



Establishment
27/11/1928

SNJB (Jain Gurukul's)
K.K.H. Abad Arts, S.M.G. Lodha Commerce & S.P.H. Jain Science College
Neminagar, Chandwad-423101, Dist.-Nashik, Maharashtra

(Affiliated to Savitribai Phule Pune University) Id. No.PU/NS/AC/015/1970

(02556) Off. 252125 Res.252126 Tel. Fax:02556-252125

• P. O. Box No.: 6 • E-mail : alccchandwad@yahoo.co.in

• Website : www.acschandwadcollege.com

DST-FIST Funded (2018-19)

UGC-NSQF Courses (B.Voc. & CC)

Best College Award by Savitribai Phule Pune University (2015-16)

T.Y.B.Sc. Physics

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T.Y.B.Sc. (Physics) (Sem-V)
PHY-357: Physics Laboratory-3A

Lectures: 36

(Credits-02)

(General Laboratory, Electromagnetism, Atomic and Molecular Physics, and Optics)

(Any Eight)

GROUP-I: GENERAL PHYSICS (any FOUR)

1. Kater's pendulum
2. Moment of Inertia by Bifilar suspension
3. Young's modulus by Koeing method
4. Surface tension of mercury by ripple method
5. Surface tension liquid by Fergusson method
6. Surface tension of mercury by Quincke's method
7. 'Y' by vibration of wooden scale
8. Young's modulus by Newton's rings
9. Determination of wavelength of light by Michelson's interferometer
10. Study of damped oscillations of physical pendulum and finding log decrement

GROUP-II: ELECTROMAGNETISM (any TWO)

1. Study of forced oscillations by electromagnetically driven simple pendulum
2. Self-Inductance by Anderson's bridge
3. Core losses in transformers
4. Electromagnetic pendulum
5. Self-Inductance by Maxwell's bridge

GROUP-III: ATOMIC AND MOLECULAR PHYSICS AND OPTICS (any TWO)

1. Determination of Rydberg's constant
2. Zeeman Effect
3. Llyod's mirror
4. Determination of Resolving Power of grating
5. Determination of wavelength by Constant deviation spectrometer

Additional Activities (Any ONE)

- Demonstrations: Any 2 demonstrations equivalent to 2 experiments
- Study tour with report equivalent to 2 experiments
- Mini project equivalent to 2 experiments
- Computer aided demonstrations (simulations or animations)
(Any 2 demonstrations equivalent to 2 experiments)

*Note: Students have to perform **ten** experiments or **one** additional activities in addition to **eight** experiments mentioned above. Total laboratory work with additional activities should be equivalent to **ten** experiments.*



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Department of Physics

Smt. Dr. S. D. Shinde

Head, Dept of Physics

E-mail: sarikagotan@rediffmail.com

M. Sc Project list 2021-22

Sr. No.	Name of the Students	Project Title	Remark
1	Anita Kisan Shewale	Synthesis & Characterization of Cu ₂ O Nanoparticles	
2	Varsha Kedu Gangurde	Synthesis of Copper oxide by using Chemical bath deposition method	
3	Tejaswini Vasant Kolhe	Synthesis and characterization of lead oxide thin film by electro chemical deposition and two electrode configuration system using lead oxide	
4	Darshana Dipak Thoke Momin Tooba Raees Ahmad Pranjal Prakash Thakare	Preparation & Characterization of CDS Thin Film by CBD method	
5	Varsha Dharmraj Bachhav Monika Umesh Thorat Neeta Narayan Ugale	Preparation of Aluminium Potassium Sulphate dodecahydrate Single Crystal	
6	Vijay Chintaman Thakare	Solar Inverter	
7	Vrushali Sunil Kakade	Op-Amp as a Adder & Subtractor	

HEAD
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Department of Physics

Smt. Dr. S. D. Shinde

Head, Dept of Physics

E-mail: sarikagotan@rediffmail.com

T.Y.B.Sc Project List 2021-22

Sr. No.	Name of the Students	Title	Guide
1	Dhanashri Pandharinath Chavan Rutuja Ashok Gangurde	A Zener Diode as a Voltage Regular	Dr.S.D.Shinde
2	Gayatri Vitthal Mahajan Tejaswini Naval Thoke	Double Refracting Prism	Dr.S.D.Shinde
3	Seema Vikram Thakare Madhuri Balu Gangurde	Earthquake Detector Alarm using Arduino	Dr.S. D.Shinde Mr. G. B. Dhomse
4	Tushar Ashok Ghanghav Vaibhav Subhash Shinde	Ligic Gates	Dr.S.D.Shinde
5	Gopal Girish Bidgar Shubham Ashok Waghmode	Bike Theft Detector	Dr. G.E.Patil
6	Monali Rajendra Patil	Electronic Eye	Dr. G. E. Patil
7	Vaishnavi Nishikant Pawar Priyanka Satish Bhadane	Synthesis and Characterization of lead sulphide Nanoparticles using Lead Acetate and Thioria	Dr. A.B.Gite Dr. G.E.Patil
8	Mayur Shivaji Narshinge Ashutosh Nandu Kapse Rushikesh Arun Jadhav Suraj Dashrath Chande	Alcohol Detection and Engine Locking	Dr.A.B.Gite
9	Perana Babaji Bhavar Anisha Vishwas Deore Kaveri Sanjay Tope	Calibration of Spectrometer	Ms.Huda I.A.



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10	Gayatri Chandrakant Shelar Ashvini Sanjay Lamkhade	Op-Amp as a Adder and subtractor	Ms.P.S.Nikam
11	Shubham Dattu Handge Harshada Ekanath Thakare	Introduction of ultrasonic interferometer and experimental techniques for determination of ultrasonic, velocity, density,viscosity,compressibility and various themodynamic parameters	Ms. S.B.Thakare
12	Pallavi Narhar Nere Jyoti Fula Navar Tejal shrikant Bagul	Mobile Jammer	Ms. Harshali Jadhav
13	Gaurav Narayan Aware Sachin Bhagwat Chaudhari Vishal Valmik Wankhede Shivam Rajendra Pawar Navnath Garibrao Ugale	Box Type Solar Cooker	Ms.A. G. Lokhande

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