

Notice

Rabindra Mahavidyalaya
Champadanga, Hooghly

Department of Physics
Notice

Date: 20/03/2025

Hands-On Training cum Physics Exposure Camp (24 March 2025 to 28 March 2025)

This is to notify that the Department of Physics is organizing a Hands-On Training cum Physics Exposure Camp for Madhyamik examinee 2025 and students who have recently completed their class XI examination in Science, from neary schools.

The camp will provide an excellent opportunity for students to gain hands-on experience and explore the wonders of physics through interactive activities and demonstrations.

Details of the Camp:

Date: 24-03-2025 to 28-03-2025

Time: 11:00 AM to 1:00 PM

Venue: Department of Physics, Rabindra Mahavidyalaya

Convener: Dr. Uday Kumar Khan

Jt. Conveners: Dr. Safiul Alam Mollick and Dr. Arpan De

Instructors (for different experiments): Dr. Uday Kumar Khan, Dr. Safiul Alam Mollick,
Dr. Arpan De, Prof. Somnath Pal, and Prof. Arkadeep Guchhait.

Laboratory Assistance: Sri Raghunath Hazra, Sri Manabendra Nath Das

We look forward to an engaging and educational experience!

Arpan De
Head 20/03/25

Department of Physics

Head
Department of Physics
Rabindra Mahavidyalaya
Champadanga, Hooghly,

Principal
Principal
Rabindra Mahavidyalaya
Champadanga, Hooghly

Activity Report

Date: 24 March 2025 to 28 March 2025

Name of the Program: Hands-On Training cum Physics Exposure Camp

The Department of Physics organized a **Hands-On Training cum Physics Exposure Camp**, intending to inspire curiosity and enhance practical understanding of physics among students of classes XI and XII. The camp featured interactive sessions and hands-on experiments designed to bridge the gap between theoretical concepts and real-world applications of physics.

Students participated in engaging activities such as exploring fundamental concepts through experiments, building simple physics models, and understanding modern physics techniques.

The program provided a valuable learning experience, empowering students to approach physics with enthusiasm and confidence. It successfully ignited curiosity among participants and motivated them to explore the fascinating world of science beyond textbooks. The camp concluded with positive feedback and active student participation.

Organized by: Department of Physics in Collaboration with IQAC, Rabindra Mahavidyalaya

For Demonstration of Experiments:

Convener: Dr. Uday Kumar Khan

Jt. Conveners: Dr. Safiul Alam Mollick and Dr. Arpan De

Demonstrators (for different experiments): Dr. Uday Kumar Khan, Dr. Safiul Alam Mollick, Dr. Arpan De, Prof. Somnath Pal, and Prof. Arkadeep Guchhait

Smart Class Presentation: Dr. Safiul Alam Mollick

Laboratory Assistance: Sri Raghunath Hazra, Sri Manabendra Nath Das

Outcome

The induction programme successfully engaged school students in the practical aspects of physics, bridging theory with experimentation. Students gained exposure to core concepts such as optics, electricity, magnetism, and wave phenomena through direct observation and measurement. Activities like circuit assembly, multimeter usage, and CRO demonstrations enhanced technical familiarity with laboratory instruments. Interactive components—presentations, exhibitions, and graph plotting—developed analytical and communication skills. The structured progression from basic experiments (refractive index, focal length, Ohm's law) to advanced demonstrations (spectra analysis, total internal reflection, waveforms) ensured a comprehensive introduction to physics. The programme encouraged students to explore science with curiosity, to work collaboratively, and to gain confidence in using

laboratory equipment. By the conclusion of the sessions, participants had not only grasped key physical principles but also developed an appreciation for experimentation as an essential part of learning science. The experience provided them with a meaningful introduction to physics and created momentum for continued interest in the subject in their future studies.

Department of Physics
Rabindra Mahavidyalaya

Hands-On Training cum Physics Exposure Camp
Program Schedule

Serial No.	Date	Name of the Experiment	Instructors
1	24-03-2025 (Monday)	1. To determine the refractive index of water using a travelling microscope.	Dr. Uday Kumar Khan Prof. Somnath Pal
		2. To demonstrate Oersted's law using an electromagnet (Solenoid) and study its effect on a magnetic needle.	
		3. To find the focal length of a convex lens by measuring u and v and verifying f by making an image on a wall or floor.	
		4. To find the focal length of a concave lens using a convex lens (combination method).	
2	25-03-2025 (Tuesday)	1. To study the frequency vs. length (n-l) curve using a sonometer and check the effect of the tension of the wire.	Dr. Uday Kumar Khan Prof. Somnath Pal
		2. To visualise the effect of surface tension force.	
		3. To measure resistance, voltage (AC and DC), current (AC and DC) and check continuity of a given circuit using a multimeter.	
		4. To identify Live, Neutral and Earthing ports of a household electrical plug and socket.	
		5. To assemble the components of a given electrical circuit.	
3	26-03-2025 (Wednesday)	1. To study Ohm's law. Plot a V-I graph for three different resistances.	Dr. Uday Kumar Khan Dr. Safiul Alam Mollick Prof. Arkadeep Guchhait
		2. Graph plotting using a graph paper.	
		3. Presentation by SAM	
		4. To observe a rainbow using a prism and white light in a spectrometer.	
		5. To observe diffraction of light using a laser and a thin wire/single slit.	
		6. Model Exhibition	

4	27-03-2025 (Thursday)	Holiday	
5	28-03-2025 (Friday)	<ol style="list-style-type: none"> 1. To observe the line spectra of a Sodium vapour lamp in a spectrometer with the help of a prism. 2. To demonstrate the bending of light (Total Internal Reflection) and a waveguide using a laser source. 3. To demonstrate the convergence of light using a convex lens and to find out the focal length of the lens. 4. To identify the diode, the LED, the resistance, and the capacitance. 5. To find out the value of resistance using the colour code and verify the same using a multimeter. 6. To measure the magnetic field of a permanent magnet using a Gauss probe. 7. To demonstrate different waveforms using a CRO. 8. Graph plotting using a graph paper – Part II. 	<p>Dr. Uday Kumar Khan</p> <p>Dr. Safiul Alam Mollick</p> <p>Dr. Arpan De</p>

Photos of different activities throughout the program

Day – 1 (24-03-2025)



Day – 2 (25-03-2025)



Day – 3 (26-03-2025)



Day – 4 (28-03-2025)



