Dr. Moumita Dey

Summary

A frontline researcher in the area of Theoretical Condensed Matter Physics and Spintronics with 15+ years of research and 9+ years of teaching experience. A theoretical physicist who loves teaching with passion and also proficient in providing leadership to form a department. Leadership experience of 7+ years as Head of the Dept. of Physics, Adamas University. A person with coherent expertise of academics and administration.

Contact Information

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Present Position

Associate Professor and Head of the Department, Department of Physics, Adamas University, Kolkata, West Bengal, India.

Key Skills

- Expertise as a Frontline Researcher in Theoretical Condensed Matter Physics
- Ph.D. supervision and Long Term Post Graduate Dissertation Guidance experience
- Excellent Leadership Quality and Good interpersonal relationships with Fellow Colleagues and Students
- Initiated the MoU with **Indian Centre for Space Physics (ICSP), Kolkata** for Internship and joint PhD program.
- Started the collaboration with **Netaji Subhash Chandra Bose Cancer Hospital**, Kolkata for joint program on '**Post-M.Sc. Diploma in Medical Physics**'.
- Initiated the MoU with **Nil Ratan Sircar Medical College and Hospital, Kolkata** for 1 year Internship.
- Expertise in designing Course Structure and Syllabus following Outcome Based Education and CBCS guideline
- Well organized and structured work methodology
- Experienced in representing Department in front of regulatory bodies like UGC in the capacity of in-charge
- Proficiency in organizing Conferences, Seminars, Workshops, Webinars, Lab visit etc in the capacity of Department Head.
- Experienced as Examination Coordinator and Moderator (Internal Committee)

Research Interest

- Quantum Transport in mesoscopic systems
- Spin selective electron transfer through interfacial Quantum systems
- Multi-terminal conductance through different quantum networks
- Quantum Hall Effect and Spin Hall effect
- Thermoelectricity at molecular length scale
- Driven Quantum transport
- Phononic and Photonic Crystals
- Topological Phase Transition

Awards and Fellowships

- Post-M.Sc. Associateship in 2008 by Saha Institute of Nuclear Physics
- Junior Research Fellowship in 2009 by Saha Institute of Nuclear Physics
- Senior Research Fellowship in 2011 by Saha Institute of Nuclear Physics
- Research Associateship in 2015 by Saha Institute of Nuclear Physics
- Best Paper Award at DAE symposium in 2012
- Best Paper Award by External Panelists on National Science Day at Adamas University in 2019.

Teaching Experience

- Teaching Experience: 9+ Years
- Expertise in Domain: Condensed Matter Physics, Many Body Theory, Quantum Mechanics, Statistical Mechanics, Classical Mechanics, Electrostatics and Electrodynamics, Numerical Methods and Simulation.

- Post Graduate Disertation Supervision: 1 (2018) + 2 (2019) + 2 (2020) + 2021 (1) + 2024 (2)
- Under Graduate Dissertation Supervision : 1 (2018) + 2 (2021)

Research Profile

- Published 30+ SCI journals and
- Published 6+ SCOPUS indexed Conference Proceedings
- Authored Invited Book Chapters from International Publishing House
- Acted as Editor for SCOPUS indexed Conference Proceedings by reputed International Publishing House
- Citation: 396+ and H index: 11
- Vidwan Id: 159819
- PhD Supervision: 2 (Mr. Manik Sarkar, Joined in 2018, thesis to be submitted in November and Mr. Nikkan Biswas, Joined in 2023)

Academic Qualification

10th level [2000]

- Institute: Sodepur Sushilkrishna Sikshyatan (for girls)
- Year of Passing: 2000
- Board/Council: West Bengal Board of Secondary Education
- Marks Obtained : 87%

10+2-th level [2000-2002]

- Institute: Rahara Bhabanath Institution (for girls)
- Year of Passing: 2002
- Board/Council: West Bengal Council of Higher Secondary Education
- Marks Obtained : 76%

Graduation [2002-2005]

- Institute: Bidhnnagar Government College, Salt lake, Kolkata
- University: Calcutta University
- Subject(Honours): Physics
- Year of Passing: 2005
- Marks Obtained : 63%

Post-Graduation [2005-2008]

- Institute: University College of Science and Technology
- University: Calcutta University
- Subject: Pure Physics
- Area of Specialization: Condensed Matter Physics
- Year of Passing: 2008
- Marks Obtained : 59%
- Project done under: Dr. Debnarayan Jana
- Title of the Project: ***Study of crystal structure determination of unknown materials using Powder X software***

Post-M.Sc Associateship [2008-2009]

- Institute: Saha Institue of Nuclear Physics, Kolkata
- Year of Passing: 2009

- Project done Under Supervision: Prof. Sachindra Nath Karmakar
- Title of the Project: Spin polarized transport in low dimensional systems
- Marks Obtained : 71%

Ph.D [2009-2015]

- Institute: Saha Institue of Nuclear Physics, Kolkata
- Division: Theoretical Condensed Matter Physics
- Supervisor: Prof. Sachindra Nath Karmakar
- Registration done under: Calcutta University
- Tentative Title of the Thesis: ***Some Theoretical Aspects of Spin Transport in Mesoscopic Systems***

Research Publications in Peer Reviewed International Journals

1. Title: *Magnetic quantum wire as a spin filter: An exact study*
Author: Moumita Dey, Santanu K. Maiti and S. N. Karmakar
Journal Ref.: Physics Letters A 374, 1522 (2010).
Indexed By: SCI, SCOPUS, INSPEC
Impact Factor: 2.278

2. Title: *Logical XOR gate response in a quantum interferometer: A spin dependent transport*
Author: Moumita Dey, Santanu K. Maiti and S. N. Karmakar
Journal Ref.: European Physical Journal B 80, 105 (2011).
Indexed By: SCI, SCOPUS,
Impact Factor: 1.44

3. Title: *Topological effect on spin transport in a magnetic quantum wire: Green's function approach*
Author: Moumita Dey, Santanu K. Maiti and S. N. Karmakar
Journal Ref.: Journal of Theoretical and Computation Nanoscience 110, 094306 (2011).
Indexed By: SCOPUS

4. Title: *Spin transport through a quantum network: Effects of Rashba spin-orbit interaction and Aharonov-Bohm flux*
Author: Moumita Dey, Santanu K. Maiti and S. N. Karmakar
Journal Ref.: Journal of Applied Physics 109, 024304 (2011)
Indexed By: SCI, SCOPUS,
Impact Factor: 2.33

5. Title: *Effect of dephasing on electron transport in a molecular wire: Green's function approach*
Author: Moumita Dey, Santanu K. Maiti and S. N. Karmakar
Journal Ref.: Organic Electronics 12, 1017 (2011)
Indexed By: SCI, SCOPUS,INSPEC etc.
Impact Factor: 3.31

6. Title: *Magneto-transport in a mesoscopic ring with Rashba and Dresselhaus spin-orbit interactions*
Author: Santanu K. Maiti, Moumita Dey, Sreekantha Sil, Arunava Chakrabarti and S. N. Karmakar
Journal Ref.: Europhysics Letters 95, 57008 (2011).
Indexed By: SCI, SCOPUS, INSPEC etc.
Impact Factor: 1.96

7. Title: *Magnetic field induced metal-insulator transition in kagome nanoribbon*
Author: Moumita Dey, Santanu K. Maiti and S. N. Karmakar
Journal Ref.: Journal of Applied Physics 110, 094306 (2011).
Indexed By: SCI, SCOPUS,
Impact Factor: 2.33

8. Title: *Integer Quantum Hall effect in a square lattice revisited*
Author: Santanu K. Maiti, Moumita Dey and S. N. Karmakar
Journal Ref.: Physics Letters A 376, 1366 (2012)
Indexed By: SCI, SCOPUS, INSPEC
Impact Factor: 2.278

9. Title: *Spin Hall effect in a kagome lattice driven by Rashba spin-orbit interaction*
Author: Moumita Dey, Santanu K. Maiti and S. N. Karmakar
Journal Ref.: Journal of Applied Physics 112, 024322 (2012).
Indexed By: SCI, SCOPUS,
Impact Factor: 2.33

10. Title: Spin-orbit interaction induced spin selective transmission through a multi-terminal mesoscopic ring
Author: Moumita Dey, Santanu K. Maiti, Sreekantha Sil and S. N. Karmakar
Journal Ref.: Journal of Applied Physics 114, 164318 (2013).
Indexed By: SCI, SCOPUS,
Impact Factor: 2.33

11. Title: *Magnetic-non-magnetic superlattice chain with external electric field: Spin transport and the selective switching effect*
Author: Moumita Dey, Santanu K. Maiti and S. N. Karmakar
Journal Ref.: Journal of nanoscience Letters 4, 9 (2014).
Indexed By: SCIE, Web of Science

12. Title: *Persistent charge and spin currents in a quantum ring using Green's function technique: Interplay between magnetic flux and spin-orbit interaction*
Author: Santanu K. Maiti, Moumita Dey and S. N. Karmakar
Journal Ref.: Physica E: Low-dimensional Systems and Nanostructures 64, 169 (2014).
Indexed By: SCI, SCOPUS, INSPEC etc.
Impact Factor: 3.57

13. Title: *Selective spin transport through a quantum heterostructure: Transfer matrix method*
Author: Moumita Dey and Santanu K. Maiti
Journal Ref.: International Journal of Modern Physics B 30, 1650184 (2016)
Indexed By: SCI, SCOPUS etc.
Impact Factor: 0.9

14. Title: *New proposal for efficient energy conversion in a molecular junction with multiple loops*
Author: Santanu K. Maiti and Moumita Dey
Journal Ref.: Chemical Physics Letters 731, 136601 (2019).
Indexed By: SCI, SCOPUS, INSPEC etc.
Impact Factor: 2.09

15. Title: *Can a helical molecule be an efficient functional element to meet the present requirement of thermoelectric efficiency?*
Author: Moumita Dey, Salma Farhana Aman and Santanu K. Maiti

Journal Ref.: Europhysics Letters 126, 27003 (2019)
Indexed By: SCI, SCOPUS, INSPEC etc.
Impact Factor: 1.96

16. Title: *Engineering spin polarization in a driven multi-stranded magnetic quantum network*
Author: Manik Sarkar, Moumita Dey, Santanu K. Maiti, and Shreekantha Sil
Journal Ref.: Physical Review B 102, 195435 (2020)
Indexed By: SCI, SCOPUS etc.
Impact Factor: 3.58

17. Title: *Spin polarization in an ac-driven magnetic material with vanishing net magnetization: A new proposal*
Author: Moumita Dey, Manik Sarkar and Santanu K Maiti
Journal Ref.: Journal of Applied Physics D: Applied Physics 54, 215301 (2021)
Impact Factor: 3.2

18. Title: *New route to enhanced figure of merit at nano scale: effect of Aubry–Andre–Harper modulation*
Author: Moumita Dey, Suvendu Chakraborty and Santanu K Maiti
Journal Ref.: Journal of Applied Physics D: Applied Physics 55, 085302 (2021)
Impact Factor: 3.2

19. Title: *Localization phenomena and electronic transport in irradiated Aubry-André-Harper systems*
Author: Manik Sarkar, Santanu K. Maiti and Moumita Dey
Journal Ref.: Journal of Physics: Condensed Matter 34, 195303 (2022)
Impact Factor: 3.2

20. Title: *Thermoelectricity in a quasiperiodic lattice beyond nearest-neighbor electron hopping*
Author: Moumita Dey, Anwesha Mukherjee and Santanu K. Maiti
Journal Ref.: Annalen der Physik 535 (2), 2200326 (2023)
Impact Factor: 2.99

21.Title: *Light irradiation controlled spin selectivity in a magnetic helix*
Author: Moumita Dey, Suparna Sarkar, Santanu K Maiti
Journal Ref.: Phys. Rev. B 108, 155408 (2023)
Impact Factor: 3.9

Research Publications in SCOPUS indexed Conference Proceedings

1. Title: *Spin Hall Effect in a kagome lattice*
Author: Moumita Dey, Santanu K. Maiti and S. N. Karmakar
Journal Ref.: AIP Conference Proceedings 1536, 941 (2013)

2. Title: *Quantum ring for thermoelectric power generation: Interplay between Aharonov-Bohm flux and disorder*
Author: Salma Farhana Aman, Santanu K. Maiti and Moumita Dey
Journal Ref.: AIP Conference Proceedings 2072, 020005 (2019)
doi: 10.1063/1.5090245

3. Title: *Spectral features of one dimensional phononic quasicrystals*
Author: Anupam Saha, Moumita Dey, Santanu K. Maiti
Journal Ref.: Journal of Physics: Conference Series 1579, 012018 (2020).
doi:10.1088/1742-6596/1579/1/012018

4. Title: *Spin selective transmission through a multi-terminal Rashba ring with AAH modulation*
Author: Abhra Mukherjee, Moumita Dey, Santanu K. Maiti
Journal Ref.: Journal of Physics: Conference Series 1579, 012017 (2020).
doi: 10.1088/1742-6596/1579/1/012017

5. Title: *Energy spectra and quantized Hall conductance in a 2D lattice subjected to light irradiation*
Author: Sukriti Sarkar, Moumita Dey, Santanu K. Maiti
Journal Ref.: Journal of Physics: Conference Series 1579, 012016 (2020).
doi: 10.1088/1742-6596/1579/1/012016

6. Title: *A driven ferromagnetic chain with binary hopping as an efficient spin polarizer*
Author: Manik Sarkar, Moumita Dey, Santanu K. Maiti
Journal Ref.: Journal of Physics: Conference Series 1579, 012015 (2020).
doi: 10.1088/1742-6596/1579/1/012015

7. Title*: Current rectification in a correlated disordered 1D chain in presence of periodically driven electric field*
Author: Manik Sarkar, Santanu K Maiti, Moumita Dey
Journal Ref.: Journal of Physics: Conference Series 2349, 012006
doi: 10.1088/1742-6596/2349/1/012006

8. Title: Spectral behavior in extended SSH chain with AAH modulation
Author: Sayak Roy, Moumita Dey, Santanu K. Maiti
Journal Ref.: Submitted to Springer Conference Proceedings
doi:NA

9. *Title: Tunable Andreev reflection in a metal superconductor junction with an AAH spacer*
Author: Souvik Ghosh, Moumita Dey, Santanu K. Maiti
Journal Ref.: Submitted to Springer Conference Proceedings

Research Publications as Invited Review Articles

1. Title: *Applications of Landauer-Buttiker formalism in few quantum systems within non-interacting picture*
Author: Moumita Dey and Santanu K. Maiti
Journal Ref.: Reviews in Theoretical Science 4, 310 (2016).
Indexed by: SCOPUS

Contribution in Book Chapters

1. Book Chapter : Invited Book Chapter in the Special Issue '*Topics in Current Nanoscience*' of the Book Series '*Foundation of Natural Science and Technology*'.
Title: Thermoelectric Phenomena at Nanoscale Level
Authors : Santanu K. Maiti and Moumita Dey
Publisher: World Scientific, New Jersy, USA 2022.

Editorial Activities

1. Conference Proceedings: "*Proceedings of the National Conference on Frontiers in Modern Physics (NCFMP2018)*", Volume 2072, 2019
Editors: Moumita Mukherjee, Moumita Dey and Aparajita Bhattacharya

2. Conference Proceedings: "*Special issue "Journal of Physics through Computation*", Volume 2, ISSN: 2617 1163, 2019
Editors: Moumita Mukherjee, Moumita Dey, Diptasikha Das

3. Conference Proceedings: "*Journal of Physics: Conference Series*", Vol 1579, 2020
Editors: Moumita Mukherjee and Moumita Dey

4. Conference Proceedings: "*Journal of Physics: Conference Series*", Vol 2349, 2022
Editors: Bimal Kumar Sarkar, Moumita Dey, Swarup Kumar Neogi, Moumita Mukherjee, Purba Bhattacharya

5. Conference Proceedings: "*IOP Conference Series: Earth and Environmental Science*", Vol 1382, 2024
Editors: Bimal Kumar Sarkar, Moumita Dey, Swarup Kumar Neogi, Moumita Mukherjee, Purba Bhattacharya

Projects

1. Took part in ERASMUS + Faculty and Staff Mobility Project, funded by European Union in 2022 in Bath Spa University, UK.

2. EUROPEAN UNION ERASMUS + PROJECT "*Resources for internationalization of Higher Education Institutions in India*". Main Coordinator: Deusto University, Bilbao, Spain. The Project has been granted by EU in 2020.

3. Grant-in-Aid for SEED Fund Research project titled "*Periodically Driven Quantum Systems: Open Challenges and Future Possibilities!*" by Adamas University – 75,000 INR

4. Co-PI for the DRDO Project "*Development of GAN on sapphire epitaxial ATT structure for Harmonics at W band frequency*" for 30 Lacs in 2022.

5. Grant-in-Aid for SEED Fund Research project titled "*Study of Magnetic and Magneto Transport Properties of Binary $Fe_{3-x}Y_xSi$ (Y = Mn/Co) anf Heusler $Cu_{1-x}Y_xMnSb$*" by Adamas University – 2,00,000 INR

Presented/Participated in National and International Conferences/ Seminars/ Webinars/ Workshops

Oral Presentation:

1. *Spin Hall Effect in a Kagome lattice*
Contributed Talk at "Condensed Matter Days 2012" (CMDAYS 2012) held at Department of Physics, Birla Institute of Technology, Mesra, Ranchi, Jharkhand, India during August 29-31, 2012.

2. *Spin-orbit interaction induced spin selective transmission through a multi-terminal mesoscopic ring*. Contributed Talk at "Condensed Matter Days 2013" (CMDAYS 2013) held at Department of Physics, National Institute of Technology Rourkela, Rourkela, India during August 29-31, 2013.

3. *Helical Molecule as an efficient Thermo-electric Filter,* Contributed Talk at 2nd International Conference on "Innovations in Science and Technology" organized by Department of Basic Science and Humanities, IEM Kolkata during 7-9th March, 2019.

Poster Presentation:

1. *Spin transport through a quantum network: Effects of Rashba spin-orbit interaction and Aharonov-Bohm flux,* Poster Presented at "Condensed Matter Days 2010" (CMDAYS 2010) held at Department of Physics, Kalyani University, Kalyani, India during August 25-27, 2010.

2. *Spin transport through a quantum network: Effects of Rashba spin-orbit interaction and Aharonov-Bohm flux,* Poster Presented at "International Conference on Mesoscopic Physics and Spectroscopy" held at S.N. Bose National Centre for Basic Sciences, Kolkata, India during November 22-24, 2010.

3. *Magneto-transport in a mesoscopic ring with Rashba and Dresselhaus spin-orbit interaction*, Poster Presented at "Condensed Matter Days 2011" (CMDAYS 2011) held at Department of Physics, Gauhati University, Guwahati, Assam, India during August 24-26, 2011.

11. *Spin Hall effect in a Kagome lattice driven by Rashba spin-orbit interaction* Poster Presented at "1st International Workshop on Nanomaterials(IWoN): Engineering Photon and Phonon Transport" held at Jadavpur University, Jadavpur, Kolkata, India during December 14-15, 2012.

12. *Spin Hall effct in Kagome lattice* Poster Presented at "International Conference on Recent Trends in Applied Physics &Material Science" (RAM2013) held at Govt. College of Engineering & Technology, Bikaner, Rajasthan, India during February 1-2, 2013.

Only Participation:

1. Participated in "International Conference on Lasers and Nanomaterials (ICLAN)" 30th Nov-2nd Dec, 2006, Dept. of Physics, University of Calcutta, Kolkata, India.

2. Participated at "Condensed Matter Days" (CMDAYS 2009) held at Department of Physics, Jadavpur University, Jadavpur, Kolkata, India during August 26-28, 2009.

3. Participated at "12th International Conference on Surface X-ray and Neutron Scattering" (SXNS12) held at Saha Institute of Nuclear Physics, Kolkata, India during July 25-28, 2012.

4. Participated in a One Day National Seminar on "Interface between Chemistry and Biology (IBCB-2017)" organized by Department of Chemistry, Adamas University on 1st December, 2017.

5. Participated in an International Conference on "Biotechnology: A Paradigm Shift in Health and Agriculture" organized by School of Biotechnology, Adamas University on 9th April, 2018.

Participation in Faculty Development Programs/ Short Term Training Program/ Workshop

1. Successfully completed the Faculty Development Program on *Innovation Startup IPR: A Post Covid19 View* organized by JIS College of Engineering, Kalyani, West Bengal during 3rd-9th June, 2020.

2. Successfully completed the Faculty Development Program on '*Application of New Materials in Emerging Field*', organized by Department of Physics, Sathyabama Institute of Science and Technology, Chennai, during 24th-30th June, 2020.

3. Successfully completed the Short Term Training Program on '*Modeling and Simulation: An Engineering Perspective*', organized by Department of Mechanical Engineering, SCMC School of Engineering and Technology, Kerala, during 22th-27th June, 2020.

4. Successfully completed the Web Based Workshop on '*Teaching Physics at the UG and PG Level using Python*', organized jointly by Department of Physics, Victoria Institution College, Kolkata, and UGC-DAE Consortium for Scientific Research, Kolkata Centre, during 6th-10th July, 2020.

5. Successfully completed the One Week Workshop on 'Materials Technology Advancement in Current Scenario', organized by Department of Physics, Sathyabama Institute of Science and Technology, Chennai, during 4th-10th July, 2020.

6. Successfully completed the One Week Faculty Development Program on 'Revised NAAC Framework', organized by Department of Physics, Sathyabama Institute of Science and Technology, Chennai, during 26th-30th June, 2023.

7. Successfully completed a 40 hour Faculty Development Program on 'Role of Machine Learning on Computer Vision and Medical Signal Processing Applications', sponsored by Ministry of Electronics and Information Technology (Meity), GoI and organized by the E&ICT Academy, NIT Warangal during 20th to 30th June, 2024.

Online Certification Courses

1. Successfully completed a 8 week online course on '*Mechanics: Motion, Forces, Energy and Gravity, from Particles to Planets*' offered by University of New South Wales (UNSW), Sydney in 2020.

2. Successfully completed a 3 week online course on '*Quantum Mechanics*' offered by University of Colorado Boulder in 2020.

3. Successfully completed a 3 week online course on '*Fibonacci Numbers and Golden Ratio*' offered by The Hong Kong University of Science and Technology in 2020.

4. Successfully completed a 1 week online course on '*Covid 19: What you need to know (CME eligible)*' offered by Osmosis.org in 2020.

4. Successfully completed a 10 week online course on '*The Science of Well Being*' offered by Yale University in 2020.

Professional Activities

Leadership Experience:

- Founder Department In Charge of Department of Physics, Adamas University, from August, 2016 to November, 2018.
- Founder Head, Department of Physics, Adamas University from 1st December, 2018 to till date.
- Coordianated first UGC visit in the capacity if DIC in August, 2017 at Adamas University.
- NAAC Criteria 1 School Level representative (from School of Science), Adamas University.
- Exam Coordinator from School of Science for 2016-17.
- Invited as a panellist in "THE CLASS OF 2020" to speak on *"Future opportunities of Basic and Applied Sciences"* on 11th September, 2020 organized by Edumate TV.
- Member of Adamas University Academic Council
- Member of Internal Quality Assurance Cell (IQAC)
- NAAC Criteria 1 Champion for University Level
- Member of University Disciplinary Committee
- Successfully launched the program *Post M.Sc. Diploma in Medical Physics* jointly with Netaji Subhash Chandra Bose Cancer Hospital, Kolkata in the AY 2024-25. It has been approved by the Atomic Energy Regulatory Board (AERB), Govt. of India. Adamas is the 1st Private University to launch this program in entire Eastern India.

Organizing Events:

• Organized as Joint Convener a Two-Day National Workshop on *Robotics and Flying Automation* in February, 2018 in collaboration with Rasscorb Technologies Pvt. Ltd.

• Organized the *1st National Conference on Frontiers in Modern Physics (NCFMP2018)* on 16-17 August, 2018 as Organizing Chair in Technical collaboration with AIP Publishing, USA.

• Organized the *2nd National Conference on Frontiers in Modern Physics (NCFMP2020)* on 6-7 February, 2020 as Convener in Technical collaboration with IOP Science, UK.

• Organizing the *1st National Conference on Advances on Medical Physics and Healthcare Engineering (AMPHE2020)* as Organizing Chair in Technical collaboration with IEEE, Kolkata Section and Elsevier, UK and Springer-Nature.

• Organized the First lecture of the series "*ADAMAS University Research Colloquium 2019*" through the invited talk of Professor Arup K. Raychaudhuri, Formerly Director, S. N. Bose National Centre for Basic

Sciences, Kolkata and Formerly Director, National Physical Laboratory, New Delhi on the topic "*Translational Research in Solid State Physics and Material Science*" on 5th September, 2019.

• Organized the First Lab visit for students and Faculty members to Proof and Experimental Establishment (PXE) Lab DRDO, Chandipur, Odisha on 3 June 2019 in collaboration with Department of Mathematics, and Dept. of Electronics and Communication Engineering, Adamas University.

• Organized as a team member The National Science Day on 28th February, 2019.

• Organized as a team member The National Science Day on 28th February, 2020.

• Organized as Coordinator the Online Workshop on *MACHINE LEARNING & DATA SCIENCE WITH MATLAB & SIMULINK* in association with ELMAX SYSTEMS AND SOLUTIONS, INDIA on 21st May, 2020.

• Organized as Coordinator the Webinar on *THE ONSET ON DECONFINEMENT AFTER LOCKDOWN AND QUARK GLUON PLASMA* 31st May, 2020.

• Organized and moderated the Panel Discussion *'BEYOND ACADEMIA: CAREER PATHS IN PHYSICS AND APPLIED PHYSICS IN TODAY'S WORLD"*on 30th May, 2020.

• Organized as Coordinator & Moderator the Webinar on *nCodiv 19 Era: Challenges and Opportunities on* 7th June, 2020.

• Moderated the Webinar on *EXPLORING UNIVERSAL PHENOMEMON IN DIFFERENT ENERGY SCALES: MATERIALS FOR THE DECADE* 12th June, 2020.

• Moderated the Webinar on *COVID 19 AND SUSTAINABLE DEVELOPMENT IN DEVELOPING COUNTRY CONTEXT: SPECIAL REFERENCE TO INDIA* ON 25th July, 2020.

- Organized various Lectures for the DISTINGUISHED LECTURE SERIES in PHYSICS 2021, 2022 and 2023.

- Organized NCFMP 2021 as Organizing Secretary.

- Organized YPM 2021, a Two Day Seminar as Convener.

- Organized as coconvener, GS^3T 2022, International Conference.

- Organized various admission related activities with School and College students like AU-In-QUIZ-itive, PHY-Seeks 2022 etc.

- Organized the *4th National Conference on Frontiers in Modern Physics (NCFMP2024)* on 23-24 February, 2024 as Chair in Technical collaboration with IOP Science, UK.

Other Experiences:

- Member of Academic Council, Adamas University (2020-2022).
- Member of Faculty Council, SOBAS, Adamas University (2019-Present).
- Chairperson of Board of Studies, Adamas University (Dec, 2018 - Present).
- Criteria 1 Member, NAAC.

- Member of Examination Cell, School of Science, for 2017-18.

- Chairman of Internal Moderation Committee of Question Papers for Dept. Of Physics, Adamas University.
- Paper Setter for AUAT (Adamas University Admission Test) for last 3 Years.
- Chiarman of the Doctoral Committee of Mr. Swarnava Biswas and Mr. Md. Iftekar Alam, PhD students of Adamas University
- Doctoral Committee Member of Mr. Saikat Adhikari, PhD student of Adamas University
- Registration Committee Member for Adamas University Annual Convocation (1st, 2nd and 3rd).
- Member, Internal Quality Assurance Cell (IQAC).
- Convener of the Registration Committee for ADINOVA 2020.
- Representative of AU at BGBS 2022.

Personal Details

Date of Birth: 5th September, 1984

Marital Status: Married

Address for Correspondence:

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West Bengal, India