

Fifth Edition of

REFRESHER & PREPARATIVE WINTER SCHOOL (RPWS)



4 - 22 December 2026

For 2nd Year M.Sc. Science Students
(Biology, Chemistry & Physics)



Target Participants

Ph.D. Aspirants

(Preparing for national exams like
NET, GATE, JGEEBILS, JEST, etc.)



Venue

IISER Thiruvananthapuram

Programme Highlights



Firm up fundamentals



Strengthen understanding of
advanced concepts



Equip with problem solving
capability



Accommodation, food & registration are all free!



The selected candidates need to cover only their travel!



Last Date
07th August 2026



Free
Online Registration

REGISTER
NOW



Facilities - IISER Thiruvananthapuram



Labs

High value
equipment
facilities



NMR

Single Crystal XRD

TEM

Powder XRD

XPS

AFM

SEM



Hostels

WINTER SCHOOL IN BIOLOGY

The fifth edition of Refresher and Preparative Winter School in Biology (RPWS-Bio) offers students an opportunity to strengthen their understanding of core biological concepts while gaining exposure to modern biological and interdisciplinary research. Through lectures, discussions, laboratory sessions, and interactions with faculty scientists, participants will explore diverse areas of biology and develop a research-oriented approach to learning. The program is particularly suited for students considering a career in scientific research and pursuing advanced studies beyond the master's level.



INTAKE: 50 Students



rpwsbio@iisertvm.ac.in



ELIGIBILITY:

Final Year of M.Sc. & Integrated BS-MS in Biological Sciences & Allied Subjects.

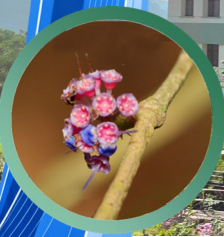


TOPICS

- ◆ Molecules and their Interaction Relevant to Biology
- ◆ Cellular Organization
- ◆ Fundamental Processes
- ◆ Cell Communication and Signaling
- ◆ Developmental Biology
- ◆ System Physiology - Plant
- ◆ System Physiology - Animal
- ◆ Inheritance in Biology
- ◆ Diversity of Life Forms
- ◆ Ecological Principles
- ◆ Evolution and Behaviour
- ◆ Applied Biology
- ◆ Methods in Biology

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WINTER SCHOOL IN CHEMISTRY

The School of Chemistry invites applications from motivated students for the fifth edition of Winter School 2026 (RPWS-Chem) to explore modern research through textbook fundamentals. This intensive program will help you learn foundational and advanced topics in chemistry and connect them with interdisciplinary research. Through interactive sessions, you will build strong concepts, sharpen logical thinking, and develop research problem-solving skills. You will also learn about academic and career opportunities after postgraduate studies. Based on academic credentials, the school will select 50 students across India for this enriching experience.



INTAKE: 50 Students



rpwschm@iisertvm.ac.in



ELIGIBILITY:

Final Year of M.Sc. & Integrated BS-MS in Chemical Sciences & Allied Subjects.



TOPICS

- ◆ Quantum Chemistry
- ◆ Electrochemistry
- ◆ Chemical Kinetics
- ◆ Heterocyclic Chemistry
- ◆ General Organic Chemistry
- ◆ Chemistry of Natural Products
- ◆ Pericyclic and Photochemistry
- ◆ Principles of Stereochemistry
- ◆ Organometallic Chemistry
- ◆ Main Group Chemistry
- ◆ Principles and Applications of Spectroscopy
- ◆ Chemical and Statistical Thermodynamics
- ◆ Mathematical Methods for Chemists and Data Analysis
- ◆ Materials and Solid State Chemistry
- ◆ Symmetry and Group Theory
- ◆ Coordination and Bioinorganic Chemistry
- ◆ Structural Determination of Organic and Inorganic Compounds

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WINTER SCHOOL IN PHYSICS

The fifth edition of Refresher and Preparative Winter School in Physics (RPWS-Phy) is specially designed for highly motivated students at the master's level, and aims to instill the fundamental concepts of Physics through problem-solving exercises. Additionally, it offers insights into the state-of-the-art research activities in the field and prospective avenues for future exploration.



INTAKE: 50 Students



rpwsphy@iisertvm.ac.in



ELIGIBILITY:

Final Year of M.Sc. & Integrated BS-MS in Physical Sciences & Allied Subjects.

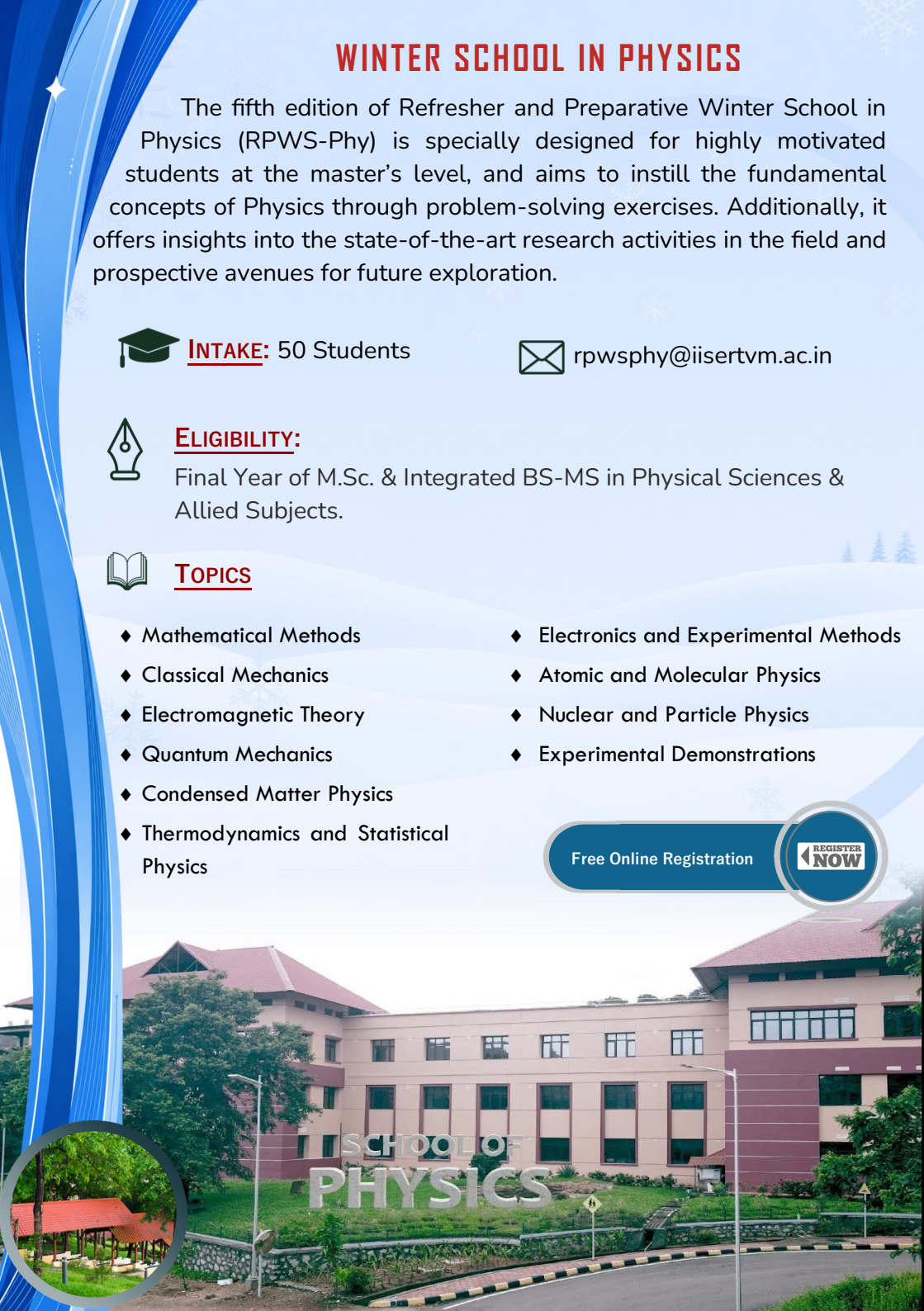


TOPICS

- ◆ Mathematical Methods
- ◆ Classical Mechanics
- ◆ Electromagnetic Theory
- ◆ Quantum Mechanics
- ◆ Condensed Matter Physics
- ◆ Thermodynamics and Statistical Physics
- ◆ Electronics and Experimental Methods
- ◆ Atomic and Molecular Physics
- ◆ Nuclear and Particle Physics
- ◆ Experimental Demonstrations

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SCHOOL OF
PHYSICS

Glimpse of the fourth edition of RPWS 2025



Group Photo



Inauguration



Director and students Interaction



Classes



Facility Visit



Achievements of RPWS Alumni (PhD Positions)

- ◆ IISc Bangalore
- ◆ IISER Thiruvananthapuram
- ◆ NIT Trichy
- ◆ VIT Vellore
- ◆ NIT Calicut
- ◆ SRM University, Chennai
- ◆ PES University, Bangalore
- ◆ Karnataka University, Dharwad
- ◆ University of Missouri, United States
- ◆ National Institute of Virology, Pune
- ◆ Central Agricultural University, Manipur
- ◆ Jaume I University, Castelló de la Plana, Spain
- ◆ National Taipei University of Technology, Taiwan
- ◆ Manipal Academy of Higher Education, Karnataka
- ◆ Chettinad Academy of Research and Education, Chennai
- ◆ Centre for DNA Fingerprinting and Diagnostics, Hyderabad