

**Students undertaking field projects / research projects / internships
during the year 2022-23**

DEPARTMENT/ Institute	PAGE NO.
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Center for Basic Sciences	1 - 26
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Subject code:- BPr901

**Seed viability and seed morphological studies of some
terrestrial and epiphytic orchids**

A Project Report

Submitted to

Center for Basic Sciences

Pt. Ravishankar Shukla University, Raipur (CG)



Submitted by

Name:- Damini Netam

Roll no.- 1810134007

Damini
Assistant Professor
Center for Basic Sciences
Pt. Ravishankar Shukla University
Raipur (C.G.) 492 010

B. Shukla
21/1/2022

Supervised by

Dr. UMA THAKUR

Assistant Professor

Institute of Science, Nagpur

Place of work

**POST GRADUATE TEACHING DEPARTMENT OF BOTANY,
RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY,
NAGPUR, Maharashtra
July – December (2022)**



U. Thakur
DIRECTOR
Center for Basic Sciences
Pt. Ravishankar Shukla University
Raipur (C. G.) 492 010

SUBJECT CODE : BPr901

**Mycobiota Associated with *Malvastrum coromandelianum* and
*Sida acuta***

A Project Report

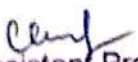
Submitted to

Center for Basic Sciences

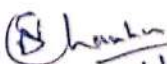
Pt. Ravishankar Shukla University



Submitted by


Assistant Professor
Center for Basic Sciences
Pt. Ravishankar Shukla University
Raipur (C.G.) 492 010

Name :- Geetika Thakur
Roll no :- 1810134011
Integrated M.Sc. Biology
Semester IX


21/11/2023

Supervised by

Dr. N.M Dongarwar
Head & Professor
Rashtrasant Tukadoji Maharaj Nagpur University

**POST GRADUATE TEACHING DEPARTMENT OF BOTANY
RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY.
NAGPUR, MAHARASTRA**

July – December 2022




DIRECTOR
Center for Basic Sciences
Pt. Ravishankar Shukla University
Raipur (C. G.) 492 010

Subject Code: BPr901

**Investigations on the effect of oligos of alginate
and chitosan on a few defense enzymes in wheat
seedling**

A Project Report

Submitted to

Center for Basic Sciences

Pt. Ravishankar Shukla University, Raipur (C.G.)



Submitted by

KHILESHWARI THAKUR

Roll No-1810134016

Chakur
21/11/2022

Chakur
Assistant Professor
Center for Basic Sciences
Pt. Ravishankar Shukla University
Raipur (C.G.) 492 010

Supervised by

Dr. RUPESH BADERE

Associate Professor

Department of Botany

**Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur,
Maharashtra (RTMNU)**

July-December (2022)



Chakur
DIRECTOR
Center for Basic Sciences
Pt. Ravishankar Shukla University
Raipur (C. G.) 492 010

Exploring the effects of salinity on plants grown in Hoagland medium and effectivity of organic amendments on naturally salt affected soils.

In lieu of subject BPr-901, Semester IX
In the
Integrated MSc., Biology (2022-23) course

Center for Basic Sciences

Pt. Ravishankar Shukla University



Submitted by

Ramesh Singh Routiya

(1810134026)

Supervised by

Dr. Rajeev Pratap Singh

Assistant Professor

(Signature)
21/11/2023

(Signature)
DIRECTOR
Center for Basic Sciences
Pt. Ravishankar Shukla University
Raipur (C. G.) 492 010

Institute of Environment and Sustainable Development

Banaras Hindu University

काशी हिन्दू
विश्वविद्यालय



BANARAS HINDU
UNIVERSITY.



पर्यावरण एवं संपोष्य विकास संस्थान
INSTITUTE OF ENVIRONMENT &
SUSTAINABLE DEVELOPEMENT

1810134026

Session 2022-2023

Phenotypic characterization of *Drosophila Yip1d1* gene and determining its role in brain development.

In lieu of subject BPr901, Semester IX

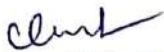
In the

Integrated MSc., Biology (2022-23) course


Center for Basic Sciences

Pt. Ravishankar Shukla University, Raipur (C.G.)





Assistant Professor
Center for Basic Sciences
Pt. Ravishankar Shukla University
Raipur (C.G.) 492 010

Submitted by
Srishti Pandya
1810134032


21/11/2023

Supervised by
Dr. Sonal Nagarkar-Jaiswal
Senior Scientist
CSIR-Centre for Cellular and Molecular Biology, Hyderabad




DIRECTOR
Center for Basic Sciences
Pt. Ravishankar Shukla University
Raipur (C. G.) 492 010

Page | 1


SUBJECT CODE: BPr901

Deciphering the Role of Amino Acid Homeostasis in Fungal Morphogenesis

SUBMITTED TO



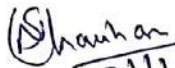
CENTER FOR BASIC SCIENCES,
PT. RAVISHANKAR SHUKLA UNIVERSITY, RAIPUR (C.G.)


Assistant Professor
Center for Basic Sciences
Pt. Ravishankar Shukla University
Raipur (C.G.) 492 010

SUBMITTED
BY

Vinit Sahu

INTEGRATED M.Sc. BIOLOGY
SEMESTER IX


21/11/2023

UNDER THE SUPERVISION OF


Dr. Sriram Varahan

Designation: Senior Scientist

Affiliation: CSIR-Centre for Cellular and Molecular Biology, Hyderabad



January 2023


DIRECTOR
Center for Basic Sciences
Pt. Ravishankar Shukla University
Raipur (C. G.) 492 010

SUBJECT CODE: BPr901

Overexpression and purification of Klebicin, an antimicrobial protein in
the yeast, *Pichia pastoris*


SUBMITTED TO
CENTER FOR BASIC SCIENCES,



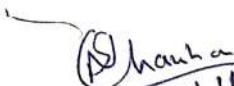
PT. RAVISHANKAR SHUKLA UNIVERSITY, RAIPUR (C.G.), INDIA-492010

SUBMITTED BY
YAMINI TANDAN

INTEGRATED M.Sc. (BIOLOGY), SEMESTER IX



Assistant Professor
Center for Basic Sciences
Pt. Ravishankar Shukla University
Raipur (C.G.) 492 010

UNDER THE SUPERVISION OF
PROF. P. N. RANGARAJAN


21/11/2023

DEPARTMENT OF BIOCHEMISTRY,
INDIAN INSTITUTE OF SCIENCE (IISc),
BANGALORE, KARNATAKA, INDIA – 560012




DIRECTOR
Center for Basic Sciences
Pt. Ravishankar Shukla University
Raipur (C. G.) 492 010

JANUARY-2023

SUBJECT CODE: CP-901

**“DESIGN AND DEVELOPMENT OF SUGAR AND BIOACTIVE
PEPTIDE BASED CONJUGATED HYDROGEL FOR
BIOMEDICAL APPLICATION”**

A Project Report Submitted for Fulfillment of the Requirement for the
Degree of Integrated M.Sc. in CHEMISTRY

SUBMITTED
BY

RAHUL SINGH TOMAR

Reg. No: IN-2022/47



CENTER FOR BASIC SCIENCES
PT. RAVISHANKAR SHUKLA UNIVERSITY
RAIPUR (C.G.)-492010

UNDER THE SUPERVISION OF

Dr. SANGITA ROY

Associate Professor (Scientist-E)

Department of Chemical Biology Unit (Head)



Institute of Nano Science and Technology

Mohali Punjab 140306

2022 - 2023

*Evaluated
Mha
13.01.2023*

*Bhawan
13/1/23*

SUBJECT CODE : CPr901

**“Synthesis of Nanomaterials for Photocatalytic Hydrogen
Generation”**

A Project Report

SUBMITTED TO

CENTER FOR BASIC SCIENCES

PT. RAVISHANKAR SHUKLA UNIVERSITY, RAIPUR C.G.

Evaluated
M. Han
13.07.2023



INSTITUTE OF NANOSCIENCE AND TECHNOLOGY, MOHALI

UNDER THE SUPERVISION OF

Dr. Sanyasinaidu Boddu (Scientist-D)

Designation: Assistant Professor

Department: Energy and Environment Unit



SUBMITTED

BY

AASTHA VERMA

INTEGRATED M.Sc. (CHEMISTRY)

SEMESTER IX

2022 - 2023

Aastha Verma
13/11/23

SUBJECT CODE: CP-901

Dynamics of heavy metal contamination in the Indian estuarine sediments-An assessment study



*Valuated
MJK
13.01.2023*

SUBMITTED TO
CENTER FOR BASIC SCIENCES,
PT. RAVISHANKAR SHUKLA UNIVERSITY, RAIPUR (C.G.)

SUBMITTED
BY
APOORVA SHARMA
INTEGRATED M.Sc. (CHEMISTRY),
SEMESTER IX

UNDER THE SUPERVISION OF



*Blaun
13/1/23*

Dr. Krushna Vudamala (SUPERVISOR)
Designation: Scientist (Integrated Oceanography division)
Affiliation: CSIR-National Institute of Oceanography, Goa

January 2023

[Signature]
13/1/23
DIRECTOR
Center for Basic Sciences
Pt. Ravishankar Shukla University
Raipur (C.G.) 492 010

SUBJECT CODE: CPr901

“Synthesis Of Nanoparticles For Drug Delivery in Melanoma”

A project report submitted for fulfillment of the requirement for the degree of Integrated M.Sc. in CHEMISTRY

Evaluated
13.01.2023

SUBMITTED
BY
Pushpanjali Dhruw

Enrolment No.: AD/00024



SUBMITTED TO
CENTER FOR BASIC SCIENCES,
PT. RAVISHANKAR SHUKLA UNIVERSITY, RAIPUR (C.G.)

UNDER THE SUPERVISION OF
Dr. Jiban Jyoti Panda
Assistant professor (Scientist-E)
Department of Chemical Biology Unit

13/1/23



January 2023



SUBJECT CODE: CP-901

**“SYNTHESIS AND CHARACTERIZATION OF
QUINOLINE AND COUMARIN DERIVATIVES”**

*Evaluated
Nga
13.01.2023*

SUBMITTED TO
CENTER FOR BASIC SCIENCES,
PT. RAVISHANKAR SHUKLA UNIVERSITY, RAIPUR (C.G.)

SUBMITTED BY
SIMRAN KAUR MATHARU
INTEGRATED M.Sc. (CHEMISTRY),
SEMESTER IX

UNDER THE SUPERVISION OF
Dr. K. RAJENDER REDDY
(SUPERVISOR)
Senior Principal Scientist
Catalysis and Fine Chemicals Division
CSIR- INDIAN INSTITUTE OF CHEMICAL TECHNOLOGY
HYDERABAD

*Bhawan
13/1/23*

SUBJECT CODE: CPr901

A SUPRAMOLECULAR ASSEMBLY BASED FLUORESCENCE TURN-ON RATIO-METRIC SENSOR FOR THE DETECTION OF CREATININE IN AQUEOUS MEDIUM

A Project Report Submitted for Fulfilment of the Requirement for the Degree of Integrated M.Sc. in CHEMISTRY By

SUJATA BAIS

Roll No.- 1810134033



CENTER FOR BASIC SCIENCES

PT. RAVISHANKAR SHUKLA UNIVERSITY RAIPUR (C.G.)-492010

UNDER THE SUPERVISION OF

Dr. PRABHAT K. SINGH
SCIENTIFIC OFFICER-G



Prabhat
13/1/23

RADIATION AND PHOTOCHEMISTRY DIVISION,
BHABHA ATOMIC RESEARCH CENTER-MUMBAI

JANUARY-2023

Evaluated
Mle
15.01.2023

Study of Star formation rate of collisional Ring galaxies

PPr901 project report

submitted by

Chetna Sahu

Roll No.= 1810134006

under the supervision of

Dr. Sudhanshu Barway

Indian Institute of Astrophysics



in partial fulfillment of
the requirements for the degree of
Integrated M.Sc. in Physics

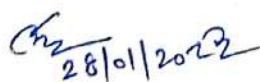
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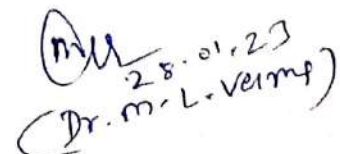



DIRECTOR
Center for Basic Sciences
Pt. Ravishankar Shukla University
Raipur (C. G.) 492 010

Center for Basic Sciences

Pt. Ravishankar Shukla University, Raipur, C.G, 492010


28/01/2022


28.01.22
(Dr. M. L. Verma)

Subject Code: PPr901

“Carbonaceous material with metal-phosphide as an electrocatalyst for green hydrogen production”

A project report submitted in partial fulfilment of requirement for the award of degree of

INTEGRATED MASTER OF SCIENCE

IN

PHYSICS



CENTER FOR BASIC SCIENCES

PT. RAVISHANKAR SHUKLA UNIVERSITY

RAIPUR(C.G.)

SUBMITTED BY

DEVENDRA KUMAR SAHU

ROLL NO – 1810134009



UNDER SUPERVISION

Dr. KAUSHIK GHOSH

Associate Professor (Scientist E)

Institute of Nano Science and Technology (INST)

Mohali, Punjab-140306.

DIRECTOR
Center for Basic Sciences
Pt. Ravishankar Shukla University
Raipur (C. G.) 492 010

26/01/2023

*28-01-23
(Dr m2Verma)*

Development of the Control System for the PSMT Mirror Segment Alignment Device

PPr901 project report
submitted by

Himanshu Kunjam

Roll No.- 1810134014

under the supervision of
Dr. Padmakar Parihar

Indian Institute of Astrophysics, Bangalore



in partial fulfillment of
the requirements for the degree of
Integrated M.Sc. in Physics

to the



Shobh
DIRECTOR
Center for Basic Sciences
Pt. Ravishankar Shukla University
Raipur (C. G.) 492 010

Sm
20/01/2023

Center for Basic Sciences
Pt. Ravishankar Shukla University, Raipur, C.G, 492010

MU
20.01.23
(Dr. MZ Verma)

Tuning Eu^{3+} and Tb^{3+} in CaWO_4 matrix for white LED application

Submitted to:



Centre for Basic Sciences,
Pt. Ravishankar Shukla University Raipur (C.G.) 492001,
in partial fulfilment of the requirements for degree of
Integrated M.Sc. (physics)

Submitted by:

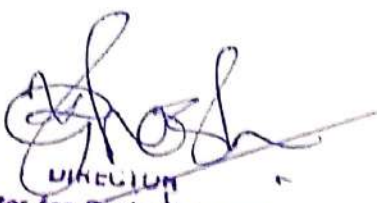
J. Aman Kunjam

Subject code : PPr-901

Roll no. : 1810134015

Enroll. no. : AD/00015




DIRECTOR
Center for Basic Sciences
Pt. Ravishankar Shukla University
Raipur (C. G.) 492 010


Under supervision of: **Dr. Sanyasinaidu Boddu**

(Scientist D), Energy and Environment unit,

Institute of Nanoscience and Technology, Mohali, Punjab-140306

January 2022-23


28/01/2023


28.01.23
(Pr ml Verma)

SUBJECT CODE: PPr-901

**Flow synthesis of $C_3N_4/ZnO/Fe_2O_3$ based
heterostructure for environmental remediation
application**



Submitted to

CENTER FOR BASIC SCIENCES

Pt. Ravishankar Shukla University Raipur (C.G.)

Submitted By

Palash Sahu


INTEGRATED MSc in PHYSICS

SEMESTER IX


Under the supervision of


Dr. Bhanu Prakash




DIRECTOR
Center for Basic Science
Pt. Ravishankar Shukla University
Raipur (C. G.) 492 010

Institute of Nano Science and Technology


28/01/2023


Dr. ML Vamshi

SUBJECT CODE - PPr901
Study of Crab Pulsar using Astrosat Data

Submitted to



CENTER FOR BASIC SCIENCES
PANDIT RAVISHANKAR SHUKLA UNIVERSITY
RAIPUR, CHHATTISGARH - 492010, INDIA

Submitted by

PRATIVED SAHU
Roll No. 1810134023

in partial fulfillment of the requirements for the degree of

Integrated M.Sc. in Physics


under the supervision of

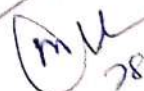
Dr. H. M. Antia



Professor, UM-DAE Centre of Excellence for Basic Sciences
University of Mumbai - 400098, India

26/01/2023


DIRECTOR
Center for Basic Sciences
Pt. Ravishankar Shukla University
Raipur (C. G.) 492 010


28-01-23
(Dr. M. L. Verma)

FABRICATION OF FLUORESC EIN DYE COATED LIGHT DRIVEN MICROROBOTS FOR pH SENSING

A THESIS

submitted by

SHIVANI SAHU

(ROLL NO. - 1810134029)

for the award of the degree

of

MASTER OF SCIENCE

in

PHYSICS




DEPARTMENT OF PHYSICS

CENTER FOR BASIC SCIENCES, RAIPUR

JANUARY 2023

26/01/2023


DIRECTOR
Center for Basic Sciences
Ravishankar Shukla University
Raipur (C. G.) 492 010

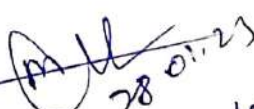

28.01.23
(Dr. ML Verma)

Image Processing of Outer Solar Corona for the Observation of Fine Structures of Outer Corona

A Project Report Submitted
in Partial Fulfilment of the Requirements
for the Degree of

Integrated M.Sc. in Physics



to

Center for Basic Sciences
Pandit Ravishankar Shukla University
Raipur, Chhattisgarh - 492010, India

by

SURESH KUMAR GUPTA
Roll No. 1810134035
9th Semester



under the Supervision of

Prof. (Dr.) Dipankar Banerjee, FASc, FNASc
Director
Aryabhata Research Institute of Observational
Sciences (ARIES)
Manora peak, Nainital - 263001, Uttarakhand, India

28/01/2023

[Signature]
DIRECTOR
Center for Basic Sciences
Pt. Ravishankar Shukla University
Raipur (C. G.) 492 010

[Signature]
28.01.23
(Dr. M. L. Verma)

BROWNIAN MOTION IN NON-EQUILIBRIUM SYSTEMS

by

YASHIWANT KUMAR SAHU

Roll No. 1810134040

9th Semester Dissertation Report

(code-PPr901)

Submitted to



CENTER FOR BASIC SCIENCES
PANDIT RAVISHANKAR SHUKLA UNIVERSITY
RAIPUR, CHHATTISGARH - 492010, INDIA
Integrated M.Sc.

in partial fulfillment of the requirements for the degree of

Integrated M.Sc. in Physics

under the supervision of:

Dr. Rajesh Singh
Assistant Professor
Department of Physics



INDIAN INSTITUTE OF TECHNOLOGY
MADRAS, CHENNAI, INDIA

By
28/01/2023

(Signature)
DIRECTOR

Center for Basic Sciences
Pt. Ravishankar Shukla University
Raipur (C. G.) 492 010

(ML)
28.01.23
(Dr ML Verma)

SUBJECT CODE - MPr901

**“Type II Diabetes Prediction Using Hybrid
Machine Learning Technique”**

SUBMITTED TO



**CENTER FOR BASIC SCIENCES
PT. RAVISHANKAR SHUKLA UNIVERSITY
RAIPUR (C.G.)**

SUBMITTED BY

ABHISHEK KURREY

ROLL NO. – 1810134002

INTEGRATED M.Sc. (MATHEMATICS), SEMESTER- IX (2022-23)

UNDER THE SUPERVISION OF



DR. MITHILESH KUMAR CHAUBE

(Assistant Professor, Mathematics)

Dr. Shyama Prasad Mukherjee

International Institute of Information Technology

Naya Raipur - 493661 (C.G.)

BAW
20/02/23

SUBJECT CODE - MP901

**“Identity Based Authentication Mechanism in
Maritime Transport System”**

SUBMITTED TO



CENTER FOR BASIC SCIENCES
PT. RAVISHANKAR SHUKLA UNIVERSITY
RAIPUR (C.G.)

SUBMITTED BY

MEGHA DEWANGAN

ROLL NO. - 1810134017

INTEGRATED M.Sc. (MATHEMATICS), SEMESTER- IX (2022-23)

UNDER THE SUPERVISION OF



Raw
20/01/23

DR. DHEERENDRA MISHRA

(Assistant Professor, Mathematics)

Maulana Azad National Institute of Technology

Bhopal, Madhya Pradesh, India