

DEPARTMENT OF PHYSICS

UNIVERSITY OF KASHMIR, SRINAGAR-190006, Hazratbal, J&K

Email: gndphyh@kashmiruniversity.ac.in

Details for Prospectus-2024-2025

1. Year of Establishment: 1962

Welcome to the Department of Physics at the University of Kashmir. Our department is a vibrant community of faculty, scholars, staff, students, and alumni, all dedicated to excellence in education, with a particular focus on physics. Physicists study the properties and behavior of energy and matter, from sub-microscopic particles to the behavior of the Universe as a whole. At its core, physics explores the rules of nature and aims to achieve a fundamental understanding of the natural world.

Our mission is to provide a high-quality teaching and learning experience through our Master's and PhD programs. Excellence in teaching is a cornerstone of our department. We regularly review and update existing courses and introduce new programs to align with current research trends. We continually explore new dimensions in teaching and learning, utilizing various platforms and methodologies to enhance the educational experience. Strengthening our existing programs is an ongoing priority.

Our faculty members conduct research in nearly all major areas of physics, spanning experimental and theoretical aspects of High Energy Physics, Nuclear Physics, Astrophysics, Condensed Matter Physics, Radiation Physics, Atmospheric Physics, Neutrino Physics, Nano Physics, and Quantum Computation. They collaborate with researchers from leading institutes in the country, including the Tata Institute of Fundamental Research (TIFR) in Mumbai, the Inter-University Centre for Astronomy and Astrophysics (IUCAA) in Pune, the Saha Institute of Nuclear Physics (SINP) in Kolkata, the Variable Energy Cyclotron Centre (VECC) in Kolkata, and the Inter-University Accelerator Centre (IUAC) in New Delhi, among others.

Internationally, we have collaborations with renowned institutions such as CERN in Geneva, FAIR in Darmstadt, Germany, and the Oak Ridge National Laboratory (ORNL) in the USA. The volume of research publications in reputable peer-reviewed journals and the research funding received by the department have been steadily increasing. Additionally, our faculty members contribute significantly to administrative leadership and various institutional activities and initiatives.

We invite you to explore our website and learn more about our programs, research, and community.

2. Faculty Details

S. No.	Name of the Faculty	Designation	Specialization
1	Prof Manzoor A Malik	Professor	Astrophysics
2	Prof. M Farooq Mir	Professor	Nuclear Physics
3	Prof. Basharat A Want	Professor	Solid State Physics
4	Prof. Naseer Iqbal	Professor	Astrophysics

5	Prof. Gowhar Bashir Vakil	Professor	Microwave/Antenna	
6	Dr. Shakeel A Simnani	Associate Professor	Nuclear Radiations	
7	Dr. Sajad Masood	Associate Astrophysics Professor		
8	Dr. Waseem Bari	Associate Professor	Higher Energy Physics	
9	Dr. Ghulam Nabi Dar	Assistant Professor	Nanophysics	
10	Dr. Muzaffar Qadir Lone	Assistant Professor	Qauntum Dynamics	
11	Dr.Nisar A Keen	Assistant Professor	Atmospheric Physics	
12	Dr. Shabir A Bhat	Contractual Assistant Professor	High Energy Physics	
13	Dr.Wahid A Dar	Contractual Assistant Professor	Nuclear Physics	
14	Dr.Rameez	Contractual Assistant Professor	High Energy Physics	
15	Dr.Aashiq Husain Bhat	Contractual Assistant Professor	Atmospheric Physics	

3. Head of the Department: Prof. Gowhar Bashir Vakil

4. Programmes Offered:

M.A/M.Sc. Physics Research leading to PhD

- 5. **Research Programmes offered:** Integrated Ph.D.
- 6. **Thrust areas:** <u>Astrophysics/NuclearPhysics/MaterialSciece/AtmosphericPhysics/Qauntum Dynamics/Microwave Antenna</u>
- 7. **Research Collaborations:** The Department has collaborations with prestigious institutions such as the Tata Institute of Fundamental Research (TIFR) in Mumbai, the Inter-University

Centre for Astronomy and Astrophysics (IUCAA) in Pune, the Saha Institute of Nuclear Physics (SINP) in Kolkata, the Variable Energy Cyclotron Centre (VECC) in Kolkata, and the Inter-University Accelerator Centre (IUAC) in New Delhi, among many others. Additionally, we have numerous international collaborations, including partnerships with CERN in Geneva, FAIR in Darmstadt, Germany, and the Oak Ridge National Laboratory (ORNL) in the USA.

8. **Research Infrastructure:** Our department boasts an extensive infrastructure designed to support both learning and research. We have numerous classrooms equipped with overhead projectors, providing an optimal learning environment. Faculty rooms offer dedicated spaces for professors to work and collaborate, while our well-designed seminar hall is ideal for hosting academic events and lectures. Female students can enjoy a comfortable and private area in the girls' common room.

Our library is a rich resource, housing over 10,000 national and international books. The updated High-Performance Computer Lab features 30 high-grade computers, and we have three specialized labs dedicated to MSc students. Additionally, our department includes nearly 10 research laboratories, such as the Radiation Lab, Nanophysics Lab, Solid State Physics Lab, Atmospheric Lab, Astrophysics Computation Lab, and High Energy Computational Lab. We also take pride in our grand research field facility, the High Altitude Research Laboratory in Gulmarg.

9. **Other innovative Initiatives taken:** The Department of Physics offers a special paper to MSc students in nearly all areas of physics, as mentioned above. Regular workshops and guest lectures by eminent physicists and industry experts keep students abreast of the latest developments in the field.











10. Contact Details:

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Notable Alumni of the Department:

S.No.		Degree from the	
	Name of the Alumnus	Department	Serving in the System
1	Prof. Kuldeep Raina		Vice Chancellor Ramaya University
		PhD Physics	Bangalore
2		M.Sc	
	Prof. J.A.Sheikh	Physics	Professor in IUST
3	Prof. Rouf Ahmad		
		Ex.Principal	Rtd. College Principal
4		M.Sc	
	Prof. Farooq Ahmad	Physics	Retired Prof
5	Prof. Naseer Iqbal	PhD Physics	Registrar KU
6	Prof. Manzoor Malik	PhD Physics	Dean KU
7		M.Sc	
	Prof.M.Farooq Mir	Physics	Director Admissions KU
8	Prof. Gowhar Bashir Vakil	PhD Physics	Ex Director IoT KU