Kirori Mal College

(University of Delhi)
University of Delhi, Delhi-110007
(Phone No. - 011-7121 9084 : Email - principal@kmc.du.ac.in)

Print Date : 08-10-2026

1. Personal Profile

Title: **Dr.** First Name: **BIPLOB** Last Name: **BARMAN**

Designation: **ASSISTANT PROFESSOR** Mobile No. **----------**

Phone No. (Office) **----------** Phone No. (Residence): **----------**

Email: **bbarman@kmc.du.ac.in** Webpage: **----------**

Facebook: **----------** Twitter: **----------**

LinkedIn: **https://www.linkedin.com/in/biplob-barman-637a7945** Instagram: **----------**

Youtube: **----------** Research Gate Link: **https://www.researchgate.net/profile/Biplob-Barman**

Google Scholar Link: **https://scholar.google.com/citations?hl=en&user=JVsg8XgAAAAJ**

Address: **----------**

2. Educational Qualifications

Degree/ Certification	Institution	Year
B.Sc. (H) Physics	Ramjas College, University of Delhi	2005
M.Sc.	Jubilee hall, University of Delhi	2007
Ph.D.	State University of New York at Buffalo, USA	2015
GATE	MHRD, Govt. of India	2008

3. Career Profile & Administrative Assignments

Category	Role/ Designation	Department/ Committee	Date From - To	Remarks
CAREER PROFILE	ASSISTANT PROFESSOR	PHYSICS KIRORI MAL COLLEGE, DELHI	15.Dec.2022 - Till date	
CAREER PROFILE	ASSISTANT PROFESSOR	PHYSICS University of Michigan-Flint, Michigan, USA	01.Sep.2017 - 14.Dec.2022	

CAREER PROFILE	POST DOCTORATE	PHYSICS University of Alabama at Birmingham, 1720 University Blvd, Birmingham, AL 35294, USA	01.Jun.2015 - 24.Aug.2017	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	AUDIO-VISUAL FACILITIES AND EQUIPMENT MAINTENANCE COMMITTEE KIRORI MAL COLLEGE, DELHI	01.Jul.2023 - Till date	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	NORTH EAST STUDENT CELL KIRORI MAL COLLEGE, DELHI	01.Jul.2023 - 30.Jun.2025	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	STANDING COMMITTEE FOR MONITORING ADMISSIONS Kirori Mal College, University of Delhi	01.Jul.2023 - 14.Oct.2025	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	FAPS – THE FINE ARTS & PHOTOGRAPHY SOCIETY KIRORI MAL COLLEGE, DELHI	01.Jul.2023 - 30.Jun.2025	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	MEDIA COMMITTEE Kirori Mal College, University of Delhi	01.Jul.2023 - 30.Jun.2026	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	PHYSICS Kirori Mal College, University of Delhi	01.Jul.2023 - 30.Jun.2024	Department of Physics' Stock taking committee.
ADMINISTRATIVE ASSIGNMENTS	MEMBER	ROBOTICS Kirori Mal College, University of Delhi	01.Jul.2023 - 30.Jun.2024	Department of Physics
ADMINISTRATIVE ASSIGNMENTS	MEMBER	OTHERS Kirori Mal College, University of Delhi	01.Jul.2023 - 30.Jun.2024	Department of Physics' Seminar Committee.
ADMINISTRATIVE ASSIGNMENTS	MEMBER	CAREER DEVELOPMENT CELL Kirori Mal College, University of Delhi	14.Jun.2023 - Till date	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	CANTEEN COMMITTEE Kirori Mal College, University of Delhi	01.Jul.2024 - Till date	
ADMINISTRATIVE ASSIGNMENTS	CONVENER	PHYSICS Kirori Mal College, University of Delhi	01.Jul.2024 - 30.Jun.2025	Department of Physics' Seminar Committee
ADMINISTRATIVE ASSIGNMENTS	MEMBER	PHYSICS Kirori Mal College, University of Delhi	01.Jul.2024 - 30.Jun.2025	Department of Physics' Library Committee
ADMINISTRATIVE ASSIGNMENTS	MEMBER	PHYSICS Kirori Mal College, University of Delhi	01.Jul.2024 - 30.Jun.2025	Department of Physics' Entertainment Committee
ADMINISTRATIVE ASSIGNMENTS	MEMBER	IQAC Kirori Mal College, University of Delhi	01.Jul.2024 - 30.Jun.2025	Departmental IQAC Coordinator
ADMINISTRATIVE ASSIGNMENTS	MEMBER	OTHERS Kirori Mal College, University of Delhi	01.Jul.2024 - 30.Jun.2025	Academic Prizes Committee
ADMINISTRATIVE ASSIGNMENTS	CONVENER	NORTH EAST STUDENT CELL Kirori Mal College, University of Delhi	01.Jul.2025 - Till date	

ADMINISTRATIVE ASSIGNMENTS	MEMBER	PROCTOR & DISCIPLINE COMMITTEE Kirori Mal College, University of Delhi	01.Jul.2026 - Till date	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	COORDINATING COMMITTEE FOR INFORMATION AND TECHNOLOGY Kirori Mal College, University of Delhi	01.Jul.2026 - Till date	
ADMINISTRATIVE ASSIGNMENTS	SECRETARY STAFF ASSOCIATION	KIRORI MAL COLLEGE Kirori Mal College, University of Delhi	15.Dec.2025 - Till date	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	ALL DEPARTMENT Distinction and Academic Prizes Committee, Kirori Mal College, University of Delhi	13.Feb.2026 - 04.May.2026	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	ALL DEPARTMENT Founder's Day Awards Distribution Committee, Kirori Mal College, University of Delhi	15.Jan.2026 - 08.Feb.2026	
ADMINISTRATIVE ASSIGNMENTS	MEMBER	OTHERS EVM Monitoring Committee 2025, Kirori Mal College, University of Delhi	13.Sep.2025 - 13.Sep.2025	

4. Other Profiles

Other Profile Name/ Description

SUBJECTS TAUGHT

University of Michigan-Flint, Michigan, USA
College Physics I
Principles of Physics I & II
Intermediate Electricity and Magnetism
Advanced Physics Lab II: Advanced Physics Research
UNV 100 First Year Experience

Kirori Mal College, University of Delhi
Essentials of Python (Skill Enhancement course)
Advanced Mathematical Physics (3rd Year Physics Hons)
Mathematical Physics 2 Lab (2nd year Physics Hons)
Mechanics Lab (1st year Analytical Chemistry)
Digital Empowerment (Value Added Course)
Analog systems and applications (2nd year Physics Hons)
Analog systems and applications lab (2nd year Physics Hons)
Electromagnetic theory lab (3rd year Physics Hons)

AWARDS AND DISTINCTIONS

Dr. Lois Matz Rosen Junior Faculty Excellence in Teaching Award, University of Michigan-Flint, Michigan, USA

5. Research Guidance

Year	Guide For	Title of the Dissertation/ Thesis	Scholar Name	Status

6. Research Projects

Year	Title of Project	Sponsorship Agency	Duration	Amount Sanctioned	Date of Sanction
2020	Physics and Astronomy for Community Engagement (PACE)	American Physical Society	2 years	713522	01.Apr.2020
2019	Chemical synthesis of nanomaterials and studying their optical properties via Laser radiation	Office of Research, University of Michigan-Flint, USA	4 Months	330717	03.Apr.2019
2019	Instrumentation of high resolution optical techniques for semiconductor research	Office of Research, University of Michigan-Flint, USA	2 years	1304101	24.Mar.2019

7. Publications

Category	Publication Name	Title	Name of Author	Reference Link/ DOI Link	Pu (M Yo
JOURNAL PAPER (International)	Superradiant emission in a high-mobility two-dimensional electron gas	Journal of Physics: Condensed Matter	B Barman, AG Linn, AL O'Beirne, J Holleman, C Garcia, V Mapara, JL Reno, SA McGill, V Turkowski, D Karaiskaj, DJ Hilton (First Author)	10.1088/1361-648X/acce8c	Ap 20
JOURNAL PAPER (International)	Excitation wavelength dependent photon emission and phase change probing in CsPbBr3 quantum dots	Solid State Communications	Lyall Alwafi, Amlan Datta, James M. Pientka, Biplob Barman (Corresponding Author)	https://doi.org/10.1016/j.ssc.2023.115136	Ma 20
JOURNAL PAPER (International)	Highly efficient photon detection systems for noble liquid detectors based on perovskite quantum dots	Scientific Reports (Nature Publishing Group)	Amlan Datta, Biplob Barman, Stephen Magill, Shariar Motakef (Joint Author)	https://doi.org/10.1038/s41598-020-73437-x	Oc 20

JOURNAL PAPER (International)	Circular Polarization Dynamics during Magnetic Polaron Formation in Type-II Magnetic Quantum Dots	The Journal of Physical Chemistry C	Biplob Barman, James M Pientka, Joseph R Murphy, Alexander N Cartwright, Wu-Ching Chou, Wen-Chung Fan, Rafal Oszwa?dowski, Athos Petrou (First Author)	https://doi.org/10.1021/acs.jpcc.0c02723	Ma 20
JOURNAL PAPER (International)	Optical Control of Hole Wavefunction in Type-II Magnetic Quantum Dot Structures	The Journal of Physical Chemistry C	Peiyao Zhang, Tenzin Norden, James M Pientka, Rafal Oszwa?dowski, Arman Najafi, Biplob Barman, Yutsung Tsai, Wen-Chung Fan, Wu-Ching Chou, Jong E Han, Igor Z?utic?, Bruce D McCombe, Athos Petrou (Joint Author)	https://doi.org/10.1021/acs.jpcc.9b06264	Se 20
JOURNAL PAPER (International)	Measuring the magnetization of a permanent magnet	American Journal of Physics	B Barman, A Petrou (Corresponding Author)	https://doi.org/10.1119/1.5092452	Fe 20
JOURNAL PAPER (International)	Broadband ultrafast terahertz spectroscopy in the 25 T Split Florida-Helix	Review of Scientific Instruments	Jeremy A Curtis, Ashlyn D Burch, Biplob Barman, A Garrison Linn, Luke M McClintock, Aidan L O'Beirne, Matthew J Stiles, John L Reno, Stephen A McGill, Denis Karaiskaj, David J Hilton (Joint Author)	https://doi.org/10.1063/1.5023384	Ju 20

JOURNAL PAPER (International)	Pattern transfer to GaAs substrates and epitaxial growth of GaAs nanostructures using self-organized porous templates	Journal of Vacuum Science & Technology B	Archana Kumari, John Byron Hatch, Chaehyun Kim, Biplob Barman, Jaesuk Kwon, Athos Petrou, Hao Zeng, Hong Luo (Joint Author)	https://doi.org/10.1116/1.4943920	Ma 20
JOURNAL PAPER (International)	Mn2+-Doped CdSe/CdS Core/Multishell Colloidal Quantum Wells Enabling Tunable Carrier–Dopant Exchange Interactions	ACS nano	Savas Delikanli, Mehmet Zafer Akgul, Joseph R Murphy, Biplob Barman, Yutsung Tsai, Thomas Scrace, Peiyao Zhang, Berkay Bozok, Pedro Ludwig Hernández-Martínez, Joseph Christodoulides, Alexander N Cartwright, Athos Petrou, Hilmi Volkan Demir (Joint Author)	https://doi.org/10.1021/acsnano.5b05903	No 20
JOURNAL PAPER (International)	Time-resolved magnetophotoluminescence studies of magnetic polaron dynamics in type-II quantum dots	Physical Review B	B Barman, R Oszwa?dowski, L Schweidenback, AH Russ, JM Pientka, Y Tsai, Wu-Ching Chou, WC Fan, JR Murphy, AN Cartwright, IR Sellers, AG Petukhov, I Žuti?, BD McCombe, A Petrou (First Author)	https://doi.org/10.1103/PhysRevB.92.035430	Ju 20

JOURNAL PAPER (International)	Magnetoluminescence and valley polarized state of a two-dimensional electron gas in WS2 monolayers	Nature nanotechnology	T Scrace, Y Tsai, B Barman, L Schweidenback, A Petrou, G Kioseoglou, I Ozfidan, M Korkusinski, P Hawrylak (Joint Author)	https://doi.org/10.1038/nnano.2015.78	Ma 20
JOURNAL PAPER (International)	Photoluminescence study of Be-acceptors in GaInNAs epilayers	Journal of Applied Physics	Y Tsai, B Barman, T Scrace, M Fukuda, VR Whiteside, IR Sellers, M Leroux, M Al Khalfioui, A Petrou (Joint Author)	https://doi.org/10.1063/1.4906409	Ja 20
JOURNAL PAPER (International)	Probing the nature of carrier localization in GaInNAs epilayers by optical methods	Applied Physics Letters	Y. Tsai, B. Barman, T. Scrace, G. Lindberg, M. Fukuda, V. R. Whiteside, J. C. Keay, M. B. Johnson, I. R. Sellers, M. Al Khalfioui, M. Leroux, B.A. Weinstein, and A. Petrou (Joint Author)	https://doi.org/10.1063/1.4813388	Ju 20
JOURNAL PAPER (International)	Elucidating the Free Carrier and Exciton Ultrafast Dynamics in 2D Perovskites with Alternating Cations in the Interlayer Space	The Journal of Physical Chemistry Letters	Bapi Pradhan; Peiran Wang; Biplob Barman; Sumea Klokic; Heinz Amenitsch; Pushpendra Kumar (Joint Author)	10.1021/acs.jpclett.5c01894	Oc 20
JOURNAL PAPER (International)	Carrier-dopant exchange interactions in Mn-doped PbS colloidal quantum dots.	Applied Physics Letters	Gen Long, Biplob Barman, Savas Delikanli, Yu Tsung Tsai, Peihong Zhang, Athos Petrou, and Hao Zeng (Joint Author)	https://doi.org/10.1063/1.4743010	Ju 20

JOURNAL PAPER (International)	Interactive visualization of the Kronig–Penney model and extended zone scheme using Python programming	Physics Education, IOP Publishing	Saket Saurav, Prince Priyadarshi, Sridhar Prasad Pandey, Angshuman Deka, Biplob Barman (Corresponding Author)	10.1088/1361-6552/ae4707	Ma 20
CONFERENCE PAPER/ PROCEEDINGS (International)	Ultrafast Time-Domain Spectrometer in the 25 T Split Florida-Helix Magnet	CLEO: Science and Innovations 2019 San Jose, California United States	Ashlyn D. Burch, Jeremy A. Curtis, Biplob Barman, A. Garrison Linn, Luke M. McLintock, Aidan L. O'Beirne, Matthew J. Stiles, John. L. Reno, Stephen A. McGill, Denis Karaiskaj, and David J. Hilton (Joint Author)	https://opg.optica.org/abstract.cfm?uri=CLEO_SI-2019-STu4F.1	Ma 20
CONFERENCE PAPER/ PROCEEDINGS (International)	Conventional versus unconventional magnetic polarons: ZnMnTe/ZnSe and ZnTe/ZnMnSe quantum dots	SPIE	B Barman, Y Tsai, T Scrace, JR Murphy, AN Cartwright, JM Pientka, I Zutic, BD McCombe, A Petrou, IR Sellers, R Oszwaldowski, A Petukhov, WC Fan, Wu-Ching Chou, CS Yang (First Author)	https://doi.org/10.1117/12.2064339	Au 20
CHAPTER IN EDITED BOOKS (International)	Properties and Applications of Advanced Materials	Wiley?VCH GmbH	Manisha Tyagi, Biplob Barman (Joint Author)	https://doi.org/10.1002/9783527854165.ch8	De 20

8. Books

Category	Book Name	Title	Name of Author	ISSN/ ISBN Number

9. Faculty Achievements

Year	Category of Achievement	Role	National/ International etc.	Name	Date From-To
2023	FACULTY INDUCTION PROGRAM ATTENDED	ASSISTANT PROFESSOR	National	4-Week Faculty Induction/Orientation Programme for “Faculty in Universities/Colleges/Institutes of Higher Education”	20.Jan.2023 - 18.Feb.2023
2023	FACULTY DEVELOPMENT PROGRAM ATTENDED	ASSISTANT PROFESSOR	National	Online two-week refresher course in "Physics"	27.Feb.2023 - 13.Mar.2023
2020	INVITED LECTURES/ RESOURCE PERSON/ PAPER PRESENTATIONS ATTENDED	ASSISTANT PROFESSOR	International	2020 AAPT Winter Meeting, Orlando, FL	19.Jan.2020 - 19.Jan.2020
2019	WORKSHOP/ SEMINAR/ CONFERENCE ATTENDED	ASSISTANT PROFESSOR	International	Catalyst Course Design Program	06.Jan.2019 - 06.May.2019
2019	WORKSHOP/ SEMINAR/ CONFERENCE ATTENDED	ASSISTANT PROFESSOR	National	Seminar	17.May.2019 - 17.May.2019
2019	WORKSHOP/ SEMINAR/ CONFERENCE ATTENDED	ASSISTANT PROFESSOR	International	Seminar	16.Apr.2019 - 16.Apr.2019
2017	WORKSHOP/ SEMINAR/ CONFERENCE ATTENDED	POST DOCTORATE	International	American Physical Society, March Meeting, 2017	13.Mar.2017 - 17.Mar.2017
2015	WORKSHOP/ SEMINAR/ CONFERENCE ATTENDED	STUDENT	International	American Physical Society, March Meeting, 2015	02.Mar.2015 - 06.Mar.2015
2014	WORKSHOP/ SEMINAR/ CONFERENCE ATTENDED	STUDENT	International	American Physical Society, March Meeting, 2014	03.Mar.2014 - 07.Mar.2014
2013	WORKSHOP/ SEMINAR/ CONFERENCE ATTENDED	STUDENT	International	American Physical Society, March Meeting, 2013	18.Mar.2013 - 22.Mar.2013
2012	WORKSHOP/ SEMINAR/ CONFERENCE ATTENDED	STUDENT	International	American Physical Society, March Meeting, 2012	27.Feb.2012 - 02.Mar.2012
2011	WORKSHOP/ SEMINAR/ CONFERENCE ATTENDED	STUDENT	International	American Physical Society, March Meeting, 2011	21.Mar.2011 - 25.Mar.2011
2025	REFRESHER COURSE ATTENDED	PARTICIPANT	National	Essentials of Research Methodology under NEP 2020 (Interdisciplinary)	01.Jul.2025 - 14.Jul.2025

2026	FACULTY DEVELOPMENT PROGRAM ATTENDED	PARTICIPANT	National	3rd Short Term Course in Physical, Chemicial & Nano Sciences	23.Jun.2026 - 30.Jun.2026

Dr. BIPLOB BARMAN