

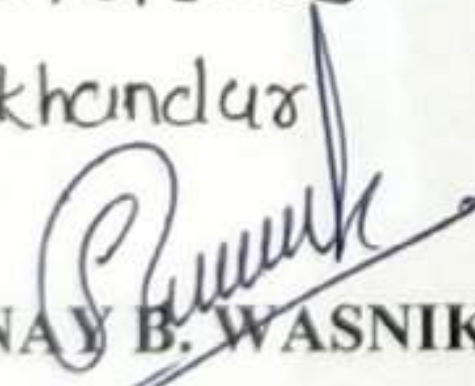
CERTIFICATE

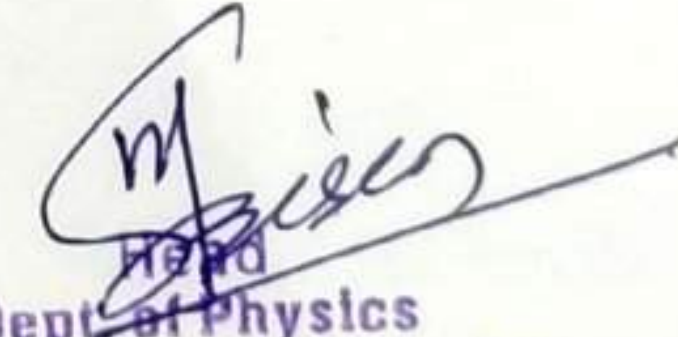
This is to certify that the project report entitled "**REVIEW BASED STUDY OF SYNTHESIS AND CHARACTERIZATION OF COBALT FERRITE , SPINEL FERRITE**" being submitted by **Ms. Bhavana Raju Shende** in partial fulfillment of the requirements for the degree of **Master of Science in Physics** from **Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur** is an authentic work carried out by her under my supervision and guidance.

In my opinion, this is a fit piece of work for the degree of Master of Science. To the best of my knowledge, the matter embodied in the project report has not been submitted to any other University / Institute for the award of any Degree or Diploma.

Date: 28/6/2023

Place: Lakhandur


Mr. PRANAY B. WASNIK
Supervisor
Department of Physics


Head
Dept. of Physics
Y. C. College, Lakhandur
Dist. Bhandara (M.S.)
MR. M. S. BISEN
Head of Department
Department of Physics


Forwarded by
Principal
Y. C. College, Lakhandur
Dist. Bhandara
Principal

Yashwantrao Chawhan Arts, Commerce and Science College, Lakhandur.



Shri.Kisanrao Khobragade Education Socioty,Armori, Dist.-Gadcholi

(Reg. No. F/1693-Gad-92)



**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur**

Dist.-Bhandara (M.S.) Pin- 441803

NAAC Accreditation 'B' Grade

Principal

Dr. J.V. Dadve

M.A., M.Phil., Ph.D

E-mail:yccl_260112@rediffmail.com

STD: 07181

Off: 260112

Res.: 260585

Ref. No.

Date-

CERTIFICATE

This is to certify that the project report entitled “Review Based Study of synthesis and characterization of zinc spinel ferrite” being submitted by **Ms. Sanjana H. Bawankar** in partial fulfillment of the requirements for the degree of **Master of Science in Physics** from **Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur** is an authentic work carried out by her under my supervision and guidance.

In my opinion, this is a fit piece of work for the degree of Master of Science. To the best of my knowledge, the matter embodied in the project report has not been submitted to any other University / Institute for the award of any Degree or Diploma.

Date: 28/6/2023

Place: Lakhandur

Mr. PRANAY B. WASNIK

Supervisor

Department of Physics

Mr. M. S. BISEN

Head of Department

Department of Physics

Forwarded by

Principal

Y. C. College, Lakhandur

Dist. Bhandara

Principal

Yashwantrao Chawhan Arts, Commerce and Science College,

Lakhandur.

Dr. J.V. Dadve
30/06/2023

J.V. Dadve
30.06.23



Shri.KisanraoKhobragade Education Society,Armori, Dist.-Gadcholi

(Reg. No. F/1693-Gad-92)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur**

Dist.-Bhandara (M.S.) Pin- 441803

NAAC Accreditation 'B' Grade

Principal
Dr. J.V. Dadve
M.A., M.Phil., Ph.D.

E-mail:yccl_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

Ref. No.

Date:

CERTIFICATE

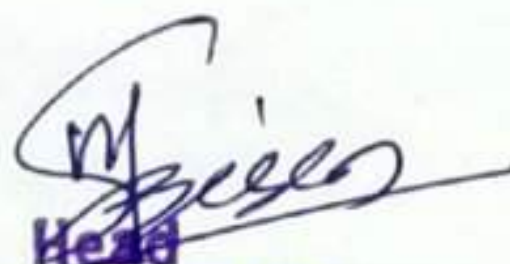
This is to certify that the project report entitled "SYNTHESIS AND CHARACTERISATION OF $Cu_{0.6}Cd_{0.4}Fe_2O_4$ BY SOL-GEL AUTO-COMBUSTION METHOD" being submitted by Ms. Asha M. Gudewar in partial fulfillment of the requirements for the degree of Master of Science in Physics from Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur is an authentic work carried out by her under my supervision and guidance.


In my opinion, this is a fit piece of work for the degree of Master of Science. To the best of my knowledge, the matter embodied in the project report has not been submitted to any other University / Institute for the award of any Degree or Diploma.

Date: 28-06-2023

Place: Lakhandur

Mr. M. S. BISEN
Supervisor
Department of Physics


Head
Dept. of Physics
Y. C. College, Lakhandur
Dist. Bhandara (M.S.)
Head of Department
Department of Physics


Forwarded by
Principal
Dr. J.V. Dadve
Y. C. College, Lakhandur
Dist. Bhandara

Yashwantrao Chawhan Arts, Commerce and Science College, Lakhandur.



Shri. Kisanrao Khobragade Education Society, Armori, Dist.- Gadchiroli.

(Reg. No. F/1693-Gnd-92)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur
Dist.-Bhandara (M.S.) Pin- 441803**

NAAC Accreditation 'B' Grade

Principal
Dr. J.V. Dadve
M.A., M.Phil., Ph.D.

E-mail: yecl_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

Ref. No.

Date:

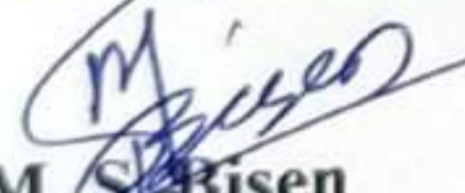
CERTIFICATE

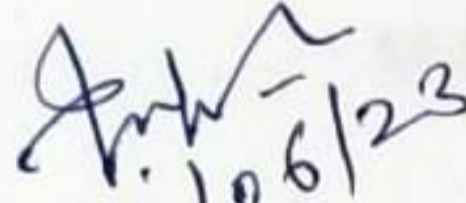
This is to certify that the project report entitled "SYNTHESIS AND CHARACTERISATION OF $Cu_{0.7}Cd_{0.3}Fe_2O_4$ BY SOL-GEL METHOD" being submitted by **Ms. Dipty R. Katre** in partial fulfillment of the requirements for the degree of **Master of Science in Physics** from **Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur** is an authentic work carried out by her under my supervision and guidance.


In my opinion, this is a fit piece of work for the degree of Master of Science. To the best of my knowledge, the matter embodied in the project report has not been submitted to any other University/Institute for the award of any Degree or Diploma.

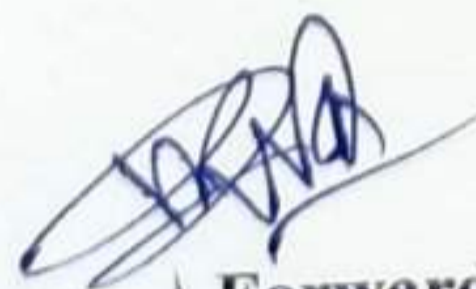
Date: 26/06/2023

Place: Lakhandur


Mr. M. S. Bisen
Supervisor
Department of Physics


30/06/23


Mr. M. S. Bisen
Head of Department
Department of Physics
Dept. of Physics
Y. C. College, Lakhandur
Dist. Bhandara (M.S.)


Forwarded by
Principal
Y. C. College, Lakhandur
Dist. Bhandara
Principal

Yashwantrao Chawhan Arts, Commerce and Science College, Lakhandur.

Shri. Kisanrao Khobragade Education Society ,Armori, Dist.- Gadcholi



(Reg. No. F/1693-Gad-92)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur**

Dist.-Bhandara (M.S.) Pin- 441803

NAAC Accreditation 'B' Grade

Principal
Dr. J.V. Dadve
M.A., M.Phil., Ph.D.

E-mail: ycccl_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

Ref. No.

Date: 28/06/2023


CERTIFICATE

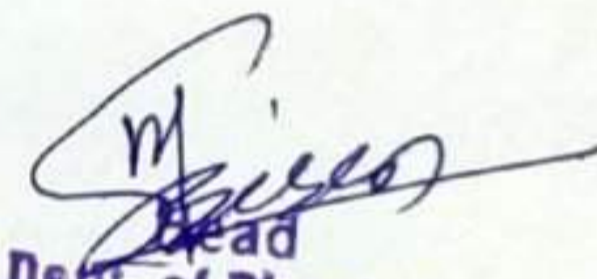
This is to certify that the project report entitled "REVIEW ON THE STUDY OF CADMIUM DOPING IN COPPER NONO SPERIEL FERITE" being submitted by Mrs. Pooja Hemant Thakare in partial fulfillment of the requirements for the degree of Master of Science in Physics from Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur is an authentic work carried out by her under my supervision and guidance.


In my opinion, this is a fit piece of work for the degree of Master of Science. To the best of my knowledge, the matter embodied in the project report has not been submitted to any other University / Institute for the award of any Degree or Diploma.

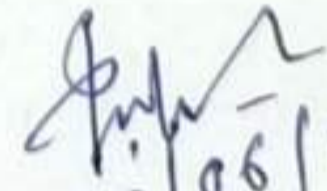
Date: 28/06/2023

Place: Lakhandur


Mr. M. S. BISEN
Supervisor
Department of Physics


Head
Dept. of Physics
Y. C. College, Lakhandur
Dist. Bhandara (M.S.)
Mr. M. S. BISEN
Head of Department
Department of Physics


Approved by
Y. C. College, Lakhandur
Dr. J.V. Dadve
Principal


30/06/23

Yashwantrao Chawhan Arts, Commerce and Science College, Lakhandur.



Shri.Kisanrao Khobragade Education Society, Armori, Dist.-Gadchiroli

(Reg. No. F/1693-Gad-92)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur**

Dist.-Bhandara (M.S.) Pin- 441803

NAAC Accreditation 'B' Grade

Principal

Dr. J.V. Dadve

M.A., M.Phil., Ph.D.

E-mail:yccl_260112@rediffmail.com

STD: 07181

Off: 260112

Res.: 260585

Ref. No.

Date:

CERTIFICATE

This is to certify that the project report entitled "SYNTHESIS AND CHARACTERISATION OF $Cu_{0.65}Cd_{0.35}Fe_2O_4$ BY SOL-GEL METHOD" being submitted by **Ms. Shivani A. Pilare** in partial fulfillment of the requirements for the degree of **Master of Science in Physics** from **Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur** is an authentic work carried out by her under my supervision and guidance.

In my opinion, this is a fit piece of work for the degree of Master of Science. To the best of my knowledge, the matter embodied in the project report has not been submitted to any other University / Institute for the award of any Degree or Diploma.

Date:

Place:

Mr. M. S. BISEN

Supervisor

Department of Physics

Mr. M. S. BISEN
Head
Dept. of Physics
Y. C. College, Lakhandur
Dist. Bhandara (M.S.)
Head of Department

Department of Physics

Forwarded by
Principal
Dr. J.V. Dadve
Y. C. College, Lakhandur
Dist. Bhandara

Yashwantrao Chawhan Arts, Commerce and Science College, Lakhandur.

30/06/2023

30/06/23



Shri.Kisanrao Khobragade Education Society, Armori, Dist.- Gadchiroli
(Reg. No. F/1693-Gad-92)

Yashwantrao Chawhan Arts, Commerce & Science College, Lakhandur
Dist.- Bhandara (M.S.) Pin- 441803

NAAC Accreditation 'B' Grade

Principal
Dr. J.V. Dadve
M.A., M.Phil., Ph.D.

E-mail: ycecl_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

Ref. No.

Date:


CERTIFICATE

This is to certify that the project report entitled "REVIEW BASED STUDY OF SYNTHESIS AND CHARACTERIZATION OF CADMIUM SUBSTITUTED ZINC COBALT FERRITE" being submitted by **Mr. Lakki B. Thikare** in partial fulfillment of the requirements for the degree of **Master of Science in Physics** from **Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur** is an authentic work carried out by her under my supervision and guidance.

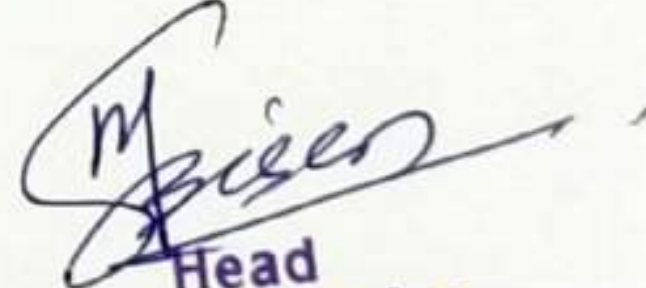
In my opinion, this is a fit piece of work for the degree of Master of Science. To the best of my knowledge, the matter embodied in the project report has not been submitted to any other University / Institute for the award of any Degree or Diploma.

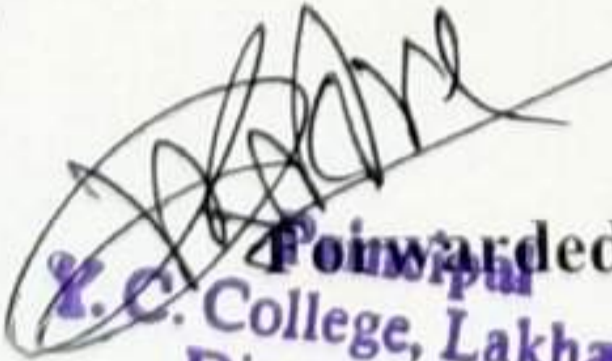
Date: 28/06/2023

Place: Lakhandur


Mr. M. S. BISEN

Supervisor
Department of Physics


Head
Dept. of Physics
Mr. M. S. BISEN
Dist. Bhandara (M.S.)
Head of Department
Department of Physics


Forwarded by
Y.C. College, Lakhandur
Dist. Bhandara
Dr. J.V. Dadve
Principal

Yashwantrao Chawhan Arts, Commerce and Science College, Lakhandur.


Internal
Examiner


External
Examiner

Shri.KisanraoKhobragade Education Socioty,Armori, Dist.-Gadcholi

(Reg. No. F/1693-Gad-92)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur
Dist.-Bhandara (M.S.) Pin- 441803**

NAAC Accreditation 'B' Grade

Principal
Dr. J.V. Dadve
M.A., M.Phil., Ph.D.

E-mail:yccl_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

Ref. No.

Date:

CERTIFICATE

This is to certify that the project report entitled "**REVIEW BASED STUDY OF SYNTHESIS AND CHARACTERISATION TECHNUQUES OF W-TYPE HEXA FERRITE**" being submitted by **Ms. Bhagyashri G. Raghorte** in partial fulfillment of the requirements for the degree of **Master of Science in Physics** from **Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur** is an authentic work carried out by her under my supervision and guidance.

In my opinion, this is a fit piece of work for the degree of Master of Science. To the best of my knowledge, the matter embodied in the project report has not been submitted to any other University / Institute for the award of any Degree or Diploma.

Date:

Place:

Mr. PRANAY B. WASNIK
Supervisor
Department of Physics

Mr. M. S. BISEN
Head of Department
Department of Physics

Forwarded by
Dr. J.V. Dadve
Principal
Y.C. College, Lakhandur
Dist. Bhandara

30.06.23

Yashwantrao Chawhan Arts, Commerce and Science College, Lakhandur.

Shri.KisanraoKhobragade Education Society,Armori, Dist.-Gadcholi

(Reg. No. P/1693-Gad-92)

**YashwantraoChawhan Arts, Commerce & Science
College, Lakhandur**

Dist.-Bhandara (M.S.) Pin- 441803

NAAC Accreditation 'B' Grade

Principal
Dr. J.V. Dadve
M.A., M.Phil., Ph.D.

E-mail:yccl_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

Ref. No.

Date:

CERTIFICATE

This is to certify that the project report entitled "To the study electrical and magnetic properties of the rare earth doped nano spinal farite" the review being submitted by **Ms. Samir S. Meshram** in partial fulfillment of the requirements for the degree of **Master of Science in Physics** from **Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur** is an authentic work carried out by her under my supervision and guidance.

In my opinion, this is a fit piece of work for the degree of Master of Science. To the best of my knowledge, the matter embodied in the project report has not been submitted to any other University / Institute for the award of any Degree or Diploma.

Date: 28/06/2023

Place: Lakhandur

Mr. PRANAY B. WASNIK
Supervisor
Department of Physics

Mr. M. S. BIEN
Head of Department
Department of Physics

Principal
Y.C. College, Lakhandur
Dist. Bhandara
Dr. J.V. Dadve

Principal Yashwantrao Chawhan Arts, Commerce and Science College, Lakhandur.

Internal Examiner

External Examiner

Shri.KisanraoKhobragade Education Socioty,Armori, Dist.-Gadcholi

(Reg. No. F/1693-Gad-92)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur**

Dist.-Bhandara (M.S.) Pin- 441803

NAAC Accreditation 'B' Grade

Principal
Dr. J.V. Dadve
M.A., M.Phil., Ph.D.

E-mail:yccl_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

Ref. No.

Date:

CERTIFICATE

This is to certify that the project report entitled "**REVIEW BASED STUDY OF SYNTHESIS AND CHARACTERIZATION OF COBALT FERRITE , SPINEL FERRITE**" being submitted by **Ms. Bhavana Raju Shende** in partial fulfillment of the requirements for the degree of **Master of Science in Physics** from **Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur** is an authentic work carried out by her under my supervision and guidance.

In my opinion, this is a fit piece of work for the degree of Master of Science. To the best of my knowledge, the matter embodied in the project report has not been submitted to any other University / Institute for the award of any Degree or Diploma.

Date: 28/6/2023

Place: Lakhandur

Mr. PRANAY B. WASNIK
Supervisor
Department of Physics

Head
Dept. of Physics
Y. C. College, Lakhandur
Dist. Bhandara (M.S.)
Head of Department
Department of Physics

Forwarded by
Principal
Y. C. College, Lakhandur
Dr. J.V. Dadve
Dist. Bhandara
Principal

Yashwantrao Chawhan Arts, Commerce and Science College, Lakhandur.

Shri.Kisanrao Khobragade Education Society, Armori, Dist.-Gadchiroli
(Reg. No. 1/1993-Gad-92)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur**

Dist.-Bhandara (M.S.) Pin- 441803

Principal
Dr. J. V. Dadve
M.A., M.Phil., Ph.D.



E-mail: ycel_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

CERTIFICATE

This is to certify that the dissertation entitled "**Studies on Life Cycle of Tropical Silkworm Anthera mylitta**" is carried out by **Pallavi Dayaram Thakare** under my supervision for the partial fulfilment for the requirement of the award of the M.Sc. Degree in Zoology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

The work embodies in this project has not been submitted for any degree or diploma.

Date: 30-6-2023

Place: Lakhandur

Dr. J. V. Dadve
Principal

Yashwantrao Chawhan Arts, Commerce &
Science College, Lakhandur Dist.-Bhandara

Principal
Y. C. College, Lakhandur
Dist. Bhandar.

Dr. M. R. Thengare
Supervisor

Assistant Professor & Head
Department of Zoology,
Head
Dept. of Zoology
Y. C. College, Lakhandur
Dist. Bhandara (M.S.)

Shri.Kisanrao Khobragade Education Society, Armori, Dist.-Gadcholi
(Reg. No. F/1093-028/02)

Yashwantrao Chawhan Arts, Commerce & Science College, Lakhandur

Dist.-Bhandara (M.S.) Pin- 441803

Principal
Dr. J. V. Dadve
M.A., M.Phil., Ph.D.



E-mail:yccl_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

CERTIFICATE

This is to certify that the dissertation entitled “**To Study and Ecology & Diversity of Fresh Water Molluscs from Adyal Lake, Ta. Bramhapuri Dist. Chandrapur**” is carried out by **Miss. Kajal Pralhad Sukhdeve** under my supervision for the partial fulfilment for the requirement of the award of the M.Sc. Degree in Zoology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

The work embodies in this project has not been submitted for any degree or diploma.

Date: 24.06.2023

Place: Lakhandur

Dr. M. R. Thengare

Supervisor

Assistant Professor & Head
Department of Zoology,
Y. C. College, Lakhandur,
Dist. Bhandara (M. S.)

Dr. J. V. Dadve

Principal

Yashwantrao Chawhan Arts, Commerce &
Science College, Lakhandur, Dist. Bhandara

Y. C. College, Lakhandur
Dist. Bhandara

Shri.Kisanrao Khobragade Education Society, Armori, Dist.-Gadchiroli
(Reg. No. F/1693-Gad-92)

Yashwantrao Chawhan Arts, Commerce & Science College, Lakhandur

Dist.-Bhandara (M.S.) Pin- 441803

Principal
Dr. J. V. Dadve
M.A., M.Phil., Ph.D.



E-mail:yccl 260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

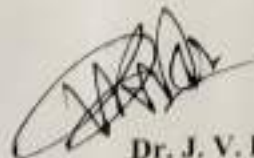
CERTIFICATE

This is to certify that the dissertation entitled "Ichthyofaunal diversity of Wainganga River near by Lakhandur, District-Bhandara Maharashtra" is carried out by **Sneha Someshwar Bhagadkar** under my supervision for the partial fulfilment for the requirement of the award of the M.Sc. Degree in Zoology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

The work embodies in this project has not been submitted for any degree or diploma.

Date: 24/06/2023
Place: Lakhandur


Dr. M. R. Thengare
Supervisor
Assistant Professor & Head
Department of Zoology,
Y. C. College, Lakhandur
Dist. Bhandara (M.S.)


Dr. J. V. Dadve
Principal
Yashwantrao Chawhan Arts, Commerce &
Science College, Lakhandur Dist.-Bhandara
Principal
Y. C. College, Lakhandur
Dist. Bhandara

Shri.Kisanrao Khobragade Education Society, Armori, Dist.-Gadcholi
(Reg. No. F/1691-Gad-92)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur
Dist.-Bhandara (M.S.) Pin- 441803**



Principal
Dr. J. V. Dadve
M.A., M.Phil., Ph.D.

E-mail:yccl_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

CERTIFICATE

This is to certify that the dissertation entitled "**An Epidemiological analysis of Lymphatic filariasis in Bhandara district, Maharashtra**" is carried out by **Mayuri Rajkumar Bawankar** under my supervision for the partial fulfilment for the requirement of the award of the M.Sc. Degree in Zoology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

The work embodies in this project has not been submitted for any degree or diploma.

Date: 26.06.2023

Place: Lakhandur

Dr. M. R. Thengare
Supervisor
Assistant Professor & Head
Dept. of Zoology
Yashwantrao Chawhan Arts, Commerce & Science College, Lakhandur
Dist. Bhandara (M.S.)

Dr. J. V. Dadve
Principal
Yashwantrao Chawhan Arts, Commerce & Science College, Lakhandur
Dist. Bhandara

Shri.Kisanrao Khobragade Education Society, Armori, Dist.-Gadchiroli
(Reg. No. F/1893-Gad-92)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur
Dist.-Bhandara (M.S.) Pin- 441803**



Principal
Dr. J. V. Dadve
M.A., M.Phil., Ph.D.

E-mail: ycccl_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

CERTIFICATE

This is to certify that the dissertation entitled "An Epidemiological analysis of Lymphatic filariasis in Bhandara district, Maharashtra" is carried out by **Apeksha Rajkumar Bawankar** under my supervision for the partial fulfilment for the requirement of the award of the M.Sc. Degree in Zoology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

The work embodies in this project has not been submitted for any degree or diploma.

Date: 25.06.2023

Place: Lakhandur

Dr. M. R. Thengare
Supervisor

Assistant Professor & Head
Dept. of Zoology
Y. C. College, Lakhandur
Dist. Bhandara (M.S.)

Dr. J. V. Dadve
Principal

Yashwantrao Chawhan Arts, Commerce &
Science College, Lakhandur Dist. Bhandara
Y.C. College, Lakhandur
Dist. Bhandara

Shri.Kisanrao Khobragade Education Society, Armori, Dist.-Gadcholi
(Reg. No. F/1093-Gad-92)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur**

Dist.-Bhandara (M.S.) Pin- 441803



Principal
Dr. J. V. Dadve
M.A., M.Phil., Ph.D.

E-mail: yceel_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

CERTIFICATE

This is to certify that the dissertation entitled "**Ichthyofaunal diversity of Wainganga River near by Lakhandur, District-Bhandara Maharashtra**" is carried out by **Akshata Dakram Ukey** under my supervision for the partial fulfilment for the requirement of the award of the M.Sc. Degree in Zoology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

The work embodies in this project has not been submitted for any degree or diploma.

Date: 26.06.2023
Place: Lakhandur

Dr. J. V. Dadve
Principal

Yashwantrao Chawhan Arts, Commerce &
Science College, Lakhandur
Dist. Bhandara

Dr. M. R. Thengare
Supervisor

Assistant Professor & Head
Department of Zoology,
Dept. of Zoology,
Y. C. College, Lakhandur
Dist. Bhandara (M.S.)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur**
Dist.-Bhandara (M.S.) Pin- 441803



Principal
Dr. J. V. Dadve
M.A., M.Phil., Ph.D.

E-mail: ycel_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

CERTIFICATE

This is to certify that the dissertation entitled "STUDIES ON FISH CAGE CULTURE IN ITIADOH RESERVOIRS, GONDIA DISTRICT" is carried out by **Ashit Ravindra Gadpayle** under my supervision for the partial fulfilment for the requirement of the award of the M.Sc. Degree in Zoology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

The work embodies in this project has not been submitted for any degree or diploma.

Date: 25.06.2023
Place: Lakhandur

Dr. J. V. Dadve
Principal

Yashwantrao Chawhan Arts, Commerce &
Science College, Lakhandur Dist.-Bhandara

Dr. M. R. Thengare
Supervisor
Assistant Professor & Head
Department of Zoology,
V. C. College, Lakhandur
Dist. Bhandara (M.S.)

Shri.Kisanrao Khobragade Education Society, Armori, Dist.-Gadchiroli
(Reg. No. T/1693-Gad-92)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur
Dist.-Bhandara (M.S.) Pin- 441803**



Principal
Dr. J. V. Dadve
M.A., M.Phil., Ph.D.
260585

E-mail:yccl_260112@rediffmail.com

STD: 07181
Off: 260112

Res.:

CERTIFICATE

This is to certify that the dissertation entitled "**Prevalence of Anemia and Hemoglobin Percentage in College going Students**" is carried out by **Vicky Ganesh Kondamwar** under my supervision for the partial fulfilment for the requirement of the award of the M.Sc. Degree in Zoology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

The work embodies in this project has not been submitted for any degree or diploma.

Date: 24/05/2023
Place: Lakhandur

Dr. M. R. Thehgare
Supervisor
Assistant Professor & Head
Department of Zoology,
Y. C. College, Lakhandur,
Dist. Bhandara (M.S.)

Dr. J. V. Dadve
Principal
Yashwantrao Chawhan Arts, Commerce &
Science College, Lakhandur, Dist.-Bhandara

Shri.Kisanrao Khobragade Education Society, Armori, Dist.-Gadchiroli
(Reg. No. F/1993-Gad.02)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur
Dist.-Bhandara (M.S.) Pin- 441803**

Principal
Dr. J. V. Dadve
M.A., M.Phil., Ph.D.



E-mail:yccl_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

CERTIFICATE

This is to certify that the dissertation entitled "**Studies on Life Cycle of Tropical Silkworm Anthera mylitta**" is carried out by **Omprakash Arvind Sahare** under my supervision for the partial fulfilment for the requirement of the award of the M.Sc. Degree in Zoology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

The work embodies in this project has not been submitted for any degree or diploma.

Date: 19/06/2023
Place: Lakhandur

Dr. J. V. Dadve
Principal
Yashwantrao Chawhan Arts, Commerce &
Science College, Bhandara Dist. Bhandara
Principal
Y. C. College, Lakhandur
Dist. Bhandara

Dr. M. R. Thengare
Supervisor
Assistant Professor & Head
Department of Zoology,
Head
Dept. of Zoology
Y. C. College, Lakhandur
Dist. Bhandara (M.S.)

Shri.Kisanrao Khobragade Education Society, Armori, Dist.-Gadcholi
(Reg. No. F/1993-Gad92)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur**

Dist.-Bhandara (M.S.) Pin- 441803

Principal
Dr. J. V. Dadve
M.A., M.Phil., Ph.D.



E-mail: yecl_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

CERTIFICATE

This is to certify that the dissertation entitled "**Biodiversity of snakes nearby Sakoli District Bhandara**" is carried out by **Nikita Tulshidas Darwade** under my supervision for the partial fulfilment for the requirement of the award of the M.Sc. Degree in Zoology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

The work embodies in this project has not been submitted for any degree or diploma.

Date: 19-6-23
Place: Lakhandur

Dr. J. V. Dadve
Principal

Yashwantrao Chawhan Arts, Commerce &
Science College, Lakhandur Dist.-Bhandara

Principal
Y.C. College, Lakhandur
Dist. Bhandara

Dr. M. R. Thengare
Head
Supervisor
Dept. of Zoology
Assistant Professor & In-charge
Department of Zoology,

Shri.Kisanrao Khobragade Education Society, Armori, Dist.-Gadchiroli
(Reg. No. F/1693-Gad-02)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur
Dist.-Bhandara (M.S.) Pin- 441803**

Principal
Dr. J. V. Dadve
M.A., M.Phil., Ph.D.



E-mail: yccel_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

CERTIFICATE

This is to certify that the dissertation entitled "**Studies on Gobar Gas Plant as a Renewable Source of Energy: Case Study**" is carried out by **Prashant Babuji Bankar** under my supervision for the partial fulfilment for the requirement of the award of the M.Sc. Degree in Zoology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

The work embodies in this project has not been submitted for any degree or diploma.

Date: 30.08.2023
Place: Lakhandur

Dr. J. V. Dadve

Principal
Yashwantrao Chawhan Arts, Commerce &
Science College, Lakhandur Dist.-Bhandara

Dr. M. R. Thengare
Supervisor

Assistant Professor & Head
Department of Zoology,
Dept. of Zoology
Y. C. College, Lakhandur
Dist. Bhandara (M.S.)

Shri.Kisanrao Khobragade Education Society, Armori, Dist.-Gadchiroli
(Reg. No. F/1693-Qad-92)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur
Dist.-Bhandara (M.S.) Pin- 441803**



Principal
Dr. J. V. Dadve
M.A., M.Phil., Ph.D.
260585

E-mail:yccl_260112@rediffmail.com

STD: 07181
Off: 260112

Res.:

CERTIFICATE

This is to certify that the dissertation entitled "**Prevalence of Anemia and Hemoglobin Percentage in College going Students**" is carried out by **Swati Mangalmurti Uprakar** under my supervision for the partial fulfilment for the requirement of the award of the M.Sc. Degree in Zoology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

The work embodies in this project has not been submitted for any degree or diploma.

Date: 19-6-2023
Place: Lakhandur

Dr. J. V. Dadve
Principal
Yashwantrao Chawhan Arts, Commerce &
Science College, Lakhandur, Dist.-Bhandara

Dr. M. R. Thengare
Supervisor
Assistant Professor & Head
Dept. of Zoology
Y. C. College, Lakhandur
Dist. Bhandara (M.S.)

Sri.Kisanrao Khobragade Education Society, Armori, Dist.-Gadcholi
(Reg. No. F/1993-Gad/02)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur
Dist.-Bhandara (M.S.) Pin- 441803**



Principal
Dr. J. V. Dadve
M.A., M.Phil., Ph.D.

E-mail: yceel_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

CERTIFICATE

This is to certify that the dissertation entitled "Studies on Gobar Gas Plant as a Renewable Source of Energy: Case Study" is carried out by **Payal Vinod Thakare** under my supervision for the partial fulfilment for the requirement of the award of the M.Sc. Degree in Zoology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

The work embodies in this project has not been submitted for any degree or diploma.

Date: 30.06.2023
Place: Lakhandur

Dr. M. R. Thengare
Supervisor
Assistant Professor & Head
Department of Zoology,
Dept. of Zoology
Y. C. College, Lakhandur
Dist. Bhandara (M.S.)

Dr. J. V. Dadve
Principal
Yashwantrao Chawhan Arts, Commerce &
Science College, Lakhandur Dist.-Bhandara

Shri.Kisanrao Khobragade Education Society, Armori, Dist.-Gadchiroli
(Reg. No. F1893-Gad-92)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur**

Dist.-Bhandara (M.S.) Pin- 441803



Principal
Dr. J. V. Dadve
M.A., M.Phil., Ph.D.

E-mail:ycel_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

CERTIFICATE

This is to certify that the dissertation entitled "An Epidemiological Analysis of Malarial cases in Bhandara district & it's Talukas (Maharashtra) India" is carried out by Mrudul Narendra Meshram under my supervision for the partial fulfilment for the requirement of the award of the M.Sc. Degree in Zoology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

The work embodies in this project has not been submitted for any degree or diploma.

Date: 19/06/2023

Place: Lakhandur

Dr. J. V. Dadve
Principal

Yashwantrao Chawhan Arts, Commerce &
Science College, Lakhandur - Bhandara
Dist, Bhandara

Dr. M. R. Thengare
Supervisor

Assistant Professor & Head
Dept. of Zoology,
Y. C. College, Lakhandur
Dist. Bhandara (M.S.)

Shri.Kisanrao Khobragade Education Society, Armori, Dist.-Gadcholi
(Reg. No. P/1693-Gad-92)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur**
Dist.-Bhandara (M.S.) Pin- 441803



Principal
Dr. J. V. Dadve
M.A., M.Phil., Ph.D.

E-mail: yecl_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

CERTIFICATE

This is to certify that the dissertation entitled "Study On Vermi-Technology (Vermiculture-Method, Beneficial Effects)" is carried out by **Rashmi Janardhan Chaudhari** under my supervision for the partial fulfilment for the requirement of the award of the M.Sc. Degree in Zoology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

The work embodies in this project has not been submitted for any degree or diploma.

Date: 19.06.2023
Place: Lakhandur

Dr. J. V. Dadve
Principal

Yashwantrao Chawhan Arts, Commerce &
Science College, Lakhandur, Dist. Bhandara
M.S.

Dr. M. R. Thengare
Supervisor

Assistant Professor & Head
Department of Zoology,

Dept. of Zoology
Y. C. College, Lakhandur
Dist. Bhandara (M.S.)



Shri.Kisanrao Khobragade Education Society, Armori, Dist.-Gadchiroli
(Reg. No. F/1091-Gad-92)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur
Dist.-Bhandara (M.S.) Pin- 441803**

Principal
Dr. J. V. Dadve
M.A., M.Phil., Ph.D.



E-mail: ycccl_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

CERTIFICATE

This is to certify that the dissertation entitled “**STUDY ON BUTTERFLY DIVERSITY IN AROUND SAKOLI TALUKA DISTRICT BHANDARA**” is carried out by **Madhavi Arvind Zode** under my supervision for the partial fulfilment for the requirement of the award of the M.Sc. Degree in Zoology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

The work embodies in this project has not been submitted for any degree or diploma.

Date: 19-06-2023
Place: Lakhandur

Dr. J. V. Dadve
Principal
Yashwantrao Chawhan Arts, Commerce &
Science College, Lakhandur Dist.-Bhandara
Principal
Y. C. College, Lakhandur,
Dist, Bhandara

Dr. M. R. Thengare
Supervisor
Assistant Professor & Head
Dept. of Zoology
Y. C. College, Lakhandur
Dist. Bhandara (M.S.)

Shri.Kisanrao Khobragade Education Society, Armori, Dist.-Gadchiroli
(Reg. No. F1193-Gad-02)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur**
Dist.-Bhandara (M.S.) Pin- 441803



Principal
Dr. J. V. Dadve
M.A., M.Phil., Ph.D.

E-mail:yccl_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

CERTIFICATE

This is to certify that the dissertation entitled "**TECHNIQUE OF ORGANIC FARMING AND ITS IMPORTANCE**" is carried out by **Sneha Dadaji Yerne** under my supervision for the partial fulfilment for the requirement of the award of the M.Sc. Degree in Zoology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

The work embodies in this project has not been submitted for any degree or diploma.

Date: 19 / 06 / 2023
Place: Lakhandur

Dr. J. V. Dadve
Principal

Yashwantrao Chawhan Arts, Commerce &
Science College, Lakhandur Dist.-Bhandara
College, Lakhandur
Dist. Bhandara

Dr. M. R. Thengare
Supervisor

Assistant Professor & Head
Department of Zoology,
Y. C. College, Lakhandur
Dist. Bhandara (M.S.)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur**

Dist.-Bhandara (M.S.) Pin- 441803

Principal
Dr. J. V. Dadve
M.A., M.Phil., Ph.D.



E-mail: ycecl_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

CERTIFICATE

This is to certify that the dissertation entitled "**Biodiversity of snakes nearby Sakoli District Bhandara**" is carried out by **Kajal Dayaram Nawakhare** under my supervision for the partial fulfilment for the requirement of the award of the M.Sc. Degree in Zoology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

The work embodied in this project has not been submitted for any degree or diploma.

Date: 19-06-23
Place: Lakhandur

Dr. J. V. Dadve
Principal

Yashwantrao Chawhan Arts, Commerce &
Science College, Lakhandur Dist.-Bhandara

Principal
Y. C. College, Lakhandur
Dist, Bhandara

Dr. M. R. Thengare
Supervisor

Assistant Professor & Head
Department of Zoology,
Y. C. College, Lakhandur
Dist. Bhandara (M.S.)

Shri.Kisanrao Khobragade Education Society, Armori, Dist.-Gadchiroli
(Reg. No. F/1693-Gad-92)

Yashwantrao Chawhan Arts, Commerce & Science College, Lakhandur

Dist.-Bhandara (M.S.) Pin- 441803



Principal
Dr. J. V. Dadve
M.A., M.Phil., Ph.D.

E-mail: yecl_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

CERTIFICATE

This is to certify that the dissertation entitled "STUDIES ON FISH CAGE CULTURE IN ITIADOH RESERVOIRS, GONDIA DISTRICT" is carried out by **Harsha Dinesh Wadhai** under my supervision for the partial fulfilment for the requirement of the award of the M.Sc. Degree in Zoology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

The work embodies in this project has not been submitted for any degree or diploma.

Date: 19.06.2023
Place: Lakhandur

Dr. J. V. Dadve
Principal
Yashwantrao Chawhan Arts, Commerce &
Science College, Lakhandur, Dist.-Bhandara

Principal
Y.C. College, Lakhandur
Dist. Bhandara

Dr. M. R. Thengare
Supervisor
Assistant Professor & Head
Department of Zoology,
Y. C. College, Lakhandur
Dist. Bhandara (M.S.)

Shri.Kisanrao Khobragade Education Society, Armoeri, Dist.-Gadchiroli
(Reg. No. F/1693-Gad-92)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur
Dist.-Bhandara (M.S.) Pin- 441803**



Principal
Dr. J. V. Dadve
M.A., M.Phil., Ph.D.

E-mail: ycecl_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

CERTIFICATE

This is to certify that the dissertation entitled "**Study On Vermi-Technology (Vermiculture-Method, Beneficial Effects)**" is carried out by **Sakshi Nayankumar Badole** under my supervision for the partial fulfilment for the requirement of the award of the M.Sc. Degree in Zoology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.


The work embodies in this project has not been submitted for any degree or diploma.

Date: 19/06/2023
Place: Lakhandur



Dr. J. V. Dadve
Principal

Yashwantrao Chawhan Arts, Commerce &
Science College, Lakhandur Dist.-Bhandara
Principal
Y. C. College, Lakhandur
Dist, Bhandara



Dr. M. R. Thengare
Supervisor
Assistant Professor & Head
Department of Zoology,
Dept. of Zoology
Y. C. College, Lakhandur
Dist. Bhandara (M.S.)

Shri.Kisanrao Khobragade Education Society, Armori, Dist.-Gadchiroli
(Reg. No. P/1693-Gad-92)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur
Dist.-Bhandara (M.S.) Pin- 441803**



Principal
Dr. J. V. Dadve
M.A., M.Phil., Ph.D.

E-mail:yccl_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

CERTIFICATE

This is to certify that the dissertation entitled "Study of Aquatic plants/Hydrophytes in a pond nearby village" is carried out by **Satyam Naresh Meshram** under my supervision for the partial fulfilment for the requirement of the award of the M.Sc. Degree in Zoology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

The work embodies in this project has not been submitted for any degree or diploma.

Date: 19/06/2023

Place: Lakhandur

Dr. J. V. Dadve
Principal
Y.C. College, Lakhandur
Yashwantrao Chawhan Arts, Commerce &
Science College, Lakhandur Dist.-Bhandara

Dr. M. R. Hegde
Head
Dept. of Zoology
Supervisor
Y. C. College, Lakhandur
Dist. Bhandara (M.S.)
Department of Zoology,

Shri.Kisanrao Khobragade Education Society, Armori, Dist.-Gadchiroli
(Reg. No. P/1403-Gad-02)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur
Dist.-Bhandara (M.S.) Pin- 441803**



Principal
Dr. J. V. Dadve
M.A., M.Phil., Ph.D.

E-mail:yccl_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

CERTIFICATE

This is to certify that the dissertation entitled "**Study of Aquatic plants/Hydrophytes in a pond nearby village**" is carried out by **Sayali Uddhav Rokade** under my supervision for the partial fulfilment for the requirement of the award of the M.Sc. Degree in Zoology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

The work embodies in this project has not been submitted for any degree or diploma.

Date: 19/04/2023
Place: Lakhandur

Dr. M. R. Thengare
Supervisor
Assistant Professor & Head
Department of Zoology,
Dept. of Zoology
Y. C. College, Lakhandur
Dist. Bhandara (M.S.)

Dr. J. V. Dadve
Principal
Yashwantrao Chawhan Arts, Commerce &
Science College, Lakhandur Dist.-Bhandara

Principal
Y. C. College, Lakhandur
Dist. Bhandara

Shri.Kisanrao Khobragade Education Society, Armori, Dist.-Gadchiroli
(Reg. No. F/1693-Gad-92)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur
Dist.-Bhandara (M.S.) Pin- 441803**



Principal
Dr. J. V. Dadve
M.A., M.Phil., Ph.D.

E-mail:yecl_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

CERTIFICATE

This is to certify that the dissertation entitled "Study of Biodiversity & Distribution of Butterfly of the Wadsa Region Dist. Gadchiroli" is carried out by Miss. Sweety Ganesh Dhote under my supervision for the partial fulfilment for the requirement of the award of the M.Sc. Degree in Zoology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

The work embodies in this project has not been submitted for any degree or diploma.

Date: 30/6/2023
Place: Lakhandur

Dr. M. R. Thengare
Head
Dept. of Zoology
Xs
Dist. Bhandara
Department of Zoology.

Dr. J. V. Dadve
Principal
Yashwantrao Chawhan Arts, Commerce &
Science College, Lakhandur Dist.-Bhandara

Shri.Kisanrao Khobragade Education Society, Armori, Dist.-Gadchiroli
(Reg. No. F1693-Gad-92)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur**

Dist.-Bhandara (M.S.) Pin- 441803

Principal
Dr. J. V. Dadve
M.A., M.Phil., Ph.D.



E-mail: ycel_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

CERTIFICATE

This is to certify that the dissertation entitled "Study of Biodiversity & Distribution of Butterfly of the Wadsa Region Dist. Gadchiroli" is carried out by Miss. Switi Rashtrapal Lonare under my supervision for the partial fulfilment for the requirement of the award of the M.Sc. Degree in Zoology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

The work embodies in this project has not been submitted for any degree or diploma.

Date: 30-6-2023

Place: Lakhandur

Dr. J. V. Dadve
Principal

Yashwantrao Chawhan Arts, Commerce &
Science College, Lakhandur Dist.-Bhandara

Principal
Y. C. College, Lakhandur
Dist. Bhandara

Dr. M. R. Thengare
Supervisor

Assistant Professor & Head
Department of Zoology,

Head
Dept. of Zoology
Y. C. College, Lakhandur
Dist. Bhandara (M.S.)

Shri.Kisanrao Khobragade Education Society, Armori, Dist.-Gadchiroli
(Reg. No. P/1095-Gad-92)

**Yashwantrao Chawhan Arts, Commerce & Science
College, Lakhandur
Dist.-Bhandara (M.S.) Pin- 441803**

Principal
Dr. J. V. Dadve
M.A., M.Phil., Ph.D.



E-mail:yccl_260112@rediffmail.com

STD: 07181
Off: 260112
Res.: 260585

CERTIFICATE

This is to certify that the dissertation entitled "STUDIES ON FISH CAGE CULTURE IN ITIADOH RESERVOIRS, GONDIA DISTRICT" is carried out by **Ashit Ravindra Gadpayle** under my supervision for the partial fulfilment for the requirement of the award of the M.Sc. Degree in Zoology, Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur.

The work embodies in this project has not been submitted for any degree or diploma.

Date: 25.06.2023
Place: Lakhandur

Dr. J. V. Dadve
Principal

Yashwantrao Chawhan Arts, Commerce &
Science College, Lakhandur Dist.-Bhandara

Dr. M. R. Thengare
Supervisor

Assistant Professor & Head
Department of Zoology,
V. C. College, Lakhandur
Dist. Bhandara (M.S.)





Figures: Photographs of Location



Figures: Photographs while collecting and observing samples



Fig 3. Lake selected for study



Fig 4. Sample collection

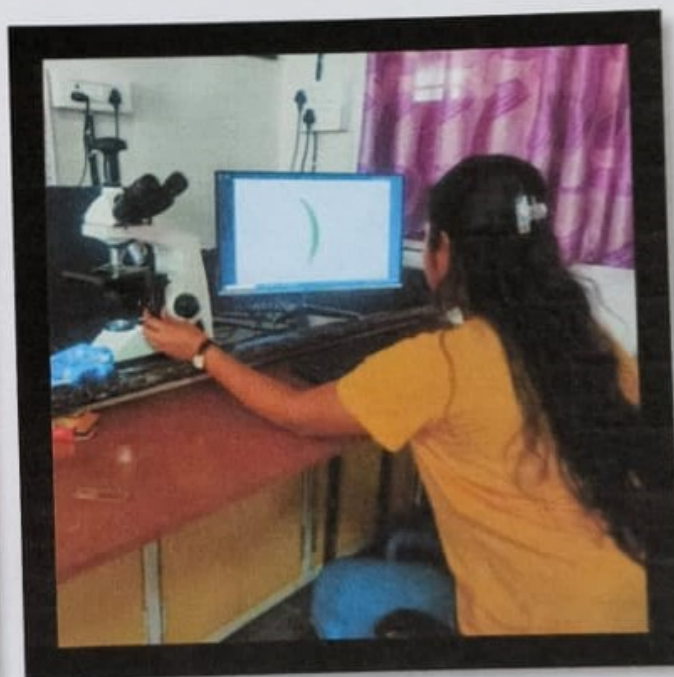
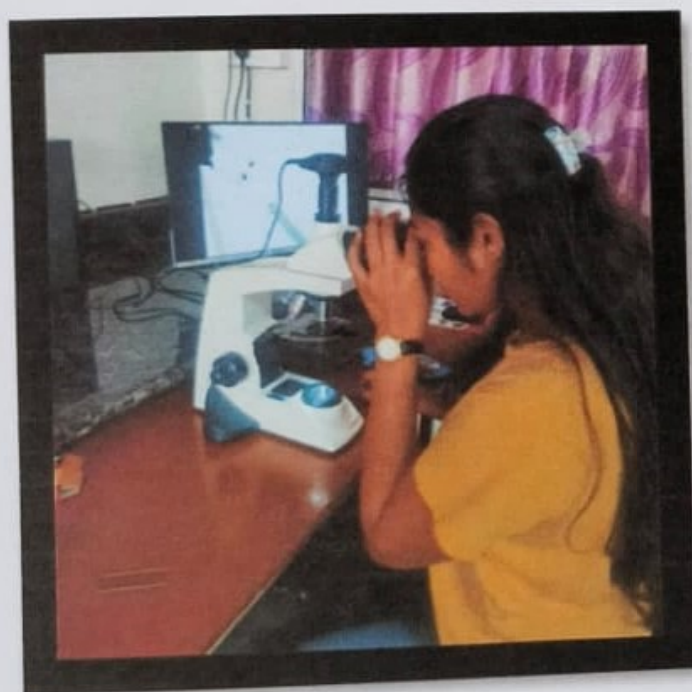


Fig 5. Observing slides of algal sample in Labomed (LX400) microscope and taking microphotographs with the help of digital camera.



Fig 5, 6. Sample collection

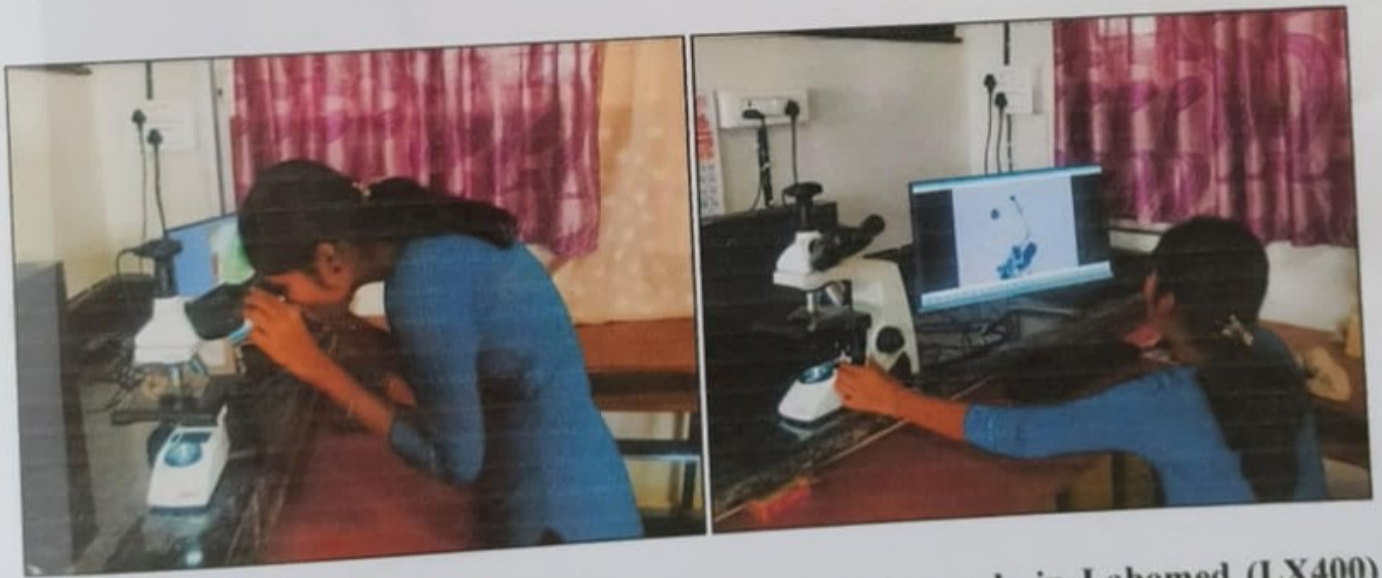


Fig 7, 8. Photograph while observing slides of algal sample in Labomed (LX400) microscope and taking microphotographs



Fig 3, 4. Photographs showing selected agricultural land area of Dholsar village



Fig 5. Photograph while collecting algal sample



Fig 6. Observing slides of algal sample in Labomed (LX400) microscope



Fig 7, 8. Photographs while taking microphotographs with the help of digital camera.



Fig 5, 6. Sample collection

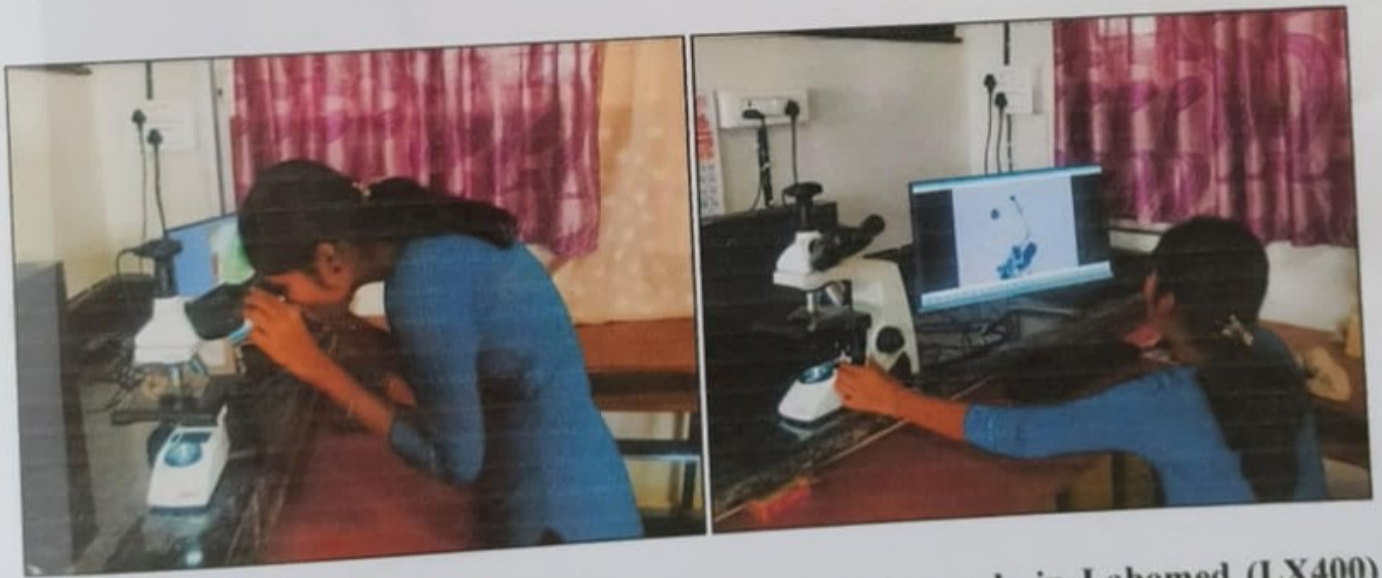


Fig 7, 8. Photograph while observing slides of algal sample in Labomed (LX400) microscope and taking microphotographs