

“CLAP SWITCH”
A PROJECT REPORT SUBMITTED TO
SAVITRIBAI PHULE PUNE UNIVERSITY,
PUNE



FOR THE DEGREE OF
MASTER OF SCIENCE
IN
PHYSICS
UNDER THE FACULTY OF SCIENCE
BY
MISS. Borde Aakanksha Bhanudas
Department of Physics, Arts, Commerce and Science College, Sonai
UNDER THE GUIDANCE OF
Prof. SHINDE R. S.
M.Sc. (Physics), NET, SET
DEPARTMENT OF PHYSICS,
ARTS, COMMERCE AND SCIENCE COLLEGE, SONAI
MARCH-2024

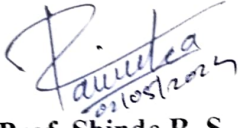
Seat No.

201328

SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE

BONAFIDE CERTIFICATE

This is to certify that the work incorporated in the project report entitled CLAP SWITCH submitted to Savitribai Phule Pune University, Pune is benefited work of **Miss. BORDE AAKANKSHA BHNUDAS** of M.Sc. (Physics) during the academic year 2023-24, who carried out the project work under my supervision.



Prof. Shinde R. S.

Guide

Department of Physics

Arts, Commerce and Science College,

Sonai-414105



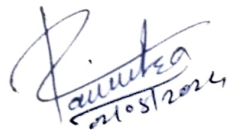
Dr. Sadekar H.K.

Head

Department of Physics

Arts, Commerce and Science College,

Sonai-414105



Internal Examiner

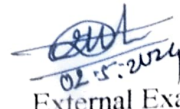


Principal

Mula Education Society's

Arts, Commerce & Science College

Sonai, Tal. Newasa, Dist. Ahmednagar (MH), Pin-414105



External Examiner

ACKNOWLEDGEMENT

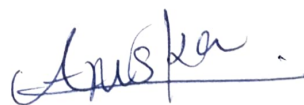
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Place: Sonai

Date: /04/2024



Signature of Research Student

Miss. Borde Aakanksha Bhanudas

(M.Sc. Physics)

AUTOMATIC PLANT IRRIGATION
A PROJECT REPORT SUBMITTED TO
SAVITRIBAI PHULE PUNE UNIVERSITY,
PUNE



FOR THE DEGREE OF
MASTER OF SCIENCE
IN
PHYSICS
UNDER THE FACULTY OF SCIENCE
BY
MISS. GADE VAISHANVI VIVEK

Department of Physics, Arts, Commerce and Science College, Sonai

UNDER THE GUIDANCE OF

Prof. SHINDE R. S.

M.Sc. (Physics), NET, SET

DEPARTMENT OF PHYSICS,

ARTS, COMMERCE AND SCIENCE COLLEGE, SONAI

MARCH-2024

Seat No.

201332

SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE

BONAFIDE CERTIFICATE

This is to certify that the work incorporated in the project report entitled AUTOMATIC PLANT IRRIGATION submitted to Savitribai Phule Pune University, Pune is benefited work of **Miss. GADE VAISHANVI VIVEK** of M.Sc. (Physics) during the academic year 2023-24, who carried out the project work under my supervision.



Prof. Shinde R. S.

Guide

Department of Physics

Arts, Commerce and Science College,

Sonai-414105



Dr. Sadekar H.K.

Head

Department of Physics


Arts, Commerce and Science College,

Sonai-414105

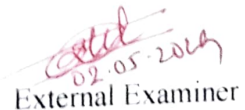


02/05/2024

Internal Examiner



Principal
Mula Education Society's
Arts, Commerce & Science College
Sonai, Tal. Newasa, Dist Ahmednagar (MH), Pin 414105



02.05.2024

External Examiner

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Place: Sonai

Date: /05/2024


Signature of Research Student

Miss. GADE VAISHANVI VIVEK

(M.Sc. Physics)

SMOKE DETECTOR
A PROJECT REPORT SUBMITTED TO
SAVITRIBAI PHULE PUNE UNIVERSITY,
PUNE



FOR THE DEGREE OF
MASTER OF SCIENCE
IN
PHYSICS
UNDER THE FACULTY OF SCIENCE
BY
MISS. GAWALI SHIVANI JAYANT
Department of Physics, Arts, Commerce and Science College, Sonai
UNDER THE GUIDANCE OF
Prof. SHINDE R. S.
M.Sc. (Physics), NET, SET
DEPARTMENT OF PHYSICS,
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MARCH-2023

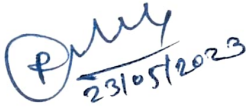
Seat No.

201878

SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE

BONAFIDE CERTIFICATE

This is to certify that the work incorporated in the project report entitled SMOKE DETECTOR submitted to Savitribai Phule Pune University, Pune is benefited work of **Miss. GAWALI SHIVANI JAYANT** of M.Sc. (Physics) during the academic year 2022-23, who carried out the project work under my supervision.


23/05/2023

Prof. Shinde R. S.

Guide

Department of Physics

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Sonai-414105



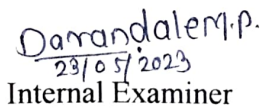
Dr. Sadekar H.K.

Head

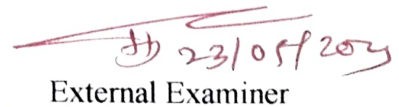
Department of Physics

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Internal Examiner


Principal
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23/05/2023
External Examiner

ACKNOWLEDGEMENT

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Place: Sonai

Date 23/05/2023



Signature of Research Student

Miss. GAWALI SHIVANI JAYANT

(M.Sc. Physics)

**GROWTH AND CHARACTERIZATION OF PbS THIN
FILMS BY CHEMICAL BATH DEPOSITION
A PROJECT REPORT SUBMITTED TO
SAVITRIBAI PHULE PUNE UNIVERSITY,
PUNE**



**FOR THE DEGREE OF
MASTER OF SCIENCE
IN
PHYSICS**

UNDER THE FACULTY OF SCIENCE

BY

Miss. Gaygaye Rutuja Rajendra

Department of Physics, Arts, Commerce and Science College, Sonai

UNDER THE GUIDANCE OF

Prof. Darandale A.A.

M.Sc Physics

**DEPARTMENT OF PHYSICS,
ARTS, COMMERCE AND SCIENCE COLLEGE, SONAI**

APRIL-2024

ACKNOWLEDGEMENT

I wish to thank the Principal **Dr. Shankar Laware** of my college for permitting me to use all the facilities available in the institution for my project work. I would also like to thank the Head of the Physics Department **Dr. Sadekar H.K.**, the teaching faculty and all the non-teaching staff of my college for their support in completing the work successfully.

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Place: Sonai

Signature of Research Student

Date:

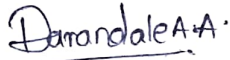
Miss. Gaygaye R.R.
(M.Sc. Physics)

Seat No.

SAVITRIBAI PHULE PUNE UNIVERSITY

BONAFIDE CERTIFICATE

This is to certify that the work incorporated in the project report entitled **“Growth and Characterization of CdS Thin Films by chemical bath deposition”** submitted to Savitribai Phule Pune University, Pune, is benefited work of **Miss. Gaygaye Rutuja Rajendra** of M.Sc. (Physics) during the academic year 2023-24, who carried out the project work under my



Prof. Darandale A.A.

Guide

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Dr. Sadekar H.K.

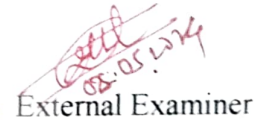
Head

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Internal Examiner


Principal

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Sonai, Tal. Newasa, Dist. Ahmednagar (MH), Pin-414105


External Examiner

HEART BEAT MOTION
A PROJECT REPORT SUBMITTED TO
SAVITRIBAI PHULE PUNE UNIVERSITY,
PUNE



FOR THE DEGREE OF
MASTER OF SCIENCE
IN
PHYSICS
UNDER THE FACULTY OF SCIENCE
BY
MISS. GHODECHOR DNYANESHWARI NAMDEV
Department of Physics, Arts, Commerce and Science College, Sonai
UNDER THE GUIDANCE OF
Prof. SHINDE R. S.
M.Sc. (Physics), NET, SET
DEPARTMENT OF PHYSICS,
ARTS, COMMERCE AND SCIENCE COLLEGE, SONAI
MARCH-2023

Seat No.

SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE

BONAFIDE CERTIFICATE

This is to certify that the work incorporated in the project report entitled **HEART BEAT MOTION** submitted to Savitribai Phule Pune University, Pune is benefited work of **Miss. Ghodechor Dnyaneshwari Namdev** of M.Sc. (Physics) during the academic year 2022-23, who carried out the project work under my supervision.



Prof. Shinde R. S.

Guide

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Dr. Sadekar H.K.

Head

Department of Physics

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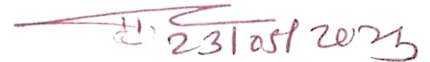
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Internal Examiner



Principal

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Arts, Commerce & Science College
Sonai, Tal. Newasa, Dist. Ahmednagar (MH), Pin-414105



External Examiner

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Place: Sonai

Date: 23/05/2023



Signature of Research Student

Miss. Ghodechor Dnyaneshwari Namdev

(M.Sc. Physics)

“IR PRAOXIMATY SENSOR”
A PROJECT REPORT SUBMITTED TO
SAVITRIBAI PHULE PUNE UNIVERSITY,
PUNE



FOR THE DEGREE OF
MASTER OF SCIENCE
IN
PHYSICS
UNDER THE FACULTY OF SCIENCE
BY
MISS. Hapse Pratiksha Balasaheb
Department of Physics, Arts, Commerce and Science College, Sonai
UNDER THE GUIDANCE OF
Prof. SHINDE R. S.
M.Sc. (Physics), NET, SET
DEPARTMENT OF PHYSICS,
ARTS, COMMERCE AND SCIENCE COLLEGE, SONAI
MARCH-2024

Seat No.

SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE

BONAFIDE CERTIFICATE

This is to certify that the work incorporated in the project report entitled IR PRAOXIMATY SENSOR submitted to Savitribai Phule Pune University, Pune is benefited work of **Miss. Hapse Pratiksha Balasaheb** of M.Sc. (Physics) during the academic year 2023-24, who carried out the project work under my supervision.



Prof. Shinde R. S.

Guide

Department of Physics

Arts, Commerce and Science College,

Sonai-414105



Dr. Sadekar H.K.

Head

Department of Physics

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Sonai-414105



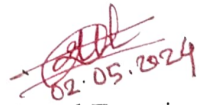
02/05/2024

Internal Examiner



Principal

Mula Education Society's
Arts, Commerce & Science College
Sonai, Tal. Newasa, Dist. Ahmednagar (MH), Pin-414105



02.05.2024

External Examiner

ACKNOWLEDGEMENT

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Place: Sonai

Date: /04/2024

Signature of Research Student

Miss. Hapse Pratiksha Balasaheb

(M.Sc. Physics)

AUTO WATER PUMP SWITCHER

A PROJECT REPORT SUBMITTED TO

SAVITRIBAI PHULE PUNE UNIVERSITY,

PUNE



FOR THE DEGREE OF

MASTER OF SCIENCE

IN

PHYSICS

UNDER THE FACULTY OF SCIENCE

BY

MISS. KARALE PRIYA BHAUSAHEB

Department of Physics, Arts, Commerce and Science College, Sonai

UNDER THE GUIDANCE OF

Prof. SHINDE R. S.

M.Sc., NET, SET.

DEPARTMENT OF PHYSICS,

ARTS, COMMERCE AND SCIENCE COLLEGE, SONAI

APRIL - 2024

SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE

BONAFIDE CERTIFICATE

This is to certify that the work incorporated in the project report entitled "AUTO WATER PUMP SWICHER" submitted to Savitribai Phule Pune University, Pune is benefited work of Miss. Karale Priya Bhausaheb M.Sc. (Physics) during the academic year 2023-24 who carried out the project work under my supervision.



Prof. Shinde R. S.

Guide

Department of Physics

Arts, Commerce and Science College,

Sonai - 414105



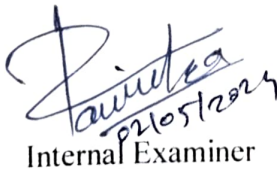
Dr. Sadekar H. K.

Head

Department of Physics

Arts, Commerce and Science College.

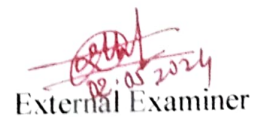
Sonai - 414105



Internal Examiner



Principal
Mula Education Society's
Arts, Commerce & Science College
Sonai, Tal. Newasa, Dist. Ahmednagar (MH), Pin-414105



External Examiner

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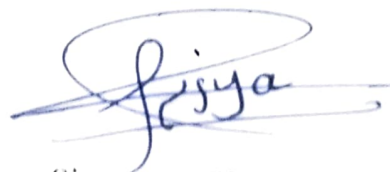
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Place: Sonai

Date: 02/05/2024



Signature of Research Student

Miss. Karale Priya Bhausaheb

(M.Sc. Physics)

SEISMIC SENSOR
A PROJECT REPORT SUBMITTED TO
SAVITRIBAI PHULE PUNE UNIVERSITY,
PUNE



FOR THE DEGREE OF
MASTER OF SCIENCE
IN
PHYSICS
UNDER THE FACULTY OF SCIENCE
BY
MISS. KARDILE PRANALI SATISH

Department of Physics, Arts, Commerce and Science College, Sonai

UNDER THE GUIDANCE OF

Prof.Darandale A.A.,

M.Sc. (Physics),

DEPARTMENT OF PHYSICS,

ARTS, COMMERCE AND SCIENCE COLLEGE, SONAI

MARCH-2023

Seat No.

201881

SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE

BONAFIDE CERTIFICATE

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Prof. Darandale A.A

Guide

Department of Physics

Arts, Commerce and Science College,

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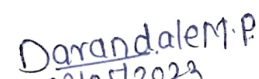
Dr. Sadekar H.K.

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23/05/2023
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Arts, Commerce & Science College
Sonai, Tal. Newasa, Dist. Ahmednagar (MH), Pin-414105


23/05/2023
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Place: Sonai

Date 23/05/2023



Signature of Research Student

Miss. Kadile Pranali Satish

(M.Sc. Physics)

**“AUTOMATIC PLANT IRRIGATION SYSTEM AND LIGHT
CONTROL SYSTEM USING ARDUINO UNO”**

A PROJECT REPORT SUBMITTED TO
**SAVITRIBAI PHULE PUNE UNIVERSITY,
PUNE**



**FOR THE DEGREE OF
MASTER OF SCIENCE**

IN

PHYSICS

UNDER THE FACULTY OF SCIENCE

BY

MISS. PRATIKSHA DINKAR LANDE

Department of Physics, Arts, Commerce and Science College, Sonai

UNDER THE GUIDANCE OF

Prof. Darandale A. A.

M.Sc. (Physics)

DEPARTMENT OF PHYSICS,

ARTS, COMMERCE AND SCIENCE COLLEGE, SONAI

MARCH-2023

Seat No.

SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE

BONAFIDE CERTIFICATE

This is to certify that the work incorporated in the project report entitled AUTOMATIC PLANT IRRIGATION SYSTEM AND LIGHT CONTROL SYSTEM USING ARDUINO UNO submitted to Savitribai Phule Pune University, Pune is benefited work of **Miss. Pratiksha Dinkar Lande** of M.Sc. (Physics) during the academic year 2022-23, who carried out the project work under my supervision.



Prof. Darandale A. A

Guide

Department of Physics

Arts, Commerce and Science College,

Sonai-414105




Dr. Sadekar H.K.

Head

Department of Physics

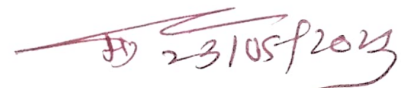
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Sonai-414105


23/05/2023
Internal Examiner


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Mula Education Society's
Arts, Commerce & Science College
Sonai Tal. Newasa, Dist. Anmeanagar (MH), Pin-414105


23/05/2023
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Place: Sonai

Date: /05/2023



Signature of Research Student

Miss. Pratiksha Dinkar Lande

(M.Sc. Physics)

AUTOMATIC STREET LIGHT
A PROJECT REPORT SUBMITTED TO
SAVITRIBAI PHULE PUNE UNIVERSITY,
PUNE



FOR THE DEGREE OF
MASTER OF SCIENCE
IN
PHYSICS
UNDER THE FACULTY OF SCIENCE
BY
MISS. SAWAI SARITA MOHAN
Department of Physics, Arts, Commerce and Science College, Sonai
UNDER THE GUIDANCE OF
Prof. Darandale M.P.,
M.Sc. (Physics),
DEPARTMENT OF PHYSICS,
ARTS, COMMERCE AND SCIENCE COLLEGE, SONAI
MARCH-2023

Seat No.

201885

SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE

BONAFIDE CERTIFICATE

This is to certify that the work incorporated in the project report entitled AUTOMATIC PLANT IRRIGATION submitted to Savitribai Phule Pune University, Pune is benefited work of **Miss. Sawai Sarita Mohan** of M.Sc. (Physics) during the academic year 2022-23, who carried out the project work under my supervision.

Darandale M.P.
23/05/2023

Prof. Darandale M.P

Guide

Department of Physics

Arts, Commerce and Science College,

Sonai-414105



Dr. Sadekar H.K.

Head

Department of Physics

Arts, Commerce and Science College,

Sonai-414105

Darandale M.P.
23/05/2023
Internal Examiner

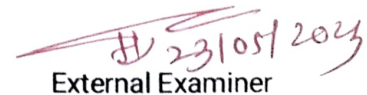


Principal

Mula Education Society's

Arts, Commerce & Science College

Sonai, Tal. Newasa, Dist. Ahmednagar (MH), Pin-414105



External Examiner

ACKNOWLEDGEMENT

I wish to thank the Principal **Dr. Shankar Laware** of my college for permitting me to use all the facilities available in the institution for my project work. I would also like thank the Head of the Physics Department **Dr. Sadekar H.K.**, the teaching faculty and all the Non-teaching staff of my college for their support in completing the work successfully.

I am grateful to my Guide **Prof. Darandale M.P.** for his encouragement, guidance and supervision of my project work during the year. I must acknowledge the financial support given to this project by my parent without which it would have been difficult to complete the work in time.

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Place: Sonai

Date: 23/05/2022



Signature of Research Student

Miss. Sawai Sarita Mohan

(M.Sc. Physics)

IR PROXIMITY SENSOR
A PROJECT REPORT SUBMITTED TO
SAVITRIBAI PHULE PUNE UNIVERSITY,
PUNE



FOR THE DEGREE OF
MASTER OF SCIENCE
IN
PHYSICS
UNDER THE FACULTY OF SCIENCE
BY
MISS. TEKALE VAISHNAVI SAMBHAJI
Department of Physics, Arts, Commerce and Science College, Sonai
UNDER THE GUIDANCE OF
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APRIL-2023

Seat No.

201886

SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE

BONAFIDE CERTIFICATE

This is to certify that the work incorporated in the project report entitled IR Proximity sensor submitted to Savitribai Phule Pune University, Pune is benefited work of **Miss. Tekale Vaishnavi Sambhaji** of M.Sc. (Physics) during the academic year 2022-23 who carried out the project work under my supervision.



Prof. Darandale.A.A

Guide

Department of Physics

Arts, Commerce and Science College,

Sonai-414105



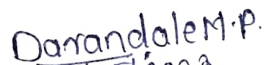
Dr. Sadekar H.K.

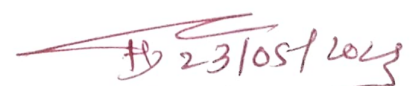
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23/05/2023
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Sonai, Tal. Newasa, Dist. Ahmednagar (MH), Pin-414105

ACKNOWLEDGEMENT

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Place: Sonai

Date 20/05/2023



Signature of Research Student

Miss. Tekale vaishnavi sambhaji

(M.Sc. Physics)

WEIN BRIDGE OSCILLATOR
A PROJECT REPORT SUBMITTED TO
SAVITRIBAI PHULE PUNE UNIVERSITY,
PUNE



FOR THE DEGREE OF
MASTER OF SCIENCE
IN
PHYSICS
UNDER THE FACULTY OF SCIENCE
BY
MISS. TOGE GANESH ASHOK
Department of Physics, Arts, Commerce and Science College, Sonai
UNDER THE GUIDANCE OF
Prof. SHINDE R. S.
M.Sc. (Physics), NET, SET
DEPARTMENT OF PHYSICS,
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MARCH-2023

Seat No.

SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE

BONAFIDE CERTIFICATE

This is to certify that the work incorporated in the project report entitled WEIN BRIDGE OSCILLATOR submitted to Savitribai Phule Pune University, Pune is benefited work of **Miss. TOGE GANESH ASHOK** of M.Sc. (Physics) during the academic year 2022-23, who carried out the project work under my supervision.


23/05/2023

Prof. Shinde R. S.

Guide

Department of Physics

Arts, Commerce and Science College,

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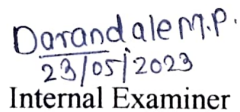
Dr. Sadekar H.K.

Head

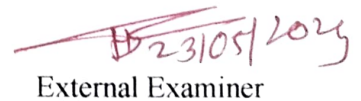
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ACKNOWLEDGEMENT

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Place: Sonai

Date: /05/2023



Signature of Research Student

Miss **TOGE GANESH ASHOK**

(M.Sc. Physics)

**GROWTH AND CHARACTERIZATION OF CdS THIN
FILMS BY CHEMICAL BATH DEPOSITION
A PROJECT REPORT SUBMITTED TO
SAVITRIBAI PHULE PUNE UNIVERSITY,
PUNE**



**FOR THE DEGREE OF
MASTER OF SCIENCE
IN
PHYSICS**

UNDER THE FACULTY OF SCIENCE

BY

Miss. Zuge Kajal Dilip

Department of Physics, Arts, Commerce and Science College, Sonai

UNDER THE GUIDANCE OF

Prof. Darandale A.A.

M.Sc Physics

**DEPARTMENT OF PHYSICS,
ARTS, COMMERCE AND SCIENCE COLLEGE, SONAI**


APRIL-2024

Seat No.

SAVITRIBAI PHULE PUNE UNIVERSITY

BONAFIDE CERTIFICATE

This is to certify that the work incorporated in the project report entitled “**Growth and Characterization of CdS Thin Films by chemical bath deposition**” submitted to Savitribai Phule Pune University, Pune, is benefited work of **Miss. Zuge Kajal Dilip** of M.Sc. (Physics) during the academic year 2023-24, who carried out the project work under my supervision



Prof. Darandale A.A.

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02.05.2024

External Examiner

ACKNOWLEDGEMENT

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Place: Sonai

Signature of Research Student

Date:

Miss Zuge K.D.
(M.Sc. Physics)