

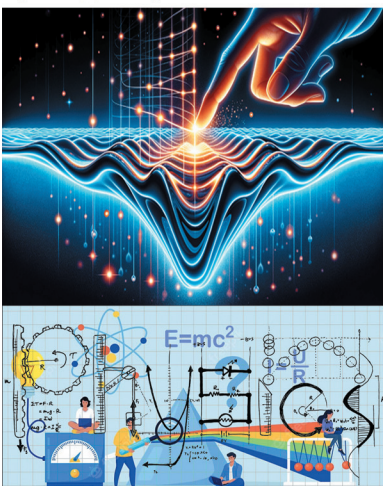


An Academic Institution with 171 years of EXCELLENCE



**GOVERNMENT COLLEGE (A)**

An Autonomous Institution Since 2000: Rajahmundry, Andhra Pradesh, India



# SUMMER SCHOOL INTERNSHIP IN PHYSICS (SSIP) – 2024

(16<sup>th</sup> May 2024 to 31<sup>st</sup> May 2024)

## ABOUT THE PHYSICS DEPARTMENT :

The Department of Physics was established in 1930 under the Madras Province of British India. Post Graduate Course in PHYSICS was introduced in 1971. To inculcate Research tinge among students, and faculty, a research facility titled "Crystal Growth and Nano Science Research Centre" was established in 2009-10. At present, 04 B.Sc., Major programs, 01 M.Sc. (Physics), and Ph.D programs offered by the Department. In addition to this job oriented under graduate programs such as Renewable Energy Management and Nano Science Programs also offered. The department received the **BEST DEPARTMENT AWARD** under **GCRJY Excellence Awards 2024** from Dr. Ramachandra RK, Principal of the College.

## ABOUT THE PROGRAMME :

Department of Physics is organizing a **Summer School Internship in Physics (SSIP) – 2024** on "Basic Experiments in Physics" for the students who completed class IX, X, XI and XII for understanding the fundamental concepts of Physics.

## LEARNING OUTCOMES OF THE PROGRAMME :

**Introduction to Fundamental Concepts:** Ensure students grasp the basic principles of physics through engaging experiments, which are embedded in the CBSE, ICSE and State board curriculum. The list of practicals included in this course are :

1. Vernier Calipers
2. Screw gauge
3. Least count of Spectrometer and Travelling Microscope
4. Melde's Experiment
5. Simple Pendulum
6. Compound pendulum
7. Laser Diffraction
8. Lasers
9. Newton law of Cooling
10. AC Sonometer
11. Verification of Ohms law
12. Solar cell Characteristics
13. Carey foster- Bridge
14. To find angle of the prism
15. To find focal length of the convex lens
16. To find focal length of the Concave mirror
17. Basic logic gates
18. Basic operations of CRO wave form generation.
19. To verify the variation of magnetic field due to current carrying circular conductor.
20. Photo Cell (Planck's Constant)

**Hands-On Learning Experience:** Provide opportunities for students to actively participate in experiments to deepen their understanding of physics concepts.

**Application of Theory to Practice:** Bridge the gap between theoretical knowledge and practical application by conducting experiments that illustrate real-world phenomena.

**Promoting Collaboration and Communication:** Encourage teamwork among students through group experiments, discussions, and presentations, enhancing their communication skills in the process.

**LABORATORIES AVAILABLE:** Mechanics Lab, Optics Lab, Electricity and Magnetism Lab, Modern Physics Lab, Electronics Lab, Renewable Energy Lab, Simulation Lab, Antique Equipment Lab & Crystal growth and Nano science Research Lab

## INFORMATION REGARDING REGISTRATION :

Registration Fee Rs.2000/- (Only 50 seats available) which include Practical manual / Handouts.

**For the students who completed Class IX, X, XI and XII only**

**Timings:** 8:30 AM to 11:30 AM

**Registration Link :**

<https://forms.gle/wny7BAHw4qskqEp17>

**Scan QR for Registration**



Principal :

**Dr. Ramachandra R.K**  
Professor in Physics  
& Raman PDF (USA)

Convener :

**Smt. Ch. Komala Lakshmi,**  
In charge, Department of Physics and Electronics

Coordinators:

**Lt. Dr. Esub Basha Shaik,** Lecturer in Physics (9705964213)  
**Smt. B. Durga Lakshmi,** Lecturer in Physics (9491419667)  
Organizing members: All the faculty members of the Physics Department

For more information about Physics department visit: <https://gcrjyonline.in/dispsdepartment.php?departmentid=47>