

A PROJECT REPORT ON
TIME DILATION

DSE-4, 6th Semester

SUBMITTED BY:- RUDRANTIKA PANDA

REGISTRATION NO.:- 05262/2021

EXAM ROLL NO.:-CH2221356

GUIDED BY:- MR. PRADYUMNA MADHEI (HOD)



DEPARTMENT OF PHYSICS,
GOVT. SCIENCE COLLEGE, CHATRAPUR,
GANJAM, ODISHA

CERTIFICATE

This is to certify that the review work in-corporate in this project entitled "**TIME DILTION**" bona fide review work carried out by **Rudrantika Panda** in the **department of physics, Govt. Science College, Chatrapur**, under my supervision and the same has been submitted for evolution of **DSE-4** as partial fulfilment of 6th semester, Berhampur University, Berhampur.



Mr. Pradyumna Madhei (HOD)

KINETIC THEORY OF GASES

[Project Report DSE-4, 6th Semester]

SUBMITTED BY

LOPAMUDRA KHADANGA

Roll no.-BS21-241

Examination roll no-CH2221346

UNDER SUPERVISION OF
MR. PRADYUMNA MADHEI
HEAD OF DEPARTMENT OF PHYSICS

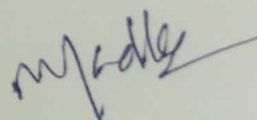


Department of Physics
GOVERNMENT SCIENCE COLLEGE,
CHATRAPUR, GANJAM

BONAFIED CERTIFICATE

This is to certify that the project report entitled "**KINETIC THEORY OF GASES**" carried out by **LOPAMUDRA KHADANGA**, Exam Roll No. CH2221346 and College roll no. BS21-241 belongs to +3, 6th semester physics(honours) under my supervision.

This report is submitted in partial fulfillment of the requirement for the award of the degree of bachelor of science from Berhampur University, Bhanjabihar, Odisha for academic year 2021-2024.



Mr.Pradyumna Madhei
Guide/H.O.D-PHYSICS

ELECTROMAGNETIC INDUCTION

(PROJECT REPORT DSE-4, 6TH SEMESTER)

Submitted By

PRADHAN RASMITA PANCHU

EXAM ROLL NO. - CH2221350

REGD. NO. – 05256/2021

COLLEGE ROLL NO. – BS-21-225

Guided By

PRADYUMNA MADHEI

HEAD OF DEPARTMENT OF PHYSICS



Submitted To

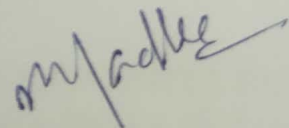
DEPARTMENT OF PHYSICS

GOVT. SCIENCE COLLEGE,

CHATRAPUR, GANJAM, ODISHA

CERTIFICATE

This is to certify that the review work in-corporate in this project entitled "ELECTROMAGNETIC INDUCTION" bonafied review work carried out by PRADHAN RASMITA PANCHU in the department of physics, Govt. Science College, Chatrapur under my supervision and the same has submitted for evolution of DSE-4 as partial fulfil of 6th semester, Berhampur University, Berhampur.



PRADYUMNA MADHEI

HOD OF PHYSICS

SEMICONDUCTOR

[PROJECT REPORT DSE-4,6TH SEMESTER]

SUBMITTED BY
AYUSHI SATAPATHY

REGD. NO. – 05237/2021

ROLL NUMBER – BS21-161

EXAMINATION ROLL NUMBER – CH2221331

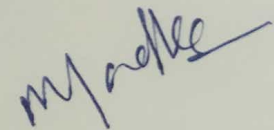
GUIDED BY – PRADYUMNA MADHEI
(*HEAD OF DEPARTMENT OF PHYSICS*)



DEPARTMENT OF PHYSICS
GOVERNMENT SCIENCE COLLEGE, CHATRAPUR
GANJAM, ODISHA

CERTIFICATE

This is to certify that the review work in-corporate in this project entitled "SEMICONDUCTOR" bonafied review work carried out by **Ayushi Satapathy** inthe department of physics, Govt. Science College, Chatrapur under my supervision and the same has submitted for evolution of DSE-4 as partial fulfill of 6th semester, Berhampur University, Berhampur.



Pradyumna madhei

A PROJECT REPORT ON

PHOTOELECTRIC EFFECT

**Project Submitted in Partial Fulfilment
Of The
UNDER GRADUATE DEGREE OF PHYSICS
(PROJECT REPORT DSE-4, 6TH SEMESTER)**

**Submitted by – ANUP NAYAK
[B.Sc Final Year]**

REGD. NO- 05233/2021
COLLEGE ROLLNO- BS-21-227
EXAM ROLL NO- CH2221327

**GUIDED BY – PRADYUMNA MADHEI
(HEAD OF DEPARTMENT OF PHYSICS)**



**DEPARTMENT OF PHYSICS
GOVT. SCIENCE COLLEGE
CHATRAPUR
GANJAM, ODISHA**

CERTIFICATE

This is to certify that the review work incorporated in this project entitled "PHOTOELECTRIC EFFECT" bonafied review work carried out by ANUP NAYAK in the Department of Physics ,Govt. Science College , Chatrapur Under my super vision and the same has submitted for evaluation of DSE-4 as partial fulfillment of 6thsemester ,Berhampur University, Berhampur.



PRADYUMNA MADHEI

A PROJECT REPORT ON

Optical Fiber

Project Submitted in Partial Fulfilment

Of The

UNDERGRADUATE DEGREE OF PHYSICS

(PROJECT REPORT DSE-4, 6TH SEMESTER)

Submitted by – **Kishan Kumar Behera**

[BSc Final Year]

REGD. NO- **05248/2021**

COLLEGE ROLL NO- **BS-21-186**

EXAM ROLL NO- **CH2221342**

GUIDED BY – PRADYUMNA MADHEI

(HEAD OF DEPARTMENT OF PHYSICS)



DEPARTMENT OF PHYSICS

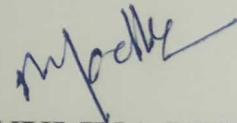
GOVT. SCIENCE COLLEGE

CHATRAPUR

GANJAM, ODISHA

CERTIFICATE

This is to certify that the review work incorporated in this project entitled “**Optical Fiber**” is bonafide review work carried out by ‘**Kishan Kumar Behera**’ in the Department of Physics, Govt. Science College, Chatrapur, under my supervision and the same has submitted for evaluation of DSE-4 as partial fulfillment of 6th semester, Berhampur University, Berhampur.



PRADYUMNA MADHEI

TRANSISTOR AND ITS APPLICATIONS
SUBMITTED BY

NAME: ADITYA KONHAR

REGD. N.O.: 05230/2021

COLLEGE ROLL N.O.: BS-21-040

EXAM ROLL N.O.: CH2221324

GUIDED BY

SRI PRADYUMNA MADHEI

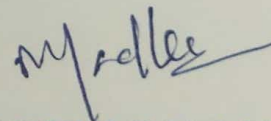
HEAD OF DEPARTMENT(PHYSICS)



DEPARTMENT OF PHYSICS
GOVERNMENT SCIENCE
COLLEGECHATRAPUR,
GANJAM, ODISHA

CERTIFICATE

This is to certify that the review work in-corporate in this project entitled "**TRANSISTORS AND ITS APPLICATIONS**" bonafied review work carried out by **ADITYA KONHAR** in the department of physics, Govt. Science College, Chatrapur under my supervision and the same has submitted for evolution of DSE-4 as partial fulfil of 6th semester, Berhampur University, Berhampur.



SRI PRADYUMNA MADHEI
HEAD OF DEPARTMENT (PHYSICS)

CYCLOTRON

(PROJECT REPORT DSE-4 , 6TH SEMESTER)

Submitted By

JASMIN SAMANTARAY

COLLEGE ROLL NO – BS-21-243

EXAMINATION ROLL NO-CH2221338

REGD. NO.- 05244/2021

Guided By

PRADYUMNA MADHEI

HOD OF PHYSICS DEPARTMENT



Submitted To

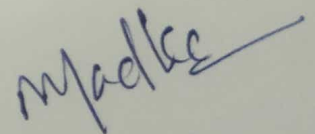
DEPARTMENT OF PHYSICS

GOVT. SCIENCE COLLEGE ,CHATRAPUR

GANJAM , ODISHA

CERTIFICATE

This is to certify that the review work in-corporate in this project entitled "CYCLOTRON" bonafied review work carried out by **JASMIN SAMANTARAY** in the department of physics, Govt. Science College, Chatrapur under my supervision and the same has submitted for evolution of DSE-4 as partial fulfil of 6th semester, Berhampur University, Berhampur.



Pradyumna Madhei
HOD

**A PROJECT REPORT ON
HEAT SENSOR**

**Project Submitted in Partial fulfilment Of The
UNDER GRADUATE DEGREE OF PHYSICS
(PROJECT REPORT ON DSE-4, 6TH SEMESTER)**

SUBMITTED BY- PRUTHIBI RAJ BISWAL

(Bsc Final Year)

REGD.NO.-05259/2021

COLLEGE ROLL.NO.- BS-21-049

EXAM ROLL.NO.- CH2221353

GUIDED BY- PRADYUMNA MADHEI

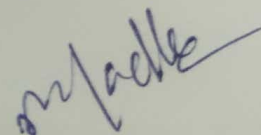
(HEAD OF THE DEPARTMENT OF PHYSICS)



**DEPARTMENT OF PHYSICS
GOVT. SCIENCE COLLEGE, CHATRAPUR
GANJAM, ODISHA**

CERTIFICATE

This is to certify that the review work incorporated in this project entitled "HEAT SENSOR" bonafied review work carried out by 'Pruthbi Raj Biswal' in the Department of Physics, Govt. Science College, Chatrapur, under my super vision and the same has Submitted for evaluation of DSE-4 as partial fulfilment of 6th semester, Berhampur University, Berhampur.



PRADYUMNA MADHEI

H.O.D OF PHYSICS

ATOMIC PHYSICS

[PROJECT REPORT DSE-4,6TH SEMESTER]

SUBMITTED BY – **G.DHANANJAYA REDDY**

ROLL NUMBER – **BS21 - 068**

EXAMINATION ROLL NO – **CH2221335**

REGD. NO – **05241/2021**

GUIDED BY – **PRADYUMNAMADHEI**

HEAD OF DEPARTMENT OF PHYSICS



GOVERNMENT SCIENCE COLLEGE,
CHATRAPUR

CERTIFICATE

This is to certify that the review work in-corporate in this project entitled "ATOMIC PHYSICS" bonafied review work carried out by G.DHANANJAYA REDDY in the department of physics, Govt. Science College, Chatrapur under my supervision and the same has submitted for evolution of DSE-4 as partial fulfil of 6th semester, Berhampur University, Berhampur.



PRADYUMNA MADHEI

GEO-STATIONARY SATELLITE

(PROJECT REPORT DSE-4, 6TH SEMESTER)

Submitted By

GAYARTI KHUNTIA

EXAM ROLL NO. - CH2221336

REGD. NO. – 05242/2021

COLLEGE ROLL NO. – BS-21-023

Guided By

PRADYUMNA MADHEI

HEAD OF DEPARTMENT OF PHYSICS



Submitted To

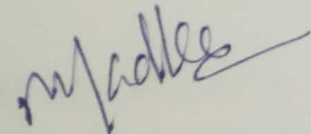
DEPARTMENT OF PHYSICS

GOVT. SCIENCE COLLEGE,

CHATRAPUR, GANJAM, ODISHA

CERTIFICATE

This is to certify that the review work in-corporate in this project entitled "**GEO-STATIONARY SATELLITE**" bonafied review work carried out by **GAYATRI KHUNTIA** in the department of physics, Govt. Science College, Chatrapur under my supervision and the same has submitted for evolution of DSE-4 as partial fulfil of 6th semester, Berhampur University, Berhampur.



PRADYUMNA MADHEI

HOD OF PHYSICS

A PROJECT REPORT ON

SUPERCONDUCTIVITY

(PROJECT REPORT DSE-4, 6TH SEMESTER)

Submitted by - **APARNA PANIGRAHI**

(BSc Final Year)

REGD. NO- 05235/2021

COLLEGE ROLL NO- BS-21-001

EXAM ROLL NO- CH2221329

Guided by - **PRADYUMNA MADHEI**

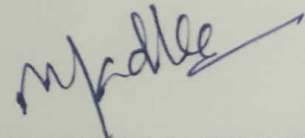
(HEAD OF DEPARTMENT OF PHYSICS)



DEPARTMENT OF PHYSICS
GOVT. SCIENCE COLLEGE
CHATRAPUR
GANJAM, ODISHA

CERTIFICATE

This is to certify that the review work incorporated in this project entitled "SUPERCONDUCTIVITY" review work carried out by Aparna Panigrahi in the Department of Physics, Govt. Science College, Chatrapur Under my super vision and the same has submitted for evaluation of DSE-4 as partial fulfilment of 6th Semester, Berhampur University, Berhampur.



PRADYUMNA MADHEI

H.O.D PHYSICS

WAVE ENERGY

(PROJECT REPORT DSE-4, 6TH SEMESTER)

SUBMITTED BY

PRATEEK KUMAR BEHERA

[BSc Final Year, Physics]

REGD. NO- 05258/2021

ROLL NO- CH2221352

GUIDED BY

PRADYUMNA MADHEI

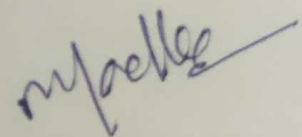
(HEAD OF DEPARTMENT OF PHYSICS)



**DEPARTMENT OF PHYSICS
GOVT. SCIENCE COLLEGE CHATRAPUR
GANJAM, ODISHA**

CERTIFICATE

This is to certify that the review work incorporated in this project entitled "**Wave Energy**" bonafied review work carried out by '**Prateek Kumer Behera**' in the Department of Physics , Govt. Science College, Chatrapur, under my super vision and the same has submitted for evaluation of DSE-4 as partial fulfillment of 6th semester, Berhampur University, Berhampur.



PRADYUMNA MADHEI
Head of Department of Physics

BLACK BODY RADIATION

[Project Report DSE-4, 6th Semester]

SUBMITTED BY- **BAISAKHI NAHAK**

ROLL NO – **BS21 – 101**

EXAMINATION ROLL NO – **CH2221332**

REGD.NO – **05238/2021**

GUIDED BY – **PRADYUMNA MADHEI**

HEAD OF DEPARTMENT OF PHYSICS

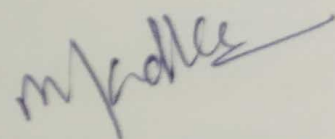


BERHAMPUR UNIVERSITY

GOVERNMENT SCIENCE COLLEGE CHATRAPUR, GANJAM, ODISHA

CERTIFICATE

This is to certify that the review work in-corporate in this project entitled "**BLACK BODY RADIATION**" bonafied review work carried out by **Baisakhi Nahak** in the department of physics, Govt.Science College, Chatrapur under my supervision and the same has submitted for evolution of DSE-4 as partial fulfil of 6th semester, Berhampur University, Berhampur.



Pradyumna Madhei

ARCHIMEDES PRINCIPAL

(PROJECT REPORT DSE-4, 6TH SEMESTER)

SUBMITTED BY

SIBANANDA GOUDA

[BSc Final Year]

REGD. NO- 05266/2021

ROLL NO- CH2221359

GUIDED BY

PRADYUMNA MADHEI

(HEAD OF DEPARTMENT OF PHYSICS)



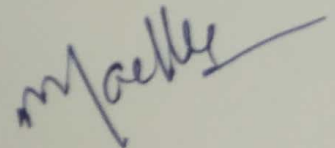
DEPARTMENT OF PHYSICS

GOVT. SCIENCE COLLEGE CHATRAPUR

GANJAM, ODISHA

CERTIFICATE

This is to certify that the review work incorporated in this project entitled "**Archimedes Principal**" bonafied review work carried out by '**Sibananda Gouda**' in the Department of Physics , Govt. Science College, Chatrapur, under my super vision and the same has submitted for evaluation of DSE-4 as partial fulfillment of 6th semester, Berhampur University, Berhampur.



PRADYUMNA MADHEI
Head of Department of Physics

CATHODE RAY OSCILLOSCOPE

[PROJECT REPORT DSE-4, 6TH SEMESTER]

SUBMITTED BY
LIJA BEHERA

EXAM ROLL NO: CH2221345
REGISTRATION NO: 05251/2021
COLLEGE ROLL NO: BS-21-136

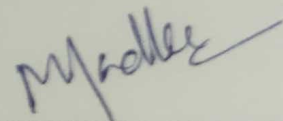
GUIDED BY
PRADYUMNA MADHEI
(HEAD OF DEPARTMENT OF PHYSICS)



SUBMITTED TO
DEPARTMENT OF PHYSICS
GOVT SCIENCE COLLEGE, CHATRAPUR
GANJAM, ODISHA

CERTIFICATE

This is to certify that the review work in-corporate in this project entitled "CATHODE RAY OSCILLOSCOPE" debonair review work carried out by **LIJA BEHERA** in the department of physics, Govt. Science College, Chatrapur under my supervision and thesame has submitted for evolution of DSE-4 as partial fulfill of 6th semester, Berhampur University, Berhampur.



PRADYUMNA MADHEI

Head of Department of Physics

VISCOSITY

(PROJECT REPORT DSE-4, 6TH SEMESTER)

SUBMITTED BY
KIRAN KUMAR SAHU
[BSc Final Year]

REGD. NO- 05247/2021
ROLL NO- CH2221341

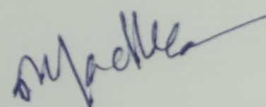
GUIDED BY
PRADYUMNA MADHEI
(HEAD OF DEPARTMENT OF PHYSICS)



DEPARTMENT OF PHYSICS
GOVT. SCIENCE COLLEGE CHATRAPUR
GANJAM, ODISHA

CERTIFICATE

This is to certify that the review work incorporated in this project entitled “**VISCOSITY**” bonafied review work carried out by ‘**Kiran Kumar Sahu**’ in the Department of Physics , Govt. Science College, Chatrapur, under my super vision and the same has submitted for evaluation of DSE-4 as partial fulfillment of 6th semester, Berhampur University, Berhampur.



PRADYUMNA MADHEI
Head of Department of Physics

POLARISATION OF
ELECTROMAGNETIC WAVES

SUBMITTED BY

NAME : ROUMYA RANJAN SWAIN

REGD. N.O. : 05261/2021

COLLEGE ROLL N.O. : BS-21-70

EXAM ROLL N.O. : CH2221355

GUIDED BY

SRI PRADYUMNA MADHEI

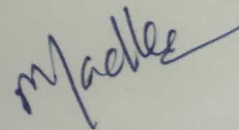
HEAD OF DEPARTMENT (PHYSICS)



DEPARTMENT OF PHYSICS
GOVERNMENT SCIENCE COLLEGE
CHATRAPUR, GANJAM, ODISHA

CERTIFICATE

This is to certify that the review work in-corporate in this project entitled **“POLARIZATION OF ELECTROMAGNETIC WAVES”** bonafied review work carried out by **ROUMYA RANJAN SWAIN** in the department of physics, Govt. Science College, Chatrapur under my supervision and the same has submitted for evolution of DSE-4 as partial fulfil of 6th semester, Berhampur University, Berhampur.



SRI PRADYUMNA MADHEI
HEAD OF DEPARTMENT (PHYSICS)

MAXWELL BOLTZMAN STATISTICS

(PROJECT REPORT DSE-4, 6TH SEMESTER)

SUBMITTED BY

AKASH NAYAK

[BSc Final Year, Physics]

REGD. NO- 05231/2021

ROLL NO- CH2221325

GUIDED BY

PRADYUMNA MADHEI

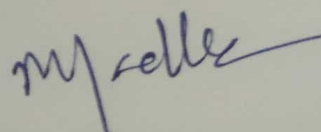
(HEAD OF DEPARTMENT OF PHYSICS)



DEPARTMENT OF PHYSICS
GOVT. SCIENCE COLLEGE CHATRAPUR
GANJAM, ODISHA

CERTIFICATE

This is to certify that the review work incorporated in this project entitled "MAXWELL BOLTZMAN STATISTICS" bonafied review work carried out by 'AKASH NAYAK' in the Department of Physics , Govt. Science College, Chatrapur, under my super vision and the same has submitted for evaluation of DSE-4 as partial fulfillment of 6th semester, Berhampur University, Berhampur.



PRADYUMNA MADHEI
Head of Department of Physics

UNIVERSAL GRAVITATION

(PROJECT REPORT DSE-4,6TH SEMESTER)

Submitted By

RAJ RAJESWARI SAMANTA

REGD. NO - 05260/2021

COLLAGE ROLL NO – BS-21-135

EXAM ROLL NO – CH2221354

GUIDED BY

PRADYUMNA MADHEI

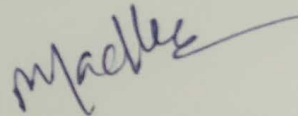
HEAD OF DEPARTMENT OF PHYSICS



Submitted To – DEPARTMENT OF PHYSICS
GOVERNMENT SCIENCE COLLEGE
CHATRAPUR, GANJAM, ODISHA

CERTIFICATE

This is to certify that the review work in-corporate in this project entitled "**NEWTONS LAW OF UNIVERSAL GRAVITATION**" bonafied review work carried out by **RAJ RAJESWARI SAMANTA** in the department of physics, Government Science College , Chatrapur under my supervision and the same has submitted for evolution of DSE -4 as partial fullfillment of 6th semester , Berhampur University , Berhampur.



PRADYUMNA MADHEI

HEAD OF DEPARTMENT OF PHYSICS

HEAT ENGINE

{Project Report DSE-4, 6th Semester}

SUBMITTED BY – ASHUTOSH NAYAK

REGD.NO - 05236/2021

ROLL NO- CH2221330

GUIDED BY- PRADYUMNA MADHEI

(HEAD OF DEPARTMENT OF PHYSICS)

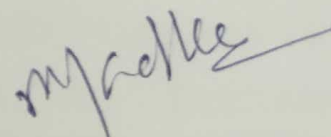


(DEPARTMENT OF PHYSICS)

(GOVERNMENT SCIENCE COLLEGE, CHATRAPUR, ODISHA)

CERTIFICATE

This is to certify that the review work incorporated in this project entitled “ **HEAT ENGINE**” bonafied review work carried out by **ASHUTOSH NAYAK** in the Department of physics, Govt. Science College, Chatrapur Under my super vision and the same has submitted for evaluation of DSE-4 as partial fulfilment of 6th semester, Berhampur University, Berhampur.



PRADYUMNA MADHEI

(HEAD OF DEPARTMENT)

CARBON NANOTUBE

(PROJECT REPORT DSE-4, 6TH SEMESTER)

SUBMITTED BY
ABINAS MAHAPATRA
[BSc Final Year]

REGD. NO- 05229/2021
ROLL NO- CH2221323

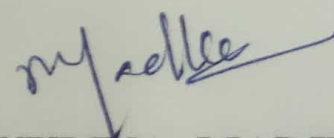
GUIDED BY
PRADYUMNA MADHEI
(HEAD OF DEPARTMENT OF PHYSICS)



DEPARTMENT OF PHYSICS
GOVT. SCIENCE COLLEGE CHATRAPUR
GANJAM, ODISHA

CERTIFICATE

This is to certify that the review work incorporated in this project entitled "**Carbon Nanaotube**" bonafied review work carried out by '**Abinas Mahapatra**' in the Department of Physics , Govt. Science College, Chatrapur, under my super vision and the same has submitted for evaluation of DSE-4 as partial fulfillment of 6th semester, Berhampur University, Berhampur.



PRADYUMNA MADHEI
Head of Department of Physics

A PROJECT REPORT ON

5G Technology

Project Submitted in Partial Fulfilment
Of The

UNDERGRADUATE DEGREE OF PHYSICS
(PROJECT REPORT DSE-4, 6TH SEMESTER)

Submitted by – **Manoj Kumar Nahak**
[BSc Final Year]

REGD. NO- **05254/2021**
COLLEGE ROLL NO- **BS-21-258**
EXAM ROLL NO- **CH2221348**

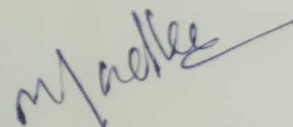
GUIDED BY – PRADYUMNA MADHEI
(HEAD OF DEPARTMENT OF PHYSICS)



DEPARTMENT OF PHYSICS
GOVT. SCIENCE COLLEGE
CHATRAPUR
GANJAM, ODISHA

CERTIFICATE

This is to certify that the review work incorporated in this project entitled “**5G Technology**” is bonafide review work carried out by ‘**Manoj Kumar Nahak**’ in the Department of Physics, Govt. Science College, Chatrapur, under my supervision and the same has submitted for evaluation of DSE-4 as partial fulfillment of 6th semester, Berhampur University, Berhampur.



PRADYUMNA MADHEI

MAGNETIC PROPERTIES OF MATTER

[PROJECT REPORT DSE-4,6TH SEMESTER]

SUBMITTED BY – KSHYANAPRAVA PANDA

ROLL NUMBER – CH2221343

GUIDED BY – PRADYUMNA MADHEI

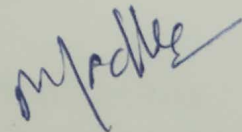
HEAD OF DEPARTMENT OF PHYSICS



GOVERNMENT SCIENCE COLLEGE,
CHATRAPUR

CERTIFICATE

This is to certify that the review work in-corporate in this project entitled "MAGNETIC PROPERTIES OF MATTER" bonafied review work carried out by KSHYANAPRAVA PANDA in the department of physics, Govt.Science College, Chatrapur under my supervision and the same has submitted for evolution of DSE-4 as partial fulfil of 6th semester, Berhampur University, Berhampur.



PRADYUMNA MADHEI

HEAD OF DEPARTMENT

RADIOACTIVE DECAY

(Project report DSE-4, 6th semester)

Submitted by

Amrita Panigrahi

+3 3rd year science

Exam Roll no. - CH2221326

Roll no. - BS-21-021

Guided by

Sri Pradyumna Madhei

(Head of the department)



Department of Physics

Government Science College, Chatrapur, Ganjam,

ODISHA, 2024



Sri Pradyumna Madhei

Lecture

CERTIFICATE

This is to certify that investigation report in the project entitled “ **RADIOACTIVE DECAY**” submitted by regarding **DSE paper of Sixth Semester** is a genuine and original piece of work carried out for completion under my guidance and supervision. To the best of my knowledge and belief in part of this work has been submitted earlier to any other university or institution before for any other degree.

(Pradyumna Madhei)

(Supervisor)

BOSE EINSTEIN CONDENSATE

Project Report DSE- 4, 6th semester

SUBMITTED BY
SOURAPALLI SHADANANDA
[Bsc. Final Year]

REGD.NO-05267/2021
ROLL NO-CH2221360

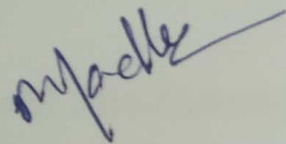
GUIDED BY
PRADYUMNA MADHEI
(HEAD OF DEPARTMENT OF PHYSICS)



DEPARTMENT OF PHYSICS
GOVERNMENT SCIENCE COLLEGE
CHATRAPUR

CERTIFICATE

This is to certify that the review work in-corporate in this project entitled “**BOSE-EINSTEIN CONDENSATE**” bonafied review work carried out by **Sourapalli Shadananda** in the department of physics, Govt.Science College, Chatrapur under my supervision and the same has submitted for evolution of DSE-4 as partial fulfil of 6th semester, Berhampur University, Berhampur.



Pradyumna Madhei

Head of Department of physics

A PROJECT REPORT ON

LASER

(PROJECT REPORT DSE - 4,6th SEMESTER)

Submitted by:

APARNA NAYAK

Roll No: CH2221328

Regd. No: 05234/2021

Guided by:

PRADYUMNA MADHEI

(HEAD OF DEPARTMENT OF PHYSICS)

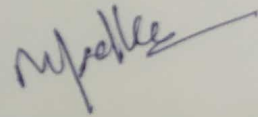


DEPARTMENT OF PHYSICS

GOVERNMENT SCIENCE COLLEGE, CHATRAPUR, ODISHA

CERTIFICATE

This is to certify that the review work incorporated in this project entitled "LASER" bonafied review work carried out by **APARNA NAYAK** in the department of physics, Govt. Science College, Chatrapur Under my supervision and the same has submitted for evaluation of DSE-4 as partial fulfillment of 6th semester Berhampur University, Berhampur.



PRADYUMNA MADHEI
(Head of Department of Physics)

ELECTROSTATICS

(PROJECT REPORT DSE-4, 6TH SEMESTER)

SUBMITTED BY

DHIRESWARA BEHERA

[BSc Final Year]

REGD. NO- 05240/2021

ROLL NO- CH2221334

GUIDED BY

PRADYUMNA MADHEI

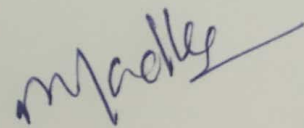
(HEAD OF DEPARTMENT OF PHYSICS)



DEPARTMENT OF PHYSICS
GOVT. SCIENCE COLLEGE CHATRAPUR
GANJAM, ODISHA

CERTIFICATE

This is to certify that the review work incorporated in this project entitled "**ELECTROSTATICS**" bonafied review work carried out by '**Dhireswara Behera**' in the Department of Physics , Govt. Science College, Chatrapur, under my super vision and the same has submitted for evaluation of DSE-4 as partial fulfillment of 6th semester, Berhampur University, Berhampur.



PRADYUMNA MADHEI
Head of Department of Physics

A PROJECT REPORT ON

SOLAR ENERGY

(PROJECT REPORT DSE-4,6th SEMESTER)

SUBMITTED BY
PRANJAL PANIGRAHI

REGD. NO-05257/2021
COLLEGE ROLL NO- BS-21-053
EXAM ROLL NO-CH2221351

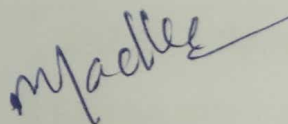
GUIDED BY
PRADYUMNA MADHEI
(HEAD OF DEPARTMENT OF PHYSICS)



DEPARTMENT OF PHYSICS
GOVT. SCIENCE COLLEGE
CHATRAPUR
GANJAM, ODISHA

CERTIFICATE

This is to certify that the review work incorporated in this project entitled “**Solar Energy**” bonafied review work carried out by ‘**Pranjal Panigrahi**’ in the Department of Physics, Govt. Science College, Chatrapur; Under my super vision and the same has submitted for evaluation of DSE-4 as partial fulfilment of 6th Semester, Berhampur University, Berhampur.



PRADYUMNA MADHEI
(HEAD OF DEPARTMENT OF PHYSICS)

A PROJECT REPORT ON
LIGHT DEPENDENT RESISTOR SENSOR
(LDR)

Project submitted in partial fulfillment

Of The

UNDER GRADUATE DEGREE OF PHYSICS

(PROJECT REPORT DSE -04, 6TH SEMESTER)

SUBMITTED BY – JAYASRI BEHERA

[B .Sc Final Year]

REGD. NO - 05245/2021

COLLEGE ROLL NO - BS-21-228

EXAM ROLL NO. – CH2221339

GUIDED BY – MR. PRADYUMNA MADHEI

(HEAD OF DEPARTMENT OF PHYSICS)



DEPARTMENT OF PHYSICS

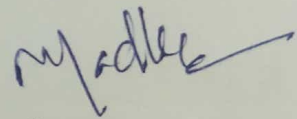
GOVERNMENT SCIENCE COLLEGE,

CHATRAPUR ,

GANJAM (ODISHA)

CERTIFICATE

This is to certify that the review work incorporated in this project entitled "**LIGHT DEPENDENT RESISTOR SENSOR**" bonafied review work carried out by **JAYASRI BEHERA** in the department of physics, Government science college, Chatrapur under my supervision and the same has submitted for evaluation of DSE-04 as partial fulfillment of 6 th semester, Berhampur university, Berhampur.



PRADYUMNA MADHEI

(H.O.D)

SOLAR CELL

(PROJECT REPORT DSE-4, 6TH SEMESTER)

Submitted by- **SWARUPA MISHRA**
(BSc Final Year)

REGD. NO- 05269/2021

COLLAGE ROLL NO- BS-21-159

EXAM ROLL NO- CH2221361

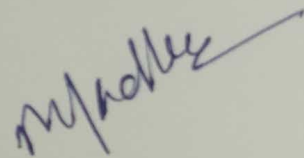
Guided by -**PRADYUMNA MADHEI**
(HEAD OF DEPARTMENT OF PHYSICS)



**DEPARTMENT OF PHYSICS
GOVT. SCIENCE COLLEGE
CHATRAPUR
GANJAM, ODISHA**

CERTIFICATE

This is to certify that the review work incorporated in this project entitled "SOLAR CELL" Bonafede review work carried out by **Swarupa Mishra** in the department of physics, Government science college, Chatrapur under my supervision and the same has submitted for evaluation of DSE-04 as partial fulfillment of 6th semester, Berhampur University, Berhampur.



PRADYUMNA MADHEI

HEAD OF DEPARTMENT OF PHYSICS