

Dr Abida Bashir

Department of Physics,
SHMM Govt. Degree College,
Anantnag, J&K, India-192101.

+91-9419095975

khanabidamajid8179@gmail.com
khanabidamajid@gdcboysang.ac.in

Short Biography

Abida Bashir is a Senior Assistant Professor in the Department of Physics at Government Degree College, Anantnag, Kashmir, India, with expertise in teaching Electrodynamics, Mathematical Physics, Optics, and Solid-State Physics. Her academic journey includes earning an MSc from the University of Kashmir, where she topped her undergraduate studies and was awarded a gold medal. She later pursued her PhD at the National Institute of Technology, Srinagar, India. Her areas of interest include solid-state condensed matter physics, Thin Films and their irradiation, Transport properties, and Absorption spectroscopy. She holds both a Bachelor of Education and a Master of Education, with distinction. She is a member of the Indian Association of Physics Teachers and a resource person for Olympiad Examinations. She completed a project on the Irradiation of Thin Films of perovskites funded by the Inter University Accelerator Centre, New Delhi, India. She has made significant contributions to Physics, particularly in solid-state condensed matter physics, thin films, and their irradiation, transport properties, and absorption spectroscopy. She has published research in esteemed peer-reviewed international journals such as the *Journal of Condensed Matter, Materials Science and Engineering, Elsevier*, and *Carbon Letters*. Additionally, she has served as a reviewer for reputed journals like the *Journal of Alloys and Compounds*.

Online Information

Webpage : <https://gdcboysang.ac.in/Departments/Science/Physics/> ORCID
ID : <https://orcid.org/0000-0002-2771-202X>
Google Scholar : <https://scholar.google.com/citations?user=CZYntwAAAAJ&hl=en>
Research Gate : https://www.researchgate.net/profile/Abida-Bashir-2?ev=hdr_xprf
Vidwan ID : 660337

Experience

Lecturer

School Education Department
2008-2016.

Assistant Professor

Department of Physics
Government Degree College for Women
Anantnag
2016-2023

Sr. Assistant Professor

Department of Physics,
SHMM Govt. Degree College, Anantnag, J&K, India
November 2023 – Present

Courses Taught

- Electrodynamics
- Solid State Physics
- Mechanics
- Modern Physics
- Thermodynamics and Statistical Physics
- Optics
- Atomic and Molecular Spectroscopy

Education

- **National Institute of Technology**, Srinagar, J&K, India
Ph.D. Condensed Matter Physics 2011
- **University of Kashmir**, Srinagar, J&K, India
M. Sc. Physics, 72 %.

- **University of Kashmir**, Srinagar, J&K, India
B.Sc (Non Medical) 72% (Gold Medal)

Professional Membership

- **Indian Association of Physics Teachers (IAPT)**
- **Journal of Alloys and Compounds (Reviewer)**
- **IGNUO Counsellor**
- **Resource Person Olympiad Examinations**

Research Tools

- Rietveld
- Labview
- Python
- Origin
- Fortran

Professional Development Programs

1. **Training Program: Computer-Interfaced Science Experiments using ExpEYES**
06–11 October 2025, Inter-University Accelerator Centre (IUAC), New Delhi
Focused on hands-on experimentation and data acquisition using ExpEYES toolkit for physics education
2. **One-week Online Short Term Course (STC) on “Recent Trends and Application of Nanotechnology in Engineering”** from 22 – 26 July, 2024 at Department of Physics, National Institute of Technology Srinagar
3. **National Workshop on Nanoscience – Opportunities and Challenges**
04–05 September 2018, Dept. of Physics, Islamic University of Science & Technology, Kashmir
4. **Faculty Development Program: Emerging Trends in Physical, Chemical and Mathematical Sciences**
14–20 February 2019, Islamic University of Science & Technology Awantipora, Kashmir
5. **Short-Term Course: Recent Advances in Nano Science and Nanotechnology (RANN_2020)**
24–28 August 2020, Dept. of Physics, National Institute of Technology Srinagar (Online) Sponsored by TEQIP-III
6. **Short-Term Course: Current Trends in Condensed Matter Physics (CTCMP-2020)**
25–29 September 2020, Dr. B R Ambedkar National Institute of Technology, Jalandhar Sponsored by TEQIP-III
7. **Workshop: Training and Practice on MATLAB for Engineering Solutions (TPMES)**
26–30 November 2020, Dr. B R Ambedkar National Institute of Technology, Jalandhar Sponsored by TEQIP-III
8. **Short-Term Course: Mathematics Without Boundaries**
23–27 November 2020, Dept. of Mathematics, National Institute of Technology Srinagar (Online)

Journal Publications

1. M Abdullah Sheikh, R. S. Chandok, **A. Bashir** “Novel Nitrogen-Doped Carbon Dots for Degrading Azo Dyes and Sensing Heavy Metals” *Journal of Chemical Health Risks* 15(2) (2025) 283-297 [DOI: 10.60829/JCHR.2024.1121944](https://doi.org/10.60829/JCHR.2024.1121944)

2. M Abdullah Sheikh, R. S. Chandok, **A. Bashir** “Green perspective of N-CDs towards energy crisis and photodegradation of toxic dyes”. *Discover Materials* (2024) 4:9 doi.org/10.1007/s43939-024-00079-5
3. M Abdullah Sheikh, R. S. Chandok, **A. Bashir** “High energy density storage, antifungal activity and enhanced bioimaging by green self-doped heteroatom carbon dots” *Discover Nano* (2023) 18:132 doi.org/10.1186/s11671-023-03910-9
4. M Abdullah Sheikh, R. S. Chandok, **A. Bashir** “Revolutionizing the sensing properties of green carbon dots for monitoring carbon dioxide and carbon monoxide at room temperature” *Carbon Letters* Volume 34, pages 2245–2257, (2024). doi.org/10.1007/s42823-024-00751-z.
5. R A Zargar, M M Hussain, **A. Bashir**, B. Alshahrani, M. Shakir “Development and Characterization of (ZnO)_{0.90} (CNT)_{0.10} thick film for photovoltaic application” *Optik – International Journal for Light and Electron Optics*. Volume 248, December 2021, 167975 doi.org/10.1016/j.ijleo.2021.167975.
6. Z. Habib, M. Ikram, K. Sultan, **A. Bashir**, S. A. Mir, K. Majid, K. Asokan “Electronic excitation-induced structural, optical, and magnetic properties of Ni-doped HoFeO₃ thin films.” *Appl. Phys. A* (2017) 123:442” DOI [10.1007/s00339-017-1041](https://doi.org/10.1007/s00339-017-1041).
7. **A. Bashir**, M. Ikram, R. Kumar, P. N. Lisboa-Filho “Structural, Electronic Structure and Magnetic studies of GdFe_{1-x}Ni_xO₃ (0 ≤ x ≤ 0.5)” *Journal of Alloys & Compounds*. 521 (2012) 183-188 doi.org/10.1016/J.JALLCOM.2012.01.121
8. **A. Bashir**, M. Ikram, R. Kumar. Studies Of Transport Properties Of RFe_{1-x}Ni_xO₃ (x ≤ 0.5) where R=Nd, Sm and Gd *Modern Physics Letters B* Vol. 25, No. 21 (2011) 1787–1794 <https://doi.org/10.1142/S0217984911027042>
9. **A. Bashir**, M. Ikram, Ravi Kumar, P. N. Lisboa-Filho, P. Thakur “Structural, Electronic structure and Magnetic studies of SmFe_{1-x}Ni_xO₃ (0 ≤ x ≤ 0.5)” *Materials Science and Engineering B172* (2010) 242-247. <https://doi.org/10.1016/j.mseb.2010.05.024>
10. **A. Bashir**, M. Ikram, R. Kumar “Structural, Transport, Magnetic and Electronic structure studies of NdFe_{1-x}Ni_xO₃ (x = 0.4, 0.5)” *Modern Physics Letters B* Vol 25, No 32 (2011) 2439-2450. <https://doi.org/10.1142/S0217984911027637>
11. **A. Bashir**, M. Ikram, R. Kumar “Mössbauer and Magnetic studies of PrFe_{1-x}Ni_xO₃ (x ≤ 0.3)” *Journal of Magnetism and Magnetic Materials* 322 (2010) 2581-2584. [doi: 10.1016/j.jmmm.2010.03.024](https://doi.org/10.1016/j.jmmm.2010.03.024).
12. **A. Bashir**, M. Ikram, Ravi Kumar, P. Thakur, K. H. Chae, W. K. Choi, V. R. Reddy “Structural, magnetic and electronic structure studies of NdFe_{1-x}Ni_xO₃ (0 ≤ x ≤ 0.3)” *Journal of Physics. Condensed Matter* 21 (2009) 325501. DOI: [10.1088/0953-8984/21/32/325501](https://doi.org/10.1088/0953-8984/21/32/325501)

Conferences

1. As Oral Presenter in the **17th International Conference On Nanostructured Materials, NANO 2024**, held at Khalifa University, Abu Dhabi, UAE, November 3-8, 2024.
2. As invited speaker at **8th Edition of International Conference on Nanotechnology for Better Living NBL-2023** from 25-29 May 2023 at t National Institute of Technology Srinagar, a joint venture with the Indian Institute of Technology (BHU) Varanasi.
3. National Conference entitled “**Growth Points in Physics – II**” organized by the Department of Physics University of Kashmir, sponsored by UGC on 15th to 17th June, 2019.
4. Two-day International conference on “**Stress Management: Dimensions and Suggestive Measures** on 12th - 13th June, 2019, organized by the Department of Psychology, Government Degree College for Women Anantnag.